भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

दिनांक: 11 अप्रैल, 2026

सेवा में / To,

उ.क्षे.वि.स. एवं टीसीसी के सभी सदस्य एवं विशेष आमंत्रित (संलग्न सूचीनुसार)
Members of NRPC & TCC & Special Invitees (As per List)

विषय: 57 वीं तकनीकी समन्वय समिति (टीसीसी) और 82 वीं उत्तरी क्षेत्रीय विद्युत समिति (एनआरपीसी) बैठक की कार्यसूची।

महोदय / महोदया,

1. The 57th meeting of Technical Co-ordination Committee (TCC) will be held on **17.04.2026 (10:00 AM) at Rishikesh, Uttarakhand.**
   It is pertinent to mention that, as per the Conduct of Business Rules of NRPC, the representation in TCC shall be at the level of Technical Heads in State Utilities, Executive Directors / Chief General Managers or equivalent in PSUs / Technical Heads of Distribution company / Traders / IPPs and Chief Engineer in CEA.

2. The 82nd meeting of the Northern Regional Power Committee (NRPC) will be held on **18.04.2026 (10:00 AM) at the same place.**
   It is pertinent to mention that as per MoP gazette resolution dated 03.12.2021, the representative in NRPC from respective organizations should be either the head of the organization or at least a person not below the rank of a Director on the Board of the company/corporate entity except for Central Public Sector Undertakings (CPSUs) where representative could also be at the level of Executive Director.

3. Agenda for the above meetings is attached. **Kindly make it convenient to attend the same or depute a suitable representative (as per the above equivalency) for each**

18-ए, शहीद जीत सिंह मार्ग, कटवारिया सराय, नई दिल्ली- 110016 फोन:011-26513265 फेक्स: 011-26865206 ई-मेल: ms -nrpc@nic.in
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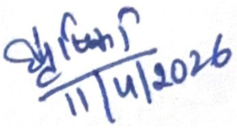
meeting on your behalf. The deputed representative shall be able to provide input on agenda items related to their organization.

5. The meetings are being hosted by THDCIL. Details of nodal officials are as below:

Sh. Anil Raghuwanshi, Deputy General Manager (EMD); +91- 8755900785 Sh. Raghubeer Singh Negi, Sr. Manager (HR); +91- 9411527247
Sh. Vipin Silwal, Dy. Manager (HR); +91- 9411141353

.

भवदीय,



(ऋषिका शरण)
(Rishika Sharan)
सदस्य सचिव
Member Secretary

Copy to:

1. Sh. Basant Garg, IAS, Administrative Secretary (Power), Government of Punjab & CMD, PSTCL (**cmd@pstcl.org)**
2. Er. Sanjeev Kumar Sood, Director/Technical, PSTCL (**dir-tech@pstcl.org).**

सत्यमेव जयते

उत्तर क्षेत्रीय विद्युत समिति

NORTHERN REGIONAL POWER COMMITTEE

Agenda of

57th meeting of

Technical Coordination Committee

&

82nd meeting of

Northern Regional Power Committee

Date: 17-18 April 2026

Time: 10:00 AM

Venue- Rishikesh, Uttarakhand

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Agenda for TCC & NRPC meeting

A.1 Approval of MoM of the 56th TCC & 81st NRPC meeting

A.1.1 The minutes of the 56th TCC & 81st NRPC meeting (held on 30.10.2025 and 31.10.2025 respectively) were issued vide letter dtd. 01.12.2025. No comment has been received as of now.

Decision required from Forum:

The forum may consider to approve the issued MoM.

A.2 Status of action taken on decisions of 56th TCC & 81st NRPC meeting (Agenda by NRPC Secretariat)

A.2.1 Status on decisions of 56th TCC & 81st NRPC meeting is mentioned below:

S.N.	Agenda	Decision of 56th TCC & 81st NRPC	Status of action taken
A.3	Disaster Preparedness of Transmission Infrastructure: Procurement of 20 sets (300 Towers) of Emergency Restoration System under Make in India (Agenda by POWERGRID)	***I.*** *Forum approved the procurement of 4 sets of ERS (60 towers) for the Northern Region (with estimated expenditure of Rs 88 Cr) through the Regulated Tariff Mechanism (RTM).* ***II.*** *Further, Forum directed POWERGRID to submit the details of suitable strategic locations for placement of the aforesaid four sets of ERS to the OCC forum.*	• Completion Schedule of supply of ERS sets for NR, as informed by POWERGRID is April'27. • POWERGRID is yet to submit to the OCC forum the details of suitable strategic locations for placement of the aforesaid four sets.

Decision required from Forum:

Status of action taken may be discussed in meeting.

A.3 Replacement of 420kV 80MVAR Line reactor of 400kV Ballabgarh-Kanpur-1 line at Ballabgarh end under Add-Cap 2024-2029 (Agenda by POWERGRID)

A.3.1 400/220kV Ballabhgarh (PG) is connected to 400/220kV Kanpur (PG) through 01 No. 400kV S/C Kanpur (PG)-Ballabgarh (PG) CKT-1 (Line Length- 386.307Km) and 01 No. 400kV D/C Kanpur Ballabgarh CKT-2 & 3 (Line Length- 372.536Km each). Due to the longer lines, all 3 Circuit have been provided with non-switchable 80MVAr Line Reactors at both ends.

A.3.2 400kV, 80MVAR, MELCO (Japan) Make Line Reactor installed in 400kV S/C Ballabgarh-Kanpur-1 line at Ballabgarh end is commissioned since 03.10.1988 (Year of Manufacture– 1987) in the above line. After serving a life of more than 35 years, rise in fault gases is being observed in DGA samples from 2021 onwards. The DGA of the above is being done on three monthly basis & gases are showing increasing trend. Ethane (C2H6) is very high as compared to the permissible limit of 65ppm (Result of last few DGA samples enclosed).

A.3.3 Further the 400 kV Bushings (OIP type) used in above reactor is non-standard and similar spares is not available due to obsolescence. It is also pertinent to mention that approval for replacement of 400kV S/C Ballabgarh-Kanpur-1 line at Kanpur end due to rising trend of DGA gases has been provided in 70th NRPC meeting held in Nov’23.

A.3.4 As aforementioned line reactor has already completed 35 years of service life and based on current DGA, there are chances of its sudden failure. 400kV S/C Kanpur Ballabhgarh Line is a long line and operation of the same without line reactor at each end is very difficult and could result in overvoltage conditions in the line.

A.3.5 In view of the above and to avoid major failure & to prevent consequential damage, POWERGRID proposed to replace the existing 420kV 80MVAR MELCO make reactor with new reactor under Add-Cap 2024-2029.

Decision required from Forum:

Members may kindly deliberate.

A.4 Request for certification in terms of Regulation 27(1)(c)(ii) of the IEGC, 2023, to allow declaration of COD for the Beawar S/s, LILO of both circuits of Ajmer-Chittorgarh 765 kV D/C line and LILO of 400 kV Kota Merta line at Beawar (Agenda by Resonia)

A.4.1 Resonia has intimated that, Beawar Transmission Limited (BTL) is implementing the Transmission System for Evacuation of Power from REZ in Rajasthan (20 GW) under Phase-III Part F (Part F Project).

A.4.2 In terms of the TSA of this project, BTL is required to implement the following elements as part of its transmission project:

a. Establishment of 2x1500MVA 765/400kV Substation at suitable location near Beawar along with 2x330 MVAr 765kV Bus Reactor & 2x125 MVAr 420kV Bus Reactor (Beawar S/s/Element 1)

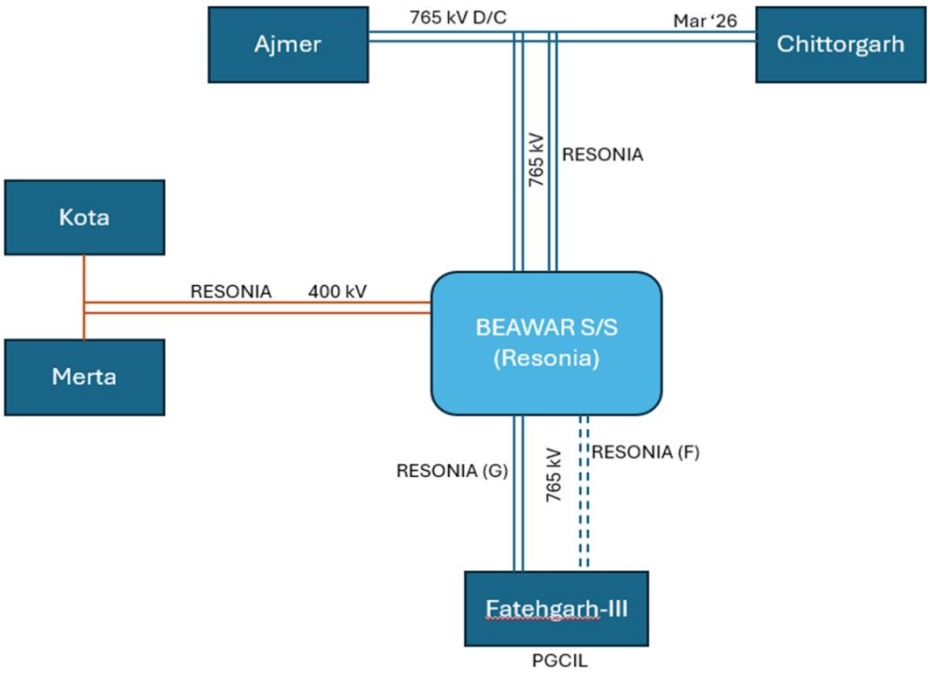
b. LILO of both circuits of Ajmer-Chittorgarh 765 kV D/c at Beawar (LILO of AC Line/Element 2)

c. LILO of 400 kV Kota Merta line at Beawar (LILO of KM Line/Element 3)

d. Fatehgarh-3 PS-Beawar 765 kV D/c along with 330 MVAr Switchable line reactor for each circuit at each end of Fatehgarh-3- Beawar 765 kV D/c line (FB Line/Element 4)

e. ±2x300MVAr STATCOM, 4x125 MVAr MSC, 2x125 MVAr MSR at Fatehgarh3 PS along with 2 nos. of 400 kV bays at Fatehgarh-3 PS (Statcom/Element 5)

Network Diagram:



A.4.3 In terms of Schedule 2 of the TSA, Element Nos. 1 to 4 mentioned above are required to be commissioned simultaneously.

A.4.4 A meeting under the chairmanship of the Chairperson, CEA was held on 20.01.2026 regarding modification in the termination arrangement at Fatehgarh-III PS for transmission lines under schemes Rajasthan Phase-III Part F and Part G. In the meeting, M/s Resonia was requested to put best efforts to expedite the completion of the Fatehgarh-III PS - Beawar 765 kV line along with Beawar Station and its associated lines by Feb/March 2026.

A.4.5 In terms of Regulation 27(1)(c)(ii) of the CERC (Indian Electricity Grid Code) Regulations, 2023:

The COD of a transmission element of the transmission system under Tariff-Based Competitive Bidding shall be declared only after the declaration of the COD of all the pre-required transmission elements as per the Transmission Services Agreement:

Provided that in case any transmission element is required in the interest of the power system as certified by the concerned RPC(s), the COD of the said transmission element may be declared prior to the declaration of the COD of its prerequired transmission elements.

A.4.6 Therefore, in view of the urgent need of evacuation/ISTS transmission margins in the State of Rajasthan, to mitigate against the loss being faced by RE developers due

to the recent 4.3 GW T-GNA curtailment in the Rajasthan, and in furtherance of the directions issued by the CEA to BTL, Resonia has requested for requisite certification in terms of Regulation 27(1)(c)(ii) of the CERC (Indian Electricity Grid Code) Regulations, 2023 to allow declaration of COD for the Beawar S/s, LILO of both circuit of Ajmer-Chittorgarh 765 kV D/C line at Beawar and LILO of 400 kV Kota Merta line at Beawar ahead of the COD of other elements otherwise pre-required/required to be commissioned simultaneously.

A.4.7 The matter was discussed in the 241st OCC meeting, wherein OCC accorded in-principal approval for commissioning of Beawar S/s, LILO of 400 kV Kota Merta line and LILO of both circuits of Ajmer-Chittorgarh 765 kV D/C line at Beawar simultaneously, ahead of the COD of the prerequisite element i.e Fatehgarh-3-Beawar 765 kV D/c line (FB Line/Element 4), subject to the approval in the next NRPC meeting.

Decision required from Forum:

Members may kindly deliberate.

A.5 Procedure for approval of Protection Settings by NRPC (agenda by NRPC Secretariat)

A.5.1 As per clause 14 (2) of IEGC 2023:

All users connected to the grid shall:

i. obtain approval of the concerned RPC for (i) any revision in settings, and (ii) implementation of a new protection system;

ii. intimate to the concerned RPC about the changes implemented in the protection system or protection settings within a fortnight of such changes;

A.5.2 Accordingly, the procedure for approval of Protection Settings in the Northern Region was discussed in several PSC and NRPC meetings. Subsequently, the Forum finalized the procedure for approval of the protection setting as **Annexure-A.I** in the 75th NRPC Meeting (held on 28th August 2024).

A.5.3 However, during the discussion of the agenda ‘First Time Charging of transmission lines/Bays/Transformer/Reactor etc. by NRLDC, in the 63rd PSC meeting, it was decided that protection settings of all given FTCs by NRLDC in every month will be considered for final approval in the upcoming PSC. Utility does not need to submit the agenda separately for final approval of protection settings. SLDCs have to share

the FTC granted in a month in the same format as reported by NRLDC, along with the submission of the protection settings folder for final approval of the PSC forum.

A.5.4 In view of the above, there was a need to amend the earlier finalized procedure. Therefore, the same was deliberated in the 64th PSC meeting (held on 21.11.2025), wherein, after deliberation, the revised procedure was approved as attached as **Annexure-A.II** and recommended for final approval in the upcoming NRPC meeting.

A.5.5 Accordingly, the revised procedure is put for final approval of the NRPC Forum and may direct the utility to refer the same for compliance.

Decision required from Forum:

Forum may approve the revised procedure attached as Annexure-A.II and utilities may refer the same for compliance.

A.6 Decision on restoration time of 400 KV Babai-Bhiwani Transmission Line after tower collapse – case of NRSSXXXVI (Agenda by NRPC Secretariat)

A.6.1 On 13th June at 3:30 PM, the 400kV D/C Babai–Bhiwani line tripped on distance protection, and subsequent patrolling revealed the collapse of two towers (No. 300 and 301).

A.6.2 Following outage is put up for discussion in view of tower collapse due to high-velocity dust and wind storms:

- Outage of 400 KV Babai-Bhiwani Transmission Line Ckt 2 (6/13/2025 3:30:00 PM to 7/1/2025 04:14 PM) & Ckt 1 from 6/13/2025 3:30:00 PM to 07/16/2025 01:40 PM (**Restoration on ERS**):
- 400 KV Babai-Bhiwani Transmission Line Ckt 1 (9:45 Hrs. of 24.10.2025 to 10:18 Hrs. of 30.10.2025) (144:32 Hrs.) and 400 KV Babai-Bhiwani Transmission Line Ckt 2 (11:54 Hrs. of 30.10.2025 to 06.11.2025 16:37 Hrs.) (172:43 Hrs.) (**Restoration on Permanent Tower**)

A.6.3 Report of *Standing* Committee of Experts on failure of EHV transmission towers failed during the period from January 2025 to June 2025(case-xxi) has concluded that- "***After detailed deliberations, it was concluded that the primary cause of failure was the impact of high-velocity dust and wind storms.*** *Furthermore,*

*NRSSXXXVI was recommended to analyse the requirement to increase the reliability level at power line crossings to ensure greater structural stability***."**

A.6.4 *The case was discussed in a meeting chaired by MS, NRPC on 17.03.2026, wherein it was decided that as outage duration is more than 01 month, the case may be discussed in NRPC forum for final decision on availability in consideration of reasonable restoration time. MoM of the meeting are attached as* ***Annexure-A.III.***

A.6.5 The restoration time taken by the licensee is more than 01 month. As per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, approval of the NRPC forum is required for consideration of outage caused by a grid incident/disturbance not attributable to the transmission licensee as per Appendix-IV of CERC (Terms & Conditions of Tariff) Regulation 2024, mentioned below:

5. For the following contingencies, the outage period of transmission elements, as certified by the Member Secretary, RPC, shall be excluded from the total time of the element under the period of consideration for the following contingencies:

i) Outage of elements due to force majeure events beyond the control of the transmission licensee. However, whether the same outage is due to force majeure (not design failure) will be verified by the Member Secretary, RPC. A reasonable restoration time for the element shall be considered by the Member Secretary, RPC, and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission licensee or any expert or estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available;

ii) ……

iii) The outage period, which can be excluded for the purpose of sub-clause (i) and (ii)

of this clause shall be declared as under:

a. Maximum up to one month by the Member Secretary, RPC;
b. Beyond one month and up to three months after the decision at RPC;

c. *Beyond three months by the Commission for which the transmission licensee shall approach the Commission along with reasons and steps taken to mitigate the outage and restoration timeline.*

A.6.6 Proposal of NRPC Sectt:

- Outage of 400 KV Babai-Bhiwani Transmission Line Ckt 2 from **6/13/2025 3:30:00 PM to 7/1/2025 04:14 PM** may be considered under a forced majeure condition beyond the control of Licensee.
- Outage of 400 KV Babai-Bhiwani Transmission Line Ckt 1 from **6/13/2025 3:30:00 PM to 07/11/2025 01:40** may be considered under forced majeure condition beyond the control of Licensee and from **07/11/2025 01:40 to 07/16/2025 01:40** may be attributed to Licensee.
- Outage taken in Restoration of said line on permanent configuration is considered under a forced majeure event beyond the control of Licensee.

Decision required from Forum:

Member may discuss on reasonable restoration time for the availability certification.

A.7 Decision on restoration time of Transmission Line of AD-HYDRO after tower collapse (Agenda by NRPC Secretariat)

A.7.1 220 kV AD Hydro-Nallagarh Ckt-1 and 220 kV Phozal-Nalagarh Ckt-1 was in outage from 11:08 Hrs of 20.08.2025 due to the collapse of Tower No.157-158 of Ad-hydro jurisdiction due to a landslide and falling of heavy boulders. However, in between of this event Tower No. 1 on the HPPTCL-owned D/C LILO of the 220 kV Ad Hydro-Phozal and 220kV Phozal–Nalagarh transmission line (6.7 km section) collapsed on 26 August 2025 at 12:20.

A.7.2 Following outage is put up for discussion:

Outage due to AD HYDRO tower collapse due to landslide:

- 220 kV AD Hydro-Nallagarh Ckt-1 (11:08 Hrs of 20.08.2025 to 15:55 Hrs of 19.09.2025) (724:46 hrs.) [On ERS]
- 220 kV AD Hydro-Nallagarh Ckt-1 (03.10.2025 09:24 Hrs to 17:10 Hrs) [permanent tower]

- 220 kV Phozal (HP)-NalagarhCkt-1 (11:08 Hrs of 20.08.2025 to 13:33 Hrs. of 08.10.2025 (1178:24 hrs.) [permanent tower]

Outage due to HPPTCL tower collapse:

- kV AD Hydro-Nallagarh Ckt-1 (03.10.2025 09:24 Hrs to 17:10 Hrs) [permanent tower]
- 220 kV Phozal (HP)-NalagarhCkt-1 (11:08 Hrs of 20.08.2025 to 13:33 Hrs. of 08.10.2025 (1178:24 hrs.) [permanent tower]

A.7.3 The restoration time taken by the licensee is more than 01 month. As per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, approval of the NRPC forum is required for consideration of outage caused by a grid incident/disturbance not attributable to the transmission licensee as per Appendix-IV of CERC (Terms & Conditions of Tariff) Regulation 2024, mentioned below:

5. For the following contingencies, the outage period of transmission elements, as certified by the Member Secretary, RPC, shall be excluded from the total time of the element under the period of consideration for the following contingencies:

i) Outage of elements due to force majeure events beyond the control of the transmission licensee. However, whether the same outage is due to force majeure (not design failure) will be verified by the Member Secretary, RPC. A reasonable restoration time for the element shall be considered by the Member Secretary, RPC, and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission licensee or any expert or estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available;

ii) Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. faults in a substation or bays owned by another agency causing an outage of the transmission licensee's elements, and tripping of lines, ICTs, HVDC, etc., due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalizing the system following grid

incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of RLDC's direction for restoration;

iii) The outage period which can be excluded for the purpose of sub-clause (i) and (ii)

of this clause shall be declared as under:

a. *Maximum up to one month by the Member Secretary, RPC;*
b. ***Beyond one month and up to three months after the decision at RPC;***
c. *Beyond three months by the Commission for which the transmission license shall approach the Commission along with reasons and steps taken to mitigate the outage and restoration timeline.*

A.7.4 *The* case *was discussed in a meeting chaired by MS, NRPC on 17.03.2026, wherein it was decided that as the outage duration is more than 01 month, the case may be discussed in the NRPC forum for final decision on availability in consideration of a reasonable restoration time. MoM of the meeting is attached as* ***Annexure-A.III.***

A.7.5 Proposal *of NRPC Sectt:*

- Outage of 220 kV AD Hydro-Nallagarh Ckt-1 (11:08 Hrs of 20.08.2025 to 15:55 Hrs of 19.09.2025 (724:46 hrs.) on ERS and during permanent restoration (03.10.2025 09:24 to 17:10) may be considered under a forced majeure event beyond the control of the licensee.
- 220 kV Phozal (HP)-Nalagarh Ckt-1: Following outage may be considered under a forced majeure event beyond the control of licensee:
    - (11:08 Hrs of 20.08.2025 to 13:33 Hrs. of 08.10.2025 (1178:24 hrs.) [restoration on permanent AD HYDRO tower]
    - (13:33 Hrs. of 08.10.2025 to 11:08 Hrs. of 20.11.2025) [Outage due to HPPTCL tower collapse]
- 220 kV Phozal (HP)-Nalagarh Ckt-1; 11:08 Hrs. of 20.11.2025 to till date, availability may be decided by Hon'ble CERC after petition by licensee to Hon'ble commission.

- 220 kV AD Hydro(AD)-Phozal(HP) Ckt-1 (12:20 Hrs. of 26.08.2025 to 13:37 Hrs. of 25.09.2025 (By-Passing Collapse Tower)) (721:17 hrs.) may be attributed to others due to the collapse of LILO portion of HPPTCL.

Decision required from Forum:

Member may discuss a reasonable restoration time for the availability certification.

A.8 Decision on restoration time of 400 kV Jalandhar (PG)-Samba (PG) Transmission Line of NRSSXXIX after tower collapse (agenda by NRPC Sectt)

A.8.1 On 26/08/2025 5:13:00 PM, Tower at location 236 has completely collapsed with damage to the adjacent tower number 235 and 237. Also, the peak and crossarm has damaged at location no. Nos. 234 & 238. It was observed that the foundation of tower no 236 was damaged due to flooding & soil erosion, while for other towers, the foundations were not affected.

A.8.2 Following outage is put up for discussion in view of heavy flooding of the Ravi River: **400 kV Jalandhar (PG)-Samba (PG)-I from 26/08/2025 5:13:00 PM to 30/09/2025 6:40:00 PM and 400 kV Jalandhar (PG)-Samba (PG)-II from 26/08/2025 5:13:00 PM to 16/10/2025 05:20 PM.**

A.8.3 Report of *Standing* Committee of Experts on failure of EHV transmission towers failed during the period from July 2025 to December 2025 has concluded that- "***the Committee observed that the tower failure occurred due to heavy flooding of the Ravi River caused by heavy rainfall in the upstream regions, which resulted in soil erosion around the tower foundations and collapse.*****"**

A.8.4 The case was discussed in a meeting chaired by MS, NRPC on 17.03.2026, wherein it was decided that as outage duration is more than 01 month, case may be discussed in NRPC forum for final decision on availability in consideration of reasonable restoration time. MoM of meeting is attached as ***Annexure-A.III.***

A.8.5 The restoration time taken by licensee is more than 01 month. As per Central *Electricity* Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, approval of NRPC forum is required for consideration of outage caused by grid incident/disturbance not attributable to the transmission licensee as per

Appendix-IV of CERC (Terms & Conditions of Tariff) Regulation 2024, mentioned below:

5. For the following contingencies, the outage period of transmission elements, as certified by the Member Secretary, RPC, shall be excluded from the total time of the element under the period of consideration for the following contingencies:

i) Outage of elements due to force majeure events beyond the control of the transmission licensee. However, whether the same outage is due to force majeure (not design failure) will be verified by the Member Secretary, RPC. A reasonable restoration time for the element shall be considered by the Member Secretary, RPC, and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission licensee or any expert or estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available;

ii) …….

iii) The outage period which can be excluded for the purpose of sub-clause (i) and (ii) of this clause shall be declared as under:

d. Maximum up to one month by the Member Secretary, RPC;

e. Beyond one month and up to three months after the decision at RPC;

f. Beyond three months by the Commission for which the transmission license shall approach the Commission along with reasons and steps taken to mitigate the outage and restoration timeline.

A.8.6 Proposal of NRPC Sectt:

Line	**From**	**To**	**Attribute**	**Remarks**
400 kV Jalandhar (PG)-Samba (PG)-I	**26/08/2025 5:13:00 PM**	06/09/2025 **5:13:00 PM**	Natural Calamity	Due to lack of access of site in view of flooding
	06/09/2025 **5:13:00 PM**	13/09/2025 **5:13:00 PM**	Licensee	Delay at licensee end

	13/09/2025 **5:13:00 PM**	**30/09/2025 6:40:00 PM**	Natural Calamity	Restoration
	03/10/2025 11:13:00 AM	**03/10/2025 6:42:00 PM**	Natural Calamity	Restoration
400 kV Jalandhar (PG)-Samba (PG)-II	**26/08/2025 5:13:00 PM**	06/09/2025 **5:13:00 PM**	Natural Calamity	Due to lack of access of site in view of flooding
	06/09/2025 **5:13:00 PM**	27/09/2025 24:00	Licensee	Delay at licensee end
	28/09/2025 00:00	16/10/2025 05:20 PM	Natural Calamity	Restoration

Decision required from Forum:

Member may discuss on reasonable restoration time for the availability certification.

A.9 Decision on restoration time of 400KV AMRITSAR-BANALA-I and 400KV HAMIRPUR-BANALA Transmission Line of PGCIL (agenda by NRPC Sectt.)

A.9.1 On the evening of 26.08.2025, local villagers of intimated huge sound emanating from tower no. 39. Immediately after that POWERGRID T/L team inspected the tower but nothing abnormal was noticed. Again, on the evening of 27.08.2025, local villagers reported a huge sound emanating from the tower and on inspection, the tower was found to be little bend, some of the tower members and Tower nut bolts had completely sheared off, few broken nuts and bolts were found on the ground. Immediately line was taken under S/D and restoration work started.

A.9.2 Following outage is put up for discussion in view of the replacement of the tower:

Outage of 400KV AMRITSAR-BANALA-I and 400KV HAMIRPUR-BANALA from 20:15 Hrs of 27.08.2025 to 21:20 Hrs of 28.09.2025 (769:28 hrs.)

A.9.3 Line was taken under Emergency S/D to restore Tower No. 39 as said tower had become critical due to unequal settlement of land caused by incessant rains and landslides in the area during Sep'2024.

A.9.4 In past, the issue of LOC No 39 was reported to NRPC by PGCIL and to ascertain the cause of criticality, a committee constituted by NRPC and consisting of members from NRPC, HPPTCL and AD Hydro visited the tower on 06.12.2024 and submitted a report. Conclusion and recommendations of the report were as-

"As tower location 39 of 400 kV Banala – Amritsar & Banala Hamirpur Transmission line has become vulnerable due to land sinking and consequent bending of main legs and other tower members. POWERGRID may assess the strength of the tower and may take necessary action to support the tower structure. Patrolling of tower may be increased. PowerGrid may take necessary preventive action, including assessing measures for diversion of the line from the affected tower on new tower located in a stable area."

A.9.5 The case was *discussed in a meeting chaired by MS, NRPC on 17.03.2026, wherein it was decided that as outage duration is more than 01 month, case may be discussed in NRPC forum for final decision on availability in consideration of reasonable restoration time. MoM of meeting is attached as* ***Annexure-A.III.***

A.9.6 *The restoration time taken by the licensee is more than 01 month. As per Central Electricity* Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, approval of the NRPC forum is required for consideration of outage caused by a grid incident/disturbance not attributable to the transmission licensee as per Appendix-IV of CERC (Terms & Conditions of Tariff) Regulation 2024, mentioned below:

5.For the following contingencies, the outage period of transmission elements, as certified by the Member Secretary, RPC, shall be excluded from the total time of the element under the period of consideration for the following contingencies:

i) Outage of elements due to force majeure events beyond the control of the transmission licensee. However, whether the same outage is due to force majeure (not design failure) will be verified by the Member Secretary, RPC. A reasonable restoration time for the element shall be considered by the Member Secretary, RPC, and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission

licensee or any expert or estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available;

ii) …….

iii) The outage period, which can be excluded for the purpose of sub-clause (i) and (ii)

of this clause shall be declared as under:

g. Maximum up to one month by the Member Secretary, RPC;

h. Beyond one month and up to three months after the decision at RPC;

i. Beyond three months by the Commission for which the transmission licensee shall approach the Commission along with reasons and steps taken to mitigate the outage and restoration timeline.

A.9.7 Proposal of NRPC Sectt:

Outage of 400 kV D/C Banala – Amritsar & Banala-Hamirpur Line from 20:15 Hrs of 27.08.2025 to 21:20 Hrs of 27.09.2025 to may be considered under a forced majeure event beyond the control of Licensee.

Decision required from Forum:

Member may discuss a reasonable restoration time for the availability certification.

A.10 Static/Dynamic compensation requirement in the Northern Region Grid (Agenda by CTUIL)

A.10.1 In the 236th OCC meeting held on 16.10.25, the issue of voltage regulation in the Northern region was highlighted. In the meeting, NRLDC stated that high voltage issues are being observed in the Northern region (UP, Punjab, Haryana and Delhi control area), as a short-term measure, transmission lines are opened based on real time grid condition, however high voltage issues continue to persist.

A.10.2 Further NRLDC representative stated that all existing reactive power resources are being utilised to control voltages during the low-demand period of NR. As a last resort, a number of 765kV and 400kV EHVAC lines are also being opened to control high voltages. Even after taking all measures due to a huge reduction in NR demand during certain times of the year, high voltages are seen in the grid.

A.10.3 In the same OCC meeting, MS NRPC, requested CTU to carry out a comprehensive study analysis to examine the requirement of further reactive power devices for voltage control in this area.

A.10.4 In a joint study meeting held on 18.12.2025, 23.12.25 & 24.12.25 among CEA, CTU, Grid-India & RVPN, issues of low SCR in western Rajasthan RE complex as well as overvoltage/undervoltage in the Northern Region Grid was also discussed in detail, considering Grid India Quarterly Operational Feedback, deliberations in earlier OCC/CMETS-NR meetings.

A.10.5 In the meeting, CTU informed that comprehensive studies have been carried out for voltage analysis in NR from the voltage profile (of the past one year) provided by Grid-India and identified suitable nodes for installation of static and dynamic compensation based on space availability and voltage regulation requirement.

A.10.6 In the above Joint study meeting, it was highlighted that during winter, issues of overvoltage persist in Punjab, Haryana, Delhi and UP; and several 765kV and 400kV lines get opened on a regular basis to control the high voltages. Further, due to inadequate compensation in J&K STU network, severe low voltages have been observed in J&K grid. The issue was deliberated in 238th OCC meeting held on 17.12.2025 & 56th TCC & 81 NRPC Meeting held on 30th & 31st October 2025.

A.10.7 In the meeting, it was noted that a major grid event occurred on 17th June 2024 in the Northern Region, leading to a substantial load reduction of approximately 16.5 GW. This event started with the tripping of both bi-poles of the +/-800 kV HVDC Champa (WR) – Kurukshetra (NR). There was a simultaneous reduction of around 2800 MW of RE-based generation in the Rajasthan RE complex. There was also trippings of conventional generating units, leading to a generation loss of 3909 MW at the all-India level. The significantly higher load loss resulted in the rise in frequency of the Indian power system from 50.03 Hz to 50.68 Hz. The load drop resulted in a rise in the voltages of stations in the Northern region. This high voltage resulted in the tripping of 18 nos. of EHVAC lines in non-overvoltage protection. Based on the observations, several actions incl. planning for dynamic reactive power sources near load centers based on load composition, were recommended for avoiding the recurrence of such grid event

A.10.8 Further as part of the Committee report formed under the Chairmanship of Member Secretary, NRPC along with members from CEA, NRPC, NRLDC, NLDC, NTPC, BHEL, CTU and STUs to do futuristic analysis for the requirement of Synchronous Condensers based on the inertia considerations for NR, seven nos. of SynCons were identified at RE pooling stations incl. Fatehgarh-II, Ramgarh, Bhadla-III and

Fatehgarh IV (Sec-II) in RE complexes in Rajasthan for placement of Synchronous Condensor with implementation schedule of 2026-27 to 2029-30.

A.10.9 Further in 38th NCT meeting held on 25.02.2026, Grid-India also highlighted that fault level / SCR at some of the ISTS RE pooling buses in Northern Region (Rajasthan RE complex) and the Western Region (especially Khavda and Pachora complex) is on the lower side. In the Rajasthan RE complex, oscillations (oscillatory behaviour linked to low SCR) are being observed on a daily basis due to high RE penetration and inadequate system strength. Commissioning of additional transmission lines is not expected to significantly improve the fault level, and therefore SCR is expected to reduce further in the near future with the addition of new RE generation. Grid-India suggested Planning and commissioning of Synchronous Condensers or any other suitable device for improvement in fault level and dynamic reactive power support on priority as a remedial measure for ensuring the stability of RE complexes. In the NCT meeting, CTUIL was directed to plan suitable measures for improvement in fault level on priority.

A.10.10 In the above Joint study meeting, several pockets/substations were discussed & finalized for installation of Synchronous Condensor /STATCOM/Bus reactors to improve SCR in western Rajasthan as well as for voltage regulation in the Northern Region.

A.10.11 Based on the decision taken in the Joint study meeting, the proposal was deliberated and agreed in the 44th CMETS-NR meeting held on 03.03.26. Details of the scheme are as follows:

Static/Dynamic compensation requirement in the Northern Region Grid

Sl. No.	**Description of Transmission Element**	**Scope of work** (**Type of Substation/Conductor capacity/km/no. of bays etc.**)
A	**Synchronous Condensor**	
1	2 nos. of Synchronous Condenser units at 400kV level of 765/400/220kV Bhadla-III PS along with 2 nos. of 400kV Syncon bays (1 no. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum))	• Synchronous Condenser units- 2 nos. • 400kVSyncon Bay- 2 nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
2	2 nos. of Synchronous Condenser units at 400kV level of 765/400/220kV Ramgarh PS along with 2 nos. of 400kV Syncon bays (1 no. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum))	• Synchronous Condenser units- 2 nos. • 400kV Syncon Bay- 2 nos.
3	1 no. of Synchronous Condenser units at 220kV level of 765/400/220kV Fatehgarh-IV(Sec-2) PS along with 1 no. of 220kV Syncon bay (1 no. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum))	• Synchronous Condenser units- 1 no. • 220kV Syncon Bay- 1 no.
B	**STATCOM**	
1	1 unit of STATCOM(±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr) at 765/400kV Aligarh (PG) S/s	• 1 unit of STATCOM(±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr) • 400 kV STATCOM (GIS) bay: 1 No.
2	2 units of STATCOM (±300MVAr) along with MSC (2x125 MVAr with each unit) at 400/220kV Wagoora(PG) S/s	• 2 units of STATCOM (±300MVAr) along with MSC (2x125 MVAr with each unit) at 400/220kV Wagoora (PG) S/s • 400 kV STATCOM bays: 2 Nos.
3	2 units of STATCOM (±300MVAr) along with MSC (2x125 MVAr with each unit) at 400/220kV Amargarh (Indigrid) S/s	• 2 units of STATCOM (±300MVAr) along with MSC (2x125 MVAr with each unit) at 400/220kV Amargarh (Indigrid) S/s • 400 kV STATCOM (GIS) bays: 2 Nos.
4	2 units of STATCOM(±300MVAr) along with MSC (2x125 MVAr with each unit) & MSR (1x125 MVAr with each unit) at 400/220kV Jhatikara(PG) S/s	• 2 units of STATCOM (±300MVAr) along with MSC (1x125 MVAr with each unit) & MSR (2x125 MVAr with each unit) at 400/220kV Jhatikara(PG) S/s • 400 kV STATCOM bays: 2 Nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
5	1 unit of STATCOM(±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr) at 400/220kV Mandola (PG) S/s	• 1 unit of STATCOM(±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr) • 400 kV STATCOM bay: 1 No.
C	**Bus Reactor**	
1	1 no. of 125 MVAR (420kV) Bus Reactor at 765/400/220kV Agra(PG) S/s	• 125 MVAr (420kV) Bus Reactor-1 No. • 400kV Bus reactor bay – 1 No.
2	1 no. of 125 MVAR (420kV) Bus Reactor at 400/220kV Patran (IndiGrid) S/s	• 125 MVAr (420kV) Bus Reactor-1 No. (in existing half diameter)
3	1 no. of 330 MVAR (765kV) additional Bus Reactor at 765/400kV Orai(PG) S/s	• 330 MVAr Bus Reactor-1 No. • 765kV Bus reactor bay – 1 No.

Note:

1. Bay(s) required for completion of diameter (GIS) in one-and-half breaker scheme shall also be executed.

2. Bus extension wherever required shall also be executed under the present scope.

3. Land is not available in the existing S/s boundary at Amargarh and Wagoora S/s. Additional land adjacent to the existing S/s to be acquired.

A.10.12 **Implementation timeframe:** 24-30 months from allocation (24 months for STATCOM/Bus reactor, 30 months for Synchronous Condenser)

A.10.13 **Estimated Cost :** Rs 6500 Cr

A.10.14 **Detailed agenda is enclosed in Annexure-A.IV**

Decision required from Forum:

Members may deliberate.

A.11 Communication Outage Planning (Agenda by NRPC Secretariat)

A.11.1 It is apprised that the RPC Secretariat is required to carry out **monthly outage planning** of communication systems, in line with the Standard Operating Procedure (SOP) (enclosed as **Annexure A.V**) for Communication System Outage Planning, as mandated under Regulation 7.3 of CERC (Communication System for Inter-State Transmission of Electricity),

2017 and Regulation 10 of CEA (Technical Standards for Communication System in Power System Operations), 2020

A.11.2 As per the approved SOP, Communication System Outage Planning shall be carried out for the following communication systems:

1. ISTS Communication System, including ISGS
2. Intra-state Communication System being utilized for ISTS Communication
3. ICCP links between Main & Backup NRLDC, Main & Backup SLDCs & Main & Backup NLDCs.
4. Inter-regional AGC links

A.11.3 Communication Outage Planning has been initiated in the NRPC Secretariat from October 2025 in accordance with the NPC-approved SOP.

The monthly outage planning schedule is as follows:

1. 1st working day of every month – NRPC Secretariat circulates an email requesting all entities to submit their communication system outage proposals.
2. By 8th of every month – Entities to submit their outage requests in the prescribed format.
3. NRPC Secretariat shall compile all received outage requests and forward them to NR-NMT/NRLDC for their observations/input.
4. Outage Planning Meeting for the communication system shall be conducted in the third week of every month to finalize the proposed outages.
5. The proposed monthly outage plan shall be published on the NRPC website.
6. Entities shall avail the approved outages in coordination with NRLDC and NR-NMT.
7. Deviation reports (if any) are to be submitted by 10th of the following month in the prescribed format

A.11.4 First Communication Outage request was received from POWERGRID for the month of February. Subsequently, the first Communication Outage Planning Meeting for the Northern Region was convened on 27th January 2026 for communication outages for February 2026. Subsequently, an outage planning meeting was also conducted for March, 2026.

A.11.5 However, outage proposals are not being received regularly from all entities and need to be streamlined. Utilities are advised to submit outage and deviation data, wherever applicable, in the prescribed format. This will help ensure proper monitoring and compliance.

Decision required from Forum:

Members may deliberate

A.12 Resource adequacy for summer 2026 (Agenda by NRLDC)

A.12.1 Considering the high demand expected in the upcoming months, the Ministry of Power (MoP), in the meeting held on 15-01-2026, has directed RLDCs to carry out Resource Adequacy studies for all States of their respective control regions. Accordingly, NRLDC has conducted Resource Adequacy studies for all the northern

region states for the period April-June 2026. The RA study results are enclosed as **Annexure-A.VI** based on inputs from SLDCs, indicate an elevated adequacy gap in forecasted demand and available generation from all sources in the April-June period, particularly during non-solar hours. A higher risk of unserved energy is observed during this period, highlighting the need for timely and firm power arrangements to meet the state's demand smoothly.

A.12.2 Resource adequacy exercise by SLDCs is also mandated as per Indian Electricity Grid Code (IEGC) 2023. As per clause 31 of IEGC

Quote

(4) Adequacy of Resources (a) SLDCs shall estimate and ensure the adequacy of resources, identify generation reserves, demand response capacity and generation flexibility requirements with due regard to the resource adequacy framework as specified under Chapter 2 of these regulations.

Unquote

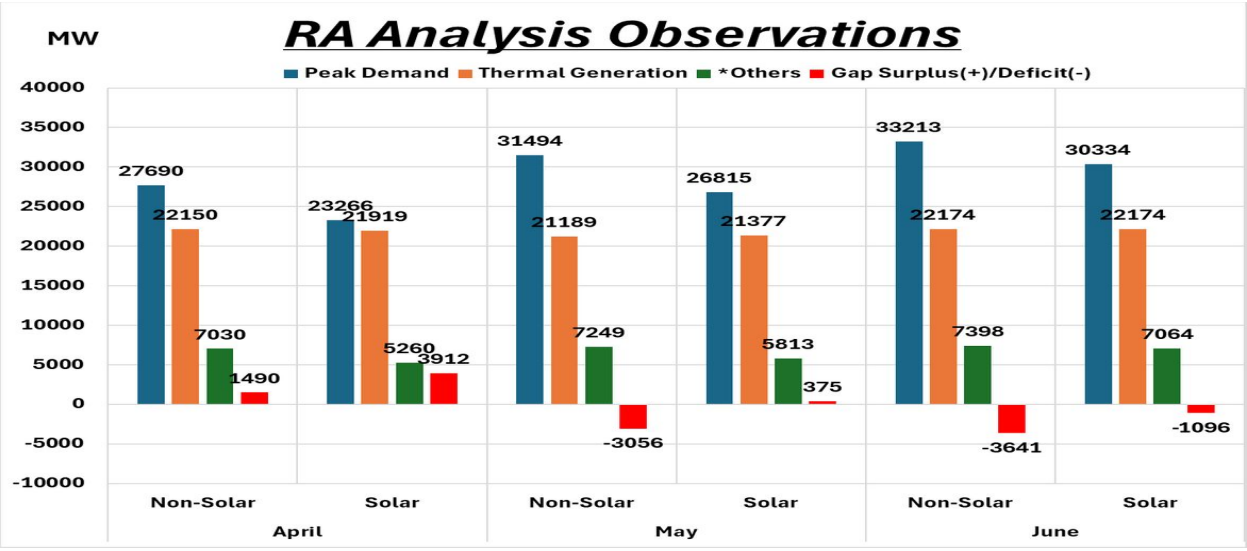
State-wise summary of actions taken till date and latest state-wise status as available with NRLDC is shown below:

Note: *Others- Nuclear + RE + Bilateral & others

A.12.3 Planned outage is considered NIL and Forced outage as per Probabilistic Resource Adequacy Suite outcome.

UTTAR PRADESH

RA Analysis Observations: NRLDC



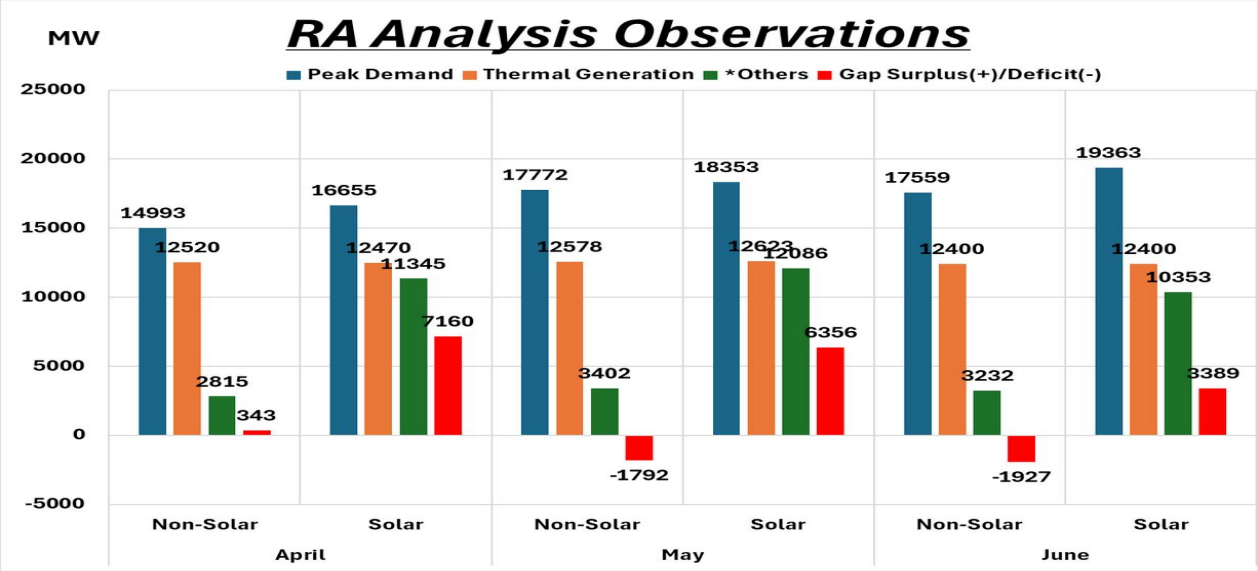
UP SLDC response:

A.12.4 UP SLDC concurred with the RA assumptions. Banking of ~1900 MW has been finalized, while ~1500 MW is under process through the DEEP portal. Additional ~500 MW banking is under discussion with the SR states. A 2000 MW bid is planned for Apr–May, and ~80% of June deficit is proposed to be tied up through Long Duration Contract bidding. Additional procurement through the Term Ahead Market is also being explored.

241 OCC meeting discussion: Gap in tie-ups persists. UP SLDC to submit firm tie-up plan at the earliest.

RAJASTHAN

RA Analysis Observations: NRLDC



Rajasthan SLDC response

A.12.5 Rajasthan SLDC agreed with the assumptions. State expects surplus during solar hours and deficit during non-solar peak periods. DISCOMs highlighted concerns regarding high market prices and procurement challenges. Gas availability at Ramgarh Gas is not an issue; however, generation may remain limited.

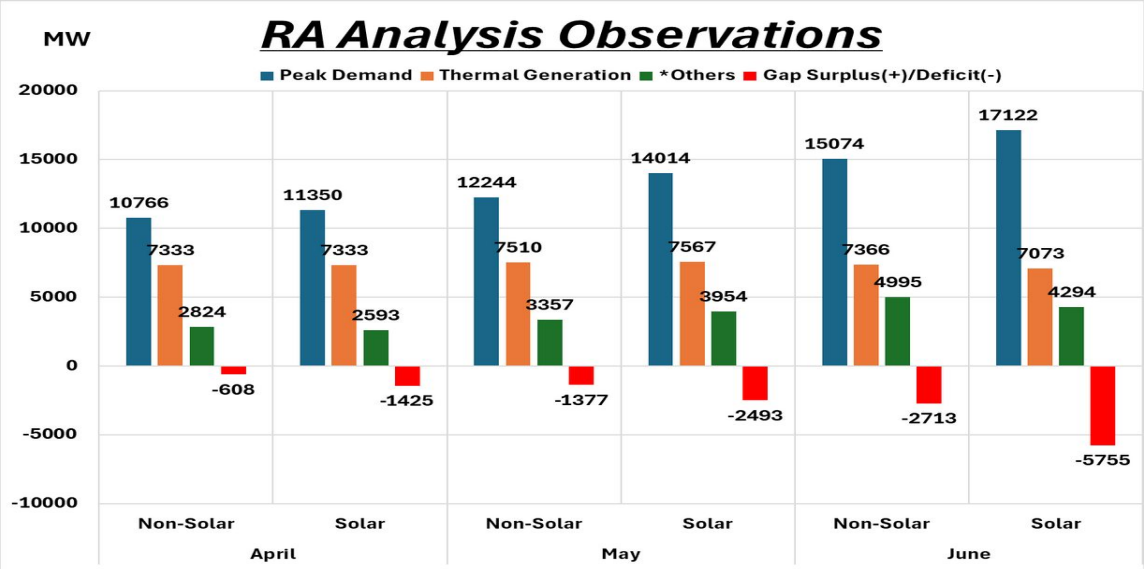
241 OCC meeting discussion:

- Inadequate tie-ups for the summer period
- Partial outages in RVUNL units such as Suratgarh Unit-3 and Unit-7 flagged; to be avoided
- Rajasthan SLDC to submit tie-up details urgently**.**

- High under drawl by Rajasthan during daytime in March 2026.

PUNJAB

RA Analysis Observations: NRLDC



Punjab SLDC response

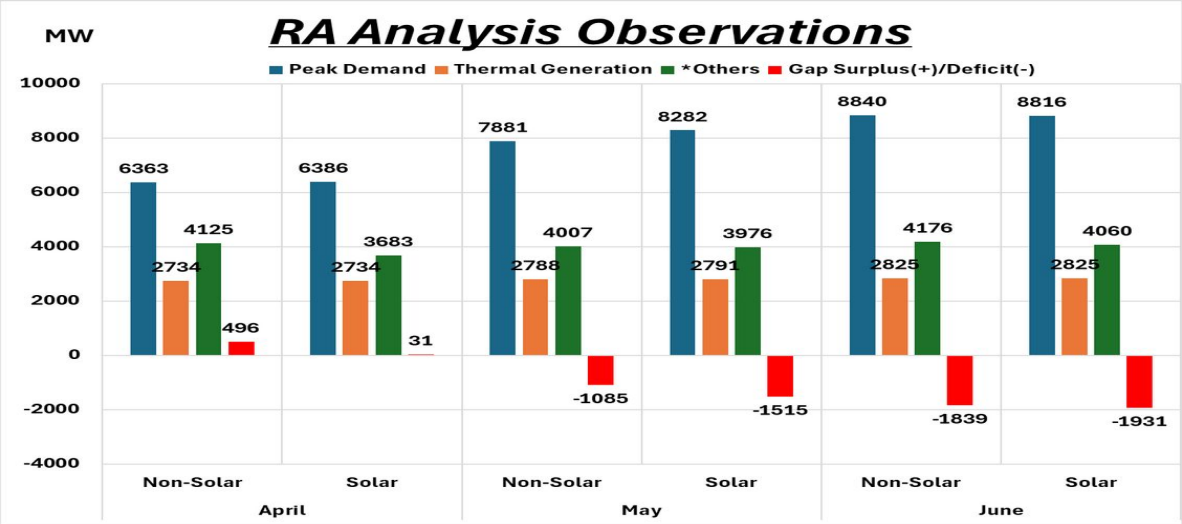
A.12.6 Punjab confirmed alignment with assumptions. ~2500 MW bilateral tie-up finalized for June; ~1000 MW central allocation anticipated. Banking (~900 MW) under process. Load management measures including shifting of ~500 MW agricultural load to solar hours are underway. Despite this, ~4000 MW shortage is anticipated in June.

241 OCC meeting discussion: Significant deficit remains. Punjab to expedite tie-ups and submit details.

NRLDC has advised to explore tie-ups with SR states and resolve CGPL Mundra PPA issues.

DELHI

RA Analysis Observations: NRLDC



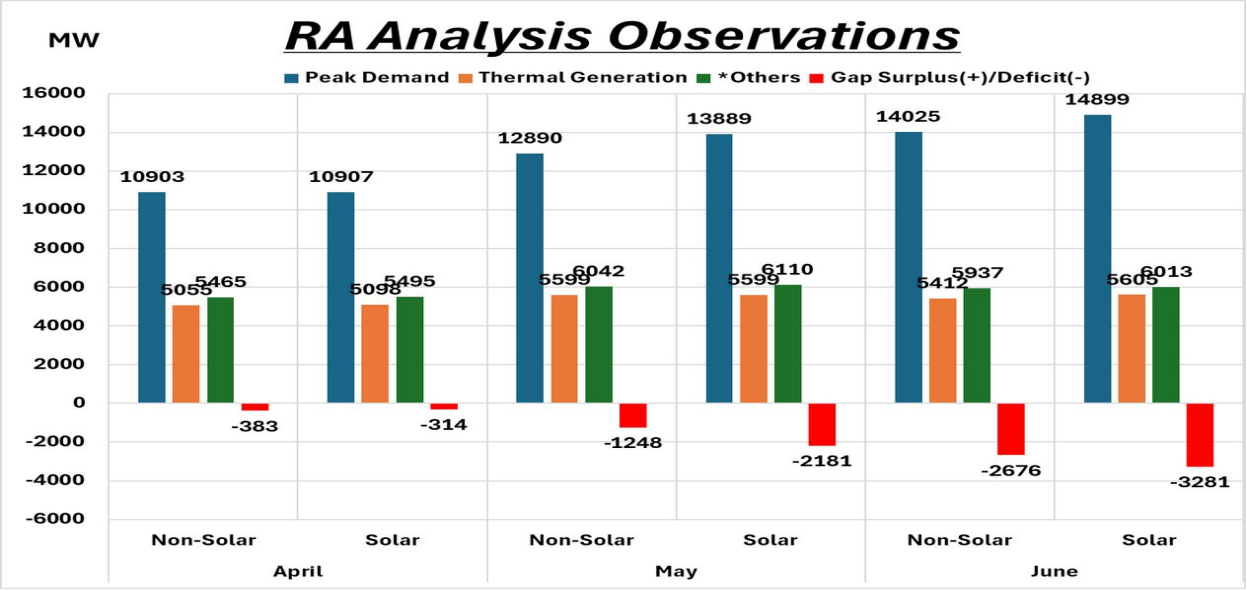
Delhi SLDC response

A.12.7 Delhi SLDC concurred with assumptions. Staggered procurement planning is underway. Additional scheduling from Bawana gas plant is being assessed. No gas availability issues reported.

241 OCC meeting discussion: Tie-up details yet to be finalized. Delhi SLDC to submit plan at the earliest. Both transmission and availability-related issues in meeting Delhi state demand in case of gas unavailability.

HARYANA

RA Analysis Observations: NRLDC



Haryana SLDC response

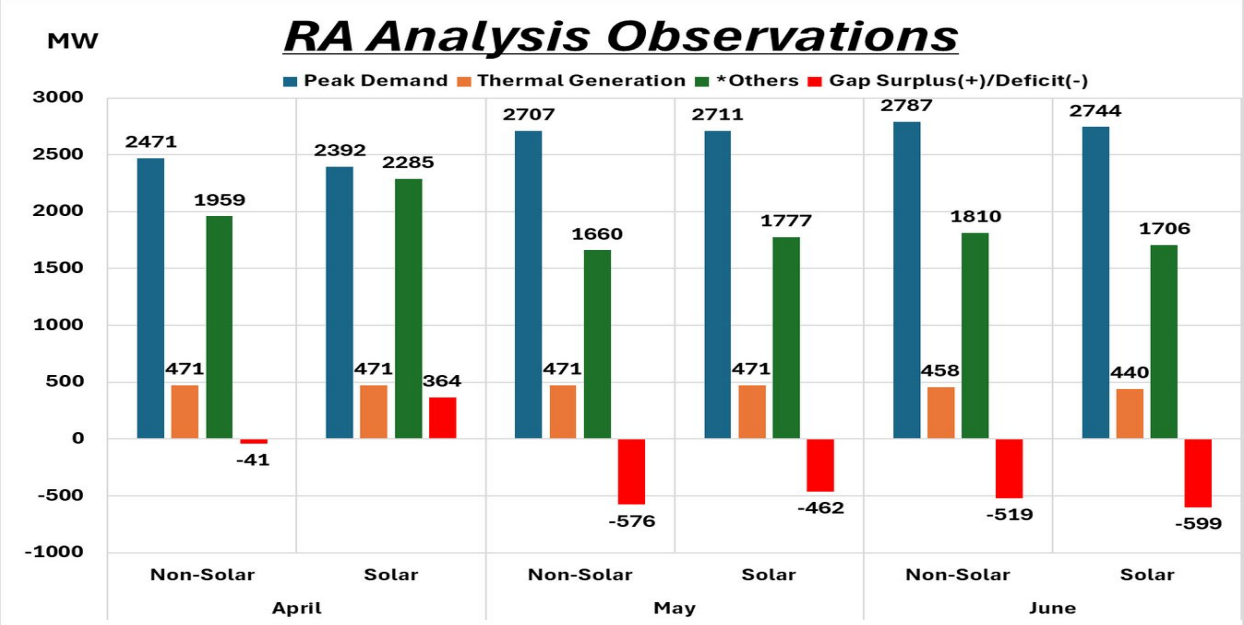
A.12.8 Haryana SLDC agreed with assumptions. Updated contract details are awaited.

241 OCC meeting discussion: Tie-up gap persists. Haryana SLDC to submit firm procurement plan.

NRLDC advised Haryana to explore additional availability through CGPL Mundra.

UTTARAKHAND

RA Analysis Observations: NRLDC



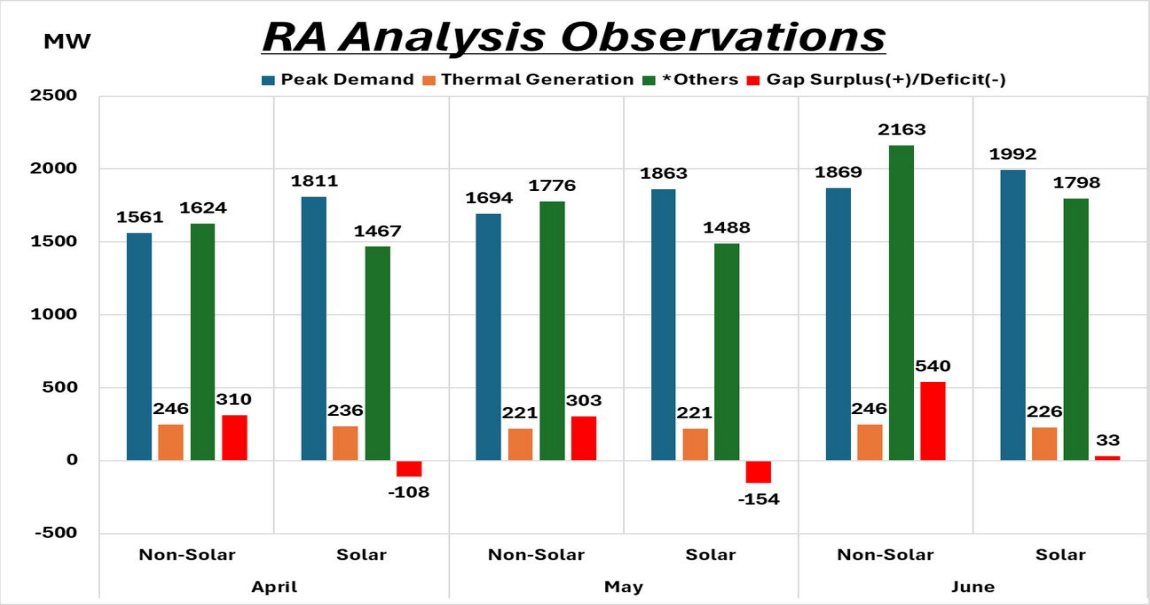
Uttarakhand SLDC response

A.12.9 ~150 MW banking arranged and ~200 MW additional procurement planned. Gas-based stations are under review due to lack of active fuel contracts. ~500 MW medium-term tie-up already in place.

241 OCC meeting discussion: Additional tie-ups required. Uttarakhand to submit updated plan.

HIMACHAL PRADESH

RA Analysis Observations: NRLDC



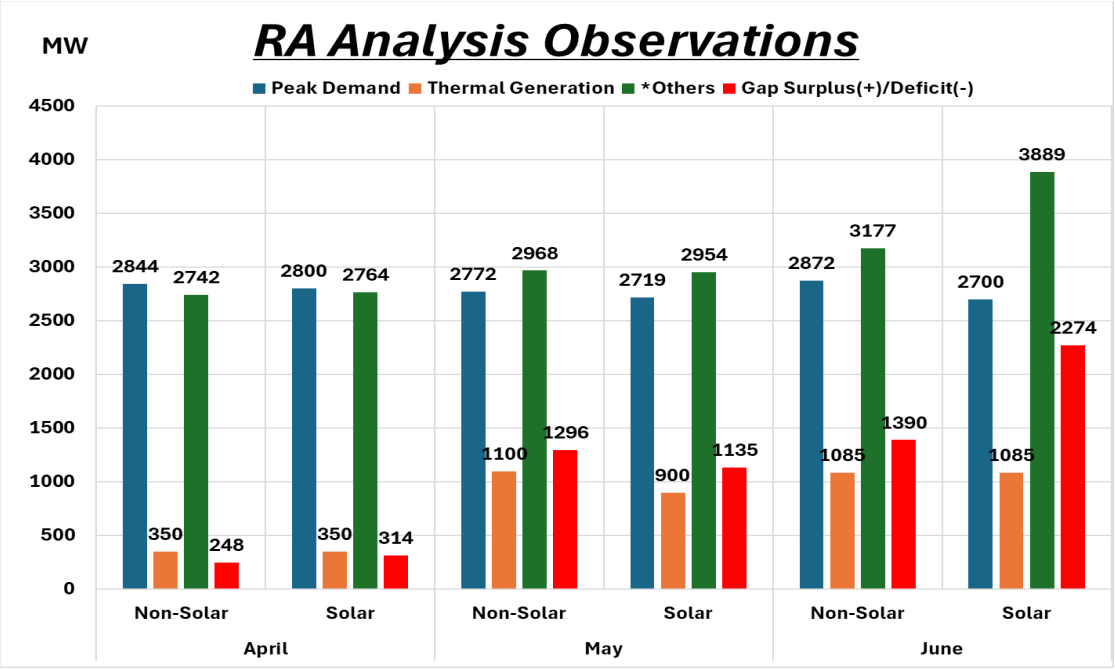
HP SLDC response

A.12.10 ~125 MW tied up through LDC; further procurement under exploration. Availability includes GoHP share.

241 OCC meeting discussion: Post GoHP share reduction, significant deficit likely. State advised to take immediate action.

JAMMU KASHMIR & LADAKH

Revised RA Analysis Observations: NRLDC



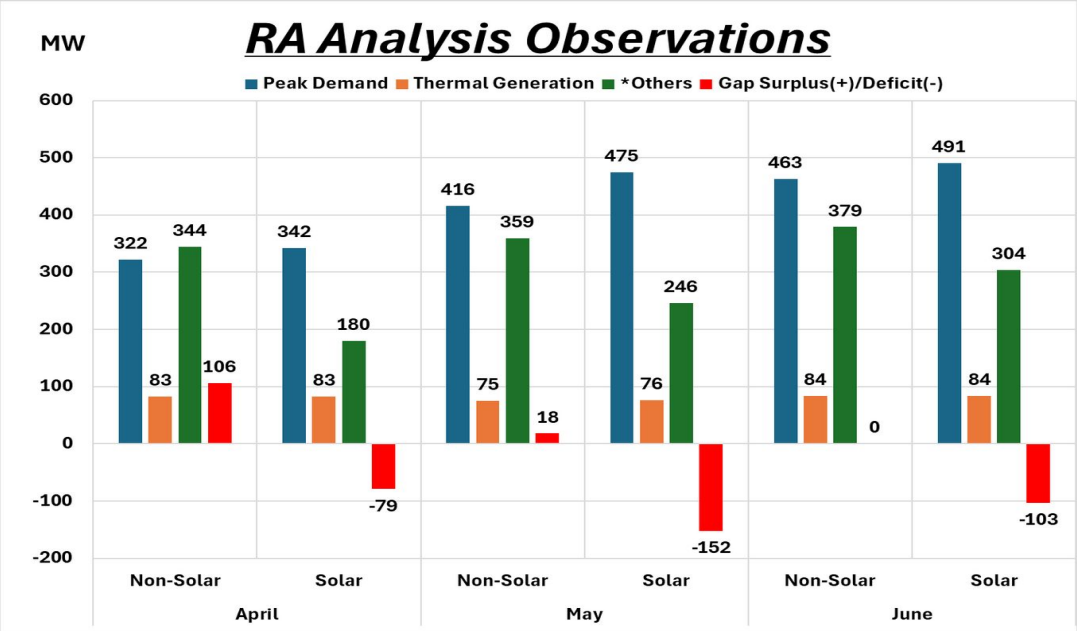
J&K SLDC response

A.12.11 SLDC indicated minor deficit (~100–300 MW), to be managed through short-term markets. Revised figures to be submitted.

241 OCC meeting discussion: Updated tie-up details to be furnished.

CHANDIGARH

RA Analysis Observations: NRLDC



Chandigarh SLDC response

A.12.12 Additional ~100 MW central allocation expected during summer, likely sufficient to meet demand. Further, procurement to be explored if required.

241 OCC meeting discussion: Chandigarh to submit tie-up details.

A.12.13 ***Following are some of the actions that need to be implemented by all NR states for summer 2026 as per previous discussions:***

a. *NR States may plan in advance for firm power procurement such as bilateral/banking arrangements for the entire summer period (April–June and beyond).*

b. *Reliance on short-term market purchases such as Day Ahead Market/ Real-Time Market for meeting peak summer demand should be minimised and treated only as supplementary.*

c. *All states to review their demand forecast submissions and plan accordingly including a plan for up to 5-6% forecast error. States should also try and ensure reserves which shall be around 3% of the state's demand.*

d. *As per the directions from Ministry, no planned outages of generating units to be approved for Apr-June period. Accordingly, all planned outages may be expeditiously taken and work may be completed at the earliest.*

e. *All SLDCs to review the resource adequacy results and provide their comments along with the proposed tie-ups to avoid shortfall during Apr-Jun 2026.*

f. *NR states should take up for tie-ups with other states, especially SR states where demand is much lower during this period timely so that based on inter-regional transfer capability limits, their arrangement get priority and gets scheduled in case of any congestion on the inter-regional corridor and avoid relying on DAM and RTM bids.*

g. *Visibility/monitoring of all the plants at Real-Time Generation (RTG) monitoring portal with data correctness.*

h. *Minimise hydro generation during solar hours and in off peak night hours so that the conserved water could be utilized for peaking requirements especially during non-solar hours*

i. *Partial and Forced Outages monitoring in Thermal Power plants.*

j. *Physical feeders checking, measures to control OD in real-time*

k. *Week-ahead (on rolling) and day-ahead RA Assessment for bringing intrastate units on bar*

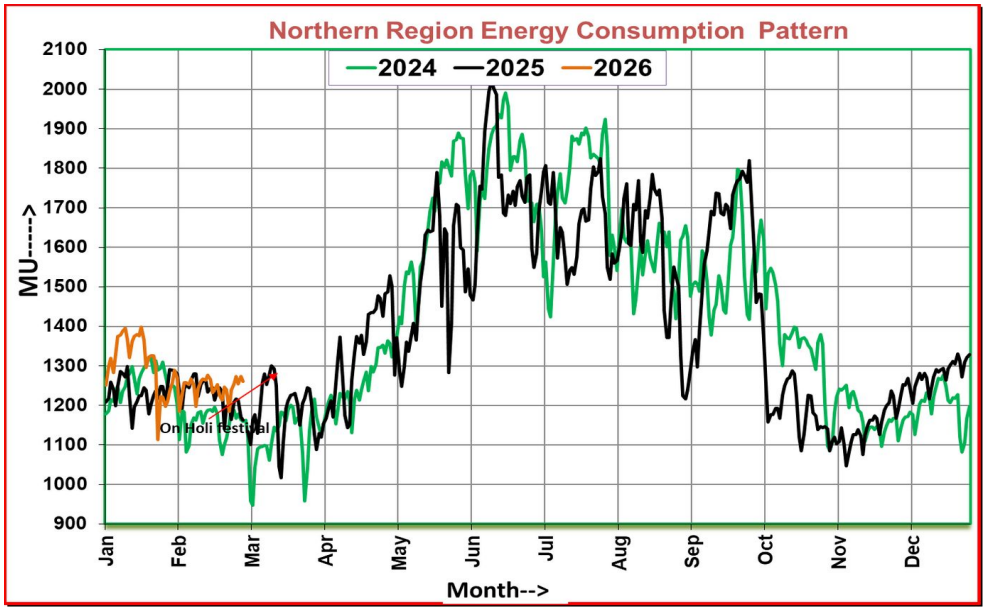
l. *Complete the pre summer maintenance of transmission network.*

It may be noted that that there can be issues in gas availability in upcoming months, so generation availability from other resources is essential and hence maximum generation should be made available during Apr-Sep period. TCC/NRPC forum may advise all SLDCs to review the resource adequacy results and plan accordingly to avoid shortfall during Apr-Jun 2026.

Members may please discuss.

A.13 State-wise transmission constraints anticipated during high demand season of 2026 (Agenda by NRLDC)

A.13.1 Most of the NR states especially those lying in plain areas such as UP, Rajasthan, Punjab, Haryana, Delhi, Chandigarh U/T record their maximum demand met and maximum energy consumption during summer/monsoon months every year. With the increase in temperature and humidity, demand of Northern Region starts increasing. This year also it is expected that maximum demand met and energy consumption of Northern region and NR states will break many previous records. The past energy consumption pattern also suggest the same:



A.13.2 During the high demand season, the transmission system in Northern region remains heavily loaded. Transmission constraints observed in the grid during high demand period are regularly being highlighted in OCC meetings. Same is also being submitted to CTUIL and CEA through quarterly operational feedback.

A.13.3 Even after several follow-ups, it is observed that the progress of several transmission elements are not up to the mark and expeditious actions from transmission utilities are required so that minimal issues are observed at the transmission level during the high-demand season.

A.13.4 State-wise issues and measures required thereof are listed below.

Punjab:

ATC/TTC limits of Punjab shall be enhanced from 10700/11200MW to 10950/11450MW upon commissioning of certain transmission elements. Accordingly, PSTCL may expedite the commissioning of:

i. LILO of one circuit of 220kV Mansa- Bathinda Refinery at 400kV Behman Jassa
ii. Commissioning of 400/220kV 4th 500MVA ICT at 400kV Rajpura (PSTCL)
iii. Conductor augmentation of 220kV Patran- Patran (PTCL) D/c from Zebra to HTLS
iv. Commissioning of additional 2 no. 220kV inter-connecting circuits from 400kV Ropar to 220kV GGSSTP/Ropar
v. Connectivity of 220kV Dhandari Kalan-Sherpur

Haryana:

Haryana State ATC/TTC may increase by approximately 1500 MW, from the present level of about 10,400/10,700 MW to around 11,900/12,200 MW. Accordingly,

POWERGRID may expedite commissioning of:

1. 400/220 kV, 500 MVA ICT-4 at Hisar (PG)
2. Reconductoring of 220kV Hissar(PG)-Hissar(IA) D/C

HVPNL may expedite commissioning of the Implementation of SPS at Panipat (BB).

POWERGRID has already commissioned 1500MVA ICT-4 at Bhiwani(PG) which was also part of enhanced ATC/TTC assessment studies.

Delhi

DTL and Delhi SLDC to take necessary steps to ensure the availability of gas generation at Pragati and Delhi GT plant. Further:

To expedite the commissioning of :

- 400/220kV 315MVA ICT-3 at Bamnoli (provided on loan from Bawana, POWERGRID-owned ICT)
- SPS at 400/220kV HarshVihar ICTs

To suggest and implement measures for managing:

- Loading of 400kV Jhatikara-Bamnauli (loading beyond N-1 limit)

- Loading of 400kV Jhatikara-Mundka D/C (loading beyond N-1 limit)
- Low voltages in Bamnauli/Tughlakabad/Dwarka area during high demand. Reviewing the healthiness of existing under-voltage relays at Bamnoli and Bawana substations.
- Violation of ATC/TTC limits in case of non-availability of gas generation and high demand

POWERGRID to take necessary steps:

To expedite commissioning of:

- 765/400kV 1500MVA ICT-5 at Jhatikara

To ensure healthiness of SPS and review SPS settings in consultation with DTL, NRLDC & NRPC for:

- 400/220kV Mandola ICTs
- 400/220kV Maharanibagh ICTs

Uttar Pradesh:

UPPTCL to expedite commissioning of:

- ICTs under prolonged outage at Obra (out since almost one year).
- SPS logic at 400/220kV Bareilly, Panki, Sahupuri and Jehta ICTs.

POWERGRID to expedite the commissioning of

- New 500MVA ICT at Agra(PG) and Lucknow(PG)
- SPS healthiness at Agra(PG) and Lucknow(PG) till ICT commissioning.

Uttarakhand:

Continuous violation of ATC/TTC limits and loading of 400/220kV Rishikesh ICTs beyond their N-1 limit is being observed since the commissioning of 400kV Koteshwar-Rishikesh D/C line. With the commissioning of the 400kV Koteshwar-Rishikesh D/C line, the loading of Rishikesh ICTs is heavily dependent on the mode of operation of Tehri PSP.

During the winter season, when internal generation of state is low and demand is high, major loading issues of 400/220kV Rishikesh ICTs were observed. Due to less demand in March 2026, some relief in ICT loading is observed and 220kV Rishikesh-SIDCUL feeders have been closed, which was previously kept opened.

As per the discussion in OCC meetings, SPS design is also not possible for 400/220kV Rishikesh ICTs due to the cyclic nature and may operate on a daily basis when intrastate hydro generation is not running. 400kV Koteshwar-Rishikesh D/C line was approved in 2015-16 and the demand of Uttarakhand was much lower during that period. When studies were done back then, no constraint at 400/220kV Rishikesh ICTs was envisaged.

CTUIL and PTCUL planning team may study loadings of line and ICTs in Rishikesh area in 2028-29 time frame and suggest temporary as well as permanent relief measures in consultation with CEA-PSPA - I and NRLDC.

TCC/NRPC forum may advise all concerned to expedite commissioning of transmission elements to enhance ATC/TTC limit of each state and resolve low voltage issues.

Members may please discuss.

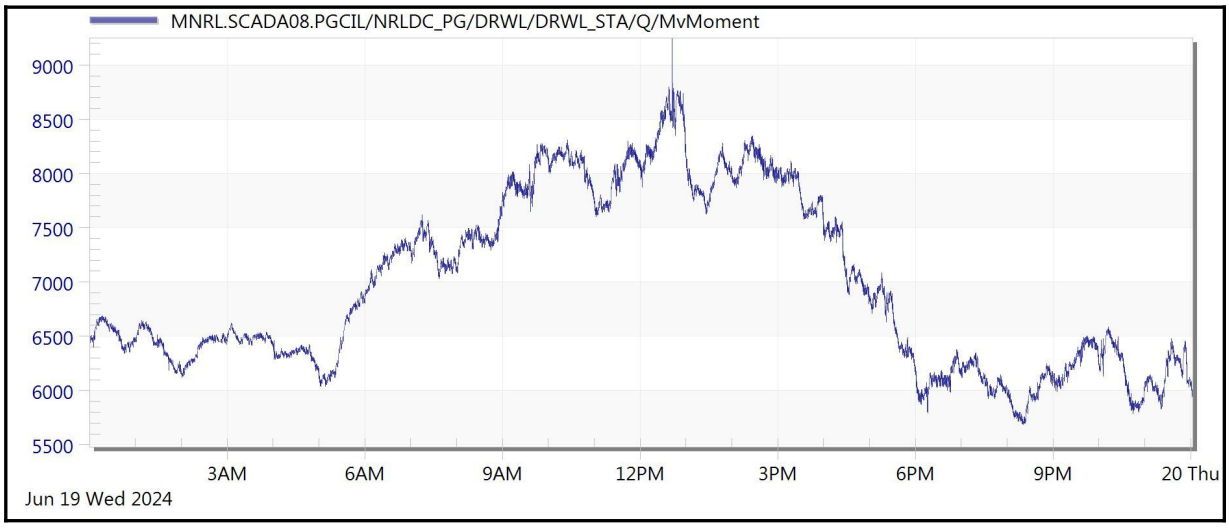
A.14 SPS for Champa-Kurukshetra HVDC (Agenda by NRLDC)

A.14.1 There have been unplanned load losses that have taken place in two events related to a simultaneous all-poles outage of HVDC Champa-Kurukshetra, namely,

1. 16.5GW load loss event on 17.06.2024 due to tripping of Champa-Kurukshetra all poles carrying 4000MW with NR total load as 89.4GW
2. 0.9GW load loss event on 09.06.2025 due to tripping of Champa-Kurukshetra all poles carrying 4300MW with NR total load as 82.6GW

A.14.2 The recommendations of the Committee formed under Member (GO&D), CEA, to analyse 17th June 2024 are attached as **Annexure-A.VII** of agenda. NRLDC has been continuously pursuing with NR states to take measures for reactive power support at local level so that reactive power exchange from ISTS is minimal. However, as per discussions held in OCC meetings, no major relief is expected during the summer of 2026. There is a huge MVAR drawl by NR states during the May-September months.

A.14.3 On 19th June 2024, the day NR demand reached a maximum of 91.2 GW it can be seen that there was a huge MVAR drawl by NR states from ISTS and seems to be following pattern of solar generation (maximum MVAr drawl at around 1 pm) as shown below:



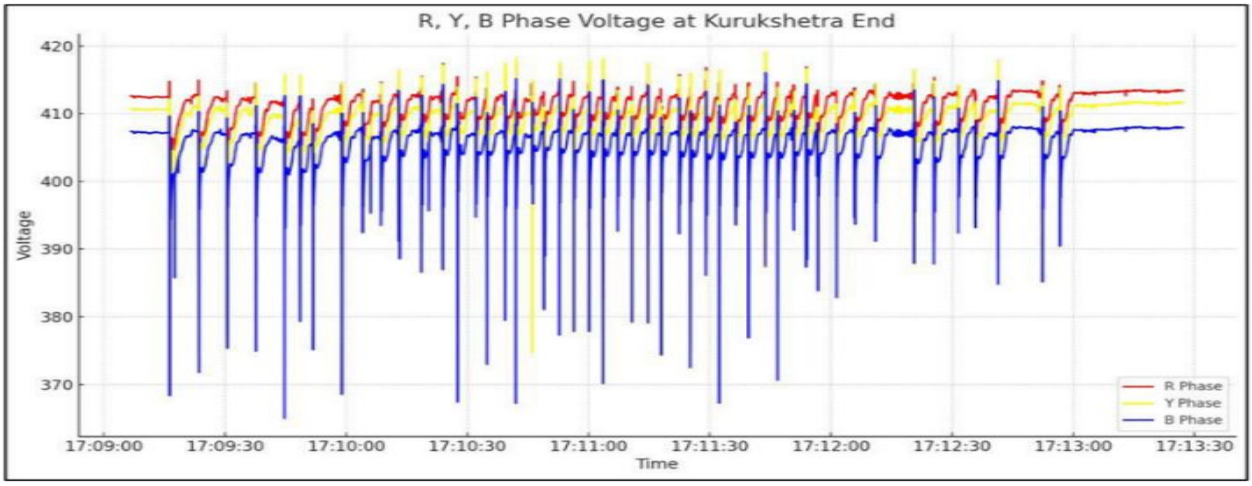
A.14.4 Accordingly, in 233 OCC meeting, it was agreed to implement a SPS scheme that can shed loads in case of simultaneous outage of all poles of HVDC Champa-Kurukshetra. Since identification and wiring of new load groups may be difficult for implementation in a short time frame and further utilities have also expressed concerns in identifying further new feeders for UFR or other load shedding schemes, it was suggested to utilise the wired loads of the existing Agra-Gwalior SPS scheme. The signal of multiple HVDC pole outages can be extended from the Kurukshetra station to Agra SPS scheme and some load relief can be obtained. The automatic disconnection of wired loads post-outage of multiple HVDC Poles at Kurukshetra may provide some relief and may help in containing the voltages till suitable static and dynamic compensation devices are commissioned.

A.14.5 Following tentative logics for SPS were proposed in the 241 OCC meeting:

- Voltage in all 3-phases at Kurukshetra fall below 380kV and more than 50kV for 250ms: Shed load in Groups C and D
- Voltage in all 3-phases at Kurukshetra fall below 360kV and more than 50kV for 250ms: Shed load in all Groups
  (Time delay increased considering LBB protection timing)

Voltage > 50kV is being proposed so that SPS does not operate in case of any CVT data error.

A.14.6 Moreover, it was observed that bus voltages at Kurukshetra were reaching below 380kV during frequent commutation failures observed on 21.05.2025.



A.14.7 Accordingly, it is important that SPS logic resets immediately, so that in case of multiple voltage dip and recovery events, any maloperation of SPS may be avoided.

A.14.8 Further, as May-Sep is the main high-demand period of NR and the availability of all poles of HVDC Champa-Kurukshetra is desirable, accordingly, POWERGRID is requested to plan to take any shutdown-related activities of Champa-Kurukshetra HVDC by April 2026.

TCC/NRPC forum is requested to:

- *Advise members to take actions in compliance with recommendations of the MoP Committee constituted under Member (GO&D), CEA to analyse 17th June 2024 especially related to reactive power management.*
- *Approve proposed SPS logic.*

Members may please discuss.

A.15 Expediting transmission system related to evacuation of RE power in Western Rajasthan (Agenda by NRLDC)

A.15.1 In line with Govt. of India targets for renewable energy integration, the majority of the RE power at ISTS level is being commissioned in the Western Rajasthan area. A total of around 26 GW of ISTS-connected RE generation (solar, hybrid and BESS) in Rajasthan has been commissioned and is being scheduled by NRLDC as on 31.03.2026. The agenda related to the need for matching commissioning of the

transmission system in line with the rapid pace of integration of RE generation has also been deliberated previously in TCC/NRPC meeting. However, there continues to be a delay in commissioning of the planned RE evacuation transmission system and restrictions have to be imposed on the RE generation that can be safely evacuated due to the non-availability of the associated transmission system (ATS). Details of major TBCB-awarded Phase-III transmission system is attached as **Annexure-A.VIII**. It may be noted that this transmission system was previously approved by TCC/NRPC forum during the 47th TCC & 49th NRPC Meetings held on 23,24 and 27 September, 2021.

A.15.2 Delay of transmission scheme is summarized in below table:

Crucial Transmission Element	Implementing Agency	SCOD	Revised* Anticipated COD
Fatehgarh 3 - Bhadla-3 400kV D/c line(Quad) along with 50 MVAr Switchable line reactor for each circuit at both ends of Fatehgarh 3-Bhadla-3 400kV D/c line	M/s Fatehgarh III Transmission Ltd. (a subsidiary of Apraava Energy Pvt. Ltd.),	01.02.2025	30.06.2026
±2x300MVAr STATCOM along with MSC+MSR at Ramgarh-II	M/s Ramgarh II Transmission Ltd. (a subsidiary of POWERGRID),	26.10.2025	30.04.2026
2x1500 MVA, 765/400kV & 3x500 MVA, 400/220kV pooling station at Bhadla-3	Bhadla III Transmission Ltd. (a subsidiary of POWERGRID)	27.03.2025	30.04.2026
Sikar-II – Khetri 765 kV D/c line And Sikar-II – Narela 765 kV D/c line 240MVAr Reactor -4Nos.	Sikar Khetri Transmission Ltd. (a subsidiary of POWERGRID)	09.08.2025	30.07.2026
Bhadla-III – Bikaner-III 765 kV D/C line along with 240 MVAr switchable line reactor for each circuit at Bhadla-III end	Bhadla-III & Bikaner-III Transmission Ltd. (Subsidiary of POWERGRID)	30.08.2026	31.12.2026
Beawar – Dausa 765 kV D/c	Beawar Dausa	30.04.2025	30.06.2026

line (240 km) along with 240 MVAr Switchable line reactor for each circuit at each end	Transmission Ltd. (a subsidiary of POWERGRID)		
LILO of both circuit of Ajmer-Chittorgarh 765 kV D/c at Beawar	Beawar Transmission Ltd. (a subsidiary of Sterlite Grid Ltd.) Fatehgarh III	19.03.2025	30.04.2026
Fatehgarh III - Beawar 765kV D/c line		01.02.2025	30.04.2026

**as per Minutes of 36th JCC Meeting of Northern Region held on 29.12.2025 & 30.12.2025: organized by CTUIL*

A.15.3 Due to this significant delay in commissioning of the planned transmission system, a considerable quantum of RE power in Rajasthan REZ is getting bottlenecked. In the current scenario, the following constraints are being observed during peak solar generation hours:

- Low SCR at various RE pooling stations
- Voltage oscillations in the case of High RE penetration in the Rajasthan RE complex
- Risk of angular instability under N-1 contingency of 765kV Bhadla-II-Ajmer D/C line
- High loading and risk of angular instability under N-1 contingency of 765 kV Bikaner-Khetri D/C
- Low voltages and possibility of voltage oscillations in case of high wind generation, due to drawl of reactive power by intrastate wind generators.

A.15.4 Further, shutdowns of major 400kV & 765kV lines (such as the 400kV Bikaner-Bikaner-II D/C shutdown recently for construction and system strengthening related works) are to be facilitated in the RE complex, which can lead to curtailment of a huge quantum of RE power. To facilitate these shutdowns and integrate maximum possible RE power in the upcoming months, it is requested that the remaining transmission infrastructure mentioned above is expeditiously commissioned.

A.15.5 While facilitating the planned outage of 400 kV Bikaner (PG) – Bikaner-II D/C on 22nd Feb 2026 for LILO of this line at the upcoming 400 kV Bikaner-III PS, the SCR at Bikaner-II reduced significantly from approximately 4.42 to ~1.77. Severe oscillations in the range of 16–20 Hz were observed in voltage and frequency. From 22nd Feb to 25th Feb 2026, multiple operational combinations, including STATCOM mode changes, disconnection of certain RE plants, STATCOM switching and HVDC Balia–Bhiwadi switching, were attempted to identify the root cause. However,

oscillations persisted until at least one circuit was restored, indicating unstable behaviour of plants under low system strength conditions.

A.15.6 Notably, even when generation at Bikaner-II was very low, oscillations continued after opening of the above line, indicating stability challenges for inverter-based resources to even remain connected in extremely weak grid conditions and need to review the present short circuit assessment methodology used during the planning stage.

A.15.7 This case establishes that low SCR/system strength significantly increases the susceptibility to oscillatory instability in RE complexes. Currently, while assessing permissible limits for scheduling of injection from VRE, only thermal or angular stability limits are considered. The permissible limits for evacuation would be lower than current assessments if controller-driven stability is also factored in.

A.15.8 Following measures are suggested to address the prevailing and anticipated low SCR conditions and enhance the reliability of RE complexes:

a) SCR of ‘5’ as per CEA Connectivity Standards may be ensured in the planning studies. ‘N-1’ reliability criteria (credible operating scenario) may also be considered for the computation of SCR.

b) As per experience gained during shutdown of 400kV Bikaner (PG) – Bikaner-II D/C, while assessment of SCR at RE pooling substations, consideration of inverters and BESS quantity, which shall remain connected, needs to be included in calculations, instead of actual generation as is the methodology presently being used in planning studies.

c) Measures for ensuring adequate system strength in VRE complexes, such as planning of additional synchronous condensers, transmission lines or any other suitable technical device.

d) Timely commissioning of the planned transmission system for RE evacuation.

e) Deployment of grid-forming inverters, especially at locations where stability issues are being observed.

TCC/NRPC forum may ask POWERGRID and other transmission licensees to expedite the commissioning of the pending transmission system (phase-III transmission system) for facilitating the evacuation of RE generation from Rajasthan REZ and for ensuring reliability and security of the grid with huge RE penetration. Further, other suggested measures may be discussed.

A.16 Rajasthan-related issues (Agenda by NRLDC)

a. Huge deviation by the Rajasthan state control area

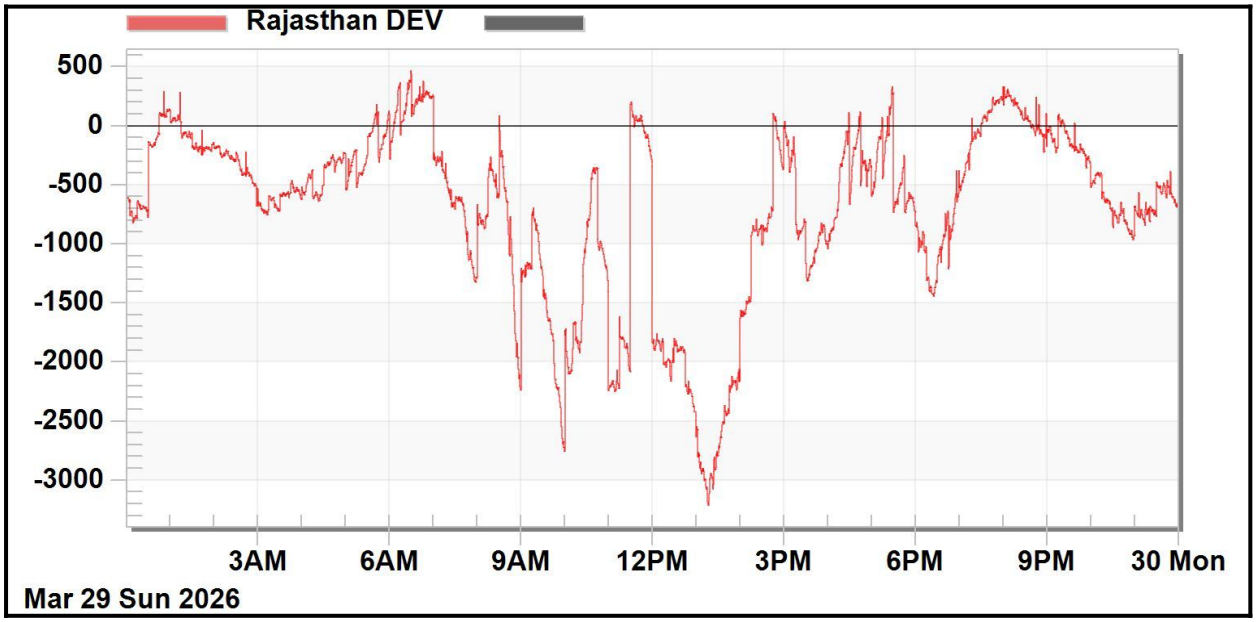
A.16.1 As per IEGC clause 44.3(c), State Load Despatch Centre, in discharge of its functions under the Act and for stable, smooth and secure operation of the integrated grid, shall be responsible for balancing demand and supply to minimize Area Control Error (ACE) for the State. NRLDC has also been asking constituents to maintain load generation balance and messages are also regularly issued from real-time operators to the under-drawing/ over-drawing constituents. Further, NRLDC has been proactively carrying out hydro moderation of ISGS plants in addition to TRAS down support from NLDC to arrest high frequency.

A.16.2 However, it is being observed that Rajasthan state due to less state demand in March 2026 is heavily under-drawing during the daytime when solar generation is high. The details of daily under-drawl (MU) and max. under-drawl based on 5 minutes average telemetered data i.r.o. The Rajasthan state control area for a few days of March 2026 is given below:

Rajasthan Deviation and grid frequency for March 2026

Date	Deviation/UI [Overdrawl (+) Under drawl (-)] MUs	Max Under-drawl (in MW) during 09-15 hrs of day
29-03-2026	-16.64	3192
04-03-2026	-12.08	1876
22-03-2026	-11.75	2867
20-03-2026	-11.54	2226
15-03-2026	-11.35	1720
19-03-2026	-10.49	2506

A.16.3 Plots for deviation by Rajasthan state control area for 29-03-2026 (most recent event) are shown below, wherein it can be clearly seen that Rajasthan state was heavily under drawing from the grid during the day time.



A.16.4 Such large deviations from schedule and high-frequency operation are a threat to the system security.

A.16.5 To avoid continuous high frequency operation in the grid, the following actions may be ensured during real-time grid operation and maintaining drawal close to schedule:

- Generation backing down in coal-fired thermal stations to 55% of the Maximum Continuous Rating (MCR) loading of the units on bar at the generating station after deducting the normative Auxiliary Energy Consumption plus Auxiliary Energy Consumption compensation as per the provisions of the Grid Code as per merit order based on variable charges.
- SLDC may take up with SERC for providing suitable compensation for oil support for thermal plants backing down to 55% of their MCR. This was also discussed in 55th TCC & 80th NRPC Meetings held on 17-18 July 2025.
- Portfolio management through the sale of power in T-GNA.
- Lifting of planned load shedding, curtailments, if any.
- Downward revision of requisitions from ISGS as per merit order on request of beneficiaries.
- Generation reduction at hydro stations having storage capability.

A.16.6 There is need for further improvement in load generation balancing and maintaining drawl close to schedule by Rajasthan SLDC.

Rajasthan SLDC may please share actions being taken at their level with TCC/NRPC forum.

b. PMU installation in Intra-state RE plants

A.16.7 Multiple events of oscillations in voltage & frequency, as well as Renewable Energy (RE) generation trippings, have been observed in the Western Rajasthan RE complex. These oscillation/tripping-related events were analyzed using available PMU data and deliberated in various NRPC forums. Recently, RE Sub-committee of NRPC was held on 06.02.2026, wherein the inter-area oscillations that occurred on 04.02.2026 were also discussed in detail, and it was emphasized that there is a need to install PMUs at every RE plant for proper visualization and analysis of the trippings and oscillation events being observed. The limited visibility due to the non-availability of PMU data is a threat to grid security.

A.16.8 As per Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019, clause 9

"(3) *The user may be disconnected from the Grid by the licensee for non-compliance of any provision of these regulations and any non-compliance of the provisions of these regulations shall be reported by the licensee or the* ***State Load Dispatch Centre*** *or the* ***Regional Load Dispatch Centre****, as the case may be, to the appropriate Commission*".

A.16.9 PMU data of RE plants connected to ISTS pooling stations is already available and analyzed at the NRLDC end. The same is being shared with RE plants/developers with a request to carry out Root Cause Analysis (RCA) at their end in case of RE generation tripping and oscillation events.

A.16.10 Rajasthan state is also witnessing a large growth in intra-state, with installed renewable energy capacity already reaching around 12,000 MW. Further, capacity addition and RE penetration at a rapid pace is envisaged in the future in the state control area. The availability of high-resolution data is thus of utmost importance. Similar to ISTS-connected RE plants, PMUs should be installed at all the RE plants connected to the intra-state network of Rajasthan for reliable and secure grid operation

A.16.11 Also, as discussed in the meeting taken by CEA Chairperson dated 11.03.2026 regarding the review of Rajasthan's tie-up capacity along with status of Power projects till 2029-30, it was advised that NRLDC may write to RRVPNL suggesting the installation of PMUs in intrastate RE plants level for monitoring of performance during faults as well as oscillation events.

A.16.12 NRLDC has already sent letters dated 11.02.2026 & 19.03.2026 (attached as **Annexure-A.IX)** in this regard, which also include identified locations (approx. 80 PMUs required) for PMU installation.

A.16.13 This would facilitate in identifying the intrastate RE plants non-compliant with the CEA standards and the extant regulations. Also, the RE plants with high fluctuations in their MW, MVAR etc. during fault and oscillations can then be asked to submit Root Cause Analysis (RCA) and take corrective actions in view of grid security, similar to ISTS.

Rajasthan SLDC/ RRVPNL may please share actions being taken at their level with TCC/NRPC forum.

A.17 Mock testing of islanding scheme and simulation studies (Agenda by NRLDC)

A.17.1 The following four islanding schemes are operational in the Northern Region: NAPP Islanding Scheme (Uttar Pradesh), RAPP Islanding Scheme (Rajasthan), Bawana Islanding Scheme (Delhi), and Unchahar Islanding Scheme (Uttar Pradesh).

- NAPP Islanding scheme (UP)
- RAPP Islanding scheme (Raj)
- Bawana Islanding scheme (Delhi)
- Unchahar Islanding scheme(UP)

A.17.2 As per Clause 29.10 and 29.11 of the IEGC:

“(10) RPCs shall prepare the islanding schemes in accordance with the CEA Grid Standards for identified generating stations, cities and locations and ensure their implementation. The islanding schemes shall be reviewed and augmented depending on the assessment of critical loads at least once a year or earlier, if required.

(11) Mock drill of the islanding schemes shall be ***carried out annually*** *by the respective RLDCs in coordination with the concerned SLDCs and other users involved in the islanding scheme. In case mock drill with field testing is not possible to be carried out for a particular scheme,* ***simulation testing*** *shall be carried out by the respective RLDC.”*

A.17.3 There have been recent directions from NPC and MoP for islanding testing. Even after follow-ups in OCC meeting, following is pending regarding mock testing of islanding schemes:

A.17.4 The required mock testing data is still awaited for the following islanding scheme:

- RAPP Islanding Scheme (basecase last received on 21.03.2025)

A.17.5 Mock testing data has been received for:

- NAPP Islanding Scheme (UFR testing report received, base case awaited) (basecase last received on 30.01.2025)
- Lucknow–Unchahar Islanding Scheme (UFR testing report received, updated base case awaited)

A.17.6 Further, the status of other schemes is as follows:

- Delhi Islanding Scheme – under review/modification
- RSD Pathankot Islanding Scheme – not presently in service.

A.17.7 The SOP for mock testing of islanding schemes in the Northern Region was approved during the 223rd OCC meeting held in September 2024.

A.17.8 In compliance with the above provisions of the IEGC, it is requested to advise the concerned to submit the requisite data and report, as stipulated in the approved SOP, to facilitate the successful conduct of mock testing of islanding schemes for FY 2025–26 at the earliest.

A.17.9 Communications have already been sent from NRLDC side vide email dated 16.02.2026 & 03.03.2026. Further agenda has been discussed in the recent 240th and 241st OCC meetings held in Feb 2026 & Mar 2026 respectively.

A.17.10 For Delhi, the islanding scheme is now being modified and two islanding schemes are under proposal, one including Dadri Stage-II generation and another using Bawana generation.

A.17.11 PSTCL may also expedite the revival of the presently non-functional Ranjit Sagar Dam-Pathankot islanding scheme.

TCC/NRPC members are requested to advise the concerned to submit field testing and simulation-based testing of each islanding scheme at the earliest.

Members may please discuss.

A.18 Non-Payment of NR Pool Account (Agenda by NRLDC)

a. Non-Payment of Pool Deficit Recovery Charges:

A.18.1 Hon'ble CERC has approved "Detailed Procedure for recovery of charges in case of deficit in the Deviation and Ancillary Service Pool Account" (effective from 15.10.2024) for recovering the deficit in the pool for the period prior to 16.09.24 (Legacy dues) and from 16.09.24 onwards till 31.03.2026.

A.18.2 In line with the approved procedure, NLDC had published a statement, namely "Net Deviation & Ancillary Services Pool Account Deficit Recovery Statement for period prior 16.09.2024 (Legacy Dues)" dated 11.11.2024, specifying the All-India deficit of Deviation and Ancillary Services Pool Accounts and per instalment amount to be paid by the drawee DICs.

A.18.3 NLDC vide letter dated 03.03.2025, revised pool deficit recovery statement due to revised assessment of the respective regional deviation and ancillary pool account.

A.18.4 Further in line with the approved procedure, NLDC had published 06 nos. statement (Bill-01-06), namely "Net Deviation & Ancillary Services Pool Account, Pool Deficit Recovery Statement".

b. Non-Payment of DSM Charges:

A.18.5 NRLDC is operating and maintaining the "Northern Region Pool Account" for deviation charges, Reactive Energy Charges and Congestion Charges in accordance with provisions under various CERC Regulations. As per Regulations, the payment to the statutory pool account has high priority and the concerned utilities are required to pay the indicated amounts within 10 days of the issue of weekly energy account by NRPC secretariat.

A.18.6 In this regard, it is submitted that J&K has not been making regular payments of Deviation Charges and Reactive Energy Charges in accordance with the DSM Regulations.

The total outstanding dues of J&K are as follows:

Pool Deficit Recovery Charge Statement	**Outstanding Amount (in Cr)**
Pool Deficit Recovery Charges (Legacy Dues prior to 16.09.2024)	-
NLDC statement dated 13/01/2025	-
NLDC statement dated 17/09/2025	-
NLDC statement dated 31/10/2025	10,86,52,371
NLDC statement dated 14/11/2025	5,52,01,227

NLDC statement dated 28/11/2025	6,61,27,051
NLDC statement dated 09/01/2026	3,98,25,070
DSM Charges	**28,27,42,232**
Total	**55,25,47,951**

NRLDC has filed a petition before the Hon'ble CERC with details as follows:

Petition Filed	**Present Status**
Petition **547/MP/2025** filed by NRLDC against J&K towards Non-Payment of DSM, RE & Legacy Dues.	1. JKPCL in its reply said that it has already made requisite submissions and requests to the appropriate authorities for the release of funds to enable JKPCL to clear the total outstanding dues to the Petitioner. **2. Further, J&K made payment of ₹ 30 Crore on 15-09-2025 & 56.23 Crore on 15-12-2025 towards DSM Outstandings & Pool deficit charges.** 3. During the hearing dated 03.12.2025 J&K seeks six months' time to clear all outstanding dues. The Commission reserved its order after hearing the parties.

A.18.7 During the hearing of the petition, J&K had committed to clear all outstanding dues within six months, out of which three months have already elapsed.

In view of the above, J&K is requested to kindly expedite the payment of dues pertaining to the NR Pool Account.

Member may like to discuss.

Agenda for NRPC meeting

B.1 Audit Report (Consolidated Receipt and Payment Account for 2024-25) based on audit conducted by an external Agency hired through GeM Portal) (agenda by NRPC Secretariat)

B.1.1 As per rule 32 of Conduct of Business Rules, 2024 of NRPC, the "NRPC – Fund" account for each financial year shall be audited as per SOP issued by CEA.

B.1.2 Accordingly, the Bid for Review of Financial Statements, Financial Reporting Framework, and Audit report was floated on GeM Portal. Bid (GEM/2025/B/6496056) was awarded through Gem Contract GEMC-511687789444105 to L1 Bidder M/s AGARWAL U R S & CO at a cost of Rs 20,700/- (inclusive of taxes).

B.1.3 M/s AGARWAL U R S & CO conducted an audit of the NRPC fund account for 2024-25 in September 2025 and submitted an audit report. The detailed Audit Report is attached at **Annexure-B.I**. Salient points as observed by the auditor are as under:

a) The consolidated receipt and payment account of Northern Regional Power Committee for the year ended 31st March 2025 is prepared, in all material respects, in accordance with the applicable financial reporting framework and reflects a true and fair view of the receipts and payments of the organization during the year.

b) Cash System of accounting is followed by the management.

c) The accounting transactions are maintained through accounting software; however, the edit log or audit trail of changes made in the system is not maintained.

B.1.4 With reference to the observation reported at Point No. B.2.3 (c) above, tally software accounting has been upgraded to enable an edit log or audit trail of changes made in the system.

Decision required from Forum:

Forum may take note of the external audit report of NRPC Fund for FY 2024-25

B.2 Internal Audit of NRPC Fund for FY 2024-25 (agenda by NRPC Secretariat)

B.2.1 Internal Audit of NRPC Fund for FY 2024-25 was conducted. The audit report is attached as **Annexure-B.II**

Decision required from Forum:

Forum may take note of the internal audit report of NRPC Fund for FY 2025-26

B.3 Annual Membership of NRPC for FY 2026-27 (Agenda by NRPC Secretariat)

B.3.1 As per MoP gazette resolution F. No. 23/21/2021-R&R dtd. 03.12.2021, membership of NRPC is decided.

B.3.2 As per MoP gazette notification dated 03.12.2021, from each of the States in the region, the State Generating Company, State Transmission Utility (STU), State Load Despatch Centre (SLDC), one of the State-owned distribution companies as nominated by the State Government and one distribution company by alphabetical rotation out of the private distribution companies functioning in the region, shall be member.

B.3.3 Representative from UT, IPPS having more than 1000 MW installed capacity, IPPs having less than 1000MW on a rotational basis, SNA, Private transmission licensee (nominated by central govt.) and Electricity Trader (nominated by central govt.) and RE Generating Company having more than 1000 MW installed capacity are also members of NRPC Forum.

B.3.4 Accordingly, list of members of the organisation of NRPC for FY 2026-27 is enclosed as **Annexure-B.III**.

B.3.5 Accordingly, the list of incoming and outgoing members of NRPC is mentioned below:

Incoming and Outgoing Members of NRPC/TCC Forum

Sl. No.	Particulars	Outgoing Member	Incoming Member
1	NRPC, Chairman	Sh. Ashwani Kumar, IAS, Additional Chief Secretary, to Government of J&K, Power Development Department, UT of J&K	Sh. Basant Garg, IAS, Administrative Secretary, Power, Government of Punjab and in-addition CMD, PSTCL and in-addition CMD, PSPCL
2	TCC, Chairperson	Sh. G.P. Singh Arora, IAS, Managing Director, JPDCL	Er. Sanjeev Kumar Sood, Director(Technical), PSTCL
3	Haryana Discom	Dakshin Haryana Bijli Vitran Nigam Limited	Uttar Haryana Bijli Vitran Nigam Limited
4	Rajasthan Discom	Ajmer Vidyut Vitran Nigam Limited	Jaipur Vidyut Vitran Nigam Ltd.

5	Uttar Pradesh Discom	Purvanchal Vidyut Vitaran Nigam Limited	Dakshinanchal Vidyut Vitaran Nigam Ltd.
6	IPP having less than 1000 MW installed capacity (alphabetical rotational basis)	Transition Cleantech Services Private Limited	XL Xergi Power Pvt. Ltd.
7	Private Distribution Company in region (alphabetical rotational basis)	Tata Power Delhi Distribution Limited	BSES Rajdhani Power Limited
8	Private transmission licensee (nominated by central govt.)	Gurgaon Palwal Transmission Limited	NRSS-XXIX Transmission Ltd
9	Electricity Trader (nominated by central govt.)	Power Trading Corporation of India Limited	Shree Cement Limited
10	IPP having more than 1000 MW installed capacity		Neyveli Uttar Pradesh Power Limited (NUPPL) Ghatampur
11	RE Generating Company having more than 1000 MW installed capacity		SJVN Green Energy

B.3.6 The NRPC Forum acknowledges, with deep gratitude, the valuable contributions of the outgoing members and extends a warm welcome to the new members of the TCC/NRPC Forum.

B.3.7 All members are requested to submit nominations for the NRPC and TCC Forum from their respective organizations in the following format at **seo-nrpc@nic.in** :

Name of officer	**Designation**	**Organization**	**Mobile No.**	**Email ID**

Decision required from Forum:

Forum may take note of members of NRPC for FY 2026-27.

B.4 Status of Expenditure incurred during Quarter-3 and Quarter-4 of FY 2025- 26 from NRPC Fund and Annual expenditure during FY 2025-26 (agenda by NRPC Secretariat).

B.4.1 As per the Standard Operating Procedure (SOP) for budgeting and expenditure of RPCs in pursuance to the MoP letter dated 23.02.2006, NRPC has finalized its annual Internal Budget for FY 2025-26 and got it approved by Forum in 78th NRPC meeting held on 17.03.2025.

B.4.2 In line with the budget finalized, the status of actual expenditure incurred (INR 4,74,15,315) during Quarter-1 of FY 2025-26 was apprised in 80th NRPC meeting held on 18.07.2025 and the status of actual expenditure incurred (INR 1,40,93,577) during Quarter-2 of FY 2025-26 was apprised in 81st NRPC meeting held on 31.10.2025.

B.4.3 Further, Status of actual expenditure incurred during Quarter-3 and Quarter 4 of FY 2025-26 and annual expenditure for FY 2025-26 (All figures in Rs.) is as follows:

Account Head	Booking of Expenditure During FY 2025-26	Budget Estimate for FY 2025-26	Total Expenditure during Q3/ FY 2025-26	Total Expenditure during Q4/ FY 2025-26	Actual Expenditure FY 2025-26
Salary*	Salary Bill	1,85,00,000	43,53,291	29,54,955	1,67,12,043
Rewards*	Bonus for Group -C Employees	1,10,000	55,264	0	55,264
Allowances*	HRA, DA etc.	1,42,50,000	37,69,775	24,74,938	1,40,49,112
Leave Travel Concession*	It will include air/rail/bus fare/fare of any other mode of transport entitled under LTC Rule.	5,30,000	0	1,25,323	1,34,318
Others*	TA recovery	0	0	0	-33,048
Training Expenses	1. Training Expenses of NRPC Sectt. Officers	5,00,000	0	87,400	87,400
	2. Training on Electrical Protection of Power System for NRPC Constituents	63,72,000	56,60,800	0	56,60,800
Domestic	Domestic tour	15,00,000	2,81,128	4,34,046	9,81,452

Travel Expenses	expense				
Medical Treatment	Cost of Medical treatments	10,00,000	67,240	2,62,768	4,42,472
Office Expenditure	1. Office expenditures	2,00,00,000	4,15,5971	62,32,700	1,51,90,253
	2. NPC Meeting	30,00,000	0	26,19,134	26,19,134
Repair and Maintenance	Civil & electricals works in NRPC complex done through CPWD	1,50,00,000	0	36,714	88,72,341
Rent rates and taxes	Rent rate and Taxes – One time expense of property tax.	2,00,000	0	0	1,90,552
Digital Equipment	Digital equipment (cartridges, Hard Disks, pen drive etc.)	5,00,000	69,197	5,310	3,74,032
Other Revenue Expenditure	Hospitality and other similar bills (Mobile, Newspaper Bills etc.)	5,00,000	1,02,065	1,55,376	4,60,433
Information, Computer, Telecommunic ations (ICT) equipment	Website Development through NICSI	38,00,000	4,89,025	3,24,404	12,81,428
Furniture & Fixture		5,00,000	0	0	2,48,398
TOTAL		**8,62,62,000**	**1,90,03,756**	**1,57,13,068**	**6,73,26,384**

**As per Budget allocated by CEA/MoP for the FY 2025-26.*

Decision required from Forum:

Submitted for the information of NRPC members.

B.5 Capacity Building /Study Programmes on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (agenda by NRPC Secretariat)

B.5.1 NRPC Forum approved the capacity building program in 77th NRPC meeting held on 27-28 Dec, 2024. Extracts of MoM is attached as **Annexure B.IV.**

B.5.2 Accordingly, NRPC Secretariat had sent DPR vide letter dated 28.01.2025. Further, queries of PSDF Secretariat were replied vide letter 28.05.2025 (**Annexure B.V**)

B.5.3 NLDC vide letter no NLDC-PSDF/95th TESG/2025-26 dated 13.02.2026 (**Annexure B.VI**) has informed that TESG has recommended the proposal of NRPC on "Capacity Building /Study Programmes on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (Proposal No: 480)" at total estimated cost of **₹6.02 crores with GST**, and with eligible 70% grant (as decided by the 26th Monitoring Committee) under the clause 5.1(f) of PSDF guidelines i.e. ₹4.214 crores (including GST) to Appraisal Committee of PSDF, subject to submission of the consent letter for acceptance of 70% funding from PSDF.

B.5.4 Accordingly, consent of the NRPC forum is required for rest of the amount, i.e. 30% of ₹6.02 crores with GST. As this amount is to be paid in the next financial year, therefore it may be taken into consideration in the budget estimate of FY 2026-27.

B.5.5 The above was discussed in the Special NRPC Meeting (held on 23rd February, 2026) for seeking approval of the Forum to incur expenditure of 1.806 Cr (with GST) from NRPC Fund in FY 2026-27 for Capacity Building /Study Programmes on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee.

B.5.6 Consequently, the following were decided in that Special NRPC Meeting -

Quote

NRPC constituents were requested to submit their observations and views regarding the sharing of the 30% of 6.02 crores (including GST) for the above capacity- building proposal within one week. If no comments are received within this period, it will be deemed that all NRPC constituents have given their consent.

Unquote

B.5.7 However, no comment has been received from NRPC constituents as of now. Accordingly, based on above decision, it is proposed to allow expenditure of **1.806 Cr. (including GST)** for capacity building program from NRPC fund.

Decision required from Forum:

Forum may accord approval for expenditure of 1.806 Cr. (including GST) for capacity building program from NRPC fund in line with decision of special NRPC meeting (held on 23rd February, 2026) as no comment has been received as of now.

B.6 Annual Budget of NRPC Secretariat for FY 2026-27 (agenda by NRPC Secretariat)

B.6.1 Central Electricity Authority, Ministry of Power had issued the Standard Operating Procedure (SOP) for budgeting and expenditure of RPCs in pursuance to the MoP letter dated 23.02.2006 in which it was directed that activities of RPCs will be fully financed by constituent members. The same was adopted in the 66th NRPC meeting held on 30.05.2023.

B.6.2 As per the SOP, RPCs shall finalize their annual Internal Budget and get its approval in committee meeting. Accordingly, the budget for the Financial Year 2026-27 for the NRPC secretariat has been prepared and details of which are as follows:

Account Head	**Budget Estimate for FY 2026-27**	**Remarks/ Booking of Expenditure during FY 2026-27**
Salary*	1,89,00,000	Salary bills
Rewards*	1,10,000	Bonus for Group-C Employees
Allowances*	1,55,50,000	HRA, DA etc
LTC*	7,30,000	LTC
Medical Treatment	10,00,000	Cost of Medical Treatments
Training	5,00,000	Training Expenses of NRPC Officials
	1,80,60,000	Capacity Building /Study Programmes on International Best Practices in Energy Transition for Constituents of NRPC
Domestic Travel Expenses	15,00,000	Domestic tour expense
Office Expenditure	1,80,00,000	Office expenditure- Recurring expenses of salary of contractual staff, AMC and other bills.
Rent Rate and Taxes	2,00,000	Rent rate and Taxes- Onetime expense of property tax.
Digital Equipment	2,00,000	Digital equipment (cartridges, Hard Disks, pen drive etc.)
Repair and Maintenance	74,00,000	ARMO, Civil & Electrical works in NRPC Complex through CPWD, AMC of IT Maintenance.

Other Revenue Exp.	5,00,000	Hospitality and other similar bills (Mobile, Newspaper Bills etc)
Information, Computer, Telecommunications (ICT) equipment	37,20,000	Website, IT Equipments (Desktop, Laptop, Printers, Softwares, etc)
Furniture and fixtures	3,00,000	Furniture
Total	**8,66,70,000**	

**As per Budget allocated by CEA/MoP for the FY 2026-27.*

B.6.3 The budgetary estimate will be divided equally among the paying members of NRPC.

Decision required from Forum:

The Annual Budget of NRPC Secretariat for FY 2026-27 is submitted for information and approval of the NRPC Forum.

B.7 Bank Interest earned in the "NRPC Fund" account (agenda by NRPC Secretariat)

B.7.1 Central Electricity Authority, Ministry of Power, had issued the Standard Operating Procedure (SOP) for budgeting and expenditure of RPCs in pursuance to the MoP letter dated 23.02.2006 in which it was directed that activities of RPCs will be fully financed by constituent members. SOP was deliberated and adopted in the 66th NRPC meeting held on 30.05.2023.

B.7.2 As per the above SOP, there is a separate bank account in the name of "NRPC Fund" in a nationalized bank.

B.7.3 An appreciable amount always remains in the "NRPC Fund". As per the observations of Audit Team, the Auto Sweep facility was enabled so that the optimum interest would be earned. As on 31.03.2026, a total of Rs 37,30,146 has been earned as interest in FY 2025-26.

B.7.4 The interest earned in NRPC Fund is taxable and TDS is being deducted by the bank. The annual return for interest income in the NRPC Fund shall be filed as per the Income Tax rules.

B.7.5 In the 54th TCC & 79th NRPC Meeting held on 30th May, 2025, forum approved the proposal that the interest earned in "NRPC Fund" may be retained in the same fund & an appropriate adjustment may be made in the annual budget prepared for

the subsequent year at present and also in future. Accordingly, the interest earned in "NRPC Fund" has been retained in the same fund & an appropriate adjustment has been made in the annual budget proposed for the financial year 2025-26.

Decision required from Forum:

Submitted for the information of NRPC members.

B.8 Contribution towards NRPC Fund for the year 2026-27 by the Constituents (agenda by NRPC Secretariat)

B.8.1 RPCs are fully financed by the constituent members as per Ministry of Power, Govt. of India letter dated 23.02.2006 and SOP issued by CEA dated 01.05.2023. Therefore, **constituent members are required to pay annual contributions as decided in NRPC** meetings from time to time. Annual contribution is decided on the basis of the estimated expenditure of the next financial year and the balance amount in the NRPC fund (if any).

B.8.2 As per SOP issued by CEA vide letter dated 01.05.2023, all expenditures other than salary shall be met from RPC fund. Expenditure of the salary head shall be met from the budget provided by CEA and will get reimbursed from RPC fund to CEA on a quarterly basis. Therefore, all the expenditure of RPCs, including salary is met from RPC Fund.

B.8.3 Annual Budget of NRPC Secretariat for FY 2026-27 has been estimated as **₹8.667 crores** as elaborated in Agenda Item B.6, in accordance with expenditure planned for FY 2026-27.

B.8.4 Considering the un-utilized budget for FY 2025-26 amounting to **₹1.9 crores and Interest earned during** FY 2025-26 **amounting to ₹37 lakhs in the "NRPC Fund" account,** the net amount required to be contributed by NRPC members for FY 2026–27 is **₹6.40** crores (₹8.667-₹1.9-₹0.37) crores for FY 2026-27**.** Taking into account the exempted members, the contribution is to be shared among 52 contributing members out of a total of 64 NRPC members. Accordingly, the contribution per member works out to approximately ₹12.30 lakh

B.8.5 It is proposed that an amount of ₹12 lakhs may be contributed by each payee member of NRPC for FY 2026-27.

B.8.6 The above contribution amount of **₹12 lakhs** may be deposited in NRPC account by (30.06.2026). The forum may decide a penalty percentage for delay beyond 30.06.2026.

B.8.7 In view of above, the following proposal is put up for approval:

i. Membership contribution for the year 2026-27 is proposed to be **₹12 lakhs** per member. It is also proposed that members may complete the above reimbursement in NRPC fund by 30.06.2026.

ii. NRPC Secretariate shall issue demand letters by 01.05.2025 with last date of payment as 30.06.2026.

iii. Member may decide suitable penal interest per month on late payment from 30th June, 2026 onwards.

Decision required from Forum:

Forum may deliberate and approve the above proposal.

B.9 Late Payment Charges for the FY 2024-25 and FY 2025-26 by Constituent Members (agenda by NRPC Secretariat)

B.9.1 Demand Letter for contribution towards the NRPC fund for the FY 2025-26 was issued to all the constituent members on 10.04.2025. The letter stated that a simple interest of 1% per month would be levied on payments received after 30th June 2025. Accordingly, the NRPC Secretariat has received contributions from all constituents.

B.9.2 For the FY 2024-25, the Electricity Wing of the Engineering Department, Chandigarh Administration, was the nominated member of NRPC. However, in the last quarter of FY 2024-25, the Electricity Wing of the Engineering Department was restructured and the distribution company has been privatized, a revision in the nomination was requested from UT of Chandigarh. B.1.3 UT of Chandigarh vide memo no. G1/2025/2128175 dated 16.06.2025, nominated State Transmission Utility (STU)" within the Union Territory of Chandigarh as a member of NRPC for FY 2025- 26. Subsequently, a demand letter was issued to the STU of Chandigarh for their contribution towards the NRPC fund for the year 2025-26. Accordingly, in the 80th NRPC meeting, the last date for payment for the UT of Chandigarh was decided as 30th September 2025.

B.9.3 It is informed that UT of Chandigarh has paid the contribution amount for FY 2025-26 , but has not paid the interest amount for late payment. An interest amount of Rs 28,000 is still pending from UT of Chandigarh.

B.9.4 It is further apprised that for FY 2024–25, the UT of Chandigarh and Talwandi Sabo Power Ltd paid their contribution amount after the due date but did not pay the applicable interest for the same financial year.

B.9.5 Therefore, outstanding contributions for FY 2025-26 and FY 2024-25 is as mentioned below:

S. No.	Name of Constituent	Contribution amount (FY 2025-26)	Penalty (FY 2025-26)	Penalty (FY 2024-25)	Total Outstanding amount
1	UT of Chandigarh	0	28,000	12,000	40,000
2	Talwandi Sabo Power Ltd.	0	0	24,000	24,000
	Total				64,000

Decision required from Forum:

Concerned constituents with pending contributions are requested to release the outstanding amounts at the earliest.

B.10 Amendment in Conduct of Business Rules (COBR) of NRPC to include State RE Generators of capacity 250 MW & above as members in RE Sub-Committee (agenda by NRPC Secretariat)

B.10.1 Conduct of Business Rules (COBR) of NRPC was amended as discussed in 76th NRPC Meeting (held on 25 October 2024) to include State RE Generators of capacity 250 MW & above as members in the RE-Sub-Committee of NRPC.

As per existing CoBR of NRPC, composition of RE Sub-Committee is as below:

“RE Sub-Committee shall be represented by all ISTS connected RE generators,

state RE generators having capacity 250 MW & above, MNRE, SECI, Association of RE Generators, NLDC, NRLDC, CTU, Powergrid, STU and SLDC of RE rich states where REMC is operated. “

B.10.2 However, as per the decision of 4th RE Sub Committee meeting held on 05.12.2025, QCAs may also be included as members of RE Sub Committee, as they are responsible for scheduling, operational coordination and deviation settlement with multiple RE plants.

B.10.3 Accordingly, CoBR has been modified to include QCAs as members of RE Sub Committee. Draft of amended CoBR is attached as **Annexure B.VII**.

B.10.4 It is further noted that Bye-laws for the NRPC Fund were framed in 2010. Since the amended CoBR already encompasses provisions related to the operation of the NRPC Fund and is also in accordance with the SOP issued by the Central Electricity Authority (CEA), it is proposed to repeal the existing Bye-laws for the NRPC Fund under CoBR 2024**.**

Decision required from Forum:

Submitted for deliberation and approval

B.11 Hiring of Manpower under Manpower Outsourcing Services (Minimum Wages Contract) through GeM Portal for the period 11-08-2026 to 10-08-2027 (Agenda by NRPC Secretariat)

B.11.1 NRPC Secretariat currently manages its essential maintenance and support services through an Outsource Manpower - Minimum Wages Contract through GeM Portal. Total 16 nos. personnel are deployed in NRPC for essential services through this contract under various categories.

B.11.2 The existing GeM contract GEMC-511687734167904 dated 30.06.2025 for these services is scheduled to expire on 10-08-2026. To ensure uninterrupted upkeep of the NRPC Office and Colony Complex, it is necessary to initiate a fresh bidding process on the GeM portal for the subsequent two-year term.

B.11.3 The categorized requirement for 16 personnel is as follows:

S. No.	Category	No. of Manpower	Skill Level
1	Sweeper	6	Unskilled
2	Mali/Gardener	1	Semi-skilled
3	Watch & Ward	4	Skilled

S. No.	Category	No. of Manpower	Skill Level
4	Electrician	1	Skilled
5	Cook	1	Skilled
6	Canteen Helper	1	Unskilled
7	Plumber	1	Skilled
8	Carpenter	1	Skilled
Total		**16**	

B.11.4 The fresh bid will be formulated based on the latest Minimum Wage rates as notified by the Chief Labour Commissioner (Central), Ministry of Labour & Employment, Govt. of India, at the time of floating the tender. The tentative financial implication is estimated at approximately Rs. 130 lakhs incl. of taxes & service charges (subject to revised wage notifications and GeM service charges) for two years. It is proposed that NRPC Secretariat be authorized to float a fresh bid through the GeM portal for 16 personnel for a duration of one year (11-08-2026 to 10-08-2028) to maintain continuity of essential services.

Decision required from Forum:

Forum may consider to approve the above proposal for floating of bid on GeM portal for hiring of overall 16 nos. manpower as per above table for two years from 11-08-2026 through Manpower Outsourcing Services (Minimum Wages Contract) so that manpower is placed before the expiration of the present Contract to maintain continuity of the above services requirement in the NRPC Office/Colony Complex.

B.12 Procedure for Utilization of NRPC Guest House Charges Fund (Agenda by NRPC Secretariat)

B.12.1 In the 76th NRPC Meeting held on 25th October 2024, the NRPC Board approved the creation of a new bank account titled "**NRPC Guest House Charges**" to facilitate UPI payments and streamline the management of guest house receipts.

B.12.2 As per the decisions taken in the said meeting:

i) 50% of the collected charges are to be deposited to the Government Exchequer

monthly.

ii) The remaining 50% is to be retained in the "NRPC Guest House Charges" bank account.

iii) Retained funds are to be utilized for the upkeep of the guest house.

iv) In the event of fund non-availability in this specific account, expenses may be met from the NRPC Fund.

v) These provisions became effective from 01.11.2024.

B.12.3 To ensure smooth day-to-day operations and minor maintenance, MS, NRPC has sanctioned an imprest fund of ₹10,000/- under the budget head "NRPC Guest House Charges." This fund is managed by the DDO, NRPC, and utilized by the Services Circle of NRPC for routine requirements & contingencies pertaining to the Guest House.

B.12.4 For the systematic management of these funds, the following **Procedure for Utilization of NRPC Guest House Charges Fund** (attached at **Annexure-B.VIII**) is proposed:

Decision required from Forum:

*Forum may kindly approve the Procedure for Utilization of NRPC Guest House Charges Fund attached at **Annexure-B.VIII**.*

B.13 Hosting of next Physical Meeting of TCC/NRPC Forum (agenda by NRPC Secretariat)

B.13.1 It is proposed that the next physical TCC & NRPC meeting may be hosted by NPCIL.

B.13.2 Further, a meeting plan/ roster is proposed for conducting physical meetings by utilities as below :

Tentative NRPC meetings hosting roster

Year	List 1	List 2	List 3	List 4
2026-27	NPCIL	Punjab	Adani Green Energy Limited	MEJA Urja Nigam Ltd. **AND** Neyveli Uttar Pradesh Power Limited (NUPPL)
2027-28	NHPC	Rajasthan	Avaada Energy Private Limited	Private TSP member of the year
2028-29	NTPC	Uttar Pradesh	Azure Power India Pvt. Limited	Nabha Power Limited **AND** Talwandi Sabo Power Ltd.

2029-30	PGCIL	Uttarakhand	NTPC Green Energy Limited	Private TSP member of the year
2030-31	SJVN	Delhi	ReNew Power Private Limited	Adani Power Rajasthan Limited **AND** JSW Hydro Energy Limited
2031-32	BBMB	Haryana	SJVN Green Energy	Private TSP member of the year
2032-33	THDC	Himachal Pradesh	Adani Green Energy Limited*	Apraava Energy Private Limited **AND** Aravali Power Company Pvt. Ltd
2033-34	SNA	UT of J&K	Avaada Energy Private Limited*	Private TSP member of the year
2034-35	NPCIL*	Punjab*	Azure Power India Pvt. Limited*	Lalitpur Power Generation Company Ltd **AND** Rosa Power Supply Company Ltd
2035-36	NHPC*	Rajasthan*	NTPC Green Energy Limited*	Private TSP member of the year
2036-37	NTPC*	Uttar Pradesh*	ReNew Power Private Limited*	MEIL Anpara Energy Ltd **AND** Prayagraj Power Generation Co. Ltd.

(*) The entity mentioned in the list or as per adjusted sequence based on any other new entity

Decision required from Forum:

Forum may deliberate on hosting of next physical meeting.

*****

NRPC Members for FY 2026-27				
S. No.	**Member Organisation**	**Category**	**Nominated/ Notified/Delegated Member**	**E-mail**
1	Chairperson, NRPC	Chairperson, NRPC		
2	CEA	Central Electricity Authority (CEA)	Member (GO&D), CEA	member.god@cea.nic.in
3	NLDC	National Load Despatch Centre	Director (System Operation)	rk.porwal@grid-india.in
4	NRLDC	Northern Regional Load Despatch Centre	Executive Director	sajan@grid-india.in
5	CTUIL	Central Transmission Utility	Chief Operating Officer	coo-ctu@ctuil.in
6	PGCIL	Central Government owned Transmission Company	Director (Operations)	naveensrivastava@powergrid.in
7	NTPC	Central Generating Company	Director (Finance)	jaikumar@ntpc.co.in
8	BBMB		Chairman	cman@bbmb.nic.in
9	THDC		CGM (EM-Design)	rrsemwal@thdc.co.in
10	SJVN		CMD	sectt.cmd@sjvn.nic.in
11	NHPC		Director (Technical)	sadhikari@nhpc.nic.in
12	NPCIL		Director (Finance)	df@npcil.co.in
13	Delhi SLDC	State Load Despatch Centre	General Manager	gmsldc@delhisldc.org
14	Haryana SLDC		Chief Engineer (SO&C)	cesocomml@hvpn.org.in
15	Rajasthan SLDC		Chief Engineer (LD)	ce.ld@rvpn.co.in
16	Uttar Pradesh SLDC		Director	directorsldc@upsldc.org
17	Uttarakhand SLDC		Chief Engineer	anupam_singh@ptcul.org
18	Punjab SLDC		Chief Engineer	ce-sldc@punjabsldc.org
19	Himachal Pradesh SLDC		Managing Director	mdhpsldc@gmail.com
20	DTL	State Transmission Utility	CMD	cmd@dtl.gov.in
21	HVPNL		Managing Director	md@hvpn.org.in
22	RRVPNL		CMD	cmd.rvpn@rvpn.co.in
23	UPPTCL		Managing Director	md@upptcl.org
24	PTCUL		Managing Director	md@ptcul.org
25	PSTCL		CMD	cmd@pstcl.org
26	HPPTCL		Managing Director	md.tcl@hpmail.in
27	IPGCL	State Generating Company	Managing Director	md.ipgpp@nic.in
28	HPGCL		Managing Director	md@hpgcl.org.in
29	RRVUNL		CMD	cmd@rrvun.com
30	UPRVUNL		Director (Technical)	director.technical@uprvunl.org
31	UJVNL		Managing Director	mdujvnl@ujvnl.com
32	HPPCL		Managing Director	md@hppcl.in
33	PSPCL	State Generating Company & State owned Distribution Company	CMD	cmd-pspcl@pspcl.in
34	UHBVN	State owned Distribution Company (alphabetical rotational basis/nominated by state govt.)	Managing Director	nomination awaited
35	Jaipur Vidyut Vitran Nigam Ltd.		Managing Director	nomination awaited
36	Dakshinanchal Vidyut Vitaran Nigam Ltd.		Managing Director	nomination awaited
37	UPCL		Managing Director	md@upcl.org
38	HPSEB		Managing Director	md@hpseb.in
39	Adani Power Rajasthan Limited	IPP having more than 1000 MW installed capacity	Chief Operating Officer (O&M)	sudip.nag@adani.com
40	Apraava Energy Private Limited		CEO	niraj.gupta@apraava.com
41	Aravali Power Company Pvt. Ltd		CEO	brahmajig@ntpc.co.in
42	JSW Hydro Energy Limited		Head Regulatory & Power Sales	jyotiprakash.panda@jsw.in
43	Lalitpur Power Generation Company Ltd		Managing Director	vksbankoti@bajajenergy.com
44	MEIL Anpara Energy Ltd		COO & WTD, Executive Director	anandkumar.singh@meilanparapower.com
45	MEJA Urja Nigam Ltd.		CEO	hopmeja@ntpc.co.in
46	Nabha Power Limited		CEO	sk.narang@larsentoubro.com
47	Neyveli Uttar Pradesh Power Limited (NUPPL) Ghatampur		CEO	nomination awaited
48	Prayagraj Power Generation Co. Ltd.		Head (Commercial & Regulatory)	anurag.shukla@tatapower.com
49	Rosa Power Supply Company Ltd		Station Director	Hirday.tomar@relianceada.com
50	Talwandi Sabo Power Ltd.		Head Regulatory & Policy Advocacy	arun.kumar@vedanta.co.in
51	XL Xergi Power Pvt. Ltd.	IPP having less than 1000 MW installed capacity (alphabetical rotational basis)		nomination awaited
52	UT of J&K	From each of the Union Territories in the region, a representative nominated by the administration of the Union Territory concerned out of the entities engaged in generation/ transmission/ distribution of	Chief Engineer, JKSPDCL/JKPDD	cejkpcl2@gmail.com/sojpdd@gmail.com
53	UT of Ladakh		Chief Engineer, LPDD	cepdladakh@gmail.com
54	UT of Chandigarh		Superintending Engineer, EWEDC	seelo-chd@nic.in
55	NVVN	Nodal Agency appointed by the Government of India for coordinating cross-border power transactions		ceonvvn@ntpc.co.in
56	BRPL	Private Distribution Company in region (alphabetical rotational basis)		nomination awaited
57	NRSS-XXIX Transmission Ltd	Private transmission licensee (nominated by central govt.)		nomination awaited
58	Shree Cement Limited	Electricity Trader (nominated by central govt.)		nomination awaited
59	Adani Green Energy Limited	RE Generating Company having more than 1000 MW installed capacity	COO	chaitanya.sahoo@adani.com
60	Avaada Energy Private Limited		CEO	kishor.nair@avaada.com
61	Azure Power India Pvt. Limited		CEO	sunil.gupta@azurepower.com
62	NTPC Green Energy Limited		CEO	ceongel@ntpc.co.in
63	ReNew Power Private Limited		CEO	sumant@renew.com
64	SJVN Green Energy		CEO	nomination awaited

TCC Members for FY 2026-27				
S. No.	**Member Organisation**	**Category**	**Nominated/ Notified/Delegated Member**	**E-mail**
1	Chairperson, TCC	Chairperson, TCC		
2	CEA	Central Electricity Authority		cegm-cea@gov.in
3	NLDC	National Load Despatch Centre		mkagarwal@grid-india.in
4	NRLDC	Northern Regional Load Despatch Centre	Executive Director	sajan@grid-india.in
5	CTUIL	Central Transmission Utility	Chief Operating Officer	vbagadia@powergrid.in
6	PGCIL	Central Government owned Transmission Company	ED, NR-I	aloksharma99@powergrid.in
7	NTPC	Central Generating Company	Regional ED, NR	rednr@ntpc.co.in
8	BBMB		Member (Power)	mp@bbmb.nic.in
9	THDC		GM (EMD)	neerajverma@thdc.co.in
10	SJVN		Director (Projects)	de.sectt@sjvn.nic.in
11	NHPC		ED (O&M)	hod-om-co@nhpc.nic.in
12	NPCIL		Outstanding Scientist & ED (commercial)	nrchoudhary@npcil.co.in
13	Delhi SLDC	State Load Despatch Centre		nomination awaited
14	Haryana SLDC		Chief Engineer/SO & Comml.	cesocomml@hvpn.org.in
15	Rajasthan SLDC		Superintending Engineer (SOLD) RVPN	SE.SOLD@RVPN.CO.IN
16	Uttar Pradesh SLDC		Chief Engineer (PSO)/Chief Engineer (C&S)	cepso@upsldc.org
17	Uttarakhand SLDC			nomination awaited
18	Punjab SLDC		Chief Engineer	ce-sldc@pstcl.org
19	Himachal Pradesh SLDC			nomination awaited
20	DTL	State Transmission Utility	Director (Operation)	dir.opr@dtl.gov.in
21	HVPNL		Director (Projects)	directorprojects@hvpn.org.in
22	RRVPNL		Chief Engineer (PP&D)	ce.ppm@rvpn.co.in
23	UPPTCL		Director (Planning & Commercial)	director_comm@upptcl.org
24	PTCUL		Chief Engineer	ce_oandmk@ptcul.org
25	PSTCL		Director / Technical	dir-tech@pstcl.org
26	HPPTCL		GM (C&D)	gmcd.tcl@hpmail.in
27	IPGCL	State Generating Company	Director(Tech.)	corporate.ppcl@gmail.com
28	HPGCL		Director/Technical	dirtech@hpgcl.org.in
29	RRVUNL		Dy. Chief Engineer	dyce.elect.katpp@rrvun.com
30	UPRVUNL		Director (Technical)	director.technical@uprvunl.org
31	UJVNL		General Manager	kkjaiswal99@gmail.com
32	HPPCL		Director (Electrical) General	dir_elect@hppcl.in gm_elect@hppcl.in
33	PSPCL	State Generating Company & State owned Distribution Company		nomination awaited
34	UHBVN	State owned Distribution Company (alphabetical rotational basis/nominated by state govt.)	Managing Director	nomination awaited
35	Jaipur Vidyut Vitran Nigam Ltd.		Managing Director	nomination awaited
36	Dakshinanchal Vidyut Vitaran Nigam Ltd.		Managing Director	nomination awaited
37	UPCL		Director (P)	dpupcl29@gmail.com
38	HPSEB			nomination awaited
39	Adani Power Rajasthan Limited	IPP having more than 1000 MW installed capacity	AVP	Manoj.taunk@adani.com
40	Apraava Energy Private Limited			nomination awaited
41	Aravali Power Company Pvt. Ltd		CEO	brahmajig@ntpc.co.in
42	JSW Hydro Energy Limited		Head of Plant	kaushik.maulik@jsw.in
43	Lalitpur Power Generation Company Ltd		GM Electrical	aupadhyay.ltp@lpgcl.com
44	MEIL Anpara Energy Ltd		COO & WTD, Executive Director	arun.tholia@meilanparapower.com
45	MEJA Urja Nigam Ltd.		GM (O&M)	piyushkumar@ntpc.co.in
46	Nabha Power Limited			nomination awaited
47	Neyveli Uttar Pradesh Power Limited (NUPPL) Ghatampur			nomination awaited
48	Prayagraj Power Generation Co. Ltd.		Head – Commercial & Regulatory	Sanjay.bhargava@tatapower.com
49	Rosa Power Supply Company Ltd		VP-Technical Services	Niranjan.Jena@relianceada.com
50	Talwandi Sabo Power Ltd.		Dy. Head O&M	ravinder.thakur@vedanta.co.in
51	XL Xergi Power Pvt. Ltd.	IPP having less than 1000 MW installed capacity (alphabetical rotational basis)		nomination awaited
52	UT of J&K	From each of the Union Territories in the region, a representative nominated by the administration of the Union Territory concerned out of the entities engaged in generation/ transmission/		nomination awaited
53	UT of Ladakh			nomination awaited
54	UT of Chandigarh			seelo-chd@nic.in
55	NVVN	Nodal Agency appointed by the Government of India for coordinating cross-border power transactions		VIKASKUMAR04@NTPC.CO.IN
56	BRPL	Private Distribution Company in region (alphabetical rotational basis)		nomination awaited
57	NRSS-XXIX Transmission Ltd	Private transmission licensee (nominated by central govt.)		nomination awaited
58	Shree Cement Limited	Electricity Trader (nominated by central govt.)		nomination awaited
59	Adani Green Energy Limited	RE Generating Company having more than 1000 MW installed capacity		nomination awaited
60	Avaada Energy Private Limited			nomination awaited
61	Azure Power India Pvt. Limited			nomination awaited
62	NTPC Green Energy Limited			nomination awaited
63	ReNew Power Private Limited			nomination awaited
64	SJVN Green Energy			nomination awaited

Special Invitees:

1. Smt. Rishika Saran, Member Secretary, NPC, Sewa Bhawan, R. K. Puram, New Delhi-66 [Email-rishika@nic.in]
2. Shri Deepak Kumar, Member Secretary, WRPC, Plot No- F-3, MIDC Area, Marol, Opp. SEEPZ, Central Road, Andheri (East), Mumbai-40093. [Email: ms-wrpc@nic.in]

3. Shri Asit Singh, Member Secretary, SRPC, No.29, Race Course Cross Road, Bengaluru-560009. [Email: mssrpc-ka@nic.in]
4. Shri K B Jagtap, Member Secretary, ERPC,14,Golf Club Road, ERPC Building, Tollygunje,Kolkata-700033.[Email: mserpc-power@nic.in]
5. Shri Brieflee Lyngkhoi, Member Secretary, NERPC, NERPC Complex, Dong Parmaw, Lapalang, Shillong-793006. [Email: ms-nerpc@gov.in]

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Annexure-A.I

सत्यमेव जयते

उत्तर क्षेत्रीय विद्युत समिति

NORTHERN REGIONAL POWER COMMITTEE

Procedure for Approval of Protection Settings in Northern Region

(In reference to regulation 14 of IEGC 2023)

Version: 1.0

(Approved in 75th NRPC meeting held on 28.08.2024)

August, 2024

A. Procedure in case of new element charging

1. ISTS users shall submit the protection settings to NRPC and NRLDC for every new element to be commissioned one month in advance through mail.
   In case of intrastate elements, users shall submit the protection settings to NRPC and concerned SLDC for every new element to be commissioned one month in advance through mail.
2. NRLDC based on the above information and the First Time Charging (FTC) request by user through Outage Management System (OMS) portal of NRLDC, shall allow integration of new element in the system as per NRLDC FTC procedure with the prevailing practice to avoid any delay in charging of the new element. The settings shall be treated as provisional arrangement till approval in PSC (Protection Sub-Committee).
   In case of intrastate elements, SLDC shall allow integration of new element in the system. This shall be treated as provisional arrangement till approval in PSC.
3. NRLDC/SLDCs may ask any other relevant data/information from concerned utilities during scrutiny of settings.
4. Users will be responsible for any revision in settings of the existing element required due to charging of new element. The settings shall be treated as provisional arrangement.
5. The concerned utility shall put up the agenda for getting final approval in next PSC.
6. NR PSC will review and approve the final settings based on the inputs submitted by the utility. In case of any change required in final protection settings of the new element than the provisional one, as decided by the committee, the same shall be implemented within 7 days by the concerned utility.
7. Utility shall intimate to NRPC Secretariat and NRLDC/SLDC (as applicable) within fortnight after implementation of settings for record in regional protection settings database.

B. Procedure in case of revision of settings of any existing element (without any changes in network configuration):

1. Any change in the existing protection settings shall be carried out only after prior approval from PSC Forum of NRPC.
2. The concerned utility (both ISTS and intrastate) shall put up an agenda regarding any changes required in existing protection settings due to integration of new element in the existing system or otherwise, in PSC.
3. Utility shall intimate to NRLDC/SLDC (as applicable) and NRPC about the changes implemented in protection system or protection settings within 15 days of such changes.

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Annexure-A.II

सत्यमेव जयते

उत्तर क्षेत्रीय विद्युत समिति

NORTHERN REGIONAL POWER COMMITTEE

Procedure for Approval of Protection Settings in Northern Region

(In reference to regulation 14 of IEGC 2023)

Version: 2.0

(Approved in 64th PSC meeting held on 21.11.2025)

December, 2025

A. Scope:

This procedure shall be applicable for elements of voltage level 220 kV and above. ISTS elements shall be covered irrespective of voltage level. For state-owned elements below 220 kV level, SLDCs may approve protection settings at their level.

B. Procedure in case of new element charging

1. ISTS users shall submit the protection settings to NRPC and NRLDC for every new element to be commissioned one month in advance through mail.
   In case of intrastate elements, users shall submit the protection settings to NRPC and concerned SLDC for every new element to be commissioned one month in advance through mail.
2. NRLDC based on the above information and the First Time Charging (FTC) request by user through Outage Management System (OMS) portal of NRLDC, shall allow integration of new element in the system as per NRLDC FTC procedure with the prevailing practice to avoid any delay in charging of the new element. The settings shall be treated as provisional arrangement till approval in PSC (Protection Sub-Committee).
   In case of intrastate elements, SLDC shall allow integration of new element in the system. This shall be treated as provisional arrangement till approval in PSC.
3. NRLDC/SLDCs may ask any other relevant data/information from concerned utilities during scrutiny of settings.
4. Users will be responsible for any revision in settings of the existing element required due to charging of new element. The settings shall be treated as provisional arrangement.
5. NRLDC and SLDCs shall provide list of protection settings approved provisionally during FTCs allowed in the previous month by 7th date of month to NRPC Secretariat in prescribed format. NRLDC and SLDCs shall provide access of FTC portal to NRPC Secretariat for download of settings for final approval of settings in upcoming PSC. In case, FTC portal is not in use by states, SLDC shall provide compiled settings of all FTCs by 7th date of month to NRPC Secretariat via e-mail.
6. In case, conditional approval of protection settings has been issued by

NRLDC/SLDCs, the same shall be mentioned in list to be provided monthly by NRLDC/SLDCs.

7. PSC will review and approve protection settings approved provisionally by NRLDC during FTCs. In case of any change required in final protection settings of the new element than the provisional one, as decided by the committee, the same shall be implemented within 7 days by the concerned utility.
8. Utility shall intimate to NRPC Secretariat and NRLDC/SLDC (as applicable) within fortnight after implementation of settings for record in regional protection settings database.

C. Procedure in case of revision of settings of any existing element (without any changes in network configuration):

1. Any change in the existing protection settings shall be carried out only after prior approval from PSC Forum of NRPC.
2. The concerned utility (both ISTS and intrastate) shall put up an agenda regarding any changes required in existing protection settings due to integration of new element in the existing system or otherwise, in PSC.
3. Utility shall intimate to NRLDC/SLDC (as applicable) and NRPC about the changes implemented in protection system or protection settings within 15 days of such changes.

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Annexure-A.III

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

Date: 08 Apr 2026

विषय: Discussion on cases of Transmission tower failure and restoration time for the purpose of availability certification-reg.

Kindly find attached minutes of the meeting held on 17.03.2026(10:30 AM) **at NRPC Secretariat, Katwaria Sarai, New Delhi** to discuss the cases of Transmission tower failure and restoration time for the purpose of availability certification.

This issues with approval of MS, NRPC.

DHARMENDER KUMAR MEENA
Digitally signed by DHARMENDER KUMAR MEENA
Date: 2026.04.09 14:48:42 +05'30'

डी. के. मीणा
निदेशक (संरक्षण)

सेवा में,

1. **CGM, PowerGrid (NR-I); gsrrao@PowerGrid.in**
2. **CGM, PowerGrid (NR-II); ahmed.shafat@PowerGrid.in**
3. **CGM, PowerGrid (NR-III) (pankajsharma@PowerGrid.in)**
4. **Sh. Ashok Kumar, CGM, NRLDC, Grid-India (ashokkr@grid-india.in)**
5. **Sh. Lokendra Singh Ranawat, Head Regulatory, NRSSXXIX (lokendra.ranawat@NRSSXXIX.com)**
6. **Sh. Rajnish Mehrotra, Head, Regulatory, NRSSXXXVI Transmission Limited; nrss-rajnishmehrotra@tatapower.com**
7. **Sh. Vinay Sharma, PowerGrid Himachal Transmission Limited;(vinay.s@phtl.in)**
8. **Sh. Sumit Garg, Associate Vice President – Commercial, AD Hydro Power Limited (sumitgarg@lnjbhilwara.com)**

Minutes of the meeting held on 17.03.2026 (10:30AM) at NRPC Secretariat, Katwaria Sarai, New Delhi to discuss the cases of Transmission tower failure and restoration time for the purpose of availability certification.

MS, NRPC welcomed all the participants. List of participants is attached as Annexure-P. She asked AE (Protection) to to discuss the cases of Transmission tower failure and restoration time for the purpose of availability certification.

Case of NRSS XXXVI:

Case 1: Outage of 400 KV Babai-Bhiwani Transmission Line Ckt 2 (6/13/2025 3:30:00 PM to 7/1/2025 04:14 PM) & Ckt 1 from 6/13/2025 3:30:00 PM to 07/16/2025 01:40 PM (Restoration on ERS):

400 KV Babai-Bhiwani Transmission Line Ckt 1 (9:45 Hrs. of 24.10.2025 to 10:18 Hrs. of 30.10.2025) (144:32 Hrs.) and 400 KV Babai-Bhiwani Transmission Line Ckt 2 (11:54 Hrs. of 30.10.2025 to 06.11.2025 16:37 Hrs.) (172:43 Hrs.) (Restoration on Permanent Tower)

1.1 AE(Protection) apprised that case was discussed in meeting held on 17.09.2025 (Case 2.3) through VC to discuss the issues of outages taken and restoration period of transmission assets for purpose of Transmission System Availability. It was decided to discuss the case in a separate meeting when NRSS XXXVI will submit day-wise activity done by them. Further **NRSS XXXVI Limited was given Two opportunity in past meetings to represent the case of instant line failure of 400 kV Babai-Bhiwani and day-wise activity upon restoration. However, no representative joined the meeting held on 03.10.2025 and 03.12.2025.**

1.2 AE(Protection) apprised that as per Minutes of the meeting of Standing Committee of Experts on failure of EHV transmission towers failed during the period from January 2025 to June 2025(case-xxi) It was concluded that- "***After detailed deliberations, it was concluded that the primary cause of failure was the impact of high-velocity dust and wind storms. Furthermore, NRSSXXXVI was recommended to analyse requirement to increase the reliability level at power line crossings to ensure greater structural stability*.**"**

1.3 EE(Protection) stated that as per above report it can be concluded that said failure was not a design failure and asked the Licensee to discuss the restoration of line on ERS and permanent towers.

1.4 NRSS 36 representative apprised that tower was collapsed on **13.06.2025** and restoration could only be started after visit of standing committee of expert on **20.06.2025** in mean time material dispatch and ERS location were identified and ckt-2 of 400 KV Babai-Bhiwani Transmission Line was restored on **01.07.2025**, which has been completed in less than 12 days after visit of standing committee of expert. He further apprised that due to Line crossing of M/s Adani which were earlier under passing with the said 400kV Babai-Bhiwani

Line before collapse, however, during restoration of 400kV Babai-Bhiwani Line ckt-1 and ckt-2 on ERS, Gantry 1 and 2 were installed on ERS, to restore 400kV Babai-Bhiwani Line by under passing below M/s Adani Line which also result in to more time in restoration. Day wise restoration plan which was presented by Licensee is attached as **Annexure-1.**

1.5 MS, NRPC stated that from **13.06.2025** to **20.06.2025**, No work has been done. ERS has reached site on 19.06.2025. Licensee could have arranged ERS timely.

Upon this, Licensee has clarified that they do not have any ERS as their asset has less than 150km long line. Therefore, ERS was arranged and transported from Different part of Northern India i.e. Lucknow, Mandola and Muzaffarpur (Bihar) which took 4-5 days in transportation.

1.6 SE, NRPC stated that as per CERC, Standards of Performance of inter-State transmission licensees) Regulations, 2012, maximum restoration time (in Days) after tower collapse is 12 for ERS.

1.7 NRSS 36 apprised that **ckt-2** was charged on **01.07.2025** and after that ERS for **ckt-1** was also arranged and restoration work for **ckt-1** could started from **06.07.2025.** Due to severe ROW prone area and due to rainy season, work hampered many times during restoration of Line. He also highlighted that restoration of 400kV Babai-Bhiwani Line by under passing below M/s Adani Line (with help of Gantry 1 & 2 for both circuit **separately**) resulted into more time in restoration time. He stressed that due to gantry arrangement, both lines were restored separately. Further, ERS arrangement was also a challenge as network length is less than 150 km. He also highlighted that Approval for Electrical clearance were also taken from M/s ATIL for both circuits of said Line during underpass arrangement on Gantry towers. Therefore, ckt-2 and ckt-1 was restored separately and parallel work could not be done on both circuit.

1.8 MS, NRPC stated that Licensee may go for MOUs and collaboration with ERS vendors (in case of NRSS36 total ckt-km is less than 500km) for arranging ERS so that line restoration could have been done earlier and 4-5 days may be reduced during restoration. She asked Licensee to show the photographs related to site condition due to rain and ROW evidences, upon which Licensee has presented the photographs and submitted in hard copy.

1.9 EE, NRPC stated that the photograph provided does not substantiate that rainfall rendered the site conditions unsuitable for carrying out the work. Photographs (hard copy submitted vide letter dated 17.03.2026) of protest has no GPS details.

1.10 MS, NRPC stated that the licensee took more than 12 days for restoration on ckt-2, however same can be allowed due to constraint in arranging ERS as licensee has very small network i.e. less than 500 km. However, Licensee may go for MOUs and collaboration with ERS vendors for future.

Further, regarding ckt-I, licensee took 5–6 days to arrange the ERS and other delays for Circuit-1, and parallel restoration of both circuits was not undertaken. However, considering the constraint of number of skilled gangs available for ERS restoration, the Licensee could have arranged the ERS in advance; therefore, this duration may be attributable to the Licensee.

1.11 Licensee may be attributed following outages of **ckt-I:**

Dates	**Details**
02, and 07 July 2025	No work done due to rain however no IMD data submitted for rain. Photographs have no substantial rain scenario visible.
03 July 2025	No work done.
04, & 05 July 2025	No work due to RoW but photographs have no GPS details.

However, for ease of calculation, 5 days may be attributed to licensee in following way: 07/11/2025 01:40 to 07/16/2025 01:40

1.12 AE (Protection) apprised that during restoration of line in permanent configuration, outage of 400 KV Babai-Bhiwani Transmission Line Ckt 1 (9:45 Hrs. of 24.10.2025 to 10:18 Hrs. of 30.10.2025) (**144:32 Hrs**.) and 400 KV Babai-Bhiwani Transmission Line Ckt 2 (11:54 Hrs. of 30.10.2025 to 06.11.2025 16:37 Hrs.) (**172:43 Hrs**.) were taken.

1.13 SE, NRPC stated that the time taken for restoration in permanent configuration was significantly high (approximately 144 hours for Circuit-1 and 172 hours for Circuit-2). The Licensee clarified that the physical restoration was completed within 2 days; however, additional time of 3-4 days was incurred due to the visit of the Electrical Inspector and receipt of charging clearance from CEA. Day wise restoration plan submitted in hard copy at NRPC Secretariate

1.14 EE, NRPC asked whether any compliances were observed during visit of Electrical inspector upon this Licensee has clarified that compliances were rectified on same day upon receiving letter from CEA.

1.15 MS, NRPC stated that time taken for permanent restoration for both circuits may be considered as forced majeure event beyond the control of Licensee for the availability calculation purpose.

Decision:

As the case involves outage of more than 01 month, it may be put up in upcoming TCC/NRPC meeting for decision on availability with following recommendation:

(Restoration on ERS):

- Outage of 400 KV Babai-Bhiwani Transmission Line Ckt 2 from **6/13/2025 3:30:00 PM to 7/1/2025 04:14 PM)** may be considered under forced majeure condition beyond the control of Licensee.
- Outage of 400 KV Babai-Bhiwani Transmission Line Ckt 1 from **6/13/2025 3:30:00 PM to 07/11/2025 01:40** may be considered under forced majeure condition beyond the control of Licensee and from **07/11/2025 01:40 to 07/16/2025 01:40** may be attributed to Licensee.
- Outage taken in Restoration of said line on permanent configuration is considered under forced majeure event beyond the control of Licensee.

Case 2: Case of ADHPL

Outage due to AD HYDRO tower collapse

- 220 kV AD Hydro-Nallagarh Ckt-1 (11:08 Hrs of 20.08.2025 to 15:55 Hrs of 19.09.2025) (724:46 hrs.) **[On ERS]**
- 220 kV AD Hydro-Nallagarh Ckt-1 (03.10.2025 09:24 Hrs to 17:10 Hrs) **[permanent tower]**
- 220 kV Phozal (HP)-NalagarhCkt-1 (11:08 Hrs of 20.08.2025 to 13:33 Hrs. of 08.10.2025 (1178:24 hrs.) **[permanent tower]**

Outage due to HPPTCL tower collapse:

- 220 kV Phozal (HP)-Nalagarh Ckt-1 **(13:33 Hrs. of 08.10.2025 to (till date)**
- 220 kV AD Hydro(AD)-Phozal(HP) Ckt-1 **(12:20 Hrs. of 26.08.2025 to 13:37 Hrs. of 25.09.2025 (721:17 hrs.) (By-Passing HPPTCL Collapsed Tower)**

2.1 ADHPL representative apprised the SLD of Transmission Lines maintained by AD-Hydro. He further stated that, 220 kV AD Hydro-Nallagarh Ckt-1 and 220 kV Phozal-Nalagarh Ckt-1 was in outage from **11:08 Hrs of 20.08.2025** due to collapse of Tower No.157-158 of Ad-hydro jurisdiction due to landslide and falling of heavy boulders. Further Licensee has restored 220 kV AD Hydro-Nallagarh Ckt-1 with the help of 1 number ERS on **19.09.2025**.

2.2 However in between of this event Tower No. 1 on the HPPTCL owned D/C LILO of the 220 kV Ad Hydro-Phozal and 220kV Phozal–Nalagarh transmission line (6.7 km section) collapsed on **26 August 2025 at 12:20.** As Tower No. 157 and 158 was permanently restored on **08.10.2025,** 220 kV AD Hydro-Nallagarh Ckt 1 was restored to permanent configuration and at this location 220 kV Phozal-Nalagarh Ckt-1 was also restored as both lines are on same tower, however 220kV Phozal–Nalagarh transmission line was still in outage due to collapse of Tower 1 of HPPTCL portion.

2.3 Licensee has also mentioned that HPPTCL have temporarily restored the 220 kV AD Hydro(AD)-Phozal(HP) (ADHPL) Ckt-1 on **25.09.2025** by stringing the conductors directly from Tower No.-2 to the gantry and are still in similar configuration and 220kV Phozal–Nalagarh was still in outage. This matter was discussed in 241th OCC meeting also.

2.4 AE(Protection) informed that outages which are attributed to AD-Hydro due to collapse of tower 157 and 158. No information was given to PSETD division of CEA and NRPC also this case was not included in the discussion in meeting of

standing committee of Expert which was held on **10.03.2026 (Tuesday)** at **10:30 A.M at CEA.**

2.5 NRPC Secretariate mentioned that **Standing Committee of Experts to investigate the failure of towers** is constituted by CEA vide letter dated 30.09.1999 and re-constituted vide CEA's letter No. CEA/5-41(18)/Secy-2012/166 dated 06.08.2012 where representative from CEA, CPRI, STU, and RPC visits failure site and submit the report. **(Copy of Order attached**). Each utility shall report such cases within 24 hrs. to CEA PSETD & CEI division and NRPC and arrange a visit of affected location.

2.6 ADHPL representative stated that their system has been considered as ISTS in recent years and they have started adopting the procedures and complying with the regulations which are related to ISTS transmission system hence in all future cases such information will be reported to CEA PSETD & CEI division and NRPC.

2.7 SE, NRPC asked the licensee to validate the fact that said event was due to natural calamity and beyond the control of Licensee.

2.8 ADHPL representative apprised that during collapse of tower 157-158 on **20.08.2025,** information was received from the 220/132 kV Sub Station HPPTCL Chauror that a landslide had occurred near Brehan village resulting in falling of heavy boulders which have damaged two 220 kV towers. The Transmission Line Team was rushed to the spot and it was confirmed that the landslide, involving heavy boulders, has caused critical damage to our transmission line towers resulting in collapse of two towers i.e. Tower no. 157 and 158**.**

2.9 ADHPL also presented a video recorded by local villagers showing a landslide involving heavy boulders, which damaged one tower and caused the collapse of another tower due to the pull effect of the first tower. They have also presented the photographs related to collapse of tower 157 and 158.

2.10 SE, NRPC stated that neither the video recorded nor the photograph submitted by Licensee are having GPS and time tagged. Hence it is difficult to validate the licensee claim as state above. Upon this, Licensee has mentioned that during this time heavy rainfall occurred in this area and mining of limestone and weather phenomena has increased the events of landslides in this area. He further informed that this line has many points where there is no accessibility hence capturing GPS and time tagged photographs may not be possible however in all future event efforts will be made to provide such information to NRPC.

2.11 SE, NRPC asked the licensee to submit GPS and time tagged photograph of present scenario at the same location where tower was collapsed and new towers have been erected, so that previous submitted photograph could be validated. However, no such photograph was submitted by Licensee.

2.12 MS, NRPC stated that, in view of the representation received from the Licensee regarding submission of GPS and time-tagged photographs of the said event, a one-time relaxation may be granted to ADHPL for this instance only. Since ADHPL has no experience of such event reporting. However, in all future cases, proper supporting documents (GPS and time tagged photograph of affected location and closeup photographs of tower structure/stubs/chimney etc.) shall

be submitted for validation of the cause, and this relaxation shall not be treated as a precedent for any decisions made by the NRPC Secretariat.

2.13 MS, NRPC asked the reason behind delayed restoration of Line **220 kV AD Hydro-Nallagarh Ckt-1 on ERS which has taken around one month**. Upon this AD-Hydro presented the challenges faced in restoration of said line and day wise restoration plan. Presentation shown by ADHPL is attached as **Annexure II.**

2.14 EE, NRPC state that upon reviewing the day wise activity, it has been seen that work has been processed very slowly. He asked the Licensee to submit the rainfall data to validate the claim. However, no rainfall data was submitted by Licensee.

2.15 ADHPL representative mentioned that There were heavy rains even after the collapse of tower nos. 157 & 158 due to which the restoration work was disrupted for eight days. Landslides occurred at different places on the road to the location of the towers resulting in loss of man-hours. The road from Jari to Bhuntar was blocked at many locations due to which the workers had to travel on foot to reach the work place resulting in loss of man-hours. Head loading of Tower material from Bhrain bridge to T. No. 158 & 157 had to be done as the road was blocked at various locations due to landslides. Despite the above constraints one circuit was restored on 19th September, 2025 installation of ERS.

2.16 MS, NRPC stated that outage of 220 kV AD Hydro-Nallagarh Ckt-1 **(11:08 Hrs of 20.08.2025 to 15:55 Hrs of 19.09.2025 (724:46 hrs.)** on ERS and **during permanent restoration (03.10.2025 09:24 to 17:10)** shall be considered under forced majeure event beyond the control of licensee.

2.17 MS, NRPC stated that the outage of 220 kV Phozal(HP)-Nallagarh Ckt**-1 from 11:08 Hrs of 20.08.2025** to **11:08 Hrs. of 20.09.2025** (for 31 days i.e. one Month) shall be considered under forced majeure event beyond the control of licensee and from **11:08 Hrs. of 20.09.2025** to **11:08 Hrs. of 20.11.2025** shall be considered under forced majeure event beyond the control of licensee upon approval in NRPC meeting. She further stated that outage of same line from **11:08 Hrs. of 20.11.2025 to till date** (as line is not restored yet), Licensee shall take approval from CERC for claiming under force majeure event beyond the control of Licensee.

2.18 MS, NRPC stated that outage of 220 kV AD Hydro(AD)-Phozal(HP) Ckt-1 is due to collapse of HPPTCL LILO portion of tower and as stated by Licensee, Line is temporary restored bypassing the collapsed tower, hence outage from **(12:20 Hrs. of 26.08.2025 to 13:37 Hrs. of 25.09.2025 (721:17 hrs.)** may be attributed to others due to collapse of LILO portion of HPPTCL.

2.19 ADHYDRO has submitted rainfall data vide mail dated 07.04.2026 in support of their claim during meeting.

Decision:

As the case involves outage of more than 01 month, it may be put up in upcoming TCC/NRPC meeting for decision on availability with following recommendation:

- Outage of 220 kV AD Hydro-Nallagarh Ckt-1 (**11:08 Hrs of 20.08.2025 to 15:55 Hrs of 19.09.2025 (724:46 hrs.)** on ERS and **during permanent restoration (03.10.2025 09:24 to 17:10)** may be considered under forced majeure event beyond the control of licensee.
- 220 kV Phozal (HP)-NalagarhCkt-1: Following outage may be considered under forced majeure event beyond the control of licensee:
  - (11:08 Hrs of 20.08.2025 to 13:33 Hrs. of 08.10.2025 (1178:24 hrs.) [restoration on permanent ADHYDRO tower]
  - (13:33 Hrs. of 08.10.2025 to 11:08 Hrs. of 20.11.2025) [Outage due to HPPTCL tower collapse]
- 220 kV Phozal (HP)-NalagarhCkt-1; 11:08 Hrs. of 20.11.2025 to till date, availability may be decided by Hon'ble CERC after petition by licensee to Hon'ble commission.
- 220 kV AD Hydro(AD)-Phozal(HP) Ckt-1 (12:20 Hrs. of 26.08.2025 to 13:37 Hrs. of 25.09.2025 (By-Passing Collapse Tower)) (721:17 hrs.) may be attributed to others due to collapse of LILO portion of HPPTCL.
- In view of the representation received from the Licensee regarding submission of GPS and time-tagged photographs of the said event, a one-time relaxation may be granted to ADHPL for this instance only. However, in all future cases, proper supporting documents shall be submitted for validation of the cause, and this relaxation shall not be treated as a precedent for any decisions made by the NRPC Secretariat.
- In future, all event of tower collapse shall be reported to CEA and NRPC timely.

Cases of NRSSXXIX:

Case 3.1: 400 kV Jalandhar (PG)-Samba (PG)-I from 26/08/2025 5:13:00 PM to 30/09/2025 6:40:00 PM and 400 kV Jalandhar (PG)-Samba (PG)-II from 26/08/2025 5:13:00 PM to 16/10/2025 05:20 PM

3.1.1 AE(Protection) apprised that outage of above line was discussed in meeting held on 03.12.2025 and it was decided that CEA may be requested for visit of standing committee of expert, to identify cause of towers collapse and committee may assess time taken in restoration by M/s NRSSXXIX, Accordingly committee has visited the site and internal report is submitted to CE, PSETD division. However, final report of Standing committee of Expert is awaited *(CEA Report has been issues vide letter dated 06.04.2026 i.e. after meeting).*

3.1.2 NRSSXXIX Representative apprised that Tower at location 236 has completely collapsed with damages in the adjacent tower number 235 and 237. Also, peak and crossarm has damaged at location no. Nos. 234 & 238. It was observed that the foundation of tower no 236 was damaged due to flooding & soil erosion, while for other towers, the foundations were not affected.

3.1.3 He further stated that failed tower was in a plain terrain, (Previous Google image were shown in meeting) which was impacted adversely due to unprecedented flooding of river Ravi which led to widening of the river flow and subsequent change in river course. It was also observed that this excessive flooding might have resulted in substantial soil erosion of 4-5 meters thereby damaging the tower foundation. The photographs as well as the subsequent site visit clearly indicated that the entire area had been inundated due to heavy flooding. He also presented the discharge data of water of nearby dam, which was excessively high.

3.1.4 MS, NRPC asked NRSSXXIX to explain the delay in restoration (on ERS) as there was around **35 days** taken in restoration of circuit -1 and around **51 days** taken in restoration of circuit-2.

3.1.5 NRSSXXIX Representative has presented the day wise restoration plan and shown the photographic evidence on the site conditions and accessibility post failure. He apprised that the locations were flooded and hence were not accessible till **31.08.2025** as water level was very high and it was continuously raining. However, the restoration work could be taken up only after the water receded from the nearby areas. And ckt-1 was restored on **30.09.2025** with the help of 4 Nos ERS. Photographs of water level was shown.

3.1.6 MS, NRPC stated that as per photograph dated 03.09.2025 submitted by NRSS XXIX, damage status was visible in tower no. 236, 237, and 238. As per photograph dated 28.08.2025 of tower no. 236, it can be seen that water level was in receding trend on 03.09.2025. Therefore, ERS movement could have been started from store. Therefore, there is delay in starting movement of ERS. As IndiGrid is having large network of lines (more than 500 km), ERS availability is expected. ERS could have reached in 3 days (by 06.09.2025) but it reached actually on 13.09.2025 due to delay from IndiGrid decision making. Accordingly, outage of **06.09.2025 05:13 PM to 13.09.2025 05:13 PM may be attributed to licensee.**

3.1.7 NRSSXXIX Representative stated that another critical challenge was placement of guy wires for ERS placed on the river shore, the guy wires are typically anchored using swivel type anchor, however the nature of soil prevented placement of such anchors. This was mitigated by anchoring the guy wire using short piles (small concrete blocks). This also result in to more time in restoration on ERS.

3.1.8 MS, NRPC asked NRSSXXIX to explain the reason behind the delay in restoration of **ckt-2,** which took around **51 days.**

3.1.9 NRSSXXIX representative stated that restoration work of Circuit 2 was only taken up in the month of **October 2025**, while starting the restoration work of Circuit-2 the preliminary issues was increase of width of Ravi River, which at that time was approx. 600 meters. This led to an increase in span length beyond 600 meters thereby impacting the sag of conductor which was critically less than the safe clearance from the flowing river. Hence, they have waited for water level to come down so that proper electrical clearance can be maintained.

3.1.10 It was further informed that the region encountered another episode of incessant rainfall in the first week of **October 2025** which increased the water flow in Ravi

River due to opening of damns from the upstream sections. This adversely affected the restoration work as the **Circuit-1** which was operation was also impacted due to increased river flow. The guy wires placed for one of the ERS towers near to the river got displaced due to soil erosion post increase in flow of river during excessive rainfall. In view of the same an outage was taken for addressing the issue of buckling of ERS. He apprised that restoration activities started once the water receded and Circuit-2 was restored by **16.10.2025** with the help of 2 No of ERS. Day wise restoration plan for CKt-2 were also presented by NRSSXXIX.

3.1.11 SE, NRPC asked the status of instant line restoration on Permanent Tower.

3.1.12 NRSSXXIX stated that process of restoring the line on original coordinates through fresh pile foundation has been started and assured that restoration of line through permanent towers will complete before the start of next rainfall.

3.1.13 MS, NRPC stated that mobilization and erection of ERS for restoration of the line shall be carried out within the minimum possible time, considering grid reliability requirements. However, based on the day-wise restoration plan submitted by the Licensee, it was observed that there was a delay in mobilization and deployment of ERS. Accordingly, such delay period shall be attributable to the Licensee.

3.1.14 MS, NRPC stated that for restoration of ckt-2 of line on ERS, partial dismantling of tower no. 237 was started by NRSSXXIX on 28.09.2025 and it was restored on 03.10.2025. Thereafter, further ERS towers were installed. However, it could have been done parallelly with ckt-I restoration. Therefore, attribute may be done as per below:

Line	From	To	Attribute
400 kV Jalandhar (PG)-Samba (PG)-I	**26/08/2025 5:13:00 PM**	06/09/2025 **5:13:00 PM**	Natural Calamity
	06/09/2025 **5:13:00 PM**	13/09/2025 **5:13:00 PM**	Licensee
	13/09/2025 **5:13:00 PM**	**30/09/2025 6:40:00 PM**	Natural Calamity
400 kV Jalandhar (PG)-Samba (PG)-II	**26/08/2025 5:13:00 PM**	06/09/2025 **5:13:00 PM**	Natural Calamity
	06/09/2025 **5:13:00 PM**	27/09/2025 24:00	Licensee
	28.09.2025 00:00	16/10/2025 05:20 PM	Natural Calamity

3.1.15 Regarding another event of ERS buckling on 03.10.2025, NRSS XXIX representative apprised that the region again received unprecedented rainfall

since 01-10-2025, resulting in opening of Ranjit Sagar Dam leading to rise in the water level reaching the anchoring arrangement placed for ERS (**of circuit-1**). Here it is pertinent to highlight that as the soil porosity is poor in the complete area due to flooding, NRSS XXIX had resorted for anchoring of guy wire using small concrete piles instead of conventional anchoring methods for providing better stability and strength to installed ERS. However, this unprecedented rainfall in the region had again created serious threat to the erected ERS system vide which Circuit-1 had been restored, resulting in bending of the ERS structure due to which NRSS-XXIX had to avail emergency shutdown to rectify the issue by tightening the guy wires. (**from 03/10/2025 11:13:00 AM to 03/10/2025 6:42:00 PM**)

3.1.16 MS, NRPC stated that as apprised by NRSS XXIX, outage of Circuit -1 **from 03/10/2025 11:13:00 AM to 03/10/2025 6:42:00 PM** which was restored on ERS, also may be considered as force majeure event beyond the control of licensee.

3.1.17 Report of Standing Committee of Experts on failure of EHV transmission towers failed during the period from July, 2025 to December, 2025 has been issued by CEA vide letter dated 06.04.2026. It also validates the excessive flooding claim of NRSSXXIX.

Decision:

As the case involves outage of more than 01 month, it may be put up in upcoming TCC/NRPC meeting for decision on availability with following recommendation:

Line	From	To	Attribute	Remarks
400 kV Jalandhar (PG)-Samba (PG)-I	**26/08/2025 5:13:00 PM**	06/09/2025 **5:13:00 PM**	Natural Calamity	Due to lack of access of site in view of flooding
	06/09/2025 **5:13:00 PM**	13/09/2025 **5:13:00 PM**	Licensee	Delay at licensee end
	13/09/2025 **5:13:00 PM**	**30/09/2025 6:40:00 PM**	Natural Calamity	Restoration
	03/10/2025 11:13:00 AM	**03/10/2025 6:42:00 PM**	Natural Calamity	Restoration
400 kV Jalandhar (PG)-Samba (PG)-II	**26/08/2025 5:13:00 PM**	06/09/2025 **5:13:00 PM**	Natural Calamity	Due to lack of access of site in view of flooding

	06/09/2025 **5:13:00 PM**	27/09/2025 24:00	Licensee	Delay at licensee end
	28/09/2025 00:00	16/10/2025 05:20 PM	Natural Calamity	Restoration

Case 3.2: Representation Received from NRSS XXIX on availability certificate issued for April, May and June 2025.

3.3.1 AE(Protection) informed that, NRSS XXIX has represented the cases in the month of April, May and June'2025 (**As per attached Annexure-III.II**). These cases were related to tripping of Lines due to foreign material and falling of tree on line conductor. Cases were evaluated based on submitted documents during outage submission time and revised representation received by Licensee, however cause could not be validated based on submitted documents received upon representation.

3.3.2 The NRPC Secretariat observed that, as per the representation received from NRSS XXIX, no entanglement of foreign material with the tower structure or conductor has been demonstrated in any of the cases. Accordingly, the trippings cannot be validated as being caused by foreign material. Further, instances of tripping attributed to the fall of trees from outside the line corridor could not be substantiated, as GPS-tagged, pinpoint photographs of the uprooted tree base and other supporting documents— as advised by the NRPC Secretariat in various meetings— were not submitted by the Licensee.

Decision:

Representation Received from NRSS XXIX on availability certificate issued for April, May and June 2025 shall not be considered and status remain same as earlier decided.

Case 3.3: 400kV Sambha-Amargarh Ckt-1: from 10:43 hrs. of 12/07/2025 to 14:56 hrs. of 12/07/2025 due to cross border shelling.

3.3.1 AE(Protection) apprised that Licensee has availed emergency outage of above line for attending conductor cut defect at the forward span of Tower No. 172 due to cross border shelling. He apprised that similar case of PowerGrid was discussed in meeting held on 17.09.2025 (case 3.9), where it was decided that tripping related to cross border firing is considered deemed available. however, in this case Licensee has identified these issues (conductor-defects) in July(2025)-month.

3.3.2 NRSS XXIX has presented the photographs (**As per attached Annexure-III.III)** of conductor defects and presented that during the periodic patrolling of the 400 kV Samba–Amargarh transmission line on **10.07.2025**, a **potential conductor defect** was observed between **Tower Nos. 172 and 173**. The defect was initially

suspected to be limited to outer aluminium strands based on ground-level imagery. A shutdown of the line was scheduled and taken on **12.07.2025** for physical inspection and attempted repair. During the close-up inspection it was revealed that there was **deep impact point** and **grooving** within the conductor structure, suggesting an external high-velocity impact. Based on visual analysis, the damage pattern **resembles a ballistic or projectile hit**, likely from a **bullet**, possibly due to **recent Indo-Pak border tensions**. The line is approximately 2 km away from the International Border.

3.3.3 MS, NRPC stated that based on the representation presented by NRSS XXIX, outage taken fore rectification work due to cross border firing is considered deemed available.

Decision:

Outage taken for rectification work due to cross border firing is considered deemed available.

Cases of PowerGrid:

Case 4: Outage of 400KV S/C Chamera-1 Chamera-2 Line (26.08.2025, 12:25 Hrs to 08.09.2025 20:11 Hrs (Restored by directly connecting LOC No 79 with 77 Bypassing failed tower):

4.1 PowerGrid representative apprised that Line was manually opened by NHPC at **12:25 Hrs of 26.08.2025** as a precautionary measure for safety of nearby habitat keeping in view flash floods in Ravi and Seva-river endangering the tower and just after switching off the line, tower had washed away along with Tower stubs. He appraised that copy of report submitted by POWERGRID indicate continuous rains, flash floods followed by change in course of river resulting in washing away of tower along with tower stubs. (**Annexure-4**).

4.2 AE(Protection) apprised that instant case was also discussed in meeting of standing committee of Expert which was held on **10.03.2026 (Tuesday)** at **10:30 A.M at CEA.**

4.3 POWERGRID Representative appraised that Tower is located near Chamera-2 HEP and is next to dead end tower. **400 Chamera-1-Chamera 2** line is owned by POWERGRID whereas both end bays are owned by NHPC. Water reservoir of NHPC owned SEWA- 2 HEP is located about 30 KM upstream. POWERGRID Representative further appraised that NHPC has opened line manually without any NRLDC Code at **12:25 Hrs of 26.08.2025** for safety of Chamera plant and nearby habitat as they had apprehension that tower may collapse due to flash floods. He further intimated that Tower had washed away at **12:50 Hrs**, about 25 minutes after manually opening of the line by NHPC. Other documents presented by POWERGRID were GEO tagged photos of collapsed tower, real time Video of flashfloods in Seva river which has changed its path towards tower resulting in washing away of tower as well as its stubs. They also shared newspaper cuttings

indicating 3-4 events of cloud bursts in Chamba area about 25KM upstream from failed tower. Further contents of IMD report were as under,

QUOTE

"Himachal Pradesh has received the 9th highest rainfall (431.3 mm) in August since 1901. This is the highest August rainfall since 1949, with the highest ever recorded in 1927 (542.4 mm)".

4.4 PowerGrid apprised that, this affected location comes under Chamba area which has witnessed rain 93% above normal range as per IMD report.

4.5 SE NRPC asked about the reason behind restoration of line of around 12-13 days by directly connecting LOC No 79 with Bypassing failed tower. He asked PowerGrid to justify the reason as no ERS was installed and line was restored on temporary bypassing the failed tower.

4.6 POWERGRID representative presented that due to continuous rains and flash floods, approach road remains blocked at multiple locations and it took **about 6 days** to clear off the roads and transport material to the locations. POWERGRID representative has shown geo tagged photos of roads washed away as well as roads blocked at multiple locations. Further as per POWERGRID, work was continuous even in rains as well as at night hours. POWERGRID presented photo of work in progress during rainy period using raincoats as well as working during night hours.

4.7 MS NRPC enquired about the technical feasibility of bypassing the tower. POWERGRID representative appraised that both tower **No 77 and 79** are DD type tension towers designed for **60-degree angle tension** whereas actual resultant tension after bypassing failed tower is **35 Degree** only. Also resultant span after bypassing failed tower is **400 Meters only**, which is a normal and desired clearance as per CEA safety standard has also been maintained.

4.8 MS, NRPC stated that as per facts shown by PowerGrid, outage of 400KV S/C Chamera-1 Chamera-2 from **26.08.2025, 12:25 Hrs to 08.09.2025 20:11 Hrs** shall be considered under forced majeure beyond the control of licensee for the availability calculation purpose.

4.9 Report of Standing Committee of Experts on failure of EHV transmission towers failed during the period from July, 2025 to December, 2025 has been issued by CEA vide letter dated 06.04.2026. It also validates the cause of failure as claimed by licensee.

Decision:

- Outage of Outage of 400KV S/C Chamera-1 Chamera-2 Line from **26.08.2025, 12:25 Hrs to 08.09.2025 20:11 Hrs** shall be considered under forced majeure beyond the control of licensee for the availability calculation purpose.

Case 5: Outage of 400KV S/C Kishenpur-Chamera-2 Line- From **26.08.2025 13:39 Hrs. to 27.08.2025 19:03** Hrs. and from **06.09.2025, 05:44 Hrs to 18:09.2025, 22:10Hrs (Restored by ERS):**

5.1 PowerGrid apprised that outage of line 400KV S/C Kishenpur-Chamera-2 Line- from **26.08.2025 13:39 Hrs. to 27.08.2025 19:03** Hrs, was with the same reason as discussed at point **4.1**, where Line was manually opened by NHPC at **12:25 Hrs of 08.09.2025** as a precautionary measure for safety of nearby habitat keeping in view flash floods in Ravi and Seva-river.

Outage of Line from 06.09.2025, 05:44 Hrs to 18:09.2025;

5.2 PowerGrid informed that the line tripped due to the collapse of the tower at Location No. 238, caused by unequal settlement/sinking of land in and around the tower, attributable to incessant rainfall and landslides in the area. The POWERGRID representative further stated that, in addition to localized land subsidence near the tower, widespread hill subsidence was observed in the surrounding area, indicating that multiple adjoining hills had also experienced sinking. (**Annexure-5**).

5.3 The POWERGRID representative apprised that, due to incessant rainfall—approximately 93% above the normal range—and flash floods in the area, there was unequal settlement of land in the vicinity of the tower. Further, POWERGRID presented geo-tagged photographs evidencing land subsidence near the tower. Additionally, the geo-tagged photographs/videos indicate multiple instances of landslides, with nearly all surrounding hills (approximately 9–10 hills) within a 500-meter radius of the tower being affected.

5.4 MS, NRPC advised POWERGRID to enhance the frequency and rigour of patrolling at such vulnerable/suspected locations.

5.5 SE, NRPC advised POWERGRID to ensure that, in cases involving land subsidence, a detailed geotechnical investigation of the soil and surrounding land mass is carried out prior to the permanent restoration of the tower, so as to mitigate and prevent recurrence of such land-sinking incidents.

5.6 POWERGRID apprised that as on date foundation has been construction after safe location finalisation by our Engineering team and for future cases, soil investigation of land mass will be made mandatory before finalisation the location of permanent tower.

5.7 POWERGRID apprised that line was restored on ERS in around 12 days.

5.8 MS, NRPC stated that outage of line from **26.08.2025 13:39 Hrs. to 27.08.2025 19:03** Hrs. and from **06.09.2025, 05:44 Hrs to 18:09.2025, 22:10Hrs may be considered under force majeure beyond the control of licensee.**

5.9 MS, NRPC advised PowerGrid to restore the line in normal configuration as soon as possible, prior to the onset of the next rainy season as present restoration on ERS may not be much stable for next season, and unwanted tripped may happen due to galloping or bending of ERS structure.

5.10 Report of Standing Committee of Experts on failure of EHV transmission towers failed during the period from July, 2025 to December, 2025 has been issued by CEA vide letter dated 06.04.2026. It also validates the cause of failure as claimed by licensee.

Decision:

- Outages of line from **26.08.2025 13:39 Hrs. to 27.08.2025 19:03** Hrs. and from **06.09.2025, 05:44 Hrs to 18:09.2025, 22:10 hrs.** may be considered under force majeure beyond the control of licensee**.**
- In cases involving land subsidence, a detailed geotechnical investigation of the soil and surrounding land mass is carried out prior to the permanent restoration of the tower, so as to mitigate and prevent recurrence of such land-sinking incidents. New towers shall be as per latest rules and specifications.

Case 6: 765KV LUCKNOW-BAREILLY from **06:54 Hrs of 03.09.2025** to **21:13 Hrs of 20.09.2025 (422:19 hrs.)**

6.1 PowerGrid apprised that 765 kV S/C (Quad Bersimis) Lucknow-Bareilly transmission line tripped at **06:54 Hrs. on 03.09.2025** due to collapse of 02 Nos. of **towers No. 565 and 566** due to flash flood in the Dehva River which was triggered by the release of water from the Nanak Sagar Dam. The towers were designed in horizontal configuration with ACSR BERSIMIS conductor. (**Annexure-6**).

6.2 He further apprised that **Tower No. 566** was Suspension type tower, The tower was found completely collapsed, with its base and foundation submerged in the river. He apprised that the tower, originally situated on land adjacent to the riverbank, was affected by a shift in the river's course during the flood. Strong water currents eroded the base of the tower, gradually weakening the underlying soil. This led to scour around the foundation, resulting in its settlement and the eventual collapse of the tower.

6.3 He further apprised that **Tower No. 565** was Tension type tower, The tower was observed to have completely collapsed, with the stubs found bent or damaged above the chimney level. However, the foundation appeared to remain intact. It is possible that the collapse of this tower was a consequence of the failure of **Tower No. 566**. As this is a tension-type tower, a significant mechanical shock or sudden jerk may have been transmitted through the conductor at the time of **Tower No. 566**'s collapse.

6.4 AE Protection apprised that, during visit of standing committee at instant case of tower failure, tower No. 566 was complete submerged in river, and as visit was done on 12.09.2025, restoration work on ERS was in process. He apprised that affected location

was around 1-2 km away from main road and soil of nearby land was complete muddy hence Licensee has mobilized material and manpower with the help of bullock cart. however discharge data from dam as reported by Licensee and google earth photograph of earlier conditions were asked to validate the fact of excess discharge of water and change in river course during visit of committee visit.

6.5 PowerGrid further apprised that these details were provided to PSETD and presented during the discussion in meeting of standing committee of Expert which was held on 10.03.2026 at 10:30 A.M at CEA. He also presented the supporting documents related to excess release of water from Nanak Sagar Dam and Duni Dam, which shows the excess release of water and comparison of same time period from previous year. He apprised that discharge of water is abnormally high on 02.09.2025 from Nanak Sagar Dam and Duni Dam.

6.6 MS NRPC asked about the restoration of instant tower failure case, upon this PowerGrid has apprised that restoration work could only started after receding of water, tower was failed on 03.09.2025, However site was inaccessible for 5-6 days, The first internal visit was done with the help of motorized boat on 05.09.2025. hence Line was restored with the help of 3 Nos ERS and Tower 565 was completely replaced with permanent configuration to restore the line by 20.09.2025.

6.7 MS, NRPC stated that based on the fact presented by PowerGrid, Outage may be considered under forced majeure condition beyond the control of Licensee, however in case of any discrepancy identified by final report of CEA standing committee on Transmission Tower, availability may be revised accordingly.

6.8 Report of Standing Committee of Experts on failure of EHV transmission towers failed during the period from July, 2025 to December, 2025 has been issued by CEA vide letter dated 06.04.2026. It also validates the cause of failure as claimed by licensee.

Decision:

- Outages of line from **06:54 Hrs of 03.09.2025 to 21:13 Hrs of 20.09.2025 (422:19 hrs.)** may be considered under force majeure beyond the control of licensee**.**

Case 7: 765KV MEERUT-KOTESHWR-I 15:59 Hrs of 11.08.2025 to 09:38 Hrs of 03.09.2025 (545:39 hrs.).

7.1 PowerGrid apprised that 765 kV S/C (Quad Bersimis) Koteshwar-Meerut Circuit- I transmission line tripped at **15:59 Hrs. on 11.08.2025** due to collapse of 02 Nos. of **towers No. 141 and 142** due to heavy rain which caused heavy flood in Song River, a tributary of Ganga River. He further apprised that details of failure was submitted vide mail dated; 11/08/2025, a committee has visited the site on 18 and 19/08/2025.

7.2 AE(Protection) apprised that as per preliminary report received from CEA, it was observed that; two (02) towers (No. 141 and No. 142) were found completely collapsed. Tower No. 141 is located in the middle of the Song River while Tower No. 142 is located at the edge of the river. The earth wire peaks of other adjacent tower Nos. 140 and 143 were also found bent/damaged above the chimney level; however, the foundations remained intact below the riverbed level. Committee in its probable cause of failure has

mentioned *that; In their intimation report, M/s PGCIL conveyed that heavy rainfall and severe flood conditions were witnessed on 11th August 2025 in the river catchment/course, which was corroborated by media reports. Tower No. 141 was designed considering its location inside the river; however, Tower No. 142 was not designed with pile foundations, as it was considered to be situated in the forest area outside the river course. As per the utility, due to a flash flood and the subsequent change in the river course**, the soil beneath the towers no. 142 was severely eroded**. This could not be verified, as maps (old and latest) were not available at site for comparison.*

*7.3 Prima facie, it appears that the above-mentioned flood conditions may have acted as an immediate triggering factor for the collapse of the towers, due to a sudden increase in river discharge/ velocity/ highest flood level (HFL). However, the exact cause can only be ascertained after receipt of the information from the utility with respect to detailed hydrological data, structural drawings, the material testing report, Soil test report at the time of commissioning etc. **(Annexure-7)***

7.4 PowerGrid apprised that these details were provided to PSETD and presented during the discussion in meeting of standing committee of Expert which was held on 10.03.2026 (Tuesday) at 10:30 A.M at CEA.

7.5 MS, NRPC enquired about restoration duration of above instant line, upon this PowerGrid has presented the day wise activity of restoration. He informed that from **11/08/2025 to 13/08/2025**, location was not approachable due to flood in the song river, Further from 14/08/2025-17/08/2025, permission for starting work in forest area, and mobilization of material and manpower were done. Site visit of standing committee was done on 18.08.2025 and preparatory work has been completed on **19.08.2025.** ERS erection was started from **22/08/2025**. Further line was restored on **03.09.2025.**

7.6 MS, NRPC observed that, as per the day-wise restoration plan, during the period from 11/08/2025 to 13/08/2025, the required materials could have been mobilized from the designated store to the respective sites in advance. Further, several activities, which were executed sequentially on different days, could have been undertaken in parallel. It was also noted that preparatory works could have been completed during the intervening period of the CEA inspection. She further stated that additionally, the overall pace of work was observed to be slow. In view of the above, it is assessed that approximately 5 days (15/08/2025 to 19/08/2025) could have been saved, and the line could have been restored correspondingly earlier. Accordingly, for ease of calculation, outage of line from **15:59 Hrs. of 11/08.2025 to 09:38 Hrs. of 29.08.2025** may be considered under forced majeure condition beyond the control of licensee, remaining period may be attributed to Licensee.

7.7 SE, NRPC asked about restoration of line on permanent configuration, upon which PowerGrid has clarified that permanent restoration on pile foundation is in process and same will be completed by **April 2026**.

7.8 MS, NRPC stated that line shall be restored on permanent configuration and recommendation of preliminary report may be considered. She also stated that in case

of any discrepancy identified by final report of CEA standing committee on Transmission Tower, availability may be revised accordingly.

7.9 Report of Standing Committee of Experts on failure of EHV transmission towers failed during the period from July, 2025 to December, 2025 has been issued by CEA vide letter dated 06.04.2026. It also validates the cause of failure as claimed by licensee.

Decision:

- **Outage from 15:59 Hrs. of 11/08.2025 to 09:38 Hrs. of 29.08.2025** may be considered under forced majeure condition beyond the control of licensee, remaining period may be attributed to Licensee**.**

Case 8: Outage of 400KV Nallagarh Rampur# 1 &2 from 12:23 Hrs of 03.09.2025 to 19:47 Hrs of 15.09.2025 (295:24 hrs.)

8.1 AE(Protection) presented that as per report submitted by POWERGRID, Line was taken under emergency S/D as condition of **Tower No 343** had become critical /unstable due to unequal settlement of land under and around the tower due to incessant rains in the area.

8.2 POWERGRID has presented Copy of IMD report and contents of the report were:
Quote
"Himachal Pradesh has received the 9th highest rainfall (431.3 mm) in August since 1901. This is the highest August rainfall since 1949, with the highest ever recorded in 1927 (542.4 mm)"
*"Districts **Bilaspur,** Chamba, Kinnaur, Kullu, Mandi, Shimla**, Solan** & Una have received large excess precipitation; districts Hamirpur, Kangra & Sirmaur have received excess precipitation and district Lahaul-Spiti has received normal precipitation in the month of August 2025."*
Unquote

8.3 POWERGRID presented geotagged/time stamp photos showing unequal settlement of land near the tower. Geotagged photos showing unequal settlement of nearby roads were also presented by POWERGRID. Further newspaper cutting and administration orders were also presented by POWERGRID in support of their claim. (**Annexure-8**).

8.4 POWERGRID also presented signed copy of Government survey indicating damage to **213 pukka houses** in Nallagarh Tehsil where tower was located.

8.5 SE NRPC advised POWERGRID to ensure geological survey of landmass before installation of new tower. Upon this PowerGrid has intimated that foundation work has already been completed for this tower. however, in all future cases, geological survey of landmass will be ensured before the installation of new tower.

8.6 EE(Protection) asked POWERGRID timeline for restoration of Lines on ERS. POWERGRID presented that both circuits were restored on **ERS in around 12 Days**

(295:24 hrs.). He stated that time taken for restoration is well within time frame allowed as per CERC SOP Regulations 2012 for Line restoration on ERS.

8.7 SE, NRPC advised Powergrid for restoration of line on permanent configuration before the start of next rainy season as restoration on ERS is temporary and may not be stable much.

8.8 MS, NRPC appreciated efforts of POWERGRID in timely restoration of the Line. She further stated that based on the fact presented by PowerGrid, Outage may be considered under forced majeure condition beyond the control of Licensee. She also advised PowerGrid to share the latest patrolling report of tower before failure of Tower.

8.9 Powergrid has presented the patrolling of Loc 343 of said line on 26/08/2025, where no abnormalities were observed.

8.10 MS, NRPC stated that based on fact presented by Licensee, instant case may be considered under forced majeure condition beyond the control of Licensee.

Decision:

- Outage of 400KV Nallagarh Rampur 1&2 **12:23 Hrs of 03.09.2025 to 19:47 Hrs of 15.09.2025 (295:24 hrs.)** shall be considered under forced majeure condition beyond the control of Licensee.

Case 9: Outage of 220KV Salal Jammu 2 from 18:40 Hrs of 04.09.2025 to 22:23 Hrs of 11.09.2025 (171:43 hrs.):

9.1 AE(Protection) presented that as per report submitted by POWERGRID, Line was taken under emergency S/D as condition of **Tower No 48** has become critical /unstable due to washing away of land resulting in totally exposure of **01 No leg.**

9.2 POWERGRID presented that tower was located on the bank of a Chenab Tributary and due to huge land sliding caused by continuous rains and flash floods in the river, more than 50 Meters of area had washed away resulting in complete exposure of foundation of 01 number leg of the Tower. (**Annexure-9**).

9.3 POWERGRID presented geotagged/time stamp photos showing huge land sliding resulting in exposure of foundation of 01 No Tower leg.

9.4 POWERGRID also presented newspaper cuttings indicating loss to life and property due to incessant rains and cloudbursts in **Reasi** area where tower was located as well as cloudbursts in **Ramban** area which is located approximately 40–50 km in the upper reaches.

9.5 SE NRPC asked POWERGRID timeline for restoration of Lines on ERS. Upon this POWERGRID presented that Line was restored on ERS in around **7 Days (171:43 hrs.)** despite continuous rains in the area.

9.6 MS, NRPC appreciated efforts of POWERGRID in timely restoration of the Line. She further stated that based on the fact presented by PowerGrid, Outage may be considered under forced majeure condition beyond the control of Licensee.

Decision:

- Outage of 220KV Samba Jammu 2 **from 18:40 Hrs of 04.09.2025 to 22:23 Hrs of 11.09.2025 (171:43 hrs.)** shall be considered under forced majeure condition beyond the control of Licensee.

Case 10: Outage of 400KV KISHENPUR- NEW WANPOH-III from 14:44 Hrs of 26.08.2025 to 18:40 Hrs of 06.09.2025 (267:56 hrs.).

10.1 AE(Protection) presented that as per report submitted by POWERGRID, Line remains out of service from 14:44 Hrs of 26.08.2025 to 18:40 Hrs of 06.09.2025 due to failure of two number cross arms of Loc. No. 111 and 112 and subsequently snapping of conductors in 02 number Spans caused by falling of tree from outside line corridor and total outage period was around **12 days.**

10.2 AE NRPC further intimated that based on analysis of GEO tagged photos of uprooted tree and tower KMZ file submitted by POWERGRID, tree has fallen **29 meters from outside Tower centre** line whereas allowable line corridor is only 23 meters on each side for 400kV Vertical configuration ACSR Moose conductor. Hence it may be concluded that tree has fallen from outside line corridor which caused failure of 02 number crossarm and subsequently snapping of conductors.

10.3 AE (Protection) apprised that the above conclusion is based on time-tagged photographs of tree roots taken on 19 September 2025, whereas the line was restored on 06 September 2025. In this regard, Powergrid clarified that such photographs were not captured initially and were obtained subsequently for submission of outage details for ROW verification.

10.4 MS NRPC enquired from POWERGRID regarding long time **i.e. 12 days** taken for restoration of cross arm. Upon this POWERGRID representative replied that due to continuous rains and landslides at multiple locations, Jammu Srinagar NH has got blocked at multiple locations. Further 12km approach road from above National highway to affected towers has also blocked at multiple locations. In support of their claim, POWERGRID presented newspaper cutting indicating NH remains blocked for **7-8 days**. POWERGRID also presented snap of traffic police advisory indicating NH remains blocked for **7-8 days** due to massive land sliding. POWERGRID also presented the Geotagged photo indicating link road also remains blocked at multiple locations due to land sliding. He further apprised that-

A. POWERGRID T/L Team could only reach Tower location on **01.09.2025** after 04 days after walking about 15 KM.

B. **On 02.09.2025**, POWERGRID T/L Team managed to cross National Highway with T&P but due to sinking of link road at multiple locations, head loading of material carried out for about **02KM** to reach site. He also presented the photos showing restoration material being head loaded. (**Annexure-10).**

10.5 MS, NRPC stated that based on the fact presented by PowerGrid, Outage may be considered under forced majeure condition beyond the control of Licensee.

Decision:

- Outage of **400KV KISHENPUR- NEW WANPOH-III from 14:44 Hrs of 26.08.2025 to 18:40 Hrs of 06.09.2025 (267:56 hrs.).** shall be considered under forced majeure condition beyond the control of Licensee.

Case 11: Outage of 400KV AMRITSAR-BANALA-I and 400KV HAMIRPUR-BANALA from 20:15 Hrs of 27.08.2025 to 21:20 Hrs of 28.09.2025 (769:28 hrs.) (More than 1 Month)

11.1 AE NRPC presented that as per report submitted by POWERGRID, Line was taken under Emergency S/D to restore **Tower No. 39** as said tower had become critical due to unequal settlement of land caused by incessant rains and landslides in the area during Sep'2024

11.2 POWERGRID presented that issue of LOC No 39 was reported to NRPC and to ascertain cause of criticality, committee constituted by NRPC and consisting of members from NRPC, HPPTCL and AD Hydro visited tower on 06.12.2024 and submitted report. Conclusion and recommendations of report were as-
"As tower location 39 of 400 kV Banala – Amritsar & Banala Hamirpur Transmission line has become vulnerable due to land sinking and consequent bending of main legs and other tower members. POWERGRID may assess the strength of tower and may take necessary action to support tower structure. Patrolling of tower may be increased. PowerGrid may take necessary preventive action including assessing measures for diversion of line from affected tower on new tower located in stable area."

11.3 POWERGRID presented that based on recommendations of the committee, replacement of the tower was planned **w.e.f May'2025**. S/D was requested in each OCC but keeping in view line being connected to important Hydro project, S/D could only be allowed from 15 Sep'2025. **(Annexure-11)**

11.4 POWERGRID further presented that on the evening of **26.08.2025**, local villagers of intimated huge sound emanating from the tower. Immediately after that POWERGRID T/L team inspected the tower but nothing abnormal was noticed. Again, on the evening of **27.08.2025**, local villagers reported huge sound emanating from the tower and on inspection, tower was found to be little bend, some of the tower members and Tower nut bolts had completely sheared off, few broken nuts

and bolts were found on the ground. Immediately line was taken under S/D and restoration work started.

11.5 MS NRPC enquired regarding long time **i.e. 31** days taken for restoration of the line.

11.6 POWERGRID representative clarified that due to continuous rains and cloudbursts, Mandi to Kullu National highway remains closed due to NH washed away at multiple locations. Furthe link road from National highway to tower location (which was around 7KM) also remains blocked at multiple locations and required tower material/conductors was head loaded up-to **2-3KM**.

11.7 In support of their claim, POWERGRID presented newspaper cuttings, Mandi traffic police advisory, NHAI advisory indicating NH remains blocked for about 14 days in the meeting. Also POWERGRID presented the photo indicating link road remains blocked at multiple locations. PowerGrid also presented the video showing head loading of tower material and conductors for approximately of 1-2 km.

11.8 POWERGRID also presented photo showing right of way issues and deployment of police and army to clear off right of Way. PowerGrid further apprised that 2 number of permanent towers were installed within 31 days despite the challenging site conditions.

11.9 SE, NRPC stated that as per Central Electricity Regulatory Commission (Standards of Performance of inter-State transmission licensees) Regulations, 2012. In case of failure of tower, for the plain terrain 30 days and for Hilly terrain 50 days are allowed.

11.10 MS, NRPC stated that based on fact presented by Licensee, outage may be considered as forced majeur. As the outage duration is more than 01 month, final decision may be taken in TCC/NRPC meeting.

Decision:

As the case involves outage of more than 01 month, it may be put up in upcoming TCC/NRPC meeting for decision on availability with following recommendation:

- Outage of 400 kV D/C Banala – Amritsar & Banala-Hamirpur Line from **20:15 Hrs of 27.08.2025 to 21:20 Hrs of 27.09.2025 to** may be considered under forced majeure event beyond the control of Licensee.

Case 12: Outage of 400 kV GIS Wangtoo-Kaka Amb Ckt-I and 400 kV Shorang (Greenko)-Kaka Amb Ckt-I from 13:01 Hrs of 08.10.2025 to 18:46 Hrs of 18.10.2025 (245:41 hrs.)

Above outage belongs to PHTL, however case was represented by PowerGrid in the meeting.

12.1 AE(Protection) presented that as per report submitted by PowerGrid, Line was taken under emergency S/D as condition of **Tower No T-244** has become critical /unstable due to unequal settlement of land under and around the tower due to incessant rains in the area.

12.2 POWERGRID has presented the copy of IMD report and contents of the report were: Quote

"Himachal Pradesh has received the 9th highest rainfall (431.3 mm) in August since 1901. This is the highest August rainfall since 1949, with the highest ever recorded in 1927 (542.4 mm)"

"Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received large excess precipitation; districts Hamirpur, Kangra & Sirmaur have received excess precipitation and district Lahaul-Spiti has received normal precipitation in the month of August 2025."

12.3 POWERGRID presented geotagged/time stamp photos showing unequal settlement land near the tower and **within 500meter** around the tower. Geotagged photos showing unequal settlement of nearby roads at 03-04 places were also presented by POWERGRID. POWERGRID also presented Geo tagged photo showing huge cracks in nearby houses. POWERGRID also presented documents wherein whole state of HP has been declared as disaster hit by Himachal assembly**. (Annexure-12)**

12.4 POWERGRID stated that the Line was restored on **18.10.2025** after bypassing **Tower No 244** and directly laying of conductor from **Tower No 243 to 245**. He further apprised that due to continuous rains and flash floods, approach road remains blocked at multiple locations and it took about 8 days to clear off the roads and transporting the material to location.

12.5 MS NRPC enquired about the technical feasibility of bypassing the tower. POWERGRID representative appraised that **tower No 243** is DD type designed for 60-degree maximum deviation angle whereas tower No 245 is DC type tower designed for 30degree maximum deviation angle and actual resultant deviation after bypassing tower No 244 was 28 Degree at LOC No 243 (DD type) and 21 Degree at LOC No 245 (Designed for 30 Degree) Degree only. Also, resultant span after bypassing failed tower is **663 Meters which** is well within permissible limits in hilly terrain and desired clearance as per CEA safety standard has also been maintained.

12.6 MS, NRPC asked Powergrid to share the last patrolling of Loc 244, Powergrid has presented the patrolling information of location 244 and apprised that no abnormalities were observed.

12.7 MS, NRPC stated that based on fact presented by Licensee, Outage may be considered under forced majeure event beyond the control of Licensee.

Decision:

- Outage may be considered under forced majeure event beyond the control of Licensee.

Revision of Outage based on report of the Standing Committee of Failure towers;

Case 13: Outage of 220KV SAMBA-HIRANAGAR-I & 220KV CHOWADI-SAMBA; from **16/04/2025 8:04:00** PM to **17/04/2025 8:26:00** PM (Temp. Arrangement)
Outage of 220KV SAMBA-HIRANAGAR-I & 220KV CHOWADI-SAMBA; from **27/04/2025 10:50:00 AM to 27/04/2025 08:05:00 PM (9:15 Hrs.)** (Permanent Arrangement)

13.1 AE(Protection) apprised that as per decision in the meeting dated; 17.09.2025, it was decided that; *Outage of the above two lines for temporary arrangement as well as restoration on normal arrangement is considered deemed available under Force Majeure. It was also decided that, in case of any discrepancy identified by the CEA Standing Committee on Transmission Tower, availability may be revised accordingly.*

13.2 He also apprised that as per Report of the Standing Committee of Experts on Failure of EHV Transmission Line Towers (January, 2025 – June, 2025) Page: 8/117, it was observed that; After detailed deliberations in the meeting, it was concluded that the primary reason for the failure was the design of the tower for Wind Zone-4, whereas the tower has been experiencing the effects of Wind Zone-5 due to it falling in the overlapping area between Wind Zone-4 & Wind Zone-5.

13.3 PowerGrid apprised that NIT for construction of Line (LILO portion) was floated on **01.07.2014** and TS for line construction was finalized before issue of NIT. Further LOA for construction of Line was placed in June'2015. Copy of NIT & LOA attached as **Annexure 13**.

13.4 He further apprised that as per IS - 875.3.1987, applicable for line construction at the time of NIT, area falls in Wind zone 4.and *as per IS 875.3.2015, (revised in 2015), area again falls in Wind zone 4*. In view of above facts, it is to submit that at the time of Line commissioning, applicable wind zone for the area where tower was located was Wind zone 4.

13.5 He further apprised that as per NATIONAL BUILDING CODE OF INDIA 2016 VOLUME 1, released in 2016, wind zone was revised from Zone 4 to Zone 5 for above tower line (Overlapping zone). And further as per CEA manual for transmission planning dated 23 Dec' 2022 para 4(d), *Wind Zone considered for wind loading shall be as per wind map given in National Building Code till the relevant Indian Standard is revised.* hence in view of above revision in wind zone was done by NBFC in 2016 only after commercial operation of the Line and this is beyond the control of Licensee.

13.6 MS, NRPC stated that as per fact presented by PowerGrid, decision on outage may be considered as decided earlier in meetings on 17.09.2025, deemed available under force majeure beyond the control of Licensee.

Decision:

- Outage may be considered as decided earlier in meetings on 17.09.2025, deemed available under force majeure beyond the control of Licensee.

Case 14: 765KV AGRA-FATEHPUR-II from 21/05/2025 10:28:00 PM to 02/06/2025 9:30:00 PM:

14.1 AE(Protection) apprised that as per decision in the meeting dated; 17.09.2025, it was decided that; *Outage was considered deemed available under Force Majeure. It was also decided that, in case of any discrepancy identified by the CEA Standing Committee on Transmission Tower, availability may be revised accordingly*.

14.2 He also apprised that as per Report of the Standing Committee of Experts on Failure of EHV Transmission Line Towers (January, 2025 – June, 2025) Page: 9/117, it was observed that; after detailed deliberation, it was concluded that the primary cause of the failure was the inherent vulnerability of the Delta-type tower configuration, which remains structurally less reliable even after strengthening interventions.

14.3 MS, NRPC stated that, based on the observations of the Standing Committee, such issues are beyond the control of the Licensee, as the adoption of the delta configuration at the design stage might have been avoided had these issues been known earlier.

Decision:

- Outage may be considered as decided earlier in meetings on **17.09.2025**, deemed available under force majeure beyond the control of Licensee.

Miscellaneous Issues in Verified availability data of PowerGrid from July-Onwards;

Case 15: A)425/+550MVAR STATCOM-I BHADLA_2 from 03/07/2025 7:15:00 PM to 04/07/2025 11:32:00 PM;
B)-425/+550MVAR STATCOM-I BHADLA_2 from 05/07/2025 6:12:00 PM to 25/07/2025 10:40 AM; (484:28 Hrs.)

15.1 AE (Protection) apprised that, as per the verified outage data downloaded from the NRLDC website, discrepancies are often observed between the Licensee and NRLDC. Upon receipt of the verified availability data, the Licensee typically submits representations along with supporting documents to NRLDC, following which NRLDC provides re-verified comments on the outage data. However, it has been observed that in several cases, disagreements pertaining to outage/tripping events, restoration timelines, or reasons for tripping remain unresolved, with NRLDC maintaining its earlier position despite submission of adequate supporting documents by the Licensee. Such unresolved issues, when taken up during verification and certification of outages at NRPC, result in additional time being spent on reconciliation, thereby delaying the availability certification process.

15.2 AE (Protection) further apprised that, in Case A, NRLDC had included an outage of certain elements in the verified data. In response, PowerGrid clarified that the outage had already been accounted for under Event No. 107250062. However, NRLDC's comments remained unchanged in the re-verified availability sheet issued vide mail dated 15/09/2025.

15.3 EE (Protection) apprised that, in multiple instances, the comments provided by NRLDC are not aligned with the reasons submitted by the Licensee. It was also highlighted that, in certain cases, generation loss has not been duly considered by NRLDC.

15.4 NRPC Secretariat emphasized that the scrutiny of outages during the verification process should be streamlined in a manner that such disputes are resolved at the NRLDC level itself, thereby facilitating faster certification of availability at NRPC. Licensee shall also provide the supporting documents along with outage data by 5th of following month so that NRLDC can verify the reason of outages.

15.5 PowerGrid apprised that in case B. outage of element was from **05/07/2025 6:12:00 PM to 5/07/2025 02:49 PM;,** however in the reverified comment, restoration time by NRLDC has mentioned as **25/07/2025 10:40:00 AM,** resulting in to additional 20 days outage of element, however there was wrong entry in OMS. A detailed presentation was provided where restoration time can be verified from DR/EL attached in presentation.

15.6 NRLDC representative apprised that they will submit the comments up on receiving the supporting documents from PowerGrid.

15.7 Powergrid has submitted the documents. Further, as per NRLDC mail dated 02.04.2026, revival time can be considered as 14:49 Hrs on 05.07.2025 in place of **25/07/2025 10:40 Hrs.**

Decision:

- Outage of 425/+550MVAR STATCOM-I BHADLA_2 from **03/07/2025 7:15:00 PM to 04/07/2025 11:32:00** PM shall be deleted from verified data as this was a duplicate entry by NRLDC.

- Outage of 425/+550MVAR STATCOM-I BHADLA_2 shall be considered from **05/07/2025 6:12:00 PM to 05/07/2025 14:49 Hrs.**

- Scrutiny of outages during the verification process should be streamlined in a manner that such disputes are resolved at the NRLDC level itself, thereby facilitating faster certification of availability at NRPC. Licensee shall also provide the supporting documents along with outage data by 5th of following month so that NRLDC can verify the reason of outages

Case 16: Multiple Elements outage in July-Month due to Loss of Voltage (Loss of Evacuation Path) at Koteshwar.

16.1 PowerGrid apprised that Koteshwar is connected to Meerut (PG) by 765kV circuit-1 &2. He apprised that 765 KV Koteshwar-Meerut (PG) Ckt-1 was in outage from **09:49 of 11/07/2025 to 14:06 Hrs. of 29/07/2025** due to NHAI diversion work and during this duration **Circuit 2 was tripped at 19:46 of 22/07/2025 on B-**N fault and same was restored on **10:59 of 23/07/2025 (15:13 hrs.)** due to tripping of circuit-2 there was no evacuation path at Koteshwar PG, hence 400KV KOTESHWR-KHEP-I & II, 400KV KOTESHWR-TEHRI-I, II and III, 765/400KV ICT-I, II, III and IV at Koteshwar was hand tripped (**at 22/07/2025 19:46**) due to loss of voltage**.**

16.2 PowerGrid has apprised that outage of circuit-2 was claimed under self- category and outage hour may be doubled for this outage only however, NRLDC has mentioned generation loss in other equipment as mentioned above in their comment during verification of outage data, also these elements got tripped due to loss of evacuation path and such outages are attributed to grid condition.

16.3 SE, NRPC asked the approved period for outage of Circuit-1 for NHAI diversion work, upon this PowerGrid has clarified that outage of Circuit-1 was approved by NRPC from 11.07.2025 to 20.07.2025 on continuous basis for NHAI diversion work.

16.4 SE, NRPC stated that if the NHAI diversion work had been completed in approved time duration then such condition may not be arrived on **22.07.2025.**

16.5 SE, NRPC stated that delay in NHAI diversion work is the main reason behind the outage, this was also mentioned during approval of outage so that generation at Tehri could not affect.

16.6 MS, NRPC stated that as informed by Licensee such outages of multiple element tripping at Koteshwar may be considered as deemed due to system/grid condition for only for this special case as one circuit was in outage due to NHAI diversion work, However, the same shall not be considered for cases that have already been settled. This decision shall not be applicable to previous settled cases.

Decision:

For 765 KV Koteshwar-Meerut (PG) Ckt-1, outage beyond OCC approval shall be attributed to licensee. For 765 KV Koteshwar-Meerut (PG) Ckt-2, outage shall be attributed to licensee and outage hours shall be doubled due to generation loss. Further, outages of elements hand tripped due to no evacuation path shall be considered as deemed available i.e. 400KV KOTESHWR-KHEP-I & II, 400KV KOTESHWR-TEHRI-I, II and III, 765/400KV ICT-I, II, III and IV.

This decision shall not be applicable to any other case that have already been settled.

Case 17: Outage of 400KV URI 1 - AMARGARH – II from **01-07-2025 10:45** to **01-07-2025 20:47 (10:02 hrs.)** and 400KV URI 1-URI 2 from **04-07-2025 11:12** to **04-07-2025 20:24(09:12 hrs.)** and from **05-07-2025 10:41 to 05-07-2025 21:17 (10:36 hrs.)**

17.1 AE(Protection) apprised that outage of **400KV URI 1 - AMARGARH – II** was also taken by Licensee in May (**2025**) with reason given by Licensee that; *400KV URI-Amargarh Ckt 1 passes very close to Pakistan Border. On 7th to 11th of May, huge shelling across Pakistan border, resulted in damage of OPGW at multiple locations. Line was taken under shutdown for Rectification of **Damaged OPGW in span 116-117** due to cross border shelling.*

17.2 The case (3.9) was discussed in meeting held on **17.09.2025,** where it was decided that tripping related to cross border firing is considered deemed available. however Licensee has again claimed outage as mentioned above for rectification of span **116-117** for **URI 1 - AMARGARH – II.**

17.3 MS, NRPC asked PowerGrid regarding outage of same line with same reason when the work was already completed in previous outage taken in may-Month and outages were given deemed.

17.4 Powergrid has not provided any supporting documents to validate the claim Hence outage may be attributed to Licensee.

400KV URI 1-URI 2:

17.5 PowerGrid apprised that outage of 400KV URI 1-URI 2 was taken on 4th July and 5th July. 400KV URI-I &URI-II passes very close to Pakistan Border. On 7th to 11th of May, huge shelling from across Pakistan border, resulted in damage of conductor at multiple locations. As the situation normalized, patrolling of complete line carried out and conductor damage observed in Span No **10-11, 19-20 & 21-22**. Earlier S/D was denied by NHPC due to problem in GIS Bay at URI. On 4th and 5th of July, S/D was allowed by NHPC and repair works completed. He also presented the photographs of damaged conductor. Outage of this line was not taken in earlier duration.

17.6 MS, NRPC stated that based on the representation presented by PowerGrid, outage taken for rectification work due to cross border firing is considered deemed available.

Decision:

Outage of 400KV URI 1 - AMARGARH – II from **01-07-2025 10:45** to **01-07-2025 20:47 (10:02 hrs.) shall be attributed to Licensee.**

Outage taken for rectification work due to cross border firing for 400KV URI 1-URI 2 from **04-07-2025 11:12** to **04-07-2025 20:24(09:12 hrs.)** and from **05-07-2025 10:41 to 05-07-2025 21:17 (10:36 hrs.)** is considered deemed available.

Case 18: 400KV HISAR-KAITHAL-I - 17:56 hrs. of 21/08/2025 to 20:37 of 25/08/2025 (98:41 HRs)

18.1 AE(Protection) apprised that based on verified availability data for July-2025 month, 400KV HISAR-KAITHAL-I was tripped on **17:56 hrs. of 21/08/2025** and reason being stated by Licensee that it tripped on Y-B fault due to Oil tanker tyre busted resulting into fire in tanker between Loc#555-556 and due to its flame, bottom conductor (B phase) melt. However as per submitted photographs there is no photograph of melting of conductor.

18.2 SE, NRPC stated that outage taken for restoration work is around 4 days, which could have restored earlier. He stated that as per SOPR regulation, only 2 days is allowed for cases of snapping of conductor.

18.3 PowerGrid presented the video recorded by News channel, where a fire flames were coming out from a tanker and also shown the newspaper cutting mentioning the same event also an FIR copy was also presented which was submitted to administration. He also apprised that regarding melting of conductor it was also covered in newspaper (which was presented during discussion). **(Annexure 18)**

18.4 PowerGrid apprised that restoration work was started right after tripping of line and restored the line in 98:41 hrs.

18.5 MS, NRPC stated that as per SOPR regulation, and based on fact presented by licensee, outage may be consider as deemed for 48 hours only. Remaining may be attributed to licensee.

Decision:

Outage may be consider as deemed for 48 hours only. Remaining shall be attributed to licensee.

Case 19: Representation of PBTSL from February and March'2025 and outages taken for Construction related cases from April'2025 onwards;

19.1 AE(Protection) presented the cases of PBTSL (**Presentation Attached**). He apprised some construction cases were attributed to licensee based on supporting documents and details provided by Licensee at the time of submission of outages data. PBTSL has presented the construction related cases (in February and March '2025 Month) as per Annexure-1 of minutes of meeting held on 03.12.2025, however discussion on these cases could not be possible due to paucity of time.

19.2 He further apprised that, at the time of verification of these outages, **detailed reasons for outages attributed to construction-related activities were not provided**, which created difficulties during scrutiny. Subsequently, when detailed justifications were sought, it was observed that the reasons furnished were generally **inconsistent**

with those submitted earlier. **In some cases, licensee has changed the reason of outage also after scrutiny by NRPC Sectt.**

19.3 SE, NRPC stated that Licensee shall submit outages details related to construction activity with **valid reason** and supporting documents in the format which has been shared with Licensee and same shall be provided by 5th of following month to NRLDC.

19.4 EE (Protection) stated that Licensee may provide additional details related to their presentation on construction related outage for the Feb and March'2025-Montth and outages taken for construction related work in the following month after **March'2025.**

19.5 PBTSL has presented construction related outages in a chronological manner from February'2025 to Novermber'2025 (**attached as Annexure-19**) in line with the commissioning/FTC of elements which were covered in different package. Detailed reason and combination of outages for any particular activity is attached at SITE REMARKS column of attached Annexure-19.

19.6 AE(Protection) apprised that outage taken for removing of foreign material on **400/220 KV 500 MVA ICT III & IV AT BIKANER_2** from 18/3/2025 6:41:00 PM to 18/03/2025 7:29:00 PM may be attributed to Licensee as per discussion in previous meetings Hence may not be considered in revision of February'2025-month availability. Outage of **400/220 KV 500 MVA ICT V AT BIKANER_2** from **06/03/2025 7:22 PM to 07/03/2025 5:00:00 A**M was also taken for 89A isolator alignment issue which was pending in ICT-V 220kV side bay-210 during commissioning due to non-availability of OEM engineer, hence may be attributed to Licensee and may not be considered in revision of February'2025-month availability. He further apprised that these details were provided by Licensee in revised version. Earlier these outages were also covered in construction related activity and reason of same was verified by NRLDC.

19.7 MS, NRPC was also in same view as presented above, remaining outages may be allowed as claimed by Licensee as per detailed reason presented by Licensee.

Decision:

Outages of **400/220 KV 500 MVA ICT III & IV AT BIKANER_2** from 18/3/2025 6:41:00 PM to 18/03/2025 7:29:00 PM shall be attributed to Licensee. Hence shall not be considered in revision of February'2025-month availability.

Outage of **400/220 KV 500 MVA ICT V** AT BIKANER_2 from 06/03/2025 7:22 PM to 07/03/2025 5:00:00 AM shall also be attributed to Licensee Hence shall not be considered in revision of March'2025-month availability.

Remaining outages of February and March'2025 may be revised as per representation received as per Annexure-I of minutes of meeting dated;03/12/2025.

Outages related to construction activity from April to November'2025 shall be allowed as claimed by Licensee**. (Outages List at Annexure-19)**

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Annexure-P

S. No.	Name(Ms./Mr.)	Designation	Organization
1	Rishika Sharan	Member Secretary	NRPC
2	D.K. Meena	SE, NRPC	NRPC
3	Reeturaj Pandey	EE	NRPC
4	Akash Jain	AE	NRPC
5	Ishwar Chandra Jaiswal	DGM	POWERGRID
6	Vishal Roy	GM	POWERGRID
7	Jigyasu	Manager	POWERGRID
8	Rakesh Kumar Gupta	DGM	POWERGRID
9	Babloo Ram Meena	DGM	NRLDC
10	Abhishek Kukreja	DGM-Regulatary	INDIGRID
11	Lokendra Singh Ranawat	Head Regulatary	INDIGRID
12	Sumit Garg	AVP (Com)	ADHYDRO
13	Pankaj Kapoor	VP (O&M)	ADHYDRO
14	Pankaj Rana	Manager-II	ADHYDRO
15	Rajnish Mehrotra	Head Corporate Affairs	NRSS XXXVI
16	Shashank Takawale	Head PMU	NRSS XXXVI
17	Anuj Kumar	Lead Engineer	NRSS XXXVI

Annexure-1

DAY WISE WORK DETAILS FOR ERS INSTALLATION ON 400KVBABAI-BHIWANI LINE

Sr.No	Date	Work Description	Remarks
1	13.06.2025	Tower collapsed due to Heavy wind ,Both circuit tripped on 15:30 Hrs and shut down applied to NRLDC for 400KV Babai-Bhiwani Line for Ckt1 & Ckt 2	
2	14.06.2025	Applied for PTW to M/s ATIL as NRSS and ATIL line crossing over each other and both line's conductor intersects ,Team Mobilized for Restoration work	
3	15.06.2025	Rough Sag for span 299-300 for support tower No 299.	
4	16.06.2025	Rough Sag for Span span 301-302 for Support Tower No 302,Intial Marking for ERS installation work.	
5	17.06.2025	No work carried out due to Instructions from CEA for site visit on 20/06/2025 for Root Cause Analysis.	
6	18.06.2025		
7	19.06.2025		ERS reached on 19.06.2025 at Site.
8	20.06.2025	CEA team visited on site for RCA and Sample marked for Testing .	
9	21.06.2025	ERS 1 Erection Started and 8 Columns erected, Tower 301 Dismantling	
10	22.06.2025	ERS 1 completed and ERS 2 Nine Column Erected	
11	23.06.2025	ERS 2 Completed and ERS 3 Six Column Erected	
12	24.06.2025	ERS 3 Completed and ERS 4,5,6,(Gantry 1) Erection Completed , Documents submitted to M/s ATIL for under passing approval	
13	25.06.2025	ERS 7,8,9(Gantry 2) Erected , ERS 10- Six Column Erected	
14	26.06.2025	ERS 10 Erection Completed ; Stringing work completed B/W Gantry 1(ERS 4,5,6) and Gantry 2(ERS 7,8,9); Stringing 60/908M completed	Work Hampered due to Heavy Rain
15	27.06.2025	Stringing work for 3 phase in B/W ERS 3 to Gantry 1(ERS,4,5,6) completed ; Stringing of 1 phase from ERS 9 to TN 302 through ERS 10 completed	
16	28.06.2025	Stringing from Gantry II(ERS 7,8,9) to TN 302 through ERS 10 completed , Total Stringing 356/908 Completed ; Back Stay fixed on TN 299.	Work Hampered due to Heavy Rain
17	29.06.2025	Final Stringing of top phase from TN 299 to ERS 3 Through ERS 1 &2 completed ; Jumpering B/W ERS 4,5 (Gantry 1) and ERS 7,8(Gantry II) completed ;Site Area Partially submerged due to Rainfall ; PLS model for Under passing of 400KV of M/s ATIL submitted for approval.	Work Hampered due to Heavy Rain
18	30.06.2025	Final Sag for all 3 phases from TN 300 to ERS 3 Through ERS 1&2 completed.	Work Hampered due to Heavy Rain
19	01.07.2025	Approvals of under passing of 400KV of M/s ATIL received , 400KV Babai-Bhiwani Line Ckt 2 Successfully taken in Service on 16.14 Hrs	Work Hampered due to Heavy Rain
20	02.07.2025	Site unaccesible due to heavy rains	
21	03.07.2025		
22	04.07.2025	ROW Arises from Land owners of Village Pahladgarh.	ROW issue by land owners of Village Pahladgarh. Work hampered for 4 Days
23	05.07.2025		
24	06.07.2025	ERS 7,8,9 , Gantry II Erection Completed ,ERS 6- 4 Column assembled on Ground level	
25	07.07.2025	No work carried out due to entire site flooded from Rain water	Work Hampered for 1 Day due to site area Partially Submerged from Rain Water
26	08.07.2025	Gantry II(ERS 4,5,6) 4 Column erected at site , ERS 10 -4 Column Erected at Site	
27	09.07.2025	ERS 10 - Ten Column Erection work Completed ,ERS 2 -4 Column Erected at Site	Work Hampered due to Heavy Rain
28	10.07.2025	ERS 2 Erection work completed at site , ERS 1-8 Column Erection work completed at site	
29	11.07.2025	ERS 1 Erection work complted,ERS 3-10 Column completed at site	
30	12.07.2025	Stringing work from Gantry I(ERS 4,5,6)-Gantry II(ERS 7,8,9) completed, Stringing of 2 Phases from TN 302 to ERS 10 through Gantry II completed ,Total Stringing 60/1041m Completed	Work Hampered due to Heavy Rain
31	13.07.2025	PLS cad model submitted to M/s ATIL for approvals of under passing from 400KV line ,Stringing from TN 302 to Gantry ll(ERS 7,8,9),Total Stringing 347/1011 M completed	
32	13.07.2025	Stringing from Gantry I(ERS 4,5,6) to ERS 3 completed, Stringing of two phases from TN 299-ERS 3 completed ,Total Stringing 447/1041 m completed	

33	14.07.2025	Jumper and spacer work from Gantry I(ERS 4,5,6) -Gantry II(ERS 7,8,9) completed	Work Hampered due to Heavy Rain
34	15.07.2025	Stringing from TN 299 to ERS 3 completed ,Total Stringing 1041/1041m completed	
35	16.07.2025	Jumper Installed on ERS 3. Circuit 2 of 400KV Babai-Bhiwani Lie successfully taken in service on 13:40Hrs	

Site Photographs during ERS installation work in June-July 2025 in 400KV D/C Babai-Bhiwani Line

Site Photographs during ERS installation work in June-July 2025 in 400KV D/C Babai-Bhiwani Line

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Site Photographs during ERS installation work in June-July 2025 in 400KV D/C Babai-Bhiwani Line

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर
भिवानी 26-06-2025

दैनिक भास्कर
आप पढ़ रहे हैं देश का सबसे विश्वसनीय और नंबर 1 अखबार

सुविचार
योद्धा की पहचान उसके शौर्य और आत्मसम्मान से होती है।

हरियाणा
dainikbhaskar.com | हिसार, गुरुवार 26 जून, 2025 | आषाढ़ शुक्ल पक्ष-प्रतिपदा, 2082

पहाड़ों की बारिश से मैदानों में आफत • सोम नदी में 19 हजार और पथराला में 7500 क्यूसेक पानी आया

सोम और पथराला नदी उफान पर, यमुनानगर में साथ लगते 6 गांवों के खेतों में 3 फीट पानी घुसा

परेशानी • यमुनानगर में 150 एकड़ से ज्यादा खेत जलमग्न

यमुनानगर | जिले में बुधवार को 24 घंटे, बारिश हुए। सोमनदी में पानी से गुजरते लोग और खेतों में भर पानी।

बारिश से 2 अलग छतें गिरीं, 5 लोग घायल

यमुनानगर प्रतिनिधि | पुराने सदर में मंगलवार रात को हुई तेज बारिश से दो मंजिला मकान की छत गिर गई। इसमें 5 लोग घायल हो गए। घायलों को सिविल अस्पताल में भर्ती कराया गया है। डॉक्टरों का कहना है कि सभी घायलों की हालत खतरे से बाहर है। हादसे में घरेलू सामान भी बुरी तरह क्षतिग्रस्त हो गया। हादसे के बाद इलाके में अफरा-तफरी मच गई। लोग अपने घरों से बाहर निकल आए। सूचना मिलते ही एसडीएम और तहसीलदार मौके पर पहुंचे। राहत कार्य शुरू कराया। प्रशासन ने प्रभावित परिवारों को तत्काल मदद का आश्वासन दिया है।

हरियाणा में आगे बढ़ा मानसून, आज बाकी जिलों में पहुंचेगा

मानसून की स्थिति हरियाणा में और बढ़ गई है। मानसून की एक और लहर हरियाणा से होकर गुजरी है, जो राजस्थान के पश्चिमी भागों, दिल्ली, पंजाब और चंडीगढ़ तक गई है। मौसम विभाग के अनुसार अगले 24 घंटों में प्रदेश के कई अन्य जिलों तक मानसून के पहुंचने की संभावना है। महेंद्रगढ़ में दिन में तापमान में कई डिग्री की कमी आई है। अब दिन का पारा तापमान से 6.7 डिग्री तक कम है। फतेहाबाद में सबसे अधिक 36.8 डिग्री रहा। हसनपुर यमुनानगर में 25 डिग्री रहा।

प्रदेशभर में 6 मिलीमीटर बारिश हुई, सबसे ज्यादा यमुनानगर में

बुधवार को प्रदेश में औसतन 6 मिलीमीटर बारिश हुई है। यमुनानगर में 55.6 मिमी., अम्बाला में 10.8 मिमी., करनाल में 22.8 मिमी., कुरुक्षेत्र में 45.6 मिमी., पंचकूला में 6.9 मिमी., सोनीपत में 10.6 मिमी., पानीपत में 1.2, फतेहाबाद, जींद, सिरसा, महेंद्रगढ़, सिरसा, रिवाड़ी, झज्जर और सिरसा में भी कुछ जगह बूंदाबांदी या हल्की बारिश हुई है। वहीं, 25 जून तक प्रदेश में 45.6 मिलीमीटर बारिश हुई है, जो सामान्य बारिश 39.0 मिलीमीटर से 17 फीसदी ज्यादा है।

हिमाचल में बादल फटे

23 बहे, 2 मजदूरों की मौत; उत्तराखंड में भी 4 जानें गईं

कुल्लू की मौत घरों में घुसा। इनसेट:- जलग में लापी गई पेलू अभिनेता।

शिमला/धर्मशाला | हिमाचल प्रदेश में मानसून आफत बनकर बरसा। कुल्लू जिले में तीन जगह बादल फटने से चिता-पुरैं मच्चल 3 लोग बह गए। 8 घरों में घुस गया पानी, कारोबार जिले के खनिजा सिंचाई विभाग डिवीजनों में लापता। एनडीआरएफ डीसेट में मनाली सदर में आई थाए में 20 मजदूर बह गए। 2 की मौत हो गई। उधर, नगरोटा के मोतीमहादेव के पास भी बादल फटने से नाला नदी उफान पड़ा। इससे नई सिमले वाले चार दुकानें बह गईं। • उत्तराखंड: राज्यभर में तेज बारिश से तबाही जारी है। कई जिलों में रेड अलर्ट है। इससे बाकी प्रदेश में मौतों की कुल हो गई। उधर, जम्मू के उधमपुर जिले के पास 9 लोग लापता हो गए हैं। पुलिस व एनडीआरएफ ने रेस्क्यू।

मानसून ने पूरा देश कवर किया: आगे 24 घंटे में यह हिमाचल, पंजाब, राजस्थान और पश्चिमी यूपी के और हिस्सों को भी अपने कब्जे में लेगा।

एचएयू विवाद • छात्रनारत छात्रों क

छात्र कल्याण निदेशक वीसी को 6 माह की छु

भास्कर न्यूज | हिसार

लाडो लक्ष्मी योजना

इसी सत्र से खाते में जमा होंगे 2100 रुपए : सीएम

कुरुक्षेत्र | मुख्यमंत्री नायब सिंह सैनी ने कहा कि सरकार ने रक्षाबंधन तक लाडो लक्ष्मी योजना को लागू करने की पूरी तैयारी कर ली है। योजना के तहत इसी सत्र महिलाओं के खातों में 2100-2100 रुपए जमा होंगे। इसके लिए बजट में 5 हजार करोड़ रुपए की राशि का प्रावधान भी किया है। सरकार ने 21 लाख महिलाओं से ये रिश्ते 5 माह में 25 लाखों को पूरा कर लिया है। 90 घर आगे चल रहा है। मुख्यमंत्री कुरुक्षेत्र देव सरोवर परिक्रमा, श्रीकृष्ण पुरातत्व एवं संग्रहालय और ज्योतिसर तीर्थ में लोगों की समस्याएं सुन रहे थे।

पानीपत में

कंटेनर बाइक स

आरोपित (41)

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर भिवानी भास्कर 27-06-2025

भिवानी भास्कर

हिसार, शुक्रवार, 27 जून, 2025 · dainikbhaskar.com

नप ने शहर में खराब स्ट्रीट लाइटों को बदलने व नई वैकल्पिक लगाने का कार्य किया शुरू

5 दिन में 100 स्ट्रीट लाइटों को किया ठीक 107 पार्कों में भी लाइट व्यवस्था जांचेगी नप

निकाय शहर में लोहारू रोड पर ठेकेदार फोन से बात्चीत हेतु लगाए गई स्ट्रीट लाइट।

एक किलोमीटर लंबी लालबत्ती रोड पर ही 50 से ज्यादा स्ट्रीट लाइटें खराब

शहर में अनेक स्थानों पर स्ट्रीट लाइट खराब पाये जाने के कारण लोगों को भी शहर में अंधेरे का सामना करना पड़ रहा है। शहर में अब बिजलीघर तक लालबत्ती रोड पर ही 50 से ज्यादा स्ट्रीट लाइटें खराब हैं। जबकि इस मार्ग पर अन्य दिन लाइट खराब होने आती है। शहर की सड़कों पर घूमने वेंडारा लगू तक स्ट्रीट लाइट पोल पर अलग बनी लाइटें हैं लाइट नहीं हो रहा है। कई बार पोल से कनेक्शनों को जलकर लगने से लाइट खराब हो जाती है और पोल भी टूट जाते हैं। इसके लगातार खराबी के कारण हर दो तीन महीने होने में भी एक आध ही लाइट बंद हो जाती है।

ठेकेदार फोन से बताए ठीक तक बंद हैं लाइटें

पार्कों की लाइटें होंगी दुरुस्त

बवानीखेड़ा में 10 एमएम बारिश से राहत

बवानीखेड़ा: गुरुवार सुबह हुई बारिश से सड़कों पर एकत्रित पानी।

पिकअप चोरी का आरोपी लोहारू से काबू

B.P.R. INTERNATIONAL SCHOOL
New HDFC Bank, Dawar Khera (Bhiwani)
WE ARE HIRING!
Principal • Vice-Principal
Co-ordinator : Primary-Middle
PRT : English, EVS, Hindi, Mathematics
TGT : (All Sub.) Mathematics, S.S., English, Science, Music, Hindi
Others : BPE (Female), Receptionist (Female)
Matron-Teacher • Guard • Driver
Salary commensurate with experience/ Proficiency in English is must
Walk in interview on 29/06/2025 (Sunday)
Timings: 10:00 a.m. to 2:00 p.m. at school campus. Mail your resume at:
Contact : 9813800400

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दैनिक भास्कर

भिवानी 29-06-2025

दैनिक भास्कर

आप पढ़ रहे हैं देश का सबसे विश्वसनीय

हरियाणा

dainikbhaskar.com | हिसार, रविवार, 29 जून, 2025 | प्रकाशन सूचना पत्र-चतुर्दी, 2082

भास्कर एक्सक्लूसिव | राज्य महिला आयोग में 6 साल में 12 हजार केस आए; लिव-इन पर कार

महिला आयोग में 60% केस लिव-इन के, प्रॉपर्टी में हिस

72 साल के बुजुर्ग से डॉक्टर तक रिलेशनशिप में

बुजुर्ग ने बेटे को प्रॉपर्टी दी तो महिला ने बेटी का हिस्सा मांगा

केस-1 पानीपत में 72 वर्षीय बुजुर्ग करीब 10 साल से एक महिला के साथ लिव-इन रिलेशनशिप में रह। उसकी 67 वर्षीय पत्नी भी है। उसके एक बेटा है। जिस महिला के साथ वह रह रहा था उसकी भी एक बेटी है। महिला ने बुजुर्ग से संपर्क किया तो बुजुर्ग ने कहा कि उसने अपनी प्रॉपर्टी अपने बेटे के नाम कर चुका है। उसने बेटी के लिए प्रॉपर्टी में हिस्सा मांग के मामले का सुलझाव हुआ। मामला राज्य महिला आयोग तक पहुंचा तो बुजुर्ग ने कहा कि उसने सारी चीजें की है, जो प्रॉपर्टी में हिस्सा है। आयोग मामले में सुनवाई कर रहा है।

नर्स को पत्नी के साथ रखने की जिद

फरीदाबाद में एक सरकारी डॉक्टर अपनी ही महकमे की नर्स के साथ लिव-इन में रह रहा था। नर्स को एक बेटा भी जो चुका है। डॉक्टर अपनी पत्नी को छोड़ना चाहता था। उसकी पत्नी ने इसका विरोध किया तो महिला आयोग से गुहार लगाई।

केस-2

4-4 बच्चे, परिवार छोड़ने की चाह

फरीदाबाद में 50 वर्षीय पुरुष ने अपनी पत्नी को छोड़ा तो एक महिला के साथ लिव-इन रिलेशनशिप में रहने लगे। दोनों के 4-4 बच्चे हैं। अब दोनों अपने परिवारों को छोड़कर साथ रहना चाहते हैं। आयोग मामले में सुनवाई कर रहा है।

केस-3

जागरूक करने के लिए पंचायतों से मदद लेंगे

अगस्त में 60% केस लिव-इन रिलेशनशिप के आ रहे हैं। इनमें 5% मामलों का सुलझना प्रॉपर्टी विवाद के बाद हुआ। लिव-इन रिलेशनशिप से रहने पर कोई मदद नहीं ले सकते हैं, जिसमें कानूनी मदद है। पानी आम परेशानी होती है। पानी की समस्या को निवारण करने के लिए पंचायतों की मदद लेंगे।

–रेखा शर्मा, चेयरपर्सन, राज्य महिला आयोग

मौसम • मानसून फिर से सक्रिय हुआ, 8 जिलों में बारिश के बाद उमस से मिली राहत

जून में पिछले साल से दोगुनी बारिश, 7 जिलों में 2 दिन का ऑरेंज अलर्ट

फतेहाबाद | जाखल मंडी रोड़ा के सेक्टर-29 स्टेडियम की है। शनि 6:15 बजे बारिश के बीच सड़क से निकलती गाड़ियां।

पिछले 24 घंटे में हुई बारिश

फतेहाबाद	36.4
भिवानी	15.2
रोहतक	14.0
गुरुग्राम	6.7
फरीदाबाद	2.0
कुरुक्षेत्र	1.9
जींद	1.6

जून में बारिश का हाल

साल	बारिश	अंतर/अधिक
2014	25.8	-47
2015	43.3	-11.1
2016	34.8	-23
2017	121	+155
2018	65.4	+34
2019	18.9	-60
2020	47.7	+0.1
2021	46.8	+0.3
2022	36.0	-24
2023	80.7	+48
2024	29.3	-46
2025	36.6	+19

दिन का तापमान 1.3 डिग्री घटा...

प्रदेश में दिन का तापमान 1.3 डिग्री सेल्सियस कम हुआ है। अब यह सामान्य से 0.1 डिग्री कम हो गया है। सिरसा में सबसे अधिक 40.4 डिग्री तापमान रहा। एक पर तापमान 0.6 डिग्री कम होकर उसमान भी सेल्सी में आ गया। यह मानसून के हस्तक्षेप से सबसे कम 30.9 और फरीदाबाद में सबसे अधिक 33.6 डिग्री रहा।

अच्छी बारिश से बिजाई पिछले वर्ष से 2.35 लाख एकड़ ज्यादा

जून में अच्छी बारिश के कारण हरियाणा में अब तक 23.82 लाख एकड़ में खरीफ फसलों की बिजाई हो चुकी है। यह पिछले साल से 2.35 लाख एकड़ ज्यादा है। अब तक 2.22 लाख एकड़ में धान, 5.65 लाख एकड़ में बाजरा, 2.3 लाख एकड़ में ज्वार, 0.70 लाख एकड़ में मक्का, 57.5 हजार एकड़ में ग्वार की बिजाई हो चुकी है। 77.65 लाख एकड़ में खरीफ फसलों की बिजाई होनी है। इसमें से 30.04% रकबे में बिजाई हो चुकी है।

हिमाचल: 2 प्रोजेक्ट में बिजली उत्पादन रुका

हिमाचल | हिमाचल प्रदेश में जलविद्युत को लेकर 26.5 मिलीमीटर बारिश हुई, जो सामान्य से 143% ज्यादा है। किन्नौर में 91, कांगड़ा में 35, किन्नौर में 20, लाहौल-स्पीति में 9% ज्यादा बारिश हुई। बारिश के कारण चंबा और पार्वती-2 पावर प्रोजेक्ट में पहले चरण में बिजली उत्पादन रोक दिया गया है।

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर भिवानी 30-06-2025

आप पढ़ रहे हैं देश का एकमात्र नो निगेटिव अखबार

दैनिक भा

घर घर न्यूज़ नेशनल

जिन घरों में एंटीक चीजें, उन्हें अब 'राष्ट्रीय पहचान' बनाएंगे

एंट्री के लिए अपने संग्रह की फोटो-डीटेल्स भेजें

योजना... घरों में मौजूद चीजों की फोटो डिटेल्स पूरक बनाएंगे

अमृत से लेकर वेदरस, अमेरिका तक से आ रहे फोटो-डीटेल्स

चार्ल्स डार्विन-3 से लेकर रैकियो और बागी तक रख संग्रह

विस्तार देश

पानीपत रि बनाएगी, ि

विशेष केरल के

डॉक्टरों ने ती

मौसम पहाड़ों की बारिश से लगातार बढ़ रहा नदियों का जलस्तर

मानसून ने छह दिन में पूरे हरियाणा को कवर किया; 17 जिलों में बारिश

उत्तराखंड में बादल फटा, 9 लापता; सरस्वती बाजा स्थानी

बीच बचाव सप्ताह 70 साल पे

मेघालय के लिविं

हिंदी विवादः महाराष्ट्र स ने नीति पर आदेश वापस

कक्षा 1 से 5 तक हिंदी अब शुरू करने का

आज का दिन

न्यूज़ बीफ

अब ई-टेक्टर गो. 300 रु. में 1 एमयू आई तो सोकेगी

अमीर अंबानी सिक्योरिटी इंडस्ट्रीज के सर्वेक्षण

जम्मू-कश्मीर में हर परिवार का डिजिटल पहचान पत्र

पॉजी-टून

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर भिवानी भास्कर 02-07-2025

भिवानी भास्कर

हिसार | बुधवार, 2 जुलाई, 2025

मानसून • बारिश ने आमजन को गर्मी व उमस से राहत के साथ कहीं-कहीं नागरिकों की परेशानी बढ़ाने का भी काम किया, 24

शहर में 12 और चांग क्षेत्र में हुई 70 एमएम बारिश से अ

शहर में जहां-तहां जलभराव से लोगों को हुई परेशानी

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर भिवानी भास्कर 08-07-2025

भिवानी

हिसार | मंगलवार, 8 जुलाई, 2025 लोकल • भिवानी खेड़ा • लोहारू

जेट फिनाइल
BHIWANI : 93125 66020

रोष • ढाणी माहू में समुदाय विशेष के दो घरों में आग लगाने के

आरोपी युवक ने सरपंच
दी आग लगाने व जान से

भिवानी। भिवानी में पहलगाम आतंकी हमले के खिलाफ जारी मौन ढाणी माहू के ग्रामीण ने हिंदू संगठनों के सहयोग।

कार्टून

तापमान/मौसम

दिन 34.8° अधिकतम
रात 24.9° न्यूनतम

शहर की खबरें

- भजन-संकीर्तन
- भागवत कथा
- सत्संग-प्रवचन

सोना-चांदी-सर्राफा बाजार

सोना

24 कैरेट	22 कैरेट
97500	89300

चांदी
प्रति किलो
106000

यातायात

जयपुर-भिवानी ट्रेन में सीटों की अस्थाई बढ़ोतरी

रोष • ढाणी माहू में समुदाय विशेष के दो घरों में आग लगाने के

आरोपी युवक ने सरपंच
दी आग लगाने व जान से

भिवानी। भिवानी में पहलगाम आतंकी हमले के खिलाफ जारी मौन ढाणी माहू के ग्रामीण ने हिंदू संगठनों के सहयोग।

शहर के निचले हिस्सों में जलभराव ने बढ़ाई लोगों की परेशानी

30 एमएम बरसात, उमस से राहत

भिवानी। शनिवार शाम शहर में हुई जलभराव की एक तस्वीर।

कहां कितनी हुई बरसात

स्थान	बारिश
भिवानी	30 एमएम
भिवानी	22 एमएम
तोशाम	06 एमएम
लोहारू	10 एमएम
बवानी	03 एमएम

10 साल बारिश के आसार

बाजारों में नुकसान, कपास, मूंग व ग्वार फसल में लाभ

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर भिवानी भास्कर 10-07-2025

लोहारू में सावन से दो दिन पहले लगी सावन की झड़ी, सड़कें हुईं जलमग्न

लोहारू में 15 से 20 एमएम बरसात हुई दर्ज, फसलों के लिए फायदेमंद

भास्कर न्यूज | लोहारू

आषाढ़ माह के अंतिम दिन ही लोहारू व आसपास के क्षेत्र में इंद्रदेव मेहरबान दिखाई दिए जिस कारण बारिश की रिमझिम फुहारों की झड़ी के बाद बुधवार को ही सावन माह के आगाज का एहसास दिखाई दिया। दोपहर बाद अचानक मौसम ने करवट ली तथा क्षेत्र में रिमझिम बारिश शुरू हो गई। क्षेत्र में सावन माह की भांति बारिश की झड़ी लग गई। लगातार दो घंटे तक हल्की व मध्यम बारिश से मानों सावन की झड़ी लग गई। इस बारिश से शहर की गलियां और चौराहे एक बार फिर से जलमग्न हो गए। नपा का नकारा जल निकासी प्रबंधन लोगों के लिए मुसीबत बन गया। लोगों को आने जाने में काफी दिक्कतों का सामना करना पड़ा। वहीं बारिश की झड़ी से खरीफ की फसलों में रंगत आ गई है। बुधवार को लोहारू और आसपास के क्षेत्र में 15 से 20 एमएम बारिश हुई है। बारिश से एक बार फिर से सिंघानी में लोहारू-सिवानी सड़क मार्ग पर पानी जमा हो गया जिसके चलते वाहन चालकों को काफी दिक्कतों का सामना करना पड़ा।

उल्लेखनीय है कि विगत चार दिनों से लोहारू और आसपास के क्षेत्र में रुक रुक कर बारिश हो रही है। बुधवार को साढ़े तीन बजे से 6 बजे तक हुई बारिश ने मानों सावन से पहले ही सावन की झड़ी लगा दी। किसान हो या गृहिणी हो या बच्चा-सभी सावन का बेसब्री से इंतजार करते हैं। इस बार सावन की शुरुआत 11 जुलाई से हो रही है और मौसम विभाग ने भी 12 जुलाई से अच्छी बारिश की संभावना जताई है।

रामपुरा में घग्गर ड्रेन ओवरफ्लो

बवानीखेड़ा | रामपुरा गांव में बुधवार सुबह घग्गर ड्रेन ओवरफ्लो हो गई। पानी खेतों में घुस गया। करीब छह एकड़ से ज्यादा कृषि भूमि जलमग्न हो गई। खेतों में कपास, बाजरा की फसलें लगी थीं। पानी भरने से फसलें खराब होने का खतरा है। अचानक हुए जलभराव से किसानों में हड़कंप मच गया।

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर भिवानी भास्कर 13-07-2025

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माह पहले वैध हुईं 9 कॉलोनियों लोग नहीं करवा पा रहे रजिस्ट्री

रजिस्ट्री के लिए लोग काट रहे पार्षदों के चक्कर

रजिस्ट्री नहीं होने से ये कार्य अटके

25 साल से उम्मीद लगाए बैठे हैं नागरिक

गजट नोटिफिकेशन जारी हो चुका

जल्द होगी रजिस्ट्री शुरू

स्कूल में खड़ी बस में लगी आग, दो दिन पहले सड़क से उतर गई थी बस

5 लाख के गहने व नकदी चोरी

पालक ने दो बेटों की शादी के लिए बनवाए थे गहने

घर के पास झाड़ियों में मिले खाली बाक्स

संडे फोटो स्टोरी भिवानी घग्घर ड्रेन ओवरफ्लो रामपुरा व बलियाली के 100 एकड़ में भरा पानी

News Paper Cutting for the month of June-July 2025 during Installation of ERS in 400KV Babai-Bhiwani Line

दैनिक भास्कर भिवानी भास्कर 15-07-2025

किसान सभा ने लिया खेतों में बरसाती जलभराव का जायजा

17 को डीसी कार्यालय पर प्रदर्शन की चेतावनी

भिवानी। ग्रामीण क्षेत्रों में कृषि भूमि में जमा बरसाती पानी का जायजा लेते हुए किसान सभा के पदाधिकारी।

भास्कर न्यूज | भिवानी

अखिल भारतीय किसान सभा की टीम ने सोमवार को मिताथल, घुसकानी, धनाना, बडेसरा, बलियाली व रामपुरा गांव के खेतों में जमा बरसाती पानी का जायजा लिया। इस दौरान किसान संगठन के नेताओं ने प्रशासन को चेतावनी दी कि अगर 16 जुलाई तक उक्त गांव में कृषि भूमि से पानी निकासी की उचित व्यवस्था नहीं कि तो 17 जुलाई को किसान सभा किसानों के साथ लघु सचिवालय के बाहर बड़ा प्रदर्शन करने को मजबूर होगी। किसान सभा के जिला प्रधान रामफल देशवाल के नेतृत्व में संगठन के पदाधिकारियों ने सोमवार को गांव मिताथल, घुसकानी, धनाना, बडेसरा, बलियाली व रामपुरा गांव के खेतों में जलभराव का जायजा लिया।

इस दौरान किसान नेताओं ने प्रशासन से रबी फसल की बुआई के लिए जल्द से जल्द खेतों से जमा पानी की मशीनें लगाकर निकासी करवाने की मांग की। प्रतिनिधि टीम के सदस्य व किसान सभा के जिला उपप्रधान कामरेड ओमप्रकाश व घुसकानी किसान सभा ग्रामीण इकाई प्रधान रामभक्त व पूर्व सरपंच सतपाल सिंह ने कहा कि ज्यादा बारिश की वजह से खेतों में अत्यधिक पानी भर गया है। मिताथल घुसकानी ड्रेन की सफाई नहीं होने से ड्रेन ओवर फ्लो हो गई, जिससे उनकी किसानों की धान की फसल नष्ट हो गई। ज्यादा पानी भरने से रबी फसल की बुआई भी नहीं होगी।

घुसकानी के किसान सतबीर सिंह ने बताया कि उन्होंने खेतों में भरे पानी निकासी के लिए दो दिन पहले सिंचाई विभाग के अधिकारियों को आवेदन दिया था, लेकिन उन्होंने अभी तक पानी निकासी का कोई प्रबंध नहीं किया है। इसलिए वे डीसी के समाधान शिविर में आवेदन लगाकर आए है। किसान नेताओं ने चेतावनी दी कि 16 जुलाई तक पानी निकासी नहीं की तो 17 जुलाई को डीसी कार्यालय में प्रशासन के विरोध में बड़ा प्रदर्शन करेंगे। टीम में प्रताप सिंह सिंहमार, राजकुमार दलाल, राजबीर, सत्यवान धनाना, बड़ेसरा से सुभाष, अरविंद सिंगल, रामअवतार आदि किसान सभा के पदाधिकारी व किसान मौजूद रहे।

NRSS XXXVI TRANSMISSION LIMITED

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Corporate Office: Shatabdi Bhawan, B 12 & 13, Sector 4, Noida, Uttar Pradesh - 201301
CIN: U40300DL2015PLC284168 • Tel.: +91-8860764693 / +022- 6717-2869• Email ID: sect.nrss@gmail.com

Ref No.: - NRSS/R/2024-25/ E2/ Dated: - 14.06.2025

SHO, Sadar for n/a as per rules 16.1.25

To,

Sub Divisional Officer (Civil) cum Additional Collector,
Bhiwani,
Haryana

Subject:-Restoration of Fault in 400 kV Babai-Bhiwani Circuit I and Circuit II Transmission Lines of NRSS XXXVI Transmission LimitedInterstate Public Utility Infrastructure work in Village -Pahladgard, District- Bhiwani.

Dear Sir,

NRSS XXXVI Transmission Limited (NRSS XXXVI) is the SPV created by REC Transmission Project Company Limited (RECTPCL, A Govt. of India Undertaking under Ministry of Power) for implementation of "System Strengthening Scheme in Northern Region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 KV D/C Line at Babai (RRVPNL)" through BOOM basis. The Scope of work under the Scheme is as follows: -

- 400 KV D/C Babai (RRVPNL) – Bhiwani (PG) D/C line,
- LILO of one circuit of 400 KV D/C Sikar (PG) – Neemrana (PG) line at Babai,
- 4 nos. of bays at 400 KV Babai (RRVPNL) substation
- 400 kV D/C Koteshwar Pooling Station – Rishikesh line with 2 nos. of bays at 400 KV Rishikesh sub station

Under the scheme, NRSS XXXVI Transmission Limited has constructed and is maintaining 400 KV D/C Babai- Bhiwani Transmission Line, passing through Bhiwani, Charkhi Dadri, Mahendragarh districts of Haryana state and Jhunjhunu district of Rajasthan State. The villages coming under this said transmission line are also mentioned in Section 164 issued by Ministry of Power under the Electricity Act, 2003.

On 13June, 2025 at around 15:30 hours, 400kV Babai – Bhiwani Circuit I & II trippedon distance protection due to intense sand storm. On patrolling of the line it was found that 2 numbers of towers have collapsed due to the cyclonic stormin village Pahaladgarh at Bhiwani.

We have undertaken restoration work of the line.

We solicit your kind support in case any Right of Way issue arises as these Lines are critical lines of the Electrical Power Grid of the Northen Region.

Thanking you,

For and behalf of
NRSS XXXVI TRANSMISSION LIMITED

14/6/2025

Shashank Takawale
Head-PMU

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NRSS XXXVI TRANSMISSION LIMITED

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Copy to:

1. The Deputy Commissioner (DC)
   Distt-Bhiwani
   Haryana

2. The Member Secretary,
   18A, Qutab Institutional Area,
   Shaheed Jeet Singh Sansawal Marg,
   Katwaria Sarai,
   New Delhi – 110 016

3. The Assistant General Manager (SO)
   Northen Regional Load Dispatch Center,
   18-A, Shaheed Jeet Singh Sansawal Marg,
   Katwaria Sarai,
   New Delhi – 110 016

4. The SHO, Bhiwani Sadar P.S.
   Bhiwani.

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S820-M
16/6/25
MA

Ref No.: - NRSS/R/2024-25/ E2/ Dated: - 14.06.2025

To,

Sub Divisional Officer (Civil) cum Additional Collector,
Bhiwani,
Haryana

Subject:-Restoration of Fault in 400 kV Babai-Bhiwani Circuit I and Circuit II Transmission Lines of NRSS XXXVI Transmission LimitedInterstate Public Utility Infrastructure work in Village -Pahladgard, District- Bhiwani.

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Thanking you,

For and behalf of
NRSS XXXVI TRANSMISSION LIMITED

14/6/25

Shashank Takawale
Head-PMU

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2. The Member Secretary,
   18A, Qutab Institutional Area,
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3. The Assistant General Manager (SO)
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   18-A, Shaheed Jeet Singh Sansawal Marg,
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   New Delhi – 110 016

4. The SHO, Bhiwani Sadar P.S.
   Bhiwani.

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Ref No.: - NRSS/R/2025-26/ E2/ 108 Dated: - 17 January, 2026

To,

The Chief Engineer (PSETD)
Sewa Bhavan, R. K. Puram - 1
Central Electricity Authority
New Delhi – 110 066

Subject:- Report on Failure of Towers of 400 kV Babai-Bhiwani Circuit I and Circuit II of NRSS XXXVI Transmission Limited in Village -Pahladgad, District- Bhiwani.

Reference – Minutes of Meeting of Standing Committee of Experts held on 08.09.2025.

Dear Sir,

NRSS XXXVI Transmission Limited (NRSS XXXVI) is the SPV created by REC Transmission Project Company Limited (RECTPCL, A Govt. of India Undertaking under Ministry of Power) for implementation of "System Strengthening Scheme in Northern Region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 KV D/C Line at Babai (RRVPNL)" through BOOM basis. The Scope of work under the Scheme is as follows: -

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Under the scheme, NRSS XXXVI Transmission Limited has constructed and is maintaining 400 KV D/C Babai - Bhiwani Transmission Line, passing through Bhiwani, Charkhi Dadri, Mahendragarh districts of Haryana state and Jhunjhunu district of Rajasthan State.

On 13 June, 2025 at around 15:30 hours, 400kV Babai – Bhiwani Circuit I & II tripped on distance protection. On patrolling of the transmission line it was observed that 2 numbers of towers have buckled due to the intense cyclonic storm in village Pahaladgad, district Bhiwani.

This incidence was discussed in the meeting of the Standing Committee of Experts held on 08 Sept, 2025 at CEA Office, New Delhi. The meeting was attended by representatives of NRSS XXXVI and presentation was given on collapse of 400 kV Babai-Bhiwani tower 300 and 301 covering the reasons for failure, investigation findings, and remedial action taken, etc. for each failure. After detailed deliberations, it was concluded that the primary cause of failure was the impact of high-velocity dust and wind storms.

Furthermore, NRSS XXXVI was recommended to carry out simulation of the tower design considering an increased Reliability Level 2 and subjecting it to equivalent loading to verify whether the tower could withstand the load.

Accordingly, a simulation study was conducted on the tower design at Reliability Level 2, applying equivalent loading conditions to assess structural adequacy.

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Kindly find enclosed detailed report on tower failure which also includes the results of the simulation studies carried out as suggested.

Thanking you,

For and behalf of
NRSS XXXVI TRANSMISSION LIMITED

Sandeep Mahabale
CEO

Enclosed – Report on Tower Failure

CC:

The Executive Engineer
Northern Regional Power Committee (NRPC) - Kind Atten – Mr Reeturaj Pandey
18-A, Qutab Institutional Area,
Shaheed Jeet Singh Marg, Katwaria Sarai,
New Delhi-110016

The committee also opined that tower extensions may be designed for Reliability Level–2, while the rest of the tower could continue with Reliability Level–1 in the 400 kV D/C twin moose conductor configuration. It was also suggested that CPRI and PGCIL may validate requirement of this approach.

11. The Representative of **NRSSXXXVI Transmission Limited** presented failures of 1 no. of transmission lines covering 2 no. of Tension type Tower. The transmission line wise deliberations are as under:

(xxi) 400 kV D/C Babai-Bhiwani Transmission Line (with in 2 years): In 400 kV D/C Babai-Bhiwani Transmission Line, 2 nos. of Tension type Towers (DD+30) at Tower location no. 300 and 301 got collapsed. The line was commissioned in the year 2023. The line length is 111 km. The reported probable cause of failure is Heavy localized Cyclonic storm.

The representative of NRSSXXXVI informed that the line was designed as per IS 802:2015 for Reliability Level–1. However, the line was commissioned in the year 2023. No missing members were observed in the failed tower, and the material test reports were found satisfactory. Members of the Standing Committee also visited the site. Requests for wind speed data were sent to IMD Delhi and IMD Chandigarh; however, no response has been received. It was further informed that the line has been restored using an ERS, and erection of the replacement tower is expected to be completed by 30.09.2025.

The representative from PGCIL highlighted that when tower extensions are raised, the tower base increases and the overall tower weight increase, which may contribute to failures due to self-weight.

Chief Engineer (PSE&TD), CEA suggested for carrying out a simulation of the tower design considering an increased Reliability Level–2 and subjecting it to equivalent loading to verify whether the tower could withstand the load. If positive results are obtained at Reliability Level–2, the same may be implemented in the field. He further emphasized that in RFPs, the reliability level should be specified for power line crossings.

After detailed deliberations, it was concluded that the primary cause of failure was the impact of high-velocity dust and wind storms. Furthermore, NRSSXXXVI was recommended to analyse requirement to increase the reliability level at power line crossings to ensure greater structural stability.

The committee also opined that tower extensions may be designed for Reliability Level–2, while the rest of the tower could continue with Reliability Level–1 in the 400 kV D/C twin moose conductor configuration. It was also suggested that CPRI and PGCIL may validate requirement of this approach.

Summary of Observations in TT DD30+30mBE, by increasing Reliability level-1 to Reliability level-

SUMMARY OF TOWER DESIGN MEMBERS

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Existing (RL 1 loading) Max Use In Comp. %	NEW (RL 2 loading) Max Use In Comp. %	Remarks
D9	D9	SAE	100X100X7	250	76.5	102.27	Exceeds safe limit under RL2
D11	D11	SAE	100X100X8	350	77.75	106.64	Exceeds safe limit under RL2
D17	D17	SAE	75X75X6	350	79.33	102.84	Exceeds safe limit under RL2
D19	D19	SAE	90X90X6	350	75.78	103.81	Exceeds safe limit under RL2
D27	D27	SAE	75X75X5	350	75.65	120	Exceeds safe limit under RL2
D49	D49	SAE	90X90X6	250	65.9	103.76	Exceeds safe limit under RL2
D53	D53	SAE	100X100X6	250	73.67	124.22	Exceeds safe limit under RL2
H2	H2	SAE	100X100X8	350	82.19	111.77	Exceeds safe limit under RL2
H6	H6	SAE	50X50X4	250	70.29	104.59	Exceeds safe limit under RL2
H10	H10	SAE	45X45X4	250	76.07	105.14	Exceeds safe limit under RL2
B1	B1	SAE	75X75X6	350	73.56	104.97	Exceeds safe limit under RL2
B3	B3	SAE	90X90X7	350	83.7	101.21	Exceeds safe limit under RL2
B5	B5	SAE	90X90X7	350	79.57	105.12	Exceeds safe limit under RL2

SUMMARY OF SUPPORT REACTIONS

	Existing (RL 1 loading)	NEW (RL 2 loading)	% Increase	Remarks
Load Type	**in(kN)**	**in(kN)**		
Max. Compression	1554	1788	1.15	RL2 Exceeds RL1 Reactions
Max. Uplift	-1345	-1568	1.17	RL2 Exceeds RL1 Reactions
Max Side Thrust (Trans)	71.9	85.0	1.18	RL2 Exceeds RL1 Reactions
Max Side Thrust(Long)	42.2	71.9	1.71	RL2 Exceeds RL1 Reactions

Notes:

1. The original tower design loading was based on Reliability Level 1, Wind Zone 4, and Terrain Category 2.
2. Upon revising the design to Reliability Level 2, wind pressure values increased by nearly 25%, consequently increasing sag tensions.
3. Due to the increase in wind pressure, there is a significant impact on tower loading—both body wind and wire loadings have intensified—resulting in approximately a 15% rise in foundation forces and causing failure in several tower members as summarized above.

CPRI

TEST REPORT

CENTRAL POWER RESEARCH INSTITUTE

(A Govt. of India Society)
P. B. No. 8066, Sadashivanagar Post Office
Prof. Sir.C.V.Raman Road,
Bangalore - 560 080 (INDIA)

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number	: CPRIBLRMEDMISC25T0194	Date: 25 August 2025
Name & Address of the Customer	: M/s. NRSS XXXVI Transmission Limited Shatabdi Bhawan, B-12 & 13, Sector-4, Noida – 201 301 Uttar Pradesh, India	
Name and Address of the Manufacturer	: M/s. Sanvijay Infrastructure Private Limited Nagpur – 440 018, Maharashtra, India	
Particulars of sample tested	: Angle sections of failed Transmission Line Tower	
Type	: Refer Sheet 2 of 5	
Description of test sample	: Refer Sheet 2 of 5	
Serial Number	: Refer Sheet 4 of 5	
Number of samples tested	: Seven	
Date(s) of Test(s)	: 20 August 2025	
CPRI Sample code Number(s)	: MEDTTL25S0039 (1 to 7)	
Particulars of tests conducted	: Tensile Strength Test	
Test in accordance with Standard/Specification	: IS 1608 (Part-1): 2022 / ISO 6892-1: 2019	
Sampling Plan	: Not Applicable	
Customer's Requirement	: Nil	
Deviations if any	: Nil	
Name of the witnessing persons		
Customers representative	: Nil	
Other than customer's representatives	: Nil	
Test subcontracted with address of the laboratory	: None	
Documents constituting this report (in words)		
Number of Sheets	: Five	
Number of Oscillogram(s)	: Nil	
Number of Graph(s)	: Nil	
Number of Photograph(s)	: Nil	
Number of Test Circuit Diagram(s)	: Nil	
Number of Drawing(s)	: Nil	

(K. Vijaya Kumar)
Test Engineer

(Dr. M. Selvaraj)
Head of Division
Reviewed and Authorized by

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRMEDMISC25T0194 **Date: 25 August 2025**

DESCRIPTION OF SAMPLE TESTED

1. Sample	:	Angle sections of failed transmission towers of 400 kV D/C Babai – Bhiwani Transmission Line
2. Condition of the test sample(s)	:	Old (Galvanized) Sample duly signed by the CEA Official.

(K. Vijaya Kumar)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRMEDMISC25T0194 **Date: 25 August 2025**

SUMMARY OF TESTS CONDUCTED

1. **Test Conducted** : Tensile Strength Test

2. **Equipment / Instrument Used** :

- 600kN Capacity Universal Testing Machine (UTM) UID Number: MED/TTL/UTM-01.
- Vernier Caliper, 0-200 mm UID Number: MED/TTL/DVC-01.
- Steel Scale 0-300 mm, UID Number: MED/TTL/SS-01.
- Digital Thermo Hygrometer -50 to 70 Deg. C, UID Number: MED/TTL/DTH-01.

(K. Vijaya Kumar)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

CPRI

TEST REPORT

Test Report Number: CPRIBLRMEDMISC25T0194 **Date: 25 August 2025**

TEST RESULTS

Sl. No.	Sample Code MEDTTL 25	Member No.	Tower Loc. No.	Angle Section Size (mm)	Size of Specimen		Area (sqmm)	Original G. L. (mm)	Yield Stress (MPa)	Ult. Stress (mm)	Final G.L. (mm)	Elong. (%)
					Avg. width (mm)	Avg. Thick (mm)						
1	S0039 (1)	1671 H	301	200x200x15	28.01	15.02	420.71	115.93	449	584	149.02	28.54
2	S0039 (2)	1763	301	110x110x8	28.03	8.42	236.01	87.33	339	462	115.07	31.76
3	S0039 (3)	1818	301	110x110x8	27.92	8.24	230.06	86.26	342	464	111.94	29.77
4	S0039 (4)	1677	301	110x110x8	28.15	8.32	234.21	86.87	348	471	112.84	29.90
5	S0039 (5)	1671 H	300	200x200x15	29.74	15.14	450.26	120.38	450	580	154.49	28.34
6	S0039 (6)	1404 H	300	200x200x15	29.93	15.26	456.73	121.26	444	593	152.98	26.16
7	S0039 (7)	844	300	70 x 70 x 5	27.97	5.27	147.40	69.40	364	494	89.78	29.37

Note:
Ambient Temperature at the time of testing: 26.8 Deg. C

Acceptance Criteria:
Test results conform to IS 2062: 2011 RA 2021, Table 2, Grade E 250 and E 350
No Deviations Observed

(K. Vijaya Kumar)
Test Engineer

TEST REPORT

Test Report Number: CPRIBLRMEDMISC25T0194 **Date: 25 August 2025**

NOTE

a) The Test results relate only to the sample(s) tested.

b) Publication or reproduction of this Test Report in any form other than by complete set of the whole Test Report and in the language written is not permitted without the written consent of CPRI.

c) Any Corrections / erasure invalidate the Test Report.

d) Any anomaly / discrepancy in the Test Report should be brought to notice of CPRI within 45 days from the date of issue.

(K. Vijaya Kumar)
Test Engineer

----------End of Test Report----------

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT

Test Report Number: **CPRIBLRMTDAFTL25T0033** **Date: 26.08.2025**

CPRI

Name & Address of the Customer : M/S. NRSS XXXVI Transmission Limited
Shatabdi Bhawan, B-12 & 13
Sector-4, Noida 201301
Uttar Pradesh

Ref. Letter No. & Date : Ref MED/TTL-1/2025 dated: 19.08.2025

Name & Address of the Manufacturer : M/s Sanvijay Infrastructure Private Limited,
Nagpur-440018,
Maharashtra.

Particulars of sample tested : Angle sections of failed towers of 400 kV D/C Babai Bhiwani Transmission Line

Condition of Sample on Receipt : Cut angle sections were signed by CEA official and sent by M/s NRSS XXXVI Transmission Ltd from site

Description of test sample :

Mark No.	Tower Location No.	Mark No.	Tower Location No.
1671H	301	1671H	300
1763	301	1404H	300
1818	301	844	300
1677	301		

Date of receipt of samples : 19.08.2025
Number of samples tested : Seven Nos
Dates(s) of Test (s) : 20.08.2025
CPRI sample code no : MTDAFTL25S0304 to MTDAFTL25S0310
Particulars of tests conducted : Chemical composition analysis by optical emission Spectrometer.

Standard/specification : As Per IS 8811:1998
Sampling plan : NA
Customer's requirement : Nil
Deviations if any : Nil

Name of the witnessing persons
Customer's representatives : None
Other than Customer's representatives : None
Test subcontracted : No
With address of the laboratory : NA

Documents constituting this report (in words)
Number of sheets : Three
Number of Graphs : NA
Number of Photos : NA

26/8/25
(D Laxman Rao)
Test Engineer

26/8/2025
(Dr R K Kumar)
Head of Division

TEST REPORT

Test Report Number: CPRIBLRMTDAFTL25T0033 Date: 26.08.2025

TEST RESULTS

SAMPLE TESTED : Angle sections of failed towers of 400 kV D/C Babai Bhiwani Transmission Line

TEST CONDUCTED : Chemical composition by optical emission spectrometer

PROCEDURE : The chemical compositional analysis was carried out using Optical Emission Spectrometer and the average chemical composition obtained on minimum of three readings is reported below.

Sl No.	Sample ID	Customer ID	Chemical Composition (by wt. %)				
			C	Si	Mn	P	S
1	MTDAFTL25S0304	Mark No: 1671H Tower Lo No :301	0.14	0.24	1.51	0.034	0.015
2	MTDAFTL25S0305	Mark No: 1763 Tower Lo No :301	0.14	0.23	0.58	0.033	0.029
3	MTDAFTL25S0306	Mark No: 1818 Tower Lo No :301	0.14	0.20	0.48	0.039	0.033
4	MTDAFTL25S0307	Mark No: 1677 Tower Lo No :301	0.15	0.23	0.58	0.033	0.030
5	MTDAFTL25S0308	Mark No: 1671H Tower Lo No :300	0.14	0.23	1.52	0.035	0.016
6	MTDAFTL25S0309	Mark No: 1404H Tower Lo No :300	0.17	0.18	1.55	0.041	0.018
7	MTDAFTL25S0310	Mark No: 844 Tower Lo No :300	0.17	0.22	0.48	0.044	0.032

Remarks: The tested samples comply with the requirements of IS 2062:2011 standard

(D Laxman Rao)
Test Engineer

CPRI

TEST REPORT

Test Report Number: CPRIBLRMTDAFTL25T0033 Date: 26.08.2025

NOTE

a) The Test results relate only to the item(s) tested.

b) Publication or reproduction of the test report /Certificate in any form other than by complete set of the whole test report /Certificate and in the language written is not permitted without the written consent of CPRI.

c) Any Corrections/erasure invalidates the test Report/Certificate

d) Any anomaly/discrepancy in the test report /Certificate should be brought to the notice of CPRI within 45 days from the date of issue.

Laxman 26/8/25

(D Laxman Rao)
Test Engineer

Annexure -IV - Patrolling Reports

Format –I

Ground Patrolling Report

Telegence

Sr.No-		Date:	23/05/2025

Region	Patrolling Date	Name of the Line	Loc. No.	Type of Tower
Haryana	23/05/2025	132kV D/C RB Line	300 (AP86)	DD+30

Particulars	Observations								
Muff Condition	Good	✓	Need Soil Filling	–	Need Digging	–	Leg no.	–	
Condition of Stub	Good	✓	Rusting	–			Leg no.	–	
Condition of Pipe/CP Earthing	Good	✓	Not visible	–	Missing/Open	–	Leg no.	–	
Danger Plate	Good	✓	Poor	–	Missing	–			
Number Plate	Good	✓	Poor	–	Missing	–	Wrong fix	–	
Phase Plate	Good	✓	Poor	–	Missing				
Anti-Climbing Device	Good	✓	Poor	–	Missing	–	–	–	
Tower Parts condition	Good	✓	Rusting	–	Damaged/Missing	–	–	–	
Missing/Damaged Part no./Qty.	No	✓							
Missing Bolts/Dummy Holes	No	✓			If Yes, Size/Qty		–		
Tree Around Base	No	✓	Up to ACD	–	Bushes	–	Qty	–	
Copping Condition	Good	✓	Damaged	–	Missing	–	Leg no.	–	
Chimney	Good	✓	Damaged	–			Leg no.	–	
Revetment Wall	NA		Need	–			Leg no.	–	
Tack Welding	Good	✓		–	Missing	–	Paint Miss	–	
Bird Guard	Good	–	Missing	–	NA	–	–	–	
Twin Spacer	Good	✓	Loose	–	Missing	–	–	–	
C.C. Ring	Good	✓	Loose	–	Missing	–	–	–	
Jumper N/B	Good	✓	Loose	–	Missing	–	–	–	
Guard Ring	Good	✓	Loose	–	Missing	–	–	–	
G-ring Clamp	Good	✓	Open	–	Missing	–	–	–	
G-ring N/Bs	Good	✓	Open	–	Missing	–	–	–	
OPGW Clipping	Good	✓	Open	–	Missing	–	–	–	
Earth wire Clipping	Good	✓	Open	–	Missing	–	–	–	
OPGW V/D	Good	✓		–	Missing	–	–	–	
Earth wire Copper Bond	Good	✓	Open	–	Missing	–	–	–	
Earth wire V/D	Good	✓		–	Missing	–			
Earth Wire (MSJ)	OK	✓	NOT OK	–	Phase	–	Qty	–	
Conductor (MSJ)	OK	✓	NOT OK	–			Qty	–	
Conductor Stands Cut	OK	✓		–			–	–	
Arching Horn	Good	✓	Open	–	Missing	–	–	–	
Arching Horn N/Bs	Good	✓	Open	–	Missing	–	–	–	

Circuit	Single/Double	Circuit - I		Circuit - II	
	Phase	Inner Limb	Outer Limb	Inner Limb	Outer Limb
Broken Insulators	R				
	Y	OK	OK	OK	OK
	B	✓			

Presence of pollution on Insulators	None ✓	Vehicular	Industrial	Bird Excreta

Dislocated/Damaged spacer dampers in forward span	Phase	Circuit - I	Circuit - II	Remarks
	R			–
	Y	OK	OK	–
	B			–

Damaged Conductor/Hardware fittings in forward span	Phase	Circuit - I	Circuit - II	Remarks
	R			–
	Y	OK	OK	–
	B			–

Clearance from trees in forward span	OK			
Damaged E/W & it's hardware fittings	OK	Left	OK	Right OK
OPGW Splicing Box Position/Condition			OK	
New building/Power line/Railway line/New construction in forward span & available clearance			–	
Any other abnormality observed i.e. uneven settlement of foundation, crack in revetment, foreign material on tower, etc.			–	

Engineer / Supervisor	
Signature	
Name	Abhay Kumar

Remarks:

Format –I

Ground Patrolling Report

Telegence

Sr.No-		Date:	23/05/2025

Region	Patrolling Date	Name of the Line	Loc. No.	Type of Tower
Hapur	23/05/2025	400KV D/C BB Line	301 (AP87)	DP+30

Particulars	Observations								
Muff Condition	Good	✓	Need Soil Filling	–	Need Digging	–	Leg no.	–	
Condition of Stub	Good	✓	Rusting	–		–	Leg no.	–	
Condition of Pipe/CP Earthing	Good	✓	Not visible	–	Missing/Open	–	Leg no.	–	
Danger Plate	Good	✓	Poor	–	Missing	–		–	
Number Plate	Good	✓	Poor	–	Missing	–	Wrong fix	–	
Phase Plate	Good	✓	Poor	–	Missing	–			
Anti-Climbing Device	Good	✓	Poor	–	Missing	–			
Tower Parts condition	Good	✓	Rusting	–	Damaged/Missing	–			
Missing/Damaged Part no./Qty	No	✓							
Missing Bolts/Dummy Holes	No	✓			If Yes, Size/Qty				
Tree Around Base	No	✓	Up to ACD	–	Bushes	–	Qty	–	
Copping Condition	Good	✓	Damaged	–	Missing	–	Leg no.	–	
Chimney	Good	✓	Damaged	–		–	Leg no.	–	
Revetment Wall	NA		Need	–		–	Leg no.	–	
Tack Welding	Good	✓			Missing	–	Point Miss	–	
Bird Guard	Good	–	Missing	–	NA	–			
Twin Spacer	Good	✓	Loose	–	Missing	–			
C.C. Ring	Good	✓	Loose	–	Missing	–			
Jumper N/B	Good	✓	Loose	–	Missing	–			
Guard Ring	Good	✓	Loose	–	Missing	–			
G-ring Clamp	Good	✓	Open	–	Missing	–			
G-ring N/Bs	Good	✓	Open	–	Missing	–			
OPGW Clipping	Good	✓	Open	–	Missing	–			
Earth wire Clipping	Good	✓	Open	–	Missing	–			
OPGW V/D	Good	✓		–	Missing	–			
Earth wire Copper Bond	Good	✓	Open	–	Missing	–			
Earth wire V/D	Good	✓		–	Missing	–			
Earth Wire (MSJ)	OK	✓	NOT OK	–	Phase	–	Qty	–	
Conductor (MSJ)	OK	✓	NOT OK	–		–	Qty.	–	
Conductor Stands Cut	OK	✓		–		–			
Arching Horn	Good	✓	Open	–	Missing	–			
Arching Horn N/Bs	Good	✓	Open	–	Missing	–			

Circuit	Single/Double	Circuit - I		Circuit - II	
	Phase	Inner Limb	Outer Limb	Inner Limb	Outer Limb
Broken Insulators	R				
	Y	OK	OK	OK	OK
	B				

Presence of pollution on Insulators	None		Vehicular		Industrial		Bird Excreta	

Dislocated/Damaged spacer dampers in forward span	Phase	Circuit - I	Circuit - I	Remarks
	R			–
	Y	OK	OK	–
	B	OK	OK	–

Damaged Conductor/Hardware fittings in forward span	Phase	Circuit - I	Circuit - I	Remarks
	R			–
	Y	OK	OK	–
	B	OK	OK	–

Clearance from trees in forward span			
Damaged E/W & it's hardware fittings	OK	Left	OK / Right OK
OPGW Splicing Box Position/Condition		OK	
New building/Power line/Railway line/New construction in forward span & available clearance		–	
Any other abnormality observed i.e. uneven settlement of foundation, crack in revetment, foreign material on tower, etc.		–	

Engineer / Supervisor	
Signature	
Name	Abhay Kumar

Remarks:

Format –I

Ground Patrolling Report

Sr.No.

Date:

Region	Patrolling Date	Name of the Line	Loc. No.	Type of Tower
Haryana	27/03/2025	Babai – Bhiwani	AP 86 (300)	DD+30

Particulars	Observations					
Muff Condition	Good	✓	Need Slit Filling	Need Digging	Leg no.	
Condition of Stub	Good	✓	Rusting		Leg no.	
Condition of Pipe/CP Earthing	Good	✓	Not visible	Missing/Open	Leg no.	
Danger Plate	Good	✓	Poor	Missing		
Number Plate	Good	✓	Poor	Missing	Wrong fix	
Phase Plate	Good	✓	Poor	Missing		
Anti-Climbing Device	Good	✓	Poor	Missing		
Tower Parts condition	Good	✓	Rusting	Damaged/Missing		
Missing/Damaged Part no./Qty.	No	✓				
Missing Bolts/Dummy Holes	No	✓		If Yes, Size/Qty		
Tree Around Base	No	✓	Upto ACD	Bushes	Qty	
Copping Condition	Good	✓	Damaged	Missing	Leg no.	
Chimney	Good	✓	Damaged		Leg no.	
Revetment Wall	N/A		Need		Leg no.	
Tack Welding	Good	✓		Missing	Part Miss	
Bird Guard	Good	—	Missing	NA		
Twin Spacer	Good	✓	Loose	Missing		
C.C. Ring	Good	✓	Loose	Missing		
Jumper N/S	Good	✓	Loose	Missing		
Guard Ring	Good	✓	Loose	Missing		
G-ring Clamp	Good	✓	Open	Missing		
G-ring N/Bs	Good	✓	Open	Missing		
OPGW Clipping	Good	✓	Open	Missing		
Earth wire Clipping	Good	✓	Open	Missing		
OPGW V/D	Good	✓		Missing		
Earth wire Copper Bond	Good	✓	Open	Missing		
Earth wire V/D	Good	✓		Missing		
Earth Wire (MSJ)	OK	✓	NOT OK	Phase	Qty.	
Conductor (MSJ)	OK	✓	NOT OK		Qty.	
Conductor Strands Cut	No	✓				
Arching Horn	Good	✓	Open	Missing		
Arching Horn N/Bs	Good	✓	Open	Missing		

Circuit	Single/Double	Circuit - I		Circuit - II	
	Phase	Inner Limb	Outer Limb	Inner Limb	Outer Limb
Broken Insulators	R				
	Y	OK	OK	OK	OK
	B				

Presence of pollution on insulators: None ✓ | Vehicular — | Industrial — | Brick Kiln —

Dislocated/Damaged spacer dampers in forward span	Phase	Circuit - I	Circuit - II	Remarks
	R			—
	Y	OK	OK	—
	B			—

Damaged Conductor/Hardware fittings in forward span	Phase	Circuit - I	Circuit - II	Remarks
	R			—
	Y	OK	OK	—
	B			—

Clearance from trees in forward span: OK

Damaged C/W & it's hardware fittings: OK — Left: OK Right: OK

OPGW Splicing Box Position/Condition: —

New building/Power line/Railway line/New construction in forward span & available clearance: —

Any other abnormality observed i.e. uneven settlement of foundation, crack in revetment, foreign material on tower, etc.: —

Engineer / Supervisor

Signature

Name: Abhay Kumar

Remarks:

Format -I

Ground Patrolling Report

Telegrafia

Sr No-

Date:

Regd-1	Patrolling Date	Name of the Line	Loc No	Type of Tower
Hasyana	27/03/2025	Babai – bhiwani	AP87(901)	DD+30

Particulars	Observations				
Muff Condition	Good	Need Set Tieing	Need Digging	Leg no	
Condition of Stub	Good	Rusting		Leg no	
Condition of Pipe/CP Earthing	Good	Not visible	Missing/Open	Leg no	
Danger Plate	Good	Poor	Missing		
Number Plate	Good	Poor	Missing	Wrong No	
Phase Plate	Good	Poor	Missing		
Anti-Climbing Device	Good	Poor	Missing		
Tower Parts Condition	Good	Rusting	Damaged/Missing		
Missing/Damaged Part no./Qty	No				
Missing Bolts/Dummy Holes	No		If Yes, Size/Qty		
Tree Around Base	No	Up to GD	Bushes	Qty	
Copping Condition	Good	Damaged	Missing	Leg no	
Chimney	Good	Damaged		Leg no	
Pavement Wall	N/A	Good		Leg no	
Tack Welding	Good		Missing	Paint Miss	
Bird Guard	Good	Missing	NA		
Twin Spacer	Good	Loose	Missing		
C.C. Ring	Good	Loose	Missing		
Jumper NB	Good	Loose	Missing		
Guard Ring	Good	Open	Missing		
G-ring Clamp	Good	Open	Missing		
G-ring N/Bs	Good	Open	Missing		
OPGW Clipping	Good	Open	Missing		
Earth wire Clipping	Good		Missing		
OPGW V/D	Good	Open	Missing		
Earth wire Copper Bond	Good		Missing		
Earth wire V/D	Good	NOT OK	Phase	Qty	
Earth Wire (MSJ)	OK	NOT OK		Qty	
Conductor (MSJ)	OK				
Conductor Strands Cut	No	Open	Missing		
Arching Horn	Good	Open	Missing		
Arching Horn N/Bs	Good				

Circuit	Single/Double	Phase	Circuit-I Inner Limb	Circuit-I Outer Limb	Circuit-II Inner Limb	Circuit-II Outer Limb
Broken Insulators		R	OK	OK	OK	OK
		Y				
		B				

Presence of pollution on insulators: None ✓ | Moderate | Industrial | Bird Excreta

Dislocated/Damaged spacer dampers in forward span	Phase	Circuit-I	Circuit-II	Remarks
	R			—
	Y	OK	OK	—
	B			—

Damaged Conductor Hardware fittings in forward span	Phase	Circuit-I	Circuit-II	Remarks
	R			—
	Y	OK	OK	—
	B			—

Clearance from trees in forward span: N/A

Damaged E/W & it's hardware fittings: OK — Left: OK — Right: OK

OPGW Splicing Box Position/Condition: —

New building/Power line/Railway line/New construction in forward span & available clearance: —

Any other abnormality observed i.e. uneven settlement of foundation, crack in pavement, foreign material on tower, etc.: —

Engineer / Supervisor

Signature

Name: Abhay Kumar

Remarks:

Annexure - V

भारत सरकार
GOVERNMENT OF INDIA
भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

ई-मेल : ts.chandimet@gmail.com
दूरभाष : 0172 -2629984, 2688585
फैक्स : 0172 -2629984 ,2629981

संख्या सी.एच.टी. - 41(1)/ 1252
निदेशक का कार्यालय,
मौसम केन्द्र,
सैक्टर – 39 C, चंडीगढ़ – 160036
दिनांक : 23 जून 2025

सेवा में

NRSS XXXVI Transmission Limited
Shatabdi Bhawan, B 12 & 13
Sector – 4, Noida
Uttar Pradesh - 201301

विषय: स्टेशन भिवानी की दिनांक 13 जून 2025 की मौसम रिपोर्ट के सन्दर्भ में |

सन्दर्भ: आपका पत्र क्रमांक NRSS/N/2025-2026/IMD/18 दिनांक : 19.06.2025 |

महोदय,

उपरोक्त उल्लिखित पत्र के संदर्भ में, आपको सूचित किया जाता है कि भारत मौसम विज्ञान विभाग की भिवानी, हरियाणा में कोई विभागीय वेधशाला नहीं है | इसलिए मांगी गयी आवश्यक मौसम रिपोर्ट (दिनांक 13 जून 2025), इस कार्यालय द्वारा उपलब्ध नहीं करायी जा सकती है |

अरुण शर्मा
मौ. वि. – ए
कार्यालय प्रभारी

(अरुण शर्मा)
(ARUN SHARMA)
मौसम विज्ञानी 'ए'
Meteorologist 'A'
मौसम विज्ञान केंद्र/Meteorological Centre
सैक्टर 39-सी, चंडीगढ़-160036
Sector 39-C, Chandigarh-160036

From: rmc newdelhi
To: Takawale Shashank
Cc: gajendra71.kumar@imd.gov.in; Kumar Anuj; Punetha Kshitiz; Technical Section
Subject: Re: Wind Speed Data of Village Pahladgad, District - Bhiwani
Date: 23 June 2025 16:31:38

[EXTERNAL sender, Exercise caution..!]

Dear Ma'am/ Sir,

Please note that there is no observatory at your location. You may contact MC Chandigarh at ts.chandimet@gmail.com (Ph no. - 0172-2629984(218)) to obtain weather reports of Haryana.

We have the data of Delhi's observatories i.e Safdarjung and Palam, if you agree to take data of either of these please send the following documents to us:
1. Your request in the given format (https://mausam.imd.gov.in/newdelhi/docs/data-request.pdf)
2. Valid ID card

Thanks and regards,

On Wed, Jun 18, 2025 at 10:43 PM Takawale Shashank <takawale@tatapower.com> wrote:

> Dear Sir,
>
> Greetings from NRSS XXXVI Transmission Limited!
>
> NRSS XXXVI Transmission Limited has constructed and is maintaining 400 KV D/C Babai - Bhiwani Transmission Line, passing through Bhiwani, Charkhi Dadri, Mahendragarh districts of Haryana and Jhunjhunu district of Rajasthan. On 13 June, 2025, two nos of towers of 400KV Babai-Bhiwani line buckled due to heavy tornado like winds in village Pahladgad of district Bhiwani.
>
> In order to analyse the root cause of the tower failures, we request you provide the wind speed data as below:
>
> Date – 13 June, 2025
>
> Time – 15:00 hours to 16:00 hours

Location – Village Pahladgad, Tehsil & District Bhiwani.

Nature of wind flow – Tornado/Gusts/any other

We would be glad to provide any other information that may be required.

Thanking you,

Regards,

Shashank Subhash Takawale

Head - PMU and O&M NRSS

The Tata Power Company Limited,Shatabdi Bhawan,B-12 & 13, Sector 4, Noida, UP-201301

Mobile: 9223714974

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तकनीकी अनुभाग
प्रादेशिक मौसम केंद्र , नई दिल्ली
फ़ोन : 011-24344244
ई-मेल : rmcnewdelhi.ts@gmail.com

NRSS XXXVI TRANSMISSION LIMITED

Registered Office: 94, 3rd Floor, Pocket-4, LIC Flats Sector-11, Dwarka, New Delhi - 110075
Corporate Office: Shalabdi Bhawan, B 12 & 13, Sector 4, Noida, Uttar Pradesh - 201301
CIN: U40300DL2015PLC284168 • Tel.: +91-8860764693 / +022- 6717-2869 • Email ID: sect.nrss@gmail.com

Ref: NRSS/R/2025-2026/E2/125 Date: 17.03.2026

Received
Abandan
17/3/2026

To,
The Member Secretary
Northern Regional Power Committee (NRPC)
18-A, Qutab Institutional Area,
Shaheed Jeet Singh Marg, Katwaria Sarai,
New Delhi-110016
Email : ms-nrpc@nici.in

Subject: Restoration of Fault in 400KV Babai-Bhiwani Circuit I and Circuit II transmission lines of NRSS XXXVI Transmission Limited interstate public utility infrastructure work in village Pahladgarh, District-Bhiwani.

Ref:-
1.Intimation Letter to Chief Engineer CEA regarding tower collapsed dated 14/06/2026
2.Documents submission to NRPC on mail dated 26.09.2025
3.Documents submission to NRPC on mail dated 27.01.2026
4. Documents submission to NRPC on mail dated 10.02.2026

Respected Madam,

NRSS XXXVI Transmission Limited (NRSS XXXVI) is the SPV created by REC Transmission Project Company Limited (RECTPCL, A Govt. of India Undertaking under Ministry of Power) for implementation of "System Strengthening Scheme in Northern Region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 KV D/C Line at Babai (RRVPNL)" through BOOM basis. The Scope of work under the Scheme is as follows: -

1-Koteshwar Pooling Station – Rishikesh 400 kV D/C (HTLS) line
2-2 nos. of bays at 400 kV Rishikesh sub station
3-400 KV D/C Babai (RRVPNL) – Bhiwani (PG) D/C line
4-LILO of one ckt of 400 kV D/C Sikar (PG) – Neemrana (PG) line at Babai
5-4 nos. of bays at 400 kV Babai (RRVPNL) substation

On 13 June, 2025, tower no 86/0 and 87/0 of 400 kV Babai-Bhiwani line collapsed due to heavy winds. Conductors of 400 kV Babai-Bhiwani line fell on 400 kV Mahendragarh-Bhiwani line of M/s Adani Transmission as 400 kV Babai-Bhiwani line overcrossed M/s Adani's line.

In view of the importance of 400 kV Babai-Bhiwani Line, NRSS XXXVI immediately checked feasibility for installation of ERS by underpassing one circuit of 400 kV Babai-Bhiwani line under 400KV line of M/s Adani Transmission Limited considering the electrical clearances required to be maintained between both the transmission lines and ground clearance considering the spans in which 400 kV Babai-Bhiwani line is underpassed are normal spans with required ground clerances being maintained.

It was decided to try and pass one circuit under M/s Adani's Mahendragarh-Bhiwani line and check if adequate clearances are obtained as bottom phase conductor of 400 kV Mahendragarh-Bhiwani line of M/s Adani was also not in its final position as M/s Adanai was carrying out repair works in these spans affected by the tower collapse.

NRSS XXXVI TRANSMISSION LIMITED

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Corporate Office: Shatabdi Bhawan, B 12 & 13, Sector 4, Noida, Uttar Pradesh - 201301
CIN: U40300DL2015PLC284168 • Tel.: +91-8860764693 / +022- 6717-2869 • Email ID: sect.nrss@gmail.com

NRSS XXXVI is a very small entity (Less than 150KM line including all elements) and ERS not available for such scenario in ready condition. NRSS XXXVI has arranged ERS from other entity in a very short period. The ERS was transported from different part of northern India i.e. Muzzafarpur (Bihar), Mandola and Lucknow (Uttar Pradesh).

ERS installation requires highly skilled manpower which require time to arrange from safety point of view. However, we managed to mobolise the worforce in shortest possible time.

There are 10 Nos of ERS installed in each circuit due to under pass of 400KV Mahendergarh-Bhiwani Transmission Line of M/s Adani Transmission Limited line.

The entire area was partially submerged due to heavy rainfall and low land area where approach to location created significant challenges.

The entire area is in severe ROW area where local political influence and gathering of villagers created significant challenges in execution of work. NRSS has submitted request letter to District Adminstration for support in resolution of ROW. Copy of letter dated 14.06.2025 is enckosed for reference. In this area, RoW is severe and Utilities are unable to commission of the tranmsssion lines due to severe ROW in this area of Bhiwani district.

After one circuit of 400 kV Babai-Bhiwani line was construcred and required electrical and ground cleranaces obtained, NRSS XXXVI immediately started work on taking the other circuit of 400 kV Babai-Bhiwani Line on ERS and completed the same despite of hindrances due to RoW and heavy rains.

The circuits were successfully taken on original route on towers as given below:

Particulars	Work Completed	Application to Electrical Inspector (EI), CEA	EI Site Visit	EI Observation Report	EI Compliance Submitted	EI Approval	Line Charging Date
Circuit 1	25.10.25	25.10.25	28.10.25	29.10.25	29.10.25	29.10.25	30.10.25
Circuit 2	1.11.25	2.11.25	4.11.25	5.11.25	5.11.25	5.11.25	6.11.25

We submit that NRSS XXXVI has taken utmost efforts in restoring the circuits on ERS and on original route. Therfore, it is humbly submitted that NRSS XXXVI may be granted full deemed availability during the perioed affected by the tower collapse incident; namely June 25, July 25 and October 25 and November 25.

Thanking you,

NRSS XXXVI TRANSMISSION LIMITED

Registered Office: 94, 3rd Floor, Pocket-4, IJG Flats Sector-11, Dwarka, New Delhi - 110075
Corporate Office: Shatabdi Bhawan, B 12 & 13, Sector 4, Noida, Uttar Pradesh - 201301
CIN: U40300DL2015PLC284168 • Tel.: +91-8860764693 / +022- 6717-2869 • Email ID: sect.nrss@gmail.com

Yours faithfully,

Shashank Takawale
(Head PMU and O&M NRSS)
Email: takawale@tatapower.com

Enclosed: -

1 Presentation made to Hon MS, NRPC on 17.03.25
2 Intimation Letter to Chief Engineer CEA dated 14.06.2025
Document Submission Letter to Chief Engineer, CEA on dated 19.06.2025
3 Letters to Administration for support in resolution of ROW during Restoration work dt 14.06.2025
4 Preliminary report on tower Failure from CEA
5 Lay Out Plan of ERS for Ckt 1 and Ckt 2
6 Daily Progress Report of ERS Installation work for Ckt 1& 2
7 Geotagged Site Photographs during ERS installation, Restoration work, Dharna Andolan and News Paper cuttings
8 Letter to Administration for supporting in resolution of RoW
9 CPRI Test Reports

10 Standing Committee Report on Failure of EHV Transmission line during January 25 to June 25 held on 8. 9.2025/
11 Daily Progress Report during fixing of line on its original route Ckt 1
12 Daily Progress Report during fixing of line on its original route Ckt 2
13 NRPC denial mail for shut down of ATIL line (400KV Mahandergarh-Bhiwani) Dated 30/09/2025
14 Application Submission for Energization approval from EI on NSWS portal for Ckt 1 Dated 25/10/2025
15 EI approval letter for Ckt 1 Dated 29/10/2025
16 Annex B-6 for Ckt 1 Dated 29/10/2025

17 Energization request mail to NRLDC for Ckt 1 Dated 29/10/2025
18 Application Submission for Energization approval from EI on NSWS portal for Ckt 2 Dated 02/11/2025
19 EI approval letter for Ckt 2 Dated 05/11/2025
20 Annex B-6 for Ckt 2 Dated 06/11/2025

21 Energization request mail to NRLDC for Ckt 2 Dated 06/11/2025
22 Letter Submitted to Chief Engineer CEA for report on failure of tower of 400KV Babai-Bhiwani Line dt 17.01.2026.

Gathering (Dharna) of Farmers/Villagers during ERS Installation work in 400KV D/C Babai-Bhiwani Line

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

Date:15.10.2025

विषय: ट्रांसमिशन सिस्टम की उपलब्धता के उद्देश्य से ट्रांसमिशन लाइनों की आउटेज की अवधि पर चर्चा पर बैठक का कार्यवृत्त ।

Discussion on outages taken and restoration period of transmission assets for purpose of Transmission System Availability-reg.

Kindly find attached minutes of the meeting held on 17.09.2025 (11:00 AM) through VC to discuss the issues of outages taken and restoration period of transmission assets for purpose of Transmission System Availability. List of outages discussed and decision taken is attached as **Annexure-I.**

This issues with approval of MS, NRPC.

DHARMENDER KUMAR MEENA
Digitally signed by DHARMENDER KUMAR MEENA
Date: 2025.10.24 17:16:02 +05'30'

डी. के. मीणा
निदेशक (संरक्षण)

सेवा में,

1. **CGM, PowerGrid (NR-I); kuleshwar@powergrid.in**
2. **CGM, PowerGrid (NR-II); ahmed.shafat@powergrid.in**
3. **CGM, PowerGrid (NR-III) (pankajsharma@powergrid.in)**
4. **Sh. Somara Lakra, CGM, Grid-India (somara.lakra@grid-india.in)**
5. **Sh. Lokendra Singh Ranawat, Head Regulatory, IndiGrid (lokendra.ranawat@indigrid.com)**
6. **Sh. Nihar Raj, VP, Adani Transmission Limited (nihar.raj@adani.com)**
7. **Sh. Neeraj Kumar Verma, AVP, NRSSXXXIB Transmission Limited, Sekura; Neeraj.Verma@energy-sel.com**
8. **Sh. Rajnish Mehrotra, Head, Regulatory, NRSSXXXVI Transmission Limited; nrss-rajnishmehrotra@tatapower.com**

Minutes of the meeting held on on 17.09.2025 (11:00 AM) through VC to discuss the issues of outages taken and restoration period of transmission assets for purpose of Transmission System Availability.

MS, NRPC welcomed all the participants. List of participants is attached as **Annexure-P.** EE (Protection), NRPC apprised that multiple tripping and tower collapse incidents were reported during April, May, and June 2025. The related outage details were circulated to all stakeholders through the meeting notice dated 08.09.2025. He asked AE (Protection) to present the cases where outages were claimed by the licensee as deemed under force majeure.

Case 1: Outages cases related to windstorm, lightning and bad Weather etc.

1.1 AE (Protection) presented the cases claimed as outages under force majeure conditions, arising from tripping caused by windstorms, lightning, and adverse weather conditions during the months of April, May, and June 2025.

1.2 PowerGrid representative presented photographs depicting flashover marks on insulators and arcing horns, and apprised the forum that these marks were attributable to back-flashover phenomena during lightning. It was further informed that a detailed case study on tripping incidents caused by lightning had already been presented in OCC Meeting No. 226 under Agenda Item 21 and duly discussed.

1.3 SE, NRPC stated that EHV Transmission lines are designed with lightning protection measures. He further inquired about the regulatory provisions governing outages resulting from tripping due to lightning-induced back-flashover or insulation breakdown.

1.4 PowerGrid referred to the deliberations of OCC Meeting No. 226 under Agenda Item 21 and reiterated that lightning, being a natural phenomenon beyond human control, may be considered as a force majeure event in the context of transmission line tripping.

1.5 MS, NRPC stated that transmission lines are designed with lightning protection measures such as shield wires, adequate tower footing resistance, proper insulation coordination, surge arresters, and appropriate arrangements to withstand direct lightning strikes. She further emphasized that routine patrolling, periodic maintenance of insulators and hardware, and timely replacement of deteriorated components are critical for reliable operation. In addition, environmental factors such as pollution, dust, and particulate accumulation on insulator surfaces can reduce dielectric strength, increasing the risk of tracking and flashover during lightning events, and therefore need to be mitigated through regular cleaning and monitoring.

1.6 MS, NRPC further stated that establishing tripping solely due to lightning is a challenging task and may not be reliably determined in most cases. However, in exceptional instances where a direct lightning strike to a tower can be conclusively established, the Licensee may present such cases for consideration of tripping due to force majeure.

1.7 AE Protection further presented cases of transmission line tripping caused by heavy storms and severe weather conditions during April, May, and June 2025, noting that the majority of tripping in above months were attributed to heavy storms. The Licensee also provided specific causes, including snapping of conductors, earth wires, and jumpers, broken CVT dropper connectors, and damaged lightning arresters (LAs), among these tripping.

1.8 **NRSS 31B** apprised that although IMD reports indicate occurrences of heavy winds, it is not feasible to measure localized wind speeds at a specific location and exact time. Furthermore, the wind speed data in IMD reports are recorded at a standard height of approximately 10 meters, whereas 400 kV and 765 kV transmission line towers typically exceed 50 meters in height, where actual wind speeds are considerably higher.

1.9 NRSS 31B presented cases of transmission line tripping due to heavy windstorms, accompanied by photographs showing damage in the nearby areas caused by localized severe storms. They further informed that post-storm patrolling was carried out, and no other causes for the tripping were identified.

1.10 PowerGrid presented cases of transmission line tripping in the Northern Region during May, with major impacts on 2nd and 21st May. PowerGrid apprised that there was complete blackout of Meerut and Mandola substation on 21th May 2025 and no evacuation path at Koteshwar Substation led to further opening of ICTs due to loss of voltage **(PPT of PGCIL is attached at Annexure -II**). During fault investigations, snapped jumpers, presence of foreign materials, and damaged insulators were observed. PowerGrid further informed that wind speeds in the region broke all previous records, reaching the highest levels in 125 years. Supporting evidence, including IMD reports, newspaper articles, and photographs of nearby damages, were submitted to substantiate the claims.

1.11 The SE (Protection) enquired whether transmission line tripping could occur due to conductor or jumper swings induced by high wind velocities. It was observed that snapping of jumpers and damage to terminal equipment (including insulators, connectors, and surge arresters) were limited to only one or two isolated cases, while adjacent transmission lines did not experience significant impacts. It was further clarified that transmission lines are designed considering extreme wind speeds as per relevant IS/CEA standards for the specific wind zone, and tower structures are engineered to withstand such conditions.

1.12 PowerGrid informed that transmission line trippings due to conductor or jumper swings are generally not possible; however, localized high winds may cause disturbances to individual towers, conductors, or terminal equipment. Further, it was also highlighted by PGCIL that old sub-stations face such issues frequently such as Mandola and Jhatikara that have completed 25 years of service.

1.13 SE, NRPC stated that these trippings could have been avoided if the Licensee had rigorously implemented and adhered to stringent operation and maintenance practices.

1.14 MS, NRPC stated that prior to the monsoon and windstorm season, the Licensee must carry out targeted maintenance, including inspection and replacement of weak components, aged insulators, conductors, jumpers, and terminal equipment. Patrolling frequency should be increased, with checks on tower foundations, vibration dampers, conductor sag, and clearance levels. For assets over 25 years old, enhanced inspection and corrective measures are required. Operational procedures must be rigorously implemented, with field personnel informed. The transmission network must maintain structural and electrical resilience to withstand extreme windstorms, preventing flashovers, conductor galloping, or mechanical failures. If wind speed of the event do not cross design speed, then jumpers, insulators etc should not get snapped.

Decision:

i. Tripping events related to lightning was evaluated based on the details provided. Accordingly, it was found that claim could not be established and hence outages are attributed to Licensee as per attached **Annexure-I.**

ii. Tripping due to windstorms, and adverse weather conditions shall not be treated as force majeure events. These could have been avoided with better maintenance practices. Hence outages are attributed to Licensee as per attached **Annexure-I.**

Case 2: Outages due to Tower collapse/damaged and replacement of towers:

Case 2.1: Outage of 400 KV Nallagarh(PG)-Parbati Pooling Banala(PG) (PKTCL) Ckt-1; from 4/11/2025 9:05:00 AM to 4/21/2025 10:22:00 PM.

2.1.1 AE, Protection apprised that PrKTCL has availed outages of total approximately 253 hours in April, citing diversion and replacement work at Locations 72 and 87. He further informed that detailed work carried out has been requested from the Licensee via email. As per the inspection committee report, geological investigations were advised prior to the relocation of new towers. The report specifically mentioned Location 53,55 and 72 and also advised the Licensee to identify any other affected locations.

2.1.2 IndiGrid apprised that in 2023, Himachal Pradesh was declared impacted by floods and landslides, and relevant details have been submitted. In February 2024, the committee formed by NRPC forum visited the affected locations, including Locations 53, 55, and 72. The inspection report directed that geological investigations may be conducted to assess damage to hill slopes and destabilization caused by rain and cloudburst events.

2.1.3 Indigrid apprised that, according to the GSI report, in addition to the locations visited by the NRPC team, one additional location, 87, was identified as affected. Geological survey report along with day-wise details of the work carried out was apprised by Indigrid.

2.1.4 EE, NRPC mentioned that during the inspection, it was advised to conduct a geological survey prior to relocating the tower. Further, he enquired about the completion status of Location 87 and asked timeframe of completion of the work.

2.1.5 Indigrid informed that, in addition to the locations inspected by the NRPC team, the shifting of Location 87 has been completed. The relocation ensured a stable foundation and alignment with the bi-section, so that only one tower was replaced instead of multiple towers. The preceding span of Location 87 increased from approximately 483 m to 519 m, while the succeeding span was reduced from 177 m to 154 m.

2.1.6 On enquiry of MS, NRPC regarding time taken, IndiGrid stated that the terrain category was challenging to perform the relocation/replacement work.

2.1.7 Indigird informed that day wise work schedule, geological investigation report of land mass and required Single line diagram mentioning existing and new tower locations are submitted for reference. **(Annexure-III)**

Decision:

Outage was considered deemed available under *Force Majeure* condition. It was also decided that in case of any discrepancy identified by CEA Standing Committee on Transmission Tower, availability may be revised accordingly.

Case 2.2: Outage of 220KV SAMBA-HIRANAGAR-I & 220KV CHOWADI-SAMBA; from 4/16/2025 8:04:00 PM to 4/17/2025 8:26:00 PM: -

2.2.1 AE (Protection) apprised that the 220kV SAMBA–HIRANAGAR-I and 220kV CHOWADI–SAMBA transmission lines tripped due to the collapse of a tower at Location No. 25. A committee constituted by NRPC visited the site and observed that the collapsed tower was designed for a basic wind speed of 47 m/s, corresponding to Wind Zone 4. While newspaper clippings indicating gusty winds at the time of the incident have been submitted, authenticated wind speed data from a recognized wind observatory has not yet been provided. Furthermore, the material test report for the collapsed tower is still awaited. The licensee may apprise regarding the temporary bypass arrangement made to restore power after the tower collapsed at the said location

2.2.2 PowerGrid apprised that, as informed by Jammu Power Distribution Corporation Limited, the load in the Jammu division dropped significantly from 1000 MW to 100 MW in the evening due to the collapse of the electrical network caused by a localized cyclone. Grid India has also submitted a report highlighting the load crash and multiple trippings in the region. It was further informed that the affected location was bypassed, which helped avoid prolonged power disturbance in the Jammu and Samba areas. Consequently, the outage duration was limited to approximately 24 hours during the implementation of the bypass arrangement.

2.2.3 MS, NRPC stated that if wind speed has not crossed design speed, then, tower should not collapse.

2.2.4 PowerGrid informed that the wind speed at the affected location is not available. Moreover, localized wind cannot be measured. PowerGrid further apprised that the material test report has been found satisfactory and same is submitted. **(Annexure-IV).**

Decision:

Outage of above two lines for temporary arrangement as well as restoration on normal arrangement is considered deemed available under *Force Majeure*. It was also decided that in case of any discrepancy identified by CEA Standing Committee on Transmission Tower, availability may be revised accordingly.

Case 2.3: Outage of 400 KV Babai-Bhiwani Transmission Line Ckt 2 (6/13/2025 3:30:00 PM to 7/1/2025 04:14 PM) & Ckt 1 from 6/13/2025 3:30:00 PM to 07/16/2025 01:40 PM: -

2.3.1 NRSS 36 representative apprised that on 13th June at 3:30 PM, the 400kV D/C Babai–Bhiwani line tripped on distance protection, and subsequent patrolling revealed the collapse of two towers (No. 300 and 301), and photographs were presented showing damage to nearby structures, distribution networks, and trees. A committee consisting of CEA, NRPC and CPRI had visited the site on 20.06.2025 and in the preliminary report of committee, "***Prime facie, it was observed that above mentioned wind conditions may have acted as an immediate and triggering factor for the tower collapse***". He further informed that the line was restored on ERS on 16th July 2025.

2.3.2 SE, NRPC observed that time taken for the restoration on ERS is very long and requested submission of a day-wise work schedule, along with details of any other affected lines.

2.3.3 NRSS 36 clarified that the towers were located in plain fields, and heavy rains led to waterlogging and muddy conditions, hindering material movement despite availability near the road. Additionally, the fallen conductor caused damage to the Mohindergarh–Bhiwani line of M/s Adani Power, which runs beneath the failed line.

2.3.4 AE (Protection) informed that in the preliminary CEA inspection report authenticated wind speed data, and material test report were asked to submit. He further suggested contacting the nearby Bhiwani S/S of PowerGrid, where a wind observatory is installed.

2.3.5 NRSS 36 confirmed that IMD was approached and their response indicated the nearest observatory is in Chandigarh, with no station in Bhiwani, and also noted that wind data from Bhiwani S/S may not be reliable due to the 1 km distance from the site and the low height (10m) of installed sensors. He further informed that the material test report from CPRI was received and found satisfactory.

2.3.6 Material test report, day wise schedule, and communication with nearby authenticated wind observatory is attached. (**Annexure-V).**

Decision:

It was decided to discuss the case in a separate meeting when NRSS36 will submit day-wise activity done by them.

Case 2.4: 400kV Mohindergarh(ATIL) - Bhiwani (PG) Ckt-1& 2 from 6/13/2025 3:30:00 PM to 07/04/2025 05:20 PM: -

2.4.1 ATIL representative apprised that the 400kV Mohindergarh (ATIL) – Bhiwani (PG) transmission line, located beneath the collapsed section of the 400kV D/C Babai–Bhiwani line, sustained damage of cross arm of tower no 135 and conductors, earth-wire, and OPGW between tower locations 135 to 139 due to the sudden impact from the collapsed structure of NRSS36. He informed that restoration took 21 days, with the line restored on 4th July, and attributed the bad weather condition and Right of Way (ROW) issues as cause of delay in restoration. He also mentioned that till CEA committee visit of site on 20/06/2025, they could not start the restoration activity.

2.4.2 SE, NRPC observed that the restoration time was prolonged and suggested that ROW issues could have been addressed during the waiting period for the CEA visit.

2.4.3 ATIL clarified that the delay was primarily due to the fallen conductor from the NRSS 36 line not being removed until the CEA visit was completed on 20th June. During this period, efforts were made to resolve ROW issues involving 53 farmers, and a formal letter was submitted to the local administration. ATIL further informed that the entire affected tower was replaced based on consultation with the design team, as the top cross-arm had suffered bending.

2.4.4 Day wise schedule and details of communication with local authorities is attached. (**Annexure-VI**).

Decision:

Outage was considered deemed available under *Force Majeure* condition**.** It was also decided that in case of any discrepancy identified by CEA Standing Committee on Transmission Tower, availability may be revised accordingly.

Case 2.5: 765KV AGRA-FATEHPUR-II from 5/21/2025 10:28:00 PM to 6/2/2025 9:30:00 PM;

2.5.1 PowerGrid apprised that the line tripped on 21.05.2025 at 22:28 hrs due to a high-speed cyclonic localized windstorm, which caused the K-frame of the tower above the waist level to twist, resulting in tower failure. The line was restored on 2nd June 2025. The incident was intimated to CEA on 22th May'2025. Due to prior engagements of CEA officials, CEA representative could not visit the site to investigate the tower failure incident. POWERGRID's committee members visited the tower failure location no. 722 on date 23rd May'25 to investigate the cause of damage to the tower. Based on the site visit, discussion with local villages, and damages to nearby infrastructure it can be concluded that the heavy cyclonic wind damaged the tower above waist level.

2.5.2 MS, NRPC stated that the restoration time was prolonged and enquired whether the wind speed had exceeded the design parameters, leading to the bending of the cross-arm.

2.5.3 PowerGrid explained that restoration efforts were hampered by severe weather conditions and heavy rainfall, and the site's challenging terrain, being surrounded by a valley on three sides, significantly restricted the movement of manpower, tools, and equipment. They informed that newspaper clippings indicating heavy storms is submitted, along with videos showing rain during the restoration process.

2.5.4 Powergrid informed that request email was sent to IMD, Lucknow to provide wind data during the time of damage to the tower. IMD, Lucknow vide mail and letter dated 28 May'2025 informed that there is no wind observatory near Shikhohabad, UP and the wind observatory at Agra do not have required wind measurement equipment.

2.5.5 PowerGrid further informed that due to severe damage to upper section of the tower, it was decided to replace the damaged tower with new tower new tower. Hence complete restoration took around 11 days. Supporting documents are attached as **Annexure-VII.**

Decision:
Outage was considered deemed available under *Force Majeure*. It was also decided that in case of any discrepancy identified by CEA Standing Committee on Transmission Tower, availability may be revised accordingly.

Case 3: Miscellaneous outages cases Related to Snow Avalanche/Heavy Snow, fall of tree from outside corridor, Cross border firing during operation Sindoor and galloping of conductor due to unstable Land etc.-

Snow Avalanche/Snow related cases:

3.1 PowerGrid representative presented the case and informed that tripping happened due to **snow Avalanche/Heavy Snow.**

3.2 MS, NRPC stated that the case may be evaluated based on the submission of GPS-tagged and time-stamped photographs, relay-indicated fault distance, GPS coordinates of the nearest affected tower(s), and the corresponding tower schedule, so as to establish the case with proper technical evidence.

3.3 The EE, NRPC informed that trippings related to kite/thread is evaluated based on evidence such as GPS coordinates and time-stamped photographs provided by the Licensee. In a similar manner, cases arising from avalanche events may also be assessed.

3.4 PowerGrid apprised that physical presence at the site during a snow avalanche event is not feasible, as it poses a severe risk to human safety and may endanger lives.

3.5 NRPC Secretariat mentioned that Defence Geoinformatics Research Establishment (DGRE), Chandigarh issues snow avalanche forecast on regular basis. No such adverse forecast was found for 19 Apr 2025. For 20 Apr 2025, danger level GREEN has been mentioned i.e. generally safe. Further, video location was found beyond 50 km of fault location.

3.6 MS, NRPC stated that although video in cases of avalanche is challenging to capture, but adequate proof is pre-requisite for consideration of case under natural calamity.

Tree falling cases:

3.7 AE(Protection) informed that, in cases where outages occur due to line **tripping caused by the fall of trees** from outside the transmission corridor, specific data is required for proper evaluation. These include the pinpoint GPS coordinates of the location from where the tree was uprooted or bent, the GPS coordinates of the point where the tree landed, along with the KMZ file of the tower schedule. This information is essential to verify that the incident occurred outside the Right of Way (ROW) limits.

3.8 PowerGrid informed that required documents for the cases of falling of trees on transmission line is submitted for deemed availability purpose.

Cross Border Firing Cases:

3.9 AE(Protection) further apprised that there were multiple tripping due to **cross border firing.**

3.10 PowerGrid informed that during operation Sindoor, there were heavy shelling from across LOC in Uri, Kupwara and other areas of J&K, which resulted in snapping of conductors and damage of tower members, also there was restriction in the area which hampered the replacement and restoration work of affected line. PowerGrid presented the photograph related to damage in transmission line.

3.11 MS, NRPC stated that case may be considered under miscreants/militant activities upon verification of tripping date and dates of operation Sindoor.

3.12 AE(Protection), informed that ceasefire was announced on 10th May however tripping was also on 13th, 15th and 16th May for 400KV URI 1 - AMARGARH – II line.

3.13 PowerGrid informed that shelling was continue even after operation Sindoor for some days and area was restricted for movement for the sanitation purpose hence restoration was only possible after restrictions were lifted off.

Galloping of conductor cases:

3.14 AE(Protection), informed that PowerGrid has also reported tripping due to **galloping of conductor** and similar tripping were also reported in previous month which were claimed as deemed under force majeure.

3.15 PowerGird informed that 400KV KISHENPUR- NEW WANPOH-III and IV are restored on ERS after the collapse of multiple towers during heavy rain. The extent of damage was so high that complete villages of nearby and nearby distribution s/s were washed out. In present scenario there are frequent cases of land settlement which creates movement of ERS towers and led to galloping of conductors.

3.16 MS, NRPC stated that GPS tagged photographs related to issue of land settlement is required for validating the reason of tripping.

3.17 NRPC Secretariat highlighted that video shown by PGCIL for land settlement has been scrutinized but it can not be concluded that land is settling.

RoW related issue:

3.18 AE (Protection) apprised that the 800kV **HVDC Agra-BNC Pole-II** tripped on 28/04/2025 at 02:39 hrs. The reason stated by the licensee is that severe Right of Way (ROW)

clearance, including cutting of trees and vegetation, could not be carried out in Span 1291–1295. A patrolling report and a letter to the local administration have been submitted in support of this claim.

3.19 PowerGrid informed that the ROW issue has been resolved with the assistance of the local administration, and the cutting of trees and vegetation has been carried out to prevent any future tripping.

3.20 MS, NRPC stated that deemed availability may be granted for the instant case only. However, the licensee must ensure regular patrolling and maintenance activities, and shall proactively seek the assistance of the local administration to resolve such issues in advance, in order to avoid unnecessary tripping of the transmission line.

Decision:

i. Regarding tripping events related to Snow Avalanche/Heavy snow, claim could not be established and hence outages are attribute to Licensee as per attached Annexure-I.
ii. Tripping related to Falling of tree outside corridor is assessed based on the details provided. It is found the out of 4 cases of falling of trees, only in one case (400KV KISHENPUR- NEW WANPOH-III 5/27/2025 8:23:00 PM), tree found to be outside ROW of transmission line, hence only this case is considered deemed available, rest are attributed to Licensee as per attached Annexure-I.
iii. Tripping related to cross border firing is considered deemed available as per attached Annexure-I.
iv. Tripping related to galloping of conductor is evaluated based on details provided, however claim could not be established and hence outage is attributed to Licensee as per attached Annexure-I.
v. ROW issue on the 800kV HVDC Agra-BNC line (tripped on 28/04/2025 at 02:39 hrs), was considered as deemed available under forced majeure for this instance only. (Details is attached as Annexure-I)

Annexure-P

S.N.	Name of Officer (Sh/Smt)	Organisation
1	Rishika Sharan, MS	NRPC
2	DK Meena, Dir/SE	NRPC
3	Reeturaj Pandey, DD/EE	NRPC
5	Akash Jain, AD-II/AE	NRPC
6	Kuleshwar Sahu, CGM, NR-1	PowerGrid
7	Shafat Ahmed, CGM, NR-2	PowerGrid
8	Vishal Roy, DGM, NR-1	Power Grid
9	Rakesh Gupta, DGM, NR-2	Power Grid
10	Satish Tiwari, DGM, NR-3	Power Grid
11	Anup Singh, DGM, NR-3	Power Grid
12	I C Jaiswal, DGM, NR-3	Power Grid
13	Lokendra Singh Ranawat, Head (Reg)	IndiGrid
14	Samriddhi Gogoi	IndiGrid
15	Saurabh Sharma,	Adani
16	Narendra Ojha	Adani
17	Neeraj Kr. verma	NRSS 31B
18	Pradeep Kumar	NRSS 31B
19	Shashank Takawale	NRSS 36
20	Rajnish mehrotra	NRSS 36

18-ए, शहीद जीत सिंह मार्ग, कटवरिया सराय, नई दिल्ली दूरभाष:011-26513265 ई-मेल: seo-nrpc@nic.in वेबसाईट: www.nrpc.gov.in
18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016 Phone: 011-26513265 e-mail: seo-nrpc@nic.in Website: www.nrpc.gov.in

Annexure-II

Collapsing of Tower Nos. 157 and 158 of ADHPL D/C 220 KV AD Hydro-Nallagarh Transmission Line on 20th August 2025 and their restoration.

Background

At 11:08 Hours on 20-Aug-2025 when both the Units were generating, 210.52 MW as per schedule, both the ADHPL transmission line circuits (220 KV AD Hydro(AD)-Nallagarh(PG) (ADHPL) Ckt-1 & 220 KV Phozal(HP)-Nallagarh(PG) (ADHPL) Ckt-1) tripped resulting in forced shutdown of the plant. While the power house operation staff was in the process of finding the reason for tripping of the transmission lines, information was received from the 220/132 kV Sub Station HPPTCL Chauror that a landslide had occurred near Brehan village resulting in falling of heavy boulders which have damaged two 220 kV towers. The Transmission Line Team was rushed to the spot and it was confirmed that the landslide, involving heavy boulders, has caused critical damage to our transmission line towers resulting in collapse of two towers i.e. Tower no. 157 and 158.

Photographs of the damaged towers

Collapsed T. No. 158

Collapsed T. No. 157

Collapsed T. No. 158

Land slide resulting in collapse of T. Nos. 158 & 157.

Collapsed T. No. 158

Damaged conductor between T. Nos. 158 & 159

Immediate Measures Taken by the Management:

After the site visit of the patrolling team, it was assessed that at least one month was required to restore the transmission line completely. Accordingly the Company immediately took the following measures:

Company directed a private company to depute its surveyor to explore the possibility of installing the ERS (Emergency Restoration System) and also to recommend as to the number of towers that would be required for immediate restoration of the transmission line.

In the meantime the private company was directed to dispatch at least one ERS latest by 21.08.2025 so as to reach at site in two days subject to the road conditions prevailing in the Kullu Valley.

Company also approached the Government of Himachal Pradesh for taking up the matter with PGCIL for providing the ERS support urgently. GoHP also took up the matter with PGCIL.

Date wise work detail for restoration of T. No. 156-157-ERS-158-159 at Chanet		
S. No.	**Date**	**Activity**
1	21-08-2025	Survey done for erection of ERS Tower
2	23-08-2025	ERS tower received at Chanet
3	24-08-2025	T & P shifting and identification of damaged tower parts of T.No. 156 and 157
4	25-08-2025	No work done due to rainfall
5	26-08-2025	No work done due to rainfall
6	27-08-2025	Destringing of conductor between T.No. 156-157-158 of CKT 1 and 2 at T.No 157
7	28-08-2025	Four cross arms, Peak and cage part dismantled upto middle cross arm. Resurvey for installation of ERS tower done.
8	29-08-2025	Destringing of conductor connected to damaged cross arm of T.No. 156 done between T.No. 155-156-157. Dismantling of T.No. 157 done till Basic Body II. Pit marking of pits for ERS tower done.
9	30-08-2025	Dismantling of T.No. 157 done till Basic Body I. Dismantling of damaged cross arm done at T.No. 156 and destringing of 6 conductors between T.No. 157-158 done at T.No. 158. Excavation of 3 out of 16 pits for ERS tower started
10	31-08-2025	Identification of damaged tower parts of T. No. 158 done but no work done due to rainfall after 10:00 Hrs.
		Sorting of damaged tower members of T. No. 158 at Sunder Nagar Store

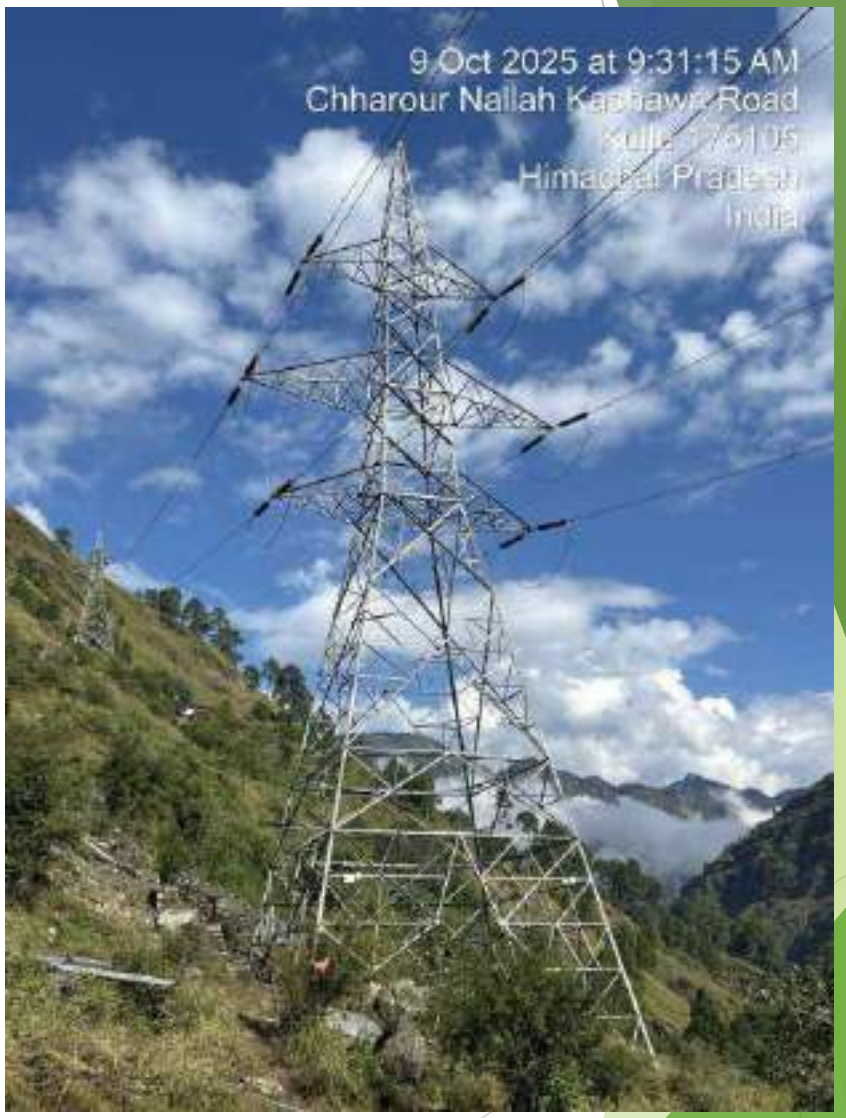
S. No.	Date	Activity
11	01-09-2025	No work done due to rainfall Shifting of Tower members from Sundernagar store to road side at Channet (Bhrain Road)
12	02-09-2025	No work done due to rainfall
13	03-09-2025	No work done due to rainfall
14	04-09-2025	No work done due to rainfall
15	05-09-2025	Head loading of Tower material from Bhrain bridge to T. No. 158
16	06-09-2025	No work done due to rainfall
17	07-09-2025	Dismantling of T.No. 157 done till 6 M Body extension. Head loading of tower material started for T.No. 157
18	08-09-2025	Dismantling of T.No. 157 completed and erection of T.No. 157 started with erection of 1 leg. Cleaning of 3 pits for ERS tower done. Head loading of tower material done for T.No. 157
19	09-09-2025	No work done due to no road connectivity
20	10-09-2025	Erection of T.No. 157 done till 6 M Body extension. Excavation of 4 pits for ERS tower completed. Head loading of tower material done for T.No. 157
21	11-09-2025	Erection of T. No. 157 done till Basic body 2. Excavation of 6 pits for ERS tower completed and 5 stay rods and plates installed. Head loading of tower material done for T. No. 157.

S. No.	Date	Activity
22	12-09-2025	Erection of T.No. 157 done till Basic Body 1. Excavation of 3 more pits for ERS tower with stay rods and plates completed. Tower material shifted from Bhuntar to Bhrain Bridge. Head loading of tower material done from Bhrain Bridge to T.No. 157.
23	13-09-2025	Erection of T.No. 157 till Cage part 1 and head loading of cross arm material for T.No. 156 done. Excavation of 2 more pits for ERS tower with stay rods and plates completed. Head loading of tower material done from Bhrain Bridge to T.No. 158.
24	14-09-2025	Erection of peak at T. No. 157 and erection of top cross arm of T. No. 156 done. Excavation of 2 more pits for ERS tower with stay rods and plates completed. Head loading of tower material done from Bhrain Bridge to T. No. 158.
25	15-09-2025	Erection of T.No. 157 completed and hosting of top conductor of CKT 1 done at T.No. 156. Erection of ERS tower started with erection of 3 columns.
26	16-09-2025	Stringing of top conductor done between T.No. 155-156 and 3 conductors of 156-157. Erection of ERS tower done with 3 more columns and fixing of stay wires done. Head loading of tower material done from Bhrain Bridge to T.No. 158.
27	17-09-2025	Erection of ERS completed and stringing between 157-ERS done for CKT 2. paying out of conductors between ERS tower and 159 started for CKT 2. Cross jumpering done at T. No. 199.
28	18-09-2025	Stringing of top conductor between ERS and T.No. 159. Paying out of middle conductor done between ERS and T.No. 159 Cross jumpering done at T.No. 124.

S. No.	Date	Activity
30	20-09-2025	No work due to rainfall
31	21-09-2025	Shifting of T & P to T. No. 158 for dismantling of tower
		Destringing of conductors and Jumpers between 158-159 for CKT 1
32	22-09-2025	Shifting of conductor for CKT 1 from Sundernagar store to Chanet for T.No. 157-158
		Dismantling of T.No. 158
33	23-09-2025	Shifting of conductor for CKT 1 from Sundernagar store to Chanet for T.No. 157-158
		Dismantling of T.No. 158
		Repair and casting of 4 Stubs at T.No. 158
		Stringing of CKT 1 between T.No. 156-157
34	24-09-2025	Dismantling of T.No. 158
		Repair and casting of 4 Stubs at T.No. 158
		Stringing of CKT 1 between T.No. 156-157
35	25-09-2025	Repair and casting of 4 Stubs at T.No. 158
		Stringing of CKT 1 between T.No. 156-157
36	26-09-2025	Repair and casting of 4 Stubs at T.No. 158
		Paying out of conductor between T.No. 157-158 for CKT 1
37	27-09-2025	Repair and casting of 4 Stubs at T.No. 158
		Erection of T.No 158
38	28-09-2025	Erection of T.No 158
39	29-09-2025	Erection of T.No 158

S. No.	Date	Activity
40	30-09-2025	Erection of T.No 158
41	01-10-2025	Erection of T.No 158
42	02-10-2025	Stringing of CKT 1 between T.No. 157-158
43	03-10-2025	Stringing of CKT 1 between T.No. 158-159 Removal of cross jumpers at T.No 124 and T.No 191
44	04-10-2025	Destringing of conductor and Jumpers between 157-ERS-159 for CKT 2 and paying out between T.No. 157-158-159 Stringing and shifting of CKT 2 between T.No. 157-158 Dismantling of ERS Tower
45	05-10-2025	Destringing of conductor and Jumpers between 157-ERS-159 for CKT 2 and paying out between T.No. 157-158-159 Dismantling of ERS Tower
46	06-10-2025	Destringing of conductor and Jumpers between 157-ERS-159 for CKT 2 and paying out between T.No. 157-158-159
47	07-10-2025	Stringing and shifting of CKT 2 between T.No. 158-159 Removal of Stay rods and plates of ERS Tower
48	08-10-2025	Stringing and shifting of CKT 2 between T.No. 158-159 Removal of Stay rods and plates of ERS Tower
49	09-10-2025	Removal of Stay rods and plates of ERS Tower
50	10-10-2025	Removal of Stay rods and plates of ERS Tower
51	12-10-2025	Shifting of ERS tower from site

Installation of ERS

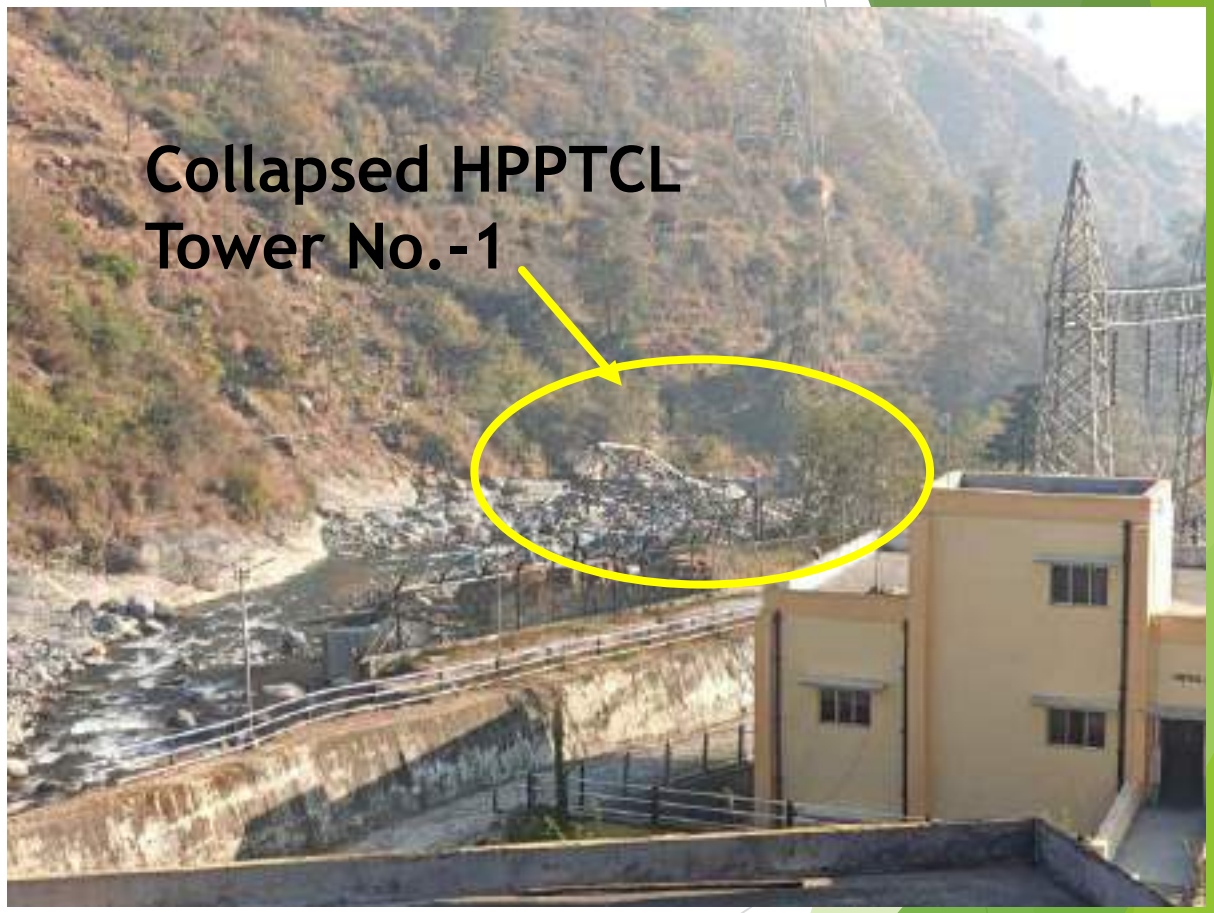


Tower No. 157 re-erected

Challenges faced during Restoration of the Tower Nos. 156, 157 & 158

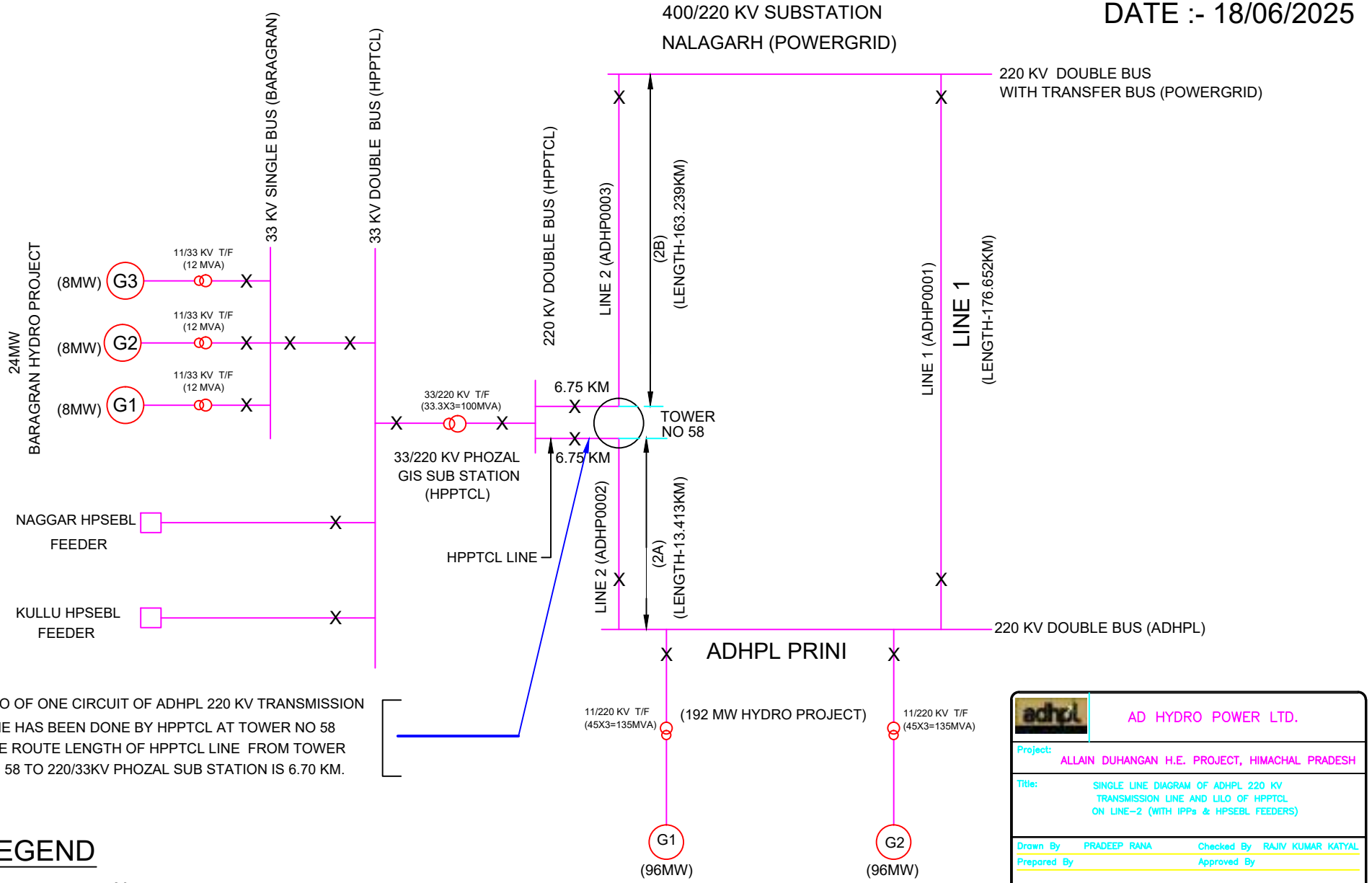
- The High Way to Kullu was badly damaged at Pandoh, Nagwain and Takoli en-route Kullu due to heavy rains and cloud bursts and movement of heavy vehicles was very slow.
- There were heavy rains even after the collapse of tower nos. 157 & 158 due to which the restoration work was disrupted for at eight days.
- Landslides occurred at different places on the road to the location of the towers resulting in loss of man-hours.
- The road from Jari to Bhuntar was blocked at many locations due to which the workers had to travel on foot to reach the work place resulting in loss of man-hours.
- Head loading of Tower material from Bhrain bridge to T. No. 158 & 157 had to be done as the road was blocked at various locations due to land slides.
- Many times the workers had to travel on foot for many Kms from Jachani enroute to Bhuntar where the road was invariably blocked due to flowing slush.
- Despite the above constraints one circuit was restored on 19th September, 2025 by re-erection of Tower No. 157 and installation of ERS.

On 26-08-2025 at 12:20 Hours the Tower No.1 of HPPTCL D/C LILO 220 kV Phojal- Prini and Phojal – Nalagarh 6.7 km the line 220 kV AD Hydro(AD)-Phozal(HP) (ADHPL) Ckt-1 collapsed due to cloud-burst and flash flood in Phojal Nallah resulting in outage of both the lines. HPPTCL has temporarily restored 220 kV AD Hydro(AD)-Phozal(HP) (ADHPL) Ckt-1 by directly stringing the conductors from tower no. 2 to their gantry. Although the portion of the 220 kV Phozal(HP)-Nalagarh(PG) (ADHPL) Ckt-1 from tower no. 156 to 159 has been restored by ADHPL on 08-10-2025 at 13:33 Hours after restoration of tower no. 158 and removal of ERS system but the line still remains under outage as tower no. 1 of HPPTCL 6.7 km long line has not been still restored by HPPTCL.



Thanks

DATE :- 18/06/2025



LILO OF ONE CIRCUIT OF ADHPL 220 KV TRANSMISSION LINE HAS BEEN DONE BY HPPTCL AT TOWER NO 58 THE ROUTE LENGTH OF HPPTCL LINE FROM TOWER NO 58 TO 220/33KV PHOZAL SUB STATION IS 6.70 KM.

LEGEND

1.BREAKER --------- X

2.220 KV LINE CONDUCTOR ----- ACSR ZEBRA

SINGLE LINE DIAGRAM LAYOUT

AD HYDRO POWER LTD.	
Project:	ALLAIN DUHANGAN H.E. PROJECT, HIMACHAL PRADESH
Title:	SINGLE LINE DIAGRAM OF ADHPL 220 KV TRANSMISSION LINE AND LILO OF HPPTCL ON LINE-2 (WITH IPPs & HPSEBL FEEDERS)
Drawn By: PRADEEP RANA	Checked By: RAJIV KUMAR KATYAL
Prepared By:	Approved By:
Scale: Dimensions in MM	Project No. 104
DATED:- 18/06/2025	Drawing No. / Rev. 00

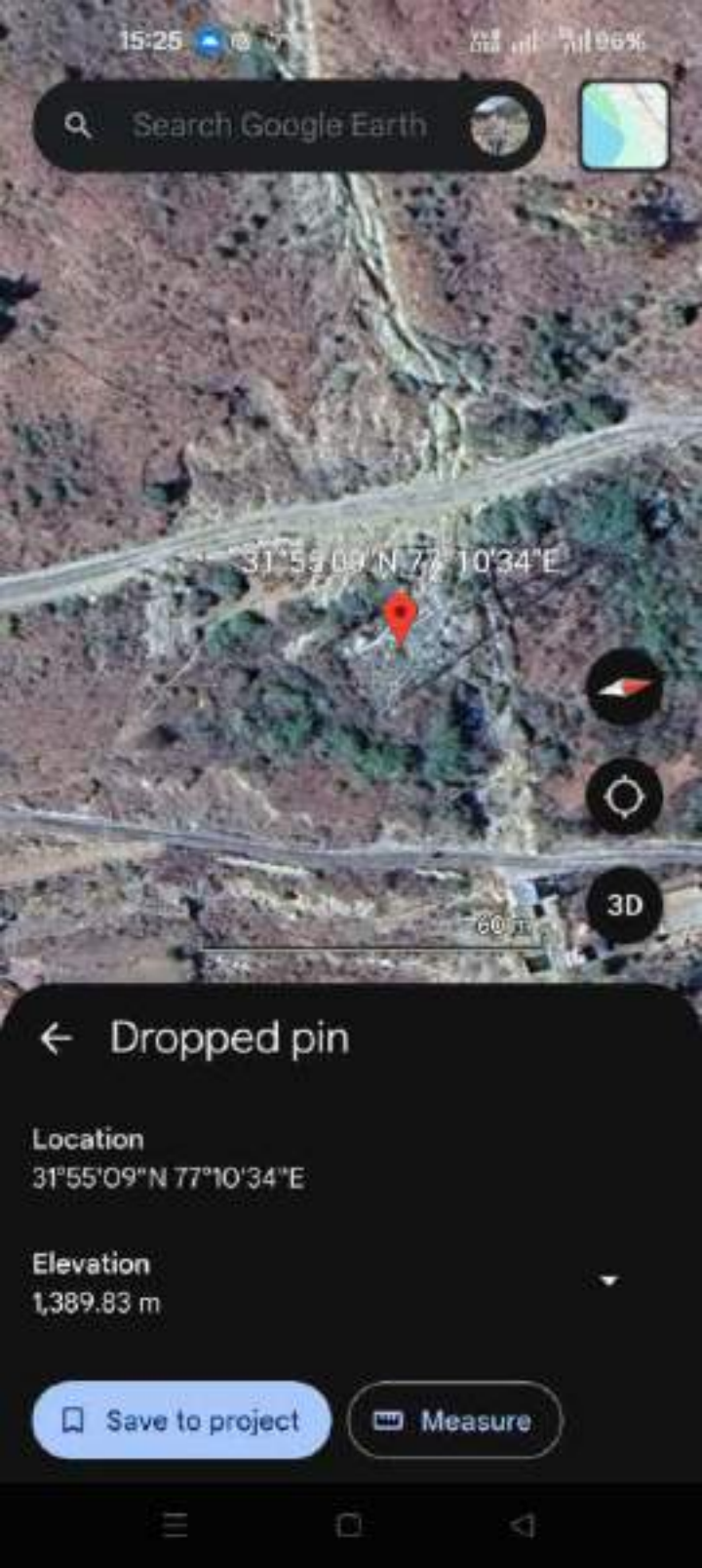
Dropped pin

Location
31°55'18"N 77°10'29"E

Elevation
1,495.36 m

Save to project

Measure

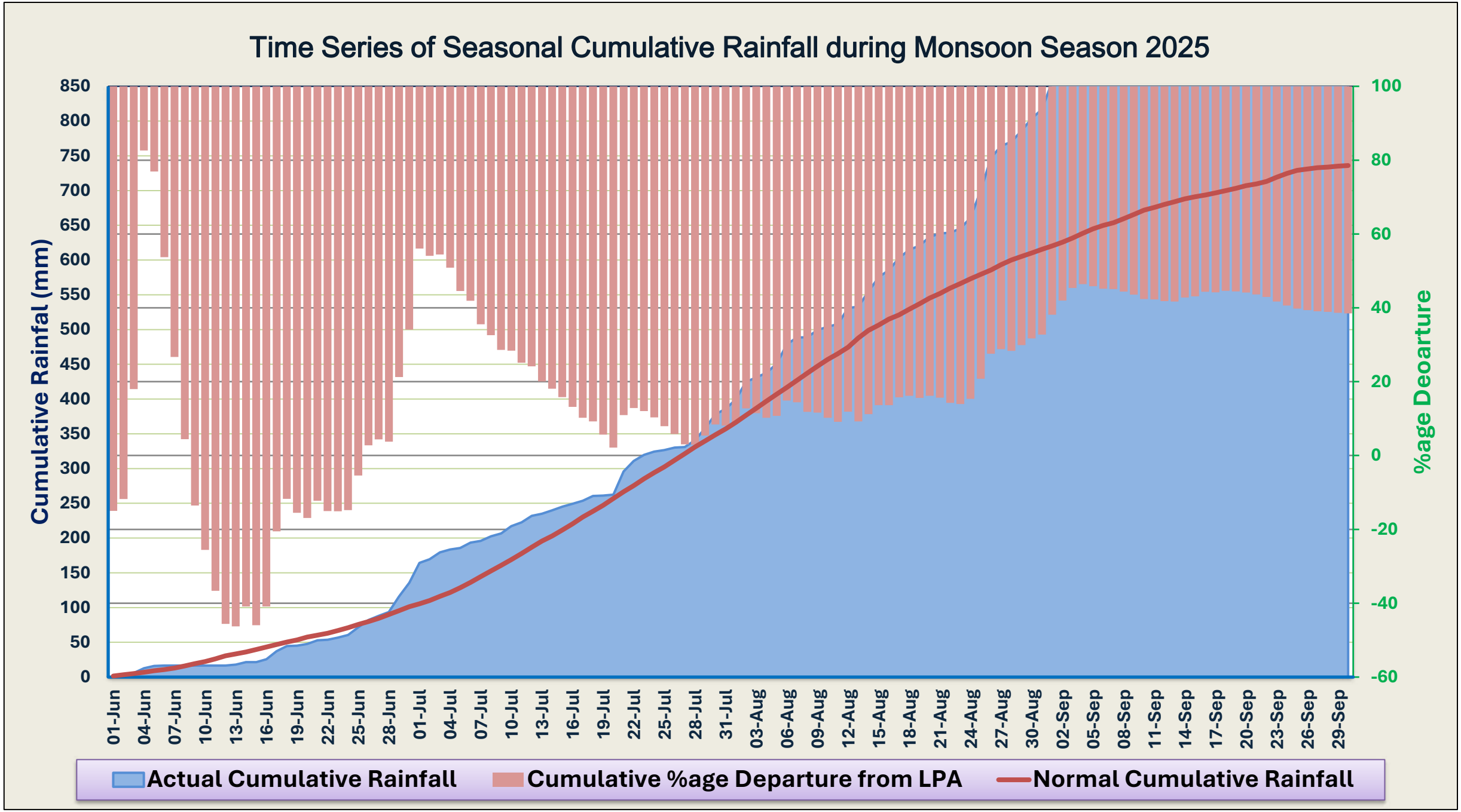

15:25
Search Google Earth
31°55'09"N 77°10'34"E
3D
Dropped pin
Location
31°55'09"N 77°10'34"E
Elevation
1,389.83 m
Save to project
Measure

INDIA METEOROLOGICAL DEPARTMENT
MC SHIMLA

Rainfall (in mm)/ Departures (in %) from the Long Period Averages
for Districts in HIMACHAL PRADESH

PERIOD: 01.06.2025 – 30.09.2025

LEGEND: L. EXCESS (+60% OR MORE) EXCESS (+20% TO +59%) NORMAL (+19% TO -19%)
DEFICIENT (-20% TO -59%) L. DEFICIENT (-60% TO -99%) NO RAIN (-100%) NO DATA


Time Series of Seasonal Cumulative Rainfall during Monsoon Season 2025
Cumulative Rainfal (mm)
%age Deoarture
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
100
80
60
40
20
0
-20
-40
-60
01-Jun
04-Jun
07-Jun
10-Jun
13-Jun
16-Jun
19-Jun
22-Jun
25-Jun
28-Jun
01-Jul
04-Jul
07-Jul
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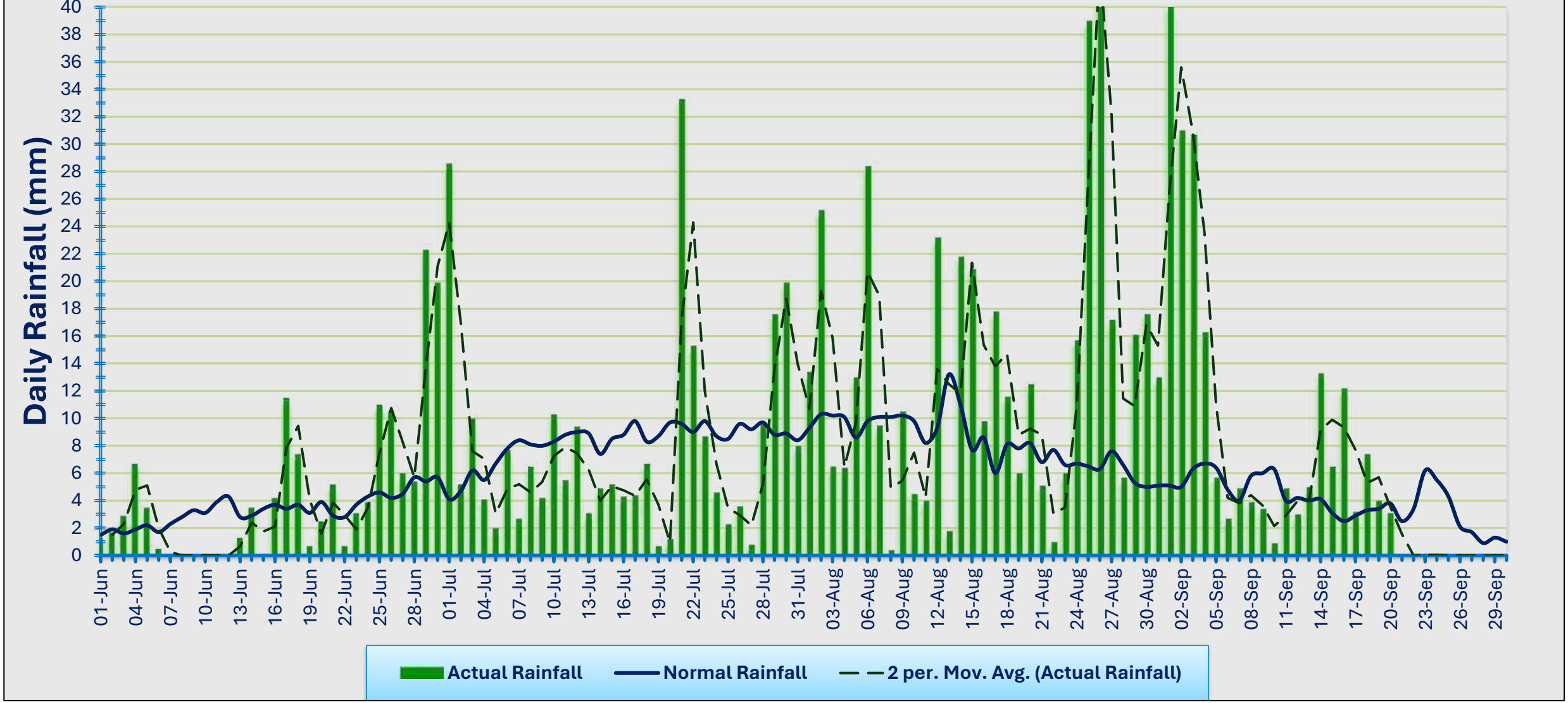
21-Aug
24-Aug
27-Aug
30-Aug
02-Sep
05-Sep
08-Sep
11-Sep
14-Sep
17-Sep
20-Sep
23-Sep
26-Sep
29-Sep
Actual Cumulative Rainfall
Cumulative %age Departure from LPA
Normal Cumulative Rainfall

Time Series of Daily Rainfall over HP during Monsoon Season-2025



	Month	Jun-25		
S.No	District	Act (mm)	Nor (mm)	Dep (%)
1	Bilaspur	164.5	102.1	61
2	Chamba	115.7	121.8	-5
3	Hamirpur	212.1	114.1	86
4	Kangra	265.9	181.4	47
5	Kinnaur	31.2	41.8	-25
6	Kullu	121.3	86.9	40
7	Lahaul & Spiti	22.5	47.8	-53
8	Mandi	306.2	171.5	79
9	Shimla	181	110.4	64
10	Sirmaur	287.4	165.8	73
11	Solan	224.8	137.3	64
12	Una	158.1	103.8	52
13	**Sub- Division HP**	135	101.1	34

	Month	Jul-25		
S.No	District	Act (mm)	Nor (mm)	Dep (%)
1	Bilaspur	300.1	272.2	10
2	Chamba	249.1	305.7	-18
3	Hamirpur	366.4	328.5	12
4	Kangra	528.7	589.3	-10
5	Kinnaur	57.1	65.9	-13
6	Kullu	230.2	184	25
7	Lahaul & Spiti	32.2	131.5	-75
8	Mandi	574.7	386.5	49
9	Shimla	357.9	210.2	70
10	Sirmaur	453.5	437	4
11	Solan	249.2	303.3	-18
12	Una	369	329	12
13	**Sub- Division HP**	250.3	255.9	-2

	Month	Aug-25		
S.No	District	Act (mm)	Nor (mm)	Dep (%)
1	Bilaspur	598.7	316.8	89
2	Chamba	561.6	291.7	93
3	Hamirpur	617.9	400.6	54
4	Kangra	816.2	631.5	29
5	Kinnaur	143.3	77.6	85
6	Kullu	477.5	180.2	165
7	Lahaul & Spiti	129.7	117.6	10
8	Mandi	667.9	395.3	69
9	Shimla	438	196.4	123
10	Sirmaur	557.5	402.1	39
11	Solan	627.9	287.9	118
12	Una	815.1	372.2	119
13	**Sub- Division HP**	431.3	256.8	68

	Month	Sep-25		
S.No	District	Act (mm)	Nor (mm)	Dep (%)
1	Bilaspur	395	128	209
2	Chamba	190.2	134.2	42
3	Hamirpur	338.1	130	160
4	Kangra	289.4	220.2	31
5	Kinnaur	58.4	62.5	-7
6	Kullu	226.4	96.9	134
7	Lahaul & Spiti	114.7	86	33
8	Mandi	348.9	144.2	142
9	Shimla	248.5	110.5	125
10	Sirmaur	309.4	178.9	73
11	Solan	354.3	145.8	143
12	Una	190.2	148	29
13	**Sub- Division HP**	205.7	120.6	71

LEGEND: L. EXCESS (+60% OR MORE) EXCESS (+20% TO +59%) NORMAL (+19% TO -19%)
DEFICIENT (-20% TO -59%) L. DEFICIENT (-60% TO -99%) NO RAIN (-100%) NO DATA

Weekly Rainfall in Monsoon 2025			
Date	**Actual Rainfall(mm)**	**Normal Rainfall(mm)**	**Departure (%)**
7-Jun-25	16.6	13.1	27
14-Jun-25	4.8	23	-79
21-Jun-25	31.5	24.1	31
28-Jun-25	40.6	29.8	36
5-Jul-25	92.2	38.3	141
12-Jul-25	46.1	58.4	-21
19-Jul-25	29.3	60.4	-51
26-Jul-25	68.9	64.9	6
2-Aug-25	94.5	64.6	46
9-Aug-25	74.5	69.1	8
16-Aug-25	86	67.8	27
23-Aug-25	60.1	51.2	17
30-Aug-25	158.4	44	260
6-Sep-25	139.6	39.4	254
13-Sep-25	26.1	34.3	-24
20-Sep-25	49.6	23.1	115
27-Sep-25	0.1	25.7	-99

Weekly Rainfall for HP during Monsoon Season 2025

AD HYDRO POWER
OPTION-1 YELLOW COLOR
OPTION-2 RED COLOR
Ext tower 156
Proposed ERS 1
Tower no 157
Ext tower 158 diamond
Ext tower 158 diamond
Tower 159
proposed ERS 01
Proposed ERS 2
Google Earth

GPS Map Camera
Kashawri, Himachal Pradesh, India
Bharain Rd, Kashawri, Himachal Pradesh 175125, India
Lat 31.9223° Long 77.173382°
Tuesday, 17/03/2026 02:33 PM GMT +05:30
Google

GPS Map Camera
Kashawri, Himachal Pradesh, India
W5cg+v4f, Kashawri, Himachal Pradesh 175125, India
Lat 31.922216° Long 77.175151°
Tuesday, 17/03/2026 02:56 PM GMT +05:30
Google

GPS Map Camera
Kashawri, Himachal Pradesh, India
W59g+rm6, Chhamahan Rd, Kashawri, Himachal Pradesh 175125, India
Lat 31.91963° Long 77.175917°
Tuesday, 17/03/2026 03:15 PM GMT +05:30
Google

Annexure-III

Line Name- 400 KV Jalandhar-Samba Transmission Line.				
Day wise Work Detail	**From 26-08-25**	**To 16-10-25**	**Objective**- Day wise details of work done for restoration work of Tower No. 234 to 238	**Remark**
Shutdown was availed from 08-09-2025 to 30-09-2025 (Total Number of days =0 Day's)				
Sr.No.	**Day**	**Date**	**Work description**	
1	Days 1 - 6	26-08-2025 to 31-08-2025	Tripping encountered in JS Line at 17:13 hrs. Condition -Water level was very high and it was continuously raining. -Emergency patrolling - Site team couldn't travel past Tower No. 233. -Damage assessment - Site team could only assess damages with the help of high-resolution camera as most of the approach roads were inaccessible and flooded. Tower top patrolling was not possible due to rain. - By the time site team could reach the designated spot it was already very dark.	
7	Day-7	9/1/2025	Site condition - The rate of water level reduction was very slow due to fresh release of water from Ranjeet Sagar Dam. Emergency patrolling – T. No. 234 could be accessed with the support of SDRF but the affected locations from T. No. 235 till T. No. 238 were still inaccessible. Tower top patrolling of T. No. 234 couldn't be completed because of rain. Damage assessment – Site team could only assess damages with the help of high-resolution camera as most of the approach roads were inaccessible and flooded.	
8	Day-8	9/2/2025	Site condition - State government had deployed SDRF in the region due further flooding. Emergency patrolling – Attempts were made to further access the impacted locations. Damage assessment – It could be seen that Tower No. 236 had collaspsed and completely submerged. Tower No. 237 was seen to be damaged from belt section. Minor damages could be seen in other locations as well.	
9	Day-9	9/3/2025	Site condition: Water started receding slowly and reduction in water table was observed. Emergency patrolling – T. No. 234, T. No. 235 and T. No. 238 could be accessed on foot **T. No. 236 till T. No. 237 were still submerged and inaccessible.** Damage assessment – Tower top patrolling and damage assessment was completed for T. No. 234 and T. No. 235.	
10	Day-10	9/4/2025	Site condition: Water started receding slowly and reduction in water table was observed. Emergency patrolling – T. No. 236 till T. No. 237 were still submerged and inaccessible. Damage assessment – Detailed assessment of TN 234, TN 235 and TN 238 was carried out. It was observed that peak of these towers were damaged. Conductor had snapped in between TN 237 and 238. 1 Cross Arm was found to be damaged in both TN 235 and TN 238.	
11	Day-11	9/5/2025	Site condition: Water started receding slowly and reduction in water table was observed. Emergency patrolling – T. No. 236 till T. No. 237 were still submerged and inaccessible. Damage assessment – Detailed assessment of TN 234, TN 235 and TN 238 was carried out. It was observed that peak of these towers were damaged. Conductor had snapped in between TN 237 and 238. 1 Cross Arm was found to be damaged in both TN 235 and TN 238.	
12	Day-12	9/6/2025	Site condition -Water level was same and there was intermittent rain throughout the day. -Emergency patrolling – T. No. 234, T. No. 235 and T. No. 238 were accessible and the other affected locations were still inaccessible. Damage assessment – Tower top patrolling and detailed damage assessment continued.	
13	Day-13	9/7/2025	Site condition -Water level had decreased slightly and there was intermittent rain throughout the day. Emergency patrolling – T. No. 234, T. No. 235 and T. No. 238 were accessible, and the other affected locations were still inaccessible. Damage assessment – Tower top patrolling and detailed damage assessment continued.	
15	Day-14	9/8/2025	**Site team was able to visit the Tower no. 237 for the first time to assess the damage.**	
16	Day-15	9/9/2025	Data captured for ERS Plotting and route allignment (CKT-1). Jumper opened at 230 and 244 and Jalandhar Samba Line charged in anti-theft mode.	
17	Day-16	9/10/2025	ERS and Guy wire markings were provided. ERS movement initiated from Bhopal and Ropar Store. Site store Location Finalized.	
18	Day-17	9/11/2025	Movement of Manpower , T&P and Material to site in progress. Approach road to site store restoration started.	
19	Day-18	9/12/2025	Medical checkup and TPI of T&P started at site. ROW resolution taken up for the spots identified for ERS erection and approach road to site.	
20	Day-19	9/13/2025	ERS Containers reached at site. ERS Segregation & sorting started Movement of T&P material started from site store to location. Approach road restoration in progress	
21	Day-20	9/14/2025	ERS Segregation & sorting started Movement of Material, ERS and T&P for backstays arrangement and De-clipping arrangement completed. Approach road restoration completed.	
22	Day-21	9/15/2025	De-Clipping and Roller hoiting started in: > 231 - Top and Middle phase - both circuits > 239 - All three phases - both circuits, and > 238 - All three phases - Ckt-2 ROW resolution at 230 and 237 taken up.	

23	Day-22	9/16/2025	ERS-2 installation started De-Clipping and Roller hoisting in: > 240 - All three phases - both circuits > 232 - Top and Middle - both circuits > 238 - Middle and Bottom - both ciruits(Ckt-1), and > 233 - Top and Middle- Ckt-2 Backstay arrangement - excvation and deadman placement with concreting in progress at 241 in Ckt-1.	
24	Day-23	9/17/2025	ERS-2 installation in progress. Backstay arrangement - concrete setting in progress at 241. Jumpers opened at 241. Backstay pit excavation at 230 and 235 completed. Declipping and roller hoisting in: > 233 - Top and Middle Phase - Ckt-1 > 234 - Top Phase - Ckt-1, and Conductor release from 237 attempted. Three conductors cut midway from 236 side.	
25	Day-24	9/18/2025	ERS-2 mast erection compeleted. Conductor release in progress at 237 from both sides. Backstays completed at 241 and in progress at 235. At 235 all pits excavated for backstay and concreting done in one pit. ERS-1 erection in progress. From 241, sag released from all three phases of both ciruits.	
26	Day-25	9/19/2025	Rainfall and storm disrupted work in the afternoon. Roller installation in progress at 234. Backstay at 230 for top and middle phase completed. 235 concreting in backstay pits in progress. ERS-1 erection completed.	
27	Day-26	9/20/2025	Conductor released from 237 completed. Repair of peak in 238 completed. Crossarm dismantled at 238. Rope for crossing conductor across river tied between the shores. ERS-3 - erection completed. ERS-4 - erection in progress. ERS-2 - guy wires tightening in progress.	
28	Day-27	9/21/2025	ROW at site. 241 - rehoisting of insulators and conductor remake up in progress. ERS-1 - insulator hoisting in progress. 238 top crossarm installed, rehoisting of insulator along with conductor completed. ERS-4 - erection completed.	
29	Day-28	9/22/2025	Conductor paying out between ERS-2 and ERS-3 via ERS-4 completed. OPGW rollers fixed to release OPGW at 235 end. Insulator hoisting at ERS-1, ERS-3 and ERS-4 completed. Rough sag taken for Ckt-1 for top and middle phase from 241 towards ERS-2. Makeup of Conductor at 241 completed. Rough sag of top phase of Ckt-2 under progress.	
30	Day-29	9/23/2025	OPGW released at 235. Peak repair completed at 234. Peak dismantled at 235. Conductor makeup between ERS-2 and ERS-3 via ERS-4 done (top phase). Rough sag taken towards ERS-3. Conductor paying out and makeup between ERS-1 and ERS-2. Guy tightening at ERS-4 Ckt-2 top, middle and bottom phase rough sag of Ckt-2- work completed. At 235 conductor of bottom phase released from water by cutting the conductor.	
31	Day-30	9/24/2025	ERS-2 to 238 top phase final sag completed. At 235, tension of top cross arm (damaged one) of ckt-2 released from both ends. ERS-1 and ERS-2 Rough sag of middle and bottom phases taken.	
32	Day-31	9/25/2025	2 conductors (top phase) bought across the river. At 235 top cross arm of ckt-2 erected. Spacer installation between 238 and ERS-2 in progress. ERS-3 Lifty arrangment done for final sag from 235 and ERS-2. ERS-2 to 238 final sag completed for middle and bottom phases.	
33	Day-32	9/26/2025	Back to back final Sag of Top Phase between ERS-3 and 235, and ERS-3 and ERS-2 via ERS-4 completed. River corssing done of three conductors - two middle phase and one bottom phase. River crossing of three Conductors done. Top phase of Ckt-2 fixed back on repaired top cross aram and final sag completed betwenn 230 and 235. Backstay in place for Ckt-2. Final sag of Middle phase between ERS-1 and ERS-2 done with other side i.e, 235 and ERS-1 kept in lifty arrangement.	
34	Day-33	9/27/2025	Final Sag of Middle and Bottom between ERS-1 and 235 Completed. Tree Cutting in Span 238 and 239 Completed. Clipping completed at: > 240 - All Three Phases - Ckt-1 > 239 - Top and Middle Phase - Ckt-1 Earthwire paying out between 238 to ERS-2 to ERS-1. Earthwire river crossing done between 235 and ERS-1. Backstay released in 235 in Ckt-1.	

35	Day-34	9/28/2025	Final Sag of Earthwire between ERS-1 and ERS-2, and between ERS-1 and 235 completed (back to back). OPGW final sag done at 238 Earthwire stringing completed between ERS-2 and ERS-1. Suspension clamp fitting fitted at ERS-4 Marking of ERS 2/2 done. 230- all works completed and backstay removed. Spacer fixing between 235 and ERS-1 and ERS-3 comepleted. Jumpering completed at ERS-1, ERS-2 and ERS-3. Jumpering completed in CKt-1 at 235. Clipping completed at: > 238 - Middle and Bottom phase- both circuits > 239 - Middle phase - both circuits. 241 - Backstay removed. **237 - Dismantling started.**	
36	Day-35	9/29/2025	Visit of Electrical Inspector. Final checking completed from 238 till 241. Jumper connections done at 230 and 244 after availing shutdown. OPGW Clipping completed at 239. 237 dismantling in progress. Line Continuity test succesfully carried out from Jalandhar end.	
37	Day-36	9/30/2025	237 dismantling completed. Clipping completed at: > 232 and 234 - Ckt-2 ERS-1 adjustment to guy wires done. Material shifting for Ckt-2 ERS started. Deadman installation for rough sag from ERS 2/2 towards 235. Electrical Inspector IR received and replied with Compliance Report. Jalandhar Samba TL CKT-1 Charged at 18:40 Hrs	
	Day-37	10/1/2025	Material shifting for CKT-2 ERS in progress. One out of two locations ERS that needs to installed in CKT-2 has been completely submerged due to sudden increase in water levels, no work could be planned there. Concrete block casting for ERS support guys have been started. T.No. 237 Erection started. Back Stay removed at T.No. 230 Clipping done: >231: Top and Middle Phase Ckt-2	
	Day-38	10/2/2025	Water levels increased overnight, ERS-2/1 material shifting work still impacted. Tree cutting carried out for diverted span of ERS for CKT-2 Concrete Blocks casting continues. T. No.: 237 Erection in progress.	
	Day-39	10/3/2025	T.no. 237 Erection work completed. ERS-2/2 erection work started. ERS 2/2 to 237 Conductor paying out started -Top Phase	
	Day-40	10/4/2025	Area securing work with poles and barbed wires around ERS for CKT-1 started. ERS-2/2 Backstay excavation started with concrete blocks placement. ERS 2/2 to 237 Conductor paying out started -Middle Phase	
	Day-41	10/5/2025	ERS-2/2 Backstay excavation and concrete blocks placement continued. ERS-2/2 Erection work continued. Conductor between 236 and 237 retrieved from sand. ERS- 1/1 and ERS-1/4 -CKt-1- Fencing work in progress.	
	Day-42	10/6/2025	No work due to Rain	
	Day-43	10/7/2025	Water levels receded, material shifting work started for ERS-2/1. ERS-2/2 Erection work completed, backstay wire adjustment work under progress. Rough sag work at 237 started.	
	Day-44	10/8/2025	ERS-2/2: Insulator hoisting work completed. ERS-2/1 : Base plate erected and concrete blocks work for backstay started. T.No. 237: Insulator with roller hoisting completed.	
	Day-45	10/9/2025	Conductor paying out work started between 235 and ERS-2/1 ERS-2/1 Erection work under progress. Balance Conductor extraction work from river continued. ERS-2/1: 11 no's anchor Concrete block casting completed. T.No. 237: Conductor hoisting completed for CKT-2 from 237 to 241.	
	Day-46	10/10/2025	Bottom phase Rough sag from 237 and ERS-2/2 completed. Lefty arrangement hoisting completed for Top and Middle phase. ERS-2/1 : Erection work under progress. T.No. 235 to ERS 2/1- conductor paying out done. Conductor retrieving in progress between T.No.235 and T.No. 236.	
	Day-47	10/11/2025	ERS-2/1 : Erection work completed and Insulator hoisting completed. Rough sag Completed for Top and Middle phase between 235 and ERS-2/1. ERS 2/1 8 No. Anchor Block Concreting completed. Conductor retrieving in progress between T.No.235 and T.No. 236.	
	Day-48	10/12/2025	ERS-2/1: Top and Middle phase lefty hoisting completed. ERS-2/1: Fencing work in progress. Rough sag completed for all phases from ERS-2/2 to 241. T.No. 235 Bottom Insulator (Ckt-2) replaced. Conductor retrieving in progress between T.No.235 and T.No. 236. ERS-1/3: Fencing work in progress.	

	Day-49	10/13/2025	Top and Middle phase completed between 235 & ERS-2/1. ERS 2/2 to ERS 2/2 to 241: Top Phase conductor final sag completed. ERS 2/1 to ERS 2/1: Middle Phase paying out and rought sag completed.	
	Day-50	10/14/2025	Allphase Final sag completed between 235 & ERS-2/1 All phase Final sag completed between ERS-2/2 & 241. Final sag completed between ERS-2/1 and ERS-2/2. Clipping and Spacer Installation started between ERS-2/2 and 241 and ERS-2/1 and 235. T.No. 235 to ERS 2/1 E/w paying out and final sag completed. ERS-2/1 to ERS-2/2 E/w paying out done	
	Day-51	10/15/2025	Spacer and clipping work completed at all spans. Jumpering work completed at 235, ERS-2/1 & ERS-2/2. ERS 2/1 to ERS 2/2 to T.No. 241 E/w final sage done. CEA inspection conducted at site	
	Day-52	10/16/2025	NRSS-XXIX : 400 KV JALANDHAR(PG) -SAMBA(PG) (NRSS XXIX) CKT-2 has been charged at 17:20 Hrs today(i.e.,16-10-2025) by ERS arrangement.	

IndiGrid

Failure Report

400kV D/C JALANDHAR(PG)- SAMBA(PG) Transmission Line

Public

CONTENTS

01 SPV Details

02 Incident Description

03 Damage Details

04 Cause of Damages

05 Actions Taken for Restoration of Power Supply

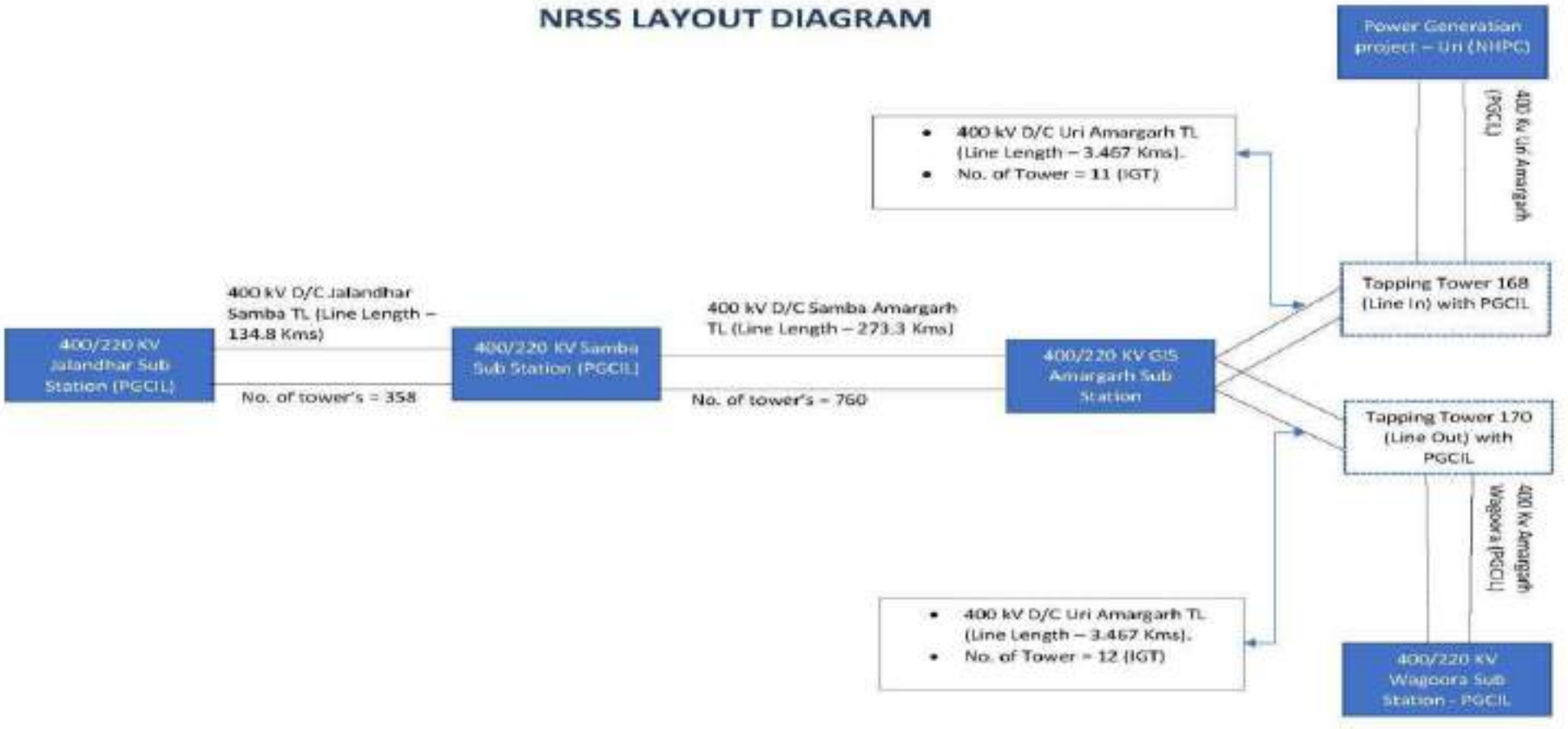
06 Failure Cause Analysis

Public

1.0 SPV Details

1. NRSS XXIX Transmission Limited (NRSS XXIX) is a Special Purpose Vehicle developed to deliver approximately 2000 MW of electricity from state of Punjab to UT oi J&K..

2. The SPV is operating and maintaining approx. 831 ckm of Transmission Lines and 1 400 / 220 GIS S/s at Amargarh, J&K.



Public

1.1 Technical Details of Element

1. The 400 kV D/C Jalandhar (PG) – Samba (PG) Transmission Line of NRSS-XXIX Transmission Limited, a subsidiary of IndiGrid, was commissioned on 04 September 2018.

2. The transmission line has a total length of 134.8 km.

3. The line infrastructure comprises 358 transmission towers.

4. The towers of the line were designed for a basic wind speed of 47 m/s, corresponding to Wind Zone–4 as per IS 802 (Part 1 / Section 1) : 2015.

5. The design considered Reliability Level–1, in accordance with the applicable CEA Regulations for 400 kV D/C Twin Bundle Transmission Lines.

6. The transmission towers were configured in a vertical arrangement.
7. The line is strung with Twin Bundle ACSR Moose conductors.

S/N	Particulars	Details
1	Wind Zone	WZ-04
2	Reliability level	01
3	Type of circuit	Double circuit, Vertical towers
4	DOCO	04.09.2018
5	Name and size of conductor: diameter	Twin ACSR Moose
6	No. of sub-conductors per bundle and bundle spacing.	TWIN Bundle
7	Configuration of insulators (I / V / Y / tension)	“I” Configuration
8	Number and size of Ground wire/OPGW (if provided):	1 Earthwire 3/7.66 & 1 OPGW (24 Fiber)
9	Type of insulators in use (Porcelain / Glass / Polymer):	Polymer
10	Name of executing Agency	KEC International
11	Name of tower manufacturer	KEC International
12	Type of foundation	WET

Public

2.0 Incident Description

1. Jalandhar Sambha encountered the tripping of the 400kV D/C JALANDHAR(PG)- SAMBA(PG) Transmission Line on 26.08.2025 and identified that a tower has been damaged, however the location was inaccessible du to heavy flooding.

2. NRSS XXIX, vide email dated 27.08.2025, submitted a Notice for Failure of Supply of the Transmission Line updating that the river had swollen to ~2 kms in width.

3. The extent of flooding can be analyzed by the fact that the locations and substantial section of Transmission Line remained submerged for period of week and NRSS XXIX had to seek support from local SDMC Team.

4. It was discovered on 28.08.2025 that Tower No. 236 had completely collapsed.

5. Additional damages were observed in:
   Tower No. 234
   Tower No. 235
   Tower No. 238

These towers experienced damage to the tower peak and cross-arm sections.

6. The cause of river flooding was excessive rainfall in upper regions of HP and J&K leading to unprecedented released of water from Ranjeet Sagar and damage local dams.

Public

3.0 Damage Details

1. Weekly report was submitted to all associated agencies incl. CEA, NRPC, NRLDC, CEI etc. on accessibility of location.

2. Immediately an ERS mobilization study was conducted and repair of damaged towers was taken up.

3. It was observed that the flooding had changed the course of river by approx. 400-500 mtrs and width of river had increased to 1 km.

4. Daily monitoring of release quantum and water receding records were maintained to ensure immediate mobilization.

5. As the water receded feasibility of mobilization of ERS was carried out and new methods of anchoring were devised to ensure better footing to ERS.

6. Details of the failed tower are provided in table.

SL. No.	Tower No.	Tower Type	Remarks
1	234	DA+0	Peak Damaged
2	235	DB+6 (3M RC)	Peak & Top cross arm damaged
3	236	DD+3 (4.5M RC)	Tower Collapsed
4	237	DA+0	Tower damaged above belt section
5	238	DA+3	Peak & Top cross arm damaged

Public

4.0 Cause of Failure

1. Severe flooding of the Ravi River resulted in a significant change in the river's course, inundating nearby plains and several transmission towers along the line route.

2. The river width expanded from its normal ~100 meters to nearly ~2 km, submerging Tower No. 236 and Tower No. 241.

3. The unprecedented flooding and resulting soil erosion which resulted in complete collapse of Tower No. 236 and partial damage to Tower No. 237 from belt section.

4. The tower collapse driven mechanical stress on adjacent towers, caused minor damages to Tower No. 234, 235, and 238 damaging the cross arms and peaks.

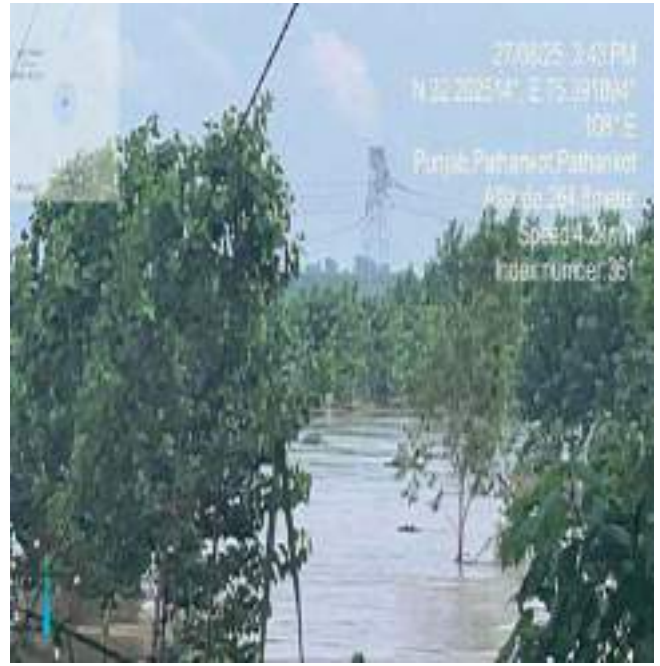
5. It is pertinent to mention that the river course has remained the same from the time it is being recorded, the same is also reflected in the imagery available for past 20 years.

6. It was observed that the soil from the river sides was completely eroded due to excessive flooding, soil of approx. 4-5 Mtrs was swept off completely exposing the foundation leading to its failure.

7. The eroded soil was deposited in the nearby farmlands.

Public

4.1 Cause of Failure – Photographs post failure

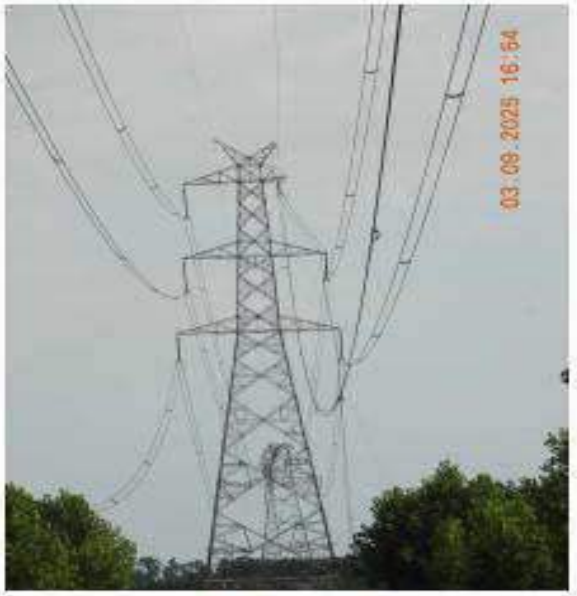


Public

4.2 Failure cause analysis

T. No. 236

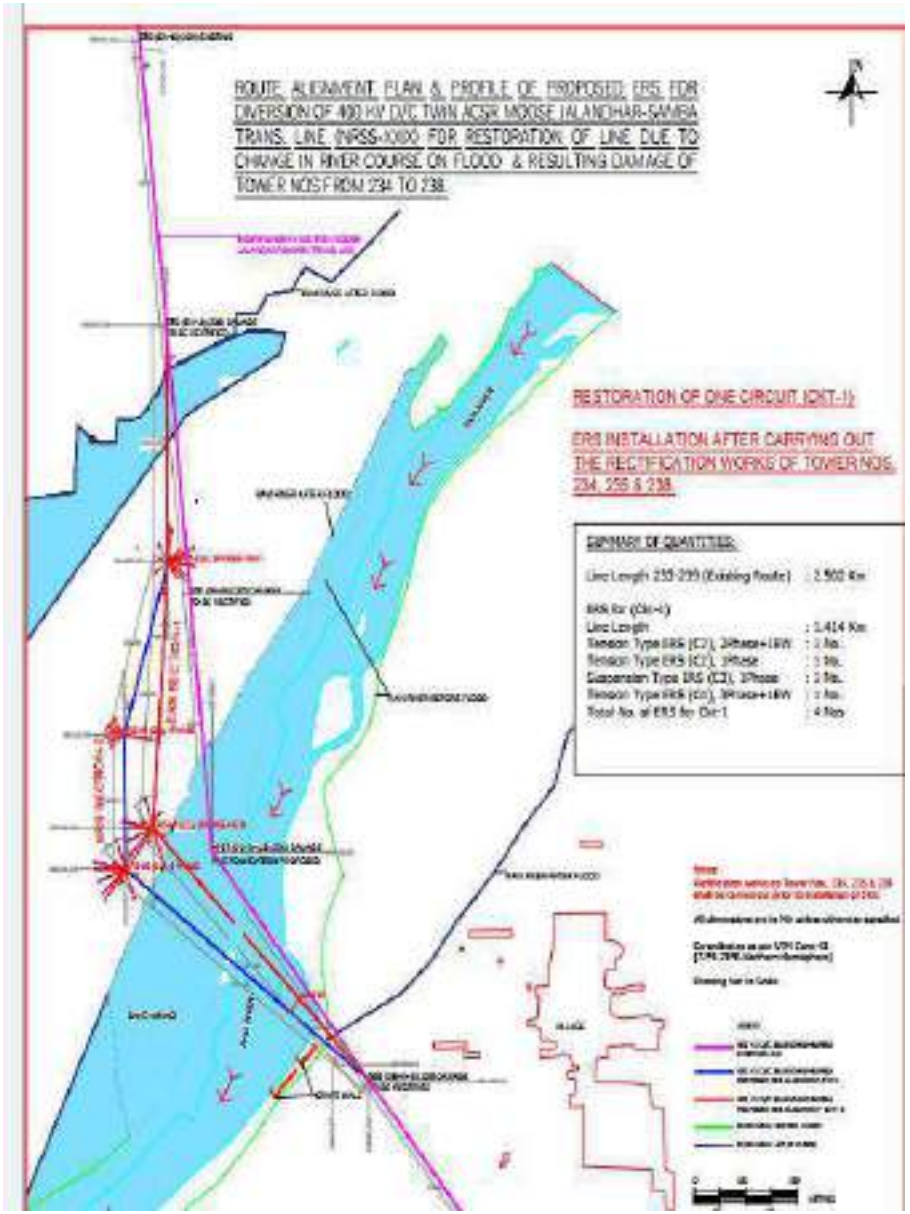
T. No. 237



T. No. 238

Public

5.1 Action taken for restoration of Power Supply



ERS Restoration Plan for Ckt-I of JS Line

ERS Restoration Plan for Ckt-II of JS Line

Public

5.1 Action taken for restoration of Power Supply

1. The affected locations were not accessible as the region was heavily flooded. As the water receded and marshy soil subsided, the restoration activities were intitated.

2. The challenge had been regarding placement of ERS due to difficult terrain and to maintain alignment from adjacent towers.

3. Another critical challenge was placement of guy wires for ERS placed on river shore. The guy wires are typically anchored using manta ray or swivel type anchor, however the nature of soil prevented placement of such anchors. This was mitigated by anchoring the guy wires using short piles.

4. Further, the ERS restoration for circuit 2 was further impacted due to reoccurrence of heavy rainfall which led to further swelling of the Ravi River leading to increase of its span by 600 meters.

5. Another episode of incessant rainfall had started in October 2025 which led to displacement of guy wire of the first circuit. To avoid buckling of the ERS, outage of Circuit 1 was availed again.

6. The Circuit 2 was restored on ERS on 16.10.2025 through fresh pile foundation.

Public

6.0 Failure cause analysis

1. Upon further investigation at the failed tower location, it was observed that the tower foundation was completely exposed, indicating significant soil erosion.

2. The team reviewed the historical course of the Ravi River and the distance of the tower from the river prior to the incident.

3. Google imagery furnished by NRSS-XXIX Transmission Limited indicated that the river historically maintained a stable width of approximately 50–70 meters, with no major changes in its course over the years.

4. However, a ~100 meter stretch perpendicular to the transmission line was examined, which revealed that the river course had significantly shifted, and severe soil erosion was evident with no firm ground visible on either side.

5. Due to the high-velocity floodwater and extensive soil erosion, the tower lost its firm foundation support, ultimately leading to structural failure.

6. It was assessed that approximately 3–4 meters of soil strata had been eroded, resulting in the displacement of the tower footing.

Discharge Data of Ravi River :

Date	Time	Discharge (Cusec)
25.08.2025	16:00 hrs.	285000
26.08.2025	21:00 hrs.	550000
27.08.2025	21:00 hrs	515000
28.08.2025	16:00 hrs.	285000

Public

6.0 Failure cause analysis

To assess the pre-failure condition of the site, patrolling reports and photographs of the location prior to the incident are reproduced showcasing that the tower no 236 was placed in farmland.

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Public

6.1 Government Order on Excessive Flooding

1. It is pertinent to observe the precarious situation of Ravi river route misalignment that it covered the nearby farmlands with the sand.

2. To make it evident that Ravi misaligned and the nearby farmlands were destroyed, state government of Punjab launched a scheme Jehda Khet Usdi Rait.

3. Also the state government relaxed NOC conditions for selling sand.

4. The relevant links are shared below.

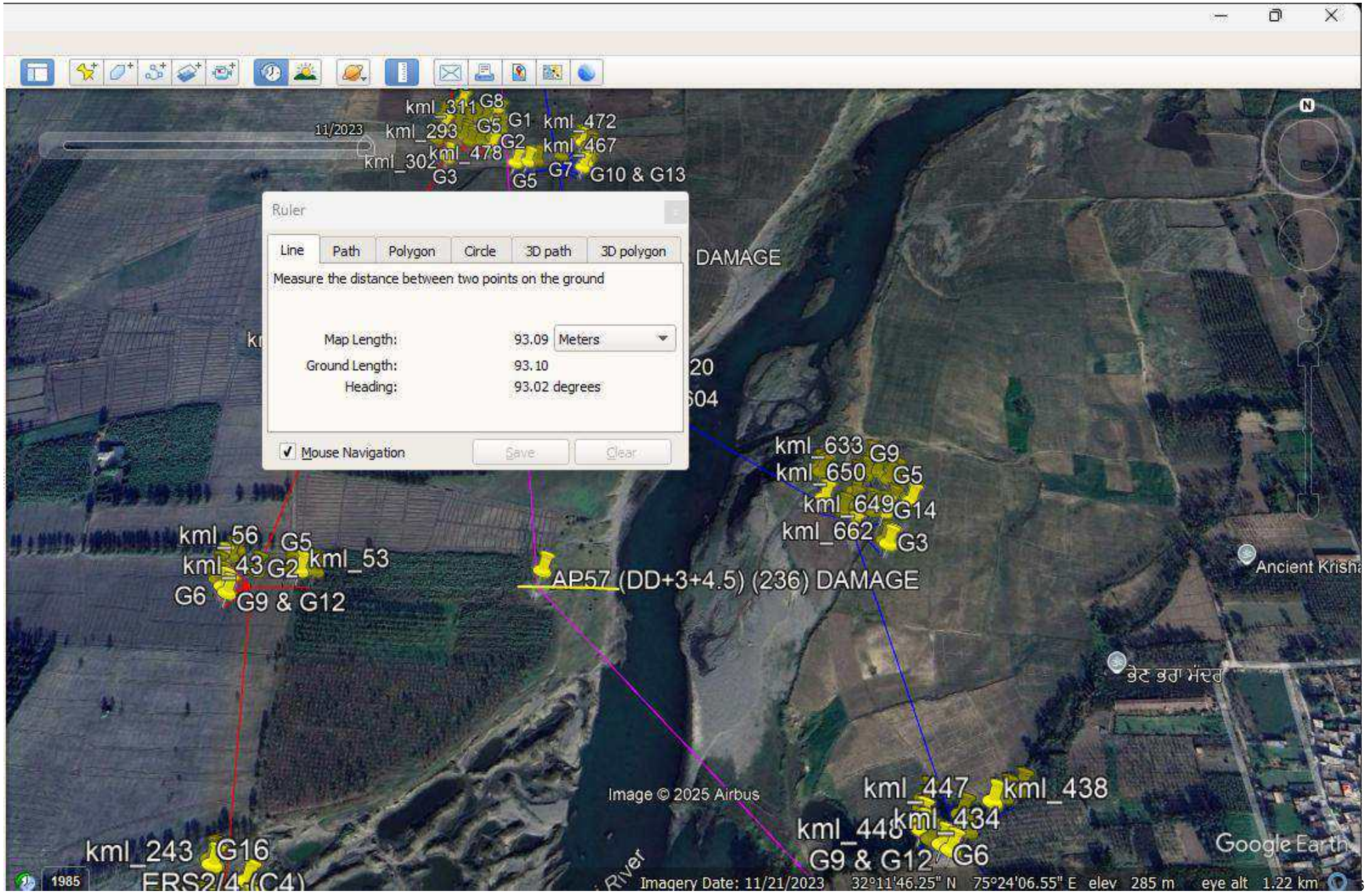
- Mann Cabinet nods to 'Jisda Khet, Ohdi Ret', granting farmers the right to sell sand accumulated in their fields due to floods - Babushahi.com

- मुख्यमंत्री की ओर से 'जिसका खेत, उसदी रेत' योजना के तहत किसानों को खेतों से रेत निकालने के लिए 7200 रुपए प्रति एकड़ देने की घोषणा
  -
- No need to take NOC to remove sand, silt under 'Jehda Khet, Ohdi Ret' scheme: DC - The Tribune

Thank You

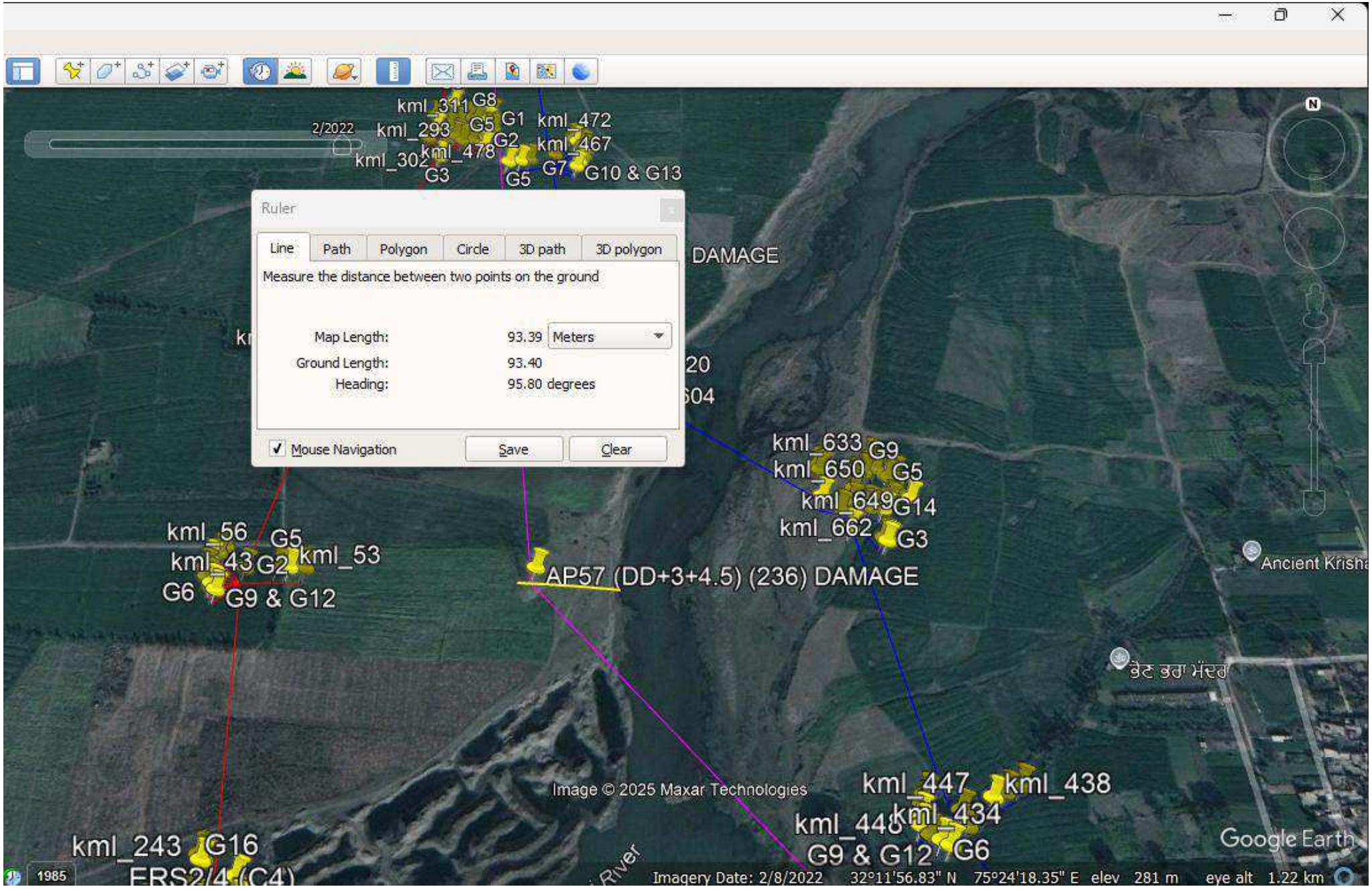
Public

7.0 Google Imagery - 2024



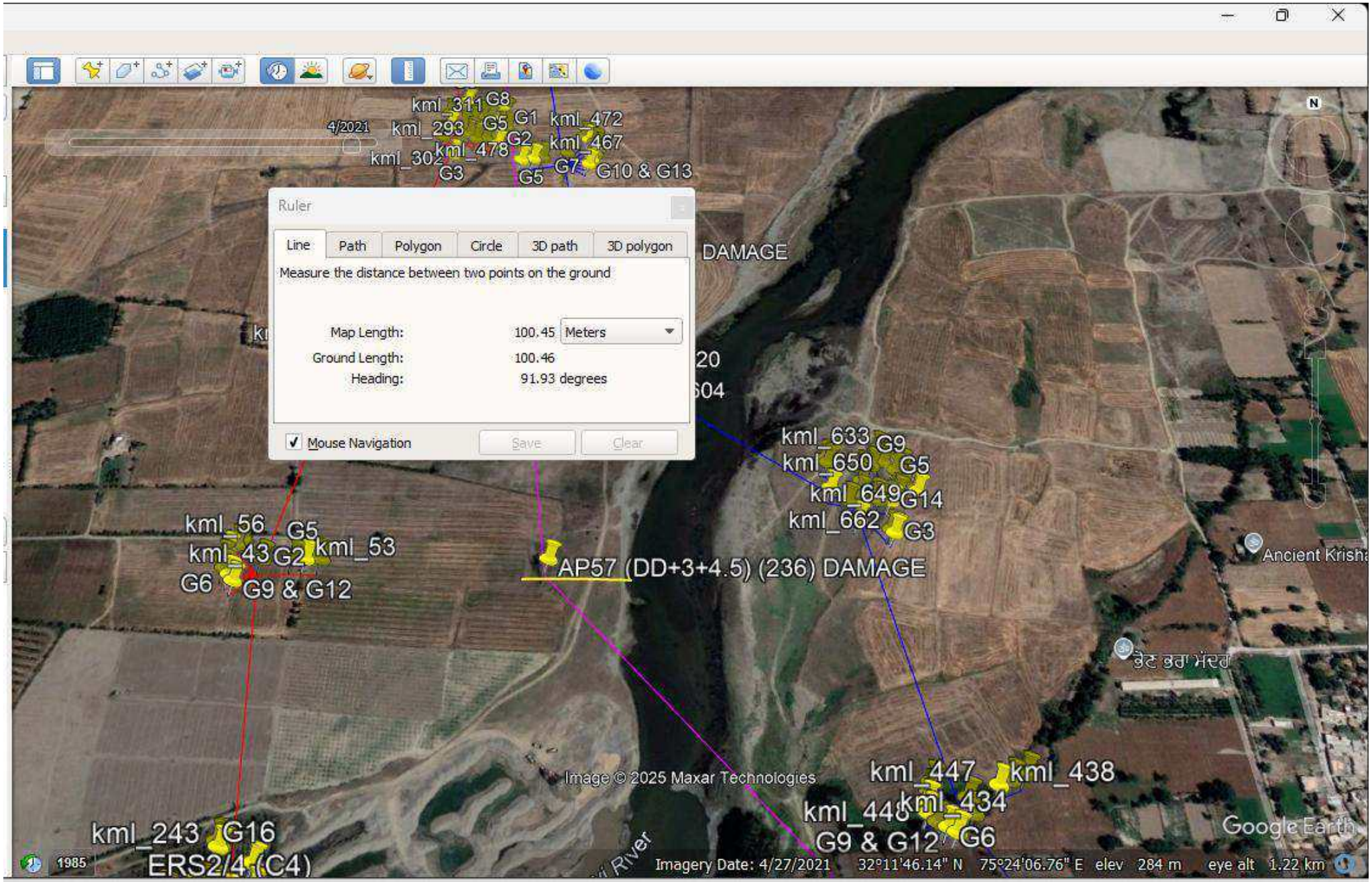
Public

7.1 Google Imagery – 2022



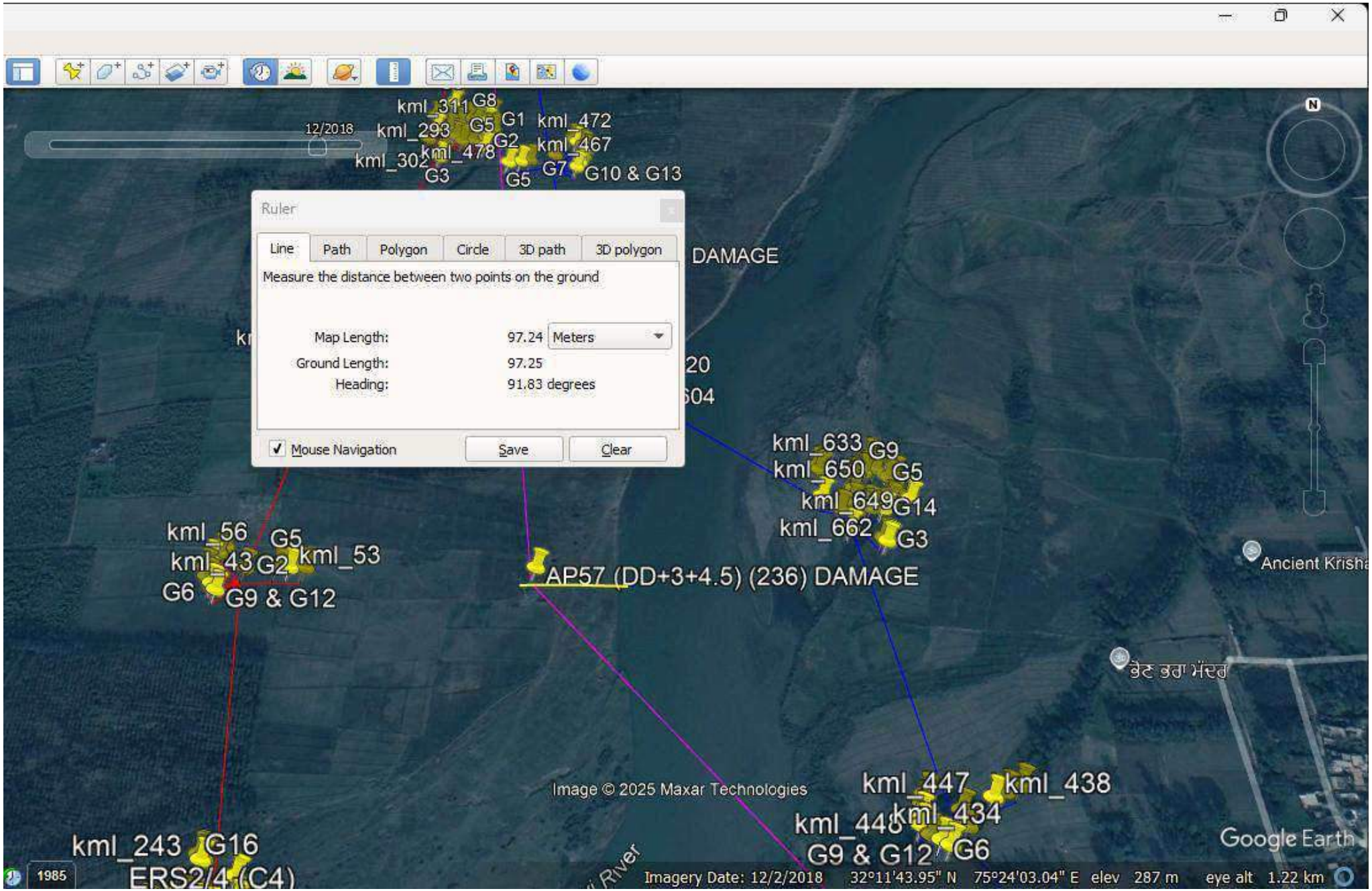
Public

7.2 Google Imagery - 2021



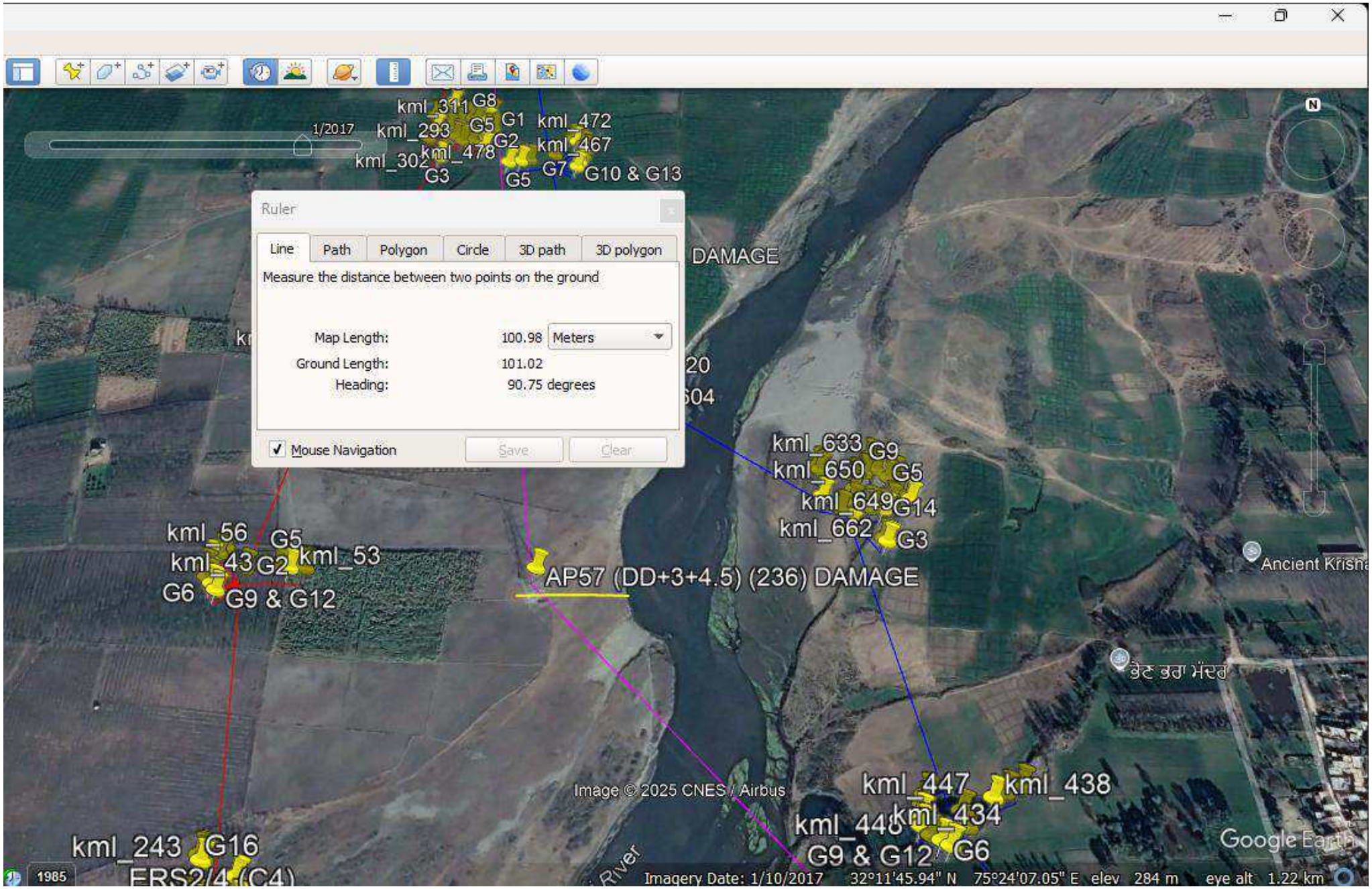
Public

7.0 Google Imagery - 2018

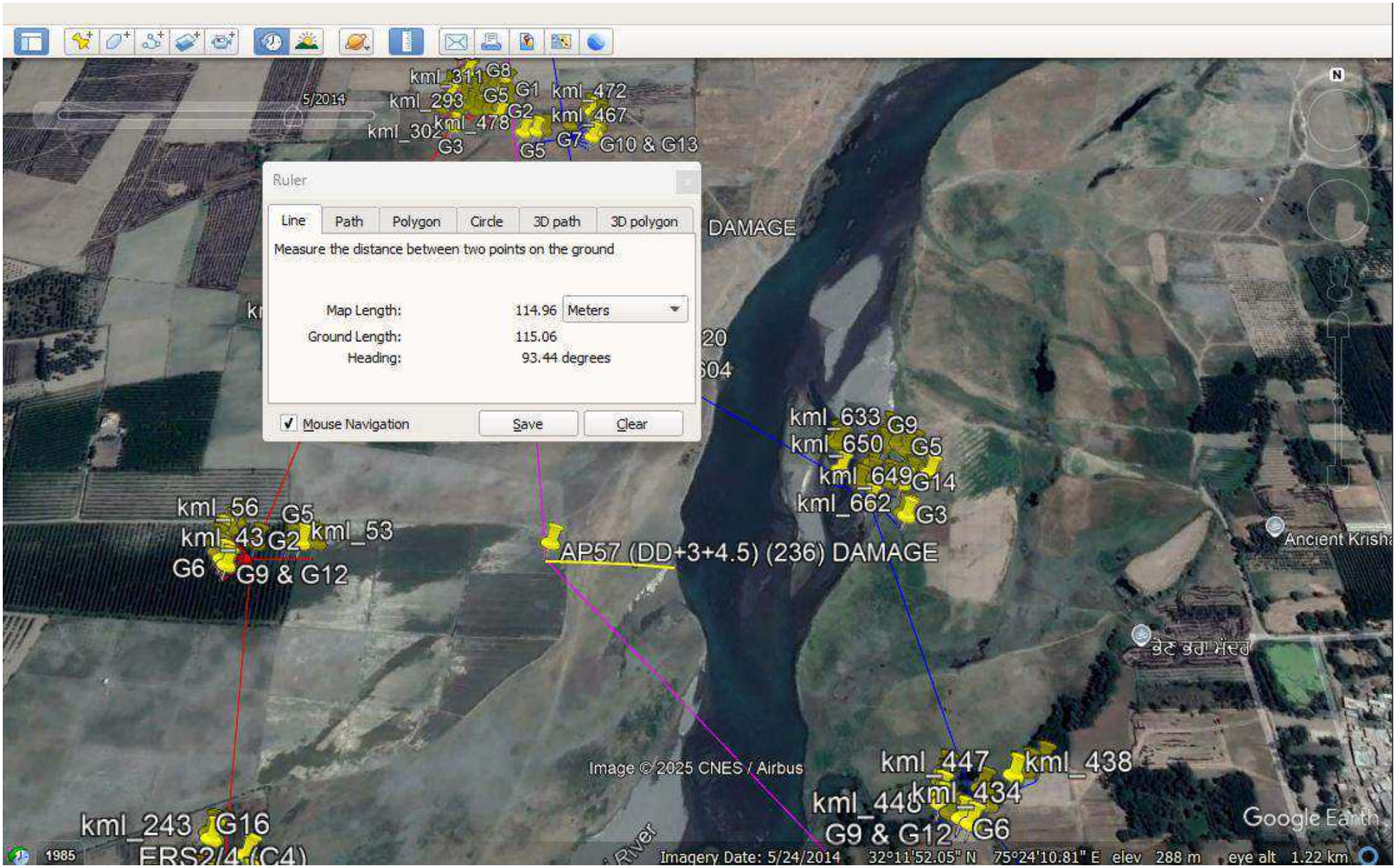


Public

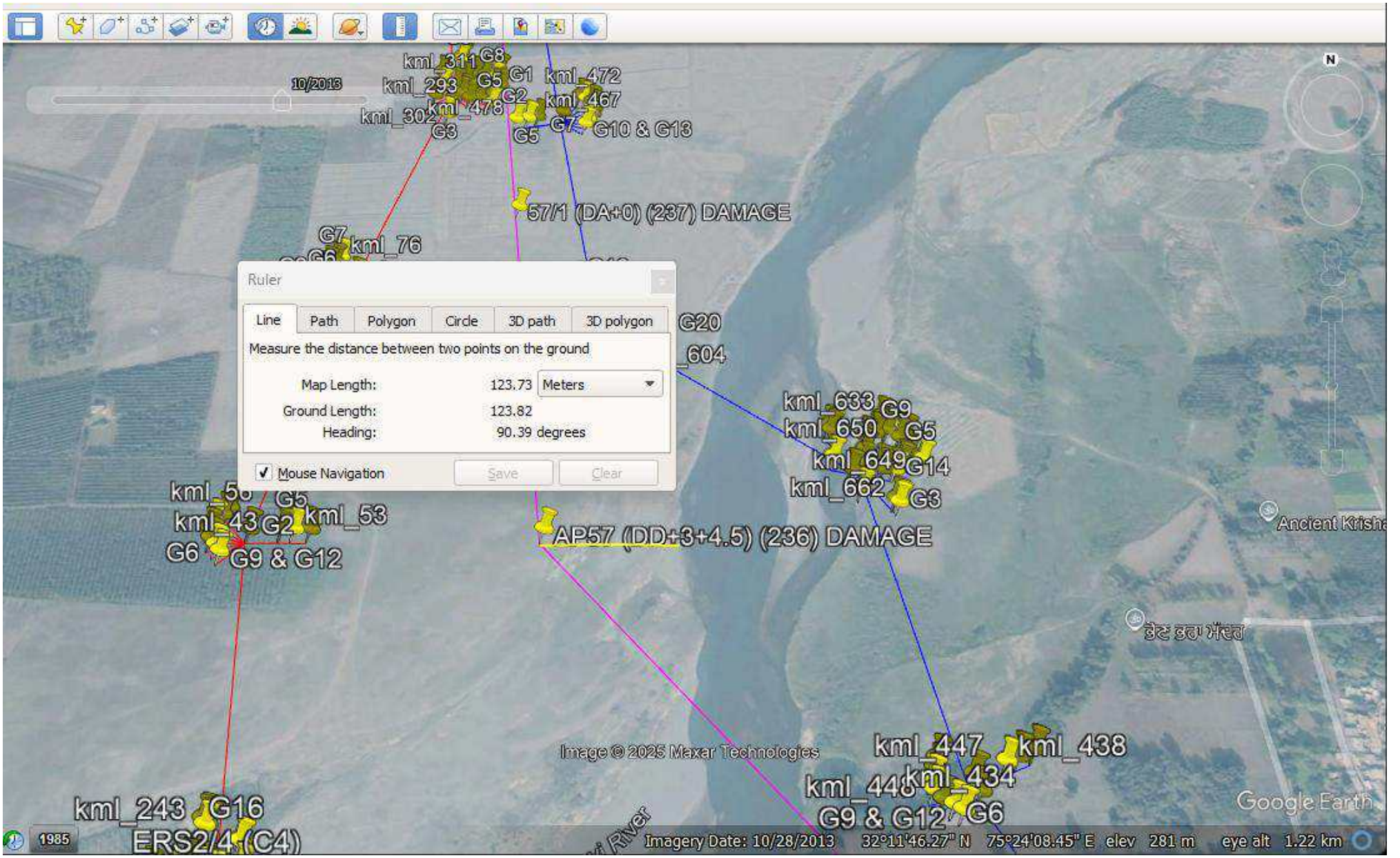
7.0 Google Imagery - 2017



7.0 Google Imagery - 2013



7.0 Google Imagery - 2013



HIGHEST DISCHARGE DATA OF RIVER RAVI AT KATHLORE BRIDGE GAZLI KHALSA MONTH OF AUGUST 25 TO OCTOBER 10/2025

25-8-2025	16.00	285000 cus
26-8-2025	21.70	550000 cus
27-8-2025	21.00	515000 cus
28-8-2025	16.10	285000 cus
29-8-2025	12.00	63200 cus
30-8-2025	12.00	63200 cus
31-8-2025	11.00	41000 cus
01-9-2025	11.00	41000 cus
02-9-2025	11.10	43280 cus
03-9-2025	13.40	148600 cus
04-9-2025	13.50	146000 cus
05-9-2025	13.50	146000 cus
06-9-2025	13.00	114000 cus
07-9-2025	10.50	35800 cus
8-9-2025	10.00	30600 cus
9-9-2025	9.30	22600 cus
10-9-2025	9.40	23760 cus
11-9-2025	9.00	19200 cus
12-9-2025	8.10	14880 cus
13-9-2025	8.30	15840 cus
14-9-2025	7.50	12250 cus
15-9-2025	7.10	10530 cus
16-9-2025	7.90	13970 cus
17-9-2025	7.80	13540 cus
18-9-2025	8.00	14400 cus
19-9-2025	6.40	7754 cus
20-9-2025	6.30	7363 cus
21-9-2025	6.30	7363 cus
22-9-2025	7.70	8927 cus
23-9-2025	7.00	10100 cus
24-9-2025	7.10	10530 cus

Scanned with OKEN Scanner

Scanned with OKEN Scanner

25-9-2025	7'10	10530 cm
26-9-2025	6'10	6581 cm
27-9-2025	6'10	6581 cm
28-9-2025	5'90	5796 cm
29-9-2025	5'90	5796 cm
30-9-2025	5'90	5796 cm
01-10-2025	8'00	14400 cm
02-10-2025	10'60	36840 cm
03-10-2025	10'80	38920 cm
04-10-2025	10'40	34760 cm
05-10-2025	10'30	33790 cm
06-10-2025	10'10	31640 cm
07-10-2025	4'90	1266 cm
08-10-2025	4'00	830 cm
09-10-2025	3'80	770 cm
10-10-2025	3'60	655 cm

ਜੂਨੀਅਰ ਇੰਜੀਨੀਅਰ,
ਡਿਸਟਾਰਜ ਉਪ ਮੰਡਲ ਨੰ 1
ਥੈਰਾਲ ਥਰਮਲ ਮਾਧੋਪੁਰ-145024

Scanned with OKEN Scanner

Scanned with OKEN Scanner

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
PARBATI KOLDAM TRANSMISSION CO LTD.
NEAR KRISHI VIGYAN KENDRA VILLAGE JHIRI POST OFFICE NAGWAINTEH. AY, MANDI HIMACHAL PRADESH.

Test Report No : [illegible]
Date of Issue : 11/12/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing : 28/11/2025
Date of Completion of Test : 29/11/2025

Customer Relationship Number : G1689

Sample Description :
NDT (REBOUND HAMMER); STDSERV-0000002077

Towards Excellence Through Quality

Customer Reference No.: 5160002560 DATED:- 19/11/2025
Kind Attention: MR. SUSHEEL KUMAR
Contact No.: 9418428866
E-Mail: Susheel.kumar@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : SITE
Results relate only to the items Tested.

GIAL

ULR No:TC951225000001100F **Reviewed & Authorized By**

Sample ID No. : G2511270001-0001
Sample Description: Concrete Structure
Project : 400 KV S/C PRKTCL Tepar
Location :- Tower 42
Grade of Concrete : M-20

Discipline - NDT
Group – Building Material

Rebound Hammer
(IS : 516 (Part-5/SEC-4)-2020)

S. No.	Location	Direction	Rebound No.						Average Rebound No.	Corrected rebound no.	Compressive Strength (N/mm²)
1.	Leg A Chimney	Horizontal	36	34	36	38	40	36	37	37	38
2.	Leg A Frustrum	Horizontal	48	46	52	54	56	52	51	51	65
3.	Leg B Chimney	Horizontal	32	36	38	36	34	38	36	36	36
4.	Leg B Frustrum	Horizontal	52	56	48	50	48	48	50	50	63
5.	Leg C Chimney	Horizontal	30	34	36	38	40	36	36	36	36
6.	Leg C Frustrum	Horizontal	52	50	52	46	46	46	49	49	61
7.	Leg D Chimney	Horizontal	36	38	40	40	32	34	37	37	38
8.	Leg D Frustrum	Horizontal	40*	46	48	52	56	58*	50	51	65

Remark: As per IS 516 Part 5/ sec 4 : 2020 clause No. 8.1 probable Accuracy of prediction of concrete strength in a structure is ±25%.

...End of Test Report...

Analyst

ULR No: TC951225000001100F

Reviewed & Authorized By

Term & Conditions

1. The results are related only to the items Tested
2. Total Liability of our Laboratory is limited to the invoiced Amount. No Liability will be accepted after Sample is taken back
3. The Sample Description is given "As desired by the customers". Sample not drawn by us & Analysis Conducted on Received sample unless specified otherwise.
4. Retained sample will be destroyed after 30 days from the date of issue of the test report unless instructed otherwise.
5. Any Complaints or Retest request should be communicated within 15 days from the Issue of the Test report.
6. Test Report shall not be reproduced except in full, without Written approval of the Laboratory
7. The Test report is not to be reproduced wholly or in parts & cannot be used as an evidence in a court of law & shall not be used in advertising media without our permission in writing.

Analyst

ULR No: TC951225000001100F

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
NRSS XXIX TRANSMISSION LTD..
1st Floor, H. No. 348/8, Randhir Singh Colony, Meherchand Road, Gurdaspur, Gurdaspur, Punjab, 143521

Test Report No.: [illegible]
Date of Issue: 27/11/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing: 28/11/2025
Date of Completion of Test: 28/11/2025

Customer Relationship Number : G1690

Sample Description :
NDT (REBOUND HAMMER), STDSERV-0000002077

Towards Excellence Through Quality

Customer Reference No.: 5160002577 DATED:- 24-11-2025
Kind Attention: MR. AMANDEEP SINGH
Contact No.: 7006227058
E-Mail: amandeep.singh@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

ULR No:TC951225000001101F **Reviewed & Authorized By**

TEST REPORT

Sample ID No. : G2511270002-0001
Sample Description: Concrete Structure
Project : NRSS XXIX TL (JSTL)
Location :- Tower
Grade of Concrete : M-20

Discipline - NDT
Group – Building Material

Rebound Hammer
(IS : 516 (Part-5/SEC-4)-2020

S. No.	Location	Direction	Rebound No.						Average Rebound No.	Corrected rebound no.	Compressive Strength (N/mm^2)
1.	Leg A Chimney	Horizontal	48*	38	38	38	38	38	40	38	39
2.	Leg A Step Box	Horizontal	38	40	42	36	40	42	40	40	43
3.	Leg A Frustrum	Horizontal	38	42	40	40	40	40	40	40	43
4.	Leg B Chimney	Horizontal	38*	40	36*	56*	46	52	46	46	55
5.	Leg B Step Box	Horizontal	40	42	46	42	44	44	43	43	49
6.	Leg B Frustrum	Horizontal	38	38	42	40	38	40	39	39	41
7.	Leg C Chimney	Horizontal	48	52	56	56	46	44	50	50	63
8.	Leg C Step Box	Horizontal	46	44	48	48	50	46	47	47	57
9.	Leg C Frustrum	Horizontal	50	46	48	44	52	50	48	48	59
10.	Leg D Chimney	Horizontal	48	36*	56*	52	46	44	47	48	59
11.	Leg D Step Box	Horizontal	44	52	46	46	42	44	46	46	55
12.	Leg D Frustrum	Horizontal	48*	38	38	38	38	38	40	38	39

*Values excluded to calculate corrected Average rebound no.

Remark: As per IS 516 Part 5/ sec 4 : 2020 clause No. 8.1 probable Accuracy of prediction of concrete strength in a structure is ±25%.

...End of Test Report...

Analyst

Reviewed & Authorized By

Term & Conditions

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Analyst

GIAL

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
NRSS XXIX TRANSMISSION LTD..
1st Floor, H. No. 348/8, Randhir Singh Colony, Meherchand Road, Gurdaspur, Gurdaspur, Punjab, 143521

Test Report No : G7512250001097F
Date of Issue: 08/12/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 08/12/2025

Customer Relationship Number : G1690

Sample Description :
TOWER MEMBER ; MARK:- B 533 DD 867R

Customer Reference No.: 5160002577 DATED:- 24-11-2025
Kind Attention: MR. AMANDEEP SINGH
Contact No.: 7006227058
E-Mail: amandeep.singh@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

ULR No:TC951225000001097F **Reviewed & Authorized By**

Sample ID No.: G2511270002-0003
Sample Description : Tower Member (B- 533-DD 867 R)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.163	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.021	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.023	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.68	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.27	0.40 max.	IS 228 (Part-8)-1989

Analyst

ULR No: TC951225000001097F

GIAL

Reviewed & Authorized By

SAMPLE- ID No.: G2511270002- 0003 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	480	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	364	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	26.2	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

ULR No: TC951225000001097F

Analyst

Reviewed & Authorized By

Term & Conditions

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2. Total Liability of our Laboratory is limited to the invoiced Amount. No Liability will be accepted after Sample is taken back
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Analyst

ULR No: TC951225000001097F

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
NRSS XXIX TRANSMISSION LTD..
1st Floor, H. No. 348/8, Randhir Singh Colony,
Meherchand Road, Gurdaspur, Gurdaspur, Punjab,
143521

Test Report No. : 025112700020005
Date of Issue: 08/12/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 08/12/2025

Customer Relationship Number : G1690

Sample Description :
TOWER MEMBER; MARK:- B 533 DD 7L

Customer Reference No.: 5160002577 DATED:- 24-11-2025
Kind Attention: MR. AMANDEEP SINGH
Contact No.: 7006227058
E-Mail: amandeep.singh@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

ULR No:TC951225000001093F

Reviewed & Authorized By

Sample ID No.: G2511270002-0005
Sample Description : Tower Member (HB- 533-DD 7L)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.168	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.020	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.022	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.67	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.28	0.40 max.	IS 228 (Part-8)-1989

Analyst

TC-8512

ULR No: TC951225000001093F

GIAL

Reviewed & Authorized By

SAMPLE- ID No.: G2511270002- 0005 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	485	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	360	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	26.4	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

ULR No: TC951225000001093F

Reviewed & Authorized By

Term & Conditions

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Analyst

ULR No: TC951225000001093F

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
NRSS XXIX TRANSMISSION LTD..
1st Floor, H. No. 348/8, Randhir Singh Colony, Meherchand Road, Gurdaspur, Gurdaspur, Punjab, 143521

Test Report No. : GTIL/270002/0006
Date of Issue: 08/12/2025

Sample Booking Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 08/12/2025

Customer Relationship Number : G1690

Sample Description :
TOWER MEMBER; MARK:- B 533 DD 9R

Towards Excellence Through Quality

Customer Reference No.: 5160002577 DATED:- 24-11-2025
Kind Attention: MR. AMANDEEP SINGH
Contact No.: 7006227058
E-Mail: amandeep.singh@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

ULR No:TC951225000001094F **Reviewed & Authorized By**

Sample ID No.: G2511270002-0006
Sample Description : Tower Member (HB- 533-DD 9R)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.165	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.025	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.023	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.63	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.30	0.40 max.	IS 228 (Part-8)-1989

Analyst

ULR No: TC951225000001094F

Reviewed & Authorized By

SAMPLE- ID No.: G2511270002- 0006 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	520	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	380	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	27.2	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

TC-9612

ULR No: TC951225000001094F

Reviewed & Authorized By

Term & Conditions

1. The results are related only to the items Tested
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Analyst

ULR No: TC951225000001094F

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74226JK2013PTC003789

TEST REPORT

Test Report Issue To:
NRSS XXIX TRANSMISSION LTD.,
1st Floor, H. No. 348/8, Randhir Singh Colony, Meherchand Road, Gurdaspur, Gurdaspur, Punjab, 143521

Test Report No : 0351220003-0007
Date of Issue: 08/12/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing : 27/11/2025
Date of Completion of Test : 08/12/2025

Customer Relationship Number : G1690

Sample Description :
TOWER MEMBER ; MARK:- B 533 DD 109L

Customer Reference No.: 5160002577 DATED:- 24-11-2025
Kind Attention: MR. AMANDEEP SINGH
Contact No.: 7006227058
E-Mail: amandeep.singh@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

TC-6212

ULR No:TC951225000001095F **Reviewed & Authorized By**

Sample ID No.: G2511270002-0007
Sample Description : Tower Member (HB- 533-DD 109L)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.167	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.023	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.026	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.73	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.27	0.40 max.	IS 228 (Part-8)-1989

Analyst

TC-6512

ULR No: TC951225000001095F

Reviewed & Authorized By

SAMPLE- ID No.: G2511270002- 0007 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	510	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	380	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	27.6	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

ULR No: TC951225000001095F

Reviewed & Authorized By

Term & Conditions

1. The results are related only to the items Tested
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Analyst

ULR No: TC951225000001095F

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
NRSS XXIX TRANSMISSION LTD..
1st Floor, H. No. 348/8, Randhir Singh Colony, Meherchand Road, Gurdaspur, Gurdaspur, Punjab, 143521

Test Report No : 9251225000001096F
Date of Issue: 08/12/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 08/12/2025

Customer Relationship Number : G1690

Sample Description :
TOWER MEMBER; MARK:- B 533 DD 858

Towards Excellence Through Quality

Customer Reference No.: 5160002577 DATED:- 24-11-2025
Kind Attention: MR. AMANDEEP SINGH
Contact No.: 7006227058
E-Mail: amandeep.singh@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

ULR No:TC951225000001096F **Reviewed & Authorized By**

Sample ID No.: G2511270002-0002
Sample Description : Tower Member (B- 533-DD 858)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.174	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.022	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.026	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.64	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.30	0.40 max.	IS 228 (Part-8)-1989

Analyst

ULR No: TC951225000001096F

Reviewed & Authorized By

SAMPLE- ID No.: G2511270002- 0002 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	480	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	370	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	26.1	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

ULR No: TC951225000001086F

Reviewed & Authorized By

Term & Conditions

1. The results are related only to the items Tested
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Analyst

TC-4812

ULR No: TC951225000001096F

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
NRSS XXIX TRANSMISSION LTD..
1st Floor, H. No. 348/8, Randhir Singh Colony,
Meherchand Road, Gurdaspur, Gurdaspur, Punjab,
143521

Test Report No. : 6251127B002-0004
Date of Issue: 08/12/2025

Sample Booking/Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 08/12/2025

Customer Relationship Number : G1690

Sample Description :
TOWER MEMBER; MARK:- HB 533 DD 734

Customer Reference No.: 5160002577 DATED:- 24-11-2025
Kind Attention: MR. AMANDEEP SINGH
Contact No.: 7066227058
E-Mail: amandeep.singh@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

ULR No:TC951225000001098F

Reviewed & Authorized By

Sample ID No.: G2511270002-0004
Sample Description : Tower Member (HB- 533-DD 734)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.157	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.023	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.024	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.72	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.26	0.40 max.	IS 228 (Part-8)-1989

Analyst

ULR No: TC951225000001098F

Reviewed & Authorized By

SAMPLE- ID No.: G2511270002- 0004 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	472	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	360	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	27.1	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

TC-9512

ULR No: TC951225000001098F

Reviewed & Authorized By

Term & Conditions

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Analyst

TC 8512

ULR No: TC951225000001098F

GIAL

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
PARBATI KOLDAM TRANSMISSION CO LTD.
NEAR KRISHI VIGYAN KENDRA VILLAGE JHIRI POST OFFICE NAGWAINTEH. AY, MANDI HIMACHAL PRADESH.

Test Report No : GTI/127/0001-0002
Date of Issue: 08/12/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 08/12/2025

Customer Relationship Number : G1689

Sample Description :
TOWER MEMBER; MARK NO:- A-104-D0415M

Towards Excellence Through Quality

Customer Reference No.: 5160002560 DATED:- 19/11/2025
Kind Attention: MR. SUSHEEL KUMAR
Contact No.: 9418428866
E-Mail: Susheel.kumar@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

TC-8512

ULR No:TC951225000001090F **Reviewed & Authorized By**

Sample ID No.: G2511270001-0002
Sample Description : Tower Member (A-104-D 0415M)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.157	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.021	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.024	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.67	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.25	0.40 max.	IS 228 (Part-8)-1989

Analyst

TC-6512

ULR No: TC951225000001090F

GIAL

Reviewed & Authorized By

SAMPLE- ID No.: G2511270001- 0002 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	482	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	356	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	24.5	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

ULR No: TC961225000001090F

Reviewed & Authorized By

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Analyst

ULR No: TC951225000001090F

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003759

TEST REPORT

Test Report Issue To:
PARBATI KOLDAM TRANSMISSION CO LTD.
NEAR KRISHI VIGYAN KENDRA VILLAGE JHIRI POST OFFICE NAGWAINTEH. AY, MANDI HIMACHAL PRADESH.

Test Report No : GIAL/TR/0001-0004
Date of Issue: 08/12/2025
Sample Receipt/Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 08/12/2025

Customer Relationship Number : G1689

Sample Description :
TOWER MEMBER; MARK NO:- A-104-D-635X

Customer Reference No.: 5160002560 DATED:- 19/11/2025
Kind Attention: MR. SUSHEEL KUMAR
Contact No.: 9418428866
E-Mail: Susheel.kumar@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested.

GIAL

TC 9812

ULR No:TC951225000001092F **Reviewed & Authorized By**

TEST REPORT

Sample ID No.: G2511270001-0004
Sample Description : Tower Member (A-104-D 635X)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.167	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.022	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.025	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.70	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.27	0.40 max.	IS 228 (Part-8)-1989

Analyst

ULR No: TC951225000001092F

Reviewed & Authorized By

SAMPLE- ID No.: G2511270001- 0004 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	480	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	345	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	26.1	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

TC-8312

ULR No: TC951225000001092F

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Analyst

TC-8812

ULR No: TC951225000001092F

GIAL

Reviewed & Authorized By

GEOTECH
INTERNATIONAL
ANALYTICAL LAB PVT LTD
CIN: U74220JK2013PTC003789

TEST REPORT

Test Report Issue To:
PARBATI KOLDAM TRANSMISSION CO LTD.
NEAR KRISHI VIGYAN KENDRA VILLAGE JHIRI POST OFFICE NAGWAINTEH. AY, MANDI HIMACHAL PRADESH.

Test Report No : GTR1270001/0001
Date of Issue: 06/12/2025
Sample Booking/Receipt : 27/11/2025
Date of Start of Testing: 27/11/2025
Date of Completion of Test: 06/12/2025

Customer Relationship Number : G1689

Sample Description :
TOWER MEMBER; MARK NO:- A-104-D416M

Towards Excellence Through Quality

Customer Reference No.: 5160002560 DATED:- 19/11/2025
Kind Attention: MR. SUSHEEL KUMAR
Contact No.: 9418428866
E-Mail: Susheel.kumar@indigrid.com

Sample Condition : Satisfactory
Sample Size (Approx):
Sample Quantity (Approx): 1

SAMPLE DRAWN BY : CUSTOMER
TEST PERFORMED AT : LAB
Results relate only to the items Tested

GIAL

ULR No:TC951225000001091F

Reviewed & Authorized By

Sample ID No.: G2511270001-0003
Sample Description : Tower Member (A-104-D 0416M)

Discipline: Chemical
Group: Metals & Alloys
Product: Low Alloy Steel

S. No.	Test Parameter	Observed Value	Requirement as per IS 2062:2011 Gr. E 250 Quality A	Test Method
1.	Carbon as C, % w/w	0.163	0.23 max.	IS 228 (Part-1)-2025
2.	Sulphur as S, % w/w	0.024	0.045 max.	IS 228 (Part-9)-1989
3.	Phosphorous as P, % w/w	0.021	0.045 max.	IS 228 (Part-3)-2024
4.	Manganese as Mn, % w/w	0.70	1.50 max.	IS 228 (Part-2)-2024
5.	Silicon as Si, % w/w	0.29	0.40 max.	IS 228 (Part-8)-1989

Analyst

TC-8512

ULR No: TC951225000001091F

GIAL

Reviewed & Authorized By

SAMPLE- ID No.: G2511270001- 0003 **DICIPLINE** :MECHANICAL
PRODUCT : Tower member (structure Steel) **GROUP :** MECHANICAL PROPERTIES OF METALS
CONDITION : MACHINED

MECHANICAL TESTING

S. No.	Test Parameter	Observed Value	Test Method	Requirements as per IS:2062-2011, Grade E250, Quality A
1.	Tensile Strength (N/mm^2)	490	IS: 1608 (Part-1): 2022	410 Min.
2.	Yield Stress (N/mm^2)	335	IS: 1608 (Part-1): 2022	250 Min
3.	Elongation (%) [GL -80 mm]	25.1	IS: 1608 (Part-1): 2022	23 Min.
4.	Bend test (2t*180 deg.)	No Cracks	IS : 1599 : 2023	No cracks.

...End of Test Report...

Analyst

TC-8512

ULR No: TC951225000001091F

Reviewed & Authorized By

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Analyst

ULR No: TC951225000001091F

Reviewed & Authorized By

Annexure-III.II

REVOCATION REQUEST FOR OUTAGES OCCURRED DUE TO REASONS BEYOND THE CONTROL OF LICENSEE- APRIL 2025

400 kV Sambha Amargarh Circuit II:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-2	16-04-2025 19:14	16-04-2025 20:28	01:14	Line tripped on B-phase to Earth Fault due to foreign material (Pine tree) of a height of 36 meters which was outside the line corridor (at a distance of 40 meters from the center line) but at a slope, came in contact with the line because of inclement weather conditions. Enclosed herewith the photograph of foreign material (fallen tree), burnt marks on the fallen tree, traces of pine thorns on the conductor and IMD report. We kindly request to consider this outage under system constraint.

IMD Report:

IMD Report.pdf

Site Admin | April 17, 2025 7:56 AM

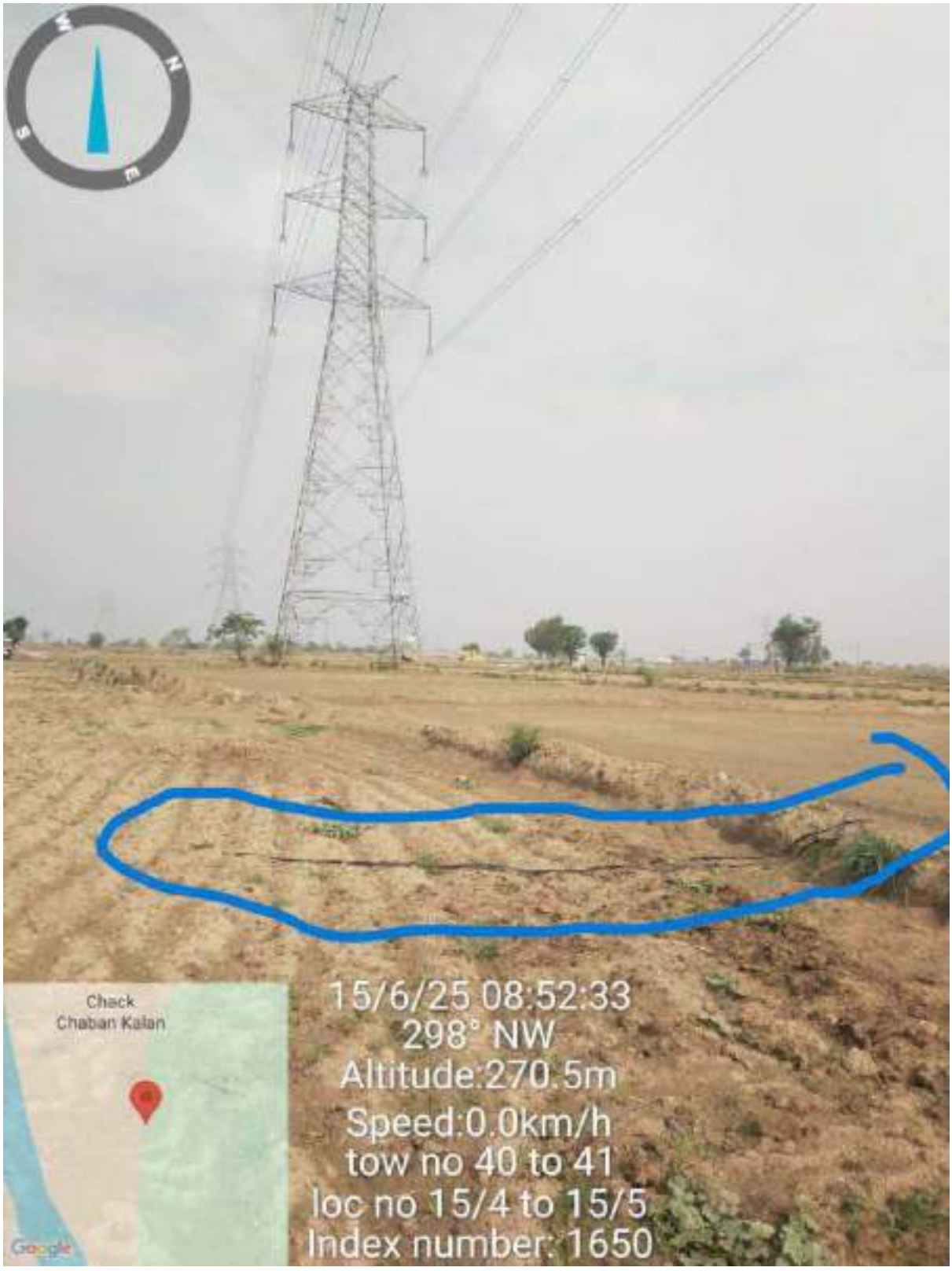
Jammu: High Velocity Winds, Thunderstorm Throw Life Out Of Gear

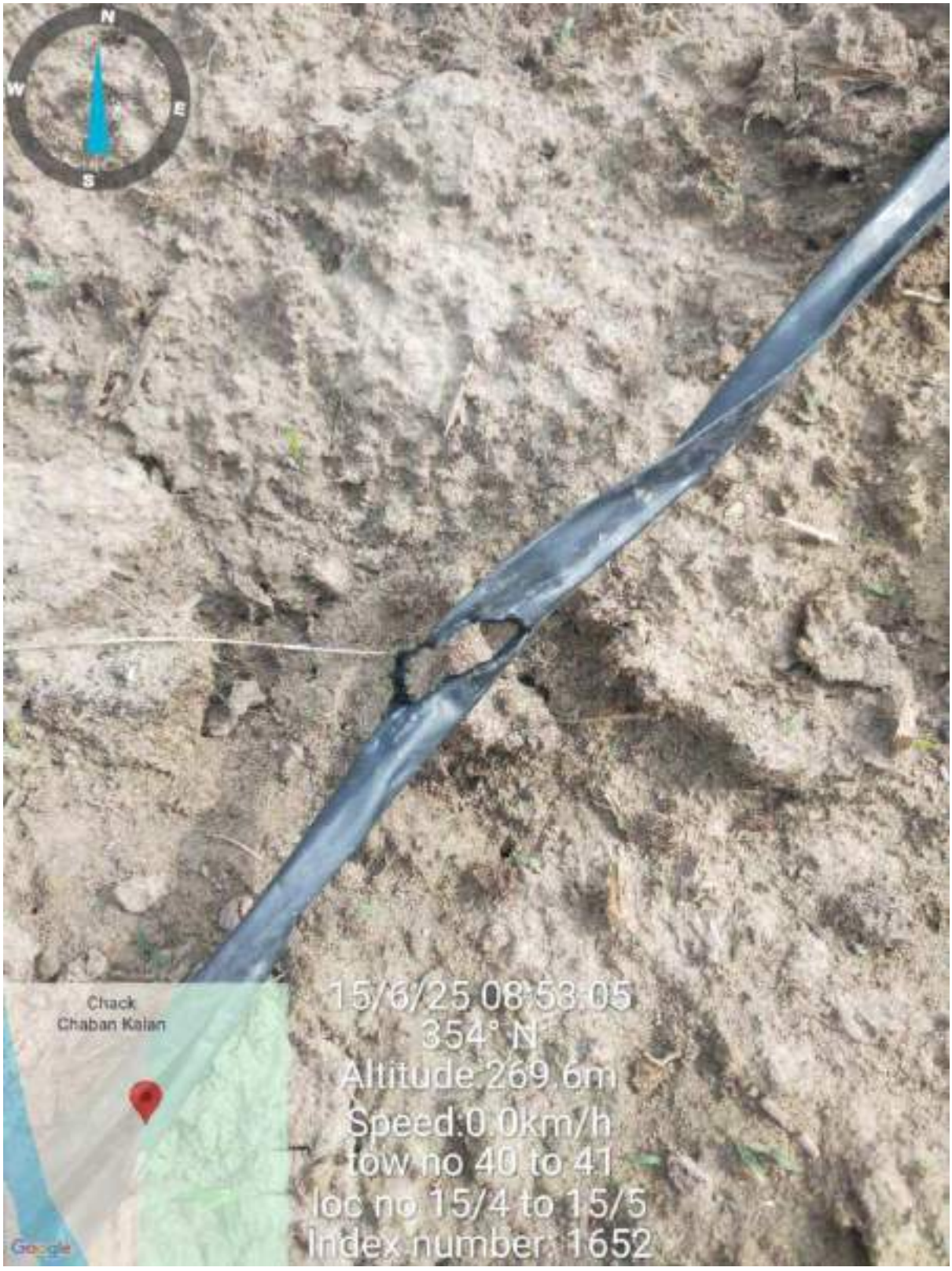
In Jammu and Kashmir, high velocity winds with the speed of over 100 kms per hour, thunderstorm, heavy rain with hailstorm at many places created havoc, throwing life out of gear last evening in the Jammu region. Our Jammu correspondent reports that the strong windstorm uprooted many trees, electric poles, and towers, leading to a total blackout in all the 10 districts of Jammu division and disruption in the movement of vehicles on the roads in Jammu City and several other highways. Dozens of roads have been blocked due to fall of trees, its branches and electric poles in various parts of the city. A wall of Civil Secretariat at Jammu collapsed, causing damage to several vehicles and two-wheelers. A Cell phone tower near Bahu Fort collapsed causing damage to the two bikes and a house structure. However, no loss of any life or injury to any one was reported. The traffic disruption was witnessed on Jammu-Akhnoor, Jammu-R S Pura, Talab Tillo and Jammu-Nagrota road. Massive traffic disruption was also witnessed on Jammu-Samba-Kathua and Jammu-Katra-Reasi highways. The Power infrastructure has suffered huge damage due to wind-storm and gusty winds in Jammu region. The power supply to entire Jammu City, Samba, Kathua, Rajouri, Poonch, Reasi, Katra, Udhampur, Ramban and even to Doda and Kishtwar districts has been snapped. Men and machinery of the Power Department has been pressed into service to restore the power supply to the Jammu City and other districts of the region. Reports of hailstorms were received from Rajouri, Poonch, Reasi, Udhampur and Ramban districts. The fruit trees suffered massive loss due to hailstorm and gusty winds in Jammu, Samba and Kathua belt of lower Shivalik range. The MeT department has said, the weather is expected to remain wet from tomorrow. Light to moderate rain at most places and snow at higher reaches and moderate to heavy rain at isolated to scattered places during next two days, accompanied with thunder and gusty winds is expected in the region. The major activity is expected on April 19 as the local MeT department has issued yellow and orange alerts for the day.

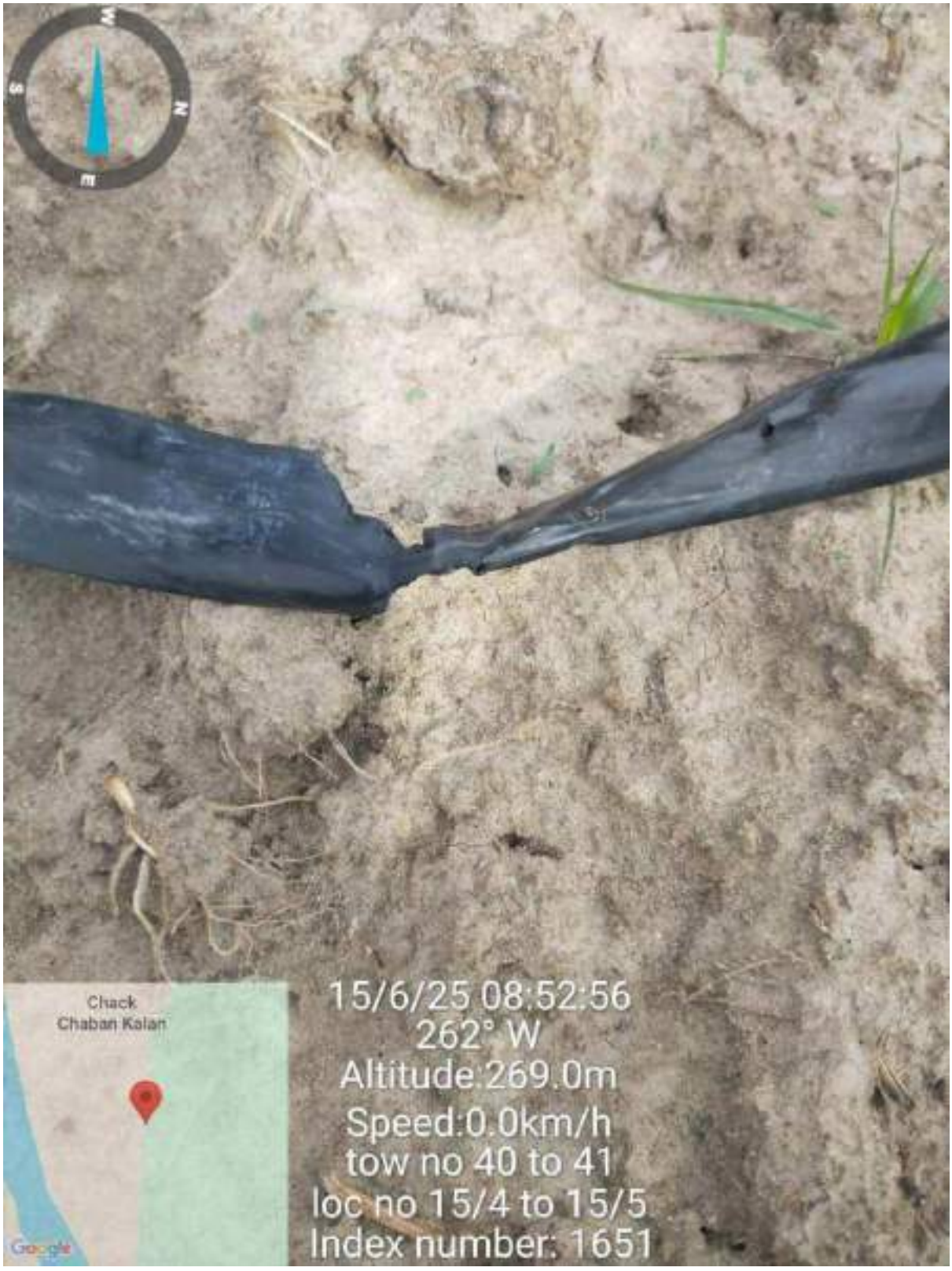
REVOCATION REQUEST FOR OUTAGES OCCURRED DUE TO REASONS BEYOND THE CONTROL OF LICENSEE- JUNE 2025

400 kV Sambha Amargarh Circuit II:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-2	13-06-2025 18:21	13-06-2025 21:33	03:12	Line tripped due to a B-Phase to Earth fault. During emergency patrolling, the team observed a burnt lightweight irrigation pipe (tarpaulin-type material) in the forward span at TN 40. It is suspected that the tarpaulin was carried away by the wind and became entangled with the fault-phase conductor and tower body, resulting in a phase-to-earth fault. The pipe, approximately 7 to 8 meters long, was observed to have burnt marks at three different spots. Attached herewith are photographs showing the burnt tarpaulin under the corridor, an e-weather report indicating high winds and thunderstorm.


W
N
S
E
Chack
Chaban Kalan
Google
15/6/25 08:52:33
298° NW
Altitude:270.5m
Speed:0.0km/h
tow no 40 to 41
loc no 15/4 to 15/5
Index number: 1650


N
W
E
S
Chack
Chaban Kalan
Google
15/6/25 08:58:05
354° N
Altitude 269.6m
Speed:0.0km/h
tow no 40 to 41
loc no 15/4 to 15/5
Index number: 1652


Chack
Chaban Kalan
15/6/25 08:52:56
262° W
Altitude:269.0m
Speed:0.0km/h
tow no 40 to 41
loc no 15/4 to 15/5
Index number: 1651

IMD Report:

IMD report
13.06.25.pdf

6:39
4G 37%
Rampon
TL-SA-140/0-WZ-2
Reasi
NTL-SA-96/0-WZ-2
NTL-SA-60/1-WZ-2
NTL-SA-42/1-WZ-2
NTL-SA-DE-WZ-2
NTL-JS-AP69-WZ-2
NTL-JS-AP59-WZ-
NTL-JS-40/2-
Batala
6:39 PM • Precip. Intensity
-1h Now +1h +2h +3h +4h +5h +6h
+5 Impacted Locations

Site Admin | April 17, 2025 7:56 AM

Jammu: High Velocity Winds, Thunderstorm Throw Life Out Of Gear

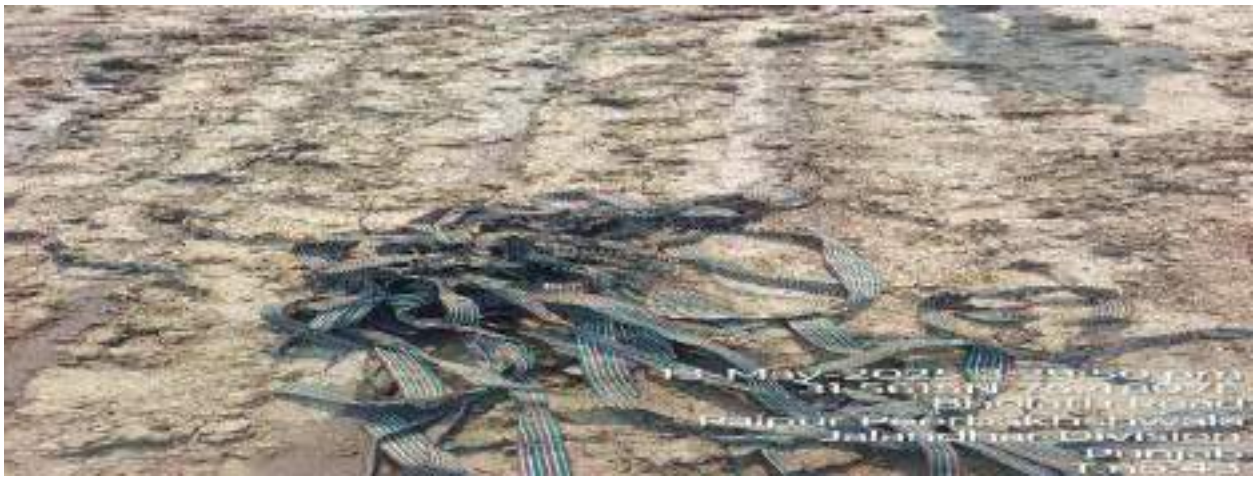
In Jammu and Kashmir, high velocity winds with the speed of over 100 kms per hour, thunderstorm, heavy rain with hailstorm at many places created havoc, throwing life out of gear last evening in the Jammu region. Our Jammu correspondent reports that the strong windstorm uprooted many trees, electric poles, and towers, leading to a total blackout in all the 10 districts of Jammu division and disruption in the movement of vehicles on the roads in Jammu City and several other highways. Dozens of roads have been blocked due to fall of trees, its branches and electric poles in various parts of the city. A wall of Civil Secretariat at Jammu collapsed, causing damage to several vehicles and two-wheelers. A Cell phone tower near Bahu Fort collapsed causing damage to the two bikes and a house structure. However, no loss of any life or injury to any one was reported. The traffic disruption was witnessed on Jammu-Akhnoor, Jammu-R S Pura, Talab Tillo and Jammu-Nagrota road. Massive traffic disruption was also witnessed on Jammu-Samba-Kathua and Jammu-Katra-Reasi highways. The Power infrastructure has suffered huge damage due to wind-storm and gusty winds in Jammu region. The power supply to entire Jammu City, Samba, Kathua, Rajouri, Poonch, Reasi, Katra, Udhampur, Ramban and even to Doda and Kishtwar districts has been snapped. Men and machinery of the Power Department has been pressed into service to restore the power supply to the Jammu City and other districts of the region. Reports of hailstorms were received from Rajouri, Poonch, Reasi, Udhampur and Ramban districts. The fruit trees suffered massive loss due to hailstorm and gusty winds in Jammu, Samba and Kathua belt of lower Shivalik range. The MeT department has said, the weather is expected to remain wet from tomorrow. Light to moderate rain at most places and snow at higher reaches and moderate to heavy rain at isolated to scattered places during next two days, accompanied with thunder and gusty winds is expected in the region. The major activity is expected on April 19 as the local MeT department has issued yellow and orange alerts for the day.

REVOCATION REQUEST FOR OUTAGES OCCURRED DUE TO REASONS BEYOND THE CONTROL OF LICENSEE- MAY 2025

1) 400 kV Jalandhar (PG)-Samba (PG)-I:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400 kV Jalandhar (PG)-Samba (PG)-I	11-05-2025 19:26:00	11-05-2025 23:18:00	03:52	The transmission line tripped due to an R-Phase to Y-Phase fault. During patrolling, the line team observed that the roof of a house, located outside the corridor of the transmission line, had been blown off. The displaced material was found lying inside the corridor, beneath the conductor, in the forward span of T.NO 43. Additionally, a burnt woven nylon tape was discovered beneath the conductor. It is likely that strong winds carried the nylon tape into the corridor, causing it to become entangled with the R and Y phase conductors, resulting in a phase-to-phase fault. Attached are the IMD report, newspaper cutting, and photographs of the burnt nylon tape and uprooted trees, providing evidence of the heavy winds in the region.

11-May-2025 9:56:32 pm
31.4840N 75.4799E
Malhian
Jalandhar Division
Punjab
T.no.21



IMD Report:

NRSS_JS-1_IMDReport_11052025.pdf

पंजाब केसरी, जग बाणी एवं हिन्द समाचार में विज्ञापन एवं समुलेखन संबंधी पूछताछ एवं किसी समस्या के बारे निम्नलिखित नम्बर पर सम्पर्क करें :
0181-2212121
ई-मेल : jagbani@pkesari.in

जालंधर के

MONDAY, 12 MAY 2025 सूर्योदय (कल) 05.33 सूर्यास्त (आज) 07.15 अगले 24 घंटों के दौरान

बदला मौसम का मिजाज: शाम को तूफान बना परेशानी, रात को बारिश ने दिलाई राहत

बिजली खराबी की 1200 से अधिक शिकायतें, घंटों गुल रही बिजली

जालंधर, 11 मई (पुनीत): महानगर में दोपहर बाद अचानक तूफान की वजह से लोगों को परेशानी उठाने को मिली जबकि रात को बारिश ने राहत दिलाई और मौसम में बदलाव देखने को मिला।

हालांकि उम्मीद के मुताबिक बारिश नहीं हुई और कुछ देर तक की धूलाकारी के बाद तेज हवाओं का सिलसिला भी थम गया।

कुल मिलाकर आज मौसम का मिजाज बदला हुआ नजर आया है, अब देखना होगा कि जालंधर में आई गिरावट का सिलसिला कब तक जारी रहता है।

महानगर में आसमान पर छाये हुए बादलों का दृश्य।

वहीं, बारिश के चलते पावरकॉम द्वारा एहतियात के तौर पर बिजली बंद की गई थी, जबकि कुछ इलाकों के लोग इसे अनौपचारिक समझ बैठे। देर रात को जालंधर सम्मान बनेहुए थे और उन्हें पता चला किसी भी इलाके में अनौपचारिक रूप से बिजली बंद नहीं की गई है।

बारिश के बीच गुजर रहे वाहन।

रात लगभग 9 बजे के बाद कई इलाकों जैसे जोहड़, जालंधर सिटी, सोडियां पुर रोड, फगवाड़ा जैसे सब-स्टेशन में ब्लैकआउट करवाया गया था, लेकिन आधा दर्जन इलाकों में ही स्थिति सामान्य रही।

तेज आंधी की वजह से बिजली खराबी लोगों के लिए दिक्कतों का सबब बनी। देर रात तक बिजली खराबी को लेकर 1200 से अधिक शिकायतें प्राप्त हुई थीं। इनमें कई इलाकों में कुछ ही घंटों में बिजली खराबी की समस्या को हल करवाया दिया गया था। पावरकॉम के एक्सियनों ने बताया कि खराबी के बाद रिपेयर के लिए टीमें मौके पर रवाना कर दी गई थीं।

वहीं, कई लोगों की शिकायतें थी कि पावरकॉम का 1912 नंबर न मिलने के चलते वह समय रहते अपनी शिकायतें दर्ज नहीं करवा पाए। देर रात तक ठीक किये जाने तक दर्जनों इलाकों में बिजली रिपेयर का काम चल रहा था। इसके चलते लोगों को घंटों तक बिना बिजली के गुजारने पड़े।

एक्सियनों ने कहा कि तेज आंधी की वजह से कई इलाकों में तारें इत्यादि टूट गई थी, जिसमें दुरुस्त करने में अधिक समय लगता है। उन्होंने कहा कि उपभोक्ताओं की शिकायतों को लेकर तुरंत प्रभाव से काम शुरू करवा दिया गया था।

रविवार को रिपेयर के नाम पर लगने वाले कटों से घरेलू उपभोक्ता परेशान

पावरकॉम द्वारा रविवार को रिपेयर के नाम पर आधा दिन बिजली सप्लाई बंद रखी जाती है, जिसके चलते घरेलू उपभोक्ताओं को भारी परेशानी उठानी पड़ती है। इसी क्रम में उपभोक्ता प्रदीप कुमार ने कहा कि विभाग द्वारा लगभग हर रविवार को रिपेयर के नाम पर बिजली बंद कर दी जाती है, जिसके चलते उन्हें छुट्टी वाले दिन आराम करने का मौका नहीं मिल पाता।

उन्होंने कहा कि विभाग को घरेलू उपभोक्ताओं और व्यावसायी व्यक्तियों के बारे में भी सोचना चाहिए और रविवार को बिजली बंद रखने के स्थान पर सोमवार या किसी और दिन रिपेयर करवानी चाहिए। उन्होंने कहा कि हर रविवार को घरेलू इलाकों की बिजली बंद रखना सरासर गलत है।

सूख रहे हैं बिजली रिपेयर का काम।

मौसम में आए बदलाव से तापमान में गिरावट, लोगों ने ली राहत की सांस

जगाधरी, 11 मई (महावीर): रविवार को उस समय क्षेत्र निवासियों को राहत की सांस मिली, जब कि दिन भर भीषण गर्मी को सहन कर रहे लोगों को मौसम में आई तब्दीली के कारण मौसम सुहावना बन गया।

शाम करीब 7 बजे अचानक आसमान में छाए घने बादलों के बाद चली तेज हवाओं ने लोगों के चेहरों पर रौनक ला दी।

जेठ माह शुरू होने से पहले ही माह में गर्मी ने भी अपना असर दिखाना शुरू कर दिया है। दिन के तापमान में बढ़ोतरी हो रही है, हालांकि मौसम विभाग ने पहले ही अनुमान जताया था कि पंजाब में बारिश और सूफान के कारण लोगों को गर्मी से राहत मिलेगी।

शाम को अचानक बदले मौसम के बाद तेज आंधी चली, जिसके कारण क्षेत्र निवासियों व वाहन चालकों को काफी दिक्कतों का सामना करना पड़ा।

इसी बीच थोड़ी देर के लिए हुई बारिश ने तापमान में गिरावट लाकर मौसम को ठंडा कर दिया। वहीं कृषि विशेषज्ञों का कहना है कि गेहूं की कटाई के बाद हुई बारिश कृषि के लिए फायदेमंद है। आने वाले समय में किसानों को खाली की हुयी फसल धान की रोपाई में आसानी होगी।

आसमान में छाए बादलों की तस्वीरें व (दाएं) अचानक आंधी चलने के कारण एक घर पर गिरे पेड़ की तस्वीर। | संवाद

देर शाम हुई बारिश ने बदला मौसम का मिजाज

जगाधरी (मुकेश): जगाधरी में दिन में धूप, उमस और गर्मी ने बेहाल किया तो देर शाम करीब 7.30 बजे बादल, हवा और बारिश ने मौसम खुशनुमा बना दिया।

तेज हवा और बारिश ने लोगों को राहत दी। आंधी के चलते रहने और आसमान में कई स्थान पर पेड़, पेड़ और होर्डिंग गिर गए।

इधर, बारिश के बाद अधिकतम तापमान में कुछ हद तक कमी आई।

गौर हो कि शहर में गर्मी का प्रकोप देख लोग इस पल का इंतजार कर रहे थे कि कब मौसम सुहावना होगा। रविवार को शाम आसमान में छाए छाने व तेज हवा चलने के पश्चात मौसम कुछ हद तक ठंडा हो गया, जिससे लोगों के चेहरों पर रौनक आ गई।

इस मौसम परिवर्तन का असर सड़कों और इलाकों पर देखा गया। तेज हवा और बारिश के बाद क्षेत्र के कुछ इलाकों में बिजली गुल हो गई। बारिश के बाद बिजली के पंखों से भी ठंडी हवा आने लगी।

मौसम में आए इस बदलाव से लोगों ने राहत की सांस ली। वहीं मौसम में आए बदलाव के कारण मौसम पूरे शाम से बदल गया और गर्मी की तीव्रता कम हो गई।

तेज आंधी से लोगों की बढ़ी मुश्किलें

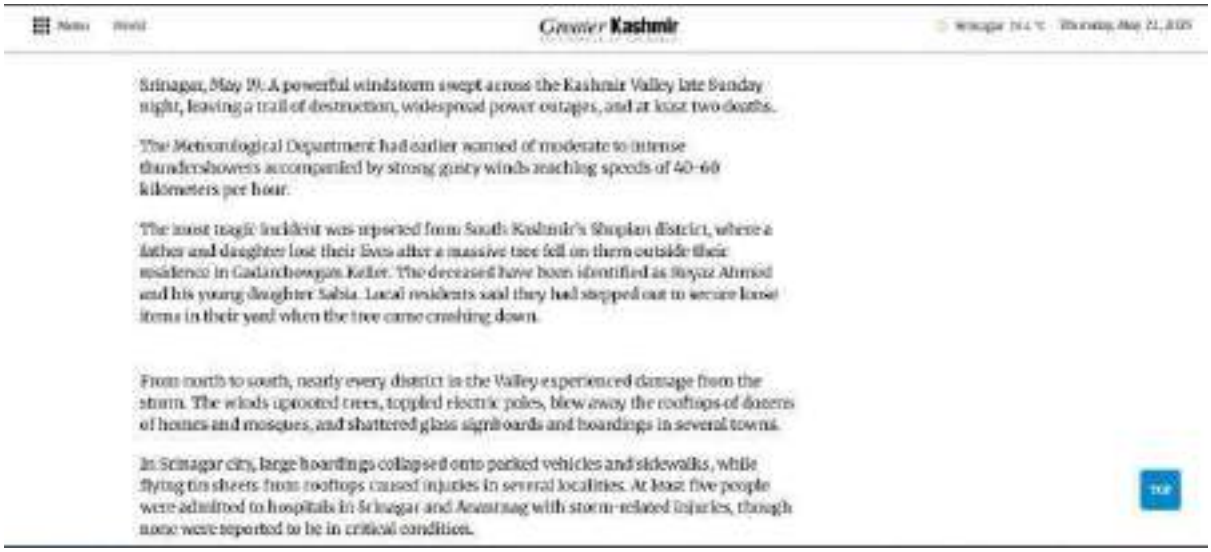
रविवार की देर शाम अचानक बदले मौसम के बाद जहां पूरे क्षेत्र की बिजली गुल हो गई। वहीं तेज आंधी के कारण लोगों के कुछ नुकसान होने की भी सूचना मिली है। रविवार की देर शाम चली तेज आंधी के कारण कपूरथला-जालंधर मार्ग पर पुलकारी फैक्ट्री के पास एक बड़े पर सड़क किनारे खड़ा पेड़ गिर पड़ा, जिससे गाड़ी चुनी रूक से प्रभावित हो गई। लेकिन गनीमत है कि कोई हादसा होने से बच गया।

सड़क पर पेड़ गिरने से एक मार्ग पर यातायात काफी प्रभावित हुआ, जिसके कारण लोगों को काफी मुश्किलों का सामना करना पड़ा।

2) 400 Kv Samba Amargarh Circuit-II:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-2	18-05-2025 22:17:00	19-05-2025 00:03:00	01:46	Line tripped due to an R-Phase to B-Phase fault. During patrolling, the line team observed foreign material hanging from the middle cross arm (Ckt-02) at T.No 541. It is suspected that strong winds carried this material into the area, causing it to become entangled with both fault-phase conductors. The material subsequently burned and was carried away by the wind, leaving residue stuck on the cross arm. Please note that strong windstorms were reported across the entire valley, with the tripping specifically occurring in the Shopian section, as highlighted in the weather reports. Attached herewith are the IMD report, photographs, video evidence of the foreign material, newspaper clippings, and other online weather reports indicating wind activity in the region.

VIDEO showing the foreign material hanging: NRSS_SA-2_332-1_Ckt-02_Middle_Video_F



Greater Kashmir

Srinagar, May 19: A powerful windstorm swept across the Kashmir Valley late Sunday night, leaving a trail of destruction, widespread power outages, and at least two deaths.

The Meteorological Department had earlier warned of moderate to intense thundershowers accompanied by strong gusty winds reaching speeds of 40-60 kilometers per hour.

The most tragic incident was reported from South Kashmir's Shopian district, where a father and daughter lost their lives after a massive tree fell on them outside their residence in Gadanchowgam Keller. The deceased have been identified as Riyaz Ahmad and his young daughter Sabia. Local residents said they had stepped out to secure loose items in their yard when the tree came crashing down.

From north to south, nearly every district in the Valley experienced damage from the storm. The winds uprooted trees, toppled electric poles, blew away the rooftops of dozens of homes and mosques, and shattered glass signboards and hoardings in several towns.

In Srinagar city, large hoardings collapsed onto parked vehicles and sidewalks, while flying tin sheets from rooftops caused injuries in several localities. At least five people were admitted to hospitals in Srinagar and Anantnag with storm-related injuries, though none were reported to be in critical condition.

RisingKashmir

READING: Girl killed, several injured as gusty windstorms wreak havoc a

SHARE

Srinagar, May19: A young girl lost her life and three others were injured when a massive alpine tree crashed onto their tent in the high-altitude forests of Keller, in south Kashmir's Shopian district, late Sunday night. The victims, all residents of Rajouri, had been camping in the Gadder Chowan forest area when violent gusts, triggered by a sudden windstorm, ravaged the region.

The deceased has been identified as Sobiya Riyaz. The injured—Mohammad Riyaz, Rubeena, and Salma Kounsar Jan—were rushed to a nearby medical facility with varying degrees of injuries.

"The group had sought shelter in a tent amid the dense forest when the storm intensified, bringing down trees and debris," said Mohammad Ashraf, a local resident.

The incident forms part of a larger wave of destruction that swept across Kashmir Valley from north to south, leaving behind a trail of damaged infrastructure, uprooted trees, and broken lives.

In Srinagar including Karanagar, Qamarwari and other areas, strong winds ripped tin sheets from rooftops, shattered glass hoardings, and brought down massive signboards onto parked vehicles and pavements.

Several people suffered injuries due to flying debris and collapsing structures. At least five were hospitalised in Srinagar and Anantnag, though none were reported to be in critical condition.

Houseboats on the iconic Dal and Nigeen lakes sustained substantial damage as strong winds battered the water bodies late Sunday evening. Inhabitants demanded compensation from the government as they claimed huge losses.

Apple orchards and nurseries in Budgam, Pulwama, Baramulla, and Tangmarg were ravaged. In the Karewa belt of Pulwama, farmer Bashir Ahmad stood beside his devastated nursery.

"All the newly planted apple saplings have been uprooted. We are staring at financial ruin. My losses are over ₹25 lakh," he said, demanding urgent compensation from the government.

The storm damaged rooftops of mosques and homes alike. In Batpora, Chadoora (Budgam), the minaret of the historic Jamia Masjid was severely damaged. In Buderkote, Tangmarg, the rooftop of Masjid Shareef was ripped off.

In Choon, Khansahib (Budgam) due to collapse of a commercial complex blocked a main road near the local hospital.

In Ganie Mohalla, Budgam, the rooftop of Ghulam Jeelani Ganie's house was completely blown off.

In Bandi Market in Uri, roof structures owned by Abdul Rashid Mughal, Majid Ahmad Mughal, Rafayat Mughal, and Ishfaq Hafiz suffered extensive damage.

The Chandilora Market in Tangmarg and Dungdara Kreeri also reported storm damage, while Gole Market in Karan Nagar, Srinagar, witnessed severe destruction due to wind-borne debris.

The road to CHC Kakapora in Pulwama was blocked by fallen trees, and houses such as that of Fayaz Ahmad Thokar in Pingalgam, Kakapora were left in tatters, their rooftops destroyed.

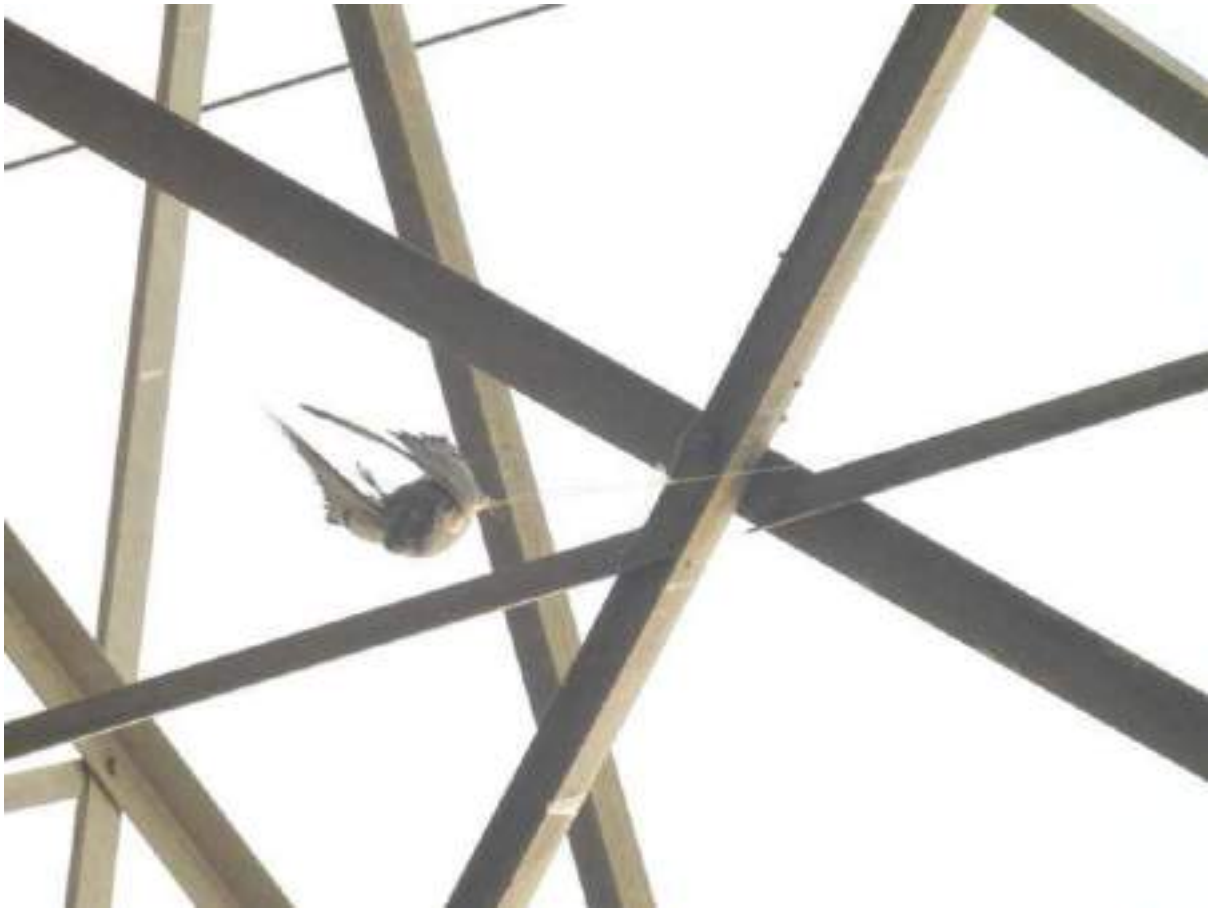
In Baramulla, Government Higher Secondary Schools have appealed to authorities to remove ageing poplar trees near the premises, citing a growing threat to student safety following structural damage to school buildings.

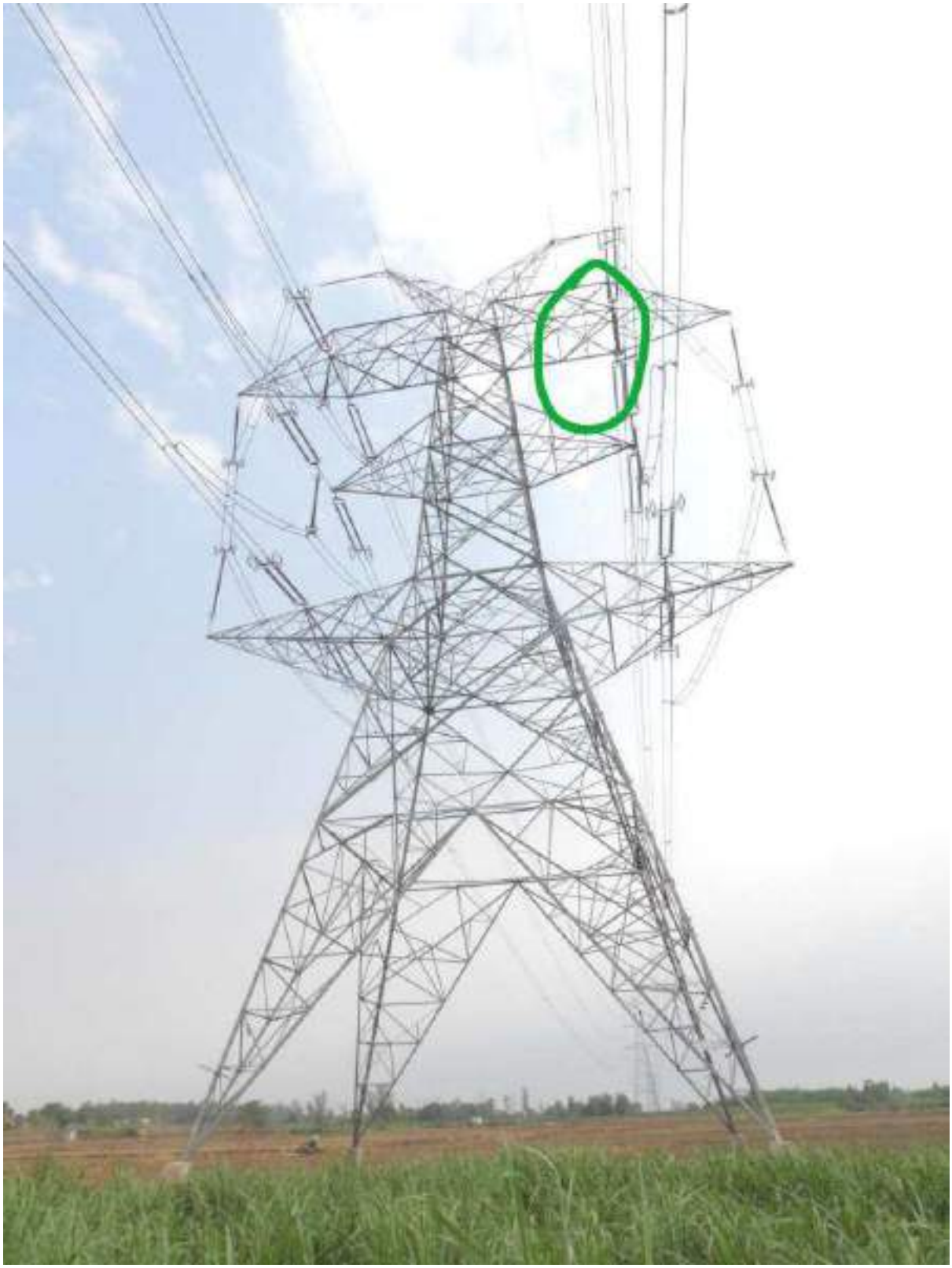
The Kashmir Power Development Corporation Limited (KPDCL) reported damage to dozens of distribution transformers and snapped transmission lines across Kupwara, Anantnag, Bandipora, and Ganderbal, leading to prolonged outages.

IMD Report: NRSS_SA-2_IMD Report_18.05.25.pdf

3) 400 kV Jalandhar (PG)-Samba (PG)-I:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400 kV Jalandhar (PG)-Samba (PG)-I	19-05-2025 04:58:00	19-05-2025 08:07:00	03:09	Line tripped due to R-phase to Y-phase fault. During emergency patrolling, the team observed several birds hovering above Tower No. 123. Upon closer inspection using binoculars and a high-resolution camera, a pigeon was found entangled in a kite thread hanging from the top cross-arm of Ckt-2. Additionally, a wooden stick was discovered on the bottom cross-arm near the insulator on the Ckt-1 side, and a bird's nest was observed near the leg joint of the tower. These observations indicate that the kite thread became entangled with the pigeon as it attempted to enter its nest. The thread subsequently made contact with both the top and middle phases, resulting in a phase-to-phase fault between R-phase and Y-phase, which led to the tripping of Ckt-1. Attached herewith the photographs of the pigeon and nest on the tower.





IndiGrid
India Grid Trust
May 19, 2025 6:03:13 AM
T no.122
J S LINE

4) 400kV Sambha-Amargarh Ckt-2:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-2	27-05-2025 19:03:00	27-05-2025 21:04:00	02:01	Line tripped due to a Y-Phase to B-Phase fault. During emergency patrolling, the team observed a burnt tarpaulin in the forward span at Loc 290/0. Please note that strong windstorms were reported across the entire valley on the said date, particularly in the Rajouri and Poonch regions. It is suspected that the tarpaulin was carried away by the wind and became entangled with the fault-phase conductors, resulting in a phase-to-phase fault. The burnt tarpaulin was found directly beneath the conductor and within the corridor. Attached herewith are photographs showing the burnt tarpaulin under the corridor, an e-weather report indicating high winds, videos, and a Tomorrow.io snipping representing the status of the line and its surroundings.

28-May-2025 10:32:24 am
33.57214913N 74.37368115E
Mughal Road
Bafliaz

28-May-2025 11:02:50 am
33.57207285N 74.37365516E
Bawali
Bidha Kanna

VIDEO: NRSS_SA-2_RajouriStorm_Video_270525(1

Greater Kashmir

Rajouri, May 28: A strong windstorm on Tuesday evening caused widespread losses and damage to property across twin districts Rajouri and Poonch, with many areas still reeling under darkness after electricity got snapped. The Power Development Department said it was making efforts to restore electricity. The administration is said to have been conducting loss assessment on field and is expecting to get statistics regarding losses by Thursday afternoon.

Pertinent to mention here that strong windstorm hit entire Pir Panjal region comprising of Rajouri and Poonch districts causing losses of houses, shops, school buildings, tin sheds, slum houses with govt buildings including walls of police stations, Dak Bungalow have also suffered damages in windstorm.

A woman Parveen Akhter (50), wife of Mohammad Arshad , resident of Gambhir Maghalan in Manjakote of Rajouri, who got injured after tree branches fell over her in the village amid storm, is also under treatment. The power infrastructure has also suffered widespread losses in windstorm with hundreds of electric poles got damaged, wires fell on the ground causing a power crisis.

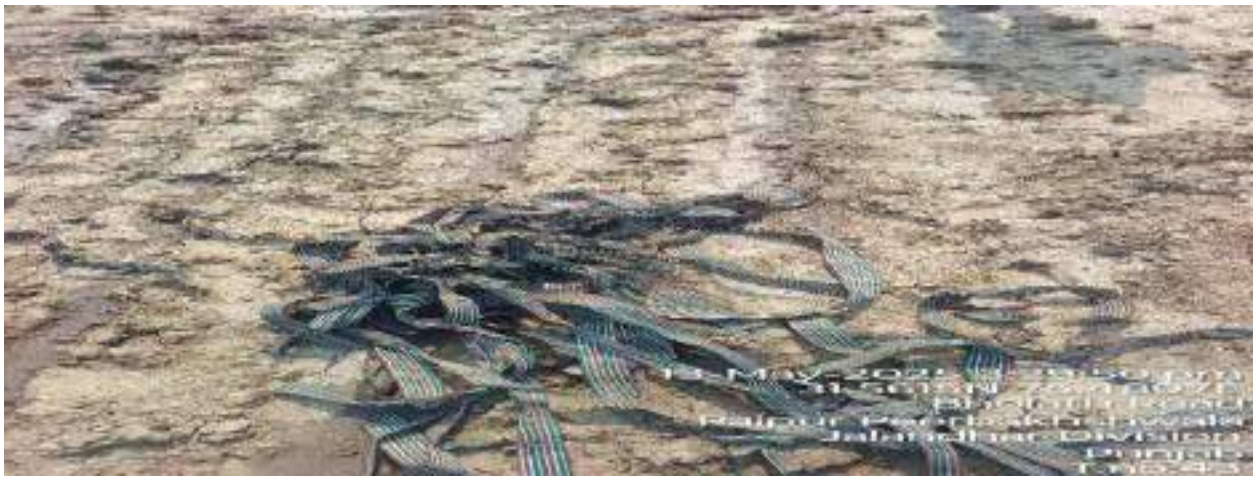
Officials of Power Development Department said that electricity has been restored in most of the area but there is still a power crisis in some areas and work to restore electricity is underway. The power crisis, officials of Jal Shakti Department said, has affected water supply schemes and more than half of water supply schemes are affected.

REVOCATION REQUEST FOR OUTAGES OCCURRED DUE TO REASONS BEYOND THE CONTROL OF LICENSEE- MAY 2025

1) 400 kV Jalandhar (PG)-Samba (PG)-I:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400 kV Jalandhar (PG)-Samba (PG)-I	11-05-2025 19:26:00	11-05-2025 23:18:00	03:52	The transmission line tripped due to an R-Phase to Y-Phase fault. During patrolling, the line team observed that the roof of a house, located outside the corridor of the transmission line, had been blown off. The displaced material was found lying inside the corridor, beneath the conductor, in the forward span of T.NO 43. Additionally, a burnt woven nylon tape was discovered beneath the conductor. It is likely that strong winds carried the nylon tape into the corridor, causing it to become entangled with the R and Y phase conductors, resulting in a phase-to-phase fault. Attached are the IMD report, newspaper cutting, and photographs of the burnt nylon tape and uprooted trees, providing evidence of the heavy winds in the region.

11-May-2025 9:56:32 pm
31.4840N 75.4799E
Malhian
Jalandhar Division
Punjab
T.no.21



IMD Report:

NRSS_JS-1_IMDReport_11052025.pdf

पंजाब केसरी, जग बाणी एवं हिन्द समाचार में विज्ञापन एवं समुलेखन संबंधी पूछताछ एवं किसी समस्या के बारे निम्नलिखित नम्बर पर सम्पर्क करें :
0181-2212121
ई-मेल : jagbani@pkesari.in

जालंधर के

MONDAY, 12 MAY 2025 सूर्योदय (कल) 05.33 सूर्यास्त (आज) 07.15 अगले 24 घंटों के दौरान

बदला मौसम का मिजाज: शाम को तूफान बना परेशानी, रात को बारिश ने दिलाई राहत

बिजली खराबी की 1200 से अधिक शिकायतें, घंटों गुल रही बिजली

जालंधर, 11 मई (पुनीत): महानगर में दोपहर बाद अचानक तूफान की वजह से लोगों को परेशानी उठाने को मिली जबकि रात को बारिश ने राहत दिलाई और मौसम में बदलाव देखने को मिला।

हालांकि उम्मीद के मुताबिक बारिश नहीं हुई और कुछ देर तक की धूलाकारी के बाद तेज हवाओं का सिलसिला भी थम गया।

कुल मिलाकर आज मौसम का मिजाज बदला हुआ नजर आया है, अब देखना होगा कि जालंधर में आई गिरावट का सिलसिला कब तक जारी रहता है।

महानगर में आसमान पर छाये हुए बादलों का दृश्य।

वहीं, बारिश के चलते पावरकॉम द्वारा एहतियात के तौर पर बिजली बंद की गई थी, जबकि कुछ इलाकों के लोग इसे अनौपचारिक समझ बैठे। देर रात को जालंधर सम्मान बनेहुए थे और उन्हें पता चला किसी भी इलाके में अनौपचारिक रूप से बिजली बंद नहीं की गई है।

बारिश के बीच गुजर रहे वाहन।

रात लगभग 9 बजे के बाद कई इलाकों जैसे जोहड़, जालंधर सिटी, सोडियां पुर रोड, फगवाड़ा जैसे सब-स्टेशन में ब्लैकआउट करवाया गया था, लेकिन आधा दर्जन इलाकों में ही स्थिति सामान्य रही।

तेज आंधी की वजह से बिजली खराबी लोगों के लिए दिक्कतों का सबब बनी। देर रात तक बिजली खराबी को लेकर 1200 से अधिक शिकायतें प्राप्त हुई थीं। इनमें कई इलाकों में कुछ ही घंटों में बिजली खराबी की समस्या को हल करवाया दिया गया था। पावरकॉम के एक्सियनों ने बताया कि खराबी के बाद रिपेयर के लिए टीमें मौके पर रवाना कर दी गई थीं।

वहीं, कई लोगों की शिकायतें थी कि पावरकॉम का 1912 नंबर न मिलने के चलते वह समय रहते अपनी शिकायतें दर्ज नहीं करवा पाए। देर रात तक ठीक किये जाने तक दर्जनों इलाकों में बिजली रिपेयर का काम चल रहा था। इसके चलते लोगों को घंटों तक बिना बिजली के गुजारने पड़े।

एक्सियनों ने कहा कि तेज आंधी की वजह से कई इलाकों में तारें इत्यादि टूट गई थी, जिसमें दुरुस्त करने में अधिक समय लगता है। उन्होंने कहा कि उपभोक्ताओं की शिकायतों को लेकर तुरंत प्रभाव से काम शुरू करवा दिया गया था।

रविवार को रिपेयर के नाम पर लगने वाले कटों से घरेलू उपभोक्ता परेशान

पावरकॉम द्वारा रविवार को रिपेयर के नाम पर आधा दिन बिजली सप्लाई बंद रखी जाती है, जिसके चलते घरेलू उपभोक्ताओं को भारी परेशानी उठानी पड़ती है। इसी क्रम में उपभोक्ता प्रदीप कुमार ने कहा कि विभाग द्वारा लगभग हर रविवार को रिपेयर के नाम पर बिजली बंद कर दी जाती है, जिसके चलते उन्हें छुट्टी वाले दिन आराम करने का मौका नहीं मिल पाता।

उन्होंने कहा कि विभाग को घरेलू उपभोक्ताओं और व्यावसायी व्यक्तियों के बारे में भी सोचना चाहिए और रविवार को बिजली बंद रखने के स्थान पर सोमवार या किसी और दिन रिपेयर करवानी चाहिए। उन्होंने कहा कि हर रविवार को घरेलू इलाकों की बिजली बंद रखना सरासर गलत है।

सूख रहे हैं बिजली रिपेयर का काम।

मौसम में आए बदलाव से तापमान में गिरावट, लोगों ने ली राहत की सांस

जगाधरी, 11 मई (महावीर): रविवार को उस समय क्षेत्र निवासियों को राहत की सांस मिली, जब कि दिन भर भीषण गर्मी को सहन कर रहे लोगों को मौसम में आई तब्दीली के कारण मौसम सुहावना बन गया।

शाम करीब 7 बजे अचानक आसमान में छाए घने बादलों के बाद चली तेज हवाओं ने लोगों के चेहरों पर रौनक ला दी।

जेठ माह शुरू होने से पहले ही माह में गर्मी ने भी अपना असर दिखाना शुरू कर दिया है। दिन के तापमान में बढ़ोतरी हो रही है, हालांकि मौसम विभाग ने पहले ही अनुमान जताया था कि पंजाब में बारिश और सूफान के कारण लोगों को गर्मी से राहत मिलेगी।

शाम को अचानक बदले मौसम के बाद तेज आंधी चली, जिसके कारण क्षेत्र निवासियों व वाहन चालकों को काफी दिक्कतों का सामना करना पड़ा।

इसी बीच थोड़ी देर के लिए हुई बारिश ने तापमान में गिरावट लाकर मौसम को ठंडा कर दिया। वहीं कृषि विशेषज्ञों का कहना है कि गेहूं की कटाई के बाद हुई बारिश कृषि के लिए फायदेमंद है। आने वाले समय में किसानों को खाली की हुयी फसल धान की रोपाई में आसानी होगी।

आसमान में छाए बादलों की तस्वीरें व (दाएं) अचानक आंधी चलने के कारण एक घर पर गिरे पेड़ की तस्वीर। | संवाद

देर शाम हुई बारिश ने बदला मौसम का मिजाज

जगाधरी (मुकेश): जगाधरी में दिन में धूप, उमस और गर्मी ने बेहाल किया तो देर शाम करीब 7.30 बजे बादल, हवा और बारिश ने मौसम खुशनुमा बना दिया।

तेज हवा और बारिश ने लोगों को राहत दी। आंधी के चलते रहने और आसमान में कई स्थान पर पेड़, पेड़ और होर्डिंग गिर गए।

इधर, बारिश के बाद अधिकतम तापमान में कुछ हद तक कमी आई।

गौर हो कि शहर में गर्मी का प्रकोप देख लोग इस पल का इंतजार कर रहे थे कि कब मौसम सुहावना होगा। रविवार को शाम आसमान में छाए छाने व तेज हवा चलने के पश्चात मौसम कुछ हद तक ठंडा हो गया, जिससे लोगों के चेहरों पर रौनक आ गई।

इस मौसम परिवर्तन का असर सड़कों और इलाकों पर देखा गया। तेज हवा और बारिश के बाद क्षेत्र के कुछ इलाकों में बिजली गुल हो गई। बारिश के बाद बिजली के पंखों से भी ठंडी हवा आने लगी।

मौसम में आए इस बदलाव से लोगों ने राहत की सांस ली। वहीं मौसम में आए बदलाव के कारण मौसम पूरे शाम से बदल गया और गर्मी की तीव्रता कम हो गई।

तेज आंधी से लोगों की बढ़ी मुश्किलें

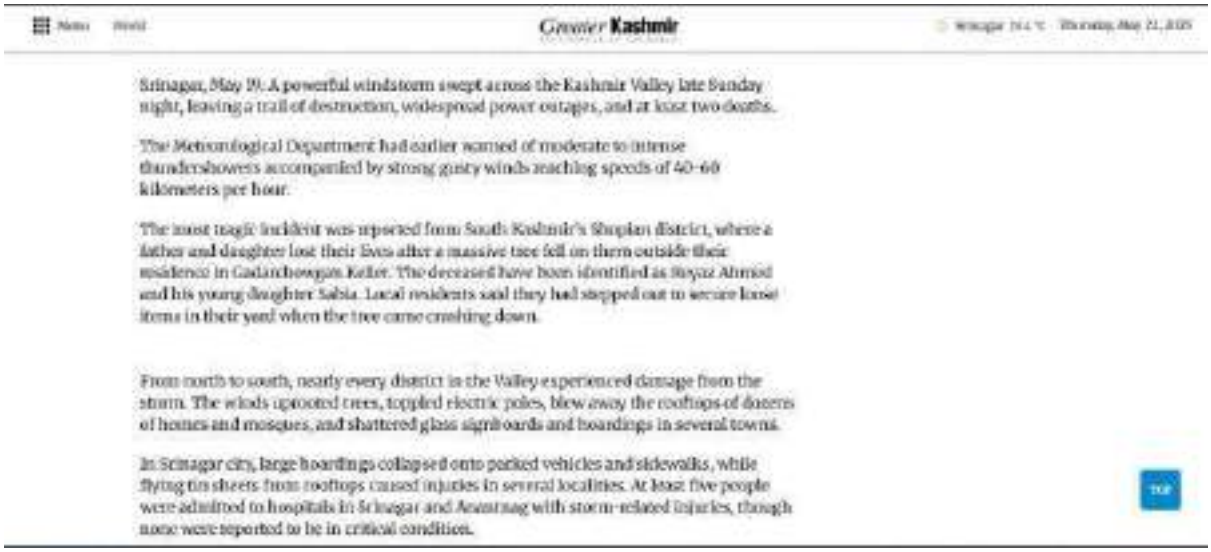
रविवार की देर शाम अचानक बदले मौसम के बाद जहां पूरे क्षेत्र की बिजली गुल हो गई। वहीं तेज आंधी के कारण लोगों के कुछ नुकसान होने की भी सूचना मिली है। रविवार की देर शाम चली तेज आंधी के कारण कपूरथला-जालंधर मार्ग पर पुलकारी फैक्ट्री के पास एक बड़े पर सड़क किनारे खड़ा पेड़ गिर पड़ा, जिससे गाड़ी चुनी रूक से प्रभावित हो गई। लेकिन गनीमत है कि कोई हादसा होने से बच गया।

सड़क पर पेड़ गिरने से एक मार्ग पर यातायात काफी प्रभावित हुआ, जिसके कारण लोगों को काफी मुश्किलों का सामना करना पड़ा।

2) 400 Kv Samba Amargarh Circuit-II:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-2	18-05-2025 22:17:00	19-05-2025 00:03:00	01:46	Line tripped due to an R-Phase to B-Phase fault. During patrolling, the line team observed foreign material hanging from the middle cross arm (Ckt-02) at T.No 541. It is suspected that strong winds carried this material into the area, causing it to become entangled with both fault-phase conductors. The material subsequently burned and was carried away by the wind, leaving residue stuck on the cross arm. Please note that strong windstorms were reported across the entire valley, with the tripping specifically occurring in the Shopian section, as highlighted in the weather reports. Attached herewith are the IMD report, photographs, video evidence of the foreign material, newspaper clippings, and other online weather reports indicating wind activity in the region.

VIDEO showing the foreign material hanging: NRSS_SA-2_332-1_Ckt-02_Middle_Video_F



Greater Kashmir

Srinagar, May 19: A powerful windstorm swept across the Kashmir Valley late Sunday night, leaving a trail of destruction, widespread power outages, and at least two deaths.

The Meteorological Department had earlier warned of moderate to intense thundershowers accompanied by strong gusty winds reaching speeds of 40-60 kilometers per hour.

The most tragic incident was reported from South Kashmir's Shopian district, where a father and daughter lost their lives after a massive tree fell on them outside their residence in Gadanchowgam Keller. The deceased have been identified as Riyaz Ahmad and his young daughter Sabia. Local residents said they had stepped out to secure loose items in their yard when the tree came crashing down.

From north to south, nearly every district in the Valley experienced damage from the storm. The winds uprooted trees, toppled electric poles, blew away the rooftops of dozens of homes and mosques, and shattered glass signboards and hoardings in several towns.

In Srinagar city, large hoardings collapsed onto parked vehicles and sidewalks, while flying tin sheets from rooftops caused injuries in several localities. At least five people were admitted to hospitals in Srinagar and Anantnag with storm-related injuries, though none were reported to be in critical condition.

RisingKashmir

READING: Girl killed, several injured as gusty windstorms wreak havoc a

SHARE

Srinagar, May19: A young girl lost her life and three others were injured when a massive alpine tree crashed onto their tent in the high-altitude forests of Keller, in south Kashmir's Shopian district, late Sunday night. The victims, all residents of Rajouri, had been camping in the Gadder Chowan forest area when violent gusts, triggered by a sudden windstorm, ravaged the region.

The deceased has been identified as Sobiya Riyaz. The injured—Mohammad Riyaz, Rubeena, and Salma Kounsar Jan—were rushed to a nearby medical facility with varying degrees of injuries.

"The group had sought shelter in a tent amid the dense forest when the storm intensified, bringing down trees and debris," said Mohammad Ashraf, a local resident.

The incident forms part of a larger wave of destruction that swept across Kashmir Valley from north to south, leaving behind a trail of damaged infrastructure, uprooted trees, and broken lives.

In Srinagar including Karanagar, Qamarwari and other areas, strong winds ripped tin sheets from rooftops, shattered glass hoardings, and brought down massive signboards onto parked vehicles and pavements.

Several people suffered injuries due to flying debris and collapsing structures. At least five were hospitalised in Srinagar and Anantnag, though none were reported to be in critical condition.

Houseboats on the iconic Dal and Nigeen lakes sustained substantial damage as strong winds battered the water bodies late Sunday evening. Inhabitants demanded compensation from the government as they claimed huge losses.

Apple orchards and nurseries in Budgam, Pulwama, Baramulla, and Tangmarg were ravaged. In the Karewa belt of Pulwama, farmer Bashir Ahmad stood beside his devastated nursery.

"All the newly planted apple saplings have been uprooted. We are staring at financial ruin. My losses are over ₹25 lakh," he said, demanding urgent compensation from the government.

The storm damaged rooftops of mosques and homes alike. In Batpora, Chadoora (Budgam), the minaret of the historic Jamia Masjid was severely damaged. In Buderkote, Tangmarg, the rooftop of Masjid Shareef was ripped off.

In Choon, Khansahib (Budgam) due to collapse of a commercial complex blocked a main road near the local hospital.

In Ganie Mohalla, Budgam, the rooftop of Ghulam Jeelani Ganie's house was completely blown off.

In Bandi Market in Uri, roof structures owned by Abdul Rashid Mughal, Majid Ahmad Mughal, Rafayat Mughal, and Ishfaq Hafiz suffered extensive damage.

The Chandilora Market in Tangmarg and Dungdara Kreeri also reported storm damage, while Gole Market in Karan Nagar, Srinagar, witnessed severe destruction due to wind-borne debris.

The road to CHC Kakapora in Pulwama was blocked by fallen trees, and houses such as that of Fayaz Ahmad Thokar in Pingalgam, Kakapora were left in tatters, their rooftops destroyed.

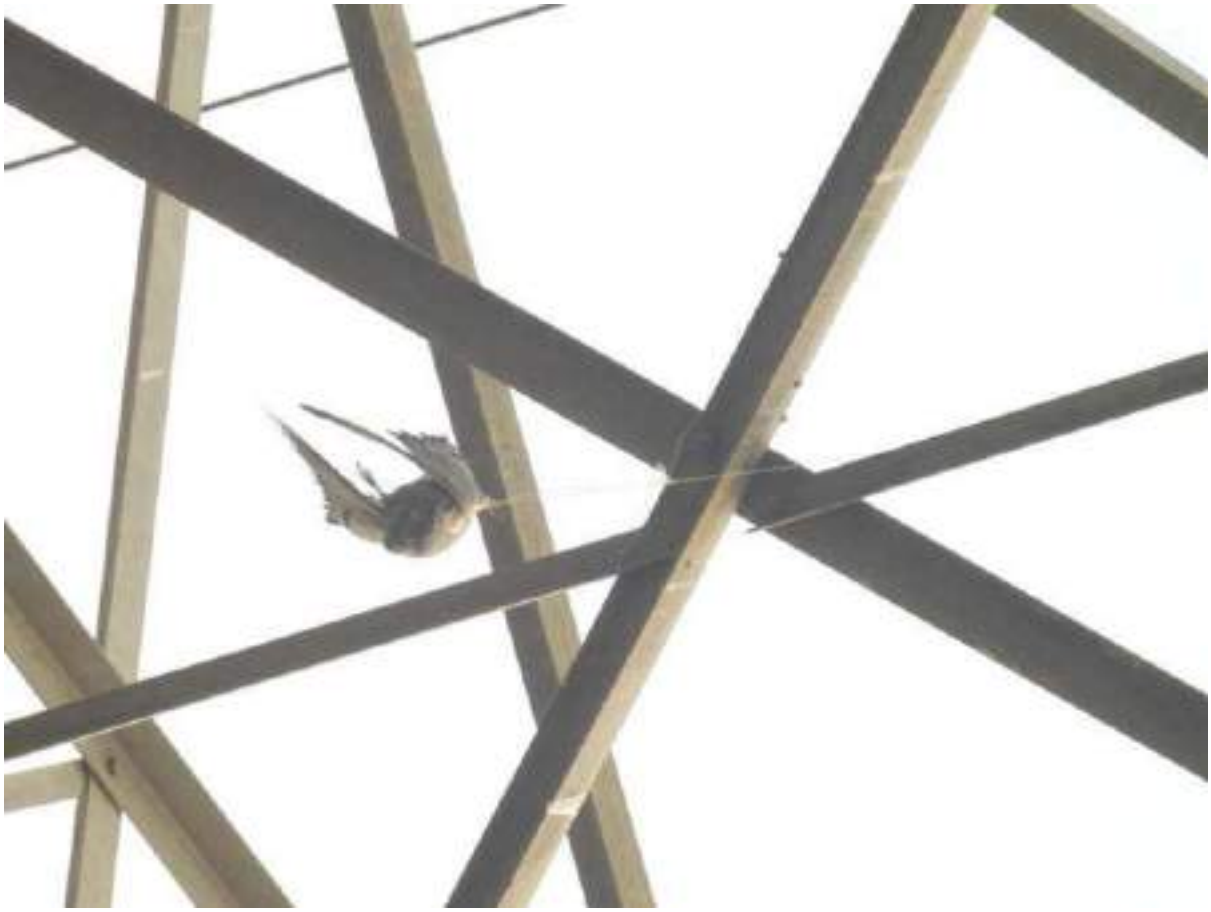
In Baramulla, Government Higher Secondary Schools have appealed to authorities to remove ageing poplar trees near the premises, citing a growing threat to student safety following structural damage to school buildings.

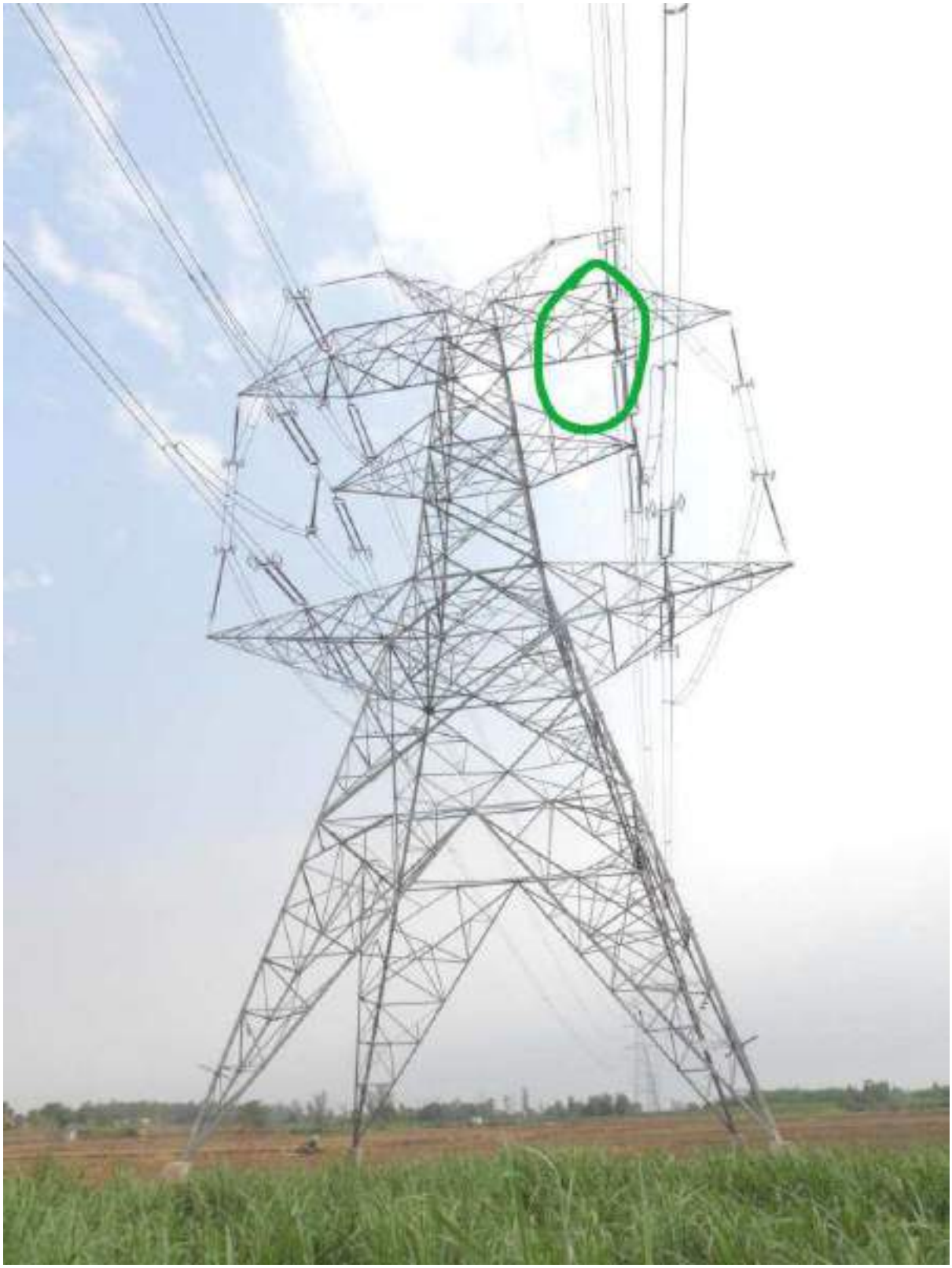
The Kashmir Power Development Corporation Limited (KPDCL) reported damage to dozens of distribution transformers and snapped transmission lines across Kupwara, Anantnag, Bandipora, and Ganderbal, leading to prolonged outages.

IMD Report: NRSS_SA-2_IMD Report_18.05.25.pdf

3) 400 kV Jalandhar (PG)-Samba (PG)-I:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400 kV Jalandhar (PG)-Samba (PG)-I	19-05-2025 04:58:00	19-05-2025 08:07:00	03:09	Line tripped due to R-phase to Y-phase fault. During emergency patrolling, the team observed several birds hovering above Tower No. 123. Upon closer inspection using binoculars and a high-resolution camera, a pigeon was found entangled in a kite thread hanging from the top cross-arm of Ckt-2. Additionally, a wooden stick was discovered on the bottom cross-arm near the insulator on the Ckt-1 side, and a bird's nest was observed near the leg joint of the tower. These observations indicate that the kite thread became entangled with the pigeon as it attempted to enter its nest. The thread subsequently made contact with both the top and middle phases, resulting in a phase-to-phase fault between R-phase and Y-phase, which led to the tripping of Ckt-1. Attached herewith the photographs of the pigeon and nest on the tower.





IndiGrid
India Grid Trust
May 19, 2025 6:03:13 AM
T no.122
J S LINE

4) 400kV Sambha-Amargarh Ckt-2:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-2	27-05-2025 19:03:00	27-05-2025 21:04:00	02:01	Line tripped due to a Y-Phase to B-Phase fault. During emergency patrolling, the team observed a burnt tarpaulin in the forward span at Loc 290/0. Please note that strong windstorms were reported across the entire valley on the said date, particularly in the Rajouri and Poonch regions. It is suspected that the tarpaulin was carried away by the wind and became entangled with the fault-phase conductors, resulting in a phase-to-phase fault. The burnt tarpaulin was found directly beneath the conductor and within the corridor. Attached herewith are photographs showing the burnt tarpaulin under the corridor, an e-weather report indicating high winds, videos, and a Tomorrow.io snipping representing the status of the line and its surroundings.

28-May-2025 10:32:24 am
33.57214913N 74.37368115E
Mughal Road
Bafliaz

28-May-2025 11:02:50 am
33.57207285N 74.37365516E
Bawali
Bidha Kanna

VIDEO: NRSS_SA-2_RajouriStorm_Video_270525(1

Greater Kashmir

Rajouri, May 28: A strong windstorm on Tuesday evening caused widespread losses and damage to property across twin districts Rajouri and Poonch, with many areas still reeling under darkness after electricity got snapped. The Power Development Department said it was making efforts to restore electricity. The administration is said to have been conducting loss assessment on field and is expecting to get statistics regarding losses by Thursday afternoon.

Pertinent to mention here that strong windstorm hit entire Pir Panjal region comprising of Rajouri and Poonch districts causing losses of houses, shops, school buildings, tin sheds, slum houses with govt buildings including walls of police stations, Dak Bungalow have also suffered damages in windstorm.

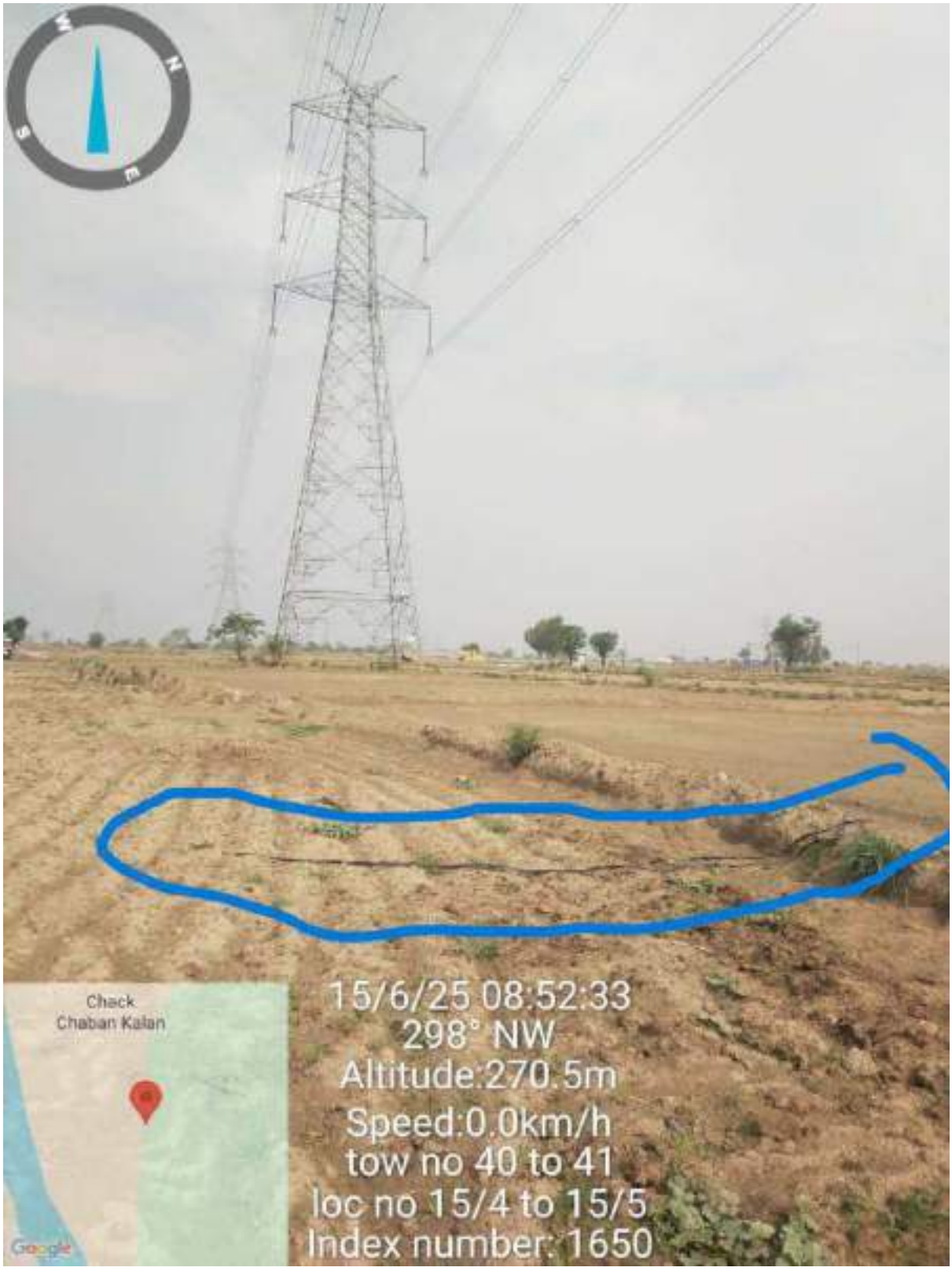
A woman Parveen Akhter (50), wife of Mohammad Arshad , resident of Gambhir Maghalan in Manjakote of Rajouri, who got injured after tree branches fell over her in the village amid storm, is also under treatment. The power infrastructure has also suffered widespread losses in windstorm with hundreds of electric poles got damaged, wires fell on the ground causing a power crisis.

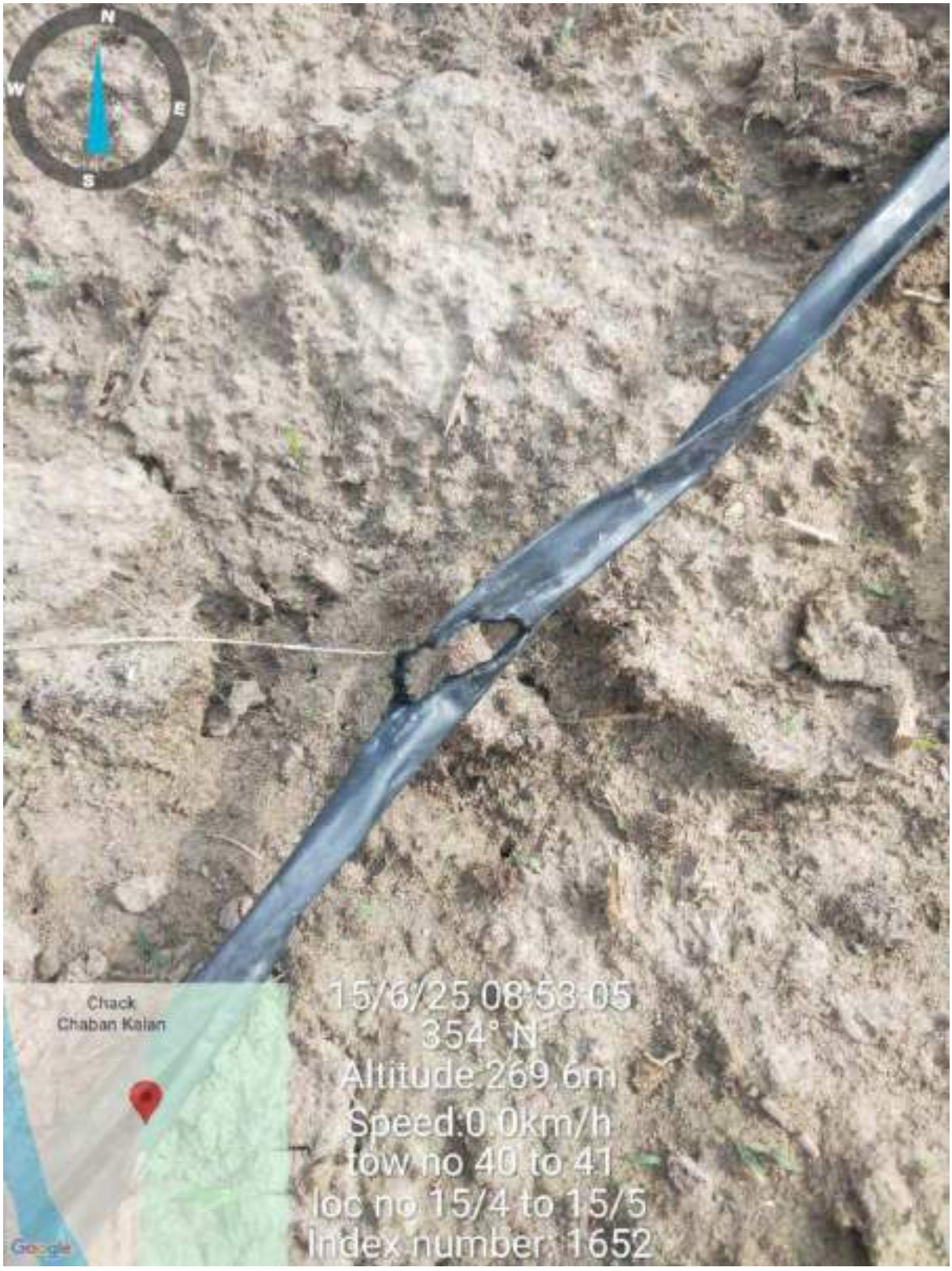
Officials of Power Development Department said that electricity has been restored in most of the area but there is still a power crisis in some areas and work to restore electricity is underway. The power crisis, officials of Jal Shakti Department said, has affected water supply schemes and more than half of water supply schemes are affected.

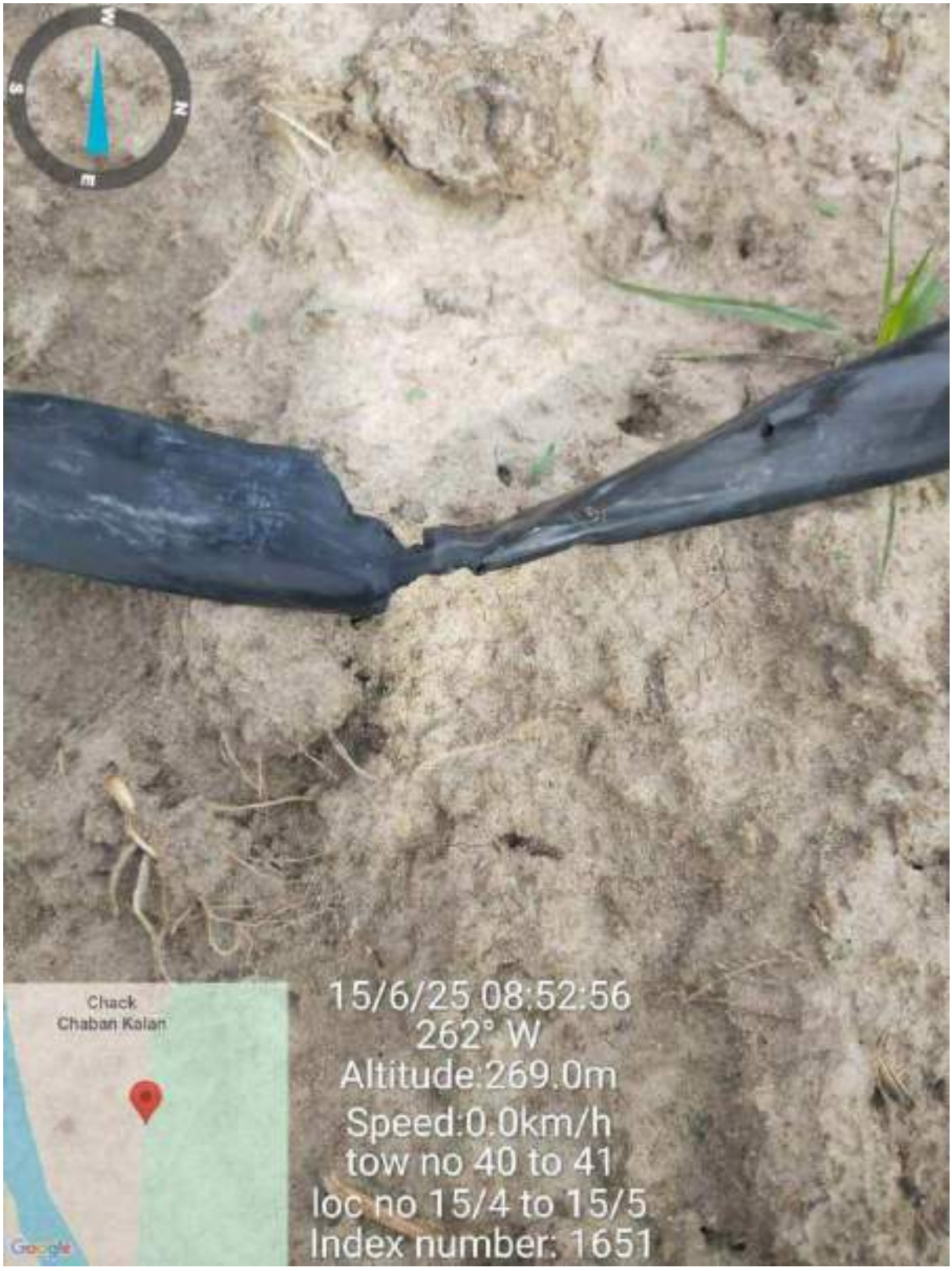
REVOCATION REQUEST FOR OUTAGES OCCURRED DUE TO REASONS BEYOND THE CONTROL OF LICENSEE- JUNE 2025

400 kV Sambha Amargarh Circuit II:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-2	13-06-2025 18:21	13-06-2025 21:33	03:12	Line tripped due to a B-Phase to Earth fault. During emergency patrolling, the team observed a burnt lightweight irrigation pipe (tarpaulin-type material) in the forward span at TN 40. It is suspected that the tarpaulin was carried away by the wind and became entangled with the fault-phase conductor and tower body, resulting in a phase-to-earth fault. The pipe, approximately 7 to 8 meters long, was observed to have burnt marks at three different spots. Attached herewith are photographs showing the burnt tarpaulin under the corridor, an e-weather report indicating high winds and thunderstorm.


W
N
S
E
Chack
Chaban Kalan
Google
15/6/25 08:52:33
298° NW
Altitude:270.5m
Speed:0.0km/h
tow no 40 to 41
loc no 15/4 to 15/5
Index number: 1650


N
W
E
S
Chack
Chaban Kalan
Google
15/6/25 08:58:05
354° N
Altitude 269.6m
Speed:0.0km/h
tow no 40 to 41
loc no 15/4 to 15/5
Index number: 1652


Chack
Chaban Kalan
15/6/25 08:52:56
262° W
Altitude:269.0m
Speed:0.0km/h
tow no 40 to 41
loc no 15/4 to 15/5
Index number: 1651

IMD Report:

IMD report
13.06.25.pdf

6:39
4G 37%
Rampon
TL-SA-140/0-WZ-2
Reasi
NTL-SA-96/0-WZ-2
NTL-SA-60/1-WZ-2
NTL-SA-42/1-WZ-2
NTL-SA-DE-WZ-2
NTL-JS-AP69-WZ-2
NTL-JS-AP59-WZ-
NTL-JS-40/2-
Batala
6:39 PM • Precip. Intensity
-1h Now +1h +2h +3h +4h +5h +6h
+5 Impacted Locations

Site Admin | April 17, 2025 7:56 AM

Jammu: High Velocity Winds, Thunderstorm Throw Life Out Of Gear

In Jammu and Kashmir, high velocity winds with the speed of over 100 kms per hour, thunderstorm, heavy rain with hailstorm at many places created havoc, throwing life out of gear last evening in the Jammu region. Our Jammu correspondent reports that the strong windstorm uprooted many trees, electric poles, and towers, leading to a total blackout in all the 10 districts of Jammu division and disruption in the movement of vehicles on the roads in Jammu City and several other highways. Dozens of roads have been blocked due to fall of trees, its branches and electric poles in various parts of the city. A wall of Civil Secretariat at Jammu collapsed, causing damage to several vehicles and two-wheelers. A Cell phone tower near Bahu Fort collapsed causing damage to the two bikes and a house structure. However, no loss of any life or injury to any one was reported. The traffic disruption was witnessed on Jammu-Akhnoor, Jammu-R S Pura, Talab Tillo and Jammu-Nagrota road. Massive traffic disruption was also witnessed on Jammu-Samba-Kathua and Jammu-Katra-Reasi highways. The Power infrastructure has suffered huge damage due to wind-storm and gusty winds in Jammu region. The power supply to entire Jammu City, Samba, Kathua, Rajouri, Poonch, Reasi, Katra, Udhampur, Ramban and even to Doda and Kishtwar districts has been snapped. Men and machinery of the Power Department has been pressed into service to restore the power supply to the Jammu City and other districts of the region. Reports of hailstorms were received from Rajouri, Poonch, Reasi, Udhampur and Ramban districts. The fruit trees suffered massive loss due to hailstorm and gusty winds in Jammu, Samba and Kathua belt of lower Shivalik range. The MeT department has said, the weather is expected to remain wet from tomorrow. Light to moderate rain at most places and snow at higher reaches and moderate to heavy rain at isolated to scattered places during next two days, accompanied with thunder and gusty winds is expected in the region. The major activity is expected on April 19 as the local MeT department has issued yellow and orange alerts for the day.

REVOCATION REQUEST FOR OUTAGES OCCURRED DUE TO REASONS BEYOND THE CONTROL OF LICENSEE- JULY 2025

400kV Sambha-Amargarh Ckt-1:

Element Name	Outage Date and Time	Restoration Date & Time	Duration	Remarks
400kV Sambha-Amargarh Ckt-1	12-07-2025 10:43:00	12-07-2025 14:56:00	04:13	Emergency outage availed for attending conductor cut defect at the forward span of Tower No. 172 due to cross border shelling. Defect report and photographs have been attached herewith for your reference and kind consideration. Request to consider this outage under Militancy category as it was beyond the control of the Licensee.

Report on emergency shutdown taken for conductor cut rectification in 400 kV Sambha- Amargarh Ckt-1

Line Name: 400 kV Sambha–Amargarh Ckt-1

Defect Type: Conductor Cut / Mechanical Damage

Span Location: Between Tower No. 172 and Tower No. 173

Tower Type: Suspension Towers

Span Length: 375 Mtrs

No. of Suspension Towers in Span: 6

Location: Gorah Singno, Kanachak, Jammu, J&K

Coordinates: 32.8078611, 74.7179120

Altitude: 273.2 meters

Date of Patrolling: 10th July 2025

Date of Shutdown and Close Inspection: 12th July 2025

Time of Observation: Around 12:23 PM IST

1. Observation Summary

During the periodic patrolling of the 400 kV Samba–Amargarh transmission line on **10.07.2025**, a **potential conductor defect** was observed between **Tower Nos. 172 and 173**. The defect was initially suspected to be limited to outer aluminium strands based on ground-level imagery.

A shutdown of the line was scheduled and taken on **12.07.2025** for physical inspection and attempted repair.

2. Findings During Shutdown

Close-up inspection revealed:

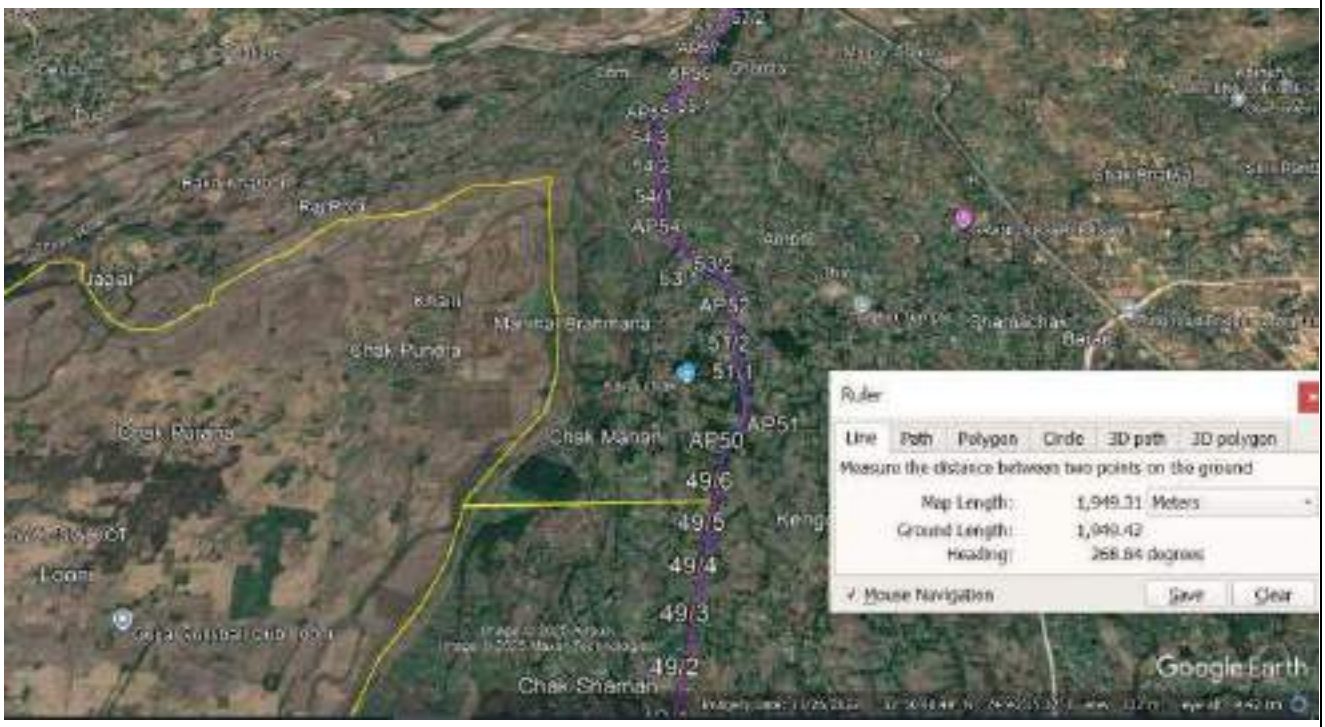
- **Severe mechanical damage** to both **aluminium** (around 14 to 15 strands) and **steel core strands** (at least 03 strands) of the ACSR conductor.
- The images clearly show a **deep impact point** and **grooving** within the conductor structure, suggesting an external high-velocity impact.
- Based on visual analysis, the damage pattern **resembles a ballistic or projectile hit**, likely from a **bullet**, possibly due to **recent Indo-Pak border tensions**. The line is approximately 2 km away from the International Border.
- The conductor's **core integrity is compromised**, making it unsafe for direct mechanical pressure application.

PICTURES:

Unnamed Road
Gorah Singno

Jul 12, 2025 11:50:16 AM
86° E
Unnamed Road
Gorah Singno
Altitude:273.2m
Speed:0.0km/h
T no 172
Index number: 451

Jul 12, 2025 11:49:47 AM
44° NE
Kengdel
Altitude:269.8m
Speed:0.0km/h
T no 172
Index number: 445



3. Initial Action Taken

Considering the risk of further damage or conductor snapping during repair sleeve application:

- The team **did not proceed** with the pressing of repair sleeve due to the risk of:
- Sudden snapping of the weakened conductor.
- Potential failure by taking pressing machine head weight load.
- Instead, the team implemented a **temporary reinforcement**:
- **Armour rods** were installed around the damaged area.
- A **shunt conductor segment** was attached across the damaged section using **parallel groove (PG) clamps** to ensure current continuity and mechanical stability.

Annexure-4

400KV Chamera 1 Chamera 2

(12:35 Hrs of 26.08.2025 to 20:11 Hrs of 08.09.2025)

Line manually opened by Chamera 2 NHPC keeping in view flash floods in Ravi River followed by washing away of Tower No 78 due to above flash floods.

Line restored on bypass

I. Collapse of Tower no. 78 in 400 kV Chamera II – Chamera II

26 Aug 2025 3:27:26 pm
32.612553781N 75.971641036E
Khairi
Kangra Division
Himachal Pradesh

IMD REPORT:- HIMACHAL PRADESH HAD RECEIVED 9TH HIGHEST SINCE 1901

Govt. of India,
Ministry of Earth Sciences,
India Meteorological Department,
Meteorological Centre,
Shimla-171004

Monthly Weather Report (August 2025)

1. Weather summary

- Himachal Pradesh has received **widespread** precipitation during many days of August month with **normal to active** activity on many days; **vigorous** activity on 2 days (dated 25th & 26th August 2025) and **weak** activity on 5 days (dated 08th, 10th, 11th, 13th and 22nd August 2025).
- Himachal Pradesh has received the **9th highest rainfall** (431.3 mm) in August since 1901. This is the **highest August rainfall since 1949**, with the highest ever recorded in **1927** (542.4 mm).

2. Monthly precipitation and departure-

- The State received **large excess** precipitation **(68%)** with **431.3 mm** actual rainfall against **256.8 mm** normal rainfall in August month.
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.

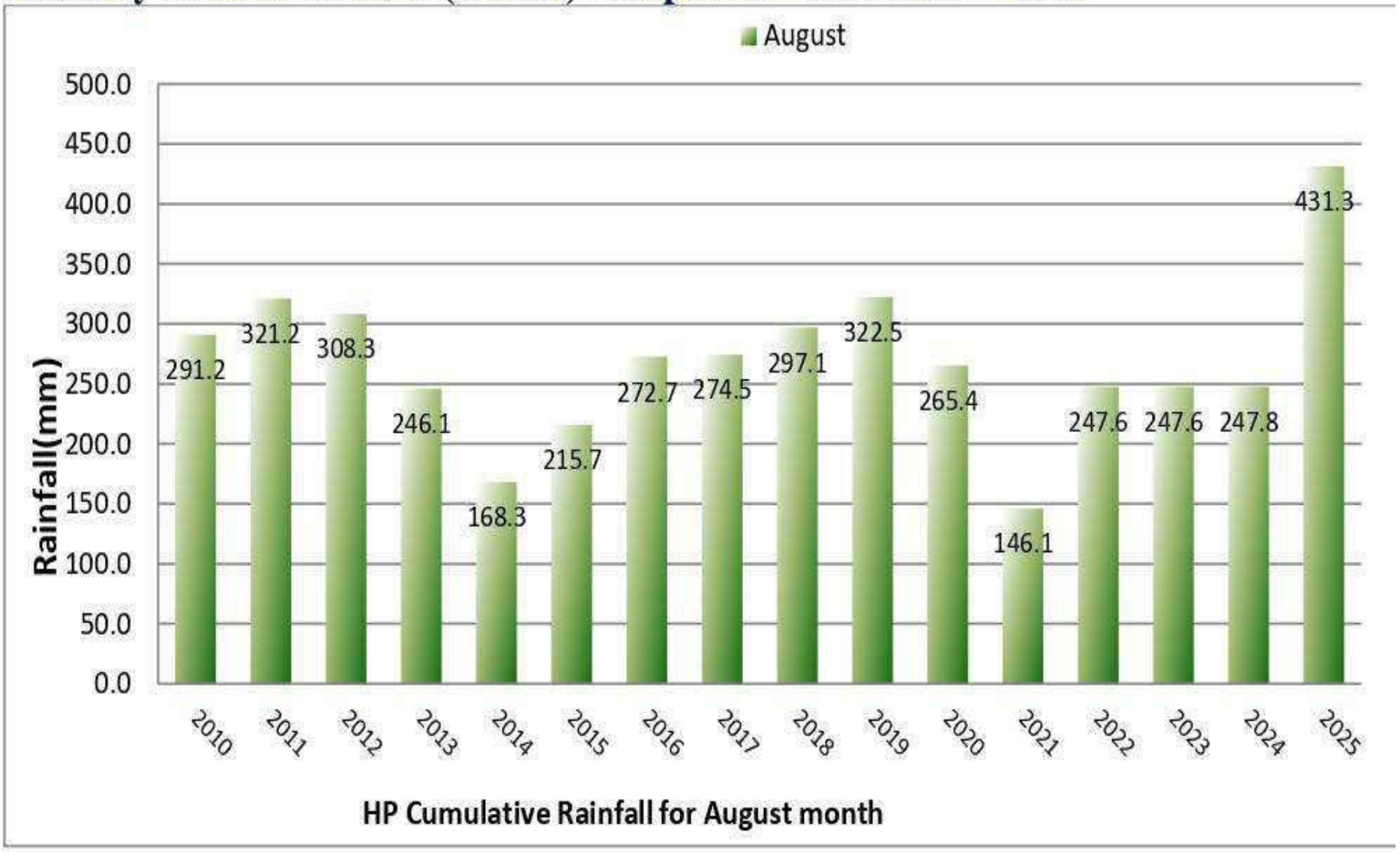
❖ Himachal Pradesh has received

- **Extremely Heavy rain** (in mm) in Una (distt. Una) 222.8 on 02nd August 2025

3. District wise monthly rainfall (in mm) and Departure (in %)

(01st August to 31st August) 2025			
DISTRICTS	Actual (in mm)	Normal (in mm)	Dep (in%)
BILASPUR	598.7	316.8	89
CHAMBA	561.6	291.7	93
HAMIRPUR	617.9	400.6	54
KANGRA	816.2	631.5	29
KINNAUR	143.3	77.6	85
KULLU	477.5	180.2	165
LAHAUL & SPITI	129.7	117.6	10
MANDI	667.9	395.3	69
SHIMLA	438	196.4	123
SIRMAUR	557.5	402.1	39
SOLAN	627.9	287.9	118
UNA	815.1	372.2	119
HP	431.3	256.8	68

4. **Monthly Actual Rainfall (in mm) comparison from 2010-2025: -**



NEWSPAPER CUTTING INDICATING CLOUD BRUSTS IN CHAMBA ABOUT 40KM ABOVE CHAMERA

4:02 5G

n.economictimes.com

INDIA

Landslides, flash floods leave trail of destruction in Himachal Pradesh

Synopsis

Heavy rainfall in Himachal Pradesh triggered devastating landslides and flash floods, washing away shops, collapsing buildings, and cutting off highways. The state witnessed multiple flash floods across Lahaul and Spiti, Kullu, and Kangra districts, along with a cloudburst in Chamba. Hundreds of roads are closed, and essential services like electricity and water supply have been severely disrupted.

3:56 5G

google.com/amp/s/www

livehindustan.com

#1 हिन्दी न्यूज़ वेबसाइट

होम राज्य देश बिहार चुनाव new क्रिकेट मनोरंजन

Hindi News ▸ हिमाचल प्रदेश न्यूज़ ▸ himachal pradesh weat...

हिमाचल में भारी बारिश से हाहाकार; चंबा में बादल फटा, कांगड़ा में भी आफत- VIDEO

हिमाचल प्रदेश में भारी बारिश से कई जिलों में हालात खराब हो गए हैं। मौसम विभाग का कहना है कि अभी जोरदार बारिश का दौर जारी रहेगा। बीते 24 घंटे में मंडी जिले के पंडोह में सबसे ज्यादा 123 मिमी बारिश हुई है। विस्तृत जानकारी के लिए पढ़ें यह रिपोर्ट...

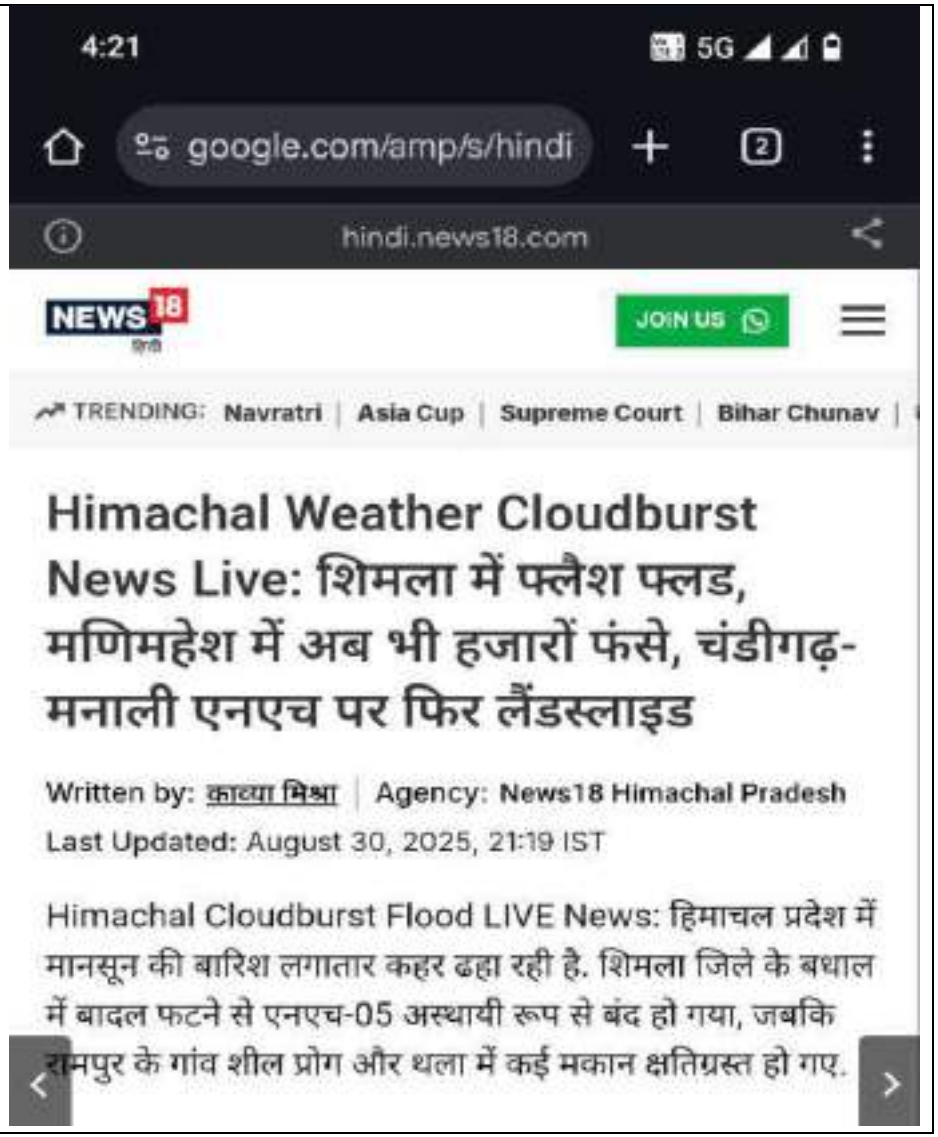
Sun, 24 Aug 2025, 08:37:PM

Krishna Bihari Singh | लाइव हिन्दुस्तान, शिमला

कारोबार बढ़ाएँ

NEWSPAPER CUTTING INDICATING CLOUD BRUSTS IN CHAMBA ABOUT 40KM ABOVE CHAMERA

3:55
5G
jagran.com/himachal-pr
जागरण
सब्सक्राइब करें
होम
ताज़ा
ब्रेकिंग
राष्ट्रीय
बिहार चुनाव
दुनिया
विकसित बिहार
राशिफल
शारदीय नवरात्रि
एशिया कप
HINDI NEWS
HIMACHAL-PRADESH
CHAMBA
Chamba Cloudburst: भलेई क्षेत्र में बादल फटने से तबाही, चार पुल व वाहन बहे, खौफनाक वीडियो आया सामने
BY JAGRAN NEWS
EDITED BY: RAJESH KUMAR SHARMA
UPDATED: TUE, 26 AUG 2025 04:27 PM (IST)


4:21
5G
google.com/amp/s/hindi
hindi.news18.com
NEWS18
JOIN US
TRENDING: Navratri | Asia Cup | Supreme Court | Bihar Chunav
Himachal Weather Cloudburst News Live: शिमला में फ्लैश फ्लड, मणिमहेश में अब भी हजारों फंसे, चंडीगढ़-मनाली एनएच पर फिर लैंडस्लाइड
Written by: काव्या मिश्रा | Agency: News18 Himachal Pradesh
Last Updated: August 30, 2025, 21:19 IST
Himachal Cloudburst Flood LIVE News: हिमाचल प्रदेश में मानसून की बारिश लगातार कहर ढहा रही है. शिमला जिले के बधाल में बादल फटने से एनएच-05 अस्थायी रूप से बंद हो गया, जबकि रामपुर के गांव शील प्रोग और थला में कई मकान क्षतिग्रस्त हो गए.

THE TIMES OF INDIA

City Chandigarh Mumbai Delhi Bengaluru Hyderabad Kolkata Chennai Agra Agartala Ahmedab

Chandigarh Elections Photos Weather

Now Playing Trump's 'One Big Question' To Putin After Russia Strikes NATO La

News / City News / Chandigarh News / Rivers scare Chamba & Kullu; Manimahesh Yatra s...

Trending Bangalore Weather Bangalore Ring Taxi National Best Teacher Award

Rivers scare Chamba & Kullu; Manimahesh Yatra suspended

TNN / Aug 28, 2025, 04:37 IST

Share AA Select TOI as

Shimla: The flood crisis in Himachal Pradesh has deepened, with Chamba and Kullu districts being hit the hardest by far above normal average rainfall in the past week, leaving hundreds of people stranded and causing widespread damage. Between Aug 20 and 27, Chamba recorded rainfall at 396% above average, while Kullu received 334% more than its normal rainfall for the period.

The situation in Chamba remains critical due to widespread disruption of mobile

Tuesday, September 2, 2025

दैनिक ट्रिब्यून The Tribune ਰੋਜ਼ਾਨਾ ਟ

Trending Videos India Opinion UPSC State City World Diaspora

Home / Himachal Pradesh / 795 roads closed due to heavy rain in Himachal; Met issues red alert f...

795 roads closed due to heavy rain in Himachal; Met issues red alert for Chamba, Kangra

Orange weather warning for Kullu and Mandi districts; yellow alert for Una, Hamirpur, Bilaspur and Lahaul-Spiti districts

TRIBUNE NEWS SERVICE

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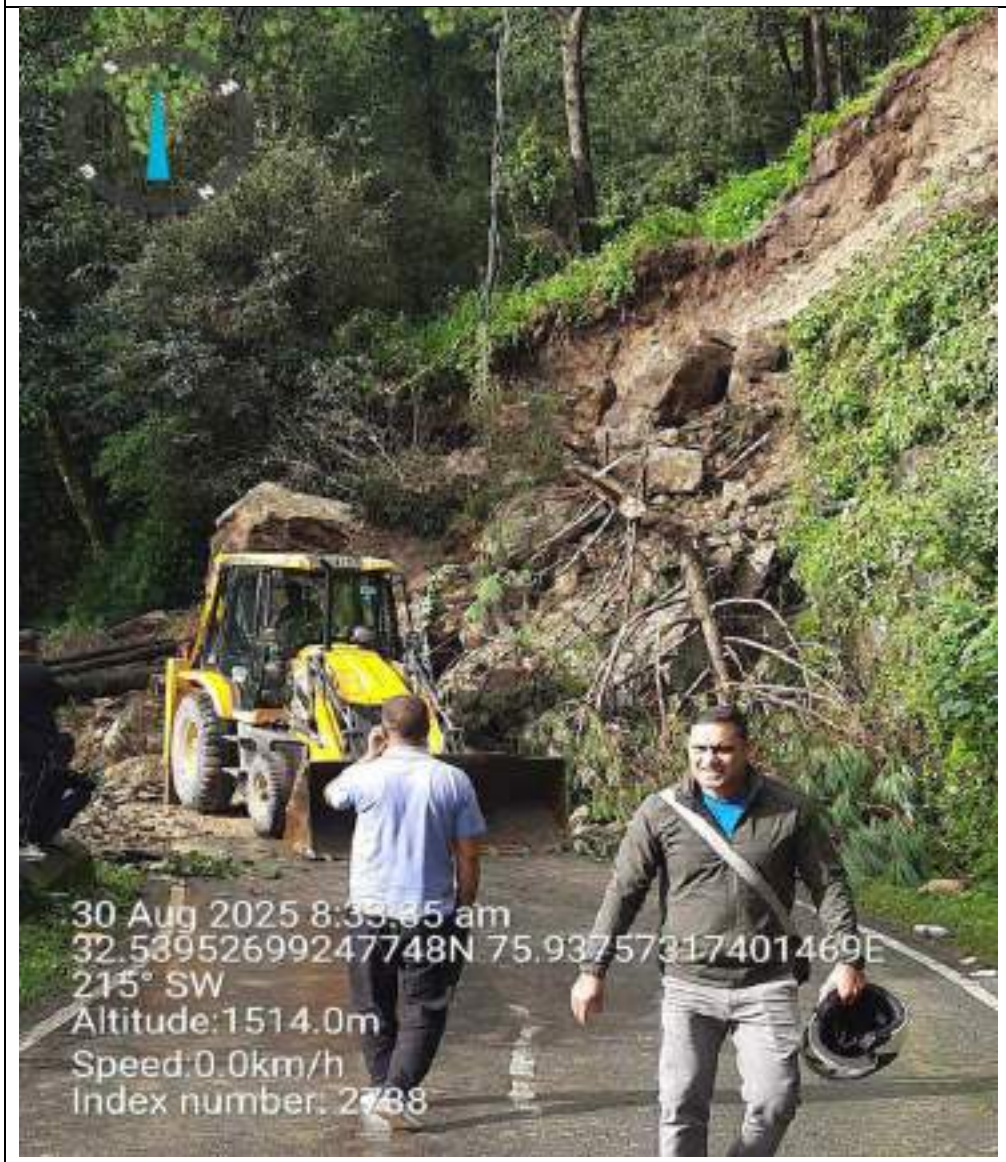
As many as 795 roads, including two National Highways, remain closed for vehicular traffic across the state as torrential rain continue to wreak havoc in Himachal Pradesh.

As per the State Emergency Operation Centre, 289 roads, including the NH-3 are closed in Mandi district alone, the highest in the state. Also, about 214 roads are blocked in Chamba, 131 roads, including the NH 305 in Kullu, 41 in Sirmaur, 33 in Kangra, 26 in Bilaspur, 23 in Solan, 15 in Shimla, 14 in Una, five in Hamirpur, two in Kinnaur and one in Lahaul and Spiti district remain blocked for traffic, as a result of heavy rainfall.

Also, as many as 956 power distribution transformers, including 390 in Chamba,

PHOTO SHOWING DAMAGE TO ROADS IN RESIDENTIAL AREA Meter from failed tower DURING FLASH FLOODS

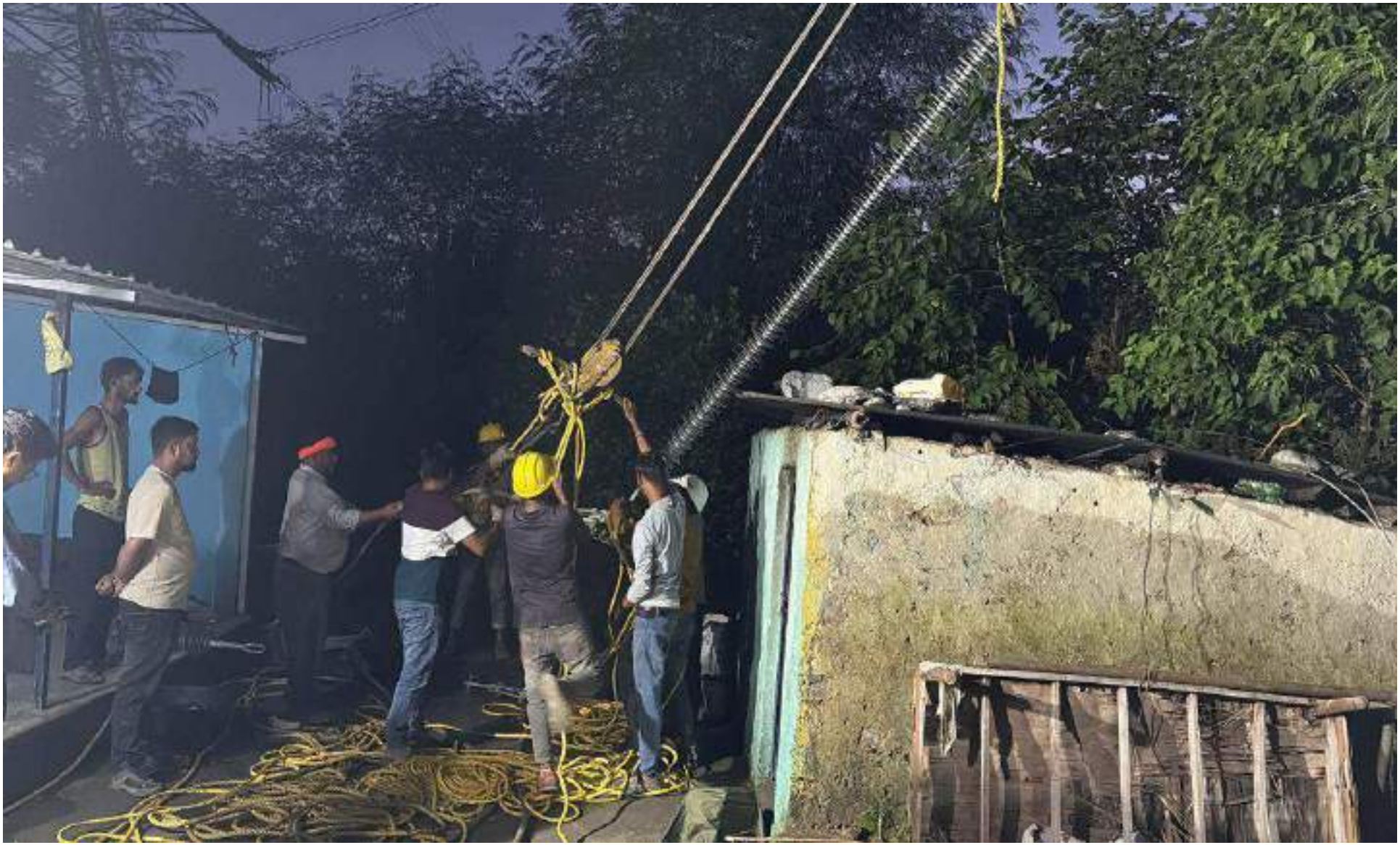
Road blocked due to heavy rains /landslides



Road damaged	

RESTORATI8ON WORK IN POROGRESS during NIGHT HOURS

Work in progress during late night hours



RESTORATI8ON WORK IN POROGRESS during RAINS

WORKING CONDITIONS AT SITE

WORK IN LATE HOURS

Line finally restored at 20:11 Hrs of 08.09.2025

Thanks

Govt. of India,
Ministry of Earth Sciences,
India Meteorological Department,
Meteorological Centre,
Shimla-171004

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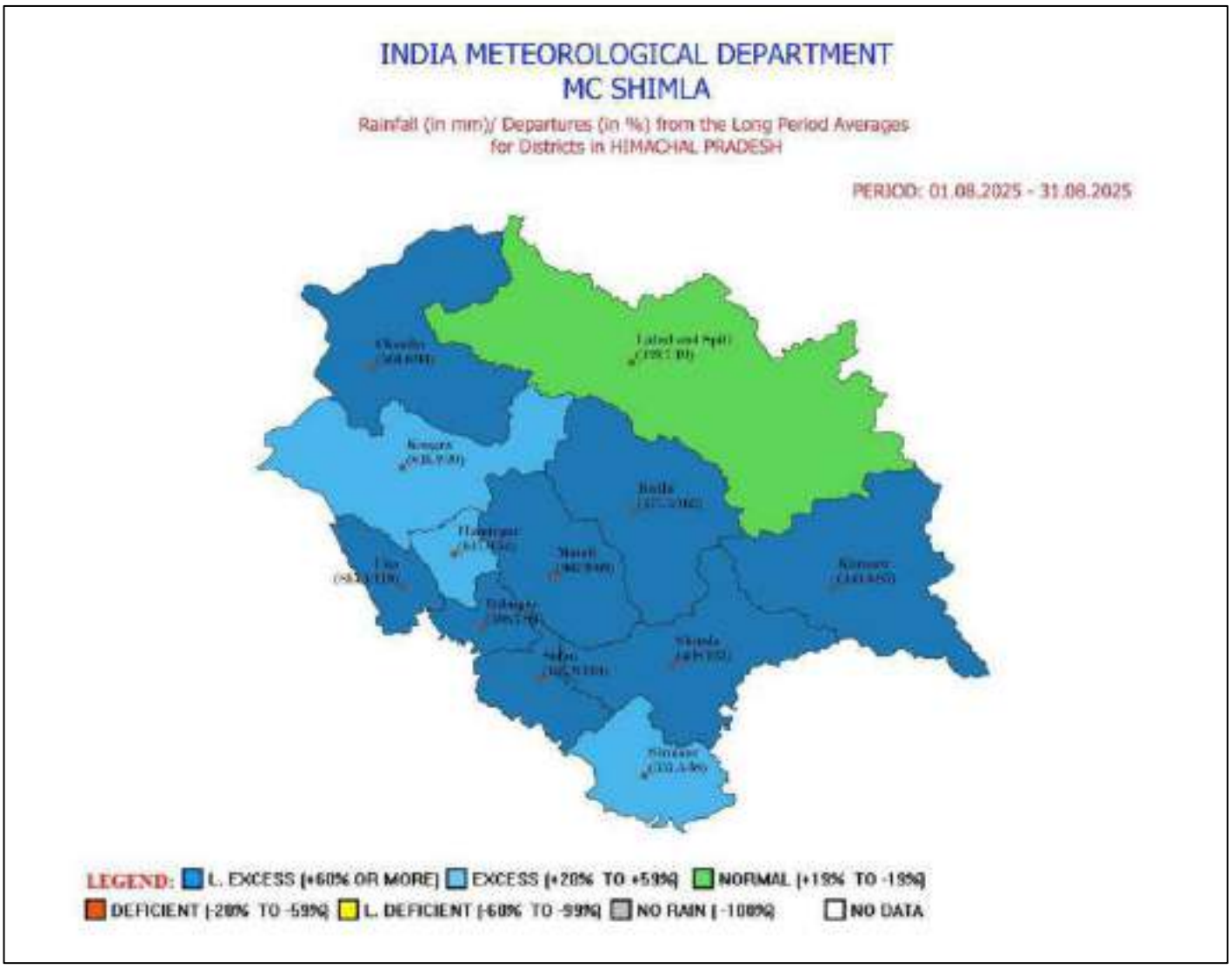
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.

❖ Himachal Pradesh has received

- **Extremely Heavy rain** (in mm) in Una (distt. Una) 222.8 on 02nd August, 2025.
- **Very Heavy rain** (in mm) in Chuari (Distt. Chamba) 118 On 01ST August; Amb(Distt. Una) 154.8, Bilaspur Sadar (Distt. Bilaspur) 120.8 On 02ND Aug; Mandi (Distt. Mandi) 151.2 On 05TH Aug; Kasauli (Distt. Solan) 145, Dharampur (Distt. Solan) 122.8, Gohar (Distt. Mandi) 120 on 06TH Aug; Nalagarh (Distt. Solan) 120, Bharwain (Distt. Una) 120 On 07TH Aug; Nagrota Surian (Distt. Kangra) 180.2, Guler (Distt. Kangra) 161.2 On 12TH Aug; Pachhad (Distt. Sirmaur) 153.2 On 14TH Aug; Naina Devi (Distt. Bilaspur) 160.6 On 16TH Aug; Kataula (Distt. Mandi) 116.3 On 17TH Aug; Amb (Distt. Una) 150 On 20TH Aug; Una (Distt. Una) 132.6 On 21ST Aug; Kheri (distt. Chamba) 129, Pandoh (Distt. Mandi) 123 On 24TH Aug, Kahu (Distt. Bilaspur) 190.5, Ghumarwin (Distt. Bilaspur) 160, Barthin (Distt. Bilaspur) 156.4, Naina Devi (Distt. Bilaspur) 148.4, Kheri (distt. Chamba) 142, Bilaspur Sadar (Distt. Bilaspur) 140.8, Chuari (Distt. Chamba) 140.2, Mehre (Barsar) (Distt. Hamirpur) 127 On 25TH Aug; Naina Devi (Distt. Bilaspur) 160.8, Kheri (distt. Chamba) 128.6, Chuari (Distt. Chamba) 125.2 On 26TH Aug; Jatton Barrage (distt. Sirmaur) 138 on 29th Aug.
- **Heavy rain** (in mm) in CHUARI (distt. Chamba) 96, BHARWAIN (distt. Una) 92, NADAUN (distt. Hamirpur) 73.6, BARTHIN (distt. Bilaspur) 69.6, SUJANPUR TIRA (distt. Hamirpur) 68.4, DEHRA GOPIPUR (distt. Kangra) 67.2, CHAMBA AWS (distt. Chamba) 66 on 02nd Aug; BHARERI (distt. Hamirpur) 108.2, NAINA DEVI (distt. Bilaspur) 74.4, on 03rd Aug; KASAULI (distt. Solan) 82 on 04th Aug; BIJAHI (distt. Mandi) 105.6, SUNDARNAGAR (distt. Mandi) 84.1, NADAUN (distt. Hamirpur) 78, GOHAR (distt. Mandi) 72 on 05th Aug; CHUARI (distt. Chamba) 98.4, NAGROTA SURIAN (distt. Kangra) 93.4, PACHHAD (distt. Sirmaur) 88, NAINA DEVI (distt. Bilaspur) 86.4, BIJAHI (distt. Mandi) 84.4, KUMARSAIN (distt. Shimla) 80.4, SUNDARNAGAR (distt. Mandi) 80.3, KANGRA (distt. Kangra) 71.4, BILASPUR SADAR (distt. Bilaspur) 70.4, GULER (distt. Kangra) 68.4, KARSOG (distt. Mandi) 68, Dhaulakuan (distt. Sirmaur) 67, BANJAR (distt. Kullu) 66, SUNIBHAJJI (distt. Shimla) 66, NALAGARH (distt. Solan) 66, MANDI (distt. Mandi) 65.8, on 06th Aug; NAINA DEVI (distt. Bilaspur) 92.6, PACHHAD (distt. Sirmaur) 75.1, R L BBMB (distt. Bilaspur) 73 on 07th Aug; NAINA DEVI (distt. Bilaspur) 112.4, PANDOH (distt. Mandi) 102, BANGANA_R (distt. Una) 86.4, R L BBMB (distt. Bilaspur) 67, PACHHAD (distt. Sirmaur) 67, NARKANDA AWS (distt. Shimla) 66.5, KUMARSAIN (distt. Shimla) 65.4, KASAULI (distt. Solan) 65.2 on 09th Aug; KANGRA (distt. Kangra) 68.4 on 10th Aug; GHAMROOR (distt. Kangra) 112.2, Sandhole (distt. Mandi) 78.8, NADAUN (distt. Hamirpur) 78.5, DEHRA GOPIPUR (distt. Kangra) 76.2, JOGINDARNAGAR (distt. Mandi) 74, KANGRA (distt. Kangra) 73.8, Bhareri (distt. Hamirpur) 70.2, PALAMPUR (distt. Kangra) 69, SUJANPUR TIRA (distt. Hamirpur) 66, BIJAHI (distt. Mandi) 65.2 on 12th Aug; RAJGARH (distt. Sirmaur) 102, KANDAGHAT (distt. Solan)100, JATTON BARRAGE (distt. Sirmaur) 87, UNA (distt. Una) 85.4 SOLAN (distt. Solan)81.4, KOTKHAI (distt. Shimla) 77.4, Shillaro (distt. Shimla) 73, JUBBAL (distt. Shimla) 72.6, SHIMLA (distt. Shimla) 69, KUFRI (distt. Shimla) 66, JUBBERHATTI (distt. Shimla) 65.2, RENUKA / DADHAU (distt. Sirmaur) 64.6 on 14th Aug; JOGINDARNAGAR (distt. Mandi) 106, PALAMPUR (distt. Kangra) 102.4, Bhareri (distt. Hamirpur) 75.4, KHERI (distt. Chamba) 73.2, Kataula (distt. Mandi) 67.2, NARKANDA AWS (distt. Shimla) 66, NAINA DEVI (distt. Bilaspur) 64.8 on 15th Aug;

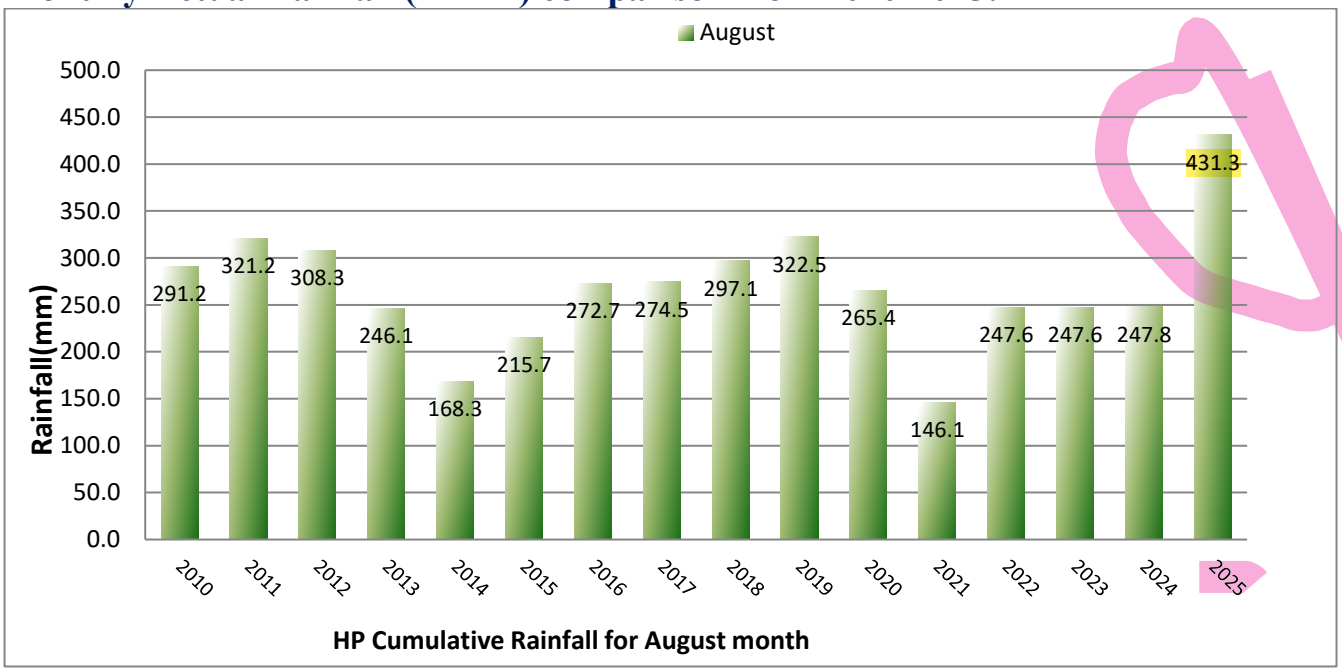
PALAMPUR (distt. Kangra) 101.4, Sandhole (distt. Mandi) 80.2, PANDOH (distt. Mandi) 72.4 on 16th Aug; KANGRA (distt. Kangra) 110.8, NAGROTA SURIAN (distt. Kangra) 107, NAHAN (distt. Sirmaur) 103.2, JOGINDARNAGAR (distt. Mandi) 84, NALAGARH (distt. Solan) 80, PAONTA (distt. Sirmaur) 69.8, KHERI (distt. Chamba) 67.6, Dhaulakuan (distt. Sirmaur) 67 on 17th Aug; Dhaulakuan (distt. Sirmaur) 113, AGHAR (distt. Hamirpur) 80, SANGRAHA (distt. Sirmaur) 72 on 18th Aug; JUBBERHATTI (distt. Shimla) 73 on 19th Aug; BHARWAIN (distt. Una) 68 on 20th Aug; NALAGARH (distt. Solan) 65 on 23rd Aug; Kasauli (distt. Solan) 105, Sarkaghat (distt. Mandi) 80.5, KARSOG (distt. Mandi) 68, MANDI (distt. Mandi) 68, on 24th Aug; AMB (distt. Una) 111, AGHAR (distt. Hamirpur) 110.6, BANGANA_R (distt. Una) 104, GHAMROOR (distt. Kangra) 95.8, BHARWAIN (distt. Una) 94.4, NADAUN (distt. Hamirpur) 94, HAMIRPUR (distt. Hamirpur) 92, DHARMSHALA (distt. Kangra) 87.4, Bhareri (distt. Hamirpur) 85.9, Sandhole (distt. Mandi) 85.2, KASAULI (distt. Solan) 85, SUNDARNAGAR (distt. Mandi) 84.2, BALDWARA (distt. Mandi) 84, SALONI (distt. Chamba) 83.3, UNA (distt. Una) 80.8, SUJANPUR TIRA (distt. Hamirpur) 80, NALAGARH (distt. Solan) 75, DHARAMPUR (distt. Solan) 68.6, DEHRA GOPIPUR (distt. Kangra) 68.3, CHAMBA AWS (distt. Chamba) 67, R L BBMB (distt. Bilaspur) 66, PALAMPUR (distt. Kangra) 65.4 on 25th Aug; DHARMSHALA (distt. Kangra) 102, MANALI (distt. Kullu) 102, GHAMROOR (distt. Kangra) 91.4, KANGRA (distt. Kangra) 89, NAGROTA SURIAN (distt. Kangra) 88.8, PALAMPUR (distt. Kangra) 88, KOTHI (distt. Kullu) 85.8, BHARWAIN (distt. Una) 85, Tissa (distt. Chamba) 80, BHUNTAR (distt. Kullu) 77.2, Gondla (distt. Lahaul-Spiti) 75.6, CHAMBA AWS (distt. Chamba) 74, SANGRAHA (distt. Sirmaur) 72, GULER (distt. Kangra) 71.8, Kukumseri Aws (distt. Lahaul-Spiti) 71.5, Seobagh (distt. Kullu) 70.8, Kumarsain (distt. Shimla) 70.6, KARSOG (distt. Mandi) 65.2, Kasol (distt. Kullu) 65 on 26th Aug; Kheri (distt. Chamba) 89.2, Kothi (distt. Kullu) 69, Saloni (distt. Chamba) 65.2 on 27th August; Pandoh (distt. Mandi) 108 on 28th Aug; Renuka / Dadhau (distt. Sirmaur) 114, Palampur (distt. Kangra) 91.4, Bharwain (distt. Una) 80, Sandhole (distt. Mandi) 77.8, Paonta (distt. Sirmaur) 75, Kataula (distt. Mandi) 73.4, Sangraha (distt. Sirmaur) 70, Rajgarh (distt. Sirmaur) 65 on 29th Aug; Chuari (distt. Chamba) 104, Jogindarnagar (distt. Mandi) 86, Rampur Bushar (distt. Shimla) 75.5, Dharmshala (distt. Kangra) 69.4 on 30th Aug; Naina Devi (distt. Bilaspur) 82.8, R L Bbmb (distt. Bilaspur) 80, Chuari (distt. Chamba) 75.2 on 31st Aug.



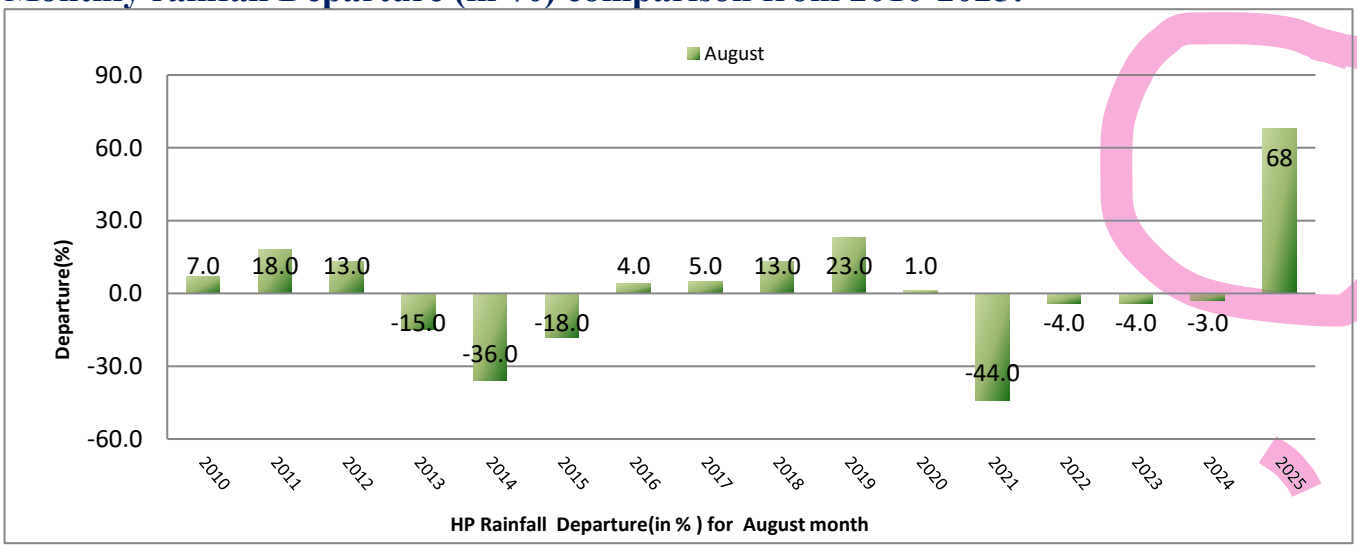
3. District wise monthly rainfall (in mm) and Departure (in %)

(01st August to 31st August) 2025			
DISTRICTS	Actual (in mm)	Normal (in mm)	Dep (in%)
BILASPUR	598.7	316.8	89
CHAMBA	561.6	291.7	93
HAMIRPUR	617.9	400.6	54
KANGRA	816.2	631.5	29
KINNAUR	143.3	77.6	85
KULLU	477.5	180.2	165
LAHAUL & SPITI	129.7	117.6	10
MANDI	667.9	395.3	69
SHIMLA	438	196.4	123
SIRMAUR	557.5	402.1	39
SOLAN	627.9	287.9	118
UNA	815.1	372.2	119
HP	431.3	256.8	68

4. Monthly Actual Rainfall (in mm) comparison from 2010-2025: -



5. Monthly rainfall Departure (in %) comparison from 2010-2025: -



6. Monthly Rainfall distribution and Rainfall Activity for August month.

HIMACHAL PRADESH					
Date	**Distribution**	**Activity**	Date	**Distribution**	**Activity**
01-08-2025	WIDE SPREAD	NORMAL	**17-08-2025**	WIDE SPREAD	ACTIVE
02-08-2025	WIDE SPREAD	ACTIVE	**18-08-2025**	WIDE SPREAD	NORMAL
03-08-2025	WIDE SPREAD	NORMAL	**19-08-2025**	FAIRLY WIDE SPREAD	NORMAL
04-08-2025	WIDE SPREAD	NORMAL	**20-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
05-08-2025	WIDE SPREAD	ACTIVE	**21-08-2025**	FAIRLY WIDE SPREAD	NORMAL
06-08-2025	WIDE SPREAD	ACTIVE	**22-08-2025**	ISOLATED	WEAK
07-08-2025	FAIRLY WIDE SPREAD	NORMAL	**23-08-2025**	SCATTERED	NORMAL
08-08-2025	ISOLATED	WEAK	**24-08-2025**	WIDE SPREAD	ACTIVE
09-08-2025	FAIRLY WIDE SPREAD	NORMAL	**25-08-2025**	WIDE SPREAD	VIGOROUS
10-08-2025	SCATTERED	WEAK	**26-08-2025**	WIDE SPREAD	VIGOROUS
11-08-2025	FAIRLY WIDE SPREAD	WEAK	**27-08-2025**	WIDE SPREAD	ACTIVE
12-08-2025	WIDE SPREAD	ACTIVE	**28-08-2025**	FAIRLY WIDE SPREAD	NORMAL
13-08-2025	SCATTERED	WEAK	**29-08-2025**	WIDE SPREAD	ACTIVE
14-08-2025	WIDE SPREAD	ACTIVE	**30-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
15-08-2025	WIDE SPREAD	ACTIVE	**31-08-2025**	WIDE SPREAD	ACTIVE
16-08-2025	FAIRLY WIDE SPREAD	NORMAL			

7. Chief Amount of Rainfall (in mm) August 2025

Date	Station
01-08-2025	Chuari 118, Manali 57, Banjar 52.4, Bharwain 47, Bhareri 45.2, Kothi 40, Naina Devi 36, Saloni 36, Tinder 35, Kasol 34, Amb 32.6, Sarahan 30, Chamba Aws 29, Tissa 28, Kheri 27, Sarkaghat 25.3, Baldwara 23, Sangraha 23, Renuka / Dadhau 22.7, Hamirpur 21, Wangtoo 20.6, Jatton Barrage 19.6, Nichar 18.5, Jogindarnagar 17, Bharmaur 16, Chhatrari 14.9, Bijahi 14.6, Sunibhajji 13, Karsog 12.1, Bhoranj 12, Sundarnagar 12, Mandi 11.6, Guler 11.2, Bilaspur Sadar 10.4, Nagrota Surian 10, Sangla 9.8, Ghamroor 9.4, Palampur 9.4, R L Bbmb 9.2, Ghumarwin 9, Nadaun 8.4, Seo Bagh 8.4, Dharmshala 8.3, Aghar 8.2, Sujanpur Tira 8, Paonta 8, Kukumsheri Aws 7.6, Bhuntar 6.4, Kalpa 5.6, Dehra Gopipur 5.4, Keylong 5, Gohar 5, Janjehli 5, Rampur Bushar 5, Kangra 4.9, Barthin 4.8, Pachhad 4.3, Koksar 3.7, Bangana_R 3.6, Una 3.6, Nahan 3.1, Gondla 2.8, Kufri 2.6, Pandoh 2.5, Jubbal 2.4, Shillaro 2, Kahu 1.8, Theog 1.8, Shimla 1.7, Jubberhatti 1.6, Kataula 1.1, Bilaspur Aws 0.5, Moorang 0.2, Kotkhai 0.1
02-08-2025	Una 222.8, Amb 154.8, Bilaspur Sadar 120.8, Chuari 96, Bharwain 92, Nadaun 73.6, Barthin 69.6, Sujanpur Tira 68.4, Dehra Gopipur 67.2, Chamba Aws 66, Dharmshala 64, Nahan 62.3, Ghamroor 62.2, Hamirpur 62, Kheri 54.4, Aghar 52.8, Bangana_R 52.3, Kumarsain 50.6, Kataula 50.4, R L Bbmb 48.2, Saloni 48.2, Bhareri 48.2, Mehre (Barsar) 46, Kangra 42.3, Kothi 41, Nagrota Surian 40.2, Tissa 40, Jogindarnagar 40, Palampur 36, Bhuntar 35.8, Manali 35, Mandi 34.4, Seo Bagh 30.8, Bhoranj 30, Gohar 30, Guler 29.4, Wangtoo 28.2, Banjar 28.2, Bharmaur 28, Paonta 27.4, Nichar 27.2, Karsog 26, Chhatrari 25.5, Sangraha 24, Naina Devi 22.8, Bijahi 22, Janjehli 22, Renuka / Dadhau 21.6, Pandoh 20.5, Sarkaghat 19.6, Theog 19.2, Baldwara 19, Pachhad 17, Kahu 16.5, Kasol 15, Narkanda Aws 12, Sundarnagar 11.9, Jatton Barrage 11.4, Gondla 11.2, Rampur Bushar 9.8, Shillaro 9.7, Kukumsheri Aws 9.6, Kufri 9.2, Keylong 7, Sunibhajji 6.2, Shimla 5.6, Kandaghat 5.6, Jubbal 5.2, Kasauli 5.2, Jubberhatti 5, Sangla 4.2, Sarahan 4, Kalpa 3.2, Dharampur 2.8, Khadrala 2.2, Bajaura Aws 2, Koksar 2, Bilaspur Aws 1, Solan 0.8, Reckong Peo Aws 0.5, Kotkhai 0.4
03-08-2025	Bhareri 108.2, Naina Devi 74.4, Ghumarwin 40, Sunibhajji 40, Jatton Barrage 40, R L Bbmb 39, Una 38, Kheri 28.8, Nalagarh 28, Aghar 24.8, Mehre (Barsar) 23, Pachhad 20, Bangana_R 18.4, Chamba Aws 18, Hamirpur 18, Jogindarnagar 17, Barthin 14.6, Nadaun 14.5, Sujanpur Tira 14.5, Seo Bagh 11.6, Kothi 11.2, Palampur 10.8, Kumarsain 10.4, Guler 10.2, Sarahan 9.5, Nagrota Surian 9.4, Bhuntar 9.2, Kasol 9, Sarkaghat 8.3, Kotkhai 8.2, Kasauli 8.2, Kangra 8.1, Bharmaur 8, Tinder 8, Sundarnagar 7.9, Renuka / Dadhau 7.2, Chuari 7, Paonta 6.6, Dharampur 6.4, Bhoranj 6, Gondla 5.4, Jubberhatti 5.4, Shimla 5.4, Kataula 5.2, Manali 5, Dehra Gopipur 4.3, Kukumsheri Aws 4.2, Koksar 4.2, Bijahi 4.2, Khadrala 4.2, Dharmshala 4.1, Janjehli 4, Karsog 4, Shillaro 4, Kufri 4, Mandi 3.2, Keylong 3, Solan 3, Bajaura Aws 2.5, Chhatrari 2.3, Bilaspur Sadar 2.2, Gohar 2, Pandoh 2, Nahan 1.2, Ghamroor 1, Kandaghat 1, Kalpa 0.8, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Kahu 0.4, Sangla 0.2
04-08-2025	Kasauli 82, Naina Devi 62.6, Ghumarwin 60, Jogindarnagar 60, Manali 45, Mehre (Barsar) 42, Guler 29, Pandoh 27, Karsog 26.2, Sarahan 25.5, R L Bbmb 24, Shimla 22.8, Baldwara 19, Bijahi 18.4, Gohar 18, Kataula 15.3, Bhoranj 15, Hamirpur 14, Janjehli 14, Kufri 13.8, Dharampur 12.6, Dharmshala 12.1, Berthin Agro 12, Dehra Gopipur 12, Palampur 11.6, Shillaro 11.6, Narkanda Aws 11.5, Nichar 11, Paonta 10.8, Nadaun 9.8, Sarkaghat 9.3, Ghamroor 9.2, Kotkhai

	9.2, Pachhad 9.2, Wangtoo 8.2, Tinder 8, Kumarsain 8, Jubbal 7.2, Jatton Barrage 7, Aghar 6.8, Barthin 6.6, Chuari 6.2, Amb 5.4, Mandi 5.2, Bangana_R 5.2, Kasol 5, Kahu 4.4, Sujanpur Tira 4, Sangraha 4, Bharwain 3.6, Bajaura Aws 3.5, Nagrota Surian 3.2, Chamba Aws 3, Sunibhajji 2.4, Nahan 2.4, Jubberhatti 2.2, Renuka / Dadhau 2.2, Kothi 2, Keylong 2, Theog 2, Solan 1.8, Bhareri 1.4, Dalhousie Aws 1, Khadrala 1, Kandaghat 1, Kalpa 0.8, Rampur Bushar 0.8, Bilaspur Aws 0.5, Gondla 0.2, Sundarnagar 0.1
05-08-2025	Mandi 151.2, Bijahi 105.6, Sundarnagar 84.1, Nadaun 78, Gohar 72, Ghumarwin 60, Karsog 56.3, Palampur 55.8, Pandoh 53, Hamirpur 45, Bhareri 44.5, Baldwara 41, Janjehli 40, Sangraha 40, Nalagarh 40, Berthin Agro 36.5, Guler 36.4, Mehre (Barsar) 35, Tinder 35, Jubbal 33.4, Bilaspur Sadar 30.8, R L Bbmb 30, Shillaro 30, Rohru 30, Sarahan 30, Bharwain 30, Manali 29.2, Barthin 28.4, Naina Devi 24.8, Sujanpur Tira 24, Aghar 23.6, Kangra 23.2, Narkanda Aws 22, Shimla 20.4, Dehra Gopipur 18.4, Kataula 18.2, Jubberhatti 18, Nagrota Surian 17.8, Jogindarnagar 14, Kumarsain 12.8, Dharmshala 10.7, Kandaghat 10.6, Una 10.6, Kahu 10.5, Bhuntar 10.4, Paonta 10.4, Bhoranj 10, Bangana_R 9.4, Sangla 8.6, Chuari 8.1, Kasauli 7.2, Kothi 7, Hansa 7, Theog 7, Amb 7, Banjar 6.2, Khadrala 6, Kotkhai 5.2, Jatton Barrage 4.4, Dharampur 4.2, Renuka / Dadhau 4, Wangtoo 3.8, Rampur Bushar 3.6, Seo Bagh 3.4, Kasol 3, Kheri 2.4, Kufri 2.4, Koksar 2.1, Bajaura Aws 2, Nahan 2, Kalpa 1.6, Moorang 1.5, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
06-08-2025	Kasauli 145, Dharampur 122.8, Gohar 120, Chuari 98.4, Nagrota Surian 93.4, Pachhad 88, Naina Devi 86.4, Bijahi 84.4, Kumarsain 80.4, Sundarnagar 80.3, Kangra 71.4, Bilaspur Sadar 70.4, Guler 68.4, Karsog 68, Dhaulakuan 67, Banjar 66, Sunibhajji 66, Nalagarh 66, Mandi 65.8, Shimla 64.4, Dharmshala 64, Pandoh 63, Janjehli 60, Kandaghat 60, Kahu 58, Renuka / Dadhau 55.3, Rampur Bushar 55, Jogindarnagar 53, Wangtoo 50.2, R L Bbmb 47, Nadaun 47, Kufri 47, Jatton Barrage 47, Khadrala 46.2, Narkanda Aws 44.5, Jubberhatti 44, Shillaro 43.6, Sarahan 42.5, Palampur 40, Rohru 40, Bangana_R 40, Bharwain 39, Sangraha 38, Solan 32.2, Sujanpur Tira 32, Kataula 31.2, Paonta 29, Dehra Gopipur 27, Hamirpur 25, Mehre (Barsar) 25, Kothi 25, Tinder 25, Sangla 24.6, Nichar 23.5, Barthin 23.2, Bhuntar 22.2, Kotkhai 22.1, Berthin Agro 22, Aghar 22, Rajgarh 22, Kheri 21.2, Seo Bagh 21.2, Bhareri 20.4, Jubbal 18.4, Ghamroor 18.2, Kasol 18, Amb 14.8, Kalpa 14, Reckong Peo Aws 13.5, Nahan 12.6, Baldwara 12, Chhatrari 10, Tissa 8.7, Theog 6, Una 5.6, Manali 5.2, Bharmaur 4.6, Moorang 4.5, Sarkaghat 4.5, Koksar 3, Bajaura Aws 2, Pooh 1, Keylong 1, Kukumsheri Aws 0.8, Bilaspur Aws 0.5
07-08-2025	Nalagarh 120, Bharwain 120, Naina Devi 92.6, Pachhad 75.1, R L Bbmb 73, Mehre (Barsar) 64, Kangra 62.5, Theog 60, Dharmshala 42.5, Bangana_R 34.8, Nahan 32.6, Kasauli 32.5, Dehra Gopipur 31.4, Bilaspur Sadar 30.2, Sarahan 29.5, Barthin 22.4, Una 22.2, Amb 21, Gohar 19, Shimla 19, Kahu 18.8, Sujanpur Tira 18, Aghar 17.6, Nagrota Surian 17.2, Baldwara 17, Berthin Agro 16, Jubbal 15.2, Dharampur 14, Bhareri 13.4, Manali 12.2, Palampur 11.6, Nadaun 10, Sundarnagar 9.4, Kufri 9.2, Chuari 9.1, Rampur Bushar 8.5, Hamirpur 8, Kothi 8, Kumarsain 5.6, Tinder 5, Janjehli 5, Jogindarnagar 5, Rohru 5, Wangtoo 4.6, Kataula 4.2, Jubberhatti 3.8, Sangla 3.6, Solan 3.6, Guler 3.4, Bhuntar 3, Bijahi 3, Kalpa 2.8, Renuka / Dadhau 2.8, Kandaghat 2.6, Bajaura Aws 2.5, Jatton Barrage 1.6, Reckong Peo Aws 1, Banjar 1, Paonta 1, Bilaspur Aws 0.5, Pandoh 0.5, Narkanda Aws 0.5
08-08-2025	Bajaura Aws 9, Kataula 8.2, Sangraha 8, Sarkaghat 6.2, Jogindarnagar 4, Dharmshala 3.2, Nagrota Surian 2.4, Bhareri 2, Nadaun 2, Jatton Barrage 2, Bilaspur Aws 0.5, Barthin 0.4
09-08-2025	Naina Devi 112.4, Pandoh 102, Bangana_R 86.4, R L Bbmb 67, Pachhad 67, Narkanda Aws 66.5, Kumarsain 65.4, Kasauli 65.2, Shillaro 63, Rajgarh 56, Kufri 55.2, Dharampur 52.6, Nahan 49.3, Solan 45.6, Janjehli 42, Nalagarh 35, Kotkhai 29.3, Dehra Gopipur 29, Sunibhajji 27, Sundarnagar 23.6, Nagrota Surian 22.5, Kataula 22.2, Barthin 21.8, Kandaghat 21.8, Kasol 20, Berthin Agro 18.5, Baldwara 18, Shimla 16.8, Jubberhatti 14, Bharwain 14, Renuka / Dadhau 13.6, Bajaura Aws 13.5, Kothi 12.4, Nadaun 11.8, Sarkaghat 11.4, Una 11.4, Palampur 10.6, Bhareri 10.2, Hamirpur 10, Bhuntar 9.4, Rampur Bushar 9, Chuari 8.2, Jatton Barrage 8.2, Bhoranj 8, Jubbal 6.4, Mehre (Barsar) 6, Bilaspur Sadar 5.8, Sujanpur Tira 5, Manali 5, Jogindarnagar 5, Nichar 4.3, Banjar 4.2, Theog 4, Bharmaur 3.6, Wangtoo 3.6, Dharmshala 3.4, Paonta 3.2, Mandi 2.4, Chamba Aws 2, Kheri 2, Gohar 2, Sangraha 2, Bilaspur Aws 1, Khadrala 1, Kangra 0.5, Kahu 0.4, Guler 0.4, Sangla 0.2
10-08-2025	Kangra 68.4, Palampur 52, Baldwara 42, Bharwain 39.4, Sarahan 25, Theog 20, Tinder 18, Jubberhatti 17, Dharmshala 16.8, Pandoh 16.5, Bangana_R 11.8, Bajaura Aws 11.5, Kufri 11.2, Bilaspur Sadar 10.4, Kasauli 10, Shimla 9, Bijahi 8, Chuari 7.6, Kotkhai 6.3, Sarkaghat 6.2, Rampur Bushar 6, Bhareri 5.4, Una 5.4, Saloni 5.2, Bharmaur 5, Sujanpur Tira 4.5, Mandi 4.4, Bhoranj 4, Jogindarnagar 4, Chhatrari 2.8, Narkanda Aws 2.5, Kasol 2, Nagrota Surian 1.2, Nahan 1.2, Dalhousie Aws 1, Nadaun 1, Sunibhajji 1, Jatton Barrage 1, Koksar 0.8, Bilaspur Aws 0.5, Barthin 0.2
11-08-2025	Nalagarh 56, Bilaspur Sadar 50.2, Kheri 33.4, Sarahan 30, Chuari 26.2, Rajgarh 20, Hamirpur 19, Aghar 16, Dehra Gopipur 16, Baldwara 16, Tinder 15, Dharmshala 14.8, Sarkaghat 14.7, Ghumarwin 14, Bajaura Aws 10.5, Palampur 9.6, Kothi 9.6, Kasol 9, Kahu 8.5, Gohar 8, Mandi 7.4, Jubberhatti 7, Theog 6, Kangra 5.4, Shimla 4.2, Sundarnagar 3.7, Pooh 3.2, Koksar 3, Jogindarnagar 3, Shillaro 3, Kalpa 2.2, Chamba Aws 2, Bijahi 2, Kasauli 2, Sangla 1.8, Reckong Peo Aws 1.5, Nagrota Surian 1.4, Wangtoo 1.4, Dharampur 1.4, Nadaun 1.2, Kandaghat 1.2, Nahan 1.1, Sujanpur Tira 1, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.4, Kufri 0.4, Moorang 0.3, Barthin 0.2

12-08-2025	Nagrota Surian 180.2, Guler 161.2, Ghamroor 112.2, Sandhole 78.8, Nadaun 78.5, Dehra Gopipur 76.2, Jogindarnagar 74, Kangra 73.8, Bhareri 70.2, Palampur 69, Sujanpur Tira 66, Bijahi 65.2, Kataula 56.2, Shillaro 54, Kandaghat 52.8, Theog 50.6, Chuari 48.3, Naina Devi 46.4, Shimla 45.6, Dharmshala 42.5, Mandi 42.2, Hamirpur 41, Kufri 39.8, Una 38.4, Kasauli 38, Bharwain 38, Dharampur 36.8, Jubberhatti 36.2, Kahu 35.3, Aghar 34, Solan 33, Sarahan 30.5, Pandoh 29.5, Narkanda Aws 28.5, Sundarnagar 27.3, Gohar 27, Bharmaur 26.7, Jubbal 25.4, Karsog 24, Sunibhajji 23, Kotkhai 22.3, Chhatrari 22.1, Pachhad 22, Saloni 21.2, Kheri 21, Bilaspur Sadar 20.8, Nalagarh 20, R L Bbmb 19.6, Barthin 18.8, Amb 18.8, Tissa 18, Kothi 17.4, Nahan 17.2, Mehre (Barsar) 17, Bangana_R 16, Janjehli 15, Sarkaghat 12.2, Moorang 10.2, Bhoranj 10, Manali 10, Sangla 8.6, Paonta 8.4, Banjar 8.2, Chamba Aws 8, Bajaura Aws 7.5, Rampur Bushar 7.2, Kasol 7, Kumarsain 6.4, Kalpa 6, Nichar 5.4, Reckong Peo Aws 5, Wangtoo 4.8, Bhuntar 4.8, Jatton Barrage 4.2, Renuka / Dadhau 3.8, Koksar 3, Kukumsheri Aws 2.8, Seo Bagh 2.4, Keylong 2
13-08-2025	Baldwara 31, Tinder 25, Kasauli 23, Naina Devi 18.2, Bhoranj 15, Sarahan 15, Karsog 13.2, Theog 10, Dharampur 7.2, Bajaura Aws 7, Jogindarnagar 5, Dharmshala 4.4, Tissa 4.2, Bijahi 4.2, Una 4.2, Sundarnagar 3.6, Kothi 3.4, Gohar 3, Kangra 2.8, Pandoh 2.5, Bilaspur Sadar 2.2, Kheri 2.2, Nagrota Surian 2.2, Khadrala 2.2, Bharmaur 2, Banjar 2, Bangana_R 2, Jubberhatti 1.8, Narkanda Aws 1.5, Chuari 1.3, Kalpa 1.3, Guler 1.2, Shimla 1.2, Paonta 1.2, R L Bbmb 1, Chamba Aws 1, Palampur 1, Reckong Peo Aws 1, Shillaro 1, Bilaspur Aws 0.5, Barthin 0.4, Kotkhai 0.1
14-08-2025	Pachhad 153.2, Rajgarh 102, Kandaghat 100, Jatton Barrage 87, Una 85.4, Solan 81.4, Kotkhai 77.4, Shillaro 73, Jubbal 72.6, Shimla 69, Kufri 66, Jubberhatti 65.2, Renuka / Dadhau 64.6, Banjar 62, Kasauli 62, Kothi 61.2, Nalagarh 60, Sarkaghat 59.4, R L Bbmb 59.2, Amb 59, Theog 58.8, Rohru 55, Naina Devi 54.2, Dharampur 50.2, Sangraha 50, Paonta 49, Pandoh 44, Karsog 43.1, Kahu 41.5, Kumarsain 40.8, Bharwain 40, Narkanda Aws 39.5, Bhareri 37.2, Tinder 35, Nahan 33.3, Baldwara 33, Barthin 32.6, Nadaun 32.4, Bangana_R 31.4, Bilaspur Sadar 30.8, Sarahan 29, Sujanpur Tira 25.4, Manali 25, Dehra Gopipur 24.3, Jogindarnagar 24, Hamirpur 23, Tissa 20, Sundarnagar 19.5, Kasol 19, Kukumsheri Aws 18.2, Gondla 16.2, Bharmaur 15, Sunibhajji 14, Mandi 13.4, Palampur 13, Kangra 12.5, Mehre (Barsar) 12, Ghamroor 11.8, Dharmshala 10.8, Aghar 10, Bhoranj 10, Hansa 10, Pooh 9.4, Bajaura Aws 7.5, Bijahi 7.4, Khadrala 6.2, Guler 5.8, Sangla 5.8, Rampur Bushar 5.4, Gohar 5, Saloni 4.2, Wangtoo 4.2, Bhuntar 4, Nagrota Surian 3.8, Moorang 3.7, Nichar 3.5, Reckong Peo Aws 2.5, Chhatrari 2.4, Kalpa 2.2, Chamba Aws 2, Janjehli 2, Seo Bagh 1, Keylong 1, Bilaspur Aws 0.5
15-08-2025	Jogindarnagar 106, Palampur 102.4, Bhareri 75.4, Kheri 73.2, Kataula 67.2, Narkanda Aws 66, Dharmshala 65.5, Naina Devi 64.8, Kangra 62.8, Nahan 57.7, Kothi 54.6, Bijahi 50, Mandi 49.8, Pandoh 46, Sarahan 40.5, Shillaro 40, Hamirpur 37, R L Bbmb 36.4, Ghumarwin 34, Chuari 32.6, Rohru 30, Pachhad 30, Sarkaghat 28.3, Janjehli 28, Reckong Peo Aws 27, Dehra Gopipur 26, Kasauli 26, Kalpa 25.2, Baldwara 25, Gohar 25, Bhuntar 24.3, Rampur Bushar 24, Sangla 23.4, Kotkhai 23, Barthin 21.6, Chamba Aws 21, Sundarnagar 20.3, Sujanpur Tira 20, Solan 19.8, Shimla 19.7, Jatton Barrage 19.4, Bangana_R 19, Bilaspur Sadar 18.8, Renuka / Dadhau 18.6, Nadaun 18.5, Manali 18.4, Kufri 18.4, Dharampur 18, Khadrala 16.4, Pooh 16, Chhatrari 15.6, Nichar 15.5, Keylong 15, Theog 15, Sangraha 15, Bharwain 15, Kahu 14.3, Wangtoo 14.2, Kasol 14, Nagrota Surian 13.4, Bhoranj 13, Guler 12.6, Seo Bagh 12, Sunibhajji 12, Una 11.8, Koksar 11.6, Kandaghat 11.4, Jubberhatti 11, Tissa 10, Karsog 10, Gondla 9.4, Jubbal 9.2, Paonta 8.2, Bajaura Aws 6.5, Banjar 6.4, Saloni 6.3, Mehre (Barsar) 6, Kumarsain 5.6, Bharmaur 5, Tinder 5, Moorang 3.5, Amb 3.4, Bilaspur Aws 0.5
16-08-2025	Naina Devi 160.6, Palampur 101.4, Sandhole 80.2, Pandoh 72.4, Mandi 62.4, Kataula 60.1, Kothi 48.2, Ghumarwin 45, Gohar 35, Nalagarh 35, Bhareri 32.4, Jogindarnagar 32, Dharmshala 28.4, Karsog 28.2, Sarahan 28, Bilaspur Sadar 25.8, Tinder 25, Kheri 23, Nahan 22.9, Sumdo 20, Paonta 19.4, Chhatrari 16.4, Sujanpur Tira 16, Chuari 12.4, Dharampur 12.4, Banjar 12, Baldwara 12, Kasauli 11.2, R L Bbmb 10.2, Kahu 10, Aghar 10, Nichar 9.4, Kangra 9.2, Bhoranj 9, Theog 8, Sarkaghat 7.7, Bharmaur 7, Bajaura Aws 6.5, Barthin 6.4, Dehra Gopipur 6.3, Bijahi 6, Bhuntar 5.4, Tissa 5, Shillaro 3.6, Pachhad 3, Kandaghat 2.4, Renuka / Dadhau 2.3, Chamba Aws 2, Keylong 2, Koksar 2, Narkanda Aws 2, Jatton Barrage 2, Sangraha 2, Bangana_R 1.4, Manali 1.2, Jubberhatti 1.2, Kasol 1, Kalpa 0.8, Seo Bagh 0.8, Rampur Bushar 0.8, Sundarnagar 0.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Sangla 0.2, Kotkhai 0.2, Shimla 0.2
17-08-2025	Kataula 116.3, Kangra 110.8, Nagrota Surian 107, Nahan 103.2, Jogindarnagar 84, Nalagarh 80, Paonta 69.8, Kheri 67.6, Dhaulakuan 67, Bhuntar 63.3, Palampur 60.4, Guler 57, Kasol 49, Renuka / Dadhau 49, Seo Bagh 48.6, Banjar 45.2, Bhareri 44.6, Sujanpur Tira 43.5, Sarahan 35.5, Kumarsain 35.4, Karsog 35, Pandoh 32, Rohru 30, Narkanda Aws 27, Mandi 26, Bijahi 24.4, Chuari 22.4, Bhoranj 21, Dharmshala 20.6, Tinder 18, Nadaun 17.5, Jubbal 15.4, Tissa 15, Jatton Barrage 15, Bharwain 14.2, Baldwara 14, Nichar 13.5, Hamirpur 13, Pachhad 13, Barthin 12.2, Dehra Gopipur 12, Janjehli 12, Kothi 11.4, Bilaspur Sadar 10.4, Sangraha 10, Chhatrari 8.9, Manali 8, Gohar 8, Kotkhai 7.2, Shillaro 6.8, Saloni 6.2, Kalpa 6.2, Bajaura Aws 6, Rampur Bushar 5.2, Naina Devi 4.4, Kufri 4.4, Amb 4.4, Kahu 4.1, Bangana_R 3.6, Theog 3.4, Sundarnagar 3.3, Ghamroor 3.2, Mehre (Barsar) 3, Sarkaghat 2.1, Reckong Peo Aws 1.5, Sangla 1.2, Shimla 1, Solan 0.6, Bilaspur Aws 0.5, Jubberhatti 0.4
18-08-2025	Dhaulakuan 113, Aghar 80, Sangraha 72, Kheri 62.4, Chuari 58.9, Palampur 58.2, Nalagarh 55, Baldwara 54, Jatton Barrage 49.4, Kasol 44, Paonta 40.6, Khadrala 36.4, Saloni 35.3, Tinder 35, Gohar 32, Nahan 30.1, Sarahan 28.5, Ghumarwin 27, Renuka / Dadhau 27, Jogindarnagar 25, Dharmshala 24.7, Hamirpur 23, Manali 23, Bhuntar 22, Rohru

	18, Chhatrari 15.4, Tissa 15, Karsog 14.4, Kufri 13.4, Rajgarh 13, Jubbal 12.6, Pachhad 12.3, Bhoranj 11, Bijahi 10.4, Pandoh 10, Shimla 10, Bhareri 9.8, Kataula 8.1, Bharmaur 8, Chamba Aws 8, Bajaura Aws 7, Kothi 6.8, Sundarnagar 6.3, Bharwain 5.6, Narkanda Aws 5.5, Sujanpur Tira 5, Solan 5, Seo Bagh 4.8, Banjar 4.2, Rampur Bushar 4, Sangla 3.4, Kotkhai 3.4, Kukumsheri Aws 3.1, Bilaspur Sadar 2.8, Wangtoo 2.8, Kumarsain 2.8, Kangra 2.7, Amb 2.6, Shillaro 2.4, Jubberhatti 2.4, Kandaghat 2.4, Mandi 2.2, Barthin 2, Mehre (Barsar) 2, Bangana_R 2, Janjehli 1, Theog 1, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
19-08-2025	Jubberhatti 73, Amb 56, Bhuntar 44.8, Bilaspur Sadar 40.2, Shimla 38, Kasol 33, Seo Bagh 32, Banjar 30, Kothi 25.4, Bhareri 23, Kufri 21.2, Tissa 20, Bijahi 18.6, Kangra 18.2, Barthin 17.6, Jogindarnagar 16, Kumarsain 15.4, Kahu 11.8, Sarahan 10.5, Dharmshala 9.5, Bajaura Aws 8.5, Janjehli 8, Jubbal 7.6, Nichar 7.5, Dehra Gopipur 7.2, Una 7.2, Wangtoo 6.8, Palampur 6, Sundarnagar 5.3, Bhoranj 5, Tinder 5, Kotkhai 4.3, Bharmaur 4, Nagrota Surian 3.8, Kheri 3.2, Chamba Aws 3, Sangla 2.6, Bangana_R 2.4, Ghamroor 2.2, Chhatrari 2.1, Kataula 2.1, Narkanda Aws 2, Sunibhajji 2, Aghar 1.8, Guler 1.8, Mandi 1.8, Manali 1.4, Gondla 1.2, Kalpa 1, Bilaspur Aws 0.5, Bharwain 0.5
20-08-2025	Amb 150, Bharwain 68, Dehra Gopipur 63, Palampur 60.4, Bangana_R 60, Solan 56, Guler 55.8, Bilaspur Sadar 50.8, Jubberhatti 47.2, Naina Devi 46.6, Nadaun 40, Wangtoo 39.2, Kataula 38.4, Jogindarnagar 38, Nagrota Surian 37.4, Sujanpur Tira 36.4, Pachhad 36, Pandoh 31.5, Renuka / Dadhau 30, Kangra 27.8, Seo Bagh 24.4, Bhoranj 22, Shimla 21, Jatton Barrage 20, Mandi 18.2, Ghumarwin 18, Nahan 15.9, Kufri 14.8, Kahu 13.3, Kheri 13, Nichar 12.4, Kasauli 12.2, Bharmaur 12, Sangraha 11, Kothi 10, Barthin 9.4, Kasol 9, Rajgarh 9, Bhuntar 8.8, Bajaura Aws 8, Shillaro 6.5, Paonta 6.4, Sangla 6.2, Chuari 6, Hamirpur 6, Jubbal 5.2, Manali 5, Tinder 5, Dharmshala 4.4, Dharampur 4.2, Mehre (Barsar) 4, Narkanda Aws 3.5, Banjar 3, Kalpa 2.8, Kukumsheri Aws 2.8, Reckong Peo Aws 2, Kandaghat 1.8, Sarkaghat 1.7, Chhatrari 1.4, Koksar 1.1, Chamba Aws 1, Keylong 1, Bilaspur Aws 0.5, Sundarnagar 0.5, Rampur Bushar 0.4
21-08-2025	Una 132.6, Naina Devi 54.6, Sujanpur Tira 53, Amb 42, Nadaun 41.5, Paonta 38, Nalagarh 34, R L Bbmb 28.4, Tinder 25, Bangana_R 22.2, Bharwain 22, Kumarsain 20.6, Rohru 17, Dharampur 16.4, Hamirpur 16, Mehre (Barsar) 13, Aghar 11.6, Palampur 11.3, Jogindarnagar 11, Dehra Gopipur 10.2, Kasauli 10, Guler 9.8, Nagrota Surian 9, Shillaro 8.8, Bhareri 8.2, Kangra 7.8, Dharmshala 7.4, Nahan 7.1, Pachhad 7, Bajaura Aws 6.5, Sunibhajji 5.4, Narkanda Aws 5, Jatton Barrage 4.4, Barthin 4.2, Kufri 3.4, Solan 3, Bilaspur Sadar 2.4, Sangla 2.4, Mandi 2.4, Jubbal 2.4, Chamba Aws 2, Kasol 2, Seo Bagh 2, Bijahi 2, Kataula 2, Sangraha 2, Kahu 1.8, Bhuntar 1.8, Shimla 1.8, Pandoh 1.5, Sundarnagar 1.2, Jubberhatti 1.1, Dalhousie Aws 1, Manali 0.8
22-08-2025	Tinder 35, Manali 18, R L Bbmb 15.6, Bangana_R 15, Kufri 14.6, Bajaura Aws 7.5, Jubberhatti 3.6, Una 2.8, Narkanda Aws 1.5, Bilaspur Aws 1, Shimla 0.3
23-08-2025	Nalagarh 65, Nadaun 58.6, Bijahi 47.4, Bangana_R 47, Jogindarnagar 45, Jatton Barrage 44.2, Bharwain 40.4, Nagrota Surian 39.2, Kangra 35.7, Naina Devi 34.8, Paonta 33, Renuka / Dadhau 32, Baldwara 31, Tinder 30, Chuari 22.2, Amb 20, Rajgarh 19, Dharmshala 15.8, Ghumarwin 11, Palampur 11, Nahan 10.9, Tissa 10, Sangraha 10, Bajaura Aws 7.5, Gohar 5, Ghamroor 4.6, Sujanpur Tira 4.4, R L Bbmb 3.2, Theog 3.2, Una 2.6, Shillaro 2.4, Dehra Gopipur 2, Banjar 2, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.1
24-08-2025	Kheri 129, Pandoh 123, Kasauli 105, Sarkaghat 80.5, Karsog 68, Mandi 68, Amb 60, Hamirpur 58, Kataula 57.3, Jogindarnagar 54, Nadaun 52.8, Sunibhajji 50, Dharampur 44.6, Chuari 40.6, Nalagarh 40, Kotkhai 39.4, Palampur 33.2, Gohar 32.4, Saloni 32.1, Sarahan 30, Bijahi 27.6, Kumarsain 25.4, Dehra Gopipur 25, Kothi 25, Tissa 24.3, Chamba Aws 24, Manali 21, Janjehli 20, Seo Bagh 19.8, Una 18.2, Rohru 17, Bhuntar 16.6, Kangra 16.2, Bilaspur Sadar 15.2, Tinder 15, Baldwara 15, Sundarnagar 14.8, Sujanpur Tira 14.5, Bharmaur 14, Banjar 14, Bhareri 12.8, Jubbal 12.6, Jatton Barrage 12, Aghar 11.8, Pachhad 11, Sangla 10.2, Shillaro 10, Kalpa 8.4, Nichar 8, Solan 7.8, Chhatrari 7.6, Bajaura Aws 7.5, Nagrota Surian 7, Narkanda Aws 7, Rampur Bushar 7, Wangtoo 6.4, Dharmshala 5.8, Guler 5.8, Reckong Peo Aws 5.5, Jubberhatti 5.4, Bharwain 5, Kufri 4.5, Naina Devi 4.2, Renuka / Dadhau 4.2, Shimla 4, Kukumsheri Aws 3.9, Kasol 3, Khadrala 3, R L Bbmb 2.4, Ghamroor 2.4, Gondla 2.4, Theog 2.4, Barthin 2.2, Moorang 2, Keylong 2, Paonta 2, Sangraha 2, Kandaghat 2, Bangana_R 1.8, Kahu 1.6, Bilaspur Aws 0.5
25-08-2025	Kahu 190.5, Ghumarwin 160, Barthin 156.4, Naina Devi 148.4, Kheri 142, Bilaspur Sadar 140.8, Chuari 140.2, Mehre (Barsar) 127, Amb 111, Aghar 110.6, Bangana_R 104, Ghamroor 95.8, Bharwain 94.4, Nadaun 94, Hamirpur 92, Dharmshala 87.4, Bhareri 85.9, Sandhole 85.2, Kasauli 85, Sundarnagar 84.2, Baldwara 84, Saloni 83.3, Una 80.8, Sujanpur Tira 80, Nalagarh 75, Dharampur 68.6, Dehra Gopipur 68.3, Chamba Aws 67, R L Bbmb 66, Palampur 65.4, Kangra 61.6, Nagrota Surian 60.8, Sangraha 60, Bijahi 57, Guler 54.6, Jogindarnagar 54, Mandi 49, Gohar 47, Kothi 46, Banjar 45, Bharmaur 43.6, Chhatrari 39.6, Sunibhajji 38, Manali 37, Kukumsheri Aws 35.6, Sarahan 35.5, Tinder 35, Jubberhatti 35, Kandaghat 32.4, Karsog 32.1, Pandoh 32, Sarkaghat 31.2, Kasol 31, Gondla 30.4, Kumarsain 30.2, Keylong 30, Kataula 29.3, Seo Bagh 29, Rajgarh 28, Janjehli 26, Rohru 25, Kufri 24.6, Bhuntar 23.8, Jubbal 22.4, Rampur Bushar 22.4, Kotkhai 22.3, Shimla 21.3, Tissa 20, Theog 20, Solan 17.2, Narkanda Aws 16.5, Shillaro 15.8, Pachhad 14.4, Nahan 13.1, Renuka / Dadhau 8.7, Nichar 6, Jatton Barrage 5.2, Paonta 5, Wangtoo 4.2, Hansa 4, Kalpa 3.8, Sangla 3.8, Bajaura Aws 2.5, Khadrala 1.8, Reckong Peo Aws 1.5, Bilaspur Aws 0.5, Moorang 0.2

26-08-2025	Naina Devi 160.8, Kheri 128.6, Chuari 125.2, Dharmshala 102, Manali 102, Ghamroor 91.4, Kangra 89, Nagrota Surian 88.8, Palampur 88, Kothi 85.8, Bharwain 85, Tissa 80, Bhuntar 77.2, Gondla 75.6, Chamba Aws 74, Sangraha 72, Guler 71.8, Kukumsheri Aws 71.5, Seo Bagh 70.8, Kumarsain 70.6, Karsog 65.2, Kasol 65, Ghumarwin 62, Renuka / Dadhau 61, Sujanpur Tira 60.6, Rohru 60, Jogindarnagar 59, Nadaun 58.2, Koksar 58, Dehra Gopipur 57, Banjar 57, Aghar 55, Barthin 52.8, Bangana_R 52, Sundarnagar 51.3, Jatton Barrage 51, Hamirpur 49, Kotkhai 43.1, Amb 43, Paonta 41.2, Narkanda Aws 40.5, Bilaspur Sadar 40.2, Janjehli 40, Kufri 39, Saloni 38.4, Sarahan 37.5, Pachhad 37.4, Mandi 36.6, Keylong 35.5, Mehre (Barsar) 35, Baldwara 34, Una 34, Bhareri 33.2, Pandoh 33, Shillaro 33, Sunibhajji 32.8, Kahu 30.5, Bijahi 30.4, Theog 30, Shimla 28.8, Jubbal 28.4, Kasauli 28.2, R L Bbmb 28, Gohar 25, Dharampur 22.4, Nichar 22, Solan 19.2, Kandaghat 18.4, Hansa 15, Rampur Bushar 14.2, Sarkaghat 13.8, Sangla 10.6, Jubberhatti 8.6, Wangtoo 8.4, Nahan 7.6, Kalpa 6.6, Bajaura Aws 5.5, Khadrala 5, Moorang 3.2, Reckong Peo Aws 3, Bilaspur Aws 0.5
27-08-2025	Kheri 89.2, Kothi 69, Saloni 65.2, Chamba Aws 51, Nalagarh 45, Dharmshala 40.4, Kukumsheri Aws 33.2, Gondla 31.8, Tissa 29, Keylong 29, Chuari 27.4, Koksar 27, Naina Devi 26.8, Sangraha 26, Palampur 22.4, Kangra 21.6, Bilaspur Sadar 20.4, Kataula 20.2, Amb 20, Dehra Gopipur 18.4, Karsog 18, Nagrota Surian 15, Seo Bagh 15, Sujanpur Tira 14, Bijahi 13.2, Hansa 12, Guler 11.2, Kasol 11, Barthin 10.4, Bhuntar 10.4, Ghumarwin 10, Wangtoo 10, Baldwara 10, Jogindarnagar 10, Mandi 6.4, Solan 6.4, Reckong Peo Aws 6, Bharwain 6, Kalpa 5.9, Sangla 5.4, Kumarsain 5.4, Jatton Barrage 5.4, Bajaura Aws 5, Narkanda Aws 5, Ghamroor 4.6, Una 4.4, Bhareri 3.8, Nadaun 3.6, Sundarnagar 3.6, Gohar 3, Kasauli 3, Kahu 2.6, Pandoh 2.5, Aghar 2.4, R L Bbmb 2, Janjehli 2, Dharampur 2, Jubbal 1.6, Nichar 1.5, Kufri 1.4, Kotkhai 1.3, Sunibhajji 1.2, Pachhad 1.2, Mehre (Barsar) 1, Shillaro 1, Kandaghat 1, Bangana_R 1, Shimla 0.6, Theog 0.6, Bilaspur Aws 0.5, Renuka / Dadhau 0.3
28-08-2025	Pandoh 108, Bhareri 63.8, Nalagarh 60, Mandi 56.8, Gohar 53, Naina Devi 36.6, Saloni 33.3, Sarahan 30.5, Manali 25, Koksar 19, Sarkaghat 18.5, Baldwara 18, Rampur Bushar 18, Amb 15.4, Sundarnagar 11.9, Sunibhajji 11.6, Kataula 10.2, Hamirpur 9, Shillaro 9, Aghar 8.6, Kasauli 8.2, R L Bbmb 8, Bhuntar 8, Narkanda Aws 7.5, Jubberhatti 7.3, Bajaura Aws 5.5, Jogindarnagar 5, Nadaun 2.8, Shimla 2.4, Bilaspur Sadar 2.2, Ghamroor 2.2, Kahu 2, Dehra Gopipur 2, Kasol 2, Kufri 2, Jatton Barrage 2, Nagrota Surian 1.8, Chamba Aws 1, Guler 1, Seo Bagh 1, Barthin 0.6, Berthin Agro 0.5, Bangana_R 0.4
29-08-2025	Jatton Barrage 138, Renuka / Dadhau 114, Palampur 91.4, Bharwain 80, Sandhole 77.8, Paonta 75, Kataula 73.4, Sangraha 70, Rajgarh 65, Kasauli 62, Nahan 60.8, Solan 57.8, Gohar 55.6, Bilaspur Sadar 50.4, Nagrota Surian 48.2, Kahu 45.5, Pachhad 43, Bijahi 42, Sarahan 37.5, Pandoh 36, Bhareri 35.6, Rohru 29, Sunibhajji 28, Manali 27, Kothi 25, Kangra 24.8, Jogindarnagar 23, Dharampur 22.6, Dehra Gopipur 21.4, Nalagarh 20, Kasol 19, Janjehli 18, Kandaghat 18, Kheri 16, Mehre (Barsar) 15, Sundarnagar 14.7, Karsog 14.1, Narkanda Aws 13.5, Dharmshala 10.8, Kumarsain 10.6, Nichar 10.5, Sangla 10.2, Rampur Bushar 10, Kalpa 8.6, Shimla 8.5, Kufri 7.8, Nadaun 7.4, Koksar 7.2, Amb 7, Reckong Peo Aws 6.5, Bajaura Aws 6.5, Naina Devi 6.4, Shillaro 6.4, Mandi 6.2, Bangana_R 6.2, Jubberhatti 5.2, Moorang 4.7, Kotkhai 4.3, Sujanpur Tira 3.6, Chuari 3.2, Guler 2.6, Barthin 2.2, Chamba Aws 2, Bhuntar 2, Baldwara 2, Theog 2, Una 1.6, Seo Bagh 0.6, Bilaspur Aws 0.5
30-08-2025	Chuari 104, Jogindarnagar 86, Rampur Bushar 75.5, Dharmshala 69.4, Bijahi 63.4, Shimla 62, Kataula 60.1, Nahan 60.1, Palampur 60, Theog 59, Kheri 54, Sarahan 45.5, Kumarsain 45.4, Nichar 44.5, Gohar 43, Shillaro 41.4, Kangra 40.8, Narkanda Aws 40, Khadrala 38.2, Sunibhajji 29.6, Kothi 28, Kufri 26, Kotkhai 25.2, Nagrota Surian 24.4, Manali 24, Baldwara 24, Jatton Barrage 23, Rohru 18, Kasol 16, Paonta 14.8, Kalpa 14.6, Sundarnagar 14.1, Chamba Aws 14, Sujanpur Tira 13, Jubbal 11.4, Pandoh 11, Reckong Peo Aws 10, Keylong 10, Koksar 8.9, Bhuntar 8.6, Jubberhatti 8, Sangla 7.6, Kandaghat 7.2, Mandi 6.2, Gondla 5.4, Bharwain 5.2, Seo Bagh 5, Renuka / Dadhau 5, Guler 4.8, Bhareri 4.2, Pooh 4.2, Bajaura Aws 3.5, Kahu 3.2, Dehra Gopipur 3, Nadaun 2.5, Kukumsheri Aws 2.1, Bilaspur Aws 0.5
31-08-2025	Naina Devi 82.8, R L Bbmb 80, Chuari 75.2, Kumarsain 60.8, Jogindarnagar 59, Kangra 45.4, Sarahan 44, Kandaghat 43.8, Nalagarh 42, Una 37.2, Kufri 35, Kahu 34.6, Bangana_R 34.6, Palampur 32, Nagrota Surian 25.5, Mehre (Barsar) 24, Nadaun 22.5, Shillaro 20, Rajgarh 20, Bijahi 19.4, Aghar 18.6, Shimla 18.2, Manali 18, Narkanda Aws 17.5, Kataula 16.3, Jubberhatti 16.2, Mandi 15.8, Sujanpur Tira 15.5, Gohar 15, Rohru 15, Baldwara 14, Sundarnagar 13.8, Paonta 12.6, Bharwain 12.6, Dehra Gopipur 12.3, Barthin 12.2, Pandoh 10.5, Ghamroor 9.8, Dharmshala 8.8, Bhareri 8.2, Kotkhai 8.1, Kasauli 8, Nahan 7.6, Rampur Bushar 7.5, Nichar 7.4, Jatton Barrage 7.4, Guler 7.2, Dharampur 6.2, Bajaura Aws 6, Bilaspur Sadar 5.8, Sangla 5.8, Pachhad 5.3, Bhuntar 5, Sarkaghat 4.8, Solan 4.4, Kothi 3.2, Keylong 3, Seo Bagh 2.6, Chamba Aws 2, Hansa 2, Gondla 2, Kalpa 1.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5

8. Forecast for Next 7 Days

Light to moderate rainfall very likely at most places on 01st & 02nd September 2025. Light to moderate rainfall likely at many places on 03rd September 2025 and at few places from 04th to 07th September 2025. One or two spells of heavy rain likely at few places from 01st to 03rd September 2025 and one or two spells of very heavy rain likely at few places on 01st & 02nd September 2025. One or two spells of extremely heavy rain likely at isolated places on 01st September 2025.

With Regards
Meteorological Centre Shimla

Note: Forecast/Warning for any day is valid from 0830 hours IST of that day till 0830 hours IST of next day

WARNING	PROBABILISTIC FORECAST		SPATIAL		RAINFALL INTENSITY	
[illegible]	Terms	Probability of Occurrence	DRY	No Rainfall	Light	2.5-15.5 mm
ALERT (BE PREPARED)	Unlikely	<25%	ISOLATED	1-25%	Moderate	15.6-64.4 mm
WATCH (BE UPDATED)	Likely	25-50%	FEW	26-50%	Heavy	64.5-115.5 mm
NO WARNING (NO ACTION)	Very Likely	50-75%	MANY	51-75%	Very Heavy	115.6-204.4 mm
	Most Likely	>75%	MOST	76-100%	Extremely Heavy	>204.5 mm

For more information kindly visit:

Website:https://mausam.imd.gov.in/shimla/
Twitter-https://twitter.com/himachalmausam
Facebook-https://www.facebook.com/profile.php?id=100018411811087

Annexure-5

400KV S/C Chamera 2 Kishenpur

05:44 Hrs of 06.09.2025

To

22:10 Hrs of 18.09.2025

Line restored on ERS in 12 Daya 17 Hrs

Line tripped due to collapse of Tower at LOC No 238

Tower collapsed due to unequal settlement /sinking of land near and around the tower due to incasent rains /landslides in the area

11-Sep-2025 9:50:38 am
32.53945871N 75.79737107E
Unnamed Road

6 Sept 2025 10:40:55 am
32.5394945792556N 75.797518026083 71E
158° S
Unnamed Road
Altitude:647.0m
Speed:0.0km/h
Index number: 2891

PHOTO OF TOWER NAME PLATE AND TOWER STUBS

+

CRACKS IN LAND NEAR TOWER DUE TO UNEQUAL SETTLEMENT

CRACKS IN LAND NEAR TOWER

26 Sept 2025 12:57:45 pr
32.53947474N 75.7976401
336° NV
Unnamed Roa
Altitude:642.0msnr
Speed:0.0km/
Index number: 61

PHOTO SHOWING MASS HILL SINKING WITHIN 500 MTR AREA FROM TOWER

PHOTO SHOWING MASS HILL SINKING WITHIN 500 MTR AREA FROM TOWER

PHOTO SHOWING MASS HILL SINKING WITHIN 500 MTR AREA FROM TOWER

VIDEO SHOWING MASS HILL SINKING WITHIN 500 MTR AREA FROM TOWER

Video showing mass sinking.mp4	Video Near Tower.mp4

IMD REPORT:- HIMACHAL PRADESH HAD RECEIVED 9TH HIGHEST SINCE 1901

Govt. of India,
Ministry of Earth Sciences,
India Meteorological Department,
Meteorological Centre,
Shimla-171004

Monthly Weather Report (August 2025)

1. Weather summary

- Himachal Pradesh has received **widespread** precipitation during many days of August month with **normal to active** activity on many days; **vigorous** activity on 2 days (dated 25th & 26th August 2025) and **weak** activity on 5 days (dated 08th, 10th, 11th, 13th and 22nd August 2025).
- Himachal Pradesh has received the **9th highest rainfall** (431.3 mm) in August since 1901. This is the **highest August rainfall since 1949**, with the highest ever recorded in **1927** (542.4 mm).

2. Monthly precipitation and departure-

- The State received **large excess** precipitation **(68%)** with **431.3 mm** actual rainfall against **256.8 mm** normal rainfall in August month.
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.

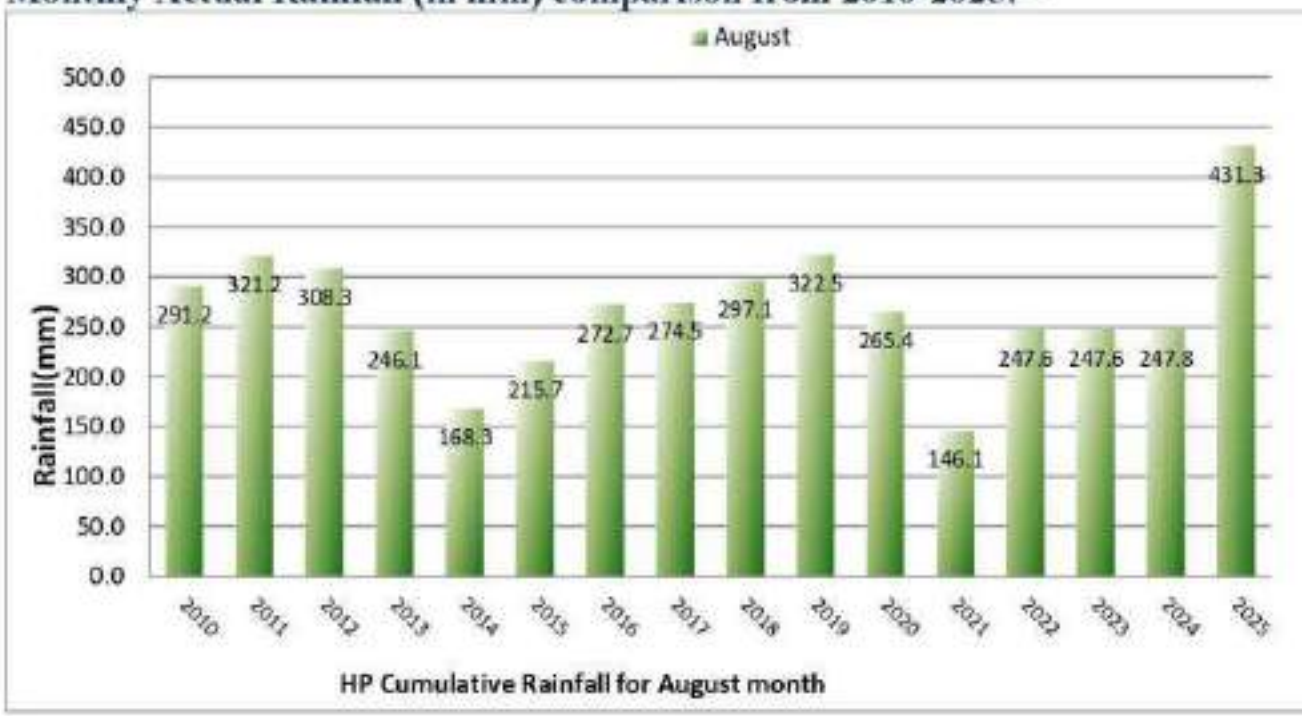
❖ Himachal Pradesh has received

- **Extremely Heavy rain** (in mm) in Una (distt. Una) 222.8 on 02nd August, 2025

3. District wise monthly rainfall (in mm) and Departure (in %)

(01st August to 31st August) 2025			
DISTRICTS	Actual (in mm)	Normal (in mm)	Dep (in%)
BILASPUR	598.7	316.8	89
CHAMBA	561.6	291.7	93
HAMIRPUR	617.9	400.6	54
KANGRA	816.2	631.5	29
KINNAUR	143.3	77.6	85
KULLU	477.5	180.2	165
LAHAUL & SPITI	129.7	117.6	10
MANDI	667.9	395.3	69
SHIMLA	438	196.4	123
SIRMAUR	557.5	402.1	39
SOLAN	627.9	287.9	118
UNA	815.1	372.2	119
HP	431.3	256.8	68

4. Monthly Actual Rainfall (in mm) comparison from 2010-2025: -



NEWSPAPER CUTTING INDICATING CLOUD BRUSTS IN CHAMBA ABOUT 40KM ABOVE CHAMERA

INDIA

Landslides, flash floods leave trail of destruction in Himachal Pradesh

Synopsis

Heavy rainfall in Himachal Pradesh triggered devastating landslides and flash floods, washing away shops, collapsing buildings, and cutting off highways. The state witnessed multiple flash floods across Lahaul and Spiti, Kullu, and Kangra districts, along with a cloudburst in Chamba. Hundreds of roads are closed, and essential services like electricity and water supply have been severely disrupted.

हिमाचल में भारी बारिश से हाहाकार; चंबा में बादल फटा, कांगड़ा में भी आफत- VIDEO

हिमाचल प्रदेश में भारी बारिश से कई जिलों में हालात खराब हो गए हैं। मौसम विभाग का कहना है कि अभी जोरदार बारिश का दौर जारी रहेगा। बीते 24 घंटे में मंडी जिले के पंडोह में सबसे ज्यादा 123 मिमी बारिश हुई है। विस्तृत जानकारी के लिए पढ़ें यह रिपोर्ट...

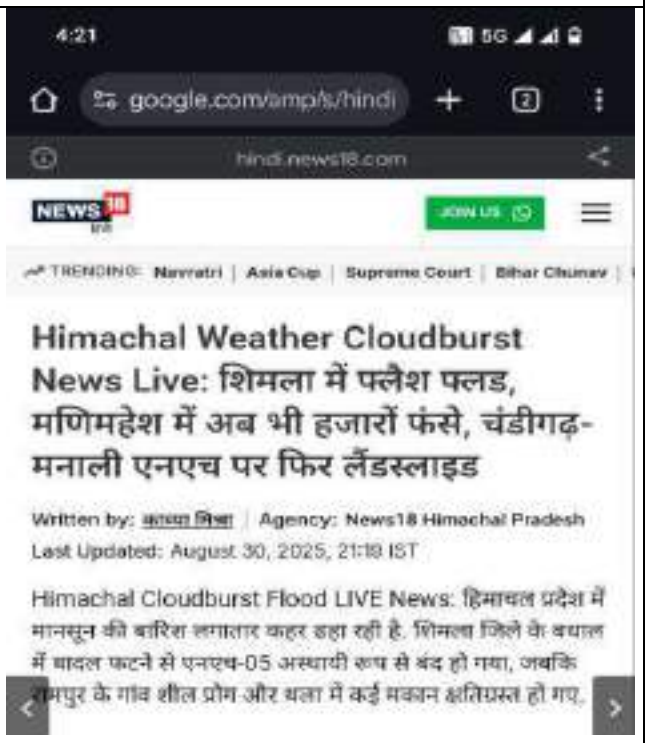
Sun, 24 Aug 2025, 08:37 PM

Krishna Bihari Singh

जागरण

Chamba Cloudburst: मलेई क्षेत्र में बादल फटने से तबाही, चार पुल व वाहन बहे, खौफनाक वीडियो आया सामने

BY JAGRAN NEWS | EDITED BY: RAJESH KUMAR SHARMA



Himachal Weather Cloudburst News Live: शिमला में फ्लैश फ्लड, मणिमहेश में अब भी हजारों फंसे, चंडीगढ़-मनाली एनएच पर फिर लैंडस्लाइड

Written by: Agency: News18 Himachal Pradesh

Last Updated: August 30, 2025, 21:18 IST

Himachal Cloudburst Flood LIVE News: हिमाचल प्रदेश में मानसून की बारिश लगातार कहर ढहा रही है. शिमला जिले के कथाल में बादल फटने से एनएच-05 अस्थायी रूप से बंद हो गया, जबकि रामपुर के गांव शील प्रोग और बल्ला में कई मकान क्षतिग्रस्त हो गए.

NEWSPAPER CUTTING INDICATING CLOUD BRUSTS IN CHAMBA ABOUT 40KM ABOVE CHAMERA

THE TIMES OF INDIA

Rivers scare Chamba & Kullu; Manimahesh Yatra suspended

TNN / Aug 28, 2025, 04:37 IST

Shimla: The flood crisis in Himachal Pradesh has deepened, with Chamba and Kullu districts being hit the hardest by far above normal average rainfall in the past week, leaving hundreds of people stranded and causing widespread damage. Between Aug 20 and 27, Chamba recorded rainfall at 396% above average, while Kullu received 334% more than its normal rainfall for the period.

The situation in Chamba remains critical due to widespread disruption of mobile

The Tribune

795 roads closed due to heavy rain in Himachal; Met issues red alert for Chamba, Kangra

Orange weather warning for Kullu and Mandi districts; yellow alert for Una, Hamirpur, Bilaspur and Lahaul-Spiti districts

TRIBUNE NEWS SERVICE

As many as 795 roads, including two National Highways, remain closed for vehicular traffic across the state as torrential rain continue to wreak havoc in Himachal Pradesh.

As per the State Emergency Operation Centre, 289 roads, including the NH-3 are closed in Mandi district alone, the highest in the state. Also, about 214 roads are blocked in Chamba, 131 roads, including the NH 305 in Kullu, 41 in Sirmaur, 33 in Kangra, 26 in Bilaspur, 23 in Solan, 15 in Shimla, 14 in Una, five in Hamirpur, two in Kinnaur and one in Lahaul and Spiti district remain blocked for traffic, as a result of heavy rainfall.

Also, as many as 956 power distribution transformers, including 390 in Chamba,

Line finally restored at 22:10 Hrs of 18.09.2025

400kV Chamera 2 - Kishenpur Transmission Line			
Sr No.	**Date**	**Details of Hurdles**	**Source**
1	24.08.2025	Havoc due to heavy rainfall in Himachal; cloudburst in Chamba, disaster also in Kangra	Live Hindustan
2	25.08.2025	795 roads closed due to heavy rain in Himachal; Met issues red alert for Chamba, Kangra	The Tribune
3	26.08.2025	Landslides, flash floods leave trail of destruction in Himachal Pradesh	The Economic Times
4	26.08.2025	Chamba Cloudburst: Devastation after cloudburst in Bhalei area; four bridges and vehicles washed away, shocking video surfaces	Jagran News
5	28.08.2025	Rivers scare Chamba & Kullu; Manimahesh Yatra Suspended	The Times of India
6	30.08.2025	Himachal Weather Cloudburst News Live: Flash floods in Shimla, thousands still stranded in Manimahesh, landslide again on Chandigarh–Manali highway	News18

Jammu logs heaviest downpour since 1973: Udhampur breaks all-time rainfall record with 629 mm

The heavy rain unleashed a series of landslides along the Jammu-Srinagar National Highway, forcing authorities to suspend traffic.

Salikar Majid | DHNS

Last Updated : 27 August 2025, 17:46 IST

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Maratha quota protestors gherao Supriya Sule, attack her vehicle

Representative image for heavy rainfall. Credit: PTI Photo

Srinagar: Jammu witnessed unprecedented monsoon fury on Wednesday as Udhampur district smashed its all-time rainfall record, receiving a staggering 629.4 mm of rain in just 24 hours, while Jammu city logged 296 mm — its heaviest downpour since 1973.

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The torrential rain triggered deadly landslides, flash floods, and widespread destruction across the region, leaving authorities scrambling to rescue stranded residents and restore connectivity.

Officials from the Meteorological Department said Udhampur's rainfall surpassed all previously recorded figures for a single day, making it the wettest 24-hour spell in the district's history. "This is the highest rainfall ever recorded in Udhampur in one day. The intensity and duration were extraordinary," an official said.

In Jammu, the 296 mm rainfall was the heaviest since the 1973 deluge, which had left much of the city submerged. Tuesday's downpour inundated roads, swept away vehicles, and caused major waterlogging in several neighbourhoods. At least a dozen low-lying localities were cut off as water gushed into residential areas.

Also Read: Torrential rains in parts of J&K trigger flood like situation, bridge damaged on Jammu-Pathankot highway

The heavy rain unleashed a series of landslides along the Jammu-Srinagar National Highway, forcing authorities to suspend traffic. Hundreds of vehicles remained stranded for hours as road-clearing operations were hampered by continuous sliding of rocks and debris.

In Udhampur, swollen streams and seasonal nullahs swept away sections of roads, cutting off several villages from the district headquarters. Officials said a number of houses and shops collapsed under the force of rushing waters. Rescue teams were pressed into service to shift families from vulnerable areas.

Electricity supply and mobile connectivity was disrupted in wide swathes of Jammu and Kashmir after power poles were uprooted. Several mobile towers were damaged, snapping communication lines in the region. Railway tracks near Jammu also reported flooding, leading to temporary disruption of train services.

Bridges connecting remote areas were either submerged or washed away, officials said, adding to the difficulties of rescue teams.

The administration has sounded a high alert across Jammu and Udhampur districts. Lieutenant Governor Manoj Sinha said efforts are underway to provide immediate relief to affected families.

The Meteorological Department has forecast more rainfall in parts of Jammu region over the next 24 hours, raising concerns of fresh landslides and flooding. Authorities have appealed to people living along riverbanks and hill slopes to move to safer ground.

Disaster management officials said the scale of rainfall in Udhampur has underscored the increasing frequency of extreme weather events in Jammu and Kashmir, which has seen multiple cloudbursts

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landslides, and flash floods this monsoon.

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Amit Shah tours flood-affected areas in Jammu, assures victims of relief

Infiltration bid foiled along LoC in J&K's Poonch

Published 17 August 2025, 07:41 IST

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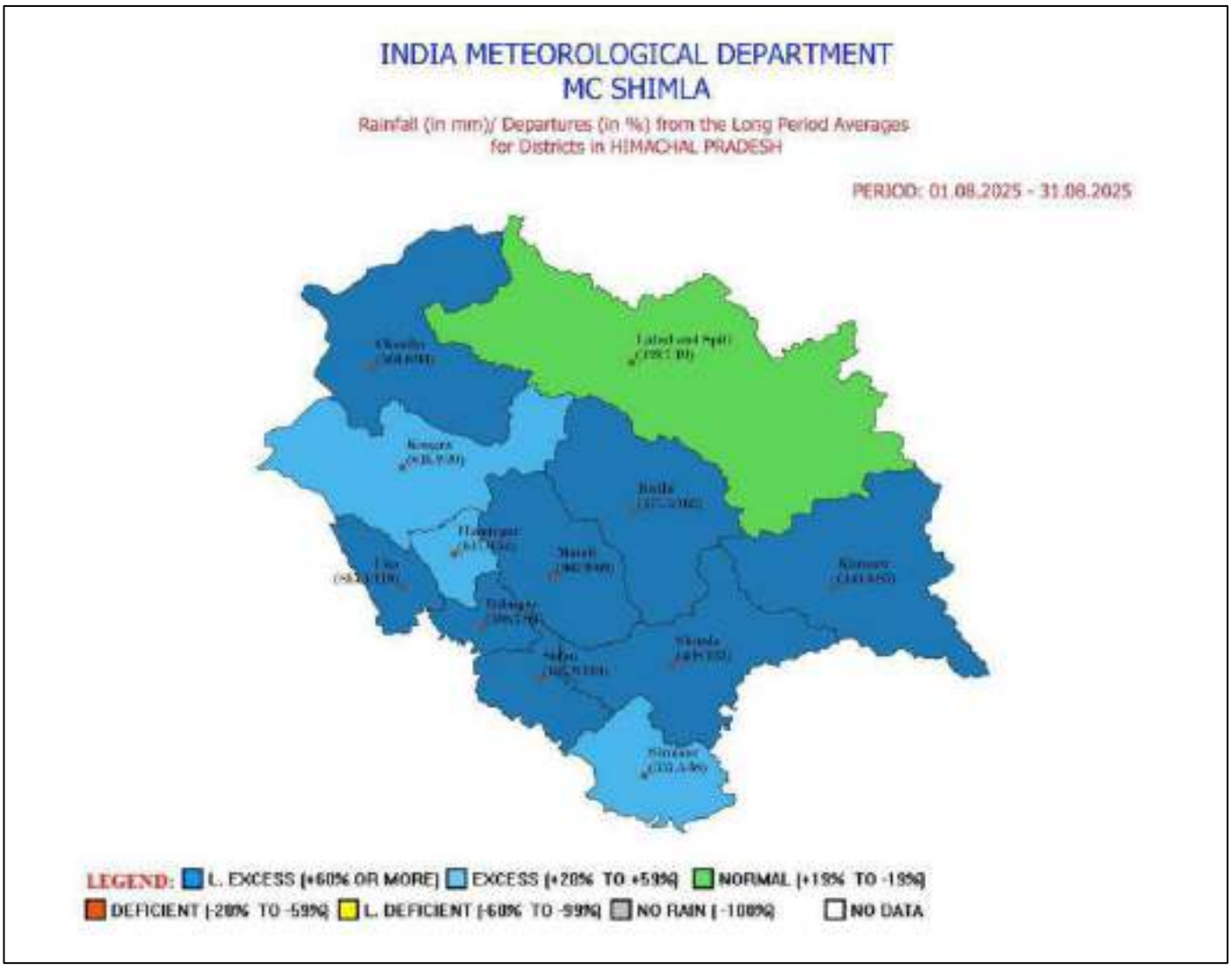
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.

❖ Himachal Pradesh has received

- **Extremely Heavy rain** (in mm) in Una (distt. Una) 222.8 on 02nd August, 2025.
- **Very Heavy rain** (in mm) in Chuari (Distt. Chamba) 118 On 01ST August; Amb(Distt. Una) 154.8, Bilaspur Sadar (Distt. Bilaspur) 120.8 On 02ND Aug; Mandi (Distt. Mandi) 151.2 On 05TH Aug; Kasauli (Distt. Solan) 145, Dharampur (Distt. Solan) 122.8, Gohar (Distt. Mandi) 120 on 06TH Aug; Nalagarh (Distt. Solan) 120, Bharwain (Distt. Una) 120 On 07TH Aug; Nagrota Surian (Distt. Kangra) 180.2, Guler (Distt. Kangra) 161.2 On 12TH Aug; Pachhad (Distt. Sirmaur) 153.2 On 14TH Aug; Naina Devi (Distt. Bilaspur) 160.6 On 16TH Aug; Kataula (Distt. Mandi) 116.3 On 17TH Aug; Amb (Distt. Una) 150 On 20TH Aug; Una (Distt. Una) 132.6 On 21ST Aug; Kheri (distt. Chamba) 129, Pandoh (Distt. Mandi) 123 On 24TH Aug, Kahu (Distt. Bilaspur) 190.5, Ghumarwin (Distt. Bilaspur) 160, Barthin (Distt. Bilaspur) 156.4, Naina Devi (Distt. Bilaspur) 148.4, Kheri (distt. Chamba) 142, Bilaspur Sadar (Distt. Bilaspur) 140.8, Chuari (Distt. Chamba) 140.2, Mehre (Barsar) (Distt. Hamirpur) 127 On 25TH Aug; Naina Devi (Distt. Bilaspur) 160.8, Kheri (distt. Chamba) 128.6, Chuari (Distt. Chamba) 125.2 On 26TH Aug; Jatton Barrage (distt. Sirmaur) 138 on 29th Aug.
- **Heavy rain** (in mm) in CHUARI (distt. Chamba) 96, BHARWAIN (distt. Una) 92, NADAUN (distt. Hamirpur) 73.6, BARTHIN (distt. Bilaspur) 69.6, SUJANPUR TIRA (distt. Hamirpur) 68.4, DEHRA GOPIPUR (distt. Kangra) 67.2, CHAMBA AWS (distt. Chamba) 66 on 02nd Aug; BHARERI (distt. Hamirpur) 108.2, NAINA DEVI (distt. Bilaspur) 74.4, on 03rd Aug; KASAULI (distt. Solan) 82 on 04th Aug; BIJAHI (distt. Mandi) 105.6, SUNDARNAGAR (distt. Mandi) 84.1, NADAUN (distt. Hamirpur) 78, GOHAR (distt. Mandi) 72 on 05th Aug; CHUARI (distt. Chamba) 98.4, NAGROTA SURIAN (distt. Kangra) 93.4, PACHHAD (distt. Sirmaur) 88, NAINA DEVI (distt. Bilaspur) 86.4, BIJAHI (distt. Mandi) 84.4, KUMARSAIN (distt. Shimla) 80.4, SUNDARNAGAR (distt. Mandi) 80.3, KANGRA (distt. Kangra) 71.4, BILASPUR SADAR (distt. Bilaspur) 70.4, GULER (distt. Kangra) 68.4, KARSOG (distt. Mandi) 68, Dhaulakuan (distt. Sirmaur) 67, BANJAR (distt. Kullu) 66, SUNIBHAJJI (distt. Shimla) 66, NALAGARH (distt. Solan) 66, MANDI (distt. Mandi) 65.8, on 06th Aug; NAINA DEVI (distt. Bilaspur) 92.6, PACHHAD (distt. Sirmaur) 75.1, R L BBMB (distt. Bilaspur) 73 on 07th Aug; NAINA DEVI (distt. Bilaspur) 112.4, PANDOH (distt. Mandi) 102, BANGANA_R (distt. Una) 86.4, R L BBMB (distt. Bilaspur) 67, PACHHAD (distt. Sirmaur) 67, NARKANDA AWS (distt. Shimla) 66.5, KUMARSAIN (distt. Shimla) 65.4, KASAULI (distt. Solan) 65.2 on 09th Aug; KANGRA (distt. Kangra) 68.4 on 10th Aug; GHAMROOR (distt. Kangra) 112.2, Sandhole (distt. Mandi) 78.8, NADAUN (distt. Hamirpur) 78.5, DEHRA GOPIPUR (distt. Kangra) 76.2, JOGINDARNAGAR (distt. Mandi) 74, KANGRA (distt. Kangra) 73.8, Bhareri (distt. Hamirpur) 70.2, PALAMPUR (distt. Kangra) 69, SUJANPUR TIRA (distt. Hamirpur) 66, BIJAHI (distt. Mandi) 65.2 on 12th Aug; RAJGARH (distt. Sirmaur) 102, KANDAGHAT (distt. Solan)100, JATTON BARRAGE (distt. Sirmaur) 87, UNA (distt. Una) 85.4 SOLAN (distt. Solan)81.4, KOTKHAI (distt. Shimla) 77.4, Shillaro (distt. Shimla) 73, JUBBAL (distt. Shimla) 72.6, SHIMLA (distt. Shimla) 69, KUFRI (distt. Shimla) 66, JUBBERHATTI (distt. Shimla) 65.2, RENUKA / DADHAU (distt. Sirmaur) 64.6 on 14th Aug; JOGINDARNAGAR (distt. Mandi) 106, PALAMPUR (distt. Kangra) 102.4, Bhareri (distt. Hamirpur) 75.4, KHERI (distt. Chamba) 73.2, Kataula (distt. Mandi) 67.2, NARKANDA AWS (distt. Shimla) 66, NAINA DEVI (distt. Bilaspur) 64.8 on 15th Aug;

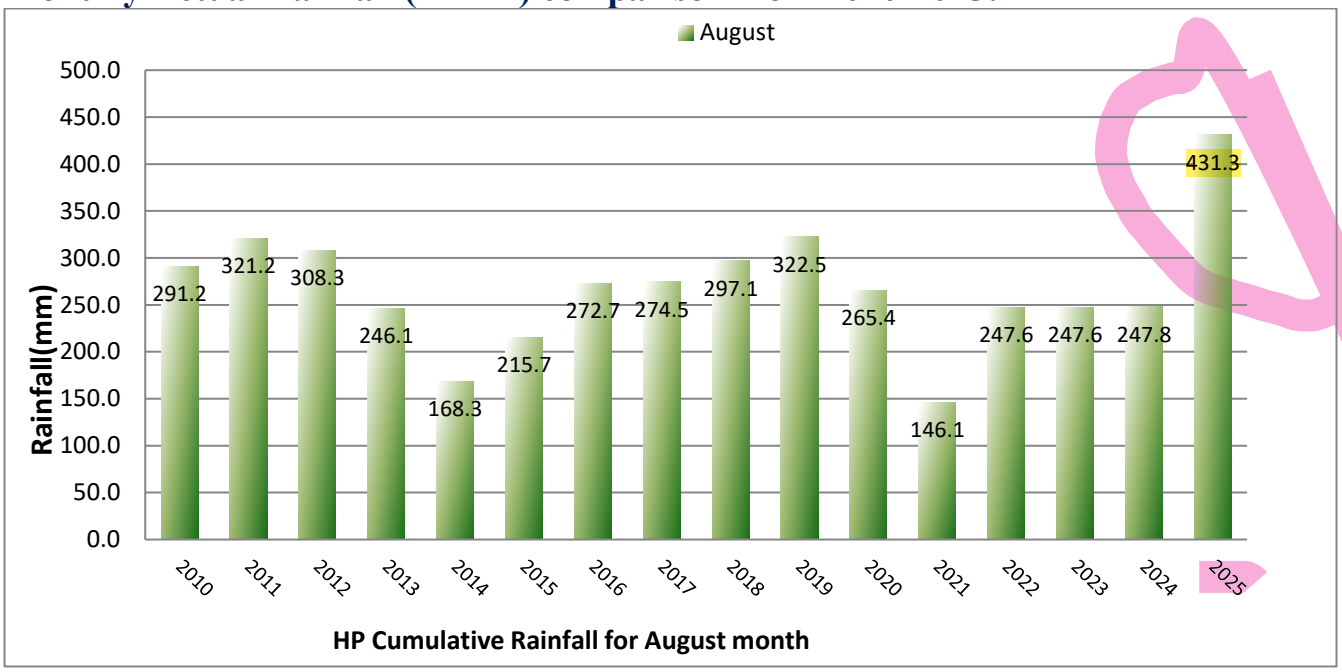
PALAMPUR (distt. Kangra) 101.4, Sandhole (distt. Mandi) 80.2, PANDOH (distt. Mandi) 72.4 on 16th Aug; KANGRA (distt. Kangra) 110.8, NAGROTA SURIAN (distt. Kangra) 107, NAHAN (distt. Sirmaur) 103.2, JOGINDARNAGAR (distt. Mandi) 84, NALAGARH (distt. Solan) 80, PAONTA (distt. Sirmaur) 69.8, KHERI (distt. Chamba) 67.6, Dhaulakuan (distt. Sirmaur) 67 on 17th Aug; Dhaulakuan (distt. Sirmaur) 113, AGHAR (distt. Hamirpur) 80, SANGRAHA (distt. Sirmaur) 72 on 18th Aug; JUBBERHATTI (distt. Shimla) 73 on 19th Aug; BHARWAIN (distt. Una) 68 on 20th Aug; NALAGARH (distt. Solan) 65 on 23rd Aug; Kasauli (distt. Solan) 105, Sarkaghat (distt. Mandi) 80.5, KARSOG (distt. Mandi) 68, MANDI (distt. Mandi) 68, on 24th Aug; AMB (distt. Una) 111, AGHAR (distt. Hamirpur) 110.6, BANGANA_R (distt. Una) 104, GHAMROOR (distt. Kangra) 95.8, BHARWAIN (distt. Una) 94.4, NADAUN (distt. Hamirpur) 94, HAMIRPUR (distt. Hamirpur) 92, DHARMSHALA (distt. Kangra) 87.4, Bhareri (distt. Hamirpur) 85.9, Sandhole (distt. Mandi) 85.2, KASAULI (distt. Solan) 85, SUNDARNAGAR (distt. Mandi) 84.2, BALDWARA (distt. Mandi) 84, SALONI (distt. Chamba) 83.3, UNA (distt. Una) 80.8, SUJANPUR TIRA (distt. Hamirpur) 80, NALAGARH (distt. Solan) 75, DHARAMPUR (distt. Solan) 68.6, DEHRA GOPIPUR (distt. Kangra) 68.3, CHAMBA AWS (distt. Chamba) 67, R L BBMB (distt. Bilaspur) 66, PALAMPUR (distt. Kangra) 65.4 on 25th Aug; DHARMSHALA (distt. Kangra) 102, MANALI (distt. Kullu) 102, GHAMROOR (distt. Kangra) 91.4, KANGRA (distt. Kangra) 89, NAGROTA SURIAN (distt. Kangra) 88.8, PALAMPUR (distt. Kangra) 88, KOTHI (distt. Kullu) 85.8, BHARWAIN (distt. Una) 85, Tissa (distt. Chamba) 80, BHUNTAR (distt. Kullu) 77.2, Gondla (distt. Lahaul-Spiti) 75.6, CHAMBA AWS (distt. Chamba) 74, SANGRAHA (distt. Sirmaur) 72, GULER (distt. Kangra) 71.8, Kukumseri Aws (distt. Lahaul-Spiti) 71.5, Seobagh (distt. Kullu) 70.8, Kumarsain (distt. Shimla) 70.6, KARSOG (distt. Mandi) 65.2, Kasol (distt. Kullu) 65 on 26th Aug; Kheri (distt. Chamba) 89.2, Kothi (distt. Kullu) 69, Saloni (distt. Chamba) 65.2 on 27th August; Pandoh (distt. Mandi) 108 on 28th Aug; Renuka / Dadhau (distt. Sirmaur) 114, Palampur (distt. Kangra) 91.4, Bharwain (distt. Una) 80, Sandhole (distt. Mandi) 77.8, Paonta (distt. Sirmaur) 75, Kataula (distt. Mandi) 73.4, Sangraha (distt. Sirmaur) 70, Rajgarh (distt. Sirmaur) 65 on 29th Aug; Chuari (distt. Chamba) 104, Jogindarnagar (distt. Mandi) 86, Rampur Bushar (distt. Shimla) 75.5, Dharmshala (distt. Kangra) 69.4 on 30th Aug; Naina Devi (distt. Bilaspur) 82.8, R L Bbmb (distt. Bilaspur) 80, Chuari (distt. Chamba) 75.2 on 31st Aug.



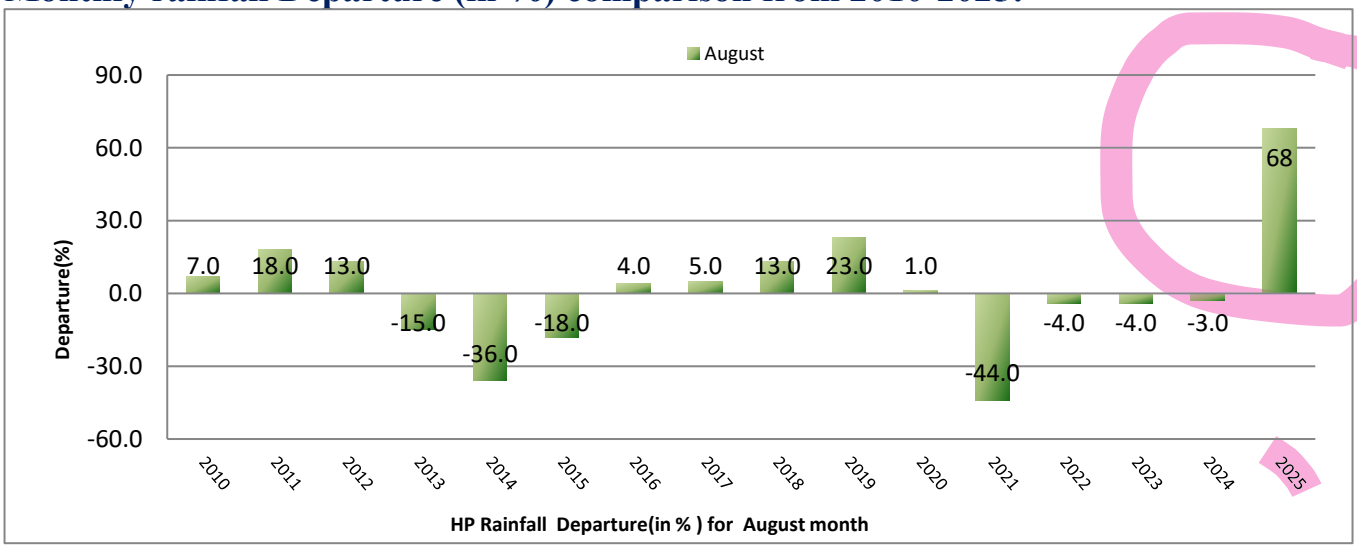
3. District wise monthly rainfall (in mm) and Departure (in %)

(01st August to 31st August) 2025			
DISTRICTS	Actual (in mm)	Normal (in mm)	Dep (in%)
BILASPUR	598.7	316.8	89
CHAMBA	561.6	291.7	93
HAMIRPUR	617.9	400.6	54
KANGRA	816.2	631.5	29
KINNAUR	143.3	77.6	85
KULLU	477.5	180.2	165
LAHAUL & SPITI	129.7	117.6	10
MANDI	667.9	395.3	69
SHIMLA	438	196.4	123
SIRMAUR	557.5	402.1	39
SOLAN	627.9	287.9	118
UNA	815.1	372.2	119
HP	431.3	256.8	68

4. Monthly Actual Rainfall (in mm) comparison from 2010-2025: -



5. Monthly rainfall Departure (in %) comparison from 2010-2025: -



6. Monthly Rainfall distribution and Rainfall Activity for August month.

HIMACHAL PRADESH					
Date	**Distribution**	**Activity**	Date	**Distribution**	**Activity**
01-08-2025	WIDE SPREAD	NORMAL	**17-08-2025**	WIDE SPREAD	ACTIVE
02-08-2025	WIDE SPREAD	ACTIVE	**18-08-2025**	WIDE SPREAD	NORMAL
03-08-2025	WIDE SPREAD	NORMAL	**19-08-2025**	FAIRLY WIDE SPREAD	NORMAL
04-08-2025	WIDE SPREAD	NORMAL	**20-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
05-08-2025	WIDE SPREAD	ACTIVE	**21-08-2025**	FAIRLY WIDE SPREAD	NORMAL
06-08-2025	WIDE SPREAD	ACTIVE	**22-08-2025**	ISOLATED	WEAK
07-08-2025	FAIRLY WIDE SPREAD	NORMAL	**23-08-2025**	SCATTERED	NORMAL
08-08-2025	ISOLATED	WEAK	**24-08-2025**	WIDE SPREAD	ACTIVE
09-08-2025	FAIRLY WIDE SPREAD	NORMAL	**25-08-2025**	WIDE SPREAD	VIGOROUS
10-08-2025	SCATTERED	WEAK	**26-08-2025**	WIDE SPREAD	VIGOROUS
11-08-2025	FAIRLY WIDE SPREAD	WEAK	**27-08-2025**	WIDE SPREAD	ACTIVE
12-08-2025	WIDE SPREAD	ACTIVE	**28-08-2025**	FAIRLY WIDE SPREAD	NORMAL
13-08-2025	SCATTERED	WEAK	**29-08-2025**	WIDE SPREAD	ACTIVE
14-08-2025	WIDE SPREAD	ACTIVE	**30-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
15-08-2025	WIDE SPREAD	ACTIVE	**31-08-2025**	WIDE SPREAD	ACTIVE
16-08-2025	FAIRLY WIDE SPREAD	NORMAL			

7. Chief Amount of Rainfall (in mm) August 2025

Date	Station
01-08-2025	Chuari 118, Manali 57, Banjar 52.4, Bharwain 47, Bhareri 45.2, Kothi 40, Naina Devi 36, Saloni 36, Tinder 35, Kasol 34, Amb 32.6, Sarahan 30, Chamba Aws 29, Tissa 28, Kheri 27, Sarkaghat 25.3, Baldwara 23, Sangraha 23, Renuka / Dadhau 22.7, Hamirpur 21, Wangtoo 20.6, Jatton Barrage 19.6, Nichar 18.5, Jogindarnagar 17, Bharmaur 16, Chhatrari 14.9, Bijahi 14.6, Sunibhajji 13, Karsog 12.1, Bhoranj 12, Sundarnagar 12, Mandi 11.6, Guler 11.2, Bilaspur Sadar 10.4, Nagrota Surian 10, Sangla 9.8, Ghamroor 9.4, Palampur 9.4, R L Bbmb 9.2, Ghumarwin 9, Nadaun 8.4, Seo Bagh 8.4, Dharmshala 8.3, Aghar 8.2, Sujanpur Tira 8, Paonta 8, Kukumsheri Aws 7.6, Bhuntar 6.4, Kalpa 5.6, Dehra Gopipur 5.4, Keylong 5, Gohar 5, Janjehli 5, Rampur Bushar 5, Kangra 4.9, Barthin 4.8, Pachhad 4.3, Koksar 3.7, Bangana_R 3.6, Una 3.6, Nahan 3.1, Gondla 2.8, Kufri 2.6, Pandoh 2.5, Jubbal 2.4, Shillaro 2, Kahu 1.8, Theog 1.8, Shimla 1.7, Jubberhatti 1.6, Kataula 1.1, Bilaspur Aws 0.5, Moorang 0.2, Kotkhai 0.1
02-08-2025	Una 222.8, Amb 154.8, Bilaspur Sadar 120.8, Chuari 96, Bharwain 92, Nadaun 73.6, Barthin 69.6, Sujanpur Tira 68.4, Dehra Gopipur 67.2, Chamba Aws 66, Dharmshala 64, Nahan 62.3, Ghamroor 62.2, Hamirpur 62, Kheri 54.4, Aghar 52.8, Bangana_R 52.3, Kumarsain 50.6, Kataula 50.4, R L Bbmb 48.2, Saloni 48.2, Bhareri 48.2, Mehre (Barsar) 46, Kangra 42.3, Kothi 41, Nagrota Surian 40.2, Tissa 40, Jogindarnagar 40, Palampur 36, Bhuntar 35.8, Manali 35, Mandi 34.4, Seo Bagh 30.8, Bhoranj 30, Gohar 30, Guler 29.4, Wangtoo 28.2, Banjar 28.2, Bharmaur 28, Paonta 27.4, Nichar 27.2, Karsog 26, Chhatrari 25.5, Sangraha 24, Naina Devi 22.8, Bijahi 22, Janjehli 22, Renuka / Dadhau 21.6, Pandoh 20.5, Sarkaghat 19.6, Theog 19.2, Baldwara 19, Pachhad 17, Kahu 16.5, Kasol 15, Narkanda Aws 12, Sundarnagar 11.9, Jatton Barrage 11.4, Gondla 11.2, Rampur Bushar 9.8, Shillaro 9.7, Kukumsheri Aws 9.6, Kufri 9.2, Keylong 7, Sunibhajji 6.2, Shimla 5.6, Kandaghat 5.6, Jubbal 5.2, Kasauli 5.2, Jubberhatti 5, Sangla 4.2, Sarahan 4, Kalpa 3.2, Dharampur 2.8, Khadrala 2.2, Bajaura Aws 2, Koksar 2, Bilaspur Aws 1, Solan 0.8, Reckong Peo Aws 0.5, Kotkhai 0.4
03-08-2025	Bhareri 108.2, Naina Devi 74.4, Ghumarwin 40, Sunibhajji 40, Jatton Barrage 40, R L Bbmb 39, Una 38, Kheri 28.8, Nalagarh 28, Aghar 24.8, Mehre (Barsar) 23, Pachhad 20, Bangana_R 18.4, Chamba Aws 18, Hamirpur 18, Jogindarnagar 17, Barthin 14.6, Nadaun 14.5, Sujanpur Tira 14.5, Seo Bagh 11.6, Kothi 11.2, Palampur 10.8, Kumarsain 10.4, Guler 10.2, Sarahan 9.5, Nagrota Surian 9.4, Bhuntar 9.2, Kasol 9, Sarkaghat 8.3, Kotkhai 8.2, Kasauli 8.2, Kangra 8.1, Bharmaur 8, Tinder 8, Sundarnagar 7.9, Renuka / Dadhau 7.2, Chuari 7, Paonta 6.6, Dharampur 6.4, Bhoranj 6, Gondla 5.4, Jubberhatti 5.4, Shimla 5.4, Kataula 5.2, Manali 5, Dehra Gopipur 4.3, Kukumsheri Aws 4.2, Koksar 4.2, Bijahi 4.2, Khadrala 4.2, Dharmshala 4.1, Janjehli 4, Karsog 4, Shillaro 4, Kufri 4, Mandi 3.2, Keylong 3, Solan 3, Bajaura Aws 2.5, Chhatrari 2.3, Bilaspur Sadar 2.2, Gohar 2, Pandoh 2, Nahan 1.2, Ghamroor 1, Kandaghat 1, Kalpa 0.8, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Kahu 0.4, Sangla 0.2
04-08-2025	Kasauli 82, Naina Devi 62.6, Ghumarwin 60, Jogindarnagar 60, Manali 45, Mehre (Barsar) 42, Guler 29, Pandoh 27, Karsog 26.2, Sarahan 25.5, R L Bbmb 24, Shimla 22.8, Baldwara 19, Bijahi 18.4, Gohar 18, Kataula 15.3, Bhoranj 15, Hamirpur 14, Janjehli 14, Kufri 13.8, Dharampur 12.6, Dharmshala 12.1, Berthin Agro 12, Dehra Gopipur 12, Palampur 11.6, Shillaro 11.6, Narkanda Aws 11.5, Nichar 11, Paonta 10.8, Nadaun 9.8, Sarkaghat 9.3, Ghamroor 9.2, Kotkhai

	9.2, Pachhad 9.2, Wangtoo 8.2, Tinder 8, Kumarsain 8, Jubbal 7.2, Jatton Barrage 7, Aghar 6.8, Barthin 6.6, Chuari 6.2, Amb 5.4, Mandi 5.2, Bangana_R 5.2, Kasol 5, Kahu 4.4, Sujanpur Tira 4, Sangraha 4, Bharwain 3.6, Bajaura Aws 3.5, Nagrota Surian 3.2, Chamba Aws 3, Sunibhajji 2.4, Nahan 2.4, Jubberhatti 2.2, Renuka / Dadhau 2.2, Kothi 2, Keylong 2, Theog 2, Solan 1.8, Bhareri 1.4, Dalhousie Aws 1, Khadrala 1, Kandaghat 1, Kalpa 0.8, Rampur Bushar 0.8, Bilaspur Aws 0.5, Gondla 0.2, Sundarnagar 0.1
05-08-2025	Mandi 151.2, Bijahi 105.6, Sundarnagar 84.1, Nadaun 78, Gohar 72, Ghumarwin 60, Karsog 56.3, Palampur 55.8, Pandoh 53, Hamirpur 45, Bhareri 44.5, Baldwara 41, Janjehli 40, Sangraha 40, Nalagarh 40, Berthin Agro 36.5, Guler 36.4, Mehre (Barsar) 35, Tinder 35, Jubbal 33.4, Bilaspur Sadar 30.8, R L Bbmb 30, Shillaro 30, Rohru 30, Sarahan 30, Bharwain 30, Manali 29.2, Barthin 28.4, Naina Devi 24.8, Sujanpur Tira 24, Aghar 23.6, Kangra 23.2, Narkanda Aws 22, Shimla 20.4, Dehra Gopipur 18.4, Kataula 18.2, Jubberhatti 18, Nagrota Surian 17.8, Jogindarnagar 14, Kumarsain 12.8, Dharmshala 10.7, Kandaghat 10.6, Una 10.6, Kahu 10.5, Bhuntar 10.4, Paonta 10.4, Bhoranj 10, Bangana_R 9.4, Sangla 8.6, Chuari 8.1, Kasauli 7.2, Kothi 7, Hansa 7, Theog 7, Amb 7, Banjar 6.2, Khadrala 6, Kotkhai 5.2, Jatton Barrage 4.4, Dharampur 4.2, Renuka / Dadhau 4, Wangtoo 3.8, Rampur Bushar 3.6, Seo Bagh 3.4, Kasol 3, Kheri 2.4, Kufri 2.4, Koksar 2.1, Bajaura Aws 2, Nahan 2, Kalpa 1.6, Moorang 1.5, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
06-08-2025	Kasauli 145, Dharampur 122.8, Gohar 120, Chuari 98.4, Nagrota Surian 93.4, Pachhad 88, Naina Devi 86.4, Bijahi 84.4, Kumarsain 80.4, Sundarnagar 80.3, Kangra 71.4, Bilaspur Sadar 70.4, Guler 68.4, Karsog 68, Dhaulakuan 67, Banjar 66, Sunibhajji 66, Nalagarh 66, Mandi 65.8, Shimla 64.4, Dharmshala 64, Pandoh 63, Janjehli 60, Kandaghat 60, Kahu 58, Renuka / Dadhau 55.3, Rampur Bushar 55, Jogindarnagar 53, Wangtoo 50.2, R L Bbmb 47, Nadaun 47, Kufri 47, Jatton Barrage 47, Khadrala 46.2, Narkanda Aws 44.5, Jubberhatti 44, Shillaro 43.6, Sarahan 42.5, Palampur 40, Rohru 40, Bangana_R 40, Bharwain 39, Sangraha 38, Solan 32.2, Sujanpur Tira 32, Kataula 31.2, Paonta 29, Dehra Gopipur 27, Hamirpur 25, Mehre (Barsar) 25, Kothi 25, Tinder 25, Sangla 24.6, Nichar 23.5, Barthin 23.2, Bhuntar 22.2, Kotkhai 22.1, Berthin Agro 22, Aghar 22, Rajgarh 22, Kheri 21.2, Seo Bagh 21.2, Bhareri 20.4, Jubbal 18.4, Ghamroor 18.2, Kasol 18, Amb 14.8, Kalpa 14, Reckong Peo Aws 13.5, Nahan 12.6, Baldwara 12, Chhatrari 10, Tissa 8.7, Theog 6, Una 5.6, Manali 5.2, Bharmaur 4.6, Moorang 4.5, Sarkaghat 4.5, Koksar 3, Bajaura Aws 2, Pooh 1, Keylong 1, Kukumsheri Aws 0.8, Bilaspur Aws 0.5
07-08-2025	Nalagarh 120, Bharwain 120, Naina Devi 92.6, Pachhad 75.1, R L Bbmb 73, Mehre (Barsar) 64, Kangra 62.5, Theog 60, Dharmshala 42.5, Bangana_R 34.8, Nahan 32.6, Kasauli 32.5, Dehra Gopipur 31.4, Bilaspur Sadar 30.2, Sarahan 29.5, Barthin 22.4, Una 22.2, Amb 21, Gohar 19, Shimla 19, Kahu 18.8, Sujanpur Tira 18, Aghar 17.6, Nagrota Surian 17.2, Baldwara 17, Berthin Agro 16, Jubbal 15.2, Dharampur 14, Bhareri 13.4, Manali 12.2, Palampur 11.6, Nadaun 10, Sundarnagar 9.4, Kufri 9.2, Chuari 9.1, Rampur Bushar 8.5, Hamirpur 8, Kothi 8, Kumarsain 5.6, Tinder 5, Janjehli 5, Jogindarnagar 5, Rohru 5, Wangtoo 4.6, Kataula 4.2, Jubberhatti 3.8, Sangla 3.6, Solan 3.6, Guler 3.4, Bhuntar 3, Bijahi 3, Kalpa 2.8, Renuka / Dadhau 2.8, Kandaghat 2.6, Bajaura Aws 2.5, Jatton Barrage 1.6, Reckong Peo Aws 1, Banjar 1, Paonta 1, Bilaspur Aws 0.5, Pandoh 0.5, Narkanda Aws 0.5
08-08-2025	Bajaura Aws 9, Kataula 8.2, Sangraha 8, Sarkaghat 6.2, Jogindarnagar 4, Dharmshala 3.2, Nagrota Surian 2.4, Bhareri 2, Nadaun 2, Jatton Barrage 2, Bilaspur Aws 0.5, Barthin 0.4
09-08-2025	Naina Devi 112.4, Pandoh 102, Bangana_R 86.4, R L Bbmb 67, Pachhad 67, Narkanda Aws 66.5, Kumarsain 65.4, Kasauli 65.2, Shillaro 63, Rajgarh 56, Kufri 55.2, Dharampur 52.6, Nahan 49.3, Solan 45.6, Janjehli 42, Nalagarh 35, Kotkhai 29.3, Dehra Gopipur 29, Sunibhajji 27, Sundarnagar 23.6, Nagrota Surian 22.5, Kataula 22.2, Barthin 21.8, Kandaghat 21.8, Kasol 20, Berthin Agro 18.5, Baldwara 18, Shimla 16.8, Jubberhatti 14, Bharwain 14, Renuka / Dadhau 13.6, Bajaura Aws 13.5, Kothi 12.4, Nadaun 11.8, Sarkaghat 11.4, Una 11.4, Palampur 10.6, Bhareri 10.2, Hamirpur 10, Bhuntar 9.4, Rampur Bushar 9, Chuari 8.2, Jatton Barrage 8.2, Bhoranj 8, Jubbal 6.4, Mehre (Barsar) 6, Bilaspur Sadar 5.8, Sujanpur Tira 5, Manali 5, Jogindarnagar 5, Nichar 4.3, Banjar 4.2, Theog 4, Bharmaur 3.6, Wangtoo 3.6, Dharmshala 3.4, Paonta 3.2, Mandi 2.4, Chamba Aws 2, Kheri 2, Gohar 2, Sangraha 2, Bilaspur Aws 1, Khadrala 1, Kangra 0.5, Kahu 0.4, Guler 0.4, Sangla 0.2
10-08-2025	Kangra 68.4, Palampur 52, Baldwara 42, Bharwain 39.4, Sarahan 25, Theog 20, Tinder 18, Jubberhatti 17, Dharmshala 16.8, Pandoh 16.5, Bangana_R 11.8, Bajaura Aws 11.5, Kufri 11.2, Bilaspur Sadar 10.4, Kasauli 10, Shimla 9, Bijahi 8, Chuari 7.6, Kotkhai 6.3, Sarkaghat 6.2, Rampur Bushar 6, Bhareri 5.4, Una 5.4, Saloni 5.2, Bharmaur 5, Sujanpur Tira 4.5, Mandi 4.4, Bhoranj 4, Jogindarnagar 4, Chhatrari 2.8, Narkanda Aws 2.5, Kasol 2, Nagrota Surian 1.2, Nahan 1.2, Dalhousie Aws 1, Nadaun 1, Sunibhajji 1, Jatton Barrage 1, Koksar 0.8, Bilaspur Aws 0.5, Barthin 0.2
11-08-2025	Nalagarh 56, Bilaspur Sadar 50.2, Kheri 33.4, Sarahan 30, Chuari 26.2, Rajgarh 20, Hamirpur 19, Aghar 16, Dehra Gopipur 16, Baldwara 16, Tinder 15, Dharmshala 14.8, Sarkaghat 14.7, Ghumarwin 14, Bajaura Aws 10.5, Palampur 9.6, Kothi 9.6, Kasol 9, Kahu 8.5, Gohar 8, Mandi 7.4, Jubberhatti 7, Theog 6, Kangra 5.4, Shimla 4.2, Sundarnagar 3.7, Pooh 3.2, Koksar 3, Jogindarnagar 3, Shillaro 3, Kalpa 2.2, Chamba Aws 2, Bijahi 2, Kasauli 2, Sangla 1.8, Reckong Peo Aws 1.5, Nagrota Surian 1.4, Wangtoo 1.4, Dharampur 1.4, Nadaun 1.2, Kandaghat 1.2, Nahan 1.1, Sujanpur Tira 1, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.4, Kufri 0.4, Moorang 0.3, Barthin 0.2

12-08-2025	Nagrota Surian 180.2, Guler 161.2, Ghamroor 112.2, Sandhole 78.8, Nadaun 78.5, Dehra Gopipur 76.2, Jogindarnagar 74, Kangra 73.8, Bhareri 70.2, Palampur 69, Sujanpur Tira 66, Bijahi 65.2, Kataula 56.2, Shillaro 54, Kandaghat 52.8, Theog 50.6, Chuari 48.3, Naina Devi 46.4, Shimla 45.6, Dharmshala 42.5, Mandi 42.2, Hamirpur 41, Kufri 39.8, Una 38.4, Kasauli 38, Bharwain 38, Dharampur 36.8, Jubberhatti 36.2, Kahu 35.3, Aghar 34, Solan 33, Sarahan 30.5, Pandoh 29.5, Narkanda Aws 28.5, Sundarnagar 27.3, Gohar 27, Bharmaur 26.7, Jubbal 25.4, Karsog 24, Sunibhajji 23, Kotkhai 22.3, Chhatrari 22.1, Pachhad 22, Saloni 21.2, Kheri 21, Bilaspur Sadar 20.8, Nalagarh 20, R L Bbmb 19.6, Barthin 18.8, Amb 18.8, Tissa 18, Kothi 17.4, Nahan 17.2, Mehre (Barsar) 17, Bangana_R 16, Janjehli 15, Sarkaghat 12.2, Moorang 10.2, Bhoranj 10, Manali 10, Sangla 8.6, Paonta 8.4, Banjar 8.2, Chamba Aws 8, Bajaura Aws 7.5, Rampur Bushar 7.2, Kasol 7, Kumarsain 6.4, Kalpa 6, Nichar 5.4, Reckong Peo Aws 5, Wangtoo 4.8, Bhuntar 4.8, Jatton Barrage 4.2, Renuka / Dadhau 3.8, Koksar 3, Kukumsheri Aws 2.8, Seo Bagh 2.4, Keylong 2
13-08-2025	Baldwara 31, Tinder 25, Kasauli 23, Naina Devi 18.2, Bhoranj 15, Sarahan 15, Karsog 13.2, Theog 10, Dharampur 7.2, Bajaura Aws 7, Jogindarnagar 5, Dharmshala 4.4, Tissa 4.2, Bijahi 4.2, Una 4.2, Sundarnagar 3.6, Kothi 3.4, Gohar 3, Kangra 2.8, Pandoh 2.5, Bilaspur Sadar 2.2, Kheri 2.2, Nagrota Surian 2.2, Khadrala 2.2, Bharmaur 2, Banjar 2, Bangana_R 2, Jubberhatti 1.8, Narkanda Aws 1.5, Chuari 1.3, Kalpa 1.3, Guler 1.2, Shimla 1.2, Paonta 1.2, R L Bbmb 1, Chamba Aws 1, Palampur 1, Reckong Peo Aws 1, Shillaro 1, Bilaspur Aws 0.5, Barthin 0.4, Kotkhai 0.1
14-08-2025	Pachhad 153.2, Rajgarh 102, Kandaghat 100, Jatton Barrage 87, Una 85.4, Solan 81.4, Kotkhai 77.4, Shillaro 73, Jubbal 72.6, Shimla 69, Kufri 66, Jubberhatti 65.2, Renuka / Dadhau 64.6, Banjar 62, Kasauli 62, Kothi 61.2, Nalagarh 60, Sarkaghat 59.4, R L Bbmb 59.2, Amb 59, Theog 58.8, Rohru 55, Naina Devi 54.2, Dharampur 50.2, Sangraha 50, Paonta 49, Pandoh 44, Karsog 43.1, Kahu 41.5, Kumarsain 40.8, Bharwain 40, Narkanda Aws 39.5, Bhareri 37.2, Tinder 35, Nahan 33.3, Baldwara 33, Barthin 32.6, Nadaun 32.4, Bangana_R 31.4, Bilaspur Sadar 30.8, Sarahan 29, Sujanpur Tira 25.4, Manali 25, Dehra Gopipur 24.3, Jogindarnagar 24, Hamirpur 23, Tissa 20, Sundarnagar 19.5, Kasol 19, Kukumsheri Aws 18.2, Gondla 16.2, Bharmaur 15, Sunibhajji 14, Mandi 13.4, Palampur 13, Kangra 12.5, Mehre (Barsar) 12, Ghamroor 11.8, Dharmshala 10.8, Aghar 10, Bhoranj 10, Hansa 10, Pooh 9.4, Bajaura Aws 7.5, Bijahi 7.4, Khadrala 6.2, Guler 5.8, Sangla 5.8, Rampur Bushar 5.4, Gohar 5, Saloni 4.2, Wangtoo 4.2, Bhuntar 4, Nagrota Surian 3.8, Moorang 3.7, Nichar 3.5, Reckong Peo Aws 2.5, Chhatrari 2.4, Kalpa 2.2, Chamba Aws 2, Janjehli 2, Seo Bagh 1, Keylong 1, Bilaspur Aws 0.5
15-08-2025	Jogindarnagar 106, Palampur 102.4, Bhareri 75.4, Kheri 73.2, Kataula 67.2, Narkanda Aws 66, Dharmshala 65.5, Naina Devi 64.8, Kangra 62.8, Nahan 57.7, Kothi 54.6, Bijahi 50, Mandi 49.8, Pandoh 46, Sarahan 40.5, Shillaro 40, Hamirpur 37, R L Bbmb 36.4, Ghumarwin 34, Chuari 32.6, Rohru 30, Pachhad 30, Sarkaghat 28.3, Janjehli 28, Reckong Peo Aws 27, Dehra Gopipur 26, Kasauli 26, Kalpa 25.2, Baldwara 25, Gohar 25, Bhuntar 24.3, Rampur Bushar 24, Sangla 23.4, Kotkhai 23, Barthin 21.6, Chamba Aws 21, Sundarnagar 20.3, Sujanpur Tira 20, Solan 19.8, Shimla 19.7, Jatton Barrage 19.4, Bangana_R 19, Bilaspur Sadar 18.8, Renuka / Dadhau 18.6, Nadaun 18.5, Manali 18.4, Kufri 18.4, Dharampur 18, Khadrala 16.4, Pooh 16, Chhatrari 15.6, Nichar 15.5, Keylong 15, Theog 15, Sangraha 15, Bharwain 15, Kahu 14.3, Wangtoo 14.2, Kasol 14, Nagrota Surian 13.4, Bhoranj 13, Guler 12.6, Seo Bagh 12, Sunibhajji 12, Una 11.8, Koksar 11.6, Kandaghat 11.4, Jubberhatti 11, Tissa 10, Karsog 10, Gondla 9.4, Jubbal 9.2, Paonta 8.2, Bajaura Aws 6.5, Banjar 6.4, Saloni 6.3, Mehre (Barsar) 6, Kumarsain 5.6, Bharmaur 5, Tinder 5, Moorang 3.5, Amb 3.4, Bilaspur Aws 0.5
16-08-2025	Naina Devi 160.6, Palampur 101.4, Sandhole 80.2, Pandoh 72.4, Mandi 62.4, Kataula 60.1, Kothi 48.2, Ghumarwin 45, Gohar 35, Nalagarh 35, Bhareri 32.4, Jogindarnagar 32, Dharmshala 28.4, Karsog 28.2, Sarahan 28, Bilaspur Sadar 25.8, Tinder 25, Kheri 23, Nahan 22.9, Sumdo 20, Paonta 19.4, Chhatrari 16.4, Sujanpur Tira 16, Chuari 12.4, Dharampur 12.4, Banjar 12, Baldwara 12, Kasauli 11.2, R L Bbmb 10.2, Kahu 10, Aghar 10, Nichar 9.4, Kangra 9.2, Bhoranj 9, Theog 8, Sarkaghat 7.7, Bharmaur 7, Bajaura Aws 6.5, Barthin 6.4, Dehra Gopipur 6.3, Bijahi 6, Bhuntar 5.4, Tissa 5, Shillaro 3.6, Pachhad 3, Kandaghat 2.4, Renuka / Dadhau 2.3, Chamba Aws 2, Keylong 2, Koksar 2, Narkanda Aws 2, Jatton Barrage 2, Sangraha 2, Bangana_R 1.4, Manali 1.2, Jubberhatti 1.2, Kasol 1, Kalpa 0.8, Seo Bagh 0.8, Rampur Bushar 0.8, Sundarnagar 0.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Sangla 0.2, Kotkhai 0.2, Shimla 0.2
17-08-2025	Kataula 116.3, Kangra 110.8, Nagrota Surian 107, Nahan 103.2, Jogindarnagar 84, Nalagarh 80, Paonta 69.8, Kheri 67.6, Dhaulakuan 67, Bhuntar 63.3, Palampur 60.4, Guler 57, Kasol 49, Renuka / Dadhau 49, Seo Bagh 48.6, Banjar 45.2, Bhareri 44.6, Sujanpur Tira 43.5, Sarahan 35.5, Kumarsain 35.4, Karsog 35, Pandoh 32, Rohru 30, Narkanda Aws 27, Mandi 26, Bijahi 24.4, Chuari 22.4, Bhoranj 21, Dharmshala 20.6, Tinder 18, Nadaun 17.5, Jubbal 15.4, Tissa 15, Jatton Barrage 15, Bharwain 14.2, Baldwara 14, Nichar 13.5, Hamirpur 13, Pachhad 13, Barthin 12.2, Dehra Gopipur 12, Janjehli 12, Kothi 11.4, Bilaspur Sadar 10.4, Sangraha 10, Chhatrari 8.9, Manali 8, Gohar 8, Kotkhai 7.2, Shillaro 6.8, Saloni 6.2, Kalpa 6.2, Bajaura Aws 6, Rampur Bushar 5.2, Naina Devi 4.4, Kufri 4.4, Amb 4.4, Kahu 4.1, Bangana_R 3.6, Theog 3.4, Sundarnagar 3.3, Ghamroor 3.2, Mehre (Barsar) 3, Sarkaghat 2.1, Reckong Peo Aws 1.5, Sangla 1.2, Shimla 1, Solan 0.6, Bilaspur Aws 0.5, Jubberhatti 0.4
18-08-2025	Dhaulakuan 113, Aghar 80, Sangraha 72, Kheri 62.4, Chuari 58.9, Palampur 58.2, Nalagarh 55, Baldwara 54, Jatton Barrage 49.4, Kasol 44, Paonta 40.6, Khadrala 36.4, Saloni 35.3, Tinder 35, Gohar 32, Nahan 30.1, Sarahan 28.5, Ghumarwin 27, Renuka / Dadhau 27, Jogindarnagar 25, Dharmshala 24.7, Hamirpur 23, Manali 23, Bhuntar 22, Rohru

	18, Chhatrari 15.4, Tissa 15, Karsog 14.4, Kufri 13.4, Rajgarh 13, Jubbal 12.6, Pachhad 12.3, Bhoranj 11, Bijahi 10.4, Pandoh 10, Shimla 10, Bhareri 9.8, Kataula 8.1, Bharmaur 8, Chamba Aws 8, Bajaura Aws 7, Kothi 6.8, Sundarnagar 6.3, Bharwain 5.6, Narkanda Aws 5.5, Sujanpur Tira 5, Solan 5, Seo Bagh 4.8, Banjar 4.2, Rampur Bushar 4, Sangla 3.4, Kotkhai 3.4, Kukumsheri Aws 3.1, Bilaspur Sadar 2.8, Wangtoo 2.8, Kumarsain 2.8, Kangra 2.7, Amb 2.6, Shillaro 2.4, Jubberhatti 2.4, Kandaghat 2.4, Mandi 2.2, Barthin 2, Mehre (Barsar) 2, Bangana_R 2, Janjehli 1, Theog 1, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
19-08-2025	Jubberhatti 73, Amb 56, Bhuntar 44.8, Bilaspur Sadar 40.2, Shimla 38, Kasol 33, Seo Bagh 32, Banjar 30, Kothi 25.4, Bhareri 23, Kufri 21.2, Tissa 20, Bijahi 18.6, Kangra 18.2, Barthin 17.6, Jogindarnagar 16, Kumarsain 15.4, Kahu 11.8, Sarahan 10.5, Dharmshala 9.5, Bajaura Aws 8.5, Janjehli 8, Jubbal 7.6, Nichar 7.5, Dehra Gopipur 7.2, Una 7.2, Wangtoo 6.8, Palampur 6, Sundarnagar 5.3, Bhoranj 5, Tinder 5, Kotkhai 4.3, Bharmaur 4, Nagrota Surian 3.8, Kheri 3.2, Chamba Aws 3, Sangla 2.6, Bangana_R 2.4, Ghamroor 2.2, Chhatrari 2.1, Kataula 2.1, Narkanda Aws 2, Sunibhajji 2, Aghar 1.8, Guler 1.8, Mandi 1.8, Manali 1.4, Gondla 1.2, Kalpa 1, Bilaspur Aws 0.5, Bharwain 0.5
20-08-2025	Amb 150, Bharwain 68, Dehra Gopipur 63, Palampur 60.4, Bangana_R 60, Solan 56, Guler 55.8, Bilaspur Sadar 50.8, Jubberhatti 47.2, Naina Devi 46.6, Nadaun 40, Wangtoo 39.2, Kataula 38.4, Jogindarnagar 38, Nagrota Surian 37.4, Sujanpur Tira 36.4, Pachhad 36, Pandoh 31.5, Renuka / Dadhau 30, Kangra 27.8, Seo Bagh 24.4, Bhoranj 22, Shimla 21, Jatton Barrage 20, Mandi 18.2, Ghumarwin 18, Nahan 15.9, Kufri 14.8, Kahu 13.3, Kheri 13, Nichar 12.4, Kasauli 12.2, Bharmaur 12, Sangraha 11, Kothi 10, Barthin 9.4, Kasol 9, Rajgarh 9, Bhuntar 8.8, Bajaura Aws 8, Shillaro 6.5, Paonta 6.4, Sangla 6.2, Chuari 6, Hamirpur 6, Jubbal 5.2, Manali 5, Tinder 5, Dharmshala 4.4, Dharampur 4.2, Mehre (Barsar) 4, Narkanda Aws 3.5, Banjar 3, Kalpa 2.8, Kukumsheri Aws 2.8, Reckong Peo Aws 2, Kandaghat 1.8, Sarkaghat 1.7, Chhatrari 1.4, Koksar 1.1, Chamba Aws 1, Keylong 1, Bilaspur Aws 0.5, Sundarnagar 0.5, Rampur Bushar 0.4
21-08-2025	Una 132.6, Naina Devi 54.6, Sujanpur Tira 53, Amb 42, Nadaun 41.5, Paonta 38, Nalagarh 34, R L Bbmb 28.4, Tinder 25, Bangana_R 22.2, Bharwain 22, Kumarsain 20.6, Rohru 17, Dharampur 16.4, Hamirpur 16, Mehre (Barsar) 13, Aghar 11.6, Palampur 11.3, Jogindarnagar 11, Dehra Gopipur 10.2, Kasauli 10, Guler 9.8, Nagrota Surian 9, Shillaro 8.8, Bhareri 8.2, Kangra 7.8, Dharmshala 7.4, Nahan 7.1, Pachhad 7, Bajaura Aws 6.5, Sunibhajji 5.4, Narkanda Aws 5, Jatton Barrage 4.4, Barthin 4.2, Kufri 3.4, Solan 3, Bilaspur Sadar 2.4, Sangla 2.4, Mandi 2.4, Jubbal 2.4, Chamba Aws 2, Kasol 2, Seo Bagh 2, Bijahi 2, Kataula 2, Sangraha 2, Kahu 1.8, Bhuntar 1.8, Shimla 1.8, Pandoh 1.5, Sundarnagar 1.2, Jubberhatti 1.1, Dalhousie Aws 1, Manali 0.8
22-08-2025	Tinder 35, Manali 18, R L Bbmb 15.6, Bangana_R 15, Kufri 14.6, Bajaura Aws 7.5, Jubberhatti 3.6, Una 2.8, Narkanda Aws 1.5, Bilaspur Aws 1, Shimla 0.3
23-08-2025	Nalagarh 65, Nadaun 58.6, Bijahi 47.4, Bangana_R 47, Jogindarnagar 45, Jatton Barrage 44.2, Bharwain 40.4, Nagrota Surian 39.2, Kangra 35.7, Naina Devi 34.8, Paonta 33, Renuka / Dadhau 32, Baldwara 31, Tinder 30, Chuari 22.2, Amb 20, Rajgarh 19, Dharmshala 15.8, Ghumarwin 11, Palampur 11, Nahan 10.9, Tissa 10, Sangraha 10, Bajaura Aws 7.5, Gohar 5, Ghamroor 4.6, Sujanpur Tira 4.4, R L Bbmb 3.2, Theog 3.2, Una 2.6, Shillaro 2.4, Dehra Gopipur 2, Banjar 2, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.1
24-08-2025	Kheri 129, Pandoh 123, Kasauli 105, Sarkaghat 80.5, Karsog 68, Mandi 68, Amb 60, Hamirpur 58, Kataula 57.3, Jogindarnagar 54, Nadaun 52.8, Sunibhajji 50, Dharampur 44.6, Chuari 40.6, Nalagarh 40, Kotkhai 39.4, Palampur 33.2, Gohar 32.4, Saloni 32.1, Sarahan 30, Bijahi 27.6, Kumarsain 25.4, Dehra Gopipur 25, Kothi 25, Tissa 24.3, Chamba Aws 24, Manali 21, Janjehli 20, Seo Bagh 19.8, Una 18.2, Rohru 17, Bhuntar 16.6, Kangra 16.2, Bilaspur Sadar 15.2, Tinder 15, Baldwara 15, Sundarnagar 14.8, Sujanpur Tira 14.5, Bharmaur 14, Banjar 14, Bhareri 12.8, Jubbal 12.6, Jatton Barrage 12, Aghar 11.8, Pachhad 11, Sangla 10.2, Shillaro 10, Kalpa 8.4, Nichar 8, Solan 7.8, Chhatrari 7.6, Bajaura Aws 7.5, Nagrota Surian 7, Narkanda Aws 7, Rampur Bushar 7, Wangtoo 6.4, Dharmshala 5.8, Guler 5.8, Reckong Peo Aws 5.5, Jubberhatti 5.4, Bharwain 5, Kufri 4.5, Naina Devi 4.2, Renuka / Dadhau 4.2, Shimla 4, Kukumsheri Aws 3.9, Kasol 3, Khadrala 3, R L Bbmb 2.4, Ghamroor 2.4, Gondla 2.4, Theog 2.4, Barthin 2.2, Moorang 2, Keylong 2, Paonta 2, Sangraha 2, Kandaghat 2, Bangana_R 1.8, Kahu 1.6, Bilaspur Aws 0.5
25-08-2025	Kahu 190.5, Ghumarwin 160, Barthin 156.4, Naina Devi 148.4, Kheri 142, Bilaspur Sadar 140.8, Chuari 140.2, Mehre (Barsar) 127, Amb 111, Aghar 110.6, Bangana_R 104, Ghamroor 95.8, Bharwain 94.4, Nadaun 94, Hamirpur 92, Dharmshala 87.4, Bhareri 85.9, Sandhole 85.2, Kasauli 85, Sundarnagar 84.2, Baldwara 84, Saloni 83.3, Una 80.8, Sujanpur Tira 80, Nalagarh 75, Dharampur 68.6, Dehra Gopipur 68.3, Chamba Aws 67, R L Bbmb 66, Palampur 65.4, Kangra 61.6, Nagrota Surian 60.8, Sangraha 60, Bijahi 57, Guler 54.6, Jogindarnagar 54, Mandi 49, Gohar 47, Kothi 46, Banjar 45, Bharmaur 43.6, Chhatrari 39.6, Sunibhajji 38, Manali 37, Kukumsheri Aws 35.6, Sarahan 35.5, Tinder 35, Jubberhatti 35, Kandaghat 32.4, Karsog 32.1, Pandoh 32, Sarkaghat 31.2, Kasol 31, Gondla 30.4, Kumarsain 30.2, Keylong 30, Kataula 29.3, Seo Bagh 29, Rajgarh 28, Janjehli 26, Rohru 25, Kufri 24.6, Bhuntar 23.8, Jubbal 22.4, Rampur Bushar 22.4, Kotkhai 22.3, Shimla 21.3, Tissa 20, Theog 20, Solan 17.2, Narkanda Aws 16.5, Shillaro 15.8, Pachhad 14.4, Nahan 13.1, Renuka / Dadhau 8.7, Nichar 6, Jatton Barrage 5.2, Paonta 5, Wangtoo 4.2, Hansa 4, Kalpa 3.8, Sangla 3.8, Bajaura Aws 2.5, Khadrala 1.8, Reckong Peo Aws 1.5, Bilaspur Aws 0.5, Moorang 0.2

26-08-2025	Naina Devi 160.8, Kheri 128.6, Chuari 125.2, Dharmshala 102, Manali 102, Ghamroor 91.4, Kangra 89, Nagrota Surian 88.8, Palampur 88, Kothi 85.8, Bharwain 85, Tissa 80, Bhuntar 77.2, Gondla 75.6, Chamba Aws 74, Sangraha 72, Guler 71.8, Kukumsheri Aws 71.5, Seo Bagh 70.8, Kumarsain 70.6, Karsog 65.2, Kasol 65, Ghumarwin 62, Renuka / Dadhau 61, Sujanpur Tira 60.6, Rohru 60, Jogindarnagar 59, Nadaun 58.2, Koksar 58, Dehra Gopipur 57, Banjar 57, Aghar 55, Barthin 52.8, Bangana_R 52, Sundarnagar 51.3, Jatton Barrage 51, Hamirpur 49, Kotkhai 43.1, Amb 43, Paonta 41.2, Narkanda Aws 40.5, Bilaspur Sadar 40.2, Janjehli 40, Kufri 39, Saloni 38.4, Sarahan 37.5, Pachhad 37.4, Mandi 36.6, Keylong 35.5, Mehre (Barsar) 35, Baldwara 34, Una 34, Bhareri 33.2, Pandoh 33, Shillaro 33, Sunibhajji 32.8, Kahu 30.5, Bijahi 30.4, Theog 30, Shimla 28.8, Jubbal 28.4, Kasauli 28.2, R L Bbmb 28, Gohar 25, Dharampur 22.4, Nichar 22, Solan 19.2, Kandaghat 18.4, Hansa 15, Rampur Bushar 14.2, Sarkaghat 13.8, Sangla 10.6, Jubberhatti 8.6, Wangtoo 8.4, Nahan 7.6, Kalpa 6.6, Bajaura Aws 5.5, Khadrala 5, Moorang 3.2, Reckong Peo Aws 3, Bilaspur Aws 0.5
27-08-2025	Kheri 89.2, Kothi 69, Saloni 65.2, Chamba Aws 51, Nalagarh 45, Dharmshala 40.4, Kukumsheri Aws 33.2, Gondla 31.8, Tissa 29, Keylong 29, Chuari 27.4, Koksar 27, Naina Devi 26.8, Sangraha 26, Palampur 22.4, Kangra 21.6, Bilaspur Sadar 20.4, Kataula 20.2, Amb 20, Dehra Gopipur 18.4, Karsog 18, Nagrota Surian 15, Seo Bagh 15, Sujanpur Tira 14, Bijahi 13.2, Hansa 12, Guler 11.2, Kasol 11, Barthin 10.4, Bhuntar 10.4, Ghumarwin 10, Wangtoo 10, Baldwara 10, Jogindarnagar 10, Mandi 6.4, Solan 6.4, Reckong Peo Aws 6, Bharwain 6, Kalpa 5.9, Sangla 5.4, Kumarsain 5.4, Jatton Barrage 5.4, Bajaura Aws 5, Narkanda Aws 5, Ghamroor 4.6, Una 4.4, Bhareri 3.8, Nadaun 3.6, Sundarnagar 3.6, Gohar 3, Kasauli 3, Kahu 2.6, Pandoh 2.5, Aghar 2.4, R L Bbmb 2, Janjehli 2, Dharampur 2, Jubbal 1.6, Nichar 1.5, Kufri 1.4, Kotkhai 1.3, Sunibhajji 1.2, Pachhad 1.2, Mehre (Barsar) 1, Shillaro 1, Kandaghat 1, Bangana_R 1, Shimla 0.6, Theog 0.6, Bilaspur Aws 0.5, Renuka / Dadhau 0.3
28-08-2025	Pandoh 108, Bhareri 63.8, Nalagarh 60, Mandi 56.8, Gohar 53, Naina Devi 36.6, Saloni 33.3, Sarahan 30.5, Manali 25, Koksar 19, Sarkaghat 18.5, Baldwara 18, Rampur Bushar 18, Amb 15.4, Sundarnagar 11.9, Sunibhajji 11.6, Kataula 10.2, Hamirpur 9, Shillaro 9, Aghar 8.6, Kasauli 8.2, R L Bbmb 8, Bhuntar 8, Narkanda Aws 7.5, Jubberhatti 7.3, Bajaura Aws 5.5, Jogindarnagar 5, Nadaun 2.8, Shimla 2.4, Bilaspur Sadar 2.2, Ghamroor 2.2, Kahu 2, Dehra Gopipur 2, Kasol 2, Kufri 2, Jatton Barrage 2, Nagrota Surian 1.8, Chamba Aws 1, Guler 1, Seo Bagh 1, Barthin 0.6, Berthin Agro 0.5, Bangana_R 0.4
29-08-2025	Jatton Barrage 138, Renuka / Dadhau 114, Palampur 91.4, Bharwain 80, Sandhole 77.8, Paonta 75, Kataula 73.4, Sangraha 70, Rajgarh 65, Kasauli 62, Nahan 60.8, Solan 57.8, Gohar 55.6, Bilaspur Sadar 50.4, Nagrota Surian 48.2, Kahu 45.5, Pachhad 43, Bijahi 42, Sarahan 37.5, Pandoh 36, Bhareri 35.6, Rohru 29, Sunibhajji 28, Manali 27, Kothi 25, Kangra 24.8, Jogindarnagar 23, Dharampur 22.6, Dehra Gopipur 21.4, Nalagarh 20, Kasol 19, Janjehli 18, Kandaghat 18, Kheri 16, Mehre (Barsar) 15, Sundarnagar 14.7, Karsog 14.1, Narkanda Aws 13.5, Dharmshala 10.8, Kumarsain 10.6, Nichar 10.5, Sangla 10.2, Rampur Bushar 10, Kalpa 8.6, Shimla 8.5, Kufri 7.8, Nadaun 7.4, Koksar 7.2, Amb 7, Reckong Peo Aws 6.5, Bajaura Aws 6.5, Naina Devi 6.4, Shillaro 6.4, Mandi 6.2, Bangana_R 6.2, Jubberhatti 5.2, Moorang 4.7, Kotkhai 4.3, Sujanpur Tira 3.6, Chuari 3.2, Guler 2.6, Barthin 2.2, Chamba Aws 2, Bhuntar 2, Baldwara 2, Theog 2, Una 1.6, Seo Bagh 0.6, Bilaspur Aws 0.5
30-08-2025	Chuari 104, Jogindarnagar 86, Rampur Bushar 75.5, Dharmshala 69.4, Bijahi 63.4, Shimla 62, Kataula 60.1, Nahan 60.1, Palampur 60, Theog 59, Kheri 54, Sarahan 45.5, Kumarsain 45.4, Nichar 44.5, Gohar 43, Shillaro 41.4, Kangra 40.8, Narkanda Aws 40, Khadrala 38.2, Sunibhajji 29.6, Kothi 28, Kufri 26, Kotkhai 25.2, Nagrota Surian 24.4, Manali 24, Baldwara 24, Jatton Barrage 23, Rohru 18, Kasol 16, Paonta 14.8, Kalpa 14.6, Sundarnagar 14.1, Chamba Aws 14, Sujanpur Tira 13, Jubbal 11.4, Pandoh 11, Reckong Peo Aws 10, Keylong 10, Koksar 8.9, Bhuntar 8.6, Jubberhatti 8, Sangla 7.6, Kandaghat 7.2, Mandi 6.2, Gondla 5.4, Bharwain 5.2, Seo Bagh 5, Renuka / Dadhau 5, Guler 4.8, Bhareri 4.2, Pooh 4.2, Bajaura Aws 3.5, Kahu 3.2, Dehra Gopipur 3, Nadaun 2.5, Kukumsheri Aws 2.1, Bilaspur Aws 0.5
31-08-2025	Naina Devi 82.8, R L Bbmb 80, Chuari 75.2, Kumarsain 60.8, Jogindarnagar 59, Kangra 45.4, Sarahan 44, Kandaghat 43.8, Nalagarh 42, Una 37.2, Kufri 35, Kahu 34.6, Bangana_R 34.6, Palampur 32, Nagrota Surian 25.5, Mehre (Barsar) 24, Nadaun 22.5, Shillaro 20, Rajgarh 20, Bijahi 19.4, Aghar 18.6, Shimla 18.2, Manali 18, Narkanda Aws 17.5, Kataula 16.3, Jubberhatti 16.2, Mandi 15.8, Sujanpur Tira 15.5, Gohar 15, Rohru 15, Baldwara 14, Sundarnagar 13.8, Paonta 12.6, Bharwain 12.6, Dehra Gopipur 12.3, Barthin 12.2, Pandoh 10.5, Ghamroor 9.8, Dharmshala 8.8, Bhareri 8.2, Kotkhai 8.1, Kasauli 8, Nahan 7.6, Rampur Bushar 7.5, Nichar 7.4, Jatton Barrage 7.4, Guler 7.2, Dharampur 6.2, Bajaura Aws 6, Bilaspur Sadar 5.8, Sangla 5.8, Pachhad 5.3, Bhuntar 5, Sarkaghat 4.8, Solan 4.4, Kothi 3.2, Keylong 3, Seo Bagh 2.6, Chamba Aws 2, Hansa 2, Gondla 2, Kalpa 1.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5

8. Forecast for Next 7 Days

Light to moderate rainfall very likely at most places on 01st & 02nd September 2025. Light to moderate rainfall likely at many places on 03rd September 2025 and at few places from 04th to 07th September 2025. One or two spells of heavy rain likely at few places from 01st to 03rd September 2025 and one or two spells of very heavy rain likely at few places on 01st & 02nd September 2025. One or two spells of extremely heavy rain likely at isolated places on 01st September 2025.

With Regards
Meteorological Centre Shimla

Note: Forecast/Warning for any day is valid from 0830 hours IST of that day till 0830 hours IST of next day

WARNING	PROBABILISTIC FORECAST		SPATIAL		RAINFALL INTENSITY	
[illegible]	Terms	Probability of Occurrence	DRY	No Rainfall	Light	2.5-15.5 mm
ALERT (BE PREPARED)	Unlikely	<25%	ISOLATED	1-25%	Moderate	15.6-64.4 mm
WATCH (BE UPDATED)	Likely	25-50%	FEW	26-50%	Heavy	64.5-115.5 mm
NO WARNING (NO ACTION)	Very Likely	50-75%	MANY	51-75%	Very Heavy	115.6-204.4 mm
	Most Likely	>75%	MOST	76-100%	Extremely Heavy	>204.5 mm

For more information kindly visit:

Website:https://mausam.imd.gov.in/shimla/
Twitter-https://twitter.com/himachalmausam
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18 trains cancelled in Jammu, Katra & Udhampur as heavy rains disrupt rail traffic

PTI | Last Updated: Aug 26, 2025, 05:49:00 PM IST

Synopsis
Heavy rainfall in the Jammu region has led to the cancellation of 18 trains to and from Katra, Udhampur, and Jammu. The relentless downpour, the heaviest in decades, has damaged infrastructure, disrupted road connectivity, and prompted the suspension of the Mata Vaishno Devi pilgrimage.

Indian Railways

The Northern Railway has cancelled 18 trains to and from Katra, Udhampur and Jammu railway stations on Tuesday as relentless heavy rain wreaked havoc in the Jammu region, officials said.

The Jammu region has been experiencing its heaviest rainfall in decades since Monday night, which damaged bridges, disrupted road connectivity and inundated large tracts of land, forcing people to shift to safer areas.

The traffic on the Jammu-Srinagar and Kishtwar-Doda national highways was suspended, while dozens of hilly roads were blocked or damaged by landslides or flash floods, the officials said, adding the pilgrimage to the Mata Vaishno Devi shrine was also suspended as a precautionary measure.

Also read: Jammu Weather live updates

A railway official said, "Eighteen trains have been cancelled. Four trains have been subjected to short terminations. This has been done in view of the weather conditions prevailing in the region."

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Macron's 'cops' remark on Putin provokes strong reaction from Russia

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Of the trains cancelled, seven are from Katra, the base camp of the Mata Vaishno Devi shrine, two from Udhampur and one from Jammu, the officials said, adding that trains to Katra and Udhampur have also been cancelled.

Train services from Pathankot to Kandrori in Himachal Pradesh have also been suspended due to heavy soil erosion and flash floods on the Chakki river, according to railway officials.

Also read: J&K weather: Cloudburst hits Jammu's Doda district; 3 dead amid flash floods

Four trains were short-terminated at Firozpur, Manda and Chak Rakhwalan, they said, adding that movement of trains on the Katra-Srinagar stretch was continuing.

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18 trains cancelled due to traffic suspended in Down Line PTKC/Pathankot Cantt to KNDI/Kandrori due to heavy soil erosion and flash flood in Chakki River and traffic suspended between JAT/Jammu Tawi to SVDK/Katra, JAT/Jammu Tawi to BBMN/Bari Brahman (Down Line) section due to Show more

5:48 PM · Aug 26, 2025

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Annexure-6

3.5 On 5th Sep.'25, the committee tried to reach near the tower with the help of a motorized boat and found that the tower number 566 was submerged in more than 20 feet of water with a lot of debris/ trees entangled in the tower. There was a very heavy flow of water around the tower and tower at Loc. No. 565 was unapproachable.

i) **Tower Loc. No. 565 (HZD+3)**

When the water around the tower receded, the tower was inspected and following was observed:

- The tower has collapsed above first section.
- All four stubs were found ok
- No members were found missing.

Tower was last patrolled on: 09.07.2025

File No. NR3-AM-11-11/0093/2025/AM-NR3-RHQ-TL (Computer No. 1098118)
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Ii) Tower Loc. No. 566 (HZA+3)

The tower was submerged in more than 20 feet of water with a lot of debris/ trees entangled in the tower. There was a very heavy flow of water around the tower. The

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

committee observed that the tower might have collapsed due to heavy soil erosion under the tower.

When the water around the tower receded, the tower was inspected and following was observed:

- The tower has collapsed from stub level
- All four stubs were found damaged
- No members were found missing.

Tower was last patrolled on: 30.08.2025

4.0 CEA Committee visit

CEA nominated committee of the following members visited the site along with CC-Engg., RHQ & site representatives on dt 12th Sep. 2025:

a) Sh. P.K. Sangwan, Asst. Director, CEA,
b) Sh. Durgesh Kr. Yadav, Engg. Officer, CPRI
c) Sh. Aakash Jain, AE, NRPC
d) Sh. Rajnish, Ex. Engineer, UPPCL

a.) The committee visited tower location 566 and 565 to investigate the cause of tower collapse.

b.) A detailed inspection of both towers was conducted by the committee, during which committee members identified and marked the main leg and bracing components of the tower at location no. 565 (HZD+3) for testing purpose.

c.) For location 566 (HZA+3), the similar inspection could not be done as the tower was inside the river flow. Dismantling of the tower is not possible till the water recedes away from the tower.

d.) However, the committee recommended that samples from this tower also be collected for testing—once dismantling is possible—following the same procedure as was carried out for location 565.

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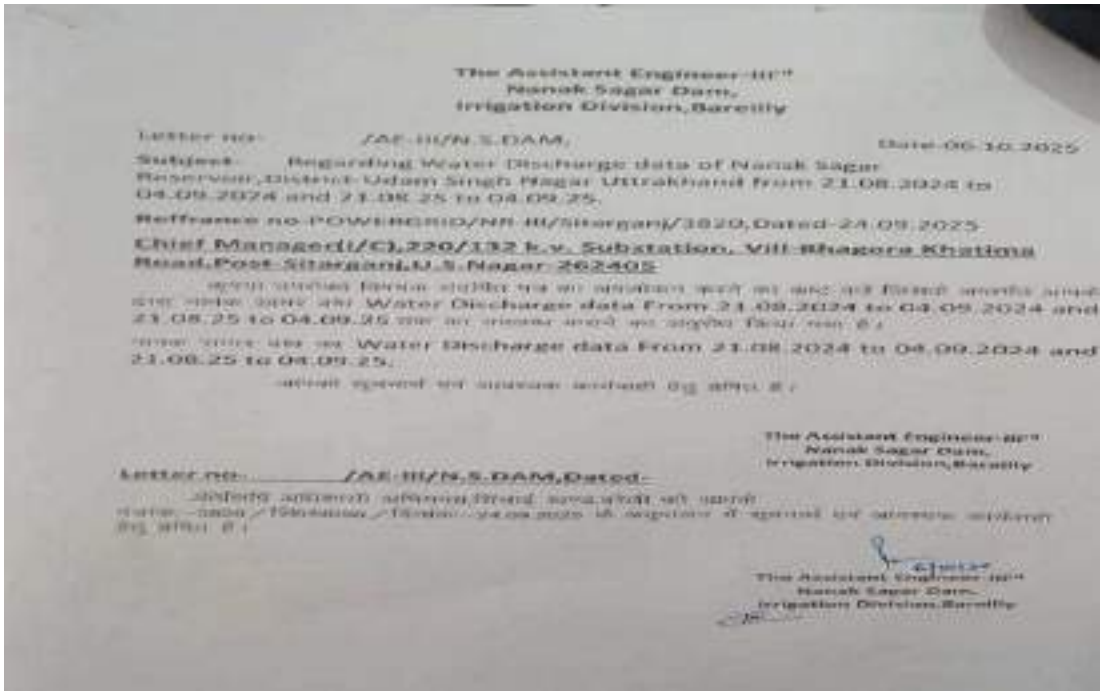
5.0 Wind Data/ River water data: Wind data: Not Applicable

River Water Data:

1. **Nanak-Sagar Dam:**



The Assistant Engineer-III"
Nanak Sagar Dam,
Irrigation Division,Bareilly

Letter no: /AE-III/N.S.DAM, Date-06.10.2025

Subject: Regarding Water Discharge data of Nanak Sagar Reservoir,District-Udam Singh Nagar Uttrakhand from 21.08.2024 to 04.09.2024 and 21.08.25 to 04.09.25.

Refrance no-POWER(O)/NR-III/Sitarganj/3020,Dated-24.09.2025

Chief Manager(C),220/132 k.v. Substation, Vill-Bhagora Khatima Road,Post-Sitarganj,U.S.Nagar-262405

Water Discharge data From 21.08.2024 to 04.09.2024 and 21.08.25 to 04.09.25

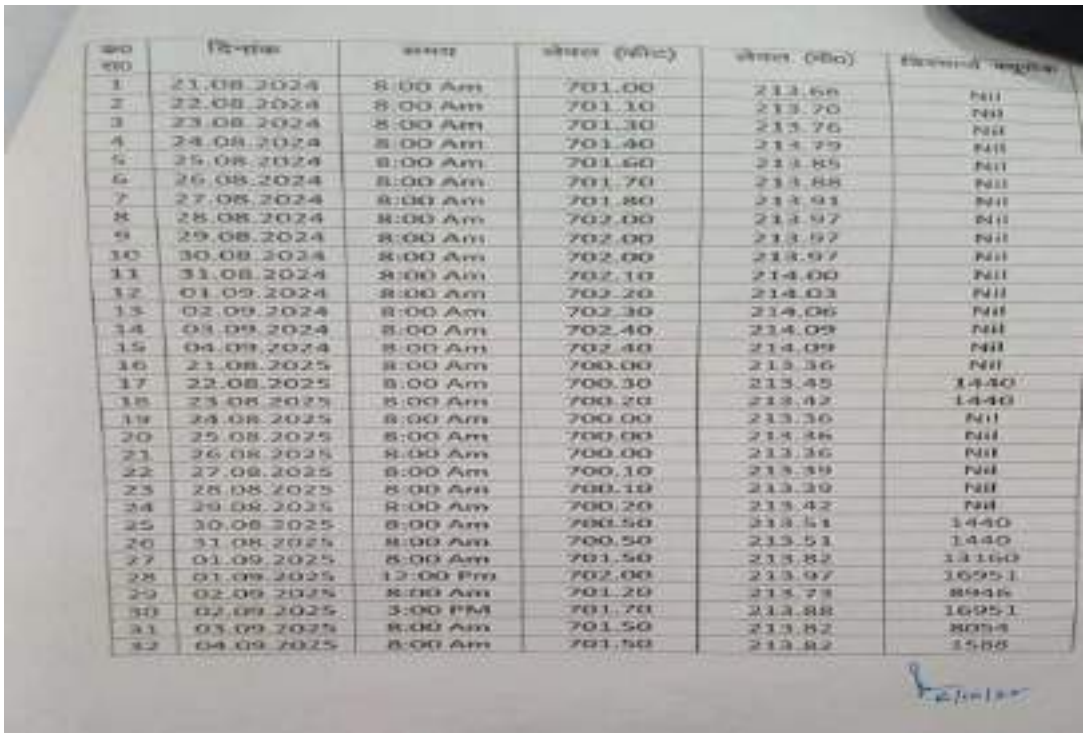
Water Discharge data From 21.08.2024 to 04.09.2024 and 21.08.25 to 04.09.25.

The Assistant Engineer-III"
Nanak Sagar Dam,
Irrigation Division,Bareilly

Letter no: /AE-III/N.S.DAM,Dated-

The Assistant Engineer-III"
Nanak Sagar Dam,
Irrigation Division,Bareilly

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED



क्र.सं.	दि-दिनांक	समय	जलस्तर (मीटर)	जलस्तर (मीटर)	[illegible]
1	21.08.2024	8:00 Am	701.00	213.66	Nil
2	22.08.2024	8:00 Am	701.10	213.70	Nil
3	23.08.2024	8:00 Am	701.30	213.76	Nil
4	24.08.2024	8:00 Am	701.40	213.79	Nil
5	25.08.2024	8:00 Am	701.60	213.85	Nil
6	26.08.2024	8:00 Am	701.70	213.88	Nil
7	27.08.2024	8:00 Am	701.80	213.91	Nil
8	28.08.2024	8:00 Am	702.00	213.97	Nil
9	29.08.2024	8:00 Am	702.00	213.97	Nil
10	30.08.2024	8:00 Am	702.00	213.97	Nil
11	31.08.2024	8:00 Am	702.10	214.00	Nil
12	01.09.2024	8:00 Am	702.20	214.03	Nil
13	02.09.2024	8:00 Am	702.30	214.06	Nil
14	03.09.2024	8:00 Am	702.40	214.09	Nil
15	04.09.2024	8:00 Am	702.40	214.09	Nil
16	21.08.2025	8:00 Am	700.00	213.36	Nil
17	22.08.2025	8:00 Am	700.30	213.45	1440
18	23.08.2025	8:00 Am	700.20	213.42	1440
19	24.08.2025	8:00 Am	700.00	213.36	Nil
20	25.08.2025	8:00 Am	700.00	213.36	Nil
21	26.08.2025	8:00 Am	700.00	213.36	Nil
22	27.08.2025	8:00 Am	700.10	213.39	Nil
23	28.08.2025	8:00 Am	700.10	213.39	Nil
24	29.08.2025	8:00 Am	700.20	213.42	Nil
25	30.08.2025	8:00 Am	700.50	213.51	1440
26	31.08.2025	8:00 Am	700.50	213.51	1440
27	01.09.2025	8:00 Am	701.50	213.82	13160
28	01.09.2025	12:00 Pm	702.00	213.97	16951
29	02.09.2025	8:00 Am	701.20	213.73	8946
30	02.09.2025	3:00 PM	701.70	213.88	16951
31	03.09.2025	8:00 Am	701.50	213.82	8054
32	04.09.2025	8:00 Am	701.50	213.82	1568

2. *Duni Dam-Pilibhit:*

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

कार्यालय सहायक अभियन्ता चतुर्थ
शारदा सागर खण्ड, पीलीभीत

पत्रांक– /सहायकाभि0–4/ **दिनांक–** /09/2025

विषय– जनपद पीलीभीत के अन्तर्गत डूनी बैराज का दिनांक–21.08.2025 से 04.09.2025 तक डिस्चार्ज की सूचना के सम्बन्ध में।

अधिशासी अभियन्ता, शारदा सागर खण्ड, पीलीभीत।

उपरोक्त विषयक पत्र का अवलोकन करने की कृपा करें। जिसमें पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड द्वारा जनपद पीलीभीत के अन्तर्गत डूनी बैराज का दिनांक–21.08.2025 से 04.09.2025 तक अधिकतम डिस्चार्ज की सूचना चाही गयी है।

उक्त के सम्बन्ध में अवगत कराना है कि डूनी बैराज की दिनांक–21.08.2025 से 04.09.2025 तक अधिकतम डिस्चार्ज (क्यूसेक में) सूचना दिनांकवार निम्नवत है।

Sl.No.	Date	LEVEL (Fit)	Discharge (Cusec)
1	21.08.2025	620.50	6531
2	22.08.2025	619.30	1403
3	23.08.2025	619.10	580
4	24.08.2025	619.00	Nil
5	25.08.2025	619.00	Nil
6	26.08.2025	619.00	Nil
7	27.08.2025	619.10	580
8	28.08.2025	619.00	Nil
9	29.08.2025	624.00	21648
10	30.08.2025	623.00	17318
11	31.08.2025	626.00	30307
12	01.09.2025	631.50	54120
13	02.09.2025	631.80	56418
14	03.09.2025	630.20	48491
15	04.09.2025	627.00	34636

सहायक अभियन्ता चतुर्थ
शारदा सागर खण्ड पीलीभीत

5.0 Restoration Plan

5.1 Temporary Restoration Plan

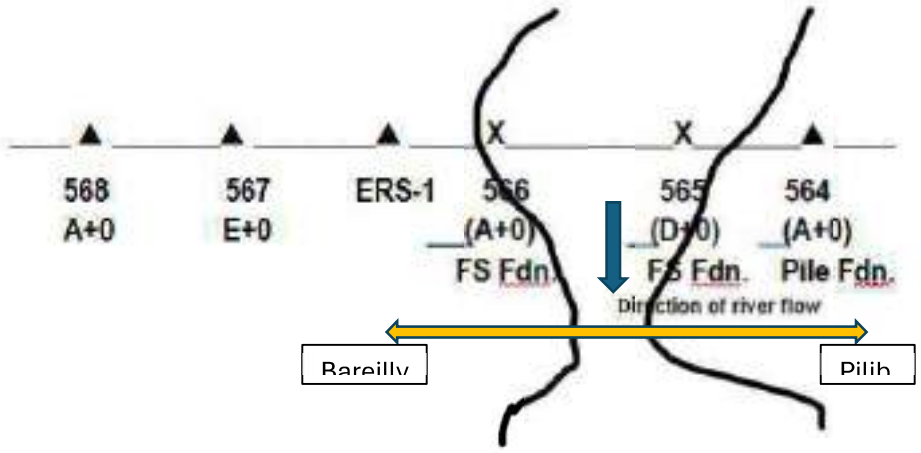
Given the critical urgency to restore the subject transmission line at the earliest, following is proposed for temporary restoration of the line:

i) Erection of new tower at Loc. No. 565 (HZD+3) on existing foundation after minor-rectification of stub at One Leg.

ii) Erection of one number ERS tower between Tower Loc. No. 565 & 567

iii) Temporary restoration of the line bypassing collapsed tower location number 566 through one number ERS.

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED



5.2 Permanent Restoration Plan

The change in the river's course has led to significant soil erosion around Tower No. 566. Given the altered flow and evident scouring beneath the existing tower foundations, the conventional foundations may no longer be suitable for erecting new towers in this area.

Furthermore, as the river has shifted its course toward Tower No. 567 and may potentially reach it in the future, threatening its stability..

Therefore, the committee recommends shifting tower location no. 566 on pile foundation, after detailed survey and profiling.

6.0 Damage to nearby Infrastructure:

There was heavy damage due to submergence of large area in water (Newspaper cuttings attached).

File No. NR3-AM-11-11/0093/2025/AM-NR3-RHQ-TL (Computer No. 1098118)
Generated from eOffice by ANSHUMAN SINGH, DGM(AM-NR3-RHQ)AS, DGM(AM-NR3-RHQ), NORTHERN REGION-III on 04/02/2026 09:52 am

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

7.0 News Paper cutting

दहशतः अचानक आंख खुली तो घर में भरा था पानी

30 किसानों की 60 एकड़ से अधिक जमीन देवहा नदी ने निगली

कल्लीनगर में बिगड़े हालात

मौसम का सितम

बीसलपुर में सड़क पर दिखा सैलाब, चारों ओर बाढ़ का पानी

बाढ़ में पलटने से बचा ट्रैक्टर अधिकारियों की सांसें फूली

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

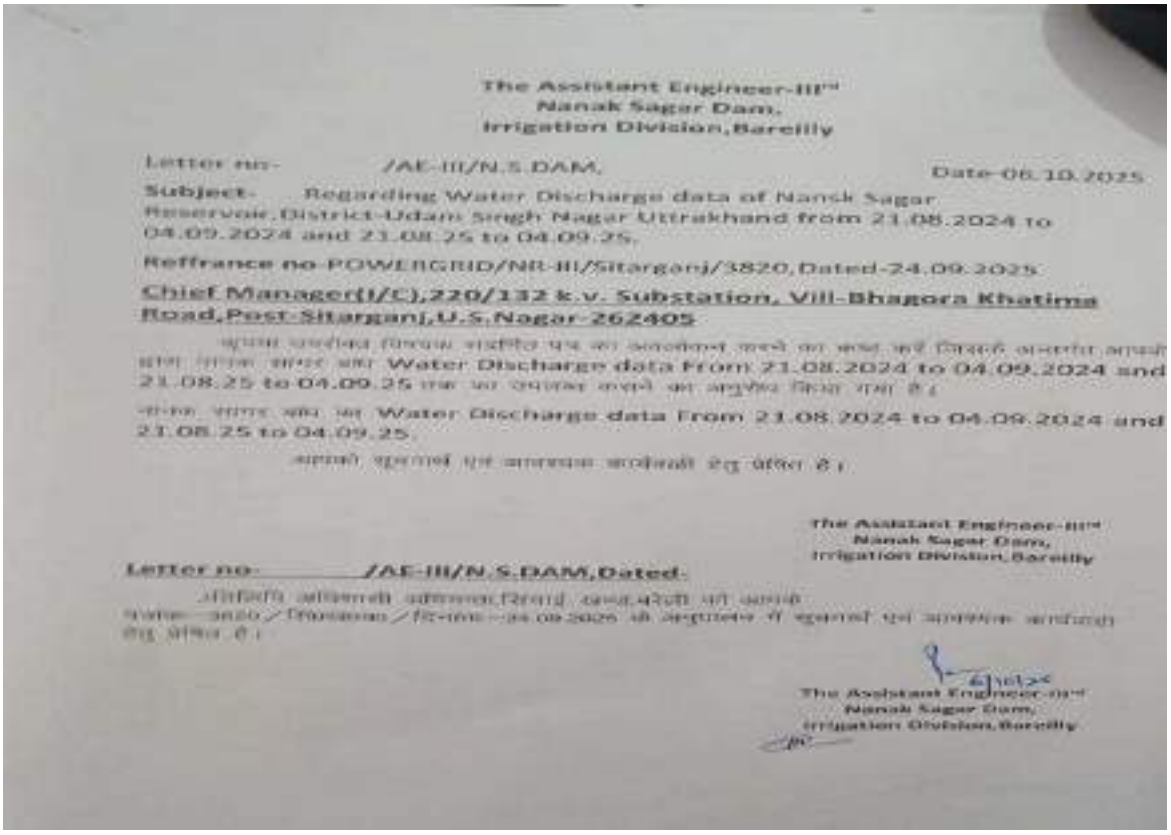
pg. 14

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

pg. 15

River Water Data:

1. **Nanak-Sagar Dam:**



The Assistant Engineer-III
Nanak Sagar Dam,
Irrigation Division,Bareilly

Letter no- /AE-III/N.S.DAM, Date-06.10.2025

Subject- Regarding Water Discharge data of Nanak Sagar Reservoir,District-Udam Singh Nagar Uttrakhand from 21.08.2024 to 04.09.2024 and 21.08.25 to 04.09.25.

Reffrance no-POWERGRID/NR-III/Sitarganj/3820,Dated-24.09.2025

Chief Manager(I/C),220/132 k.v. Substation, Vill-Bhagora Khatima Road,Post-Sitarganj,U.S.Nagar-262405

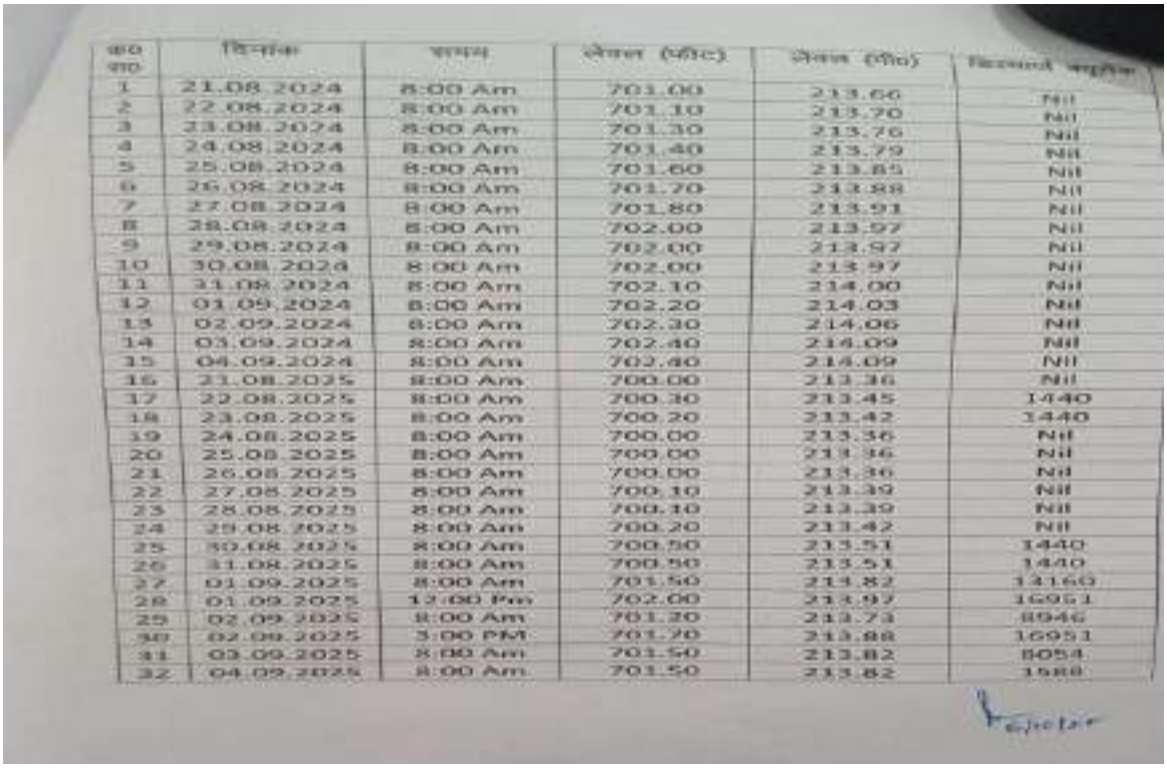
Water Discharge data From 21.08.2024 to 04.09.2024 and 21.08.25 to 04.09.25

Water Discharge data From 21.08.2024 to 04.09.2024 and 21.08.25 to 04.09.25.

The Assistant Engineer-III
Nanak Sagar Dam,
Irrigation Division,Bareilly

Letter no- /AE-III/N.S.DAM,Dated-

The Assistant Engineer-III
Nanak Sagar Dam,
Irrigation Division,Bareilly



क्र0 सं0	दिनांक	समय	लेवल (फीट)	लेवल (मीटर)	डिस्चार्ज क्यूसेक
1	21.08.2024	8:00 Am	701.00	213.66	Nil
2	22.08.2024	8:00 Am	701.10	213.70	Nil
3	23.08.2024	8:00 Am	701.30	213.76	Nil
4	24.08.2024	8:00 Am	701.40	213.79	Nil
5	25.08.2024	8:00 Am	701.60	213.85	Nil
6	26.08.2024	8:00 Am	701.70	213.88	Nil
7	27.08.2024	8:00 Am	701.80	213.91	Nil
8	28.08.2024	8:00 Am	702.00	213.97	Nil
9	29.08.2024	8:00 Am	702.00	213.97	Nil
10	30.08.2024	8:00 Am	702.00	213.97	Nil
11	31.08.2024	8:00 Am	702.10	214.00	Nil
12	01.09.2024	8:00 Am	702.20	214.03	Nil
13	02.09.2024	8:00 Am	702.30	214.06	Nil
14	03.09.2024	8:00 Am	702.40	214.09	Nil
15	04.09.2024	8:00 Am	702.40	214.09	Nil
16	21.08.2025	8:00 Am	700.00	213.36	Nil
17	22.08.2025	8:00 Am	700.30	213.45	1440
18	23.08.2025	8:00 Am	700.20	213.42	1440
19	24.08.2025	8:00 Am	700.00	213.36	Nil
20	25.08.2025	8:00 Am	700.00	213.36	Nil
21	26.08.2025	8:00 Am	700.00	213.36	Nil
22	27.08.2025	8:00 Am	700.10	213.39	Nil
23	28.08.2025	8:00 Am	700.10	213.39	Nil
24	29.08.2025	8:00 Am	700.20	213.42	Nil
25	30.08.2025	8:00 Am	700.50	213.51	1440
26	31.08.2025	8:00 Am	700.50	213.51	1440
27	01.09.2025	8:00 Am	701.50	213.82	13160
28	01.09.2025	12:00 Pm	702.00	213.97	16951
29	02.09.2025	8:00 Am	701.20	213.73	8946
30	02.09.2025	5:00 PM	701.70	213.88	16951
31	03.09.2025	8:00 Am	701.50	213.82	8054
32	04.09.2025	8:00 Am	701.50	213.82	1588

2. *Duni Dam-Pilibhit:*

कार्यालय सहायक अभियन्ता चतुर्थ
शारदा सागर खण्ड, पीलीभीत

पत्रांक– /सहा0अभि0–4/ दिनांक– /09/2025

विषयः– जनपद पीलीभीत के अन्तर्गत डूनी बैराज का दिनांक–21.08.2025 से 04.09.2025 तक डिस्चार्ज की सूचना के सम्बन्ध में।

अधिशासी अभियन्ता, शारदा सागर खण्ड, पीलीभीत।

उपरोक्त विषयक पत्र का अवलोकन करने की कृपा करें। जिसमें पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड द्वारा जनपद पीलीभीत के अन्तर्गत डूनी बैराज का दिनांक–21.08.2025 से 04.09.2025 तक अधिकतम डिस्चार्ज की सूचना चाही गयी है।

उक्त के सम्बन्ध में अवगत कराना है कि डूनी बैराज से दिनांक–21.08.2025 से 04.09.2025 तक अधिकतम डिस्चार्ज (क्यूसेक में) सूचना दिनांकवार निम्नवत् है।

Sl.No.	Date	LEVEL (Fit)	Discharge (Cusec)
1	21.08.2025	620.50	6531
2	22.08.2025	619.30	1403
3	23.08.2025	619.10	580
4	24.08.2025	619.00	Nil
5	25.08.2025	619.00	Nil
6	26.08.2025	619.00	Nil
7	27.08.2025	619.10	580
8	28.08.2025	619.00	Nil
9	29.08.2025	624.00	21648
10	30.08.2025	623.00	17319
11	31.08.2025	626.00	30307
12	01.09.2025	631.50	54120
13	02.09.2025	631.80	55418
14	03.09.2025	630.20	48491
15	04.09.2025	627.00	34636

सहायक अभियन्ता चतुर्थ
शारदा सागर खण्ड पीलीभीत

News Paper cutting

दहशतः अचानक आंख खुली तो घर में भरा था पानी

30 किसानों की 60 एकड़ से अधिक जमीन देवहा नदी ने निगली

मौसम का सितम

बीसलपुर में सड़क पर दिखा सैलाब, चारों ओर बाढ़ का पानी

बाढ़ में पलटने से बचा ट्रैक्टर अधिकारियों की सांसें फूली

शारदा बांध वर्षों से धंसा, ग्रामीणों में फैली दहशत
रजारा और शास्त्रीनगर में नहीं मिली राहत, टापू बने गांव

लीलम का सितम
बीरपुर में सड़क पर दिखा तालाब, चारों ओर बाढ़ का पानी

आफत की बारिश
देवहा और कटना नदी के किनारे बसे 60 गावों में स्थिति गंभीर
पुरानी पेंशन बहाली के लिए कर्मचारियों ने किया सामूहिक उपवास

शहर में देवहा, देहात में शारदा से आफत

Annexure-7

Restoration works of 765kV S/C Koteshwar -Meerut Circuit-I Transmission Line				
Date	**Description of activity**	**Remarks**	**Photographs**	
			Work Progress	***Constraint & site challenges***
11-Aug-25	765kV Koteshwar-Meerut Ckt1 Tripped on 15:59 hrs and Tower location visit by Roorkee TLM	Locations 140 141 142 not approachable due to flood in song river.		
12-Aug-25	Tower Location 141 visit by Roorkee, CGM(AM-NR1), DGM(AM-NR1), DGM(AM-CC)	Location 142 not approachable due to flood in the Song river.		

13-Aug-25	Tower Location 142 visit by Roorkee, CGM(AM-NR1), DGM(AM-NR1), DGM(AM-CC)			
14-Aug-25	CEA visit awaited, Party identification and finalization for ERS works, Forest Permission to start the work			

15-Aug-25	CEA visit awaited, Tower parts dispatched from various locations			
16-Aug-25	CEA visit awaited, ERS & conductor dispatched from Meerut			
17-Aug-25	CEA visit awaited, Restoration agency mobilised at site			Total 80 nos. of manpower deployed for restoration works
18-Aug-25	CEA (Sh. P.K. Sangwan), DTL (Sh. Sailesh Mathur, DGM) & CPRI (Sh. Durgesh Kr. Yadav, Engg. Officer) visit completed			

19-Aug-25	1. Mobilization of Agency to restore the line, 2. Preparatory work for dismantling of tower 141			Total 120 nos. of manpower reported and deployed to start the work
20-Aug-25	1. Diversion of song river 2. ERS reached at site 3. Dismantling of tower 141under progress 4. Preparation of approach road tower no 141 5. Back stay and jumper removal at tower no 145 &139 completed.	Heavy rain at site in Night	 	

21-Aug-25	1. Tower parts received at site 2. E/WE Peak dismantling tower no 140 and new earth wire peak completed. 3. Dismantling of tower 141 completed. 4. 3 no of Chimney breaking work completed. 5. ERS shifting to location 142 and 3 nos of structure completed.	Preparing damaged approach road to tower no 141 damaged due to heavy rain at site.		
22-Aug-25	1. 3 No of stub fixing completed 2. 1 no chimney Casting completed 3. 10 nos. ERS structure completed 4. D stringing of 141-143 completed	Work hampered due rain at site in the morning.		

23-Aug-25	1. Preparing damaged approach road to tower no 141 2. 16 no of ERs structure completed 3. Casting 2 balanced Chimney 4. D stringing B/W 141-139 completed	Heavy rain at site during the last night, damaged the approach road		
24-Aug-25	1. Ground assembly for tower erection at loc no 141 started. 2. Load stay Guy tightening at ERS and final checking at 143 completed. 3. Rough sag of top phase 143 to ERS completed	Heavy rain at site during the last night		

25-Aug-25	1. 2 no of +9 Mtr extension face of tower no Tower no 141 Completed 2. Final sag of top phase 143 to ERS completed 3. Rough sag of middle phase 143 to ERS completed	Leopard movement restricted the activity at ERS Tower Work hampered due rain at site.		

26-Aug-25	1. +9 Mtr extension of Tower no 141 Completed 2. Rough sag of Bottom phase 143 to ERS completed 3. Final sag of Middle phase 143 to ERS completed	Elephant movement restricted the working hours at ERS tower Work hampered up to 11 o'clock due to rain at site		
27-Aug-25	1. Tower erection at loc no 141 completed up to 0 mtr and K frame started. 2. Final sag of all phases of 143 to ERS completed and jumpering completed			

28-Aug-25	1. 1 no of K frame completed 2. Top & middle phase ERS to 141 paying out of conductor completed 3. E/W removal 143 to ERS			
29-Aug-25	1. Ground assembly of Beam under progress 2. Second K frame completed 3. Tower tightening work completed at loc no 140&143 4. Bottom phase ERS to 141 paying out of conductor completed 5. 2 phase 141 to 140 paying out of conductor completed 6. CEA application applied.	Heavy rain at site and Work hampered due to rain up to 12 o'clock		

30-Aug-25	1. Beam erection of tower no 141 completed 2. All phases paying out of conductor completed 141 to 140	Very heavy rain at site and work stopped Work hampered due to Break down of Crane.		
31-Aug-25	1. Tower Erection of 141 completed 2. Insulator Hoisting tower no 141 completed 3. Tower tightening of 141 completed 4. Rough Sag of 2 phase completed from ERS to 141	Rain at site and Work hampered due to rain		

1-Sep-25	1. Rough Sag of 1 phase completed from 140-141 2. Final sag completed of 2 phases from ERS to 141 and Rough sag 3rd phase completed	Very heavy rain at site and work stopped for 4 hours.		
2-Sep-25	1. Final sag Completed from ERS to 141 2. CEA visit completed 3. Final Sag of 1 phase completed from 140-141 and Jumpering work single phase at 141 completed. 4. ERS tower guying tightening work completed	Heavy rain at site and work stopped for 3 hours and damaged the approach road		

3-Sep-25	1. Final Sag of balanced 2 phases completed 2. Back stay removal and Re-jumpering at tower no 145 & 139 completed. 3. Line charged at 19:38 Hrs.			

कार्यालय प्रमुख वन संरक्षक (वन्यजीव)/मुख्य वन्यजीव प्रतिपालक,उत्तराखण्ड।
85 राजपुर रोड, देहरादून, फोन नं० 0135–2742984 फैक्स नं० 0135–2745691 ईमेल–cwlwua@yahoo.co.in

पत्रांक 60/ /12-1 देहरादून दिनांक 14 अगस्त, 2025

सेवा में,

निदेशक,
राजाजी टाईगर रिजर्व,
देहरादून।

विषयः– **765 के0वी0 कोटेश्वर–मेरठ पारेषण लाइन सर्किट–I के Restoration कार्य शुरू करने से पूर्व अनुमति प्राप्त करने के सम्बन्ध में।**

सन्दर्भः– आपका पत्रांक 526/12–1 दिनांक 14.08.2025

महोदय,

उपरोक्त विषयक आपके सन्दर्भित पत्र से की गई संस्तुति के आधार पर विषयक पत्र में उल्लिखित **765 के0वी0 कोटेश्वर–मेरठ पारेषण लाइन सर्किट–I के Restoration कार्य** की अनुमति जनहित में निम्नलिखित प्रतिबन्धों/शर्तों के अधीन प्रदान की जाती हैः–

1. यह अनुमति उप महाप्रबन्धक, पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड, रूड़की का कार्यालय पत्रांक–PG/NR1/RRK/TLM/KOT-MRT-1/229 दिनॉक 12.08.2024 में उल्लेखित कार्य हेतु मान्य होगी।
2. उक्त कार्य के दौरान वन्यजीव (संरक्षण) अधिनियम, 1972 (यथासंशोधित–2022), वन (संरक्षण) अधिनियम, 1980 यथा संशोधित 2023 एवं भारतीय वन अधिनियम, 1927 (यथासंशोधित–2001) में दिये गये दिशा–निर्देशों का भलिभांति अवलोकन कर पालन किया जाना आवश्यक होगा। उक्त वन कानूनों के उल्लंघन की स्थिति में कार्यदायी संस्था स्वयं जिम्मेदार होगा।
3. उक्त कार्य के दौरान कार्यदायी संस्था द्वारा किसी प्रकार से वन्य प्राणियों/वनस्पतियों को नुकसान नहीं पहुॅचाया जायेगा, कोई पौधा या उसका अंश या प्राणी को नष्ट करने की अनुमति नहीं होगी।
4. पार्क क्षेत्र में किसी प्रकार का आग्नेयास्त्र ले जाना वर्जित होगा।
5. कार्य के दौरान आरक्षित वन क्षेत्र से किसी प्रकार की मिट्टी, पत्थर, बजरी एवं अन्य वन उपज का प्रयोग नहीं किया जाएगा।
6. उक्त कार्य स्थल पर स्थलीय वन्यजीवों के स्वच्छंद विचरण के साथ–साथ जलीय जैव विविधता भी विद्यमान है। जलीय जैव विविधता की सुरक्षा का पूर्ण ध्यान रखते हुये उक्त कार्य कार्यदायी संस्था/कर्मचारियों द्वारा वनाधिकारियों/कर्मचारियों की उपस्थिति में सम्पादित किया जायेगा।
7. उक्त कार्य के दौरान पार्क क्षेत्र में आने वाले वाहनों, कर्मचारियों, ठेकेदारों तथा मजदूरों द्वारा रात्रि स्थगन जंगल में नहीं किया जायेगा तथा वे कार्य क्षेत्र में ही अपना आवागमन सीमित रखेंगे।
8. सम्बन्धित कार्य हेतु पार्क क्षेत्र में प्रवेश करने वाले समस्त अधिकारियों/कर्मचारियों/वाहनों/ठेकेदारों तथा मजदूरो की सूची कार्य प्रारम्भ करने से पूर्व सम्बन्धित वन क्षेत्राधिकारी के कार्यालय में पंजीकृत करवानी होगी।

क्रमशः–2–

9. पार्क क्षेत्र में कार्य सूर्योदय के पश्चात व सूर्यास्त से पूर्व की अवधि में ही किया जायेगा।

10. कार्य के दौरान पार्क क्षेत्र में किसी भी जलाशय अथवा जल स्रोत को किसी भी प्रकार से दूषित न किया जाय।

11. उक्त कार्य हेतु वन क्षेत्र में प्रवेश करने वाली मशीनों/वाहनों को नियमानुसार समस्त शुल्क जमा करना होगा।

12. उक्त कार्य के दौरान वन्य जन्तुओं से किसी प्रकार से जनधन की हानि के लिए वन विभाग जिम्मेदार नहीं होगा।

13. कार्यदायी संस्था के द्वारा कार्य के दौरान सार्वजनिक मार्ग के अतिरिक्त वन क्षेत्र में प्रवेश नहीं किया जायेगा। आवागमन के दौरान खाद्य सामग्री, पैपर, पॉलीथीन, प्लास्टिक की बोतले आदि वन क्षेत्र में नहीं छोड़ी जायेगी तथा पार्क क्षेत्र में किसी प्रकार का शोरगुल न किया जाए।

14. उक्त कार्य हेतु (आवश्यक सामग्री टी0एण्ड0पी0) के साथ 06 ट्रैक्टर, 01 पोकलेण्ड मशीन, 04 जे0सी0बी मशीन, 01 ड्रिलिंग मशीन, 01 हाइड्रा मशीन, संबधित ऑपरेटर/कुशल श्रमिकों के साथ पावर ग्रिड कॉर्पोरेशन के अधिकारी व श्रमिक (लगभग 40 व्यक्तियों) का उपयोग निदेशक, राजाजी टाइगर रिजर्व के निर्देशानुसार सम्बन्धित वन क्षेत्राधिकारी या उनके द्वारा नामित प्रतिनिधि के समक्ष किया जायेगा।

15. पार्क क्षेत्र में किसी प्रकार से वन सम्पदा व वन्यजीवों को किसी प्रकार की हानि न होने पावे।

16. संरक्षित/आरक्षित वन क्षेत्र में उक्त कार्य के दौरान **NTCA, भारत सरकार** एवं मा0 उच्चतम न्यायालय/उच्च न्यायालय/**NGT** द्वारा समय–समय पर जारी दिशा निर्देशों को पूर्णतः पालन किया जायेगा। समय–समय पर जारी किसी भी अन्य आदेश/निर्देश के क्रम में, नियमानुसार कार्यवाही हेतु प्रयोक्ता एजेंसी बाध्य होगी।

17. उक्त कार्य प्रारम्भ करने से पूर्व तथा कार्य समाप्ति की सूचना सम्बन्धित वन क्षेत्राधिकारी/वन्यजीव प्रतिपालक, को देनी होगी।

18. उक्त कार्य की अनुमति इस पत्र के निर्गत होने की तिथि से **01** माह तक के लिए मान्य होगी।

उपरोक्त वर्णित शर्तों का अनुपालन कार्यदायी संस्था से करवाने तथा उक्त कार्य हेतु सम्बन्धितों को यथोचित दिशा–निर्देश निर्गत करना सुनिश्चित करें ताकि कार्य नियमों की परिधि के अन्तर्गत ही किया जा सके।

भवदीय

(आर0के0 मिश्र)
प्रमुख वन संरक्षक (वन्यजीव)/
मुख्य वन्यजीव प्रतिपालक,
उत्तराखण्ड।

उत्तराखण्ड वन्यजीव हेल्प लाइन न0–18008909715

फोन : 0135–2621669, फैक्स : 0135 2620933, e mail: director.rajaji@gmail.com

RAJAJI TIGER RESERVE

कार्यालय निदेशक/ वन संरक्षक
राजाजी टाइगर रिजर्व, देहरादून, उत्तराखण्ड।

5/1, अन्सारी मार्ग, देहरादून, 248001.

पत्रांक– 531/ 12–1 देहरादून, दिनांक : 14 अगस्त, 2025

प्रतिलिपि :– निम्न को सूचनार्थ एवं उपरोक्त शर्तो के अक्षरतः अनुपालन हेतु प्रेषितः–

1. उप महाप्रबन्धक, पावर ग्रिड कार्पोरेशन ऑफ इंन्डिया, रुडकी को उनके कार्यालय पत्रांक– PG/NR1/RRK/ TLM/ KOT-MRT-1/229 dated 12-08-2024 के क्रम में।
2. उप निदेशक/ उप वन संरक्षक राजाजी टाईगर रिर्जव, देहरादून।
3. वन्यजीव प्रतिपालक देहरादून, राजाजी टाईगर रिर्जव।
4. वन क्षेत्राधिकारी, मोतिचूर रेंज, राजाजी टाईगर रिर्जव को इस निर्देश के साथ प्रेषित कि वे समय समय पर कार्यक्षेत्र का निरीक्षण कर उपरोक्त शर्तो का अनुपालन सुनिश्चित कराये।

(डॉ० कोको रोसे)
निदेशक/वन संरक्षक,
राजाजी टाइगर रिजर्व, देहरादून।

पावरग्रिड
POWERGRID

पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

संदर्भ संख्या: PG/NR1/RRK/TLM/ KOT-MRT-1/821 दिनांक: 12.08.2024

सेवा में

श्रीमान प्रमुख वन संरक्षक (वन्यजीव)/मुख्य वन्यजीव प्रतिपालक
उत्तराखण्ड, देहरादून

विषय :- 765 KV कोटेश्वर-मेरठ पारेषण लाइन सर्किट-I के restoration कार्य शुरू करने से पूर्व अनुमति प्राप्त करने के संबंध में.

महोदय ,

उपरोक्त विषय में आपको अवगत करवाना है कि पावर ग्रिड कार्पोरेशन की 765kV कोटेश्वर-मेरठ पारेषण लाइन सर्किट-I राजाजी राष्ट्रीय पार्क से गुजर रही है | दिनांक 11.08.2025 सोंग नदी में आई बाढ़ के दौरान, मोतीचूर रेंज में स्थित दो टावर क्षतिग्रस्त हो गए हैं, जिससे टिहरी बांध से दिल्ली-एनसीआर क्षेत्र को आपूर्ति बाधित हो गई है। ध्वस्त टावर की मरम्मत के लिए, लोगों और सामग्री की आवाजाही के लिए तत्काल अनुमति की आवश्यकता है, वन एवं वन्यजीव की सुरक्षा की दृष्टि से टावर का restoration अत्यंत आवश्यक है और जल्द से जल्द करवाना है, पारेषण लाइन के restoration के लिए ईआरएस टावर erection तथा कंडक्टर स्ट्रिंगिंग का कार्य किया जाना है, जिसके लिए मशीनरी की आवाजाही की अनुमति होगी.

आपसे अनुरोध है कि कृपया restoration कार्य के लिए machinery और manpower की मोतीचूर रेंज के सत्यनारायण बीट में आवाजाही के लिए एक माह की अनुमति प्रदान करने की कृपा करें.

प्रतिलिपि- पत्र सं० 1765/12-1 दिनांक 13-08-2025
वन प्रभागाधिकारी मोतीचूर कृपया आवश्यक निरीक्षण कार्य अपनी आवश्यकतानुसार प्रबंध करें।

भवदीय
देवेन्द्र कुमार 13/08/25
उप महाप्रबंधक, रुड़की

Director/Conservator
RAJAJI TIGER RESERVE
Dehradun, Uttarakhand

प्रतिलिपि: ① गुरुत्व गति प्रबन्धक को सं० पारेषण सम्बन्धित हेतु।
② निदेशक वेबजी हाईडल प्रोजेक्ट, देहरादून

उपकेंद्र: 400/220 के.वी. उपकेंद्र, रुड़की-देहरादून रोड, पुहाना, रुड़की, हरिद्वार, उत्तराखंड -247667, दूरभाष: 8650502499
Sub-Station 400/220KV Sub-Station, Roorkee-Dehradun Road, Puhana, Roorkee, Haridwar,Uttarakhand-247667, Tel.: 8650502499
केन्द्रीय कार्यालय : "सौदामिनी", प्लॉट नं: 2, सेक्टर-29, गुरुग्राम-122001, (हरियाणा), दूरभाष 0124-2571700-719
Corporate Office : "Saudamini", Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel. : 0124-2571700-719
पंजीकृत कार्यालय : बी-9, कुतुब इंस्टीटूशनल एरिया, कटवारिया सराय, नई दिल्ली – 110016 दूरभाष : 011-26560112, 26560121, 26564812, 26564892, सीआईएन : L40101DL1989GOI038
Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016, Tel : 011-26560112, 26560121, 26564812, 26564892, CIN : L40101DL1989GOI038

Annexure-8

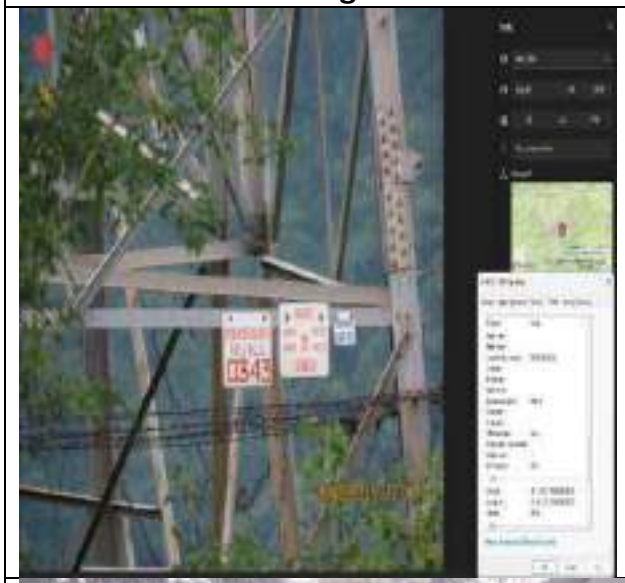
400KV Nalagarh Rampur 1 &2

Under Emergency S/D from 12:23 Hrs of 03.09.2025 to 19:47 Hrs of 15.09.2025

400KV D/C Nalagarh Rampur 1 &2 was taken out of service as precautionary measure at 12:23 Hrs of 03.09.2025 due to Tower LOC No 343 has become critical due to unequal settlement of land below the tower due to incessant rains in the area.

PHOTO SHOWING CRITICAL TOWER

Photos of tower footing



LAND NEAR TOWER SINKING

LAND SINKING NEAR THE TOWER

LAND SINKING

26-Sept-2025 4:11:22 pm
31.19456437N 76.70345022E
Solan
Shimla Division
Himachal Pradesh
Altitude:788.4msnm
Speed:0.0km/h
#RNTL Tower No 343
Google

26 Sept 2025 4:23:22 pm
31.19454699N 76.70345451E
Solan
Shimla Division
Himachal Pradesh
Altitude:787.1msnm
Speed:0.0km/h
#RNTL Tower No 343

Solan
Shimla Division
Himachal Pradesh
#RNTL Tower No 345

Solan
Shimla Division
Himachal Pradesh
#RNTL Tower No 343

Solan
Shimla Division
Himachal Pradesh
Altitude:789.0mslvm
Speed:0.0kmvh
#RNTL Tower No 343

26-Sept-2025 4:23:04 pm
31.19453178N 76.70348805E
Solan
Shimla Division
Himachal Pradesh
Altitude:788.3msnm
Speed:0.0km/h
#RNTD Tower No 343

SINKING IN NEAR BY AREA AND APPROACH ROAD

SINKING IN NEAR BY AREA AND APPROACH ROAD

CLOUD BURSTS IN UPPERE AREA OF BILASPUR

न्यूज़

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16/09/25 | 10:25 am | cloudburst | Dharampur | Himachal Pradesh | Mandi

Cloudburst In Himachal Pradesh's Mandi Washes Away Buses, Buries Houses And Shops

An overnight cloudburst in Himachal Pradesh's Mandi district wreaked havoc in Dharampur town, submerging the bus stand and market, sweeping away several Himachal Road Transport Corporation (HRTC) buses, cars, and burying houses and shops

newindianexpress.com

Fortunately, no casualties have been reported, officials confirmed. File Photo | Express

Nation

Cloudburst in Himachal's Bilaspur; several vehicles buried in debris, farms damag

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The cloudburst occurred in Gutrahan village in the Namhol area of the Naina Devi assembly constituency.

PTI

Updated: 13th Sep, 2025 at 11:08 AM

SHIMLA: Several vehicles were buried under debris and agricultural lands were damaged after a cloudburst struck Himachal Pradesh's Bilaspur district in the early hours of Saturday.

CLOUD BURSTS IN UPPERE AREA OF BILASPUR

NEWS DRUM

National

Cloudburst in Himachal's Bilaspur; several vehicles buried in debris, farms damaged

13 Sep 2025 10:40 IST - Updated On13 Sep 2025 12:24 IST

NewsDrum Desk

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Shimla: Several vehicles were buried under debris, and farms were damaged due to a cloudburst in Himachal Pradesh's Bilaspur district in the wee hours of Saturday. However, no casualty was
d, officials said.

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Himachal Pradesh: Cloudburst Hits Bilaspur; Several Vehicles Buried In Debris, Farms Damaged

CITY | TOI City Desk | TIMESOFINDIA.COM | Sep 13, 2025, 12:41 IST

Galaxy Z Fold7

SAMSUNG

A cloudburst in Himachal Pradesh's Bilaspur district caus
signi... Read More

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NEW DELHI: A cloudburst struck Himachal Pradesh's Bilaspur district early on Saturday, damaging farmland and burying several vehicles under debris, though no casualties were reported, officials said.

Line finally restored at 19:47 Hrs of 15.09.2025

THANKS

Govt. of India,
Ministry of Earth Sciences,
India Meteorological Department,
Meteorological Centre,
Shimla-171004

Monthly Weather Report (August 2025)

1. Weather summary

- Himachal Pradesh has received **widespread** precipitation during many days of August month with **normal to active** activity on many days; **vigorous** activity on 2 days (dated 25th & 26th August 2025) and **weak** activity on 5 days (dated 08th, 10th, 11th, 13th and 22nd August 2025).
- Himachal Pradesh has received the **9th highest rainfall** (431.3 mm) in August since 1901. This is the **highest August rainfall since 1949**, with the highest ever recorded in **1927** (542.4 mm).

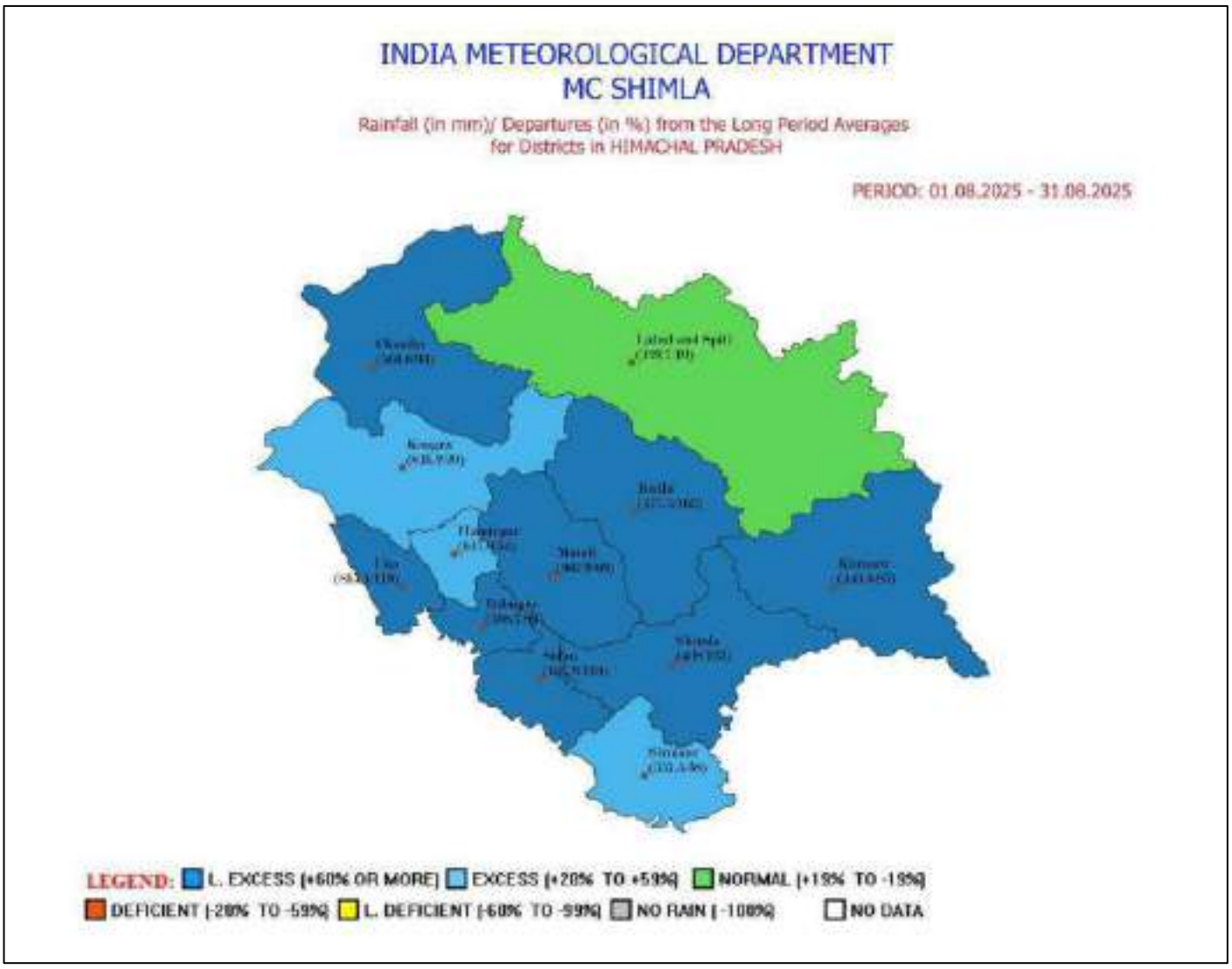
2. Monthly precipitation and departure-

- The State received **large excess** precipitation **(68%)** with **431.3 mm** actual rainfall against **256.8 mm** normal rainfall in August month.
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.

❖ Himachal Pradesh has received

- **Extremely Heavy rain** (in mm) in Una (distt. Una) 222.8 on 02nd August, 2025.
- **Very Heavy rain** (in mm) in Chuari (Distt. Chamba) 118 On 01ST August; Amb(Distt. Una) 154.8, Bilaspur Sadar (Distt. Bilaspur) 120.8 On 02ND Aug; Mandi (Distt. Mandi) 151.2 On 05TH Aug; Kasauli (Distt. Solan) 145, Dharampur (Distt. Solan) 122.8, Gohar (Distt. Mandi) 120 on 06TH Aug; Nalagarh (Distt. Solan) 120, Bharwain (Distt. Una) 120 On 07TH Aug; Nagrota Surian (Distt. Kangra) 180.2, Guler (Distt. Kangra) 161.2 On 12TH Aug; Pachhad (Distt. Sirmaur) 153.2 On 14TH Aug; Naina Devi (Distt. Bilaspur) 160.6 On 16TH Aug; Kataula (Distt. Mandi) 116.3 On 17TH Aug; Amb (Distt. Una) 150 On 20TH Aug; Una (Distt. Una) 132.6 On 21ST Aug; Kheri (distt. Chamba) 129, Pandoh (Distt. Mandi) 123 On 24TH Aug, Kahu (Distt. Bilaspur) 190.5, Ghumarwin (Distt. Bilaspur) 160, Barthin (Distt. Bilaspur) 156.4, Naina Devi (Distt. Bilaspur) 148.4, Kheri (distt. Chamba) 142, Bilaspur Sadar (Distt. Bilaspur) 140.8, Chuari (Distt. Chamba) 140.2, Mehre (Barsar) (Distt. Hamirpur) 127 On 25TH Aug; Naina Devi (Distt. Bilaspur) 160.8, Kheri (distt. Chamba) 128.6, Chuari (Distt. Chamba) 125.2 On 26TH Aug; Jatton Barrage (distt. Sirmaur) 138 on 29th Aug.
- **Heavy rain** (in mm) in CHUARI (distt. Chamba) 96, BHARWAIN (distt. Una) 92, NADAUN (distt. Hamirpur) 73.6, BARTHIN (distt. Bilaspur) 69.6, SUJANPUR TIRA (distt. Hamirpur) 68.4, DEHRA GOPIPUR (distt. Kangra) 67.2, CHAMBA AWS (distt. Chamba) 66 on 02nd Aug; BHARERI (distt. Hamirpur) 108.2, NAINA DEVI (distt. Bilaspur) 74.4, on 03rd Aug; KASAULI (distt. Solan) 82 on 04th Aug; BIJAHI (distt. Mandi) 105.6, SUNDARNAGAR (distt. Mandi) 84.1, NADAUN (distt. Hamirpur) 78, GOHAR (distt. Mandi) 72 on 05th Aug; CHUARI (distt. Chamba) 98.4, NAGROTA SURIAN (distt. Kangra) 93.4, PACHHAD (distt. Sirmaur) 88, NAINA DEVI (distt. Bilaspur) 86.4, BIJAHI (distt. Mandi) 84.4, KUMARSAIN (distt. Shimla) 80.4, SUNDARNAGAR (distt. Mandi) 80.3, KANGRA (distt. Kangra) 71.4, BILASPUR SADAR (distt. Bilaspur) 70.4, GULER (distt. Kangra) 68.4, KARSOG (distt. Mandi) 68, Dhaulakuan (distt. Sirmaur) 67, BANJAR (distt. Kullu) 66, SUNIBHAJJI (distt. Shimla) 66, NALAGARH (distt. Solan) 66, MANDI (distt. Mandi) 65.8, on 06th Aug; NAINA DEVI (distt. Bilaspur) 92.6, PACHHAD (distt. Sirmaur) 75.1, R L BBMB (distt. Bilaspur) 73 on 07th Aug; NAINA DEVI (distt. Bilaspur) 112.4, PANDOH (distt. Mandi) 102, BANGANA_R (distt. Una) 86.4, R L BBMB (distt. Bilaspur) 67, PACHHAD (distt. Sirmaur) 67, NARKANDA AWS (distt. Shimla) 66.5, KUMARSAIN (distt. Shimla) 65.4, KASAULI (distt. Solan) 65.2 on 09th Aug; KANGRA (distt. Kangra) 68.4 on 10th Aug; GHAMROOR (distt. Kangra) 112.2, Sandhole (distt. Mandi) 78.8, NADAUN (distt. Hamirpur) 78.5, DEHRA GOPIPUR (distt. Kangra) 76.2, JOGINDARNAGAR (distt. Mandi) 74, KANGRA (distt. Kangra) 73.8, Bhareri (distt. Hamirpur) 70.2, PALAMPUR (distt. Kangra) 69, SUJANPUR TIRA (distt. Hamirpur) 66, BIJAHI (distt. Mandi) 65.2 on 12th Aug; RAJGARH (distt. Sirmaur) 102, KANDAGHAT (distt. Solan)100, JATTON BARRAGE (distt. Sirmaur) 87, UNA (distt. Una) 85.4 SOLAN (distt. Solan)81.4, KOTKHAI (distt. Shimla) 77.4, Shillaro (distt. Shimla) 73, JUBBAL (distt. Shimla) 72.6, SHIMLA (distt. Shimla) 69, KUFRI (distt. Shimla) 66, JUBBERHATTI (distt. Shimla) 65.2, RENUKA / DADHAU (distt. Sirmaur) 64.6 on 14th Aug; JOGINDARNAGAR (distt. Mandi) 106, PALAMPUR (distt. Kangra) 102.4, Bhareri (distt. Hamirpur) 75.4, KHERI (distt. Chamba) 73.2, Kataula (distt. Mandi) 67.2, NARKANDA AWS (distt. Shimla) 66, NAINA DEVI (distt. Bilaspur) 64.8 on 15th Aug;

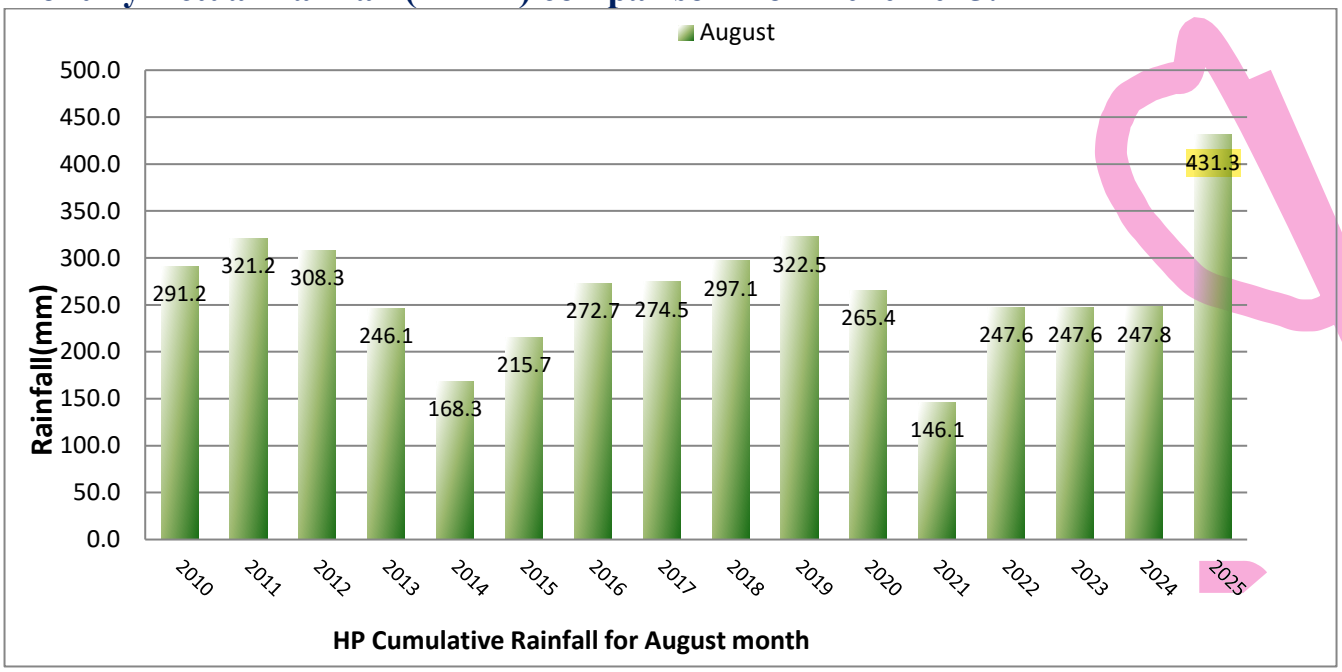
PALAMPUR (distt. Kangra) 101.4, Sandhole (distt. Mandi) 80.2, PANDOH (distt. Mandi) 72.4 on 16th Aug; KANGRA (distt. Kangra) 110.8, NAGROTA SURIAN (distt. Kangra) 107, NAHAN (distt. Sirmaur) 103.2, JOGINDARNAGAR (distt. Mandi) 84, NALAGARH (distt. Solan) 80, PAONTA (distt. Sirmaur) 69.8, KHERI (distt. Chamba) 67.6, Dhaulakuan (distt. Sirmaur) 67 on 17th Aug; Dhaulakuan (distt. Sirmaur) 113, AGHAR (distt. Hamirpur) 80, SANGRAHA (distt. Sirmaur) 72 on 18th Aug; JUBBERHATTI (distt. Shimla) 73 on 19th Aug; BHARWAIN (distt. Una) 68 on 20th Aug; NALAGARH (distt. Solan) 65 on 23rd Aug; Kasauli (distt. Solan) 105, Sarkaghat (distt. Mandi) 80.5, KARSOG (distt. Mandi) 68, MANDI (distt. Mandi) 68, on 24th Aug; AMB (distt. Una) 111, AGHAR (distt. Hamirpur) 110.6, BANGANA_R (distt. Una) 104, GHAMROOR (distt. Kangra) 95.8, BHARWAIN (distt. Una) 94.4, NADAUN (distt. Hamirpur) 94, HAMIRPUR (distt. Hamirpur) 92, DHARMSHALA (distt. Kangra) 87.4, Bhareri (distt. Hamirpur) 85.9, Sandhole (distt. Mandi) 85.2, KASAULI (distt. Solan) 85, SUNDARNAGAR (distt. Mandi) 84.2, BALDWARA (distt. Mandi) 84, SALONI (distt. Chamba) 83.3, UNA (distt. Una) 80.8, SUJANPUR TIRA (distt. Hamirpur) 80, NALAGARH (distt. Solan) 75, DHARAMPUR (distt. Solan) 68.6, DEHRA GOPIPUR (distt. Kangra) 68.3, CHAMBA AWS (distt. Chamba) 67, R L BBMB (distt. Bilaspur) 66, PALAMPUR (distt. Kangra) 65.4 on 25th Aug; DHARMSHALA (distt. Kangra) 102, MANALI (distt. Kullu) 102, GHAMROOR (distt. Kangra) 91.4, KANGRA (distt. Kangra) 89, NAGROTA SURIAN (distt. Kangra) 88.8, PALAMPUR (distt. Kangra) 88, KOTHI (distt. Kullu) 85.8, BHARWAIN (distt. Una) 85, Tissa (distt. Chamba) 80, BHUNTAR (distt. Kullu) 77.2, Gondla (distt. Lahaul-Spiti) 75.6, CHAMBA AWS (distt. Chamba) 74, SANGRAHA (distt. Sirmaur) 72, GULER (distt. Kangra) 71.8, Kukumseri Aws (distt. Lahaul-Spiti) 71.5, Seobagh (distt. Kullu) 70.8, Kumarsain (distt. Shimla) 70.6, KARSOG (distt. Mandi) 65.2, Kasol (distt. Kullu) 65 on 26th Aug; Kheri (distt. Chamba) 89.2, Kothi (distt. Kullu) 69, Saloni (distt. Chamba) 65.2 on 27th August; Pandoh (distt. Mandi) 108 on 28th Aug; Renuka / Dadhau (distt. Sirmaur) 114, Palampur (distt. Kangra) 91.4, Bharwain (distt. Una) 80, Sandhole (distt. Mandi) 77.8, Paonta (distt. Sirmaur) 75, Kataula (distt. Mandi) 73.4, Sangraha (distt. Sirmaur) 70, Rajgarh (distt. Sirmaur) 65 on 29th Aug; Chuari (distt. Chamba) 104, Jogindarnagar (distt. Mandi) 86, Rampur Bushar (distt. Shimla) 75.5, Dharmshala (distt. Kangra) 69.4 on 30th Aug; Naina Devi (distt. Bilaspur) 82.8, R L Bbmb (distt. Bilaspur) 80, Chuari (distt. Chamba) 75.2 on 31st Aug.



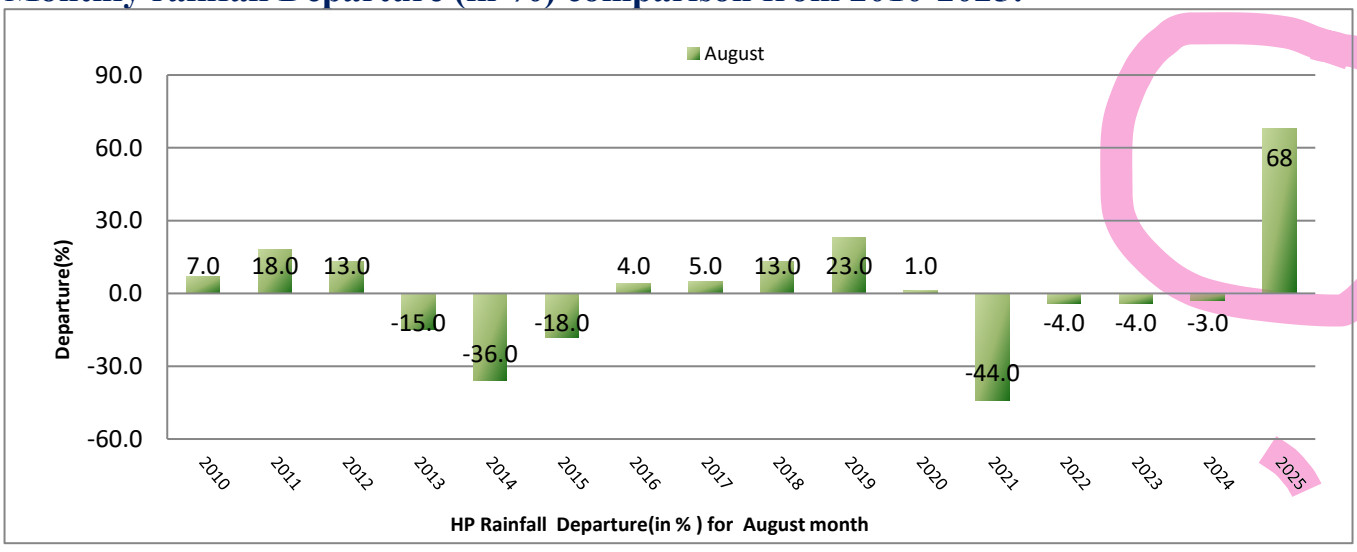
3. District wise monthly rainfall (in mm) and Departure (in %)

(01st August to 31st August) 2025			
DISTRICTS	Actual (in mm)	Normal (in mm)	Dep (in%)
BILASPUR	598.7	316.8	89
CHAMBA	561.6	291.7	93
HAMIRPUR	617.9	400.6	54
KANGRA	816.2	631.5	29
KINNAUR	143.3	77.6	85
KULLU	477.5	180.2	165
LAHAUL & SPITI	129.7	117.6	10
MANDI	667.9	395.3	69
SHIMLA	438	196.4	123
SIRMAUR	557.5	402.1	39
SOLAN	627.9	287.9	118
UNA	815.1	372.2	119
HP	431.3	256.8	68

4. Monthly Actual Rainfall (in mm) comparison from 2010-2025: -



5. Monthly rainfall Departure (in %) comparison from 2010-2025: -



6. Monthly Rainfall distribution and Rainfall Activity for August month.

HIMACHAL PRADESH					
Date	**Distribution**	**Activity**	Date	**Distribution**	**Activity**
01-08-2025	WIDE SPREAD	NORMAL	**17-08-2025**	WIDE SPREAD	ACTIVE
02-08-2025	WIDE SPREAD	ACTIVE	**18-08-2025**	WIDE SPREAD	NORMAL
03-08-2025	WIDE SPREAD	NORMAL	**19-08-2025**	FAIRLY WIDE SPREAD	NORMAL
04-08-2025	WIDE SPREAD	NORMAL	**20-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
05-08-2025	WIDE SPREAD	ACTIVE	**21-08-2025**	FAIRLY WIDE SPREAD	NORMAL
06-08-2025	WIDE SPREAD	ACTIVE	**22-08-2025**	ISOLATED	WEAK
07-08-2025	FAIRLY WIDE SPREAD	NORMAL	**23-08-2025**	SCATTERED	NORMAL
08-08-2025	ISOLATED	WEAK	**24-08-2025**	WIDE SPREAD	ACTIVE
09-08-2025	FAIRLY WIDE SPREAD	NORMAL	**25-08-2025**	WIDE SPREAD	VIGOROUS
10-08-2025	SCATTERED	WEAK	**26-08-2025**	WIDE SPREAD	VIGOROUS
11-08-2025	FAIRLY WIDE SPREAD	WEAK	**27-08-2025**	WIDE SPREAD	ACTIVE
12-08-2025	WIDE SPREAD	ACTIVE	**28-08-2025**	FAIRLY WIDE SPREAD	NORMAL
13-08-2025	SCATTERED	WEAK	**29-08-2025**	WIDE SPREAD	ACTIVE
14-08-2025	WIDE SPREAD	ACTIVE	**30-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
15-08-2025	WIDE SPREAD	ACTIVE	**31-08-2025**	WIDE SPREAD	ACTIVE
16-08-2025	FAIRLY WIDE SPREAD	NORMAL			

7. Chief Amount of Rainfall (in mm) August 2025

Date	Station
01-08-2025	Chuari 118, Manali 57, Banjar 52.4, Bharwain 47, Bhareri 45.2, Kothi 40, Naina Devi 36, Saloni 36, Tinder 35, Kasol 34, Amb 32.6, Sarahan 30, Chamba Aws 29, Tissa 28, Kheri 27, Sarkaghat 25.3, Baldwara 23, Sangraha 23, Renuka / Dadhau 22.7, Hamirpur 21, Wangtoo 20.6, Jatton Barrage 19.6, Nichar 18.5, Jogindarnagar 17, Bharmaur 16, Chhatrari 14.9, Bijahi 14.6, Sunibhajji 13, Karsog 12.1, Bhoranj 12, Sundarnagar 12, Mandi 11.6, Guler 11.2, Bilaspur Sadar 10.4, Nagrota Surian 10, Sangla 9.8, Ghamroor 9.4, Palampur 9.4, R L Bbmb 9.2, Ghumarwin 9, Nadaun 8.4, Seo Bagh 8.4, Dharmshala 8.3, Aghar 8.2, Sujanpur Tira 8, Paonta 8, Kukumsheri Aws 7.6, Bhuntar 6.4, Kalpa 5.6, Dehra Gopipur 5.4, Keylong 5, Gohar 5, Janjehli 5, Rampur Bushar 5, Kangra 4.9, Barthin 4.8, Pachhad 4.3, Koksar 3.7, Bangana_R 3.6, Una 3.6, Nahan 3.1, Gondla 2.8, Kufri 2.6, Pandoh 2.5, Jubbal 2.4, Shillaro 2, Kahu 1.8, Theog 1.8, Shimla 1.7, Jubberhatti 1.6, Kataula 1.1, Bilaspur Aws 0.5, Moorang 0.2, Kotkhai 0.1
02-08-2025	Una 222.8, Amb 154.8, Bilaspur Sadar 120.8, Chuari 96, Bharwain 92, Nadaun 73.6, Barthin 69.6, Sujanpur Tira 68.4, Dehra Gopipur 67.2, Chamba Aws 66, Dharmshala 64, Nahan 62.3, Ghamroor 62.2, Hamirpur 62, Kheri 54.4, Aghar 52.8, Bangana_R 52.3, Kumarsain 50.6, Kataula 50.4, R L Bbmb 48.2, Saloni 48.2, Bhareri 48.2, Mehre (Barsar) 46, Kangra 42.3, Kothi 41, Nagrota Surian 40.2, Tissa 40, Jogindarnagar 40, Palampur 36, Bhuntar 35.8, Manali 35, Mandi 34.4, Seo Bagh 30.8, Bhoranj 30, Gohar 30, Guler 29.4, Wangtoo 28.2, Banjar 28.2, Bharmaur 28, Paonta 27.4, Nichar 27.2, Karsog 26, Chhatrari 25.5, Sangraha 24, Naina Devi 22.8, Bijahi 22, Janjehli 22, Renuka / Dadhau 21.6, Pandoh 20.5, Sarkaghat 19.6, Theog 19.2, Baldwara 19, Pachhad 17, Kahu 16.5, Kasol 15, Narkanda Aws 12, Sundarnagar 11.9, Jatton Barrage 11.4, Gondla 11.2, Rampur Bushar 9.8, Shillaro 9.7, Kukumsheri Aws 9.6, Kufri 9.2, Keylong 7, Sunibhajji 6.2, Shimla 5.6, Kandaghat 5.6, Jubbal 5.2, Kasauli 5.2, Jubberhatti 5, Sangla 4.2, Sarahan 4, Kalpa 3.2, Dharampur 2.8, Khadrala 2.2, Bajaura Aws 2, Koksar 2, Bilaspur Aws 1, Solan 0.8, Reckong Peo Aws 0.5, Kotkhai 0.4
03-08-2025	Bhareri 108.2, Naina Devi 74.4, Ghumarwin 40, Sunibhajji 40, Jatton Barrage 40, R L Bbmb 39, Una 38, Kheri 28.8, Nalagarh 28, Aghar 24.8, Mehre (Barsar) 23, Pachhad 20, Bangana_R 18.4, Chamba Aws 18, Hamirpur 18, Jogindarnagar 17, Barthin 14.6, Nadaun 14.5, Sujanpur Tira 14.5, Seo Bagh 11.6, Kothi 11.2, Palampur 10.8, Kumarsain 10.4, Guler 10.2, Sarahan 9.5, Nagrota Surian 9.4, Bhuntar 9.2, Kasol 9, Sarkaghat 8.3, Kotkhai 8.2, Kasauli 8.2, Kangra 8.1, Bharmaur 8, Tinder 8, Sundarnagar 7.9, Renuka / Dadhau 7.2, Chuari 7, Paonta 6.6, Dharampur 6.4, Bhoranj 6, Gondla 5.4, Jubberhatti 5.4, Shimla 5.4, Kataula 5.2, Manali 5, Dehra Gopipur 4.3, Kukumsheri Aws 4.2, Koksar 4.2, Bijahi 4.2, Khadrala 4.2, Dharmshala 4.1, Janjehli 4, Karsog 4, Shillaro 4, Kufri 4, Mandi 3.2, Keylong 3, Solan 3, Bajaura Aws 2.5, Chhatrari 2.3, Bilaspur Sadar 2.2, Gohar 2, Pandoh 2, Nahan 1.2, Ghamroor 1, Kandaghat 1, Kalpa 0.8, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Kahu 0.4, Sangla 0.2
04-08-2025	Kasauli 82, Naina Devi 62.6, Ghumarwin 60, Jogindarnagar 60, Manali 45, Mehre (Barsar) 42, Guler 29, Pandoh 27, Karsog 26.2, Sarahan 25.5, R L Bbmb 24, Shimla 22.8, Baldwara 19, Bijahi 18.4, Gohar 18, Kataula 15.3, Bhoranj 15, Hamirpur 14, Janjehli 14, Kufri 13.8, Dharampur 12.6, Dharmshala 12.1, Berthin Agro 12, Dehra Gopipur 12, Palampur 11.6, Shillaro 11.6, Narkanda Aws 11.5, Nichar 11, Paonta 10.8, Nadaun 9.8, Sarkaghat 9.3, Ghamroor 9.2, Kotkhai

	9.2, Pachhad 9.2, Wangtoo 8.2, Tinder 8, Kumarsain 8, Jubbal 7.2, Jatton Barrage 7, Aghar 6.8, Barthin 6.6, Chuari 6.2, Amb 5.4, Mandi 5.2, Bangana_R 5.2, Kasol 5, Kahu 4.4, Sujanpur Tira 4, Sangraha 4, Bharwain 3.6, Bajaura Aws 3.5, Nagrota Surian 3.2, Chamba Aws 3, Sunibhajji 2.4, Nahan 2.4, Jubberhatti 2.2, Renuka / Dadhau 2.2, Kothi 2, Keylong 2, Theog 2, Solan 1.8, Bhareri 1.4, Dalhousie Aws 1, Khadrala 1, Kandaghat 1, Kalpa 0.8, Rampur Bushar 0.8, Bilaspur Aws 0.5, Gondla 0.2, Sundarnagar 0.1
05-08-2025	Mandi 151.2, Bijahi 105.6, Sundarnagar 84.1, Nadaun 78, Gohar 72, Ghumarwin 60, Karsog 56.3, Palampur 55.8, Pandoh 53, Hamirpur 45, Bhareri 44.5, Baldwara 41, Janjehli 40, Sangraha 40, Nalagarh 40, Berthin Agro 36.5, Guler 36.4, Mehre (Barsar) 35, Tinder 35, Jubbal 33.4, Bilaspur Sadar 30.8, R L Bbmb 30, Shillaro 30, Rohru 30, Sarahan 30, Bharwain 30, Manali 29.2, Barthin 28.4, Naina Devi 24.8, Sujanpur Tira 24, Aghar 23.6, Kangra 23.2, Narkanda Aws 22, Shimla 20.4, Dehra Gopipur 18.4, Kataula 18.2, Jubberhatti 18, Nagrota Surian 17.8, Jogindarnagar 14, Kumarsain 12.8, Dharmshala 10.7, Kandaghat 10.6, Una 10.6, Kahu 10.5, Bhuntar 10.4, Paonta 10.4, Bhoranj 10, Bangana_R 9.4, Sangla 8.6, Chuari 8.1, Kasauli 7.2, Kothi 7, Hansa 7, Theog 7, Amb 7, Banjar 6.2, Khadrala 6, Kotkhai 5.2, Jatton Barrage 4.4, Dharampur 4.2, Renuka / Dadhau 4, Wangtoo 3.8, Rampur Bushar 3.6, Seo Bagh 3.4, Kasol 3, Kheri 2.4, Kufri 2.4, Koksar 2.1, Bajaura Aws 2, Nahan 2, Kalpa 1.6, Moorang 1.5, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
06-08-2025	Kasauli 145, Dharampur 122.8, Gohar 120, Chuari 98.4, Nagrota Surian 93.4, Pachhad 88, Naina Devi 86.4, Bijahi 84.4, Kumarsain 80.4, Sundarnagar 80.3, Kangra 71.4, Bilaspur Sadar 70.4, Guler 68.4, Karsog 68, Dhaulakuan 67, Banjar 66, Sunibhajji 66, Nalagarh 66, Mandi 65.8, Shimla 64.4, Dharmshala 64, Pandoh 63, Janjehli 60, Kandaghat 60, Kahu 58, Renuka / Dadhau 55.3, Rampur Bushar 55, Jogindarnagar 53, Wangtoo 50.2, R L Bbmb 47, Nadaun 47, Kufri 47, Jatton Barrage 47, Khadrala 46.2, Narkanda Aws 44.5, Jubberhatti 44, Shillaro 43.6, Sarahan 42.5, Palampur 40, Rohru 40, Bangana_R 40, Bharwain 39, Sangraha 38, Solan 32.2, Sujanpur Tira 32, Kataula 31.2, Paonta 29, Dehra Gopipur 27, Hamirpur 25, Mehre (Barsar) 25, Kothi 25, Tinder 25, Sangla 24.6, Nichar 23.5, Barthin 23.2, Bhuntar 22.2, Kotkhai 22.1, Berthin Agro 22, Aghar 22, Rajgarh 22, Kheri 21.2, Seo Bagh 21.2, Bhareri 20.4, Jubbal 18.4, Ghamroor 18.2, Kasol 18, Amb 14.8, Kalpa 14, Reckong Peo Aws 13.5, Nahan 12.6, Baldwara 12, Chhatrari 10, Tissa 8.7, Theog 6, Una 5.6, Manali 5.2, Bharmaur 4.6, Moorang 4.5, Sarkaghat 4.5, Koksar 3, Bajaura Aws 2, Pooh 1, Keylong 1, Kukumsheri Aws 0.8, Bilaspur Aws 0.5
07-08-2025	Nalagarh 120, Bharwain 120, Naina Devi 92.6, Pachhad 75.1, R L Bbmb 73, Mehre (Barsar) 64, Kangra 62.5, Theog 60, Dharmshala 42.5, Bangana_R 34.8, Nahan 32.6, Kasauli 32.5, Dehra Gopipur 31.4, Bilaspur Sadar 30.2, Sarahan 29.5, Barthin 22.4, Una 22.2, Amb 21, Gohar 19, Shimla 19, Kahu 18.8, Sujanpur Tira 18, Aghar 17.6, Nagrota Surian 17.2, Baldwara 17, Berthin Agro 16, Jubbal 15.2, Dharampur 14, Bhareri 13.4, Manali 12.2, Palampur 11.6, Nadaun 10, Sundarnagar 9.4, Kufri 9.2, Chuari 9.1, Rampur Bushar 8.5, Hamirpur 8, Kothi 8, Kumarsain 5.6, Tinder 5, Janjehli 5, Jogindarnagar 5, Rohru 5, Wangtoo 4.6, Kataula 4.2, Jubberhatti 3.8, Sangla 3.6, Solan 3.6, Guler 3.4, Bhuntar 3, Bijahi 3, Kalpa 2.8, Renuka / Dadhau 2.8, Kandaghat 2.6, Bajaura Aws 2.5, Jatton Barrage 1.6, Reckong Peo Aws 1, Banjar 1, Paonta 1, Bilaspur Aws 0.5, Pandoh 0.5, Narkanda Aws 0.5
08-08-2025	Bajaura Aws 9, Kataula 8.2, Sangraha 8, Sarkaghat 6.2, Jogindarnagar 4, Dharmshala 3.2, Nagrota Surian 2.4, Bhareri 2, Nadaun 2, Jatton Barrage 2, Bilaspur Aws 0.5, Barthin 0.4
09-08-2025	Naina Devi 112.4, Pandoh 102, Bangana_R 86.4, R L Bbmb 67, Pachhad 67, Narkanda Aws 66.5, Kumarsain 65.4, Kasauli 65.2, Shillaro 63, Rajgarh 56, Kufri 55.2, Dharampur 52.6, Nahan 49.3, Solan 45.6, Janjehli 42, Nalagarh 35, Kotkhai 29.3, Dehra Gopipur 29, Sunibhajji 27, Sundarnagar 23.6, Nagrota Surian 22.5, Kataula 22.2, Barthin 21.8, Kandaghat 21.8, Kasol 20, Berthin Agro 18.5, Baldwara 18, Shimla 16.8, Jubberhatti 14, Bharwain 14, Renuka / Dadhau 13.6, Bajaura Aws 13.5, Kothi 12.4, Nadaun 11.8, Sarkaghat 11.4, Una 11.4, Palampur 10.6, Bhareri 10.2, Hamirpur 10, Bhuntar 9.4, Rampur Bushar 9, Chuari 8.2, Jatton Barrage 8.2, Bhoranj 8, Jubbal 6.4, Mehre (Barsar) 6, Bilaspur Sadar 5.8, Sujanpur Tira 5, Manali 5, Jogindarnagar 5, Nichar 4.3, Banjar 4.2, Theog 4, Bharmaur 3.6, Wangtoo 3.6, Dharmshala 3.4, Paonta 3.2, Mandi 2.4, Chamba Aws 2, Kheri 2, Gohar 2, Sangraha 2, Bilaspur Aws 1, Khadrala 1, Kangra 0.5, Kahu 0.4, Guler 0.4, Sangla 0.2
10-08-2025	Kangra 68.4, Palampur 52, Baldwara 42, Bharwain 39.4, Sarahan 25, Theog 20, Tinder 18, Jubberhatti 17, Dharmshala 16.8, Pandoh 16.5, Bangana_R 11.8, Bajaura Aws 11.5, Kufri 11.2, Bilaspur Sadar 10.4, Kasauli 10, Shimla 9, Bijahi 8, Chuari 7.6, Kotkhai 6.3, Sarkaghat 6.2, Rampur Bushar 6, Bhareri 5.4, Una 5.4, Saloni 5.2, Bharmaur 5, Sujanpur Tira 4.5, Mandi 4.4, Bhoranj 4, Jogindarnagar 4, Chhatrari 2.8, Narkanda Aws 2.5, Kasol 2, Nagrota Surian 1.2, Nahan 1.2, Dalhousie Aws 1, Nadaun 1, Sunibhajji 1, Jatton Barrage 1, Koksar 0.8, Bilaspur Aws 0.5, Barthin 0.2
11-08-2025	Nalagarh 56, Bilaspur Sadar 50.2, Kheri 33.4, Sarahan 30, Chuari 26.2, Rajgarh 20, Hamirpur 19, Aghar 16, Dehra Gopipur 16, Baldwara 16, Tinder 15, Dharmshala 14.8, Sarkaghat 14.7, Ghumarwin 14, Bajaura Aws 10.5, Palampur 9.6, Kothi 9.6, Kasol 9, Kahu 8.5, Gohar 8, Mandi 7.4, Jubberhatti 7, Theog 6, Kangra 5.4, Shimla 4.2, Sundarnagar 3.7, Pooh 3.2, Koksar 3, Jogindarnagar 3, Shillaro 3, Kalpa 2.2, Chamba Aws 2, Bijahi 2, Kasauli 2, Sangla 1.8, Reckong Peo Aws 1.5, Nagrota Surian 1.4, Wangtoo 1.4, Dharampur 1.4, Nadaun 1.2, Kandaghat 1.2, Nahan 1.1, Sujanpur Tira 1, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.4, Kufri 0.4, Moorang 0.3, Barthin 0.2

12-08-2025	Nagrota Surian 180.2, Guler 161.2, Ghamroor 112.2, Sandhole 78.8, Nadaun 78.5, Dehra Gopipur 76.2, Jogindarnagar 74, Kangra 73.8, Bhareri 70.2, Palampur 69, Sujanpur Tira 66, Bijahi 65.2, Kataula 56.2, Shillaro 54, Kandaghat 52.8, Theog 50.6, Chuari 48.3, Naina Devi 46.4, Shimla 45.6, Dharmshala 42.5, Mandi 42.2, Hamirpur 41, Kufri 39.8, Una 38.4, Kasauli 38, Bharwain 38, Dharampur 36.8, Jubberhatti 36.2, Kahu 35.3, Aghar 34, Solan 33, Sarahan 30.5, Pandoh 29.5, Narkanda Aws 28.5, Sundarnagar 27.3, Gohar 27, Bharmaur 26.7, Jubbal 25.4, Karsog 24, Sunibhajji 23, Kotkhai 22.3, Chhatrari 22.1, Pachhad 22, Saloni 21.2, Kheri 21, Bilaspur Sadar 20.8, Nalagarh 20, R L Bbmb 19.6, Barthin 18.8, Amb 18.8, Tissa 18, Kothi 17.4, Nahan 17.2, Mehre (Barsar) 17, Bangana_R 16, Janjehli 15, Sarkaghat 12.2, Moorang 10.2, Bhoranj 10, Manali 10, Sangla 8.6, Paonta 8.4, Banjar 8.2, Chamba Aws 8, Bajaura Aws 7.5, Rampur Bushar 7.2, Kasol 7, Kumarsain 6.4, Kalpa 6, Nichar 5.4, Reckong Peo Aws 5, Wangtoo 4.8, Bhuntar 4.8, Jatton Barrage 4.2, Renuka / Dadhau 3.8, Koksar 3, Kukumsheri Aws 2.8, Seo Bagh 2.4, Keylong 2
13-08-2025	Baldwara 31, Tinder 25, Kasauli 23, Naina Devi 18.2, Bhoranj 15, Sarahan 15, Karsog 13.2, Theog 10, Dharampur 7.2, Bajaura Aws 7, Jogindarnagar 5, Dharmshala 4.4, Tissa 4.2, Bijahi 4.2, Una 4.2, Sundarnagar 3.6, Kothi 3.4, Gohar 3, Kangra 2.8, Pandoh 2.5, Bilaspur Sadar 2.2, Kheri 2.2, Nagrota Surian 2.2, Khadrala 2.2, Bharmaur 2, Banjar 2, Bangana_R 2, Jubberhatti 1.8, Narkanda Aws 1.5, Chuari 1.3, Kalpa 1.3, Guler 1.2, Shimla 1.2, Paonta 1.2, R L Bbmb 1, Chamba Aws 1, Palampur 1, Reckong Peo Aws 1, Shillaro 1, Bilaspur Aws 0.5, Barthin 0.4, Kotkhai 0.1
14-08-2025	Pachhad 153.2, Rajgarh 102, Kandaghat 100, Jatton Barrage 87, Una 85.4, Solan 81.4, Kotkhai 77.4, Shillaro 73, Jubbal 72.6, Shimla 69, Kufri 66, Jubberhatti 65.2, Renuka / Dadhau 64.6, Banjar 62, Kasauli 62, Kothi 61.2, Nalagarh 60, Sarkaghat 59.4, R L Bbmb 59.2, Amb 59, Theog 58.8, Rohru 55, Naina Devi 54.2, Dharampur 50.2, Sangraha 50, Paonta 49, Pandoh 44, Karsog 43.1, Kahu 41.5, Kumarsain 40.8, Bharwain 40, Narkanda Aws 39.5, Bhareri 37.2, Tinder 35, Nahan 33.3, Baldwara 33, Barthin 32.6, Nadaun 32.4, Bangana_R 31.4, Bilaspur Sadar 30.8, Sarahan 29, Sujanpur Tira 25.4, Manali 25, Dehra Gopipur 24.3, Jogindarnagar 24, Hamirpur 23, Tissa 20, Sundarnagar 19.5, Kasol 19, Kukumsheri Aws 18.2, Gondla 16.2, Bharmaur 15, Sunibhajji 14, Mandi 13.4, Palampur 13, Kangra 12.5, Mehre (Barsar) 12, Ghamroor 11.8, Dharmshala 10.8, Aghar 10, Bhoranj 10, Hansa 10, Pooh 9.4, Bajaura Aws 7.5, Bijahi 7.4, Khadrala 6.2, Guler 5.8, Sangla 5.8, Rampur Bushar 5.4, Gohar 5, Saloni 4.2, Wangtoo 4.2, Bhuntar 4, Nagrota Surian 3.8, Moorang 3.7, Nichar 3.5, Reckong Peo Aws 2.5, Chhatrari 2.4, Kalpa 2.2, Chamba Aws 2, Janjehli 2, Seo Bagh 1, Keylong 1, Bilaspur Aws 0.5
15-08-2025	Jogindarnagar 106, Palampur 102.4, Bhareri 75.4, Kheri 73.2, Kataula 67.2, Narkanda Aws 66, Dharmshala 65.5, Naina Devi 64.8, Kangra 62.8, Nahan 57.7, Kothi 54.6, Bijahi 50, Mandi 49.8, Pandoh 46, Sarahan 40.5, Shillaro 40, Hamirpur 37, R L Bbmb 36.4, Ghumarwin 34, Chuari 32.6, Rohru 30, Pachhad 30, Sarkaghat 28.3, Janjehli 28, Reckong Peo Aws 27, Dehra Gopipur 26, Kasauli 26, Kalpa 25.2, Baldwara 25, Gohar 25, Bhuntar 24.3, Rampur Bushar 24, Sangla 23.4, Kotkhai 23, Barthin 21.6, Chamba Aws 21, Sundarnagar 20.3, Sujanpur Tira 20, Solan 19.8, Shimla 19.7, Jatton Barrage 19.4, Bangana_R 19, Bilaspur Sadar 18.8, Renuka / Dadhau 18.6, Nadaun 18.5, Manali 18.4, Kufri 18.4, Dharampur 18, Khadrala 16.4, Pooh 16, Chhatrari 15.6, Nichar 15.5, Keylong 15, Theog 15, Sangraha 15, Bharwain 15, Kahu 14.3, Wangtoo 14.2, Kasol 14, Nagrota Surian 13.4, Bhoranj 13, Guler 12.6, Seo Bagh 12, Sunibhajji 12, Una 11.8, Koksar 11.6, Kandaghat 11.4, Jubberhatti 11, Tissa 10, Karsog 10, Gondla 9.4, Jubbal 9.2, Paonta 8.2, Bajaura Aws 6.5, Banjar 6.4, Saloni 6.3, Mehre (Barsar) 6, Kumarsain 5.6, Bharmaur 5, Tinder 5, Moorang 3.5, Amb 3.4, Bilaspur Aws 0.5
16-08-2025	Naina Devi 160.6, Palampur 101.4, Sandhole 80.2, Pandoh 72.4, Mandi 62.4, Kataula 60.1, Kothi 48.2, Ghumarwin 45, Gohar 35, Nalagarh 35, Bhareri 32.4, Jogindarnagar 32, Dharmshala 28.4, Karsog 28.2, Sarahan 28, Bilaspur Sadar 25.8, Tinder 25, Kheri 23, Nahan 22.9, Sumdo 20, Paonta 19.4, Chhatrari 16.4, Sujanpur Tira 16, Chuari 12.4, Dharampur 12.4, Banjar 12, Baldwara 12, Kasauli 11.2, R L Bbmb 10.2, Kahu 10, Aghar 10, Nichar 9.4, Kangra 9.2, Bhoranj 9, Theog 8, Sarkaghat 7.7, Bharmaur 7, Bajaura Aws 6.5, Barthin 6.4, Dehra Gopipur 6.3, Bijahi 6, Bhuntar 5.4, Tissa 5, Shillaro 3.6, Pachhad 3, Kandaghat 2.4, Renuka / Dadhau 2.3, Chamba Aws 2, Keylong 2, Koksar 2, Narkanda Aws 2, Jatton Barrage 2, Sangraha 2, Bangana_R 1.4, Manali 1.2, Jubberhatti 1.2, Kasol 1, Kalpa 0.8, Seo Bagh 0.8, Rampur Bushar 0.8, Sundarnagar 0.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Sangla 0.2, Kotkhai 0.2, Shimla 0.2
17-08-2025	Kataula 116.3, Kangra 110.8, Nagrota Surian 107, Nahan 103.2, Jogindarnagar 84, Nalagarh 80, Paonta 69.8, Kheri 67.6, Dhaulakuan 67, Bhuntar 63.3, Palampur 60.4, Guler 57, Kasol 49, Renuka / Dadhau 49, Seo Bagh 48.6, Banjar 45.2, Bhareri 44.6, Sujanpur Tira 43.5, Sarahan 35.5, Kumarsain 35.4, Karsog 35, Pandoh 32, Rohru 30, Narkanda Aws 27, Mandi 26, Bijahi 24.4, Chuari 22.4, Bhoranj 21, Dharmshala 20.6, Tinder 18, Nadaun 17.5, Jubbal 15.4, Tissa 15, Jatton Barrage 15, Bharwain 14.2, Baldwara 14, Nichar 13.5, Hamirpur 13, Pachhad 13, Barthin 12.2, Dehra Gopipur 12, Janjehli 12, Kothi 11.4, Bilaspur Sadar 10.4, Sangraha 10, Chhatrari 8.9, Manali 8, Gohar 8, Kotkhai 7.2, Shillaro 6.8, Saloni 6.2, Kalpa 6.2, Bajaura Aws 6, Rampur Bushar 5.2, Naina Devi 4.4, Kufri 4.4, Amb 4.4, Kahu 4.1, Bangana_R 3.6, Theog 3.4, Sundarnagar 3.3, Ghamroor 3.2, Mehre (Barsar) 3, Sarkaghat 2.1, Reckong Peo Aws 1.5, Sangla 1.2, Shimla 1, Solan 0.6, Bilaspur Aws 0.5, Jubberhatti 0.4
18-08-2025	Dhaulakuan 113, Aghar 80, Sangraha 72, Kheri 62.4, Chuari 58.9, Palampur 58.2, Nalagarh 55, Baldwara 54, Jatton Barrage 49.4, Kasol 44, Paonta 40.6, Khadrala 36.4, Saloni 35.3, Tinder 35, Gohar 32, Nahan 30.1, Sarahan 28.5, Ghumarwin 27, Renuka / Dadhau 27, Jogindarnagar 25, Dharmshala 24.7, Hamirpur 23, Manali 23, Bhuntar 22, Rohru

	18, Chhatrari 15.4, Tissa 15, Karsog 14.4, Kufri 13.4, Rajgarh 13, Jubbal 12.6, Pachhad 12.3, Bhoranj 11, Bijahi 10.4, Pandoh 10, Shimla 10, Bhareri 9.8, Kataula 8.1, Bharmaur 8, Chamba Aws 8, Bajaura Aws 7, Kothi 6.8, Sundarnagar 6.3, Bharwain 5.6, Narkanda Aws 5.5, Sujanpur Tira 5, Solan 5, Seo Bagh 4.8, Banjar 4.2, Rampur Bushar 4, Sangla 3.4, Kotkhai 3.4, Kukumsheri Aws 3.1, Bilaspur Sadar 2.8, Wangtoo 2.8, Kumarsain 2.8, Kangra 2.7, Amb 2.6, Shillaro 2.4, Jubberhatti 2.4, Kandaghat 2.4, Mandi 2.2, Barthin 2, Mehre (Barsar) 2, Bangana_R 2, Janjehli 1, Theog 1, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
19-08-2025	Jubberhatti 73, Amb 56, Bhuntar 44.8, Bilaspur Sadar 40.2, Shimla 38, Kasol 33, Seo Bagh 32, Banjar 30, Kothi 25.4, Bhareri 23, Kufri 21.2, Tissa 20, Bijahi 18.6, Kangra 18.2, Barthin 17.6, Jogindarnagar 16, Kumarsain 15.4, Kahu 11.8, Sarahan 10.5, Dharmshala 9.5, Bajaura Aws 8.5, Janjehli 8, Jubbal 7.6, Nichar 7.5, Dehra Gopipur 7.2, Una 7.2, Wangtoo 6.8, Palampur 6, Sundarnagar 5.3, Bhoranj 5, Tinder 5, Kotkhai 4.3, Bharmaur 4, Nagrota Surian 3.8, Kheri 3.2, Chamba Aws 3, Sangla 2.6, Bangana_R 2.4, Ghamroor 2.2, Chhatrari 2.1, Kataula 2.1, Narkanda Aws 2, Sunibhajji 2, Aghar 1.8, Guler 1.8, Mandi 1.8, Manali 1.4, Gondla 1.2, Kalpa 1, Bilaspur Aws 0.5, Bharwain 0.5
20-08-2025	Amb 150, Bharwain 68, Dehra Gopipur 63, Palampur 60.4, Bangana_R 60, Solan 56, Guler 55.8, Bilaspur Sadar 50.8, Jubberhatti 47.2, Naina Devi 46.6, Nadaun 40, Wangtoo 39.2, Kataula 38.4, Jogindarnagar 38, Nagrota Surian 37.4, Sujanpur Tira 36.4, Pachhad 36, Pandoh 31.5, Renuka / Dadhau 30, Kangra 27.8, Seo Bagh 24.4, Bhoranj 22, Shimla 21, Jatton Barrage 20, Mandi 18.2, Ghumarwin 18, Nahan 15.9, Kufri 14.8, Kahu 13.3, Kheri 13, Nichar 12.4, Kasauli 12.2, Bharmaur 12, Sangraha 11, Kothi 10, Barthin 9.4, Kasol 9, Rajgarh 9, Bhuntar 8.8, Bajaura Aws 8, Shillaro 6.5, Paonta 6.4, Sangla 6.2, Chuari 6, Hamirpur 6, Jubbal 5.2, Manali 5, Tinder 5, Dharmshala 4.4, Dharampur 4.2, Mehre (Barsar) 4, Narkanda Aws 3.5, Banjar 3, Kalpa 2.8, Kukumsheri Aws 2.8, Reckong Peo Aws 2, Kandaghat 1.8, Sarkaghat 1.7, Chhatrari 1.4, Koksar 1.1, Chamba Aws 1, Keylong 1, Bilaspur Aws 0.5, Sundarnagar 0.5, Rampur Bushar 0.4
21-08-2025	Una 132.6, Naina Devi 54.6, Sujanpur Tira 53, Amb 42, Nadaun 41.5, Paonta 38, Nalagarh 34, R L Bbmb 28.4, Tinder 25, Bangana_R 22.2, Bharwain 22, Kumarsain 20.6, Rohru 17, Dharampur 16.4, Hamirpur 16, Mehre (Barsar) 13, Aghar 11.6, Palampur 11.3, Jogindarnagar 11, Dehra Gopipur 10.2, Kasauli 10, Guler 9.8, Nagrota Surian 9, Shillaro 8.8, Bhareri 8.2, Kangra 7.8, Dharmshala 7.4, Nahan 7.1, Pachhad 7, Bajaura Aws 6.5, Sunibhajji 5.4, Narkanda Aws 5, Jatton Barrage 4.4, Barthin 4.2, Kufri 3.4, Solan 3, Bilaspur Sadar 2.4, Sangla 2.4, Mandi 2.4, Jubbal 2.4, Chamba Aws 2, Kasol 2, Seo Bagh 2, Bijahi 2, Kataula 2, Sangraha 2, Kahu 1.8, Bhuntar 1.8, Shimla 1.8, Pandoh 1.5, Sundarnagar 1.2, Jubberhatti 1.1, Dalhousie Aws 1, Manali 0.8
22-08-2025	Tinder 35, Manali 18, R L Bbmb 15.6, Bangana_R 15, Kufri 14.6, Bajaura Aws 7.5, Jubberhatti 3.6, Una 2.8, Narkanda Aws 1.5, Bilaspur Aws 1, Shimla 0.3
23-08-2025	Nalagarh 65, Nadaun 58.6, Bijahi 47.4, Bangana_R 47, Jogindarnagar 45, Jatton Barrage 44.2, Bharwain 40.4, Nagrota Surian 39.2, Kangra 35.7, Naina Devi 34.8, Paonta 33, Renuka / Dadhau 32, Baldwara 31, Tinder 30, Chuari 22.2, Amb 20, Rajgarh 19, Dharmshala 15.8, Ghumarwin 11, Palampur 11, Nahan 10.9, Tissa 10, Sangraha 10, Bajaura Aws 7.5, Gohar 5, Ghamroor 4.6, Sujanpur Tira 4.4, R L Bbmb 3.2, Theog 3.2, Una 2.6, Shillaro 2.4, Dehra Gopipur 2, Banjar 2, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.1
24-08-2025	Kheri 129, Pandoh 123, Kasauli 105, Sarkaghat 80.5, Karsog 68, Mandi 68, Amb 60, Hamirpur 58, Kataula 57.3, Jogindarnagar 54, Nadaun 52.8, Sunibhajji 50, Dharampur 44.6, Chuari 40.6, Nalagarh 40, Kotkhai 39.4, Palampur 33.2, Gohar 32.4, Saloni 32.1, Sarahan 30, Bijahi 27.6, Kumarsain 25.4, Dehra Gopipur 25, Kothi 25, Tissa 24.3, Chamba Aws 24, Manali 21, Janjehli 20, Seo Bagh 19.8, Una 18.2, Rohru 17, Bhuntar 16.6, Kangra 16.2, Bilaspur Sadar 15.2, Tinder 15, Baldwara 15, Sundarnagar 14.8, Sujanpur Tira 14.5, Bharmaur 14, Banjar 14, Bhareri 12.8, Jubbal 12.6, Jatton Barrage 12, Aghar 11.8, Pachhad 11, Sangla 10.2, Shillaro 10, Kalpa 8.4, Nichar 8, Solan 7.8, Chhatrari 7.6, Bajaura Aws 7.5, Nagrota Surian 7, Narkanda Aws 7, Rampur Bushar 7, Wangtoo 6.4, Dharmshala 5.8, Guler 5.8, Reckong Peo Aws 5.5, Jubberhatti 5.4, Bharwain 5, Kufri 4.5, Naina Devi 4.2, Renuka / Dadhau 4.2, Shimla 4, Kukumsheri Aws 3.9, Kasol 3, Khadrala 3, R L Bbmb 2.4, Ghamroor 2.4, Gondla 2.4, Theog 2.4, Barthin 2.2, Moorang 2, Keylong 2, Paonta 2, Sangraha 2, Kandaghat 2, Bangana_R 1.8, Kahu 1.6, Bilaspur Aws 0.5
25-08-2025	Kahu 190.5, Ghumarwin 160, Barthin 156.4, Naina Devi 148.4, Kheri 142, Bilaspur Sadar 140.8, Chuari 140.2, Mehre (Barsar) 127, Amb 111, Aghar 110.6, Bangana_R 104, Ghamroor 95.8, Bharwain 94.4, Nadaun 94, Hamirpur 92, Dharmshala 87.4, Bhareri 85.9, Sandhole 85.2, Kasauli 85, Sundarnagar 84.2, Baldwara 84, Saloni 83.3, Una 80.8, Sujanpur Tira 80, Nalagarh 75, Dharampur 68.6, Dehra Gopipur 68.3, Chamba Aws 67, R L Bbmb 66, Palampur 65.4, Kangra 61.6, Nagrota Surian 60.8, Sangraha 60, Bijahi 57, Guler 54.6, Jogindarnagar 54, Mandi 49, Gohar 47, Kothi 46, Banjar 45, Bharmaur 43.6, Chhatrari 39.6, Sunibhajji 38, Manali 37, Kukumsheri Aws 35.6, Sarahan 35.5, Tinder 35, Jubberhatti 35, Kandaghat 32.4, Karsog 32.1, Pandoh 32, Sarkaghat 31.2, Kasol 31, Gondla 30.4, Kumarsain 30.2, Keylong 30, Kataula 29.3, Seo Bagh 29, Rajgarh 28, Janjehli 26, Rohru 25, Kufri 24.6, Bhuntar 23.8, Jubbal 22.4, Rampur Bushar 22.4, Kotkhai 22.3, Shimla 21.3, Tissa 20, Theog 20, Solan 17.2, Narkanda Aws 16.5, Shillaro 15.8, Pachhad 14.4, Nahan 13.1, Renuka / Dadhau 8.7, Nichar 6, Jatton Barrage 5.2, Paonta 5, Wangtoo 4.2, Hansa 4, Kalpa 3.8, Sangla 3.8, Bajaura Aws 2.5, Khadrala 1.8, Reckong Peo Aws 1.5, Bilaspur Aws 0.5, Moorang 0.2

26-08-2025	Naina Devi 160.8, Kheri 128.6, Chuari 125.2, Dharmshala 102, Manali 102, Ghamroor 91.4, Kangra 89, Nagrota Surian 88.8, Palampur 88, Kothi 85.8, Bharwain 85, Tissa 80, Bhuntar 77.2, Gondla 75.6, Chamba Aws 74, Sangraha 72, Guler 71.8, Kukumsheri Aws 71.5, Seo Bagh 70.8, Kumarsain 70.6, Karsog 65.2, Kasol 65, Ghumarwin 62, Renuka / Dadhau 61, Sujanpur Tira 60.6, Rohru 60, Jogindarnagar 59, Nadaun 58.2, Koksar 58, Dehra Gopipur 57, Banjar 57, Aghar 55, Barthin 52.8, Bangana_R 52, Sundarnagar 51.3, Jatton Barrage 51, Hamirpur 49, Kotkhai 43.1, Amb 43, Paonta 41.2, Narkanda Aws 40.5, Bilaspur Sadar 40.2, Janjehli 40, Kufri 39, Saloni 38.4, Sarahan 37.5, Pachhad 37.4, Mandi 36.6, Keylong 35.5, Mehre (Barsar) 35, Baldwara 34, Una 34, Bhareri 33.2, Pandoh 33, Shillaro 33, Sunibhajji 32.8, Kahu 30.5, Bijahi 30.4, Theog 30, Shimla 28.8, Jubbal 28.4, Kasauli 28.2, R L Bbmb 28, Gohar 25, Dharampur 22.4, Nichar 22, Solan 19.2, Kandaghat 18.4, Hansa 15, Rampur Bushar 14.2, Sarkaghat 13.8, Sangla 10.6, Jubberhatti 8.6, Wangtoo 8.4, Nahan 7.6, Kalpa 6.6, Bajaura Aws 5.5, Khadrala 5, Moorang 3.2, Reckong Peo Aws 3, Bilaspur Aws 0.5
27-08-2025	Kheri 89.2, Kothi 69, Saloni 65.2, Chamba Aws 51, Nalagarh 45, Dharmshala 40.4, Kukumsheri Aws 33.2, Gondla 31.8, Tissa 29, Keylong 29, Chuari 27.4, Koksar 27, Naina Devi 26.8, Sangraha 26, Palampur 22.4, Kangra 21.6, Bilaspur Sadar 20.4, Kataula 20.2, Amb 20, Dehra Gopipur 18.4, Karsog 18, Nagrota Surian 15, Seo Bagh 15, Sujanpur Tira 14, Bijahi 13.2, Hansa 12, Guler 11.2, Kasol 11, Barthin 10.4, Bhuntar 10.4, Ghumarwin 10, Wangtoo 10, Baldwara 10, Jogindarnagar 10, Mandi 6.4, Solan 6.4, Reckong Peo Aws 6, Bharwain 6, Kalpa 5.9, Sangla 5.4, Kumarsain 5.4, Jatton Barrage 5.4, Bajaura Aws 5, Narkanda Aws 5, Ghamroor 4.6, Una 4.4, Bhareri 3.8, Nadaun 3.6, Sundarnagar 3.6, Gohar 3, Kasauli 3, Kahu 2.6, Pandoh 2.5, Aghar 2.4, R L Bbmb 2, Janjehli 2, Dharampur 2, Jubbal 1.6, Nichar 1.5, Kufri 1.4, Kotkhai 1.3, Sunibhajji 1.2, Pachhad 1.2, Mehre (Barsar) 1, Shillaro 1, Kandaghat 1, Bangana_R 1, Shimla 0.6, Theog 0.6, Bilaspur Aws 0.5, Renuka / Dadhau 0.3
28-08-2025	Pandoh 108, Bhareri 63.8, Nalagarh 60, Mandi 56.8, Gohar 53, Naina Devi 36.6, Saloni 33.3, Sarahan 30.5, Manali 25, Koksar 19, Sarkaghat 18.5, Baldwara 18, Rampur Bushar 18, Amb 15.4, Sundarnagar 11.9, Sunibhajji 11.6, Kataula 10.2, Hamirpur 9, Shillaro 9, Aghar 8.6, Kasauli 8.2, R L Bbmb 8, Bhuntar 8, Narkanda Aws 7.5, Jubberhatti 7.3, Bajaura Aws 5.5, Jogindarnagar 5, Nadaun 2.8, Shimla 2.4, Bilaspur Sadar 2.2, Ghamroor 2.2, Kahu 2, Dehra Gopipur 2, Kasol 2, Kufri 2, Jatton Barrage 2, Nagrota Surian 1.8, Chamba Aws 1, Guler 1, Seo Bagh 1, Barthin 0.6, Berthin Agro 0.5, Bangana_R 0.4
29-08-2025	Jatton Barrage 138, Renuka / Dadhau 114, Palampur 91.4, Bharwain 80, Sandhole 77.8, Paonta 75, Kataula 73.4, Sangraha 70, Rajgarh 65, Kasauli 62, Nahan 60.8, Solan 57.8, Gohar 55.6, Bilaspur Sadar 50.4, Nagrota Surian 48.2, Kahu 45.5, Pachhad 43, Bijahi 42, Sarahan 37.5, Pandoh 36, Bhareri 35.6, Rohru 29, Sunibhajji 28, Manali 27, Kothi 25, Kangra 24.8, Jogindarnagar 23, Dharampur 22.6, Dehra Gopipur 21.4, Nalagarh 20, Kasol 19, Janjehli 18, Kandaghat 18, Kheri 16, Mehre (Barsar) 15, Sundarnagar 14.7, Karsog 14.1, Narkanda Aws 13.5, Dharmshala 10.8, Kumarsain 10.6, Nichar 10.5, Sangla 10.2, Rampur Bushar 10, Kalpa 8.6, Shimla 8.5, Kufri 7.8, Nadaun 7.4, Koksar 7.2, Amb 7, Reckong Peo Aws 6.5, Bajaura Aws 6.5, Naina Devi 6.4, Shillaro 6.4, Mandi 6.2, Bangana_R 6.2, Jubberhatti 5.2, Moorang 4.7, Kotkhai 4.3, Sujanpur Tira 3.6, Chuari 3.2, Guler 2.6, Barthin 2.2, Chamba Aws 2, Bhuntar 2, Baldwara 2, Theog 2, Una 1.6, Seo Bagh 0.6, Bilaspur Aws 0.5
30-08-2025	Chuari 104, Jogindarnagar 86, Rampur Bushar 75.5, Dharmshala 69.4, Bijahi 63.4, Shimla 62, Kataula 60.1, Nahan 60.1, Palampur 60, Theog 59, Kheri 54, Sarahan 45.5, Kumarsain 45.4, Nichar 44.5, Gohar 43, Shillaro 41.4, Kangra 40.8, Narkanda Aws 40, Khadrala 38.2, Sunibhajji 29.6, Kothi 28, Kufri 26, Kotkhai 25.2, Nagrota Surian 24.4, Manali 24, Baldwara 24, Jatton Barrage 23, Rohru 18, Kasol 16, Paonta 14.8, Kalpa 14.6, Sundarnagar 14.1, Chamba Aws 14, Sujanpur Tira 13, Jubbal 11.4, Pandoh 11, Reckong Peo Aws 10, Keylong 10, Koksar 8.9, Bhuntar 8.6, Jubberhatti 8, Sangla 7.6, Kandaghat 7.2, Mandi 6.2, Gondla 5.4, Bharwain 5.2, Seo Bagh 5, Renuka / Dadhau 5, Guler 4.8, Bhareri 4.2, Pooh 4.2, Bajaura Aws 3.5, Kahu 3.2, Dehra Gopipur 3, Nadaun 2.5, Kukumsheri Aws 2.1, Bilaspur Aws 0.5
31-08-2025	Naina Devi 82.8, R L Bbmb 80, Chuari 75.2, Kumarsain 60.8, Jogindarnagar 59, Kangra 45.4, Sarahan 44, Kandaghat 43.8, Nalagarh 42, Una 37.2, Kufri 35, Kahu 34.6, Bangana_R 34.6, Palampur 32, Nagrota Surian 25.5, Mehre (Barsar) 24, Nadaun 22.5, Shillaro 20, Rajgarh 20, Bijahi 19.4, Aghar 18.6, Shimla 18.2, Manali 18, Narkanda Aws 17.5, Kataula 16.3, Jubberhatti 16.2, Mandi 15.8, Sujanpur Tira 15.5, Gohar 15, Rohru 15, Baldwara 14, Sundarnagar 13.8, Paonta 12.6, Bharwain 12.6, Dehra Gopipur 12.3, Barthin 12.2, Pandoh 10.5, Ghamroor 9.8, Dharmshala 8.8, Bhareri 8.2, Kotkhai 8.1, Kasauli 8, Nahan 7.6, Rampur Bushar 7.5, Nichar 7.4, Jatton Barrage 7.4, Guler 7.2, Dharampur 6.2, Bajaura Aws 6, Bilaspur Sadar 5.8, Sangla 5.8, Pachhad 5.3, Bhuntar 5, Sarkaghat 4.8, Solan 4.4, Kothi 3.2, Keylong 3, Seo Bagh 2.6, Chamba Aws 2, Hansa 2, Gondla 2, Kalpa 1.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5

8. Forecast for Next 7 Days

Light to moderate rainfall very likely at most places on 01st & 02nd September 2025. Light to moderate rainfall likely at many places on 03rd September 2025 and at few places from 04th to 07th September 2025. One or two spells of heavy rain likely at few places from 01st to 03rd September 2025 and one or two spells of very heavy rain likely at few places on 01st & 02nd September 2025. One or two spells of extremely heavy rain likely at isolated places on 01st September 2025.

With Regards
Meteorological Centre Shimla

Note: Forecast/Warning for any day is valid from 0830 hours IST of that day till 0830 hours IST of next day

WARNING	PROBABILISTIC FORECAST		SPATIAL		RAINFALL INTENSITY	
[illegible]	Terms	Probability of Occurrence	DRY	No Rainfall	Light	2.5-15.5 mm
ALERT (BE PREPARED)	Unlikely	<25%	ISOLATED	1-25%	Moderate	15.6-64.4 mm
WATCH (BE UPDATED)	Likely	25-50%	FEW	26-50%	Heavy	64.5-115.5 mm
NO WARNING (NO ACTION)	Very Likely	50-75%	MANY	51-75%	Very Heavy	115.6-204.4 mm
	Most Likely	>75%	MOST	76-100%	Extremely Heavy	>204.5 mm

For more information kindly visit:

Website:https://mausam.imd.gov.in/shimla/
Twitter-https://twitter.com/himachalmausam
Facebook-https://www.facebook.com/profile.php?id=100018411811087

Detail of House damaged during the Mansoon 2025

Format

Performa for the house damage due to Haevy Rain/Flash Floods/Cloudburst/Landslide etc

Sr no	Name of Block	Name of GP	Name of Gram Village	Name of Beneficariy	Father /Husband Name	Social Category SC/ST/Gen	Contact No	Adhar no of Beneficiary	Damage house type Kachha,Pucca	Type of Damage Fully/ Partially
1	Nalagarh	Badhokhari	Kakkad Dohchi	Nanak Chand	Nikku Ram	SC	7876159527	657087983201	Pucca	Fully
2	Nalagarh	Bagheri	Bagheri	Dharam Pal	Telu Ram	Gen	7807440340	639671827076	Pucca	Partially
3	Nalagarh	BAHA	Bhasra	Payare lal	Prabha Ram	NSC	9882416711	330016980238	Pucca	Fully
4	Nalagarh	BAHA	Bhasra	Surjit Dhiman	Gurdyal Singh	SC	9736341206	603407543457	Pucca	Partially
5	Nalagarh	BAHA	Bhasra	Gurdyal Singh	Daulat Ram	SC	9816053019	381473216097	Pucca	Partially
6	Nalagarh	BAHA	Bhasra	Ram Asra	Prema Ram	NSC	9816395513	582006710672	Pucca	Partially
7	Nalagarh	BAHA	Naal	Som Nath	Krishnu	SC	982227919	896913483076	Pucca	Partially
8	Nalagarh	BAHA	Naal	Parkash Chand	Desh Raj	SC	6230239211	394841887466	Pucca	Partially
9	Nalagarh	BAHA	Naal	Joginder Singh	Dharmu	SC	9816691297	983616427083	Pucca	Partially
10	Nalagarh	BAHA	Naal	Ram Lal	Karishnu	SC	9736351692	487111254860	Pucca	Partially
11	Nalagarh	BAHA	Naal	Gurpal singh	Hari Ram	SC	9882255165	349355545693	Pucca	Fully
12	Nalagarh	BAHA	Naal	Ram Kumar	Hari Ram	SC	9882045924	727727817875	Pucca	Fully
13	Nalagarh	BAHA	Naal	Raj Pal	Hari Ram	SC	9882055453	602812401953	Pucca	Fully
14	Nalagarh	BAHA	Naal	Rakesh kumar	Desh Raj	SC	9882709211	365092985242	Pucca	Fully
15	Nalagarh	BAHA	Naal	Ramesh kumar	Ram Lok	SC	9882960072	548540361283	Pucca	Partially
16	Nalagarh	BAHA	Naal	Ram Lok	Kanshi Ram	SC	708311107	462016901978	Pucca	Partially
17	Nalagarh	BAHA	Naal	Hari Chand	Mnasa Ram	SC	9736204404	471543064385	Pucca	Partially
18	Nalagarh	BAHA	Naal	Dharam Pal	Hari Chand	SC	7018661345	484158453991	Pucca	Partially
19	Nalagarh	BAHA	Naal	Babali Devi	Jaswinder Singh	SC	9736200327	713836340098	Pucca	Partially
20	Nalagarh	BAHA	Naal	Roop Lal	Ram lok	SC	9736201311	67186314b228	Pucca	Partially
21	Nalagarh	BAHA	Naal	Gita Ram	Durgu	SC	9736358622	954828990134	Pucca	Partially
22	Nalagarh	BAHA	Naal	Pritam Chand	Gita Ram	SC	9882332522	371874905542	Pucca	Partially
23	Nalagarh	BAHA	Naal	Sodi Ram	Ram Lal	SC	9015379180	774082095441	Pucca	Partially
24	Nalagarh	BAHA	Naal	Sarvan Kumar	Ram Swroop	SC	9882233712	416183990945	Pucca	Partially
25	Nalagarh	BAHA	Naal	Ram Swroop	Bhagat Ram	SC	9882290863	404046289048	Pucca	Partially

26	Nalagarh	BAHA	Naal	Tripta Devi	Ravinder Kumar	SC	8351906156	611998157712	Pucca	Partially
27	Nalagarh	BAHA	Naal	Arjun Singh	Ram Swroop	SC	9882333083	956075219252	Pucca	Partially
28	Nalagarh	BAHA	Naal	Ratna	Kunshi Ram	SC	9882382393	211712931711	Pucca	Partially
29	Nalagarh	BAHA	Baha	Chaman Lal	Megh Ram	NSC	9736282628	223529035205	Pucca	Fully
30	Nalagarh	BAHA	Baha	Maya devi	Vijay Ram	NSC	9882208134	438647318935	Kachha	Fully
31	Nalagarh	BAHA	Baha	Bhago Devi	kishnu	NSC	9317618453	650231956795	Pucca	Partially
32	Nalagarh	Baheri	Gunaha Kala	Prtam Singh	Ishwar Dash	General	8580646244	867247637404	pucca	Fully
33	Nalagarh	Baheri	Baler	Parkash Chand	Lekh Ram	General	8580586603	910086336745	pucca	Partially
34	NALAGARH	Baheri	Baler	Jai kishan	Mahanta Ram	General	9805506074	530237578002	pucca	Partially
35	NALAGARH	Baheri	Gunahakhurd	Anil Kumar	Chet Ram	General	88943 02735	739467499661	Kachha	Fully
36	NALAGARH	Baheri	Baheri	Shiv Dash	Parbhu Ram	SC	9805025519	274355581984	Kachha	Partially
37	Nalagarh	Baheri	Jaglog	Shankar Kumar	Budh Ram	SC	8418820341	732267744231	pucca	Fully
38	Nalagarh	Baheri	Barog	Bagga Ram	Labhu Ram	SC	86278 44102	962607575459	pucca	Partially
39	Nalagarh	Baheri	Barog	Jiya lal	Bhagatiya Ram	SC	8988311423	521461505546	Kachha	Partially
40	Nalagarh	Baila	kot	Sanjeev kumar	Inder Ram	SC	9816415867	648835373379	kachcha	Partially
41	Nalagarh	Baila	Tayamu warla	Kamal Dev	Jagat Ram	Gen	9816535493	883354122688	Pucca	Partially
42	Nalagarh	Baila	Taungri	Daroga Ram	kidhu Ram	nsc	8091184018	276325557856	Pucca	Partially
43	Nalagarh	Baila	Taungri	kamla Devi	Hari krishan	nsc	8580867230	524276031938	pacca	partially
44	Nalagarh	Barian	Aliawan	Balwant Singh	Sant Ram	SC	9459511478	815660049467	Kachha	Partially
45	Nalagarh	Barian	Aliawan	Paras Ram	Geeta Ram	General	8894631156	935844013654	Kachha	Partially
46	Nalagarh	Barian	Aliawan	Beli Ram	Geeta Ram	General	8894631156	899805011417	Kachha	Partially
47	Nalagarh	Barian	Baraon Brahmna	Ramesh Sharma	Ram Saroop	General	9882768427	515958850360	Kachha	Partially
48	NALAGARH	Barian	Baraon Brahmna	Jay Pal	Ram Saroop	General	9805291578	841340532467	Kachha	Partially
49	Nalagarh	Barian	Salehran	Bhupender Singh	Girdhari Lal	SC	9805222937	294444897502	Kachha	Partially
50	Nalagarh	Barian	Haliara	Ram Singh	Bal Krishan	General	9805447913	742217015311	Kachha	Partially
51	Nalagarh	Barian	Haliara	Shri Ram	Bal Krishan	General	9816098863	790739893883	Kachha	Partially
52	Nalagarh	Barian	Barian	Sukhvinder Singh	Dharam Chand	General	8628048207	497221261218	Kachha	Partially
53	Nalagarh	Barian	Kuiwal	Shanti Devi	Ram Lok	SC	6228839069	854283261961	Kachha	Partially
54	Nalagarh	Barian	Haliara	Deep	Radha Krishan	General	9805976572	356745359423	Kachha	Partially
55	Nalagarh	Barian	Kheda	Sohan Lal	Devi Ram	SC	8219095618	888773669110	Kachha	Partially
56	Nalagarh	Barian	Mahuwa	Naresh Kumar	Amar Chand	General	9816105543	763806108029	Kachha	Partially
57	Nalagarh	Barian	Bansai	Ramesh Kumar	Babu Ram	SC	7807032106	980621803305	Kachha	Partially
58	Nalagarh	Barian	Bansai	Ram Aasari	Ram Dass	SC	8894961856	580763796802	Kachha	Partially
59	Nalagarh	Barian	Panoh	Ram Saroop	Mansa Ram	General	8894608412	670015448849	Kachha	Partially
60	Nalagarh	Bawasni	Jaman Da Dohra	Yadwinder Singh	Ram Kishan	gen	98824 41456	971678131583	Pacca	Fully

61	Nalagarh	Bawasni	Jaman Da Dohra	Bhagwan Das	Devi ram	gen	78070 21970	879898199766	Pacca	Fully
62	Nalagarh	Bawasni	Jaman Da Dohra	Gopala Ram	Mangat Ram	gen	88940 22688	379670203488	Kachha	Fully
63	Nalagarh	Bawasni	Jaman Da Dohra	Ram Lok	Gopala Ram	gen	98826 66203	551176949842	Pacca	Fully
64	Nalagarh	Bawasni	Jaman Da Dohra	Pooran Chand	Budh Ram	sc	88946 38220	456454311301	Kachha	Fully
65	Nalagarh	Bawasni	Jaman Da Dohra	Lal Chand	Madan Lal	sc	98059 18371	954939159198	Kachha	Fully
66	Nalagarh	Bawasni	Jaman Da Dohra	Sarvjeet Singh	Ram Kishan	gen	62305 46912	490458453962	Pacca	Fully
67	Nalagarh	Bawasni	Jamradi	Shyam Lal	Fulmu Ram	gen	86269-26942	789304845064	Kachha	Partially
68	Nalagarh	Bawasni	Jamradi	Ram Lal	Jagat Ram	gen	78071 73659	355533638001	Kachha	Partially
69	Nalagarh	Bawasni	Jamradi	Dhayan Singh	Fulmu Ram	gen	98552-34984	768126786568	Kachha	Partially
70	Nalagarh	Bawasni	Chikni	Sanjeev Chand	Ram Rakha	gen	82195-69079	882825154006	Pacca	Partially
71	Nalagarh	Bawasni	Jabal Tapriyn	Rameshwar Dass	Ganga Ram	sc	88949-45737	731332637469	Kachha	Partially
72	Nalagarh	Bawasni	Chikni	Hari Ram	Ratna Ram	sc	98050-17871	277411100283	Kachha	Partially
73	Nalagarh	Bawasni	Chikni	Ramji Dass	Ram Rakha	gen	98164 73311	735881248592	Kachha	Partially
74	Nalagarh	Bhiyunkhari	Sanog	Lekh Raj	Ram Lok	SC	8219498950	464628349958	Pucca	Fully
75	Nalagarh	Bhiyunkhari	Sanog	Mohan Lal	Kapuru	SC	8628961581	454813822253	PUCCA/	Fully
76	Nalagarh	Bhiyunkhari	Sanog	Satya Devi	Ram Lok	SC	8894638306	643600032887	Pucca	Fully
77	Nalagarh	Bhiyunkhari	Sanog	Shankar lal	Kapuru	SC	8219842756	504271973534	Pucca	Fully
78	Nalagarh	Bhiyunkhari	Sanog	Hem Raj	Chet Ram	SC	8602033600	208302453421	PUCCA/	Fully
79	Nalagarh	Bhiyunkhari	Sanog	Babali Devi	Gagan Deep	Gen	9817016760	884094358876	Kaccha	Fully
80	Nalagarh	Bhiyunkhari	Sanog	Bal Krishan	Sant Ram	SC	8218715138	686718380743	PUCCA/	Fully
81	Nalagarh	Bhiyunkhari	Sanog	Shankar lal	Prabhu Ram	SC	980550367		PUCCA/	Fully
82	Nalagarh	Bhiyunkhari	Kosari	Karm Chand	Devi Ram	SC	6230839071	335290954560	PUCCA/	Fully
83	Nalagarh	Bhiyunkhari	Kosari	Jaspal	Dhani Ram	SC	7807127547	496622019070	PUCCA/	Fully
84	Nalagarh	Bhiyunkhari	Kosari	Nanak Chand	Sattu	SC	9805385080	330140852335	PUCCA/	Fully
85	Nalagarh	Bhiyunkhari	Bhiyunkhari	Abhi Ram	Nihalu Ram	SC	9816218080		PUCCA/	Fully
86	Nalagarh	Bhiyunkhari	Kyar Ghat	Baggu ram	Beli Ram	Gen			PUCCA/	Fully
87	Nalagarh	Bhiyunkhari	Chavalsan	Bagga Ram	Banshi ram	Gen	8580838066		PUCCA/	Fully
88	Nalagarh	Chadog	Bhalam	chhotu Ram	Garja Ram	SC	9805982891	305564922891	pacca	partially
89	Nalagarh	Chadog	Bhalam	Binta Devi	Bam Lal	SC	9805130373	533861811291	kacheha	Fully
90	Nalagarh	Chadog	Bhalam	Ram Swaroop	Nikku Ram	SC	9816407928	993351007754	Pacca	Fully
91	Nalagarh	chadog	Bhalam	Guvakash	nikku	SC	8894182276	307852286725	pacca	Fully
92	Nalagarh	Chamdar	Katal	Keshar Chand	Ramdyal	SC	9816226576	74b114260201	Pucca	Full
93	Nalagarh	chhiyarchhi	Manla	Mohan Lal	Bhagat Ram	Gen	9805548730	480304394594	kachcha	Partially
94	Nalagarh	Dhang Nehri	Dhang Nehri	Surender Singh	Bachna	OBC	9816237067	311875026208	kachcha	Partially

95	Nalagarh	Dhang Nihli	Dhang Nihli	Gyan Singh	Hazara Singh	OBC	9317613519	768005648564	Kachcha	Partially
96	Nalagarh	Dhang Nihli	Dhang Uperli	Tara Chand	Fakiriya	Gen.	8894638945	458774625680	Kachcha	Partially
97	Nalagarh	Dharmana	Ghasmana	Ranjeet Singh	Tulshi Ram	General	9805150635	377094390532	pucca	Partially
98	Nalagarh	Dharmana	Ghasmana	Vikarm Singh	Tulshi Ram	General	9805150770	489885059869	Kachha	Partially
99	Nalagarh	Dharmana	Ghasmana	Sohan Lal	Tulshi Ram	General	8894494914	537413660875	Kachha	Partially
100	Nalagarh	Dharmana	Ghasmana	Jeevan Lal	Tulshi Ram	General	9805997269	338477287440	Kachha	Partially
101	Nalagarh	Dharmana	Ghasmana	Tulshi Ram	Brij ram	General	8628991997	669366602854	Kachha	Partially
102	Nalagarh	Dharmana	Jakhol	Nanak Chand	Mast Ram	SC	9805189390	750413439395	pucca	Partially
103	Nalagarh	Dharmana	Jakhol	Dev Raj	Mast Ram	SC	85809 36297	856268534198	pucca	Partially
104	Nalagarh	Dharmana	Jakhol	Mohan LAL	Mast Ram	SC	8894146281	967007528107	pucca	Partially
105	Nalagarh	Dharmana	Jakhol	Kehar Singh	Dev Raj	SC	6230632124	658175356908	pucca	Partially
106	Nalagarh	Dharmana	Jakhol	Suresh Kumar	Dev Raj	SC	7876229590	857565510958	pucca	Partially
107	Nalagarh	Dharmana	Katal	Som Dutt	Jagat Ram	General	9459019967	580433866841	pucca	Partially
108	Nalagarh	Dharmana	Katal	Megh Raj	Jagat Ram	General	70180 70062	631444768059	pucca	Partially
109	Nalagarh	Dharmana	Jabal	Pardeep Kumar	Partap Singh	General	9805436056	621902416039	pucca	Partially
110	Nalagarh	Diggal	chakli	balak ram	valshakhi ram	sc	8894024547	230349757013	kacha	fully
111	Nalagarh	Diggal	jaandoo	khem chand	basnta ram	sc	6230271424	805835526523	kacha	partially
112	Nalagarh	Diggal	diggal	Phula Ram	Tatiya Ram	sc	9650378483	797102167538	kacha	partially
113	Nalagarh	DOLI	Badkhoa	SALINDRA DEVI	MADAN LAL	SC	8278889217	8672 4763 7404	pucca	Partially
114	Nalagarh	DOLI	Gajed	Kalpana	Tara Chand	General	98169 77669	7564 1580 2781	pucca	Partially
115	Nalagarh	DOLI	Gajed	Shanti Devi	Ramswaroop	General	8894007018	6066 2221 4530	pucca	Partially
116	Nalagarh	Ghadyach	Bani	Kamla	Gurdev	Gen	8091604013	813146898669	Pucca	FULLY
117	Nalagarh	Jagni	Khadak	Prem Chand	Ghogra Ram	SC	9817703637	495683547724	Pucca	Fully
118	Nalagarh	Jagni	Purla	DharamPal	Balak Ram	SC	7876260852	756458546073	Pucca	Fully
119	Nalagarh	Jagni	Purla	Pyare Lal	Sita Ram	SC	9736034885	288738968793	Pucca	Fully
120	Nalagarh	Jagni	Purla	Ram Pal	Sita Ram	SC	8580971737	741515378363	pucca	Fully
121	Nalagarh	Jagni	Purla	Madan Lal	Ghogra Ram	SC	9816453437	822725301378	Pucca	Fully
122	Nalagarh	jainagar	Baehndi	Jagt Ram	ram rakhu	Gen	7876275338	868208008120	puca,Kacha	fully
123	Nalagarh	jukahri	jukahri	ram Singh	surat ram	Gen	8219821654	485220594505	Pucca	partially
124	Nalagarh	Jukhari	Chamba	Balak Ram	dharmu	SC	9882464796	623857869120	Pucca	Partially
125	Nalagarh	Jukhari	Kunplet	Baldev	bhagat Ram	Sc	9736072117	318038624766	Pucca	partially
126	Nalagarh	Jukhari	jukahri	Jogindev singh	sanat ram	gen	8988451335	932110633269	Pucca	partially
127	Nalagarh	Jukhari	jukhari	hem Raj	sant Ram	gen	9459138953	825563721716	Pucca	partially
128	Nalagarh	Jukhari	jukahri	gyan shyam	sant Ram	gen	9816885007	569944755557	Pucca	partially
129	Nalagarh	Jukhari	jukahri	nirmal devi	Arjun	gen	8219033320	283287627076	Pucca	partially
130	Nalagarh	Jukhari	jukahri	nirmal singh	nathu ram	gen	8580430772	858493865075	Pucca	partially

131	Nalagarh	Jukhari	jukhari	jiya lal	balk ram	Gen	9816123064	533730810616	Pucca	partially
132	Nalagarh	Jukhari	Chamba	Devi Ram	Gambho	Gen	9736336575	580064161352	Pucca	partially
133	Nalagarh	Jukhari	Chamba	Balak Ram	Sukh ram	Gen	9736658339	711792290363	Pucca	partially
134	Nalagarh	Jukhari	Chamba	Jagat Ram	Babu Ram	Gen	9816128151	297691021252	Pucca	partially
135	Nalagarh	Jukhari	Chamba	Jai Lal	Rumal Chand	Sc	9805584740	299752445853	Pucca	partially
136	Nalagarh	Jukhari	Jukhadi	Koushlya Devi	Gopal Chand	Gen	7807248881	377931012343	Pucca	partially
137	Nalagarh	Jukhari	Chamba	Nikko Devi	Thakur Dass	Gen	7876321769	947707193366	Pucca	partially
138	Nalagarh	Jukhari	Chamba	Rattan Lal	Sundar	Gen	6230394711	402321159505	Pucca	partially
139	Nalagarh	Kashmirpur	Basowal Sultani	Jagdish Singh	Avtar Singh	NSC	8894335407	789327861895	pucca	Fully
140	Nalagarh	Kashmirpur	Basowal Sultani	Rashpal Kaur	Beer Singh	NSC	7832905806	806522119068	Pucca	Fully
141	Nalagarh	Kiar Kainta	Didu	Ram Lal	Ramkishan	SC	9805322870	893158831337	pucca	partially
142	Nalagarh	Kiar Kainta	Didu	Budh Ram	Jeandu Ram	Sc	9805664837	640000790199	pucca	partially
143	Nalagarh	Kiar Kainta	Sayanj	kamal sharma	Gorkhu Ram	NSc	7807660759	652942304351	Kachha	partially
144	Nalagarh	kishanpura	HARAYPUR	BHOLI DEVI	HABIB KHAN	GEN	7559756959	736444230118	PAKKA	Partially
145	Nalagarh	kishanpura	KISHANPURA	GURDAS	GYAN CHAND	GEN	9816744099	338043762091	PAKKA	partially
146	Nalagarh	Koidi	Nichli Khaled	Dev Raj	Dalip Singh	Genral	7807209829	861578189482	Kachha	FULLY
147	Nalagarh	Kundu	Untpur	Gurdyal	Ram Kishan	Gen	8091274165	292634056096	Pucca	Fully
148	Nalagarh	Kundu	Untpur	Ram Swaroop	Chibu Ram	SC	9736736150	711028334153	Pucca	Fully
149	Nalagarh	Kundu	Untpur	Badal Singh	Budhi Ram	SC	7590996674	376318162756	Pucca	Fully
150	Nalagarh	Kundu	Bohri	Gurnam Singh	Santokha	SC	8627831325	997716144305	Pucca	Fully
151	Nalagarh	Kundu	Bohri	Ram Prakash	Santokha	SC	8219099853	490467708955	Pucca	Fully
152	Nalagarh	Kundu	Hawani	Ram Nath	Nikku	Gen	7591800945	691788717950	Pucca	Partially
153	Nalagarh	Kundu	Punehli	Sanjeev Kumar	Sita Ram	Gen	8219331147	498708702734	Pucca	Fully
154	Nalagarh	Kundu	Kundlu	Vinod Kumar	Amar Dev	Gen	7559639862	833353513209	Pucca	Fully
155	Nalagarh	Lag	Soon	Rsm singh	Thakuriya	Sc	9805670608	210767009595	kacha	partially
156	Nalagarh	Lag	Ukhoo	Ram Kumar	Rati Ram	Nsc	7651066951	709047454887	kacha	Fully
157	Nalagarh	Lag	Panjli	Ram ashra	Pradhanu	Sc	9459894683	913318644714	kacha	Partially
158	Nalagarh	Lunas	Lunas	Kamla Devi	Bhagat Ram	SC	9805104739	657050980670	pucca/kachh	Partially
159	Nalagarh	Lunas	Lunas	Ram Rattan	Krishanu	SC	8894970301	763795027814	Pucca	Fully
160	Nalagarh	MAJRA	MAJRA	ROSHAN LAL	TARU	SC	8894865215	721308709549	KACHCHA	PARTIALLY
161	Nalagarh	Malhaini	Sohari	Bhagat Ram	Jadu Ram	Gen	9736795496	504523594127	pucca	Fully
162	Nalagarh	malhaini	manwal	dwarkadass	Tulsi Ram	SC	9805536646		pucca	Fully
163	Nalagarh	Malhaini	malhaini	sita Ram	Balk Ram	SC	8894519495		kucha/pucca	Fully
164	Nalagarh	Malhaini	Sires	Rashan lal	Mahanta ram	Sc	9816094935	406402138380	pucca	partly
165	Nalagarh	MANPURA	ROTANWALA	JAGDEV SINGH	KISHANA	SC	8580735463	710814222097	PAKKA	partially
166	Nalagarh	Matuli	Matuli(Sawed)	Shobha Ram	Dhanu Ram	SC	8629063473	2[illegible]836831132	Pucca	Partially

167	Nalagarh	Matuli	Bhongla	Nand lal	Rampyara	SC	6230791675	650065093554	Pucca	Partially
168	Nalagarh	Mittian	Maithal	Krishani devi	Jaidu Ram	General	7833838092	331589503892	Kachha	Partially
169	Nalagarh	Mittian	Maithal	Roshani	Lahasinya	SC	9625522513	327394874424	Kachha	Partially
170	Nalagarh	Mittian	mittian	Champa Devi	Radhe shyam	General	6230913748	781481779834	Kachha	Partially
171	Nalagarh	mittian	Bhipar	Hans Raj	Udham singh	General	7580026017	520215433580	Kachha	Partially
172	Nalagarh	mittian	mittian	krishani Devi	sukh Ram	SC	9459113776	765389385222	Kachha	Partially
173	Nalagarh	Nand	Nand	Chint Ram	Muni Lal	Gen	8235064043	790289778834	Kachcha	Fully
174	Nalagarh	Nand	Dhar	Niku Ram	Chuhadu Ram	SC	8894679880	533243357793	Kachcha	Partially
175	Nalagarh	Nand	Gabar	Dharm pal	Jagat Ram	Gen	9816090644	912908030165	Kachcha	Partially
176	Nalagarh	Nand	Nand	Roop Lal	Banshi Ram	Gen	8627806341	236007001989	Kachcha	Partially
177	Nalagarh	Nand	Katali	Sher Singh	Surart Ram	Gen	9882417796	966110386964	Kachcha	Partially
178	Nalagarh	Nand	Niyari	Lachmi Dass	Ramkishan	Gen	9816424583	218221627853	Kachcha	partially
179	Nalagarh	Nand	Katali	Ram Lal	Lekh Ram	Gen	9418583960	967432467320	Pucca	Partially
180	Nalagarh	Nand	Katli	ROOP LAL	Bagga Ram	SC	9816859128	898616281408	Pucca	Fully
181	Nalagarh	Nand	Gabar	Mahinder Singh	Sant Ram	SC	9317762711	795022387477	Pucca	Fully
182	Nalagarh	Nand	Panseta	Barij Lal	Devi Ram	Gen	8628846586	252966537001	Pucca	Fully
183	Nalagarh	Nawangram	Souri Gujjaran	Ali Mohammad	Samail	ST	9805466820	883720147687	Pucca	Fully
184	Nalagarh	Nawangram	Gulabpura	Bishav Nath	Madanlal	NSC	9882387612	214472020993	Pucca	Partially
185	Nalagarh	Plasikalan	SainiMajra	Ramlok	Prem Chand	SC	6230925684	931889782212	Pucca / kachha	Partially
186	Nalagarh	POLE DA KHALA	Jagali	Amarjeet Singh	Bhunu Ram	SC	6230526172	806343966365	Pucca	Fully
187	Nalagarh	POLE DA KHALA	Pokhari	Dashaundhi Ram	Ganga Ram	NSC	8894875447	212764507015	Pucca / kachha	Fully
188	Nalagarh	POLE DA KHALA	Kanoyla Upria	Jasvinder Singh	Babu Ram	NSC	9418153171	697853767794	Pucca	Fully
189	Nalagarh	POLE DA KHALA	Ganed	Ram Lok	Parsh Ram	NSC	7807726025	410501340009	pucca/kachh	Fully
190	Nalagarh	POLE DA KHALA	Pokhari	Pawan kumar	Ram lal	Nsc	9882188492	449339450656	pucca/kachh	Fully
191	Nalagarh	Rajpura	Thanthewal	Labh Singh	Bhangi Ram	Gen	7832039008	933303382311	Pucca/Kachcha	fully damaged
192	Nalagarh	RAMSHEHAR	JYORA	RAJ KUMAR	SUNDER LAL	OBC	7833048091	488606805213	Kachha	Partially
193	Nalagarh	RAMSHEHAR	BAHLI	BANSI RAM	SUNDER LAL	GEN	6230883621	434823228591	Kachha	Partially
194	Nalagarh	RAMSHEHAR	BAHROTA	RAM KISHAN	BUDH RAM	OBC	9805290430	633448526050	Kachha	Partially
195	Nalagarh	RATWARI	KOTHI	SANJEEV KUMAR	HANSH RAJ	SC	8091410805	865125710935	Pucca	partially
196	Nalagarh	RATWARI	KOTHI	HANSH RAJ	NIKU	SC	8894249442	715998292198	Pucca	partially
197	Nalagarh	RATWARI	KOTHI	GIAN CHAND	NIKU	SC	8544702215	346311329609	Pucca	partially
198	Nalagarh	RATWARI	KOTHI	ARJUN	PREM CHAND	GEN	9877972995	321030701270	PUCAA	partially
199	Nalagarh	RATWARI	KOTHI	KALA RAM URF KALI DASS	PREM CHAND	GEN	9015960320	675769229079	PUCCA/ KACHHA	partially

200	Nalagarh	RATWARI	KOHATA	KAMAL DEV	NATHU	GEN	8278742785	321729913074	PUCAA	partially
201	Nalagarh	Redu Uparla	Aduwal Jandori	Subhash Chand	Telu Ram	SC	8219050024	781164549518	Kachcha	Partially
202	Nalagarh	Redu Uparla	Aduwal Jandori	Pal Chand	Telu Ram	SC	9736793878	005105898869	Kachcha	Partially
203	Nalagarh	Redu Uparla	Aduwal Jandori	Suleman	Sher Ali	ST	8091313329	593459280562	Kachcha	Partially
204	Nalagarh	Redu Uparla	Aduwal Jandori	Ram Pal	Garib Daas	SC	8628948535	376818511786	Kachcha	Partially
205	Nalagarh	Redu Uparla	Aduwal Jandori	Bimal Kumar	Ram Pal	SC	9736744566	648652174687	Kachcha	Partially
206	Nalagarh	Redu Uparla	Aduwal Jandori	Vijay Kumar	Anil Kumar	General	7807170423	439854632272	Kachcha	Partially
207	Nalagarh	SARAUR	TARLIBED	ROSHAN LAL	BOGLIYA RAM	GEN.	7876259375	268318616621	PUCCA/ KACHCHA	FULLY
208	Nalagarh	SARAUR	TAMDOH	RAM LAL	DEVI RAM	GEN	8988283633	834123058792	PUCCA	Partially
209	Nalagarh	Saraur	Saraur	Seeto	Ramkishan	Gen	7018214362	907047331402	Kachha	Partially
210	Nalagarh	Saraur	Saraur	Kishan Chand	Lekh Ram	Gen	8091637913	243114360889	PUCCA	FULLY
211	Nalagarh	Saraur	Sil	Rukamani Devi	Hans Raj	Gen	8626983100	327270000001	Kachcha	Partially
212	Nalagarh	Suned	Dhana	Soma Devi	Hari Ram	OBC	9805223037	993505897141	Pucca	Partially
213	Nalagarh	thana	thana	krishan lal	pritu	sc	8988082644	379929364094	pacca	partially

Total damaged	213
Fully	72
Partially	141

Block Development Officer
Dev. Block Nalagarh
Distt. Solan (H.P.)

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दिव्य हिमाचल

देवभूमि की सर्वाधिक लोकप्रिय

जापान को हराकर भारतीय टीम हॉकी एशिया के सुपर-4 में —खेलफूद

जाह्नवी कपूर की परम सुंदरी ने दो दिन में कमाए 16 करोड़ रुपए —यूथ लाइफ

वोटर अधिकार यात्रा में खुद शामिल न होगी ममता बनर्जी —देश

दिव्य हिमाचल सहायता कोष

मंडी आपदा पीड़ितों की मदद को बढ़ाएं हाथ

QR CODE स्कैन करें और स्वयंसेवी संस्थान देकर करें सहायता

पिछला सवाल

क्या भारत ट्रंप के कहने पर रूसियन पर भरोसा कर सकता है?

हां	89%
नहीं	07%
पता नहीं	04%
कुल	1331

अगला सवाल

क्या हिमाचल में गठित प्रतिभा डिसूज़ा प्रभा सही है?

जवाब देने के लिए लॉगिन करें: divyahimachal.com या

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छह जिलों में भारी बारिश का रेड अलर्ट

कांगड़ा; हमीरपुर, ऊना, मंडी, शिमला, सोलन, सिरमौर, बिलासपुर और कुल्लू में आज भी स्कूल बंद

नटाफ रिपोर्टर — शिमला

मौसम विभाग ने हिमाचल प्रदेश में अगले दो दिनों के लिए भारी से बहुत भारी बारिश का रेड और ऑरेंज अलर्ट जारी किया है। मौसम विभाग ने सोमवार के लिए ऊना, हमीरपुर, बिलासपुर, कांगड़ा, मंडी और सिरमौर जिलों में के लिए रेड अलर्ट जारी किया है, वहीं चंबा, कुल्लू और शिमला जिलों में ऑरेंज अलर्ट रहेगा। इसके अलावा सोलन, किन्नौर और लाहुल-स्पीति जिलों में भी कुछ स्थानों पर भारी बारिश की आशंका है। रेड अलर्ट को देखते हुए प्रदेश के नौ जिलों कांगड़ा, मंडी, ऊना, हमीरपुर, शिमला, सोलन, सिरमौर, बिलासपुर और कुल्लू के शिक्षण संस्थानों से सोमवार को छुट्टी कर दी गई है। कुल्लू में मंगलवार को भी स्कूलों में छुट्टी रहेगी। इसके अलावा दो जिलों को मंडी, चंबा, कुल्लू और कांगड़ा जिलों में एक-दो स्थानों पर रेड अलर्ट रहेगा, जबकि ऊना, बिलासपुर, हमीरपुर, सिरमौर और शिमला जिलों में कुछ स्थानों पर ऑरेंज अलर्ट, जबकि किन्नौर और लाहुल-स्पीति जिलों के लिए यलो अलर्ट जारी किया गया है। मौसम विभाग के अनुसार अगले 24 घंटों के दौरान अधिकतम तापमान में लगभग दो डिग्री सेल्सियस की गिरावट की संभावना है। प्रदेश में बारिश और भू-स्खलन से हालात बिगड़ रहे हैं। हादसों में मौतोंहोश ट्रैक पर अब भी 400 बड़ापत्थर फंसे हुए हैं। चंबा-भरमौर मार्ग पर भू-स्खलन और खराब मौसम के कारण मौतोंहोश यात्रियों को वहां से निकालने में परेशानी का सामना करना पड़ रहा है। दो दिन में अब तक 3,139 तीर्थयात्रियों को सुरक्षित रूप से निकाला जा चुका है। इसके अलावा आपदा संबंधित घटनाओं को देखते

छह जिलों में : पृष्ठ छह पर

शिमला। बिजली की तारें और खंभा गिरने से क्षतिग्रस्त कार

- सड़सर से मणिमहेश ट्रैक तक अब भी फंसे हैं 400 बड़ापत्थर, रेस्क्यू में परेशानी
- भू-स्खलन से एनएच-305 बाधित, आनी का जिला मुख्यालय से कटा संपर्क
- मंडी-मनाली फोरलेन और शिमला-किन्नौर एनएच पर भी यातायात ठप
- भू-स्खलन के चलते नयना देवी मंदिर तक जाने वाले दो प्रमुख मार्ग बंद
- बनाला पावर हाउस के दो ट्रांसफार्मर जमींदोज, तीन घर और एक पशुशाला क्षतिग्रस्त
- बंजर सब्जी की बिजली सप्लाई प्रभावित होने की आशंका
- शिमला के विकास नगर में लैंडस्लाइड, दो गाड़ियां मलबे में दबीं
- कांगड़ा के बड़ोह में चट्टान से गिरने पर महिला की मौत

हिमाचल में सामान्य से 72 फीसदी ज्यादा बारिश

शिमला। हिमाचल प्रदेश में इस बार अगस्त माह में 440.8 मिलीमीटर बारिश दर्ज की गई है, जबकि सामान्य स्तर 256.8 मिली मीटर है। मतलब है कि प्रदेश में इस बार सामान्य से 72 प्रतिशत अधिक बारिश दर्ज की गई है। पांच जिलों कुल्लू, शिमला, सोलन, ऊना और चंबा जिला में डेढ़गुने से ज्यादा बारिश दर्ज की गई है। कुल्लू में सामान्य से 162 प्रतिशत, शिमला में 126 प्रतिशत, सोलन जिला में 118 प्रतिशत, ऊना जिला में 121 प्रतिशत और चंबा जिला में 104 प्रतिशत सबसे अधिक वर्षा वाले क्षेत्र रहे हैं। सितंबर माह के पहले हफ्ते में भी बारिश से राहत मिलने की संभावना कम ही है।

खराब मौसम के चलते कुल्लू न पाए सीएम, शिमला से ही की

दिव्य हिमाचल ब्यूरो — शिमला

- मुख्य सचिव से ली क्षेत्रों के हालात की
- सारे प्रदेश में राहत सामग्री में तेजी लाए
- आज शिमलापानी तक के नुकसान

आपदा प्रभावित चक्की और कांगड़ा जिला के दौरे के बाद मुख्यमंत्री सुखविंदर सिंह सुक्खू रविवार को कुल्लू के आपदाग्रस्त इलाकों का जायजा लेने जाने वाले थे, लेकिन खराब मौसम के चलते उनका कार्यक्रम रद्द करना पड़ा। हालांकि आपदा प्रभावित लोगों के प्रति पूरी संवेदना दिखाते हुए शिमला पहुंचते ही प्रदेश में लगातार हो रही बारिश और उससे हुए नुकसान को स्थिति को संज्ञान में लिया। दोपहर करीब दो बजे सरकारी आवास ओक ओवर पहुंचने के बाद उन्होंने मुख्य सचिव से विस्तृत जानकारी ली। मुख्य सचिव ने उन्हें प्रभावित क्षेत्रों की स्थिति और चलाए जा रहे कदमों से अवगत करवाया। मुख्यमंत्री ने राहत और बचाव कार्यों में तेजी लाने के निर्देश दिए और कहा कि लोगों को सुरक्षा सुनिश्चित करना सरकार की सर्वोच्च प्राथमिकता है। उन्होंने आशावत किया कि राज्य सरकार इस प्रभावित परिवार के साथ मजबूती से खड़ी है। जनता से अपील प्रशासनिक निर्देशों का पालन करें और किसी भी तरह की अफवाह पर ध्यान न दें। उन्होंने कहा कि मौसम को देखते हुए लोग अनावश्यक यात्रा से बचें और आपदा प्रभावित क्षेत्रों में प्रशासन का सहयोग करें।

खराब मौ

सीमा संबंधी मुद्दों का समाधान करेंगे भारत-चीन, आपसी व्यापार भी बढ़ाएंगे

एजेंसियां — तियानजिन

- कैलाश मानसरोवर यात्रा, सीधी उड़ान और वीजा सुविधा पर भी बात

भारत और चीन ने द्विपक्षीय संबंधों

पंजाब में अब तीन सितंबर तक बंद रहेंगे स्कूल

चंडीगढ़। पंजाब में बाढ़ के कहर के बीच स्कूलों में छुट्टियां तीन सितंबर तक बढ़ा दी गई हैं। पंजाब के शिक्षा मंत्री हरजोत सिंह बैंस ने

सबसे सुरक्षित देशों की लिस्ट में टॉप-100 में भी नहीं भारत

एजेंसियां — लंदन

- जीपीआई इंडेक्स जारी आइसलैंड सबसे सेफ
- 163 देशों की लिस्ट में 116वें नंबर रहा भारत

इंस्टीट्यूट फॉर इकोनॉमिक्स एंड पीस (आईईपी) ने साल 2025 का ग्लोबल पीस इंडेक्स (जीपीआई)

पुंछ में पकड़े

श्रीनगर।

करने का काम आरंभ कर दिया गया है। आवश्यकता पड़ने पर हेलिकॉप्टर की

अगस्त के बीच सोलह लोगों की मौत हुई है। कुगति रूट से तीन शवों को

श्रद्धालुओं को सुरक्षित घर वापस करवाई गई है। उपायुक्त मुकेश रेपस्वाल

पांच जिलों में दोगुना से ज्यादा बरसे बादल

कुल्लू; शिमला, सोलन, ऊना, चंबा में सौ फीसदी से अधिक बारिश

स्टाफ रिपोर्टर – शिमला

हिमाचल प्रदेश में इस बार अगस्त माह में सामान्य से अधिक बारिश हुई है और कई जिलों में दोगुना से अधिक बारिश दर्ज की गई है। प्रदेश में औसतन 440.8 मिलीमीटर बारिश दर्ज की गई है, जबकि सामान्य स्तर 256.8 मिली मीटर है। बरसात में सामान्य 256.8 मिमी वर्षा के मुकाबले 440.8 मिलीमीटर वर्षा दर्ज की गई है, जो 72 प्रतिशत अधिक बारिश दर्ज की गई है। पांच जिलों में इस बार बरसात में दोगुने से भी अधिक बारिश हुई है। प्रदेश के कुल्लू, शिमला, सोलन, ऊना और चंबा जिला में 100 फीसदी से ज्यादा बारिश दर्ज की गई है। सभी

जिलों में सामान्य से अधिक वर्षा दर्ज की गई है। कुल्लू जिला में 162 प्रतिशत, शिमला 126, सोलन में 118, ऊना में 121 और चंबा में 104 प्रतिशत सबसे अधिक वर्षा वाले क्षेत्र रहे हैं। बिलासपुर में सामान्य 316.8 मिलीमीटर वर्षा के मुकाबले 598.7 मिलीमीटर वर्षा हुई, जो 89 प्रतिशत अधिक, जबकि हमीरपुर में 400.6 मिलीमीटर वर्षा के मुकाबले

- प्रदेश में अभी तक 72 फीसदी अधिक बरसात

622.1 मिलीमीटर वर्षा दर्ज की गई, जो 55 प्रतिशत अधिक है। मंडी जिला में भी 681.5 मिलीमीटर वर्षा हुई, जो सामान्य से लगभग 72 प्रतिशत अधिक है। लाहुल-स्पीति जिला में 26 प्रतिशत अधिक और कांगड़ा में 29 प्रतिशत अधिक बारिश दर्ज की गई है। किन्नौर में 140.5 मिलीमीटर वर्षा हुई, जो सामान्य से 81 प्रतिशत अधिक है। प्रदेश में हो रही लगातार भारी बारिश के कारण कई क्षेत्रों में व्यापक भू-स्खलन, सड़कें अवरुद्ध और फसलों को नुकसान हुआ है।

अब त

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पौंग डैम फिर आफत को तैयार

हिमाचल में नदी-नालों में बाढ़ आने से खतरे के निशान से एक फुट ऊपर

निजी संवाददाता-होशियारपुर

पौंग बांध का जलस्तर 1391.65 फुट था जो खतरे के निशान 1390 फुट से मात्र 01.65 फीट ऊपर है। शनिवार दोपहर 2:00 बजे पौंग बांध का जलस्तर 1391.65 फीट दर्ज किया गया। कल पौंग बांध के जलग्रहण क्षेत्रों में हुई भारी बारिश के कारण महाराणा प्रताप झील में जल प्रवाह 124983 क्यूसिक तक पहुँच गया। पौंग बांध की अधिकतम जल भराव क्षमता 1410 फुट रखी गई है। पिछले कुछ वर्षों से यह बांध 1390 से 1395 फीट तक ही भर जाता है। 1390 फीट को खतरे का निशान माना गया है। हालाँकि 15 सितंबर के बाद यदि बांध के जलग्रहण क्षेत्र में कभी कभार बारिश होती है तो जलस्तर 1390 फुट से बढ़कर 1410 फीट तक भी लेवल किया जा सकता है। जबकि आने वाले समय में बांध के जलग्रहण क्षेत्र में बारिश की अधिक संभावना पर ही निर्भर करता है। हालाँकि बरसात का सीजन अपने चरम पर है। विगत समय में ज्यादातर वर्षों में पौंग बांध प्रबंधन केवल 1390 फुट तक ही जलस्तर कि लेवल रखता है। इसी प्रकार पौंग बांध प्रबंधन केंद्रीय जल आयोग सीडब्ल्यूसी द्वारा जारी

हर वर्ष जारी दिशानिर्देशों का भी पालन करता है। पौंग बांध की टर्बाइन मशीनों और स्पिलवे से शाह नहर बैराज हैडवर्क्स में कुल 109918 क्यूसेक पानी छोड़ा जा रहा है। आज शाह नहर बैराज से ब्यास नदी में 96418 क्यूसेक पानी लगातार छोड़ा जा रहा है। पौंग बांध के पावर हाउस में चल रही छह टर्बाइन मशीनों के माध्यम से 17079 क्यूसेक पानी शाह नहर बैराज में आ रहा है। पौंग बांध के स्पिलवे के छह गेटों के माध्यम से 92839 क्यूसेक पानी शाह नहर बैराज में आ रहा है। इसमें से 98376 क्यूसेक पानी शाह नेहर बैराज से ब्यास नदी की ओर छोड़ा जा रहा है। और 11500 क्यूसेक पानी मुकेरियां हाइडल नहर में छोड़ा जा रहा है।

एडवोके
पीड़ितों

निजी संवाद

शिरोमणि गुरद्
के अध्यक्ष एड
धामी रविवार
बाढ़ प्रभावित
उन्होंने लोगों
एसडीएमो
पहुँचकर एड
की। इस अव

ईएमसी हॉस्पिटल में बाढ़ पीड़ितों को फ्री सेवाएं

15 करोड़ से रोका स

दिव्य हिमाचल
मेरा सोलन
घरती सोई जुए होटा अकेला प्रसवार

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बारिश का रेड अलर्ट, आज बंद रहेंगे सभी शिक्षण संस्थान

दो दिनों से हो रही भारी बारिश से जनजीवन अस्त व्यस्त, नदी-नाले उफान पर

सोलन: बारिश के बाद सड़क पर आया मलबा

सोलन: बारिश से सड़की धंसी सड़क

बीबीएन में निर्माणाधीन फोरलेन बेहाल

गाड़ियों में घुसा पानी, अधूरी पड़ी फोरलेन परियोजना लोगों के लिए बनी आफत

बीबीएन: बारिश के बाद सड़की में जलभराव से तालाब में तब्दील सड़क

दिव्य हिमाचल ब्यूरो, बीबीएन

बरसात आते ही सड़के बनी दलदल

स्थानीय लोग प्रशासन पर कार्रवाई कर रहे हैं। प्रशासन का कहना है कि कम बोल रही हालात बनते हैं, लेकिन न तो सड़क पर डिवाइडर लगे होते हैं और न ही बारिश से पहले नालियों को साफ किया जाता है। नालियां साफ न होने के कारण ही पहाड़ी से बहकर आया पानी सड़क पर बहने लगता है। जानकारों का कहना है कि बरसात आते ही सड़कों की दुर्दशा से बचने के लिए पहले से ही इंतजाम किए जाने चाहिए। स्थानीय लोगों का कहना है कि सड़क बनाने वाली कंपनी को इसकी जिम्मेदारी लेनी चाहिए। लोगों का कहना है कि सड़क बनाने वाली कंपनी को इसकी जिम्मेदारी लेनी चाहिए।

सड़के बनी तालाब, कहीं गिरा मलबा

सोलन जिला के सभी शिक्षण संस्थान आज रहेंगे बंद

गुज्जरहट्टी, घनीरी और पुरला गांव में बांटी फौरी राहत

नालागढ़ में मूसलाधार बारिश से प्रभावित हुए परिवारों से मिले विधायक हरदीप बावा, पांच-पांच और 15-15 हजार की पहुंचाई आर्थिक मदद

दिव्य हिमाचल ब्यूरो-नालागढ़

• राजस्व अधिकारियों को नुकसान आकलन रिपोर्ट तैयार करने के निर्देश

नालागढ़। गुज्जरहट्टी और घनीरी गांव में नुकसान का जायजा लेते विधायक हरदीप बावा

डीएवी पांवटा साहिब में तनाव प्रबंधन कार्यशाला में शिक्षकों को दिए टिप्स

पीटीएम में लड़ोग स्कूल की शैक्षणिक उपलब्धियां बताईं

सोहरी-बेहली में खाली करवाए चार घर...लोग सुरक्षित जगह शिफ्ट

पहाड़ी से मलबा गिरने और जमीन खिसकने से हिली मकानों की नींव, पीड़ितों ने छोड़े आशियाने

दिव्य हिमाचल ब्यूरो : नालागढ़

सड़कों पर मलबा, बीबीएन में चरमराई यातायात व्यवस्था

दिव्य हिमाचल ब्यूरो : बीबीएन

नाहन में वंदना शर्मा नेल्स, लैशिज एंड स्किन केयर स्टुडियो का शुभारंभ

शौलट्टू में शास्त्र अध्यात्मकता शिविर

विवेक इंटरनेशनल स्कूल बद्दी के छात्रों ने पेश किए शानदार मॉडल

दिव्य हिमाचल ब्यूरो : बद्दी

बद्दी। विवेक इंटरनेशनल स्कूल बद्दी में प्रदर्शनी के दौरान मॉडल पेश करते छात्र

वॉलीबाल और खो-खो में बीएड और बेसिक साइंस की टीम विजेता

इंटरनल यूनिवर्सिटी बद्दू साहिब में साईंस खेल दिवस पर इंटरडिपार्टमेंटल का आयोजन, छात्राओं ने किया उत्कृष्ट प्रदर्शन

करियर प्वाइंट यूनिवर्सिटी भोरंज में रोजगार मेला 20 को

दिव्य हिमाचल ब्यूरो : बद्दी

सहयोग संगठन सम्मेलन के इतर
य और ऊर्जा क्षेत्रों
ध्यान केंद्रित किया
, दोनों नेताओं ने
अपने कार्यक्रम

तियानजिन: रूस के राष्ट्रपति व्लादिमीर पुतिन तथा चीनी राष्ट्रपति शी जिनपिंग से बातचीत करते प्रधानमंत्री नरेन्द्र मोदी।

बनाए रखे हैं और यह संबंधों के भविष्य के विकास की नींव है। उन्होंने कहा, "ये संबंध पूरे तरह से दलगत राजनीति से ऊपर हैं और इन्हें हमारे अधिकांश लोगों का समर्थन प्राप्त है। मोदी-पुतिन वार्ता अमरीकी राष्ट्रपति डोनाल्ड ट्रम्प द्वारा युद्ध समाप्त करने के प्रयासों के तहत रूस के राष्ट्रपति के साथ शिखर बैठक आयोजित करने के 2 सप्ताह बाद हुई है।

गया कि इस हमले के अपराधियों, आयोजकों और उन्हें समर्थन देने वालों को सजा दिलाना जरूरी है। इस साल 22 अप्रैल को जम्मू-कश्मीर के पहलगाम में आतंकियों ने 26 पर्यटकों की गोली मारकर हत्या कर दी थी।

हिमाचल प्रदेश आपदा प्रभावित राज्य घोषित, अधिसूचना जारी : सुक्खू

■ बरसात थमने के बाद हालात सामान्य होने पर वापस होगी अधिसूचना

शिमला, 1 सितम्बर (कुलदीप): मुख्यमंत्री सुखविंदर सिंह सुक्खू ने पूरे हिमाचल प्रदेश को आपदा प्रभावित राज्य घोषित किया है। सरकार की तरफ से इस संदर्भ में अधिसूचना जारी कर दी गई है।

मुख्यमंत्री ने विधानसभा में वक्तव्य देते हुए इसकी घोषणा की। उन्होंने कहा कि बरसात थमने के बाद हालात सामान्य होने पर इस अधिसूचना को वापस लिया जाएगा। उन्होंने कहा कि प्रदेश में मानसून से प्रारंभिक अनुमान के

(शेष पृष्ठ 2 कालम 6 पर)

शिमला : हिमाचल प्रदेश विधानसभा के मानसून सत्र के 11वें दिन सदन को संबोधित करते मुख्यमंत्री सुखविंदर सिंह सुक्खू। (वि.स.)

केलांग में सेना के 2 हैलीकॉप्टरों से राशन पहुंचाया

मुख्यमंत्री ने कहा कुल्लू से मंडी राष्ट्रीय राजमार्ग की बहाली का कार्य युद्ध स्तर पर जारी है। गत सोमवार को भारतीय वायुसेना के 2 हैलीकॉप्टरों के माध्यम से केलांग में राशन पहुंचाया गया तथा 5 गर्भवती महिला व 1 बच्चे को हैलीकॉप्टर से सुरक्षित क्षेत्रीय अस्पताल कुल्लू पहुंचाया गया है। उन्होंने कहा कि लाहौल उपमंडल के गोमाखाग नाला में भूमि धंसने का मामला सामने आया है।

किस जिले में कितने

पाठक एवं एजेंट नोट करें
पंजाब केसरी, जग बाणी एवं हिन्द समाचार में विज्ञापन एवं सर्कुलेशन संबंधी पूछताछ एवं किसी समस्या के लिए निम्नलिखित नम्बर पर सम्पर्क करें :
0181-2212121
ई मेल : jagbani@pkesari.in

सोलन-सिरमौर केसरी

SOLAN

TUESDAY, 2 SEPTEMBER 2025 | सूर्योदय 06.01 | सूर्यास्त 06.47 | अगले 24 घंटों के दौरान बारिश हो सकती है। | SOLAN-SIRMOUR KESARI

न्यूज बीफ

उदयपुर में दोमंजिला भवन गिरा

कुमारहट्टी, 1 सितम्बर। नवीन। सितम्बर की रात हुई भारी बारिश के चलते विकास खंड सोलन की ग्राम पंचायत बेरा में कुमारहट्टी के समीप गांव उदयपुर में एक दोमंजिला मकान पूरी तरह ढह गया। हादसे के समय मकान में 6 लोग रह रहे थे।

जानकारी के अनुसार सोमवार सुबह करीब 3.30 बजे हुए इस हादसे के दौरान जब बड़ा धमाका हुआ तो पड़ोस में रहने वाले ग्रामीण मौके पर पहुंचे। उन्होंने रहत कार्य शुरू करते हुए मकान में रहने वाले सभी लोगों को सुरक्षित बाहर निकाल लिया। मकान में रहनेवाले लाभ सिंह उनकी पत्नी लता देवी की चोटें आई हैं, जबकि उनकी बेटा व तीन बच्चे नकारात्मक टीक-हाल में हैं। लाभ सिंह और उनकी पत्नी लता देवी को इलाज के लिए जोनल हॉस्पिटल सोलन भेजा गया है।

दिव्यांग महिला का आशियाना उजड़ा

पुरैनाहर, 1 सितम्बर। नवीं। ग्राम पंचायत बनेड खरड़ हट्टी के गांव तौलती डोर से संबंध रखने वाली रेशम कुमारी पुत्री केसीराम अकेले अपने पुश्तैनी कच्चे मकान में रहती है। रात करीबन देर रात्रि मकान के गिरने के आभास होने के चलते उक्त व्यक्ति अपने बड़े भाई के मकान में सोने चली गई। सुबह करीब 10 बजे के आसपास इसके परिजनों को जोरदार आवाज होने का अंदेशा हुआ।

वहां निरीक्षण देखा तो रेशमा कुमारी का पुश्तैनी मकान पूरी तरह से जमींदोज हो चुका था व मकान में रखा खाने का सामान, जरूरी दस्तावेज तक मिट्टी के मलबे में दब गए। उक्त महिला के अन्य परिजनों ने तुरन्त मकान गिरने की सूचना संबंधित सचिव को दी। प्रधान राम कंवार्ता बनेड खरड़ हट्टी व बी.डी. पुल ने कहा कि देर रात्रि हादसा हो सकता था। स्थानीय प्रशासन मौके पर पहुंच चुका है और स्थापत का भरोसा दिलाया है। केंडाघाट के कड़ा में जाने वाले खान के नाले में भारी बारिश से रौद्र रूप धारण कर लिया। नाले का पानी सड़क पर बहने के चलते बाया बोटू मार्ग वाहनों की आवाजाही के लिए पूर्ण रूप से बंद हो गया है। यहां लोगों का घर तक पहुंचना भी मुश्किल हो गया है।

सोलन-राजगढ़ रोड पर शगुन होटल के पास सोमवार सुबह भूस्खलन हुआ और एक बड़ी चट्टान सड़क पर आ गई। इसके कारण मार्ग वाहनों के लिए बंद हो गया है।

बारिश का कहर, करोड़ों का नुक्सान

सोलन में 68 मार्ग बंद, 123.73 करोड़ पहुंचा नुक्सान का आंकड़ा

सोलन : सोलन-सुबाथू मार्ग पर सिर्मलपत्तन मकान में घुसा मलबा व सड़क पर मलबे में फंसी गाड़ियां। (भूषण)

सोलन, 1 सितम्बर (भूषण)। जिले में लगातार हो रही भारी बारिश ने सोमवार को भी अपना कहर बरपाया। भारी बारिश से जिला में 68 मार्ग बंद हो गए हैं। जिला में अब नुक्सान का आंकड़ा 123.73 करोड़ रुपए तक पहुंच गया है। सोमवार को पैशनल हटहैरी भी कई बार बंद हुआ।

सोलन कंडाघाट खाया धारोट सड़क मार्ग भी भूस्खलन के चलते अब बंद हो गया है। बुधवार बारिश के चलते गुगा घाट में भारी भूस्खलन के चलते यह मार्ग यातायात के लिए पूरी तरह से बंद हो गया है। इससे आधा दर्जन गांवों का संपर्क जिला मुख्यालय से कट गया है। सोमवार सुबह जब मलबा में हाईवे भूस्खलन से बंद हुआ था तो इसी मार्ग से वाहन जा रहे थे।

शिमला रोड वार्ड नंबर 9 में देर रात 70 वर्षीय बुजुर्ग मदन कुमार के घर का एक कमरा अचानक भरभराकर ढह गया। रात को भारी बारिश के साथ हुए जोरदार धमाके से पूरे परिवार को दहला दिया। गनीमत रही कि मदन कुमार और उनके परिवार के सदस्य उस वक्त दूसरे कमरों में थे, अन्यथा बड़ा हादसा हो सकता था। स्थानीय प्रशासन मौके पर पहुंच चुका है और स्थापत का भरोसा दिलाया है। कंडाघाट के कड़ा में जाने वाले खान के नाले ने भारी बारिश से रौद्र रूप धारण कर लिया। नाले का पानी सड़क पर बहने के चलते बाया बोटू मार्ग वाहनों की आवाजाही के लिए पूर्ण रूप से बंद हो गया है। यहां लोगों का घर तक पहुंचना भी मुश्किल हो गया है।

सोलन-राजगढ़ रोड पर शगुन होटल के पास सोमवार सुबह भूस्खलन हुआ और एक बड़ी चट्टान सड़क पर आ गई। इसके कारण मार्ग वाहनों के लिए बंद हो गया है।

सोलन : खाईं से आशंकित अनहोनी टेंट के सदृश मलबा आने से अफरा-तफरी मची।

सकी कार्यों के लिए आने जाने वाले लोग जान जोखिम में डालकर यहां पैदल ही निकल रहे हैं।

सोलन-सुबाथू मार्ग का रोड ब्लॉक मोड़ पर भारी भूस्खलन से मलबा एक निर्माणाधीन भवन के अंदर घुस गया। भारी मलबा मकान में घुसने से निर्माणाधीन भवन को भी खतरा पैदा हो गया है।

इसके अलावा यहां सड़क मार्ग पर भी मलबा फैल गया और इसमें वाहन फंस गए। काफी मशक्कत के बाद वाहनों को निकाला गया और बाद में यहां सिंगल मार्ग को चुचारू कर दिया गया।

सिरमौर में 171 सड़कें प्रभावित, 89 पेयजल स्कीमें हुईं ठप्प

नाहन : सिरमौर में बारिश से प्रभावित सड़कों से मलबा हटाती जेसीबी।

नाहन, 1 सितम्बर (दीपेश)। जिला सिरमौर में मूसलाधार बारिश का कहर लगातार जारी है। इससे आम जनजीवन पूरी तरह अस्त-व्यस्त हो गया है। सड़कों पर आवाजाही ठप्प पड़ गई है। कई इलाकों में बिजली और पानी का संकट भी खड़ा हो गया है। पिछले 24 घंटे के भीतर भारी बारिश के बीच भूस्खलन और मलबा आने से 171 सड़कों पर सोमवार को जीवन की रफ्तार रुक गई। जिले के कई इलाकों का संपर्क जिला मुख्यालय नाहन सहित उपमंडल मुख्यालयों से भी कट गया है। गंतव्य तक पहुंचने के लिए वाहन चालकों सहित यात्रियों को भारी दिक्कतों का सामना करना पड़ रहा है। इन सड़कों पर 40 से अधिक मरम्मती और बिजली की 89 पेयजल योजनाएं प्रभावित हुई। बारिश से सिरमौर डिवीजन में सबसे ज्यादा 46 सड़कें प्रभावित हुईं।

इसके साथ-साथ संगड़ाह में 34, पांवटा साहिब में 37, नाहन और राजगढ़ में 23-23 और शलाई डिवीजन में 18 सड़कों पर यातायात घंटों तक ठप्प रहा। हालांकि लोक निर्माण विभाग की मशीनरी लगातार सड़कों को खोलने में जुटी है, लेकिन कई सड़कों

नाहन : सिरमौर में बारिश से घरों को हुआ नुकसान।

मार्ग सिरमौर में 69। डी.डी.आर. (टांसफार्मर) भी प्रभावित हुई हैं। 4 योजनाओं को नुकसान होने से कई इलाकों में पेयजल संकट खड़ा हो गया है।

बिजली बोर्ड के राजगढ़ डिवीजन में

की रिपेयर करवाई जाएगी।

परेशानियों का सामना करना पड़ रहा है। उन्होंने

मानपुरा: बारिश के चलते पशु औषधालय बरोटीवाला की गिरी दीवार का चित्र। (वर्मा)

बारिश के चलते ब्लॉक का डंगा गिरा

परवाणू, 1 सितम्बर (विकास): क्षेत्र में शनिवार से हो रही लगातार बारिश के चलते सैक्टर 6 के 71 नंबर ब्लॉक के आगे लगा डंगा गिर गया, जिससे फिलहाल वहां बने मकानों को अभी कोई खतरा नहीं है। अगर यह दोबारा गिरता है तो साथ लगे बिजली के खंभे के गिरने से भवन में रहने वालों के लिए चिंता की स्थिति हो सकती है।

जमीन खिसकने की के तीन परिवारों ने

मकानों को खाई में जाता देख निकाले दरवाजे व खिड़कियां

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के मलेहणी पंचायत के सौहरी गांव के नीचे जमीन खिसकनी शुरू हो गई है, जिससे पूरे गांव के लिए खतरा पैदा हो गया है। बीते दिन इस गांव के तीन परिवारों के मकान खाली करा दिए। सोमवार को इन

धर्माणा पंचायत के तीन गांवों में 12 परिवारों के घरों में आई दरारें

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के धर्माणा पंचायत के तीन गांवों से 12 परिवारों के घरों में दरारें आ गई हैं। इसके चलते पंचायत प्रतिनिधियों व पटवारी ने मौके पर जाकर इन लोगों के मकान को खाली कराया। इन लोगों के सामान को एक टैंट के नीचे रखा और लोगों को गांव के अन्य घरों में शिफ्ट किया गया। इन लोगों के मवेशियों को भी अन्य लोगों के घरों में बांधा गया।

नालागढ़ : धर्माणा पंचायत के जखोल गांव में लोगों के घरों में आई दरारें।

राजगढ़ : राजगढ़ व इसके आसपास के क्षेत्रों में अलग-अलग स्थानों पर भूस्खलन व रिहायशी मकानों को हुई क्षति (गोपाल)

राजगढ़ क्षेत्र में अंधेरे में डूबे सैंकड़ों गांव

राजगढ़, 1 सितम्बर (गोपाल): समूचे राजगढ़ क्षेत्र में पिछले लगभग 36 घंटों से लगातार भारी बारिश होने के कारण पूरा जनजीवन अस्त-व्यस्त हो गया है। पूरे क्षेत्र में दर्जनों सड़कें बंद पड़ी हैं। क्षेत्र की गिरि नदी, परेरी नदी, बड़ेलू नदी, पातालू नदी के साथ-साथ छोटे-छोटे नाले उफान पर हैं और सभी नदियों ने पिछले लगभग 50 सालों के रिकार्ड तोड़ दिए हैं। अगर बिजली आपूर्ति की बात करें तो रविवार देर रात से नगर पंचायत राजगढ़ सहित दर्जनों पंचायतों के सैंकड़ों गांव अंधेरे में डूबे गए हैं।

यहां तक कि सोलन-राजगढ़ मुख्य सड़क भी अनेक स्थानों पर भूस्खलन के कारण बार-बार बंद हो रही है। इसके साथ क्षेत्र की राजगढ़-नौहराधार, राजगढ़-खैरी, राजगढ़-हाब्बन, सनौरा-नेरीपूल, हाब्बन-धामला-चंदोल के साथ पड़ोता व सासू मादर क्षेत्र की सभी सड़कें बंद पड़ी हैं। किसानी व बागवानी की कृषि एवं बागवानी उत्पादन खेतों में ही खराब हो रहे हैं। उपाहसील पड़ोता के पैणाकुफर गांव में भारी भूस्खलन के कारण गांव को खतरा पैदा हो गया है। यहां लगभग 9 लोगों के घरों को खाली करा दिया गया है एस.डी.एम. राजगढ़ राज कुमार ठाकुर के अनुसार क्षेत्र में हो रही भारी बारिश से भारी नुकसान हुआ है, जिसका आकलन राजस्व विभाग व स्थानीय प्रशासन लगा है दूरदराज के क्षेत्रों में भारी नुकसान हुआ है। प्रभावित परिवारों को पीड़ी राहत प्रदान की जा रही है। उधर, बिजली विभाग की 33 के.वी. लाइन सनौरा के पास टूट गई है जिसके कारण पूरा क्षेत्र पिछले लगभग 24 घंटों से अंधेरे में डूबा है। बिजली विभाग द्वारा सुबह से ही बिजली लाइन को ठीक करने का कार्य किया जा रहा है।

सोलन : राजगढ़ रोड पर मैरीडियन के पास हुआ भूस्खलन। (गुप्त)

सिरमौर में बारिश ब

लोक निर्माण को

अढ़ाई महीने में जान-माल को हुई भारी क्षति

नाहन, 1 सितम्बर (हितेश शर्मा): जिला सिरमौर में इस बार की बरसात विभिन्न सरकारी विभागों और आम जनता के लिए भारी तबाही लेकर आई। पिछले अढ़ाई महीने के भीतर (20 जून से 31 अगस्त, 2025) मूसलाधार बारिश से 105 करोड़ (1,05,28,58,989) रुपए का नुकसान हो चुका है और ये आंकड़ा लगातार बढ़ रहा है।

इस प्राकृतिक आपदा में अब तक 17 लोगों को (सड़क दुर्घटना, डांक से गिरना, आग और सर्पदंश) अपनी जान गंवानी पड़ी है, जबकि 17 लोग घायल हुए। सड़कों से लेकर पानी की लाइनों और बिजली के बुनियादी ढांचे तक हर क्षेत्र में बारिश ने भारी तबाही मचाई है, जिससे जनजीवन बुरी तरह प्रभावित हुआ है।

इस प्राकृतिक आपदा से सबसे ज्यादा नुकसान लोक निर्माण विभाग को हुआ है। भारी भूस्खलन और मलबे से सड़कों के क्षतिग्रस्त होने से 60.32 करोड़ रुपए का नुकसान हुआ है। जल शक्ति विभाग को पानी की आपूर्ति लाइनों को नुकसान पहुंचने से 36.90 करोड़ रुपए की क्षति हुई है। विद्युत बोर्ड को बिजली के बुनियादी ढांचे को 5.31 करोड़ रुपए का नुकसान हुआ है।

उच्च शिक्षा विभाग को 71.74 लाख रुपए और कृषि विभाग को 59.48 लाख रुपए का नुकसान

चुकी है। सप्ताह भर के भीतर 10वीं बार यहां राइजिंग मेन भूस्खलन के कारण क्षतिग्रस्त हुई है। विभाग के कर्मचारी बार-बार लाइन को दुरुस्त कर रहे हैं, लेकिन लगातार हो रही भारी बारिश और भूस्खलन विभाग के सामने बड़ी समस्या खड़ी कर रहा है। दूसरी तरफ भारी बरसात के चलते गिरि नदी भी उफान पर है।

भाजपा ने अधीक्षण अभियंता से उठाया मामला

उधर, नाहन शहर में पिछले कई दिनों से सामने आ रही पेयजल समस्या को लेकर भाजपा नेताओं ने सोमवार को जल शक्ति विभाग के अधीक्षण अभियंता राजीव महाजन से मुलाकात कर उन्हें समस्या से अवगत करवाया। भाजपा जिला मीडिया प्रभारी राकेश गर्ग, प्रदीप विज, संजय चौहान, ललित व राज कुमार ने बताया कि शहर के कई वार्डों में पिछले करीब एक महीने से लगातार पेयजल समस्या चल रही है, लेकिन इसे लेकर संबंधित महकमा गंभीर नहीं है। कई दिन बाद पेयजल सप्लाई की जा रही है। इससे लोगों को परेशानियों का सामना करना पड़ रहा है। उन्होंने अधीक्षण अभियंता से समस्या के समाधान की मांग की है।

बारिश के चलते ब्लॉक का डंगा गिरा

परवाणू, 1 सितम्बर (विकास): क्षेत्र में शनिवार से हो रही लगातार बारिश के चलते सैक्टर 6 के 71 नंबर ब्लॉक के आगे लगा डंगा गिर गया, जिससे फिलहाल वहां बने मकानों को अभी कोई खतरा नहीं है। अगर यह दोबारा गिरता है तो साथ लगे बिजली के खंभे के गिरने से भवन में रहने वालों के लिए चिंता की स्थिति हो सकती है।

जमीन खिसकने की वजह से सौहरी गांव के तीन परिवारों ने मकान किए खाली

मकानों को खाई में जाता देख निकाले दरवाजे व खिड़कियां

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के मलेहणी पंचायत के सौहरी गांव के नीचे जमीन खिसकनी शुरू हो गई है, जिससे पूरे गांव के लिए खतरा पैदा हो गया है। बीते दिन इस गांव के तीन परिवारों के मकान खाली करा दिए। सोमवार को इन मकानों के नीचे और ज्यादा भूमि कटाव हो गया है, जिससे इन लोगों ने अपनी इन मकानों की उम्मीद ही छोड़ दी और सामान तो पहले खाली कर दिया था। अब दरवाजे व खिड़कियां भी उतारनी शुरू कर दी हैं। इस गांव में 26 मकान हैं।

एस.डी.एम. राज कुमार ने बताया कि मलेहणी पंचायत के सौहरी गांव में लगातार भूमि कटाव से गांव को खतरा पैदा हो गया है। अभी तीन परिवारों को शिफ्ट कर दिया है।

(सतविन्द्र)

मलेहणी पंचायत के जखोल गांव में लोगों के घरों में आई दरारें।

सोलन-सिरमौर केसरी

WEDNESDAY, 3 SEPTEMBER 2025 | सूर्योदय 06.01 | सूर्यास्त 06.46 | अगले 24 घंटों के दौरान बारिश हो सकती है। | SOLAN-SIRMOUR KESARI

...क एवं एडिट नोट को ...
...केसरी, जो आपने इस विषय ...
...संबंधित पुलिसकर्मी किसी अन्यायपूर्ण ...
...के बारे जिम्मेदारियां तथा पद ...
...सम्पर्क करें :
0181-2212121
...jagbani@pkesari.in

SOLAN

न्यूज बीफ

20 से 26 सितम्बर तक होंगी विशेष ग्राम सभाएं

उपचार दौरान मजदूर की मौत

सोलन में 11 मकान ध्वस्त, 46 सड़कें बंद, 191 ट्रांसफार्मर खराब, 12 पेयजल योजनाएं ठप्प

सोलन : बेहड़ा के पास गिरा 17 वर्ष पुराने का इलेक्ट्रिक पोल के खंभों में आए 2 ट्रांसफार्मर दीवारों में लड़ी दरार। (भूषण)

सोलन, 2 सितम्बर (भूषण)। जिला सोलन में भारी बारिश से आपदा अभी खत्म नहीं हुई है। सोमवार रात से हो रही बारिश के चलते कई मकान ध्वस्त हो गए हैं। वहीं बिजली खंभे की भारी क्षति पहुंचने के कारण राज्य की एक महीना की सीमा हो गई है।

जिला में पिछले 24 घंटों के दौरान 17.61 मिलीमीटर औसत वर्षा दर्ज हुआ है जबकि इस दौरान सोलन में अभी तक बारिश 108 मिलीमीटर वर्षा का दर्ज हो चुका है। जिला में अभी भी 46 सड़कें बंद हैं, इन बंद पड़ी सड़कों में सबसे अधिक जिला मुख्यालय के पांच से दूर रोड हैं। इस कारण जिलावासियों को अपनी रोजमर्रा कामों में काफी परेशानी का सामना भी करना पड़ रहा है।

जिला में करीब 191 ट्रांसफार्मर खराब हो गए हैं। 12 को बंद कर दिया गया है। इसके अलावा कई क्षेत्रों में बारिश के कारण पेयजल की 12 योजनाएं ठप्प हो गई हैं।

बताया जा रहा है कि इन योजनाओं के बंद होने से इन्हें पेयजल के माध्यम से पानी पीने वाले करीब 11 गांवों

पूरी तरह से अधिकतम दो घंटे ही...ऐसे जानकार 8 गांवों के 11 अन्य मकानों को आंशिक क्षति भी पहुंचा है। 21 पौधाघाट...

...अधिकतम हुई है।

जिले में 24 घंटे में सबसे सिमौर जिला को करीब 8.56 करोड़, ठप्प पड़ी 53.50 लाख, पशुधन शिविरा को 42 लाख तथा स्वास्थ्य विभाग को 56 लाख रुपए का नुकसान हुआ है।

डी.सी. सोलन गगनदीप सिंह ने बताया कि जिला में हो रही भारी बारिश से भारी नुकसान हुआ है। मानसून सीजन में अभी तक 148 करोड़ रुपए का नुकसान हो चुका है। इसकी रिपोर्ट सरकार मुख्यालय को भेज दी है।

सिरमौर में 172 सड़कें व 443 डी.टी.आर. प्रभावित

नाहन, 2 सितम्बर (हिमेश)। जिला सिरमौर में भारी बारिश से सड़कें, बिजली और पानी जैसी बुनियादी सुविधाएं बुरी तरह प्रभावित हुई हैं। जिले में 172 सड़कों पर आवाजाही मंगलवार को प्रभावित रही। जिनमें से 46 राजगढ़ में पच्छाद में 33, नाहन और पांवटा साहिब में 23-23 और रेणुका में 14 सड़कें बंद रहीं। इससे लोक निर्माण विभाग को 5.90 करोड़ का नुकसान हुआ है। 24 घंटों के दौरान जल शक्ति विभाग को 10.26 करोड़ की क्षति हुई है। भारी बारिश के चलते जिले में 61 पेयजल और सिंचाई योजनाओं को नुकसान पहुंचा है जिनमें गिरिपार डिवीजन में सबसे ज्यादा 59, पच्छाद मंडल में 20 और रेणुका में 4 योजनाएं प्रभावित हैं। मंगलवार को 443 डी.टी.आर. (ट्रांसफार्मर) प्रभावित रहे, जिनमें कई इलाकों में देरी तक ब्लैकआउट बना रहा। पच्छाद मंडल में सबसे ज्यादा 217, राजगढ़ में 110 और नाहन में 76 डी.टी.आर. प्रभावित होने से बिजली ठप रही।

नाहन : भूस्खलन से पड़ा बड़े पेड़ का मलबा। (भूषण)

2 घंटे बाधित रहा एन.एच.-7

पांवटा साहिब-शिलाई हाईवे प्रभावित

पीएच.डी. कोर्स की परीक्षाएं अब 6 को

सतलुज-सिरमौर कलिंग

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शोलन : सड़क के आई दरारें।

शोलन : सपाल्ट टूटकर सड़क पर आ गया।

शोलन : बुजाल में गिरा बिजली का पोल, सड़क पर गिरे तार।

शोलन : बुजाल पिकेट बॉल की लपटों पीड़ितों के घरों तक आई

ओगली में भूमि कटाव से 12 उद्योगों को खतरा

कालाअम्ब : बरसाती नदी में धंस सड़क का हिस्सा।

सड़क : सोलट साहिब में उफनती बरसाती नदी।

शोलन : बंदलगा निवास खंड की बाजली पंचायत में

कोट स्कूल के भवन में आई दरारें

शोलन : कोट स्कूल में आई दरारें।

शोलन : कोटले ग्राम पंचायत के गांवों में कटान के कारण के उजड़ गिरे मकान।

बॉक्स : कोटीवाड़ा में एक बार फिर भूमि का भयंकर कटाव शुरू हो गया है। पानी का तेज बहाव होने के कारण पैदल चलने के लिए भी जगह नहीं होती। स्थानीय लोगों ने विभाग से यहां पर

सोलन में 6 मकान ध्वस्त, 56 सड़कें बंद

सोलन : क्षतिग्रस्त हुई हरिपुरी-जोहड़ सड़क।

सोलन, 4 दिसम्बर (हप्र): जिला में भारी बारिश से प्रभावित हुआ जनजीवन पटरी पर लौटना शुरू हो गया है। जिला सोलन में अभी भी 56 सड़कें बंद हैं। यहां भारी 138 ट्रांसफार्मर खराब होने से कई गांव अभी भी अंधेरे में डूबे हुए हैं। 78 पेयजल योजनाएं अभी बंद हैं। जिले में सितंबर 24 और 25 अगस्त 2 करोड़ रुपए का नुकसान हुआ है। 6 कच्चे मकान क्षतिग्रस्त हुए हैं, जबकि 50 मकानों को आंशिक रूप से नुकसान हुआ है। जिले में नुकसान का अनुमान 200 करोड़ रुपए तक पहुंच गया है। लोकनिर्माण विभाग को सितंबर 24 और 25 अगस्त 3.45 करोड़ रुपए का नुकसान हुआ है। डीसी, सोलन मोहम्मद अर्शद ने बताया कि जिले में अवरुद्ध हुई सड़कों को बहाल करने के प्रयास किए जा रहे हैं।

इन जगहों पर क्षतिग्रस्त हुए मकान

प्रशासन की ओर से मिली जानकारी के अनुसार कुमारहट्ट इलाकों के पहले से बेमंजिले व मजबूत में भोपर सिंह का मकान पूरी तरह से क्षतिग्रस्त हुआ है। नारी तहसील में सेवन्न में मंजोत कुमारी, नालागढ़ के रामपाल, रामलाल व उनके दो बच्चे और कंडौली के लोहड़ का मकान क्षतिग्रस्त हुआ है।

आंशिक रूप से क्षतिग्रस्त हुए मकान

अर्की तहसील में रामलाल में सुनिल देवी का पक्का मकान, कुमारहट्ट के धंजरालाल में रोशनलाल, मानोदरा के हरीश में कुलभूषण, सोलन के कसाबलां के जयदेव में सोहनलाल, बोह डी के कमलेश, नारी के सोहनलाल में दिलीप, अर्की सुरेश, जगदीश, सिंह, डम्पल व रामलाल तथा सिरमौरी में बिलोह के उमेश, मकानों को आंशिक रूप से नुकसान हुआ है। कुमिहार तरिपुरा के देवी घर, कुमिहार सलोन के देवधार व पलरोपण, कुमिहार हाटकोटी की गीता देवी, कुमिहार हाटकोटी के अमरीश कुमार, सबरी तहसील के केवल, कुमारहट्ट के कमल शर्मा के परिवार, सदर की सरोजनी, कंडौली के भरोह के मोहन लाल, पलोगी के पहले कुमारहट्ट की सुनिता, कसौली कसाल का भाग के कुलभूषण और कसौली के ऐरे के हरेश उनाना के बच्चे मकानों का आंशिक रूप से नुकसान हुआ है।

शामती बाईपास सड़क जमींदोज

अर्की, सदर में खानें का जल वन कंली के लिए 3 वर्ष पूर्व बनी शामती बाईपास सड़क का सोमवार में एक बड़ा हिस्सा जमींदोज हो गया है। इससे इलाका वासियों की आवाजाही बंद हो गई है। सड़क के बड़े हिस्से से जमींदोज होने से पुनर्निर्माण का खतरा भी बढ़ गया है। इससे क्षेत्रीय अस्पताल के मरीज भी परेशान में आ गए हैं। सड़क के बह होने से नेल कनवर्सनों की दुकानदारों बढ़ गई है क्योंकि जिला सिरमौर के अपरी लोगों का सोलन की मार्ग से संपर्क कट गया है। सूचना मिलते ही लोक निर्माण विभाग के सहायक अभियंता नरेश के एक दल मौके पर पहुंचा था, मौलिन मौके पर पहुंचे। इस संबंध में उपमंडल अधिकारी (नागरिक) अर्की एवं सहायक आयुक्त सोलन मोहम्मद अर्शद ने बताया कि मौके पर एक दल भेजा गया है। इसका आकलन करने के बाद ही आगे की कार्रवाई की जाएगी।

सिरमौर में 7 मकान गिरे, 120 सड़कें, 130 डी.टी.आर., 93 पेयजल योजनाएं प्रभावित

पुल : खतरे की रेखा से ऊपर बह रहा पानी, प्रशासन ने लोगों को सतर्क किया।

नाहन, 4 दिसम्बर (हप्रेस): जिला सिरमौर में भारी बारिश के चलते हुई तबाही के जख्म गहरे होते जा रहे हैं। जिलेभर में कुल 120 सड़कें बंद हो चुकी हैं। इनमें से 4 राष्ट्रीय राजमार्ग और 4 प्रदेश के जिलों को जोड़ने वाले मार्ग शामिल हैं। पौंटा को कुल जिलों से कई दिन बाद पूरा जिले, लेकिन पिछले 24 घंटे के दौरान जिले में 14.23 करोड़ रुपए का भारी नुकसान आंका गया है। जिले के कई हिस्सों में मोबाइल और इंटरनेट सेवाएं भी प्रभावित रहीं।

लोक निर्माण विभाग डिवीजन नाहन के अंतर्गत 26 सड़कें बंद रहीं। इनके अलावा संगड़ाह में 29, रनाड़ह में 22, राजगढ़ में 15, रोनहाट सर्कल और नाहन में 9-9 सड़कों पर भारी भूस्खलन के कारण यातायात ठप रहा। कई जगहों पर मलबे को हटाकर सड़कों पर फंसे वाहनों को निकाला गया। सिरमौर, पांवटा साहिब को पंजाब राज्य से जोड़ने के लिए भी दिक्कतों का सामना करना पड़ा। महकमे का दावा है कि मंगलवार को 1.68 करोड़ रुपए की राशि जारी की गई है।

इसके साथ-साथ बागवानी के क्षेत्र में भी भारी नुकसान हुआ है। 24 घंटे में सिरमौर की 93 पेयजल और सिंचाई योजनाओं को 11.42 करोड़ रुपए का नुकसान हुआ है। इनमें 82 पेयजल और 12 सिंचाई योजनाएं शामिल हैं। सबसे ज्यादा सिरमौर में 54 पेयजलयोजनाओं को क्षति पहुंची है।

नाहन में 24 और राजगढ़ में 4 पेयजल स्कीम में खासा नुकसान हुआ है। इससे कई इलाकों में पानी का संकट भी खड़ा हुआ है। नाहन खाड़ा की नहीं जिले के कई कस्बों और ग्रामीण इलाकों में पानी के लिए हाहाकार मचा है। सबसे ज्यादा दिक्कत हरिपुरी, जोहड़ और ददाहू क्षेत्र में देखने को मिली है। यहां पानी की पाइपलाइनें पूरी तरह से बह गई हैं। इसके चलते 130 डी.टी.आर. प्रभावित होने से लोगों को बिजली की समस्या से भी जूझना पड़ रहा है। हालांकि, जगह जिला सिरमौर में आपातकालीन और बुरक्षक बचाव में जुटे हैं, लेकिन फिर भी आम जनजीवन को पटरी पर लाने के लिए कई तरह की चुनौतियों का सामना करना पड़ रहा है।

बारिश का कहर नहीं थम रहीमौसम नहीं है। मौसम विभाग की मुताबिक के साथ-साथ आंधी-तूफान की संभावना भी जताई गई है। ऐसे में प्रशासन की मुश्किलें और बढ़ सकती हैं। नाहन के सहायक आयुक्त के साथ-साथ उपमंडल अधिकारी (नागरिक) नाहन अंकुर गुप्ता ने बताया कि प्रभावित इलाकों में राहत और बचाव कार्य तेज किए गए हैं। जिला प्रशासन की टीमें लगातार मौके पर तैनात हैं और क्षतिग्रस्त सड़कों को जल्द से जल्द बहाल करने के प्रयास किए जा रहे हैं।

पत्रकार प्रताप ने पेयजल योजना को दुरुस्त करने में जुटे कर्मियों तक पहुंचाया भोजन

नाहन, 4 दिसम्बर (हप्रेस): जिला मुख्यालय नाहन से महज़ पेयजल संकट को चुनौती मानते हुए वरिष्ठ पत्रकार प्रताप सिंह राजपूत ने मानवता की एक मिसाल पेश की। वे खुद भोजन लेकर भीषण ठंड में पहाड़ी क्षेत्र में पेयजल योजना को दुरुस्त करने में जुटे कर्मियों तक पहुंचे। उनकी इस पहल की चारों ओर सराहना हो रही है।

बता दें कि इन दिनों जिले के कुपहट्ट क्षेत्र में भूस्खलन के कारण कई गांव प्रभावित हुए हैं। इसी क्षेत्र में पेयजल योजना को भी भारी नुकसान पहुंचा है। इसकी सूचना मिलते ही पत्रकार प्रताप सिंह राजपूत अपने निजी वाहन से मौके पर पहुंचे। वहां उन्होंने देखा कि कई किलोमीटर लंबी पेयजल लाइन को ठीक करने में कर्मचारी दिन-रात जुटे हुए हैं। ठंड और बर्फीले मौसम में काम कर रहे इन कर्मियों के लिए उन्होंने खुद खाना बनाने का निर्णय लिया।

इसके बाद प्रताप सिंह राजपूत ने अपने निजी वाहन से करीब 4.5 किलोमीटर की दूरी तय की और कर्मचारियों तक भोजन पहुंचाया। उनकी इस पहल से कर्मचारियों का मनोबल काफी बढ़ा है। वहीं, स्थानीय लोगों ने भी उनके इस कदम की सराहना की है। लोगों का कहना है कि ऐसे समय में जब लोग अपने घरों में सुरक्षित बैठे हैं, तब प्रताप सिंह राजपूत का यह कदम समाज के लिए एक प्रेरणा है।

बस सड़क से बाहर निकली, पेड़ पर अटकी

जोहड़, 4 दिसम्बर (हप्रे): सोलन से एक बड़ा हादसा टल गया। सोलन से मतलुब की ओर जा रही एक बस अनियंत्रित होकर सड़क से फिसली। सौभाग्य यह रहा कि सड़क से नीचे गिरने के बजाय बस एक पेड़ से टकरा गई। इसके बाद वह नीचे नहीं गिरी। इस हादसे में बस में सवार 40 यात्रियों में से 4 को चोटें आईं। इन्हें तुरंत सीएचसी जोहड़ में उपचार के लिए भेजा गया। बस चालक के अनुसार, बस के ब्रेक अचानक फेल हो गए थे। इसी कारण वह सड़क से फिसल गई। हादसे के बाद यात्रियों में कुछ देर के लिए अफरा-तफरी मच गई। हालांकि, सभी यात्री सुरक्षित बताए जा रहे हैं। सूचना मिलते ही पुलिस मौके पर पहुंची। पुलिस ने बस को क्रेन की मदद से सड़क पर वापस खींचा। इस दौरान करीब 2 घंटे तक यातायात प्रभावित रहा। पुलिस ने मामले की जांच शुरू कर दी है।

एन.एच. पर पहाड़ियों से गिरते रहे से पत्थर, आवाजाही रही सुचारू

बकली मोड़ के ऊलावा सलवारा व बसवार बना भूस्खलन संभावित क्षेत्र

जोहड़, 4 दिसम्बर (हप्रे): चंडीगढ़ शिमला राष्ट्रीय राजमार्ग पर बकली मोड़ के अलावा सलवारा व बसवार में भी भूस्खलन संभावित क्षेत्र बन गया है। यहां पर पहाड़ी से चट्टानों व मलबे गिरने का खतरा बना रहता है। इसी को देखते हुए जोहड़ पुलिस ने यहां पर आवाजाही को सुचारू बनाए रखने के लिए विशेष प्रबंध किए हैं।

जोहड़ पुलिस के अनुसार, 12.00 बजे से 3.00 बजे तक सलवारा व बसवार में भूस्खलन संभावित क्षेत्रों में यातायात को नियंत्रित किया जाएगा। इस दौरान इन क्षेत्रों में किसी भी वाहन को रुकने नहीं दिया जाएगा। इसके लिए पुलिस कर्मियों की तैनाती की गई है। ये कर्मचारी लगातार स्थिति पर नजर रखेंगे।

उपमंडल अधिकारी (नागरिक) जोहड़ अंकुर गुप्ता ने बताया कि बारिश के दिनों में पहाड़ी से पत्थर गिरने की घटनाएं सामने आती रहती हैं। इसी को देखते हुए यह निर्णय लिया गया है। उन्होंने कहा कि लोगों की सुरक्षा सर्वोपरि है, इसलिए प्रशासन किसी भी तरह की लापरवाही नहीं बरतेगा। उन्होंने लोगों से अपील की कि वे प्रशासन के निर्देशों का पालन करें और अनावश्यक रूप से इन क्षेत्रों में न जाएं।

अर्की : पौण्ड खड़ में नहाने के दौरान डूबा युवक।

गंभर खड्ड उफान पर, बनोह खरड़हट्टी के ग्रामीण खौफजदा

कुलिहार, 4 सितम्बर (नेगी): भारी बारिश के चलते खेत के अतिरिक्त गुरुत्व खड्ड पर लैंडस्लाइड हो गया है। गंभर खड्ड पिछले तीन दिनों से उफान पर है। इसके चलते खड्ड के साथ लगे बनोह खरड़हट्टी गांव के ग्रामीण खौफजदा हो गए हैं। प्रधान कमलेश शर्मा, वार्डपंच राधे, सतीश व सुलेमान ने प्रशासन से गुहार लगाई है कि तत्काल सकार के साथ खड्ड के किनारे सुरक्षा दीवार लगाई जाए।

उधर, कुलिहार-बालाघाट मुख्य मार्ग पर जगह-जगह पर भूस्खलन होने से यहां पूरी तरह से बन्द हो गया है। यहां फंसे पर्यटकों के समीप स्थित मंदिर के मुख्य द्वार पर मलबा व पेड़ आदि आने से संपर्क मार्ग बन्द पड़ गया है। सिंहगीव मार्तण्डी अण्डर पास पानी को बाहर करने में लगे हैं।

कुलिहार : गंभर पुल पार संपर्क खरड़ खरड़हट्टी से आए प्रभावित लोग।

कुलिहार : भारी खड्ड उफान पर से गुजरते वाहन व पुलिसकर्मी तथा स्थान के पास उफान मारती गंभर खड्ड।

जिस गांव में खुशी-खुशी रहते थे 7 परिवार, अब वहां जा भी नहीं सकते

बीते वर्ष : अगस्त माह में प्रभावित हुए इस पंचायत बालाघाट का गांव जामन टा डोंग व क्षतिग्रस्त हुए मकान तथा खराब हुई सड़कों को दर्शाता।

सोलन-सिरमौर केसरी

SOLAN-SIRMOUR KESARI

ER 2025 सूर्योदय 06.02 सूर्यास्त 06.43 अगले 24 घंटों के दौरान बारिश हो सकती है।

धर्मपुर के बठोल गांव में 8 मकानों में आईं दरारें, 3 खतरे की जद में

सोलन, 4 सितम्बर (एन.)। धर्मपुर के बठोल गांव में वर्ष 2023 की तरह इस बार भी प्राकृतिक आपदा ने कहर बरपाना शुरू कर दिया है। गांव में हुए भारी भूस्खलन से करीब 8 मकानों में दरारें आ गई हैं। 3 मकान तो खतरे की जद में।

इसे देखते हुए प्रशासन ने तीनों मकानों को खाली करवा दिया है। गांव की नीचे की पहाड़ी से लगातार भूस्खलन हो रहा है। इसके कारण ऊपर की जमीन लगातार नीचे की ओर धंस रही है। बता दें कि वर्ष 2023 में आई प्राकृतिक आपदा में भी इस गांव में भारी भूस्खलन हुआ था। उस दौरान भी इन मकानों को खाली करवाना पड़ा था। उस समय भी 7 से 8 मकानों में दरारें आई थीं। कुछ समय बाद मकान मालिकों ने इनकी रिपेयर करवाकर इनमें रहना शुरू कर दिया।

हैरानी की बात यह है कि जिला प्रशासन ने इस गांव की सुरक्षा के लिए वहां पर जीरो लगाने की जहमत नहीं उठाई। यदि ऐसे का निर्माण होता तो शायद इस बार ऐसा भूस्खलन नहीं होता। इससे स्पष्ट हो गया कि जिले में वर्ष 2023 के आपदा प्रभावित कई क्षेत्रों में रिटेनिंग व रिटेनीयर के काम पूरे नहीं हुए हैं। बठोल गांव के खासा कारण ने बताया कि 2023 में भी जोरदार आपदा का देश झेला और वर्ष 2025 में भी झेल रहे हैं। पहले भी उन्हें मकान खाली करना पड़ा था और इस बार भी खाली करना पड़ रहा है। वे पिछले 2 वर्षों से प्रशासन के चक्कर काट रहे हैं कि गांव की सुरक्षा के लिए वहां पर जीरो का निर्माण किया जाए। हैरानी की बात है कि न प्रशासन और न ही पंचायत ने इसे गंभीरता से लेता। अब फिर उन्हें अपने मकान छोड़कर रिश्तेदारों के घर रहने पड़ रहे हैं।

बता पंचायत में भी मकान को खतरा

कंडाघाट विकासखंड की भाग पंचायत के शालीवाल में भी एक मकान को भारी खतरा हो गया है। भूस्खलन के कारण मकान के पीछे का बड़ा हिस्सा गिर गया है। खतरे को देखते अब तिरपाल से उस हिस्से को ढका गया है।

सोलन : बठोल गांव में हुआ भूस्खलन कई मकान खतरे की जद में ले (तस्वीर में) मकानों में आईं दरारें। (एन.)

गांव में हुआ भारी भूस्खलन, 2023 में भी खाली करवाए थे मकान

भूस्खलन से खाली करवाया पन्नाथरी गांव, 10 परिवार सुरक्षित जगह भेजे

कुनिहार, 4 सितम्बर (मदन)। क्षेत्र में 3 दिन से लगातार हो रही बारिश के चलते पंचायत के पन्नाथरी गांव में बड़ा खतरा है। भूस्खलन की दीवारों में दरारें आ गई थीं। मकान खतरे की जद में आ गए थे। इसके बाद प्रशासन ने सख्त कदम उठाते हुए गांव के 10 परिवारों को सुरक्षित जगह भेज दिया है।

राजगढ़ में भूस्खलन से 30 मकानों को खतरा

राजगढ़, 4 सितम्बर (रोशन)। नगर पंचायत राजगढ़ के वार्ड नंबर 6 में भूस्खलन से कुछ मकानों को खतरा पैदा हो गया है। दरअसल, हाल ही में किसी ने अपनी भूमि में मकान बनाई। अब भारी वर्षा के कारण उसी मकान से निकला मलबा और भूस्खलन नीचे बने घरों के लिए खतरा बन गया है। इस मलबे में बड़े बड़े पत्थर भी शामिल हैं। कुछ दिन पहले भी सड़क का मलबा राम तिलक के घर तक जा मलबा पहुंच गया था। इस सड़क के ऊपर नीचे करीब 30 मकान हैं। इस मामले को लेकर स्थानीय लोग एस.डी.एम. राजकुमार राजगढ़ से मिले और अपनी समस्या रखी। एस.डी.एम. ने आश्वासन दिया कि प्रशासन उनकी समस्या का समाधान करेगा।"

उधर, उप पंचायत चूरांच में मनोज कुमार और उसके कुनबे के मकान में दरारें आ गई हैं। इस कारण प्रभावित लोग अब डर के मारे खतरे को मंडरा रहे हैं। मनोज कुमार ने बताया कि मकान पर अब रहने के लिए असुविधा हो चुका है। उनके घर के आगे तीन पीढ़े भूस्खलन हो रहा है। इनके घर के पीछे स्थित हाई स्कूल भवन के खेल मैदान में भी दरारें आ गई हैं।

करीब 60-70 फुट ऊंचा ढांग कभी भी ढह सकता है। इसके स्कूल के भवन असुरक्षित के खतरे पर खड़ा होकर रहा है। इसके अलावा विजय सिंह का घर भी प्रभावित हो रहा है। इसी पंचायत के पनेरव गांव में भी भारी नुकसान हुआ है। यहां तीन घर के घर पर मलबा और पेड़ आ गिरे हैं। इससे घर को भारी क्षति पहुंची है। परिवार को घर खाली कर रैन में शरण ले रहा है।

कालाअम्ब : इस नदी के पानी से सड़क की ओर हो रहा भूमि कटाव। (प्रतिनिधि)

जिला प्रशासन से मांग की है कि नदी किनारे मजबूत दीवार लगाया जाए व सड़क को पक्का किया जाए।

संवाददाता : अमर शहीद में मुख्यातिथि आयोजक

मलेहणी पंचायत के टरवाल गांव के मकानों में आईं दरारें

लोगों ने मकान किए खाली, प्रशासन से नहीं मिली सहायता

नालागढ़, 9 सितम्बर (सतविन्द्र): मलेहणी पंचायत के टरवाल गांव के सभी मकानों में दरारें आ गई हैं।

लोग अपने घर छोड़ कर साथ लगते जंगल में तिरपाल के नीचे रह रहे हैं। इस गांव के जमीन धंसनी शुरू हो गई है। जिससे मकानों में दरारें आने के साथ-साथ जमीन में मलबे के साथ चलती शुरू हो गई है।

टरवाल गांव के चिंतराम, जगतार सिंह, मीता राम, रोशन लाल, साधा देवी, बालकिशन, प्यारा लाल, अमर सिंह के मकानों में दरारें आ गई, जिसके चलते इन सभी लोगों ने इन मकानों को खाली करके साथ लगते जंगल में तिरपाल लगाकर झुग्गियां बना ली हैं। लोग अपने पशुओं को भी अपने साथ ले गए हैं।

गांव के चिंतराम ने बताया कि उन्हें एक समाज सेवक की ओर से तिरपालें मिली हैं। प्रशासन की ओर से अभी तक कुछ नहीं मिला है। उनके सामने अब खाने-पीने की समस्या पैदा हो गई है। उनकी जमीन में लगी फसल समेत मलबे व पानी की भेंट चढ़ चुकी है। यहां के लोग खेतीबाड़ी पर ही निर्भर हैं। उन्होंने अपने मवेशी खुले में बांध रखे हैं। बारिश में भी ये पशु बाहर ही रहते हैं। अपने सिर ढकने के लिए उन्होंने लकड़ी के पिल्लर गाड़ कर तिरपाल की झुग्गी बनाई है। उन्होंने प्रशासन से मकान बनाने के लिए जमीन उपलब्ध कराने की मांग की है।

पंजैहरा के नायब तहसीलदार कृष्ण चंद ने बताया कि मौके पर पटवारी को भेजा गया। रिपोर्ट आने के बाद प्रभावितों के लिए मुआवजा राशि दी जाएगी।

नालागढ़ : टरवाल गांव के लोगों ने तिरपाल से बनाया घर। (सतविन्द्र)

नालागढ़ : ए.बी.वी.पी. कार्यकर्ता प्राचार्य को ज्ञापन सौंपते हुए। (सतविन्द्र)

ए.बी.वी.पी. ने दी मांगे पूरी न होने पर आंदोलन की चेतावनी दी

नालागढ़, 9 सितम्बर (सतविन्द्र): ए.बी.वी.पी. नालागढ़ इकाई ने मंगलवार को प्राचार्य को विद्यार्थियों की विभिन्न समस्याओं को लेकर एक ज्ञापन सौंपा। मुख्य मांगों में कैंटीन के पास लंबे समय से जमा पानी को हटाने, शौचालयों की नियमित सफाई करने तथा विज्ञान विभाग में बंद पड़े शौचालयों को तुरंत खोले जाना शामिल रहा।

इसके साथ ही स्वच्छ पेयजल सुविधा, परिसर की नियमित सफाई करवाने तथा विज्ञान विभाग के भवन का शीघ्र नवीनीकरण करने की मांग की।

ए.बी.वी.पी. ने चेतावनी दी है कि यदि इन मांगों पर समय रहते कार्रवाई नहीं की गई तो आंदोलन का रास्ता अपनाने को बाध्य होंगे। परिषद कार्यकारिणी सदस्य आशा राणा ने कहा कि कालेज प्रशासन को चाहिए कि इन बुनियादी समस्याओं का समाधान तत्काल किया जाए, ताकि विद्यार्थियों को पढ़ाई के लिए एक बेहतर वातावरण मिल सके। प्राचार्य ने परिषदेयों की मांगों पर कार्रवाई करने का आश्वासन दिया।

उपभोक्ता मंत्री ने दिए गंदगी वाले कार्यों में तेजी लाने के निर्देश

भी डी.सी. ऑफिस पहुंच गए।

यह बात अलग है कि शहर में लोगों को पीने के लिए 7 से 8 दिन के बाद ही पानी की आपूर्ति हो रही है लेकिन हालात को सुधारने के लिए ईमानदारी के साथ प्रयास नहीं हो रहे हैं। 3 दिन पूर्व ऐसा लग रहा था कि स्थिति सामान्य हो रही है। कुछ क्षेत्रों में चौथे दिन पानी की आपूर्ति शुरू हो गई थी लेकिन पिछले 3-4 दिनों से जल शक्ति विभाग से पानी

की कम आपूर्ति के कारण हालात फिर से वैसे ही बन् गए हैं।

अब तो इसमें बिजली बोर्ड की भी एंट्री हो गई है। मौलन शहर व इसके ग्रामीण क्षेत्रों में बीरवार को सुबह 9.30 बजे से शाम करीब 6.30 बजे तक बिजली कट के कारण गिरी व अश्वनी

होनी थी। अब इन क्षेत्रों को 7 से 8 दिन के बाद पानी मिलेगा। नगर निगम ने बीरवार को वार्ड नंबर 3 के कथेड़ क्षेत्र में करीब 7वें दिन पानी की आपूर्ति की है। शुक्रवार को पानी की आपूर्ति अब गिरी व अश्वनी पेयजल योजनाओं से रातभर होने वाली पानी की पंपिंग पर निर्भर रहेगी।

डी.सी. ऑफिस कर्मचारी संघ के अध्यक्ष लोकेन्द्र चौहान ने बताया कि

परेशानी का सामना करना पड़ा लेकिन दोपहर बाद पानी की आपूर्ति शुरू होने से हालात सामान्य हो गए।

नगर निगम आयुक्त एकनाथ काप्टे ने बताया कि बीरवार सुबह 9 बजे से शाम करीब 6.30 बजे तक बिजली कट के कारण गिरी व अश्वनी पेयजल योजनाओं से पानी की आपूर्ति नहीं हुई। पिछले 3-4 दिनों से जल शक्ति विभाग से नगर निगम को सामान्य से कम पानी मिल रहा है।

नालागढ़ के कई गांवों में घरों व जमीनों को नुक्सान

बी.बी.एन., 18 सितम्बर (शेर सिंह): भारी वर्षा के कारण नालागढ़ के कई गांवों में घरों व जमीनों को नुक्सान हुआ है। गांव कपोली, कामला, मलेहणी व सल्लीण आदि गांवों में मकानों व पशुशालाओं को नुक्सान हुआ है। नालागढ़-रामशहर रोड सिलनुपुल के पास ढलान गिरने से कुछ समय के लिए बंद रहा। लोक निर्माण विभाग ने बाद में सड़क को खोल दिया।

इस सड़क पर बीरवार से रामशहर तक बसों की भी आवाजाही शुरू हो गई है। इससे पहले रामशहर की तरफ से बसें कुमारहट्टी तक और नालागढ़ की तरफ से पैट्रोल पम्प तक ही जा रही थीं और लोगों को करीब 1 किलोमीटर पैदल चलना पड़ रहा था। विभाग द्वारा यहां वैकल्पिक सड़क बना दी गई है, लेकिन वर्षा के समय दलदल हो जाती

बी.बी.एन. : नालागढ़-रामशहर रोड पर सिलनुपुल के पास गिरा ढलान। (शेर सिंह)

है और वाहनों की आवाजाही प्रभावित हो जाती है। लोक निर्माण विभाग मंडल नालागढ़ के अधिशासी अभियंता परवसर सिंह ने बताया कि नालागढ़ रामशहर रोड को खोल दिया गया है तथा जो भी सड़कें बंद हैं, उन्हें खोला जा रहा है।

म्ब के मोगीनंद में खुदाई कर संपर्क मार्ग किया बंद, उद्योगपति व

समाधान की गुहार लगाई है। इसके साथ पुलिस थाना कमलाघाट के सीमेंट के गोदाम और बी.पी. पैट्रोल कार्रवाई का आश्वासन दिया है।

भारी बारिश से झाड़ग्राम में तबाही का मंजर

60016828, Ram Pal

W6, Nalagarh, W6

Patrolling Information

Line Name:

400kV-RAMPR-NALAG-ACL-C1 : 400kV-RAMPR-NALAG-ACL-C2 :

Tower Number:

T0343

Patrolled On:

Aug 26 2025 13:11 PM

Patrolling Type:

Normal Patrolling

Non Activation Remark:

NIL

Patrolling Duration:

83.82 Min

Shutdown Other Remark:

NIL

Non Shutdown Other Remark:

NIL

Defects 0 | Report | Last Defects 0 | Last Report | AI/ML 0

Mobile 0 | Camera 0 | AI/ML 0 | Documents 0

Last Patrolling Defects

Patrolling Details:

60016828, Ram Pal

W6, Nalagarh, W6

Line Name:

400kV-RAMPR-NALAG-ACL-C1 : 400kV-RAMPR-NALAG-ACL-C2 :

Tower Number:

T0343

Patrolled On:

Jun 21 2025 11:41 AM

Patrolling Type:

Normal Patrolling

Non Activation Remark:

NIL

Patrolling Duration:

17.14 Min

Shutdown Other Remark:

NIL

Non Shutdown Other Remark:

NIL

Shutdown Defects:

No Data

Non-Shutdown Defects:

No Data

Mobile Photos

--No Images--

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The Office of Deputy Commissioner –cum-Chairman
District Disaster Management Authority, Solan
Phone No. 01792- 220048 , 1077, Email id: ddma-sol-hp @nic.in

File No-DDMA/Monsoon-2025-8008 Date 31-08-2025

OFFICE ORDER

WHEREAS, District Solan has been experiencing incessant rainfall since the morning of 31st, August 2025, resulting in widespread disruption of rural and link roads due to water logging, flash floods, slips, and frequent incidents of landslides being reported from various parts of the district.

AND WHEREAS, the India Meteorological Department, Shimla, has issued and ***Red Alert*** for **1st September, 2025 for District Solan,** predicting heavy to very heavy rainfall with isolated extremely heavy rainfall, which is likely to further aggravate the situation, causing disruption of normal life and increased vulnerability to disaster incidents.

AND WHEREAS, such inclement weather coonditions pose a serious threat to the safety and security of students commuting to and from educational institutions, and there exists a potential risk to human life and property.

NOW THEREFORE, in view of the above and in the exercise of powers conferred upon me under **Section 30 and 34, (M) of the Disaster Management Act, 2005**, I, Manmohan Sharma, IAS, District Magistrate-cum-Chairman, District Disaster Management Authority, Solan, hereby order the closure of ***all Government/Private education Educational Institutions/Nursing Institutes/Vocational Training Institution /Poly Technical Colleges/Industrial Training Institutes (ITIs), and Anganwadi Centres on 1st September, 2025 (Monday) in the District Solan*** as a precautionary measure.

However, it further directed that the concerned Head of the Institutions shall also comply with the instructions issued by the Secretary Education to the Government of Himachal Pradesh vide letter No. Siksha/II/CHHA(I)-2/95/II-I.dated02-07-2025.

All concerned Government and Private Educational Institutions and administrative officers are directed to ensure strict compliance of this order.

Issued under my hand, today on 31st August, 2025.

Manmohan Sharma I.A.S
District Magistrate-cum-
Chairman, DDMA Solan,
District Solan, H.P.

Endst. No. as above **Dated- 31st August, 2025**

Copy forwarded for information to:-

1. The Chief Secretary, to the Government of Himachal Pradesh.
2. The Divisional Commissioner, Shimla, H.P.
3. The Director-cum-Special Secretary (Rev-DM) to the Government of Himachal Pradesh.

Copy forwarded for information and necessary action to:-

1. The Superintendent of Police, District Solan and Baddi, District Solan.
2. All the Sub-Divisional Magistrates, District Solan.
3. All concerned educational institutions and departments, District Solan.
4. All the BDOs in District Solan.
6. The Deputy Director DDHE and DDEE, District Solan.
7. The District Public Relations Officer, District Solan - for wide publicity.

District Magistrate-cum-
Chairman, DDMA Solan,
District Solan, H.P.

The Office of Deputy Commissioner –cum-Chairman
District Disaster Management Authority, Solan
Phone No. 01792- 220048 , 1077, Email id: ddma-sol-hp @nic.in

File No-DDMA/Monsson-2025-8009 Date 01-09-2025

OFFICE ORDER

WHEREAS, District Solan has been experiencing incessant rainfall since the morning of 31st August 2025, resulting in widespread disruption of rural and link roads due to water logging, flash floods, slips, and frequent incidents of landslides being reported from various parts of the district.

AND WHEREAS, the India Meteorological Department, Shimla, has issued and ***Red Alert*** for **2nd September, 2025 for District Solan**, predicting heavy to very heavy rainfall with isolated extremely heavy rainfall, which is likely to further aggravate the situation, causing disruption of normal life and increased vulnerability to disaster incidents.

AND WHEREAS, such inclement weather conditions pose a serious threat to the safety and security of students commuting to and from educational institutions, and there exists a potential risk to human life and property.

NOW THEREFORE, in view of the above and in the exercise of powers conferred upon me under **Section 30 and 34, (M) of the Disaster Management Act, 2005**, I, Manmohan Sharma, IAS, District Magistrate-cum-Chairman, District Disaster Management Authority, Solan, hereby order the closure of ***all Government/Private education Educational Institutions/Nursing Institutes/Vocational Training Institution /Poly Technical College/Industrial Training Institutes (ITIs), and Anganwadi Centres on 2nd September, 2025 (Tuesday) in the District Solan*** as a precautionary measure.

However, it is further directed that the concerned Head of the Institutions shall ensure effort be made to take online classes, so as to keep the students engaged.

All concerned Government and Private Educational Institutions and administrative officers are directed to ensure strict compliance of this order.

Issued under my hand, today on 1st September, 2025.

Manmohan Sharma I.A.S
District Magistrate-cum-
Chairman, DDMA Solan,
District Solan, H.P.

Endst. No. as above **Dated- 1st September, 2025**

Copy forwarded for information to:-

1. The Chief Secretary, to the Government of Himachal Pradesh.
2. The Divisional Commissioner, Shimla, H.P.
3. The Director-cum-Special Secretary (Rev-DM) to the Government of Himachal Pradesh.

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2. All the Sub-Divisional Magistrates, District Solan.
3. All concerned educational institutions and departments, District Solan.
4. All the BDOs in District Solan.
6. The Deputy Director DDHE and DDEE, District Solan.
7. The District Public Relations Officer, District Solan - for wide publicity.

District Magistrate-cum-
Chairman, DDMA Solan,
District Solan, H.P.

Government of Himachal Pradesh,
Department of Higher Education

No. EDN-A-Kha(06)16/2020 Dated Shimla-02, the 3rd September, 2025

ORDER

Whereas, the State of Himachal Pradesh has been witnessing persistent heavy to very heavy rainfall across all regions over the past several days, leading to widespread landslides, felling of trees, road blockages, interruptions in electricity and drinking water supply, and significant damage to public infrastructure throughout the State. In addition, due to prevalent inclement weather conditions, there is high possibility of recurrence of such incidents at several locations in the entire State of Himachal Pradesh.

Therefore, considering the above & to ensure security and safety of students and staff, it has been decided by the Government that all Government and Private Colleges & Schools (including DIETs) shall remain closed till 07.09.2025. Teachers and administrative staff will also be exempted from attending Colleges/ Schools; however, concerned Heads of institutions shall ensure that teaching classes are conducted through online mode, whenever possible.

It is emphasised that the Heads of Institutions (Principals/Head Masters/ Heads of Schools) shall remain vigilant during this period to ensure safety and security of the infrastructure and movable assets of the educational institutions. In case the school assets are damaged or there is likelihood of damage of these assets, then the safekeep of the movable assets and school record be ensured.

All concerned authorities are directed to comply with this order in letter and spirit.

(Rakesh Kanwar, IAS)
Secretary (Education) to the
Government of Himachal Pradesh
3rd September, 2025

Endst. No. As above Dated; Shimla-171 002,

Copy for information & necessary action to:-

1. The Principal PS-cum Special Secretary to Hon'ble Chief Minister HP.
2. The SPS to Hon'ble Education Minister, H.P.
3. The SPS to Chief Secretary, Government of Himachal Pradesh.
4. All Deputy Commissioners Himachal Pradesh, H.P.
5. The Director, Higher Education Himachal Pradesh for further necessary compliance.
6. The Director, School Education Himachal Pradesh for further necessary compliance.
7. State Project Director Himachal Pradesh.
8. All Deputy Directors School/ Higher Education for further necessary compliance.

03/09/25

Addl. Secretary (Education) to the
Government of Himachal Pradesh

Scanned with OKEN Scanner

The Office of Deputy Commissioner –cum-Chairman
District Disaster Management Authority, Solan
Phone No. 01792- 220048 , 1077, Email id: ddma-sol-hp @nic.in

File No-DDMA/Monsson-2025-8025 Date 02-09-2025

OFFICE ORDER

WHEREAS, in view of the continuous rainfall during the last 60 hours, incidents of landslides, flash floods, and road blockages have been reported from various parts of District Solan and as per the reports and recommendations received from the Sub-Divisional Officers (C), the prevailing conditions pose serious risks to the safety and security of students commuting to their educational institutions.

AND WHEREAS, the India Meteorological Department, Shimla, has issued and ***Orange Alert*** for **3rd September, 2025 for District Solan**, predicting heavy rainfall with isolated extremely heavy rainfall, which is likely to further aggravate the situation, causing disruption of normal life and increased vulnerability to disaster incidents.

NOW THEREFORE, in view of the above and in the exercise of powers conferred upon me under **Section 30 and 34, (M) of the Disaster Management Act, 2005**, I, Manmohan Sharma, IAS, District Magistrate-cum-Chairman, District Disaster Management Authority, Solan, hereby order the closure of ***all Government/Private education Educational Institutions/Nursing Institutes/Vocational Training Institution /Poly Technical Colllege/Industrial Training Institutes (ITIs), and Anganwadi Centres on 3rd September, 2025 (Wednesday) in the District Solan*** as a precautionary measure.

Further Directions:

1. Teaching and Non-teaching Staff are directed to strictly comply with the instructions issued by the Secretary (Education), Government of Himachal Pradesh, vide letter No. Siksha/II/CHHA(I)-2/95/II-L dated 02-07-2025 (Point 6), whereby teachers may be asked to conduct online classes.
2. This is in continuation of the Directorate of Higher Education Office Order No. PS-DHE/3/2021-Misc. dated 01.09.2025, which directs all higher educational

institutions/colleges closed under SDMA/DC orders to continue academic engagement through online mode.

3. The Deputy Director of Higher and Elementary Education, District Solan, shall ensure all necessary arrangements are made to conduct online classes in both Government and Private Institutions, so that academic learning is not adversely affected during the closure period.

All concerned Government and Private Educational Institutions and administrative officers are directed to ensure strict compliance of this order.

Issued under my hand, today on 02nd September, 2025.

Manmohan Sharma I.A.S
District Magistrate-cum-
Chairman, DDMA Solan,
District Solan, H.P.

Endst. No. as above **Dated- 02nd September, 2025**

Copy forwarded for information to:-

1. The Chief Secretary, to the Government of Himachal Pradesh.
2. The Divisional Commissioner, Shimla, H.P.
3. The Director-cum-Special Secretary (Rev-DM) to the Government of Himachal Pradesh.

Copy forwarded for information and necessary action to:-

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3. All concerned educational institutions and departments, District Solan.
4. All the BDOs in District Solan.
6. The Deputy Director DDHE and DDEE, District Solan.
7. The District Public Relations Officer, District Solan - for wide publicity.

District Magistrate-cum-
Chairman, DDMA Solan,
District Solan, H.P.

Annexure-9

220kV Salal – Jammu II

220KV Salal Jammu was taken under emergency S/D at 18:40 Hrs of 04.09.2025 to restore the line on ERS after bypassing LOC No 48 which has become critical due to huge land sliding caused by incessant rains, landslides in the area and cloudbrusts in uppear reaches and restored at 22:23 Hrs of 11.09.2025

STATUS OF TOWER

ABOUT 50 METERS AREA WASHED AWAY DUE TO INCASENT RAINS AND FLASH FLOODS

Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 27th August, 2025
Time of Issue: 1330 hours IST

Subject: i) Significant reduction in rainfall activity likely over Jammu & Kashmir from today, however, isolated heavy rainfall spell likely to continue over Northwest India during next 6-7 days.
ii) Heavy to very heavy rainfall likely over Odisha, Chhattisgarh, Coastal Andhra Pradesh, Telangana, Konkan, Madhya Maharashtra, Kerala and Coastal Karnataka till tomorrow, the 28th August with isolated extremely heavy rainfall over Coastal Karnataka & Telangana today, the 27th August, 2025.

Realised weather during past 24 hours till 0830 hours IST of today, the 27th August, 2025:

- **Exceptionally heavy rainfall recorded at isolated places over Jammu (Udhampur IAF-63 cm).**
- **Heavy to very heavy rainfall at some places with Extremely heavy rainfall (≥21 cm)** has been recorded at isolated places over Jammu region, Telangana and Chhattisgarh.
- **Very heavy rainfall (12-20 cm)** has been recorded at isolated places over Goa, Lakshadweep and Odisha.
- **Heavy rainfall (7-11 cm)** has been recorded at isolated places over Uttarakhand, Punjab, Haryana, West Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal, Madhya Maharashtra, Kerala, Karnataka, Assam and Mizoram.

For more details of realised weather, kindly refer Annexure I.

i. Weather Systems, Forecast and Warnings (refer to Annexure II & III):

- The Monsoon trough runs south of its normal position.
- Yesterday's **Low-Pressure** area over northwest Bay of Bengal off Odisha coast intensified into a **Well Marked low Pressure Area** at 0530 hrs IST of today and persisted over the same region at 0830 hrs IST of today, the 27th August 2025. It is likely to move slowly west-northwestwards across Odisha during next 24 hours.
- **A Western Disturbance** as a **cyclonic circulation** over north Pakistan at middle tropospheric levels.
- An **upper air cyclonic circulation** lay over south Punjab and a **trough** runs from central Madhya Pradesh to the **upper air cyclonic circulation** over south Punjab at lower tropospheric levels.

Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 03rd September, 2025
Time of Issue: 1345 hours IST

Subject: i) Heavy to very heavy rainfall likely to continue over Western Himalayan Region, Punjab & Haryana on today, the 03rd September, 2025 and decrease significantly thereafter.
ii)Heavy to very Heavy rainfall spell likely to continue over East and Central India for next 2-3 days with isolated Extremely heavy rainfall (≥21cm) over West Madhya Pradesh on 05th September, 2025.
iii) Heavy to very heavy rainfall likely over Konkan & Goa, Madhya Maharashtra and Gujarat State during 03rd-07th September with possibility of Extremely heavy rainfall at isolated places over Gujarat during 04th-06th and Saurashtra & Kutch on 06th September, 2025.

Realised weather during past 24 hours till 0830 hours IST of today, the 03rd September, 2025:

- **Heavy to very heavy rainfall with Extremely heavy rainfall (≥21 cm)** has been recorded at isolated places over Jammu-Kashmir.
- **Very heavy rainfall (12-20 cm)** has been recorded at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, West Uttar Pradesh, West Madhya Pradesh, Odisha and Kerala.
- **Heavy rainfall (7-11 cm)** has been recorded at isolated places over East Rajasthan, Arunachal Pradesh,

India Meteorological Department
@Indiametdept

Record-Breaking Rainfall Alert!

Jammu and Udhampur witnessed historic 24-hour cumulative rainfall from 0830 hrs on 26 Aug 2025 to 0830 hrs on 27 Aug 2025:

Jammu:
296.0 mm
(Previous record: 272.6 mm on 09 Aug 1973 Broken)

Udhampur:
629.4 mm
(Previous record: 342.0 mm on 31 Jul 2019 Broken)

Stay safe, stay informed. Follow official channels for updates.

#RecordBreakingRainfall #JammuRainfall #UdhampurWeather #HistoricRainfall #StaySafe #WeatherAlert #RainfallRecords #StayInformed #Monsoon2025

@PMOIndia @moesgoi @Ravi_MoES @DrJitendraSingh @ndmaindia @airnewsalerts @DDNewslive @PIB_India @metsrinagar @jk_sdma @PIBSrinagar @OmarAbdullah

CLOUDBURST IN REASI AREA WHERE TOWER IS LOCATED

11:45 5G

newindianexpress.com/

THE NEW INDIAN EXPRESS

NATION WORLD STATES OPINIONS CITI

Nation

11, including 5 children, dead as heavy rains trigger cloudburst, landslide in J&K | Video

A house in the Badar village of Reasi district was flattened by the landslide, and seven people present inside—including a couple and their five children—are feared dead, according to sources.

Search and rescue operation underway at an affected area after a cloudburst, in Ramban district, Jammu and Kashmir, Saturday, Aug. 30, 2025. Photo| PTI

Fayaz Wani

Updated on: 30 Aug 2025, 1:10 pm · 2 min read

NDTV

11 Killed, Many Houses Damaged After Cloudburst, Landslide In J&K

The incidents come amid extreme weather conditions that have ravaged the region in recent weeks, claiming more than 360 lives, many of them pilgrims.

Srinagar: At least 11 people, including seven members of one family, have been killed in landslides and a cloudburst triggered by heavy rains in Jammu and Kashmir's Reasi and Ramban districts.

In the Ratkoon area of Reasi district, a landslide struck the home of Nazir Ahmad, 38, in Badaan village overnight. Ahmad, his wife and their five children, aged between five and 13, were all killed when

12:04 5G

livemint.com/news/india

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J-K triple disaster: High alert in Ramban, 7 of family feared dead in Reasi amid cloudburst, flashfloods, landslides

Three people died and two others went missing after a cloudburst hit a remote village in Jammu and Kashmir's Ramban district on Saturday.

Livemint

Updated • 30 Aug 2025, 02:11 PM IST

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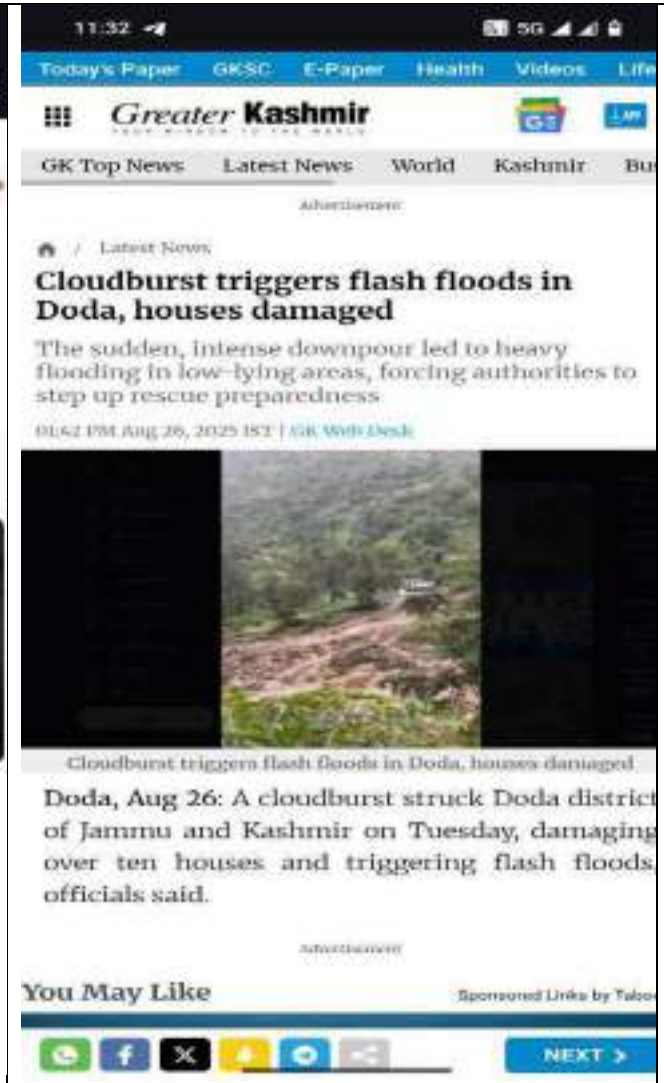
CLOUD BURSTS IN DODA

Massive cloudburst in J-K's Doda: Flash floods, landslides reported; Jammu-Srinagar highway closed

TOI City Desk / TIMESOFINDIA.COM / Updated: Aug 27, 2025, 13:38 IST

NEW DELHI: A massive cloudburst in Jammu and Kashmir's Doda district triggered flash floods, disrupting normal life and forcing the closure of the



Cloudburst triggers flash floods in Doda, houses damaged

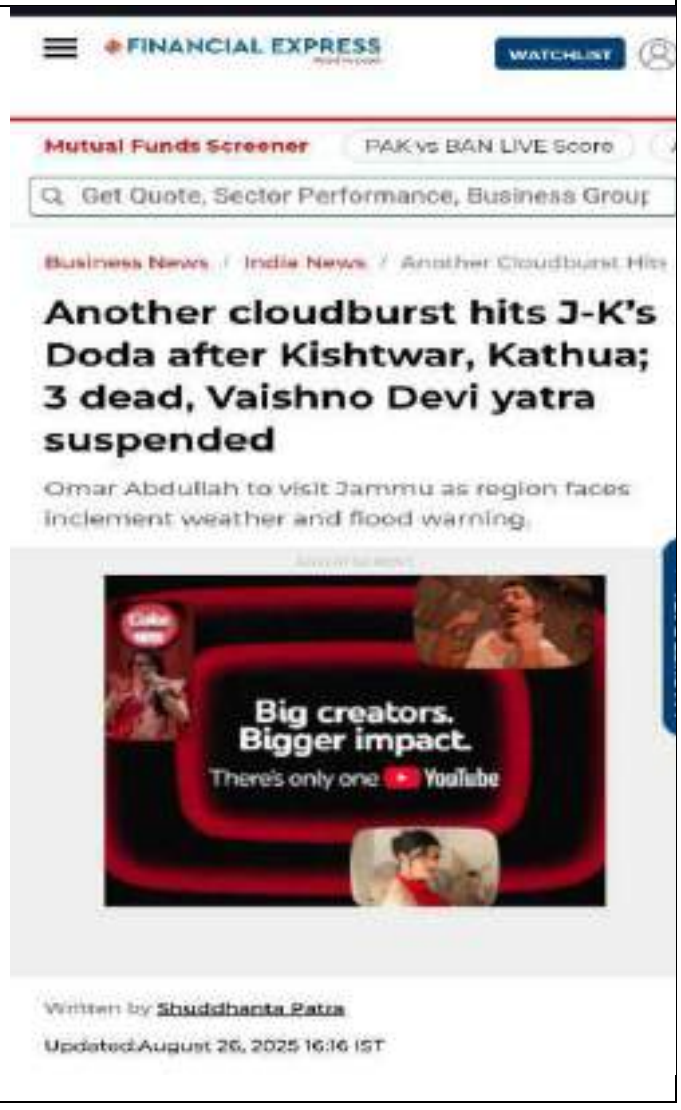
The sudden, intense downpour led to heavy flooding in low-lying areas, forcing authorities to step up rescue preparedness

01:42 PM Aug 26, 2025 IST | GK Web Desk

Cloudburst triggers flash floods in Doda, houses damaged

Doda, Aug 26: A cloudburst struck Doda district of Jammu and Kashmir on Tuesday, damaging over ten houses and triggering flash floods, officials said.

You May Like



Another cloudburst hits J-K's Doda after Kishtwar, Kathua; 3 dead, Vaishno Devi yatra suspended

Omar Abdullah to visit Jammu as region faces inclement weather and flood warning

Written by Shuddhanta Patra

Updated:August 26, 2025 16:16 IST

CLOUD BURSTS IN RAMBAN

FLASHFLOODS DUE TO CLOUD BRUSTS

IMAGE SOURCE : VIDEO GRAB- X/ANI

Authorities have advised residents and travelers to avoid using this route unless absolutely necessary, citing safety concerns.

Edited By: Abhishek Sheoran

Published: August 26, 2025 13:00 IST, Updated: August 26, 2025 14:18 IST

Doda (J&K) : Continuous rainfall over the past three days has severely impacted several areas of the Chenab River region in Jammu and

Thanks

Jammu logs heaviest downpour since 1973: Udhampur breaks all-time rainfall record with 629 mm

The heavy rain unleashed a series of landslides along the Jammu-Srinagar National Highway, forcing authorities to suspend traffic.

Salikar Majid | DHNS

Last Updated : 27 August 2025, 17:46 IST

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Amit Shah reviews security situation in Jammu & Kashmir...
Over houses suffer damage in heavy rains, flash floods in J&K's Doda
Amit Shah very Hood-affected areas in Jammu, assures victims of relief
Infiltration bid foiled along LoC in J&K's Poonch
Kashmiris fear the loss of a market of irreplaceable exquisite
Instagram: 16K1 rupee R Users viral
'Maratha vile not peaceful, ensure streets vacated by Tuesday'
Maratha quota protestors gherao Supriya Sule, attack her vehicle

Representative image for heavy rainfall. Credit: PTI Photo

Srinagar: Jammu witnessed unprecedented monsoon fury on Wednesday as Udhampur district smashed its all-time rainfall record, receiving a staggering 629.4 mm of rain in just 24 hours, while Jammu city logged 296 mm — its heaviest downpour since 1973.

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The torrential rain triggered deadly landslides, flash floods, and widespread destruction across the region, leaving authorities scrambling to rescue stranded residents and restore connectivity.

Officials from the Meteorological Department said Udhampur's rainfall surpassed all previously recorded figures for a single day, making it the wettest 24-hour spell in the district's history. "This is the highest rainfall ever recorded in Udhampur in one day. The intensity and duration were extraordinary," an official said.

In Jammu, the 296 mm rainfall was the heaviest since the 1973 deluge, which had left much of the city submerged. Tuesday's downpour inundated roads, swept away vehicles, and caused major waterlogging in several neighbourhoods. At least a dozen low-lying localities were cut off as water gushed into residential areas.

Also Read: Torrential rains in parts of J&K trigger flood like situation, bridge damaged on Jammu-Pathankot highway

The heavy rain unleashed a series of landslides along the Jammu-Srinagar National Highway, forcing authorities to suspend traffic. Hundreds of vehicles remained stranded for hours as road-clearing operations were hampered by continuous sliding of rocks and debris.

In Udhampur, swollen streams and seasonal nullahs swept away sections of roads, cutting off several villages from the district headquarters. Officials said a number of houses and shops collapsed under the force of rushing waters. Rescue teams were pressed into service to shift families from vulnerable areas.

Electricity supply and mobile connectivity was disrupted in wide swathes of Jammu and Kashmir after power poles were uprooted. Several mobile towers were damaged, snapping communication lines in the region. Railway tracks near Jammu also reported flooding, leading to temporary disruption of train services.

Bridges connecting remote areas were either submerged or washed away, officials said, adding to the difficulties of rescue teams.

The administration has sounded a high alert across Jammu and Udhampur districts. Lieutenant Governor Manoj Sinha said efforts are underway to provide immediate relief to affected families.

The Meteorological Department has forecast more rainfall in parts of Jammu region over the next 24 hours, raising concerns of fresh landslides and flooding. Authorities have appealed to people living along riverbanks and hill slopes to move to safer ground.

Disaster management officials said the scale of rainfall in Udhampur has underscored the increasing frequency of extreme weather events in Jammu and Kashmir, which has seen multiple cloudbursts

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Published 17 August 2025, 07:41 IST

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18 trains cancelled in Jammu, Katra & Udhampur as heavy rains disrupt rail traffic

PTI | Last Updated: Aug 26, 2025, 05:49:00 PM IST

Synopsis
Heavy rainfall in the Jammu region has led to the cancellation of 18 trains to and from Katra, Udhampur, and Jammu. The relentless downpour, the heaviest in decades, has damaged infrastructure, disrupted road connectivity, and prompted the suspension of the Mata Vaishno Devi pilgrimage.

Indian Railways

The Northern Railway has cancelled 18 trains to and from Katra, Udhampur and Jammu railway stations on Tuesday as relentless heavy rain wreaked havoc in the Jammu region, officials said.

The Jammu region has been experiencing its heaviest rainfall in decades since Monday night, which damaged bridges, disrupted road connectivity and inundated large tracts of land, forcing people to shift to safer areas.

The traffic on the Jammu-Srinagar and Kishtwar-Doda national highways was suspended, while dozens of hilly roads were blocked or damaged by landslides or flash floods, the officials said, adding the pilgrimage to the Mata Vaishno Devi shrine was also suspended as a precautionary measure.

Also read: Jammu Weather live updates

A railway official said, "Eighteen trains have been cancelled. Four trains have been subjected to short terminations. This has been done in view of the weather conditions prevailing in the region."

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Of the trains cancelled, seven are from Katra, the base camp of the Mata Vaishno Devi shrine, two from Udhampur and one from Jammu, the officials said, adding that trains to Katra and Udhampur have also been cancelled.

Train services from Pathankot to Kandrori in Himachal Pradesh have also been suspended due to heavy soil erosion and flash floods on the Chakki river, according to railway officials.

Also read: J&K weather: Cloudburst hits Jammu's Doda district; 3 dead amid flash floods

Four trains were short-terminated at Firozpur, Manda and Chak Rakhwalan, they said, adding that movement of trains on the Katra-Srinagar stretch was continuing.

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18 trains cancelled due to traffic suspended in Down Line PTKC/Pathankot Cantt to KNDI/Kandrori due to heavy soil erosion and flash flood in Chakki River and traffic suspended between JAT/Jammu Tawi to SVDK/Katra, JAT/Jammu Tawi to BBMN/Bari Brahman (Down Line) section due to Show more

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Annexure-10

Report Regarding Outage of 400kV Kishenpur – New Wanpoh 3 Line

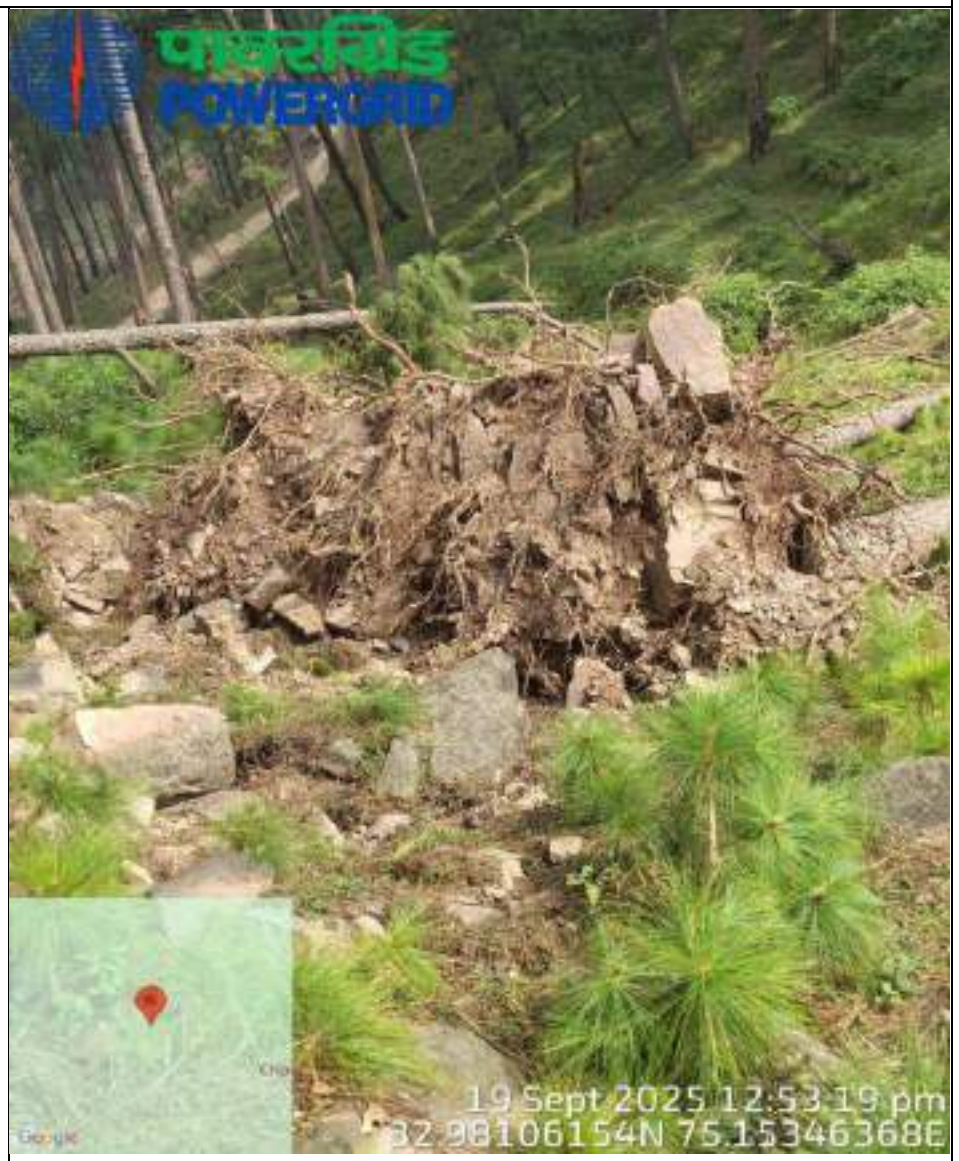
The 400 kV Kishenpur–New Wanpoh 3 tripped at 14:54 Hrs of 26.08.2025 due to failure of two number cross arms of Loc. No. 111 and 112 caused by falling of tree 35 meters from outside line corridor. Line restored at 18:40 Hrs of 06.09.2025

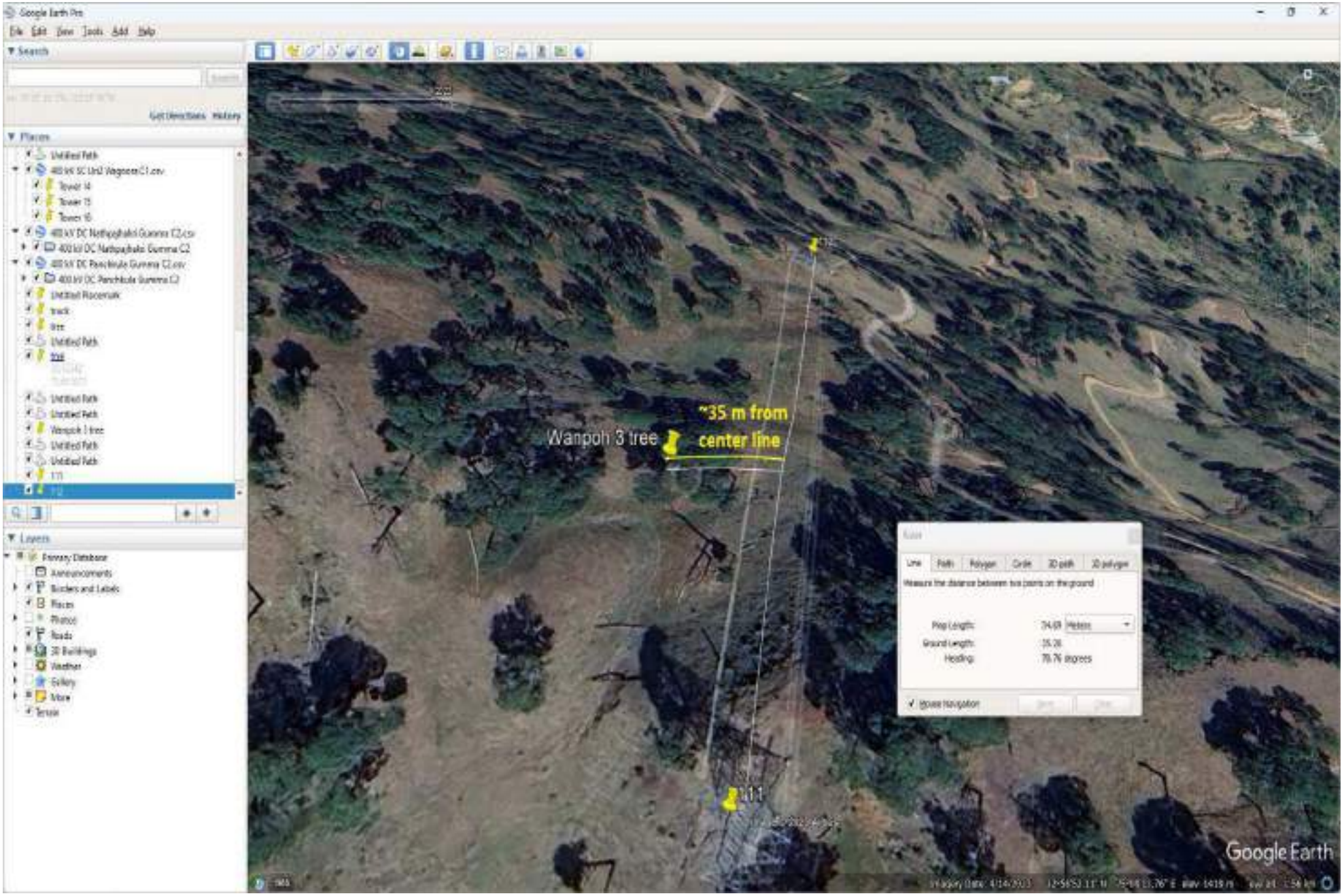
PHOTO SHOWING DAMAGE TO CROSS ARM OF LOC NO 111 & 112

PHOTO SHOWING TREE FALLEN FROM OUTSIDE LINE CORRIDOR

N
W
E
S
28 Aug 2025 10:51:15
32.98049186N 75.15370679E
4° N
Altitude:1356.4msnm
Speed:0.0km/h
Index number: 61
Google

PHOTO SHOWING TOWER NAME PLATE AND TREE BASE

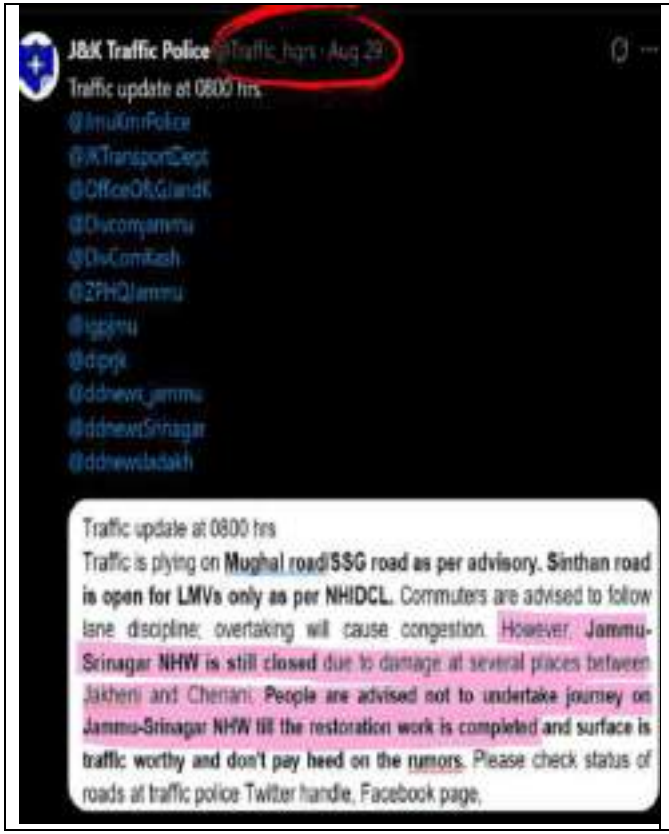


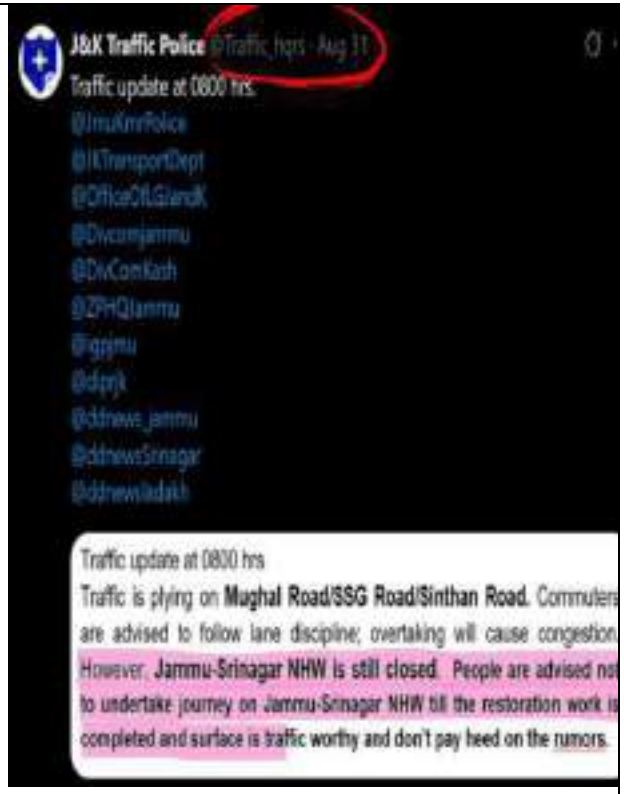

Google Earth Pro
File Edit View Tools Add Help
Search
Places
Layers
Wanpoh 3 tree
~35 m from
center line
Google Earth

Restoration of 02 No tower peaks at LOC No 111 & 112 could only be done in 09 days on 06.09.2025 due to following reasons:

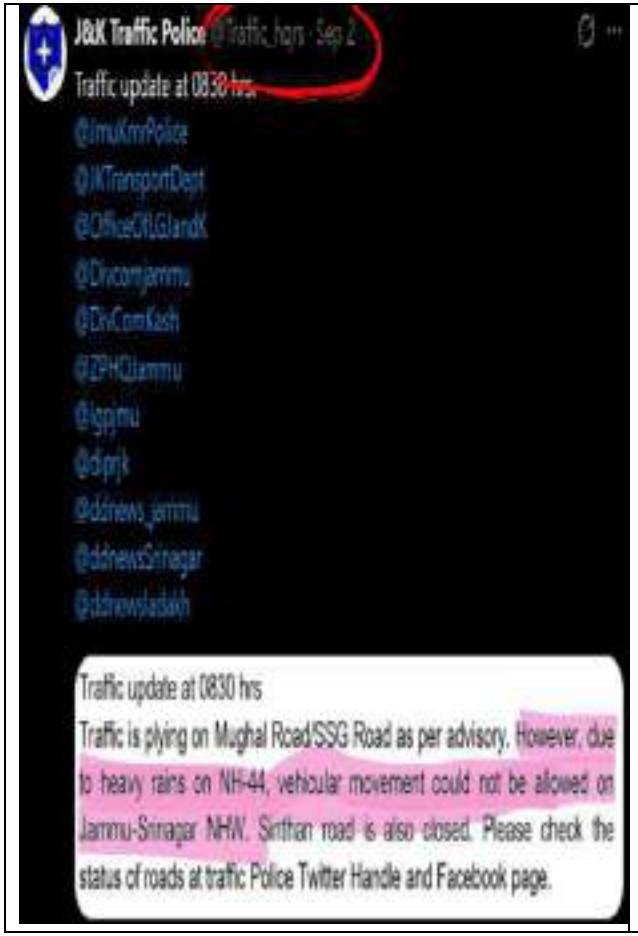
A. **POWERGRID T/L Team could only reach Tower location on 01.09.2025 after 04 days after walking about 15 KM.**
B. **Site was inaccessible as Udhampur-Srinagar National Highway intermittently closed upto 05.09.2025 due to sinking of road about 7 KM from Udhampur.**
C. **On 02.09.2025, POWERGRID T/L Team managed to cross National Highway with T&P but due to sinking of link road at multiple locations, head loading of material carried out for about 02KM to reach site.**
D. **Link road from NH to Tower was also shut due to closure of road at multiple locations.**

A) UDHAMPUR SRINAGAR NATIONAL HIGHWAY REMAINS CLOSED





NHAI Remains closed from Udhampur towards Srinagar, Kishtwar etc



TRAFFIC POLICE HEADQUARTERS, J&K, JAMMU/SRINAGAR

One tube of each bridge of Lakhanpur-Madhopur, Sahar Khad, Vijaypur on Jammu-Pathankot National Highway has been damaged due to incessant rains. However, 2nd tube of each bridge is operational for vehicular movement on regulatory basis. Commuters are advised to maintain lane discipline to avoid congestion.

TRAFFIC PLAN & ADVISORY FOR 03-09-2025:-

NH-44 (NHW)

Jammu-Srinagar NHW (NH-44) is closed for vehicular movement from Jakeni (Udhampur) towards Srinagar due to the stretch of land on the upper side of road has been sunk at Tharad, Udhampur and landslides/mudslides/shooting stones at multiple places on NH-44. No vehicular movement shall be allowed from Nagrota (Jammu) towards Reasi, Chenani, Patnitop, Doda, Ramban, Banihal, Srinagar and vice-versa Commuters belonging to Katra and Udhampur town are requested to keep their photo ID card to prove their identification so that their movement can be facilitated smoothly. Please check status of road at traffic police Twitter handle, Facebook page, TCUs.

TRAFFIC POLICE HEADQUARTERS, J&K, JAMMU/SRINAGAR

TRAFFIC PLAN & ADVISORY FOR 05-09-2025:-

NH-44 (NHW)

Jammu-Srinagar NHW (NH-44) is still closed for vehicular movement from Jakheni (Udhampur) towards Srinagar and vice versa due to the road blockage between Jakheni and Bali Nallah. **No vehicular movement shall be allowed from Nagrota (Jammu) towards Reasi, Chenani, Patnitop, Doda, Ramban, Banihal, Srinagar and vice-versa. Commuters belonging to Katra and Udhampur town are requested to keep their photo ID card** to prove their identification so that their movement can be facilitated smoothly. Please check status of road at traffic police Twitter handle, Facebook page, TCUs.

The Tribune

Jammu Srinagar national highway, other vital roads closed for traffic following multiple landslides

STATE TIMES

Traffic Plan & Advisory For September 03

TRAFFIC POLICE HEADQUARTERS, J&K, JAMMU/SRINAGAR

TRAFFIC PLAN & ADVISORY FOR 03-09-2025:-

NH-44 (NHW)

RisingKashmir

Jammu -Srinagar NHW Closed Due to Heavy R

Santhan road is also closed

Jammu-Srinagar National Highway (NH-44) Remains Closed For 5th Consecutive Day

Kashmir Latest News

NH-44 Declared Unsafe, Traffic Suspended In Udhampur Sector

By KL News Network - 03 pm September 3, 2025

Share

SRINAGAR: Traffic movement on the Jammu Srinagar National Highway (NH-44) has been completely halted after a portion of land on the upper side of the road caved in at Thard, Udhampur.

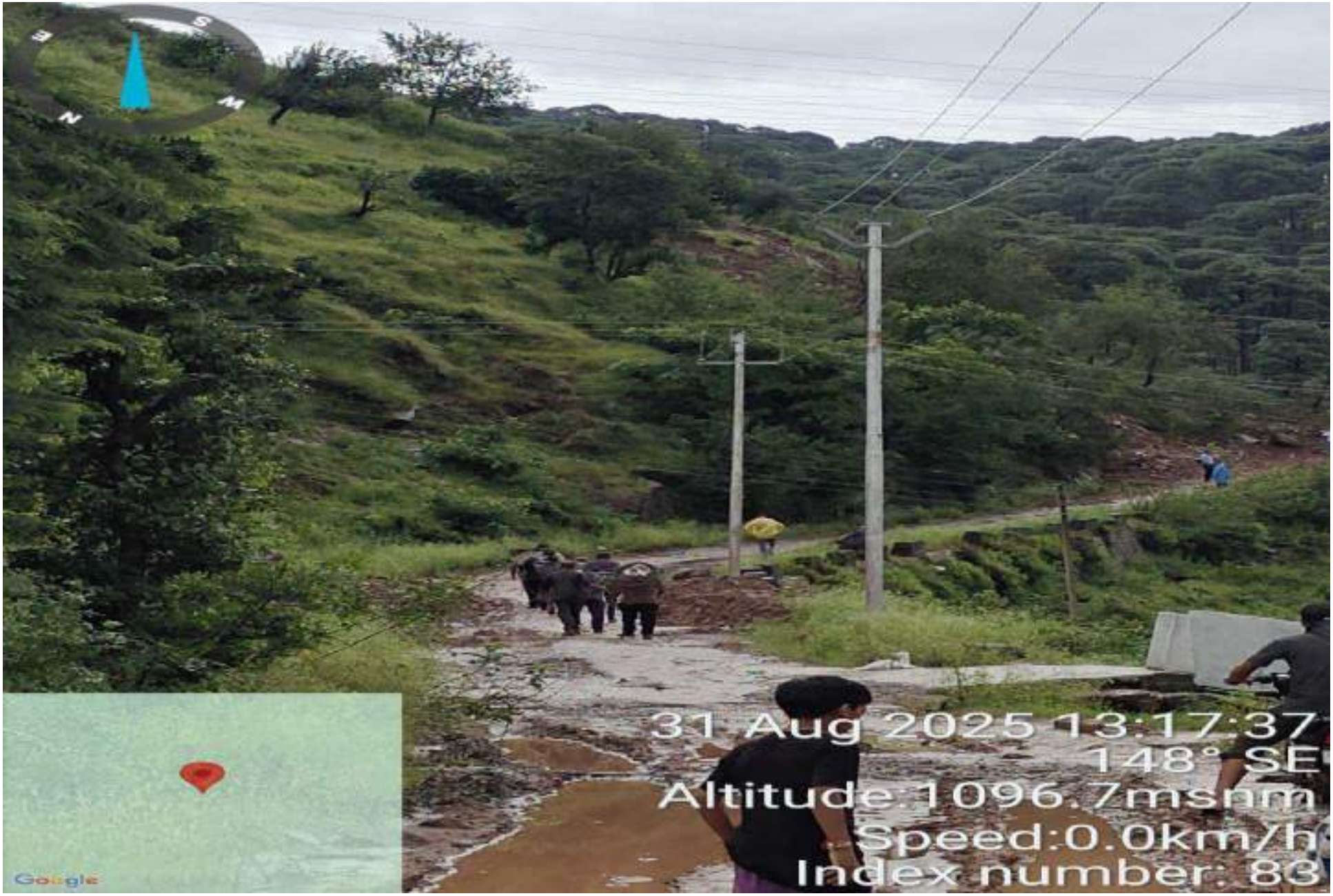
THE TIMES OF INDIA

Now Playing US Blinks as India Resists Pressure; 'Will Come Together,' Says Trump Aide

Massive cloudburst in J-K's Doda: Flash floods, landslides reported; Jammu-Srinagar highway closed

B) Link road from UDHAMPUR-Srinagar NH UPTO TOWER remain closed at Multiple locations

C) HEAD LOADING OF MATERIAL due to road blockage


31 Aug 2025 13:17:37
148° SE
Altitude:1096.7msnm
Speed:0.0km/h
Index number: 88
Google

D) IMD REPORT

Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 27th August, 2025
Time of Issue: 1330 hours IST

Subject: i) Significant reduction in rainfall activity likely over Jammu & Kashmir from today, however, isolated heavy rainfall spell likely to continue over Northwest India during next 6-7 days.
ii) Heavy to very heavy rainfall likely over Odisha, Chhattisgarh, Coastal Andhra Pradesh, Telangana, Konkan, Madhya Maharashtra, Kerala and Coastal Karnataka till tomorrow, the 28th August with isolated extremely heavy rainfall over Coastal Karnataka & Telangana today, the 27th August, 2025.

Realised weather during past 24 hours till 0830 hours IST of today, the 27th August, 2025:

- **Exceptionally heavy rainfall recorded at isolated places over Jammu (Udhampur IAF: 63 cm).**
- **Heavy to very heavy rainfall at some places with Extremely heavy rainfall (≥21 cm)** has been recorded at isolated places over Jammu region, Telangana and Chhattisgarh.
- **Very heavy rainfall (12-20 cm)** has been recorded at isolated places over Goa, Lakshadweep and Odisha.
- **Heavy rainfall (7-11 cm)** has been recorded at isolated places over Uttarakhand, Punjab, Haryana, West Madhya Pradesh, Vidarbha, Sub-Himalayan West Bengal, Madhya Maharashtra, Kerala, Karnataka, Assam and Mizoram.

For more details of realised weather, kindly refer Annexure I.

i. Weather Systems, Forecast and Warnings (refer to Annexure II & III):

- The Monsoon trough runs south of its normal position.
- Yesterday's **Low-Pressure** area over northwest Bay of Bengal off Odisha coast intensified into a **Well Marked low Pressure Area** at 0830 hrs IST of today and persisted over the same region at 0830 hrs IST of today, the 27th August 2025. It is likely to move slowly west-northwestwards across Odisha during next 24 hours.
- **A Western Disturbance** as a **cyclonic circulation** over north Pakistan at middle tropospheric levels.
- **An upper air cyclonic circulation** lay over south Punjab and a **trough** runs from central Madhya Pradesh to the **upper air cyclonic circulation** over south Punjab at lower tropospheric levels.

Under the influence of these systems, the following weather is likely:

East & Central India:

- Isolated **heavy rainfall** likely over Chhattisgarh, Odisha, Vidarbha, Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim during 27th-30th; Bihar during 30th August-01st September; Jharkhand on 27th & 30th August with isolated **very heavy rainfall over Chhattisgarh on 27th & 28th; Odisha on 27th August.**
- Light to moderate rainfall at most/many places accompanied with thunderstorm & lightning likely over the region during next 7 days.

South Peninsular India:

- **Extremely heavy rainfall** likely over Coastal Karnataka and Telangana on 27th August.
- Isolated **heavy rainfall** likely over Coastal Andhra Pradesh & Yanam, Telangana, Kerala & Mahe, Tamil Nadu during 27th-29th; Interior Karnataka on 27th & 28th; Rayalaseema on 27th and Coastal Karnataka during 27th August-02nd September with **very heavy rainfall** over Coastal Karnataka on 27th & 28th; Coastal Andhra Pradesh & Yanam, Telangana, Kerala on 27th August.
- Light to moderate rainfall at some places accompanied with thunderstorm & lightning likely over the region during next 2-3 days.

ANNEXURE I

Rainfall recorded (in cm) during past 24 hours till 0830 hours IST of today, the 27th August:

Jammu: Udhampur IAF-63, Jammu-38; Samba-17, Kathua-12

Telangana: Yellareddy (dist Kamareddy). Naga Reddipet (dist Kamareddy) 25 Each; Bhiknur (dist Kamareddy) 22; Nizam Sagar (dist Kamareddy) 21; Bhuvanagiri (dist Y. Bhuvanagiri) 19; Domakonda (dist Kamareddy), Papannapet (dist Medak) 18 Each; Ramayampet (dist Medak) 17; Pitlam (dist Kamareddy), Medak (dist Medak) 15 Each; Alladurg (dist Medak) 14; Yadagirigutta (dist Y. Bhuvanagiri) 13; Lingampet (dist Kamareddy) 12; Regode (dist Medak), Yadagirigutta(AWS) (dist Y. Bhuvanagiri) 11 Each; Chegunta (dist Medak), Narsapur (dist Medak), Tekmal (dist Medak) 10 Each; Jagadevpur (dist Siddipet), Nagireddypet AP (dist Kamareddy), Ars Basanthpur AP (dist Medak) 9 Each; Narayankhed (dist Sangareddy), Banswada (dist Kamareddy), Doultabad (dist Siddipet) 8 Each; Ramannapeta (dist Y. Bhuvanagiri), Gandhari (dist Kamareddy), Manoopet (dist Vikarabad), Mahbubnagar (dist Mahabubnagar), Nawabpet (dist Vikarabad), Kamareddy (dist Kamareddy), Kowdipalle (dist Medak), Hathnoora (dist Sangareddy), Munipalli (dist Sangareddy), Chitkur (dist Suryapet), Kodhonda (dist Mahabubnagar), Bhoothpur (dist Mahabubnagar) 7 Each;

East Rajasthan: Bhangra SR (dist Banswara) 22; Kathumer (dist Alwar) 9, Dhariakod (dist Pratapgarh) 7;

Chhattisgarh: Sukma (dist Sukma) 21; Bastanar (dist Bastar) 20; Lohandiguda (dist Bastar) 19; Dutiha (dist Bastar) 17; Konta (dist Sukma), Gidam (dist Dantewada) 16 Each; Katekalyan (dist Dantewada), Nangur (dist Bastar), Bade Bacheli (dist Dantewada) 15 Each; Gadiras (dist Sukma) 14; Tokapal (dist Bastar), Chhotedongar (dist Narayanpur) 12 Each; Dantewara (dist Dantewada), Kuakonda (dist Dantewada), Patan (dist Durg) 10 Each; Jagdalpur (dist Bastar), Dornapal (dist Sukma), Jagargunda (dist Sukma) 8 Each; Durg (dist Durg), Gundardehi (dist Balod), Bastar (dist Bastar), Bakawand (dist Bastar), Orcha (dist Narayanpur), Chhindgarh (dist Sukma), Gangalur (dist Bijapur), Bhanpuri (dist Bastar), Karpawand (dist Bastar) 7 Each;

Coastal Karnataka: Kadra (dist Uttara Kannada) 19; Siddapura (dist Udupi), Gersoppa (dist Uttara Kannada) 10 Each; Bantwal (dist Dakshina Kannada), Karkala (dist Udupi), Shimli PTO (dist Uttara Kannada) 8 Each; Joida (dist Uttara Kannada), Karwar (dist Uttara Kannada), Ankola (dist Uttara Kannada), Uppinangadi (dist Dakshina Kannada) 7 Each;

Odisha: Jeypore (dist Koraput) 19; Kotpad (dist Koraput) 16; Boriguma (dist Koraput) 15; Koraput (dist Koraput), Lamataput (dist Koraput), Nandapur (dist Koraput), Nandahandi (dist Nawarangpur) 12 Each; Similiguda (dist Koraput) 11; Malkangiri (dist Malkangiri) 9; Rajkishorenagar (dist Angul), Korukunda (dist Malkangiri) 7 Each;

Konkan & Goa: Quepem (dist South Goa) 13; Kankavli (dist Sindhudurg) 11; Canacona (dist South Goa) 10; Ponda (dist North Goa), Pernem (dist North Goa), Margao (dist South Goa), Rajapur (dist Ratnagiri) 8 Each; Sawantwadi (dist Sindhudurg) 7;

Vidarbha: Sindewahi (dist Chandrapur) 11; Chimur (dist Chandrapur) 8;

Kerala & Mahe: Kozhilu (dist Kasargod) 10; Muliyar AWS (dist Kasargod) 9; Madikkai AWS (dist Kasargod) 8; Kodungallur (dist Thrissur) 7;

Madhya Maharashtra: Gaganbawada (dist Kolhapur) 10; Mahabaleshwar (dist Satara) 7;

West Madhya Pradesh: Sanjeet (dist Mandsaur) 10; Suwasra (dist Mandsaur) 8; Sailana (dist Ratlam), Khalwa (dist Khandwa) 7 Each;

Punjab: Gurdaspur AMSU (dist Gurdaspur) 10; Dhantwal Irr (dist Gurdaspur) 9; Tibri (dist Gurdaspur), Aliwal (dist Gurdaspur) 8 Each;

Haryana: Gohla (dist Kaithal) 10; Sampla (dist Rohtak), Jhirka (dist Nuh), Barwala REV (dist Hisar), Pathawas REV (dist Rewari), Jakhal Mandi Hmo (dist Fatehabad), Bawal AWS (dist Rewari) 7 Each;

Sub Himalayan West Bengal & Sikkim: Barobhisha (dist Alipurduar) 10; Rangtak Tea Estate (dist Alipurduar) 7;

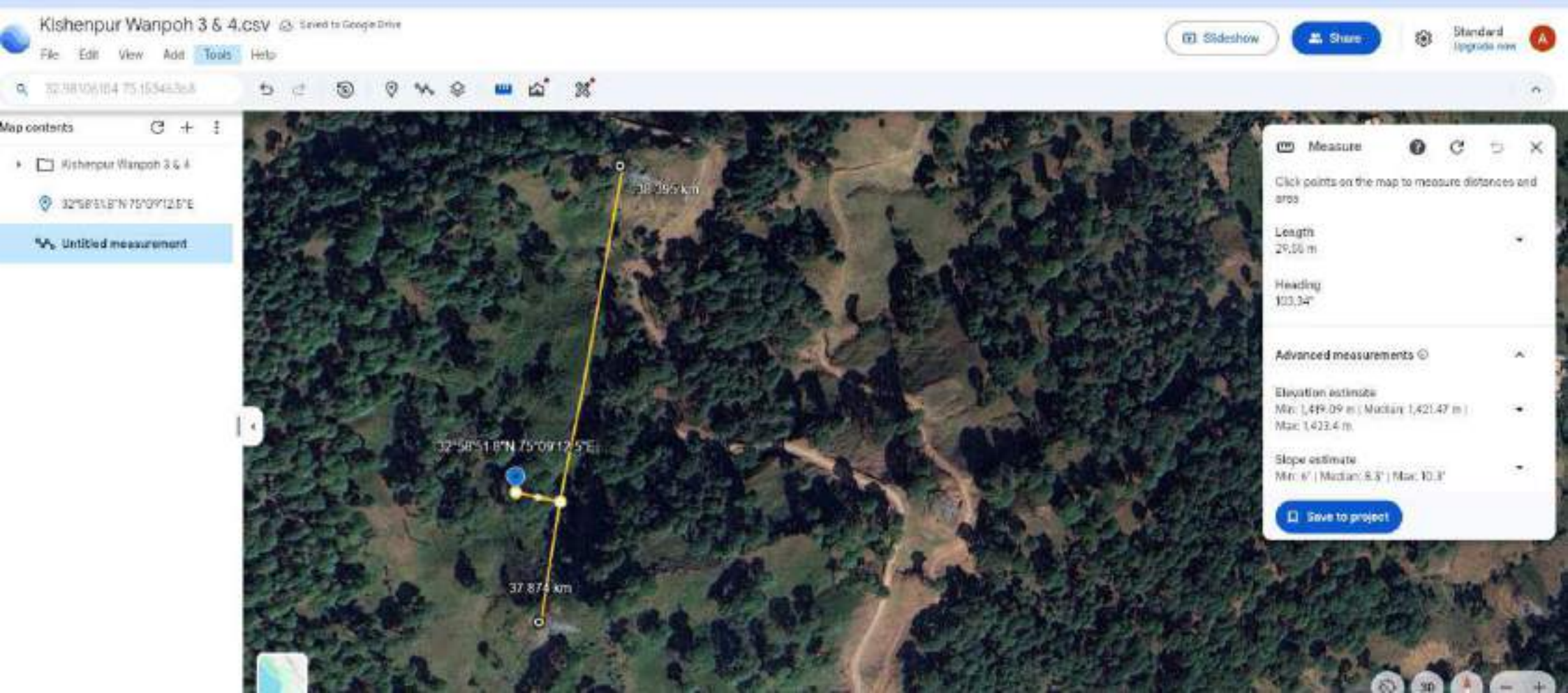
North Interior Karnataka: Bhalki (dist Bidar) 8; Bidar (dist Bidar), Bidar PTO (dist Bidar) 7 Each;

Assam & Meghalaya: Lanka ARG (dist Nagaon) 8; Jagiroad (dist Tinsukia) 7;

Mizoram: Kolasib AWS (dist Kolasib), Khawai (dist Khawai) 7 Each.

Line finally restored at 18:40 Hrs of 06.09.2025

Thanks


Kishenpur Wanpoh 3 & 4.csv
Saved to Google Drive
File Edit View Add Tools Help
Slideshow
Share
Standard
Upgrade now
Map contents
Kishenpur Wanpoh 3 & 4
32°58'51.8"N 75°09'12.5"E
Untitled measurement
38.295 km
32°58'51.8"N 75°09'12.5"E
37.874 km
Measure
Click points on the map to measure distances and area
Length
29.06 m
Heading
103.34°
Advanced measurements
Elevation estimate
Min: 1,419.09 m | Median: 1,421.47 m | Max: 1,423.4 m
Slope estimate
Min: 6° | Median: 8.8° | Max: 10.3°
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Jammu logs heaviest downpour since 1973: Udhampur breaks all-time rainfall record with 629 mm

The heavy rain unleashed a series of landslides along the Jammu-Srinagar National Highway, forcing authorities to suspend traffic.

Salikar Majid | DHNS

Last Updated : 27 August 2025, 17:46 IST

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Maratha quota protestors gherao Supriya Sule, attack her vehicle

Representative image for heavy rainfall. Credit: PTI Photo

Srinagar: Jammu witnessed unprecedented monsoon fury on Wednesday as Udhampur district smashed its all-time rainfall record, receiving a staggering 629.4 mm of rain in just 24 hours, while Jammu city logged 296 mm — its heaviest downpour since 1973.

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The torrential rain triggered deadly landslides, flash floods, and widespread destruction across the region, leaving authorities scrambling to rescue stranded residents and restore connectivity.

Officials from the Meteorological Department said Udhampur's rainfall surpassed all previously recorded figures for a single day, making it the wettest 24-hour spell in the district's history. "This is the highest rainfall ever recorded in Udhampur in one day. The intensity and duration were extraordinary," an official said.

In Jammu, the 296 mm rainfall was the heaviest since the 1973 deluge, which had left much of the city submerged. Tuesday's downpour inundated roads, swept away vehicles, and caused major waterlogging in several neighbourhoods. At least a dozen low-lying localities were cut off as water gushed into residential areas.

Also Read: Torrential rains in parts of J&K trigger flood like situation, bridge damaged on Jammu-Pathankot highway

The heavy rain unleashed a series of landslides along the Jammu-Srinagar National Highway, forcing authorities to suspend traffic. Hundreds of vehicles remained stranded for hours as road-clearing operations were hampered by continuous sliding of rocks and debris.

In Udhampur, swollen streams and seasonal nullahs swept away sections of roads, cutting off several villages from the district headquarters. Officials said a number of houses and shops collapsed under the force of rushing waters. Rescue teams were pressed into service to shift families from vulnerable areas.

Electricity supply and mobile connectivity was disrupted in wide swathes of Jammu and Kashmir after power poles were uprooted. Several mobile towers were damaged, snapping communication lines in the region. Railway tracks near Jammu also reported flooding, leading to temporary disruption of train services.

Bridges connecting remote areas were either submerged or washed away, officials said, adding to the difficulties of rescue teams.

The administration has sounded a high alert across Jammu and Udhampur districts. Lieutenant Governor Manoj Sinha said efforts are underway to provide immediate relief to affected families.

The Meteorological Department has forecast more rainfall in parts of Jammu region over the next 24 hours, raising concerns of fresh landslides and flooding. Authorities have appealed to people living along riverbanks and hill slopes to move to safer ground.

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Published 17 August 2025, 07:41 IST

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18 trains cancelled in Jammu, Katra & Udhampur as heavy rains disrupt rail traffic

PTI | Last Updated: Aug 26, 2025, 05:49:00 PM IST

Synopsis
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Also read: Jammu Weather live updates

A railway official said, "Eighteen trains have been cancelled. Four trains have been subjected to short terminations. This has been done in view of the weather conditions prevailing in the region."

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Of the trains cancelled, seven are from Katra, the base camp of the Mata Vaishno Devi shrine, two from Udhampur and one from Jammu, the officials said, adding that trains to Katra and Udhampur have also been cancelled.

Train services from Pathankot to Kandrori in Himachal Pradesh have also been suspended due to heavy soil erosion and flash floods on the Chakki river, according to railway officials.

Also read: J&K weather: Cloudburst hits Jammu's Doda district; 3 dead amid flash floods

Four trains were short-terminated at Firozpur, Manda and Chak Rakhwalan, they said, adding that movement of trains on the Katra-Srinagar stretch was continuing.

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18 trains cancelled due to traffic suspended in Down Line PTKC/Pathankot Cantt to KNDI/Kandrori due to heavy soil erosion and flash flood in Chakki River and traffic suspended between JAT/Jammu Tawi to SVDK/Katra, JAT/Jammu Tawi to BBMN/Bari Brahman (Down Line) section due to Show more

5:48 PM · Aug 26, 2025

54 Reply Copy link

Stability restored ...': Modi, Xi hold talks

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2. Border, trade & terrorism: What Modi, Xi discussed
3. US still working on trade deals despite court order

TOP TRENDING NEWS

Disturbance Short Report

Disturbance Recordings Information

Device Information

Recorder ID	1
IED type	L67I11 01
IED version	1.101
Station name	422_KIS-NW-3_M1
Object name	422_KIS-NW-3_M1
IED name	422_KIS-NW-3_M1

Fault Information

Trig date and time	8/26/2025 2:44:51.887 PM
Trigger signal name	M1 Z2 Start
Recording number	118
Total recording time	3560 ms
Pre-trig recording time	500 ms
Post trig recording time	2999 ms
Max. recording time	4000 ms

General Recordings Information

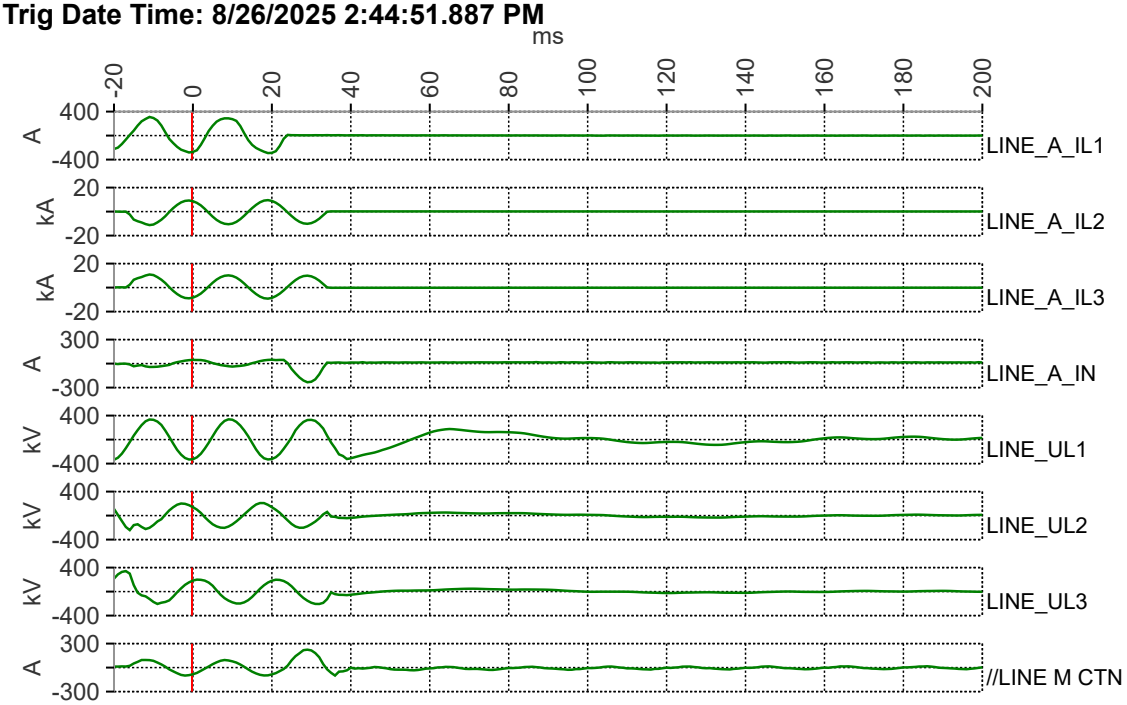
Disturbance recorder	Installed
Event recorder	Installed
System frequency	50 Hz
Sampling frequency	1 kHz
Active setting group during recording	1

Fault Location Information

Fault loop type	L2-L3
Fault location	36.8 (27.2 %)
Status of fault calculation	Ok
Fault direction	Forward

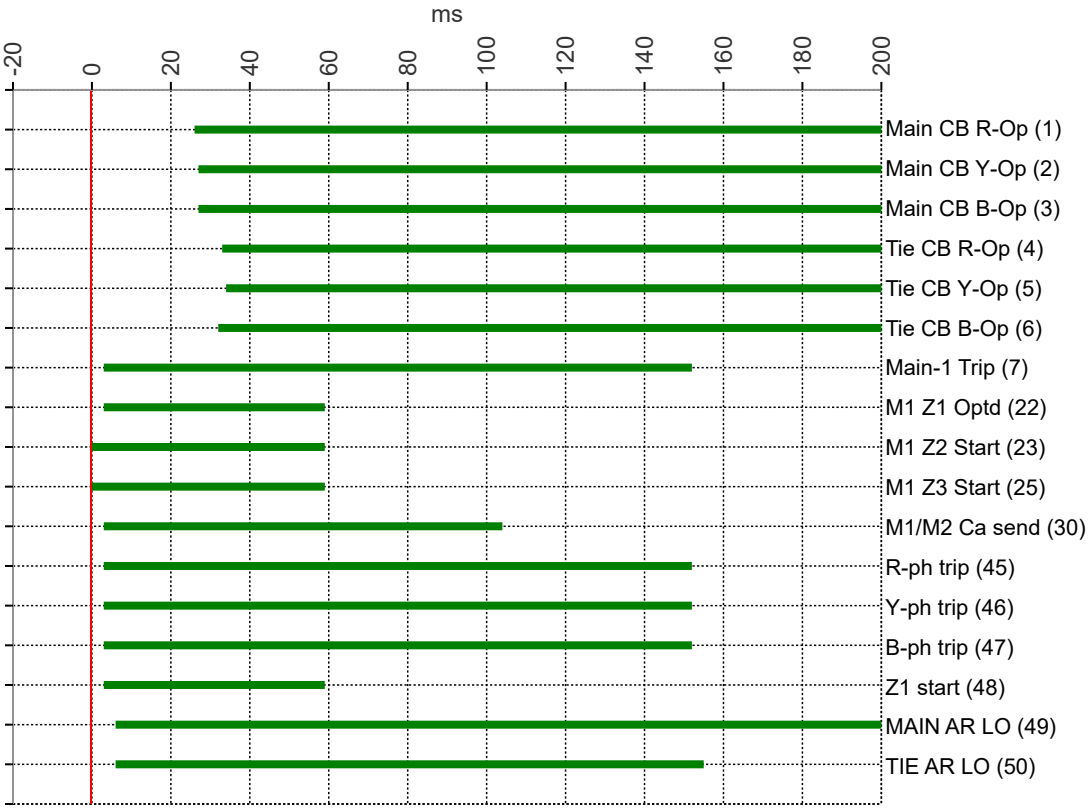
Analog Time Diagram

Trig Date Time: 8/26/2025 2:44:51.887 PM



Binary Time Diagram

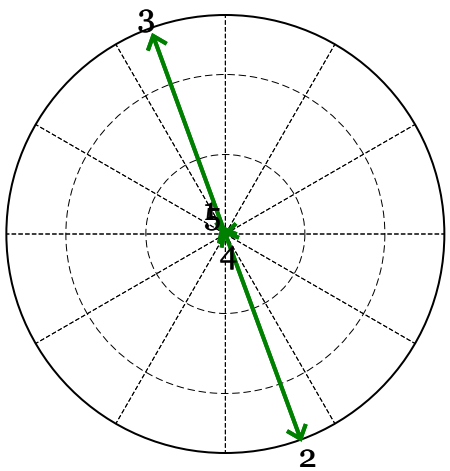
Trig Date Time: 8/26/2025 2:44:51.887 PM



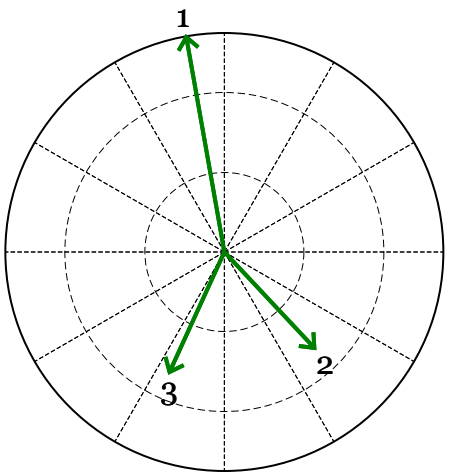
Vector Diagrams

Calculation Time Period : 0 ms to 19 ms

Currents



Voltages



No.	Name	RMS	Angle	No.	Name	RMS	Angle
1	LINE_A_IL1	216.026(A)	117.3°	1	LINE_UL1	240593.469 (V)	100.0°
2	LINE_A_IL2	7146.99(A)	290.2°	2	LINE_UL2	145020.109 (V)	313.2°
3	LINE_A_IL3	6906.754(A)	110.0°	3	LINE_UL3	145424.859 (V)	245.5°
4	LINE_A_IN	30.873(A)	267.0°				
5	//LINE M CTN	67.506(A)	119.4°				

Events List

Channel Number	Name	Status	Time
23	M1 Z2 Start	On	8/26/2025 2:44:51.887 PM
25	M1 Z3 Start	On	8/26/2025 2:44:51.887 PM
7	Main-1 Trip	On	8/26/2025 2:44:51.890 PM
22	M1 Z1 Optd	On	8/26/2025 2:44:51.890 PM
30	M1/M2 Ca send	On	8/26/2025 2:44:51.890 PM
45	R-ph trip	On	8/26/2025 2:44:51.890 PM
46	Y-ph trip	On	8/26/2025 2:44:51.890 PM
47	B-ph trip	On	8/26/2025 2:44:51.890 PM
48	Z1 start	On	8/26/2025 2:44:51.890 PM
49	MAIN AR LO	On	8/26/2025 2:44:51.893 PM
50	TIE AR LO	On	8/26/2025 2:44:51.893 PM
1	Main CB R-Op	On	8/26/2025 2:44:51.913 PM
2	Main CB Y-Op	On	8/26/2025 2:44:51.914 PM
3	Main CB B-Op	On	8/26/2025 2:44:51.914 PM
6	Tie CB B-Op	On	8/26/2025 2:44:51.919 PM
4	Tie CB R-Op	On	8/26/2025 2:44:51.920 PM
5	Tie CB Y-Op	On	8/26/2025 2:44:51.921 PM
22	M1 Z1 Optd	Off	8/26/2025 2:44:51.947 PM
23	M1 Z2 Start	Off	8/26/2025 2:44:51.947 PM
25	M1 Z3 Start	Off	8/26/2025 2:44:51.947 PM
48	Z1 start	Off	8/26/2025 2:44:51.947 PM
30	M1/M2 Ca send	Off	8/26/2025 2:44:51.992 PM
7	Main-1 Trip	Off	8/26/2025 2:44:52.040 PM
45	R-ph trip	Off	8/26/2025 2:44:52.040 PM
46	Y-ph trip	Off	8/26/2025 2:44:52.040 PM
47	B-ph trip	Off	8/26/2025 2:44:52.040 PM
50	TIE AR LO	Off	8/26/2025 2:44:52.043 PM

Annexure-11

Restoration of 400 kV D/C Banala – Amritsar Transmission Line

(19:00 Hrs of 27.08.2026 to 21:20 Hrs of 28.09.2025)

A) Due to incessant rainfall and hill sinking that took place in and around village Payal (Distt. Mandi, H.P.) **during July and August 2024.** condition of tower location no. 39 of 400 kV D/C Banala-Amritsar & Banala Hamirpur Transmission line had become vulnerable and critical . Matter reported to NRPC and subsequently committee consisting of following officials was constituted to ascertain cause :

1. Sh. Ravi Kant, EE NRPC 2.
2. Sh. Rajinder Kumar, Sr. Mgr (E) HPPTCL
3. Sh. Pankaj Rana, Mgr, ADHYDRO

Committee visited site on **6th December'2024**, carried out detailed inspection. As per report signed, committee has following observations and recommendations:

B) Committee observations:

- Land /hill sinking had occurred at multiple locations near and around the tower no. 39.
- Due to above sinking, main tower legs as well as belt members connecting these legs were found bent. Due to bending of tower leg C, crack in associated cleat plate was also observed.
- As a temporary protection measure, stay arrangement using guy wires has been provided to safeguard the tower from further bending.

C) Committee recommendations: (Report attached)

As tower location 39 of 400 kV Banala – Amritsar & Banala Hamirpur Transmission line has become vulnerable due to land sinking and consequent bending of main legs and other tower members.

- POWERGRID may assess the strength of tower and may take necessary action to support tower structure.

- Patrolling of towers may be increased.
- POWERGRID may take necessary preventive action including assessing measures for diversion of line from affected tower on new tower located in stable area.

ACTION TAKEN as per recommendations of the committee:

- Additional guys provided on the tower
- Patrolling frequency increased
- As the condition of the tower was further deteriorating, parallel action was in process for diversion of the towers to safe location.
- Foundation of towers completed
- Tower Material made ready
- S/D Applied in 229th, 230th, 231st, 232nd & 233rd OCC &234th OCC
- S/D approved in 234th OCC w.e.f. 15 Sep'2025 to 5th of Oct'2025
- In the afternoon of 26.08.2025, nearby villagers reported that huge sounds of jerks from LOC No 39 resulting in panic in the area. On inspection of tower, no major changes observed in the Tower. However, tower was kept under close monitering.

- In the evening of 26.08.2026, local villagers intimated jerks in tower, there was panic in the area. On inspection, conductor was in stress with few strands cut indicating further settlement. Subsequently we applied for Emergency S/D but S/D was not allowed

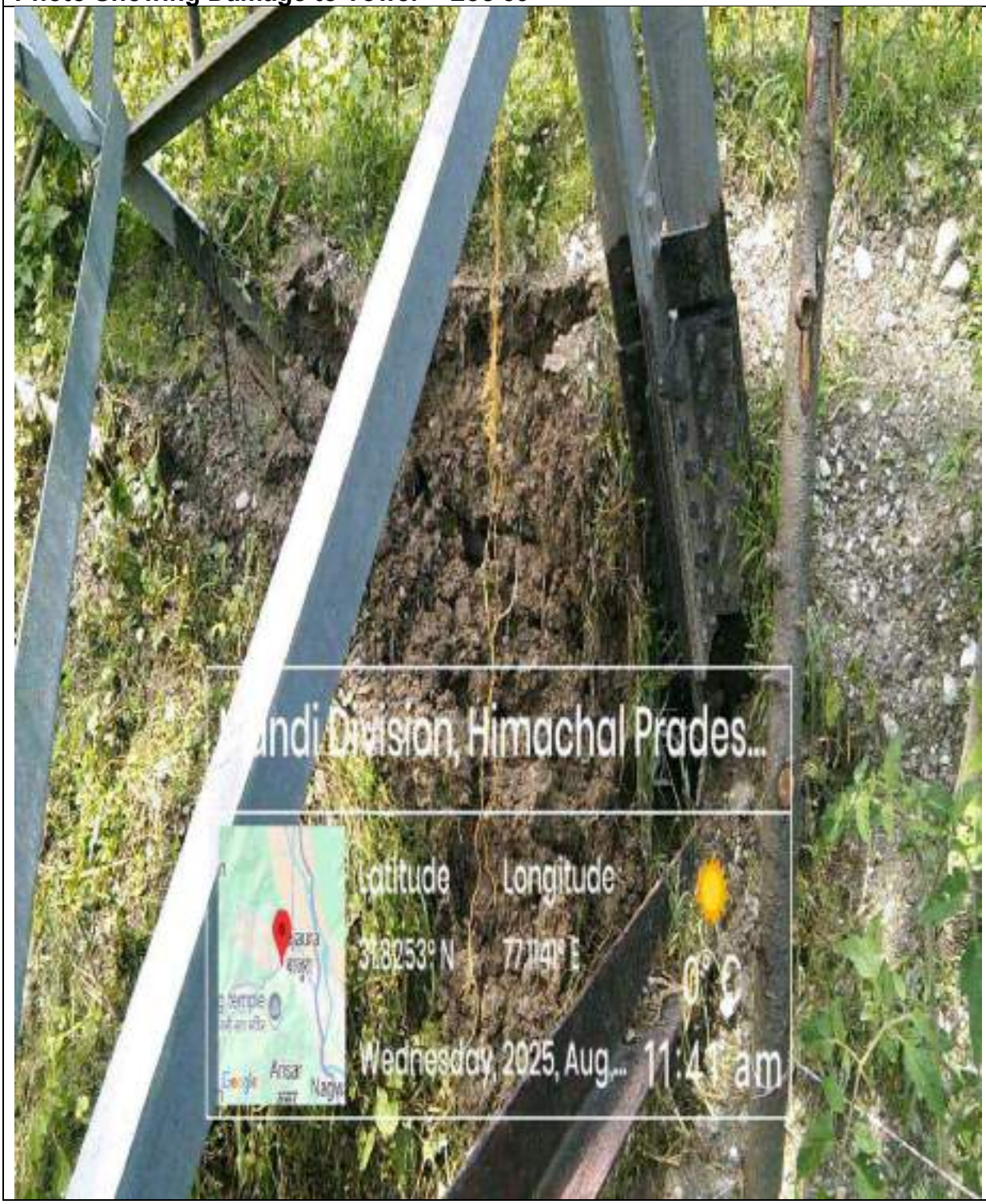
- Again, in the evening of 27.08.2025, nearby villagers reported that huge sounds of jerks from LOC No 39 resulting in panic in the area.
- On inspection of tower, several Tower bolts were found completely shared and members found detached from its position indicating further deterioration of and accordingly, emergency S/D was applied.

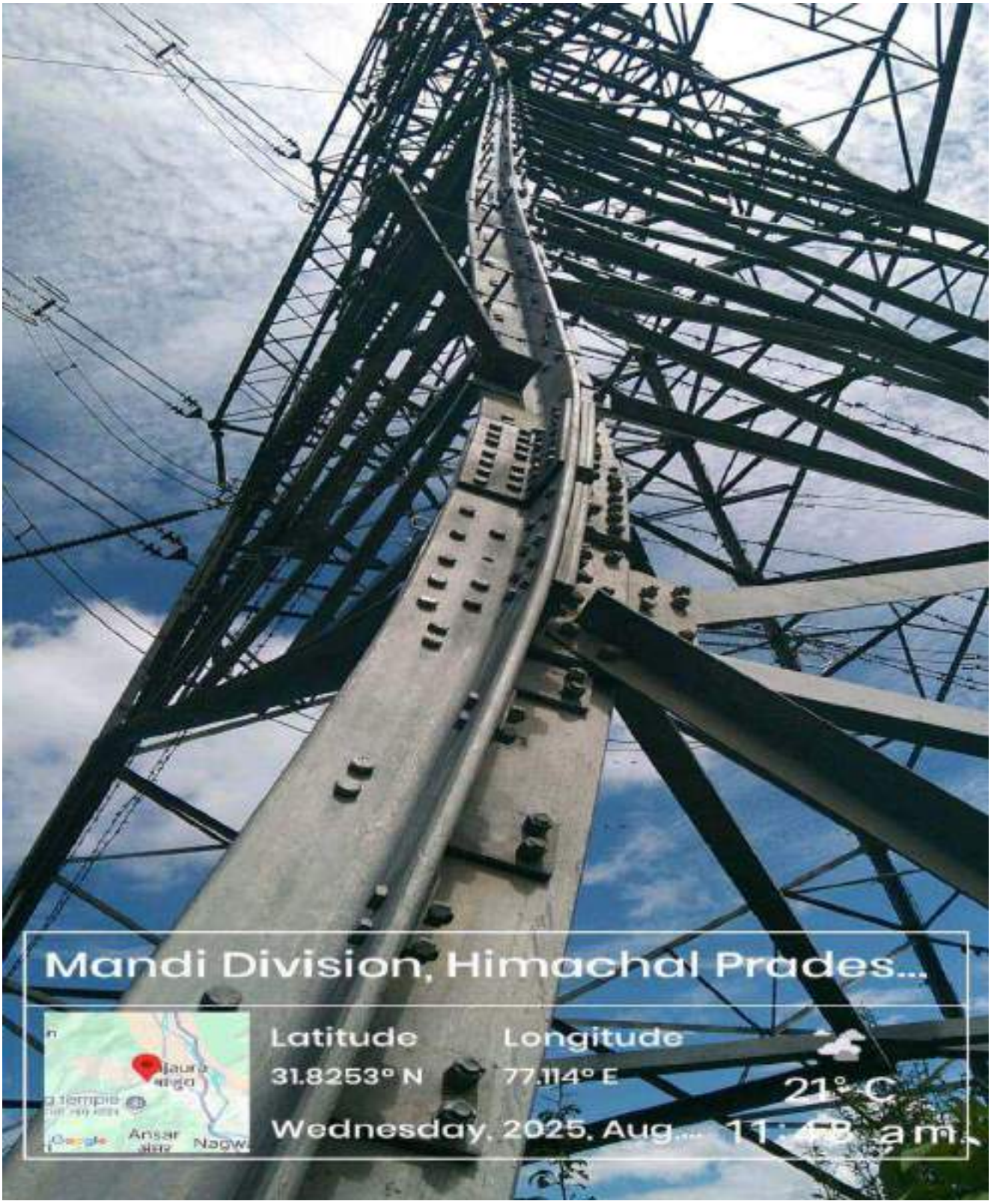
- S/D was approved from 19:00 Hrs of 27.08.2025 to 19:00Hrs of 22.09.2025 and line restored at 21:20 Hrs of 28.09.2025

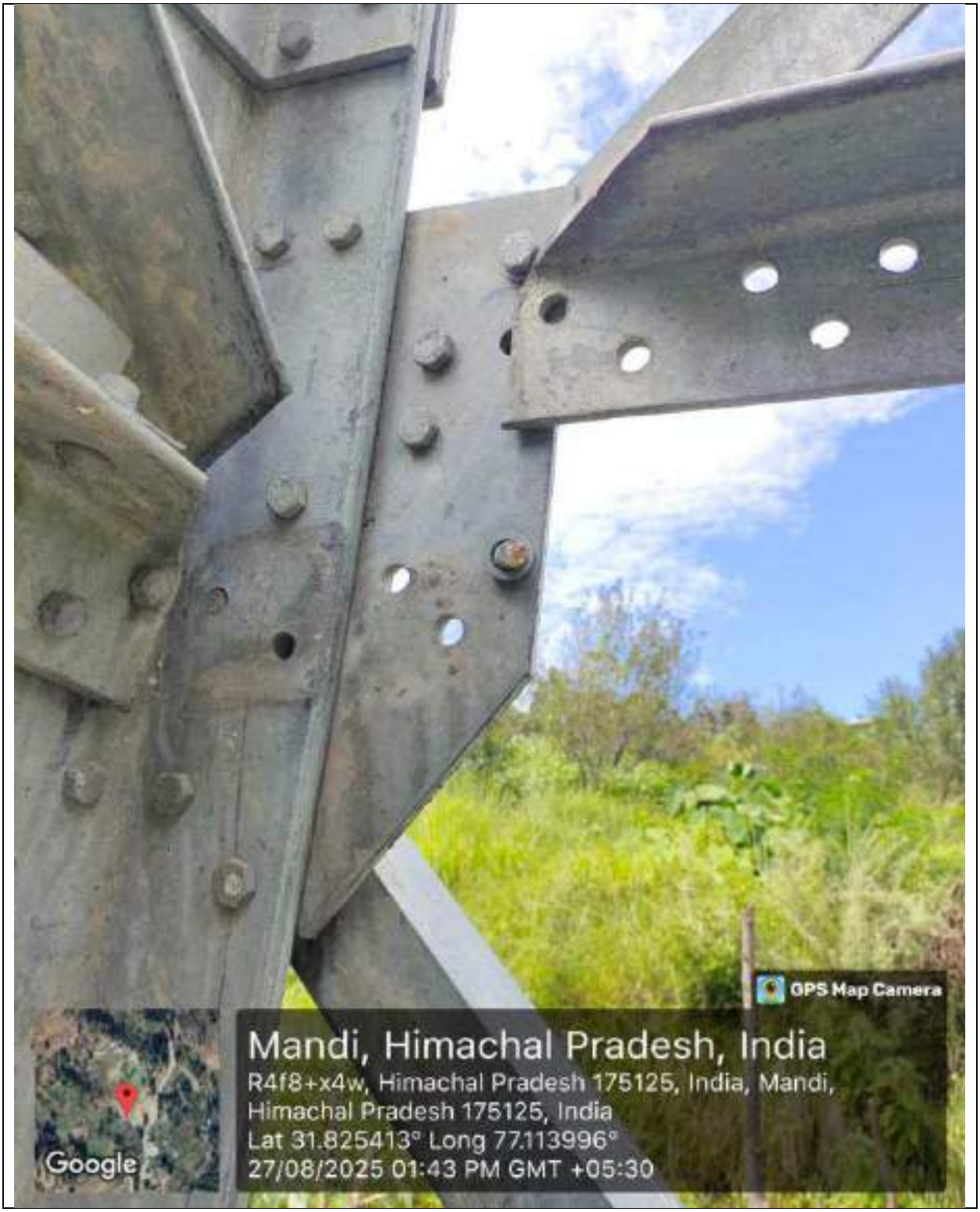
- S/D has to be extended till 28.09.2025 as brought out below :

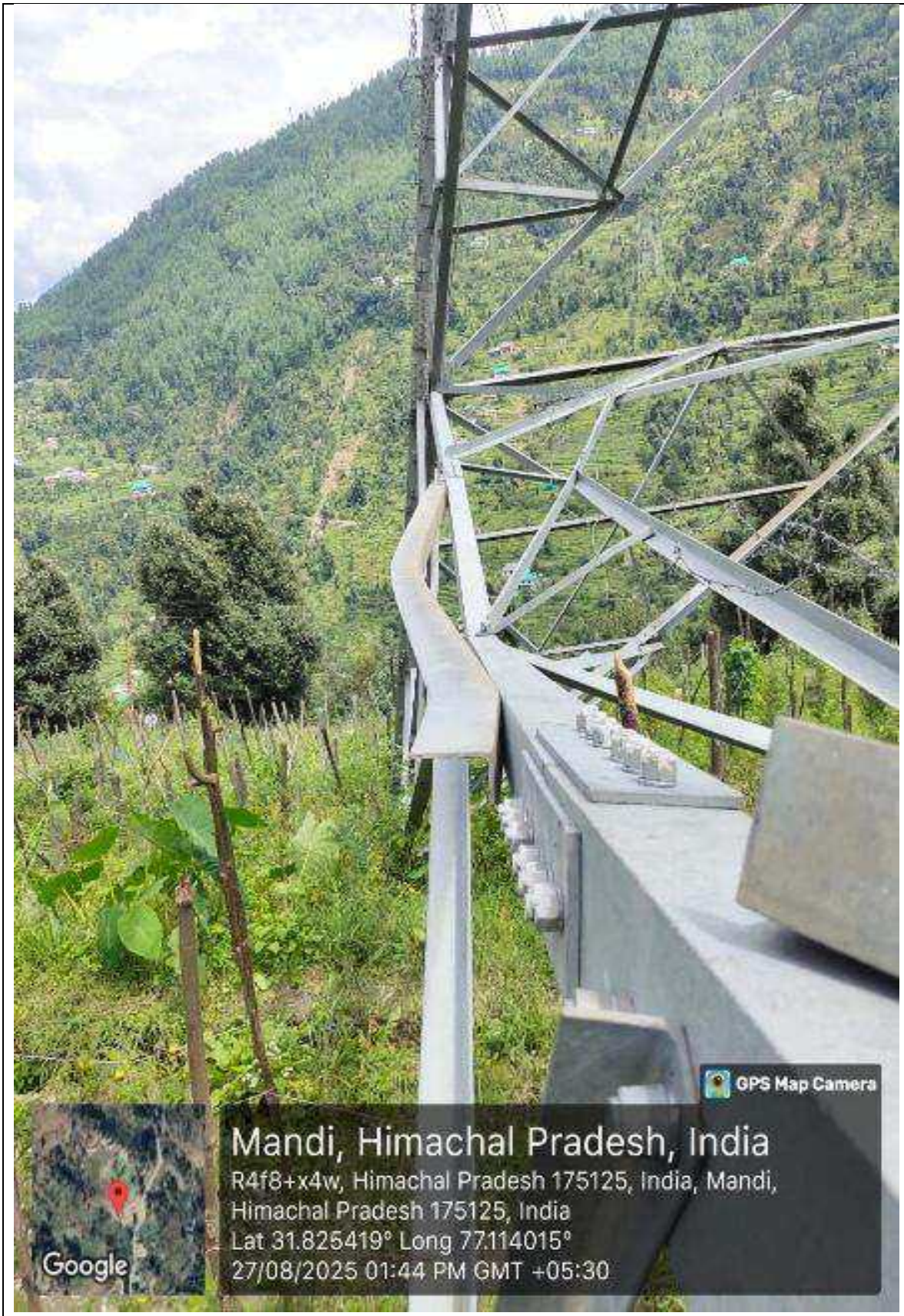
INSPECTION OF TOWER AFTER SD

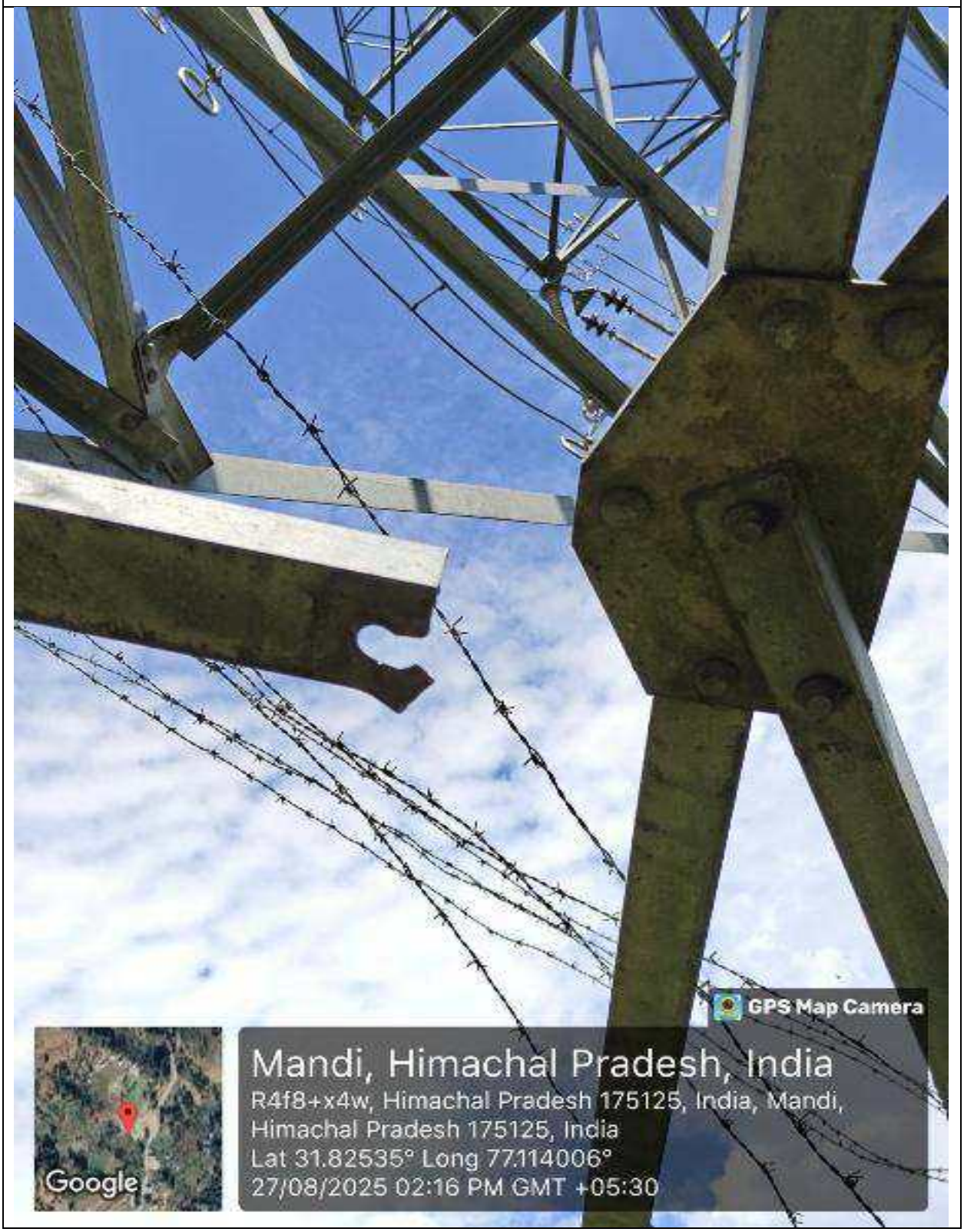
Photo Showing Damage to Tower – Loc 39




Mandi Division, Himachal Prades...
Latitude
31.8253° N
Longitude
77.114° E
21° C
Wednesday, 2025, Aug...
11 : 48 a m


GPS Map Camera
Mandi, Himachal Pradesh, India
R4f8+x4w, Himachal Pradesh 175125, India, Mandi,
Himachal Pradesh 175125, India
Lat 31.825413° Long 77.113996°
27/08/2025 01:43 PM GMT +05:30
Google


GPS Map Camera
Mandi, Himachal Pradesh, India
R4f8+x4w, Himachal Pradesh 175125, India, Mandi,
Himachal Pradesh 175125, India
Lat 31.825419° Long 77.114015°
27/08/2025 01:44 PM GMT +05:30
Google


GPS Map Camera
Google
Mandi, Himachal Pradesh, India
R4f8+x4w, Himachal Pradesh 175125, India, Mandi,
Himachal Pradesh 175125, India
Lat 31.82535° Long 77.114006°
27/08/2025 02:16 PM GMT +05:30

S/D Allowed : 27 Days

19:00 Hrs of 27.08.2026 to 19:00 Hrs of 22.09.2026

ACTUAL S/D Availed : 32 days

19:00 Hrs of 27.08.2026 to 21:20Hrs of 28.09.2026

Details of woks:

- Erection of LOC No 39
- Stringing from 38 to 39 to 40

Reason beyond control resulting in SD extension

- Destringing of sinking tower was a challenge
- Safe dismantalling of damaged tower was a challenge
- NH remains blocked for 12 days
- Link road remains blocked at multiple locations resulting head loading for longer distance
- ROW Issues
- Intermitant rains

INTERMITANT CLOSURE OF Mandi to Kullu NH from 28.08.2025 to 21.09.2025 due to NH washed away at multiple locations and multiple land slides caused by continuous rains in the area

CHANDIGARH MANALI NH CLOSED FOR TRAFFIC ON 28.08.2025

10:24 5G

Hindustan Times Subscribe

Himachal rain: Kullu dist cut off as Chandigarh-Manali NH damaged

Published on: Aug 27, 2025 5:03 PM IST
By Shalini Dogra , Shimla

People walking over a portion of a road that was washe..

Hundreds of cargo vehicles stranded as raging Beas river ravages stretches of highway, leading to closure from Pandoh to Aut in Mandi district for the three days.

OPEN APP

Amid heavy rain in Himachal Pradesh, Kullu district has been cut off with the Chandigarh-Manali national highway damaged and closed for traffic from Pandoh to Aut due to landslides in Mandi district and the raging Beas river wreaking havoc for the

10:22 5G

INDIA TODAY Magazine Live TV Search

News / India / Ground report: Key highway to Manali blocked, flood ...

Ground report: Key highway to Manali blocked, flood waters pass through toll booth

Incessant rain has submerged the Kullu toll plaza, washed away over 200 meters of the Chandigarh-Manali Highway, and left hundreds stranded as landslides, flash floods, and cloudbursts batter Himachal Pradesh.

Live TV Share

Around 200 meters of the Chandigarh-Manali Highway has been completely washed away due to heavy rain.

Aseem Bassi
Kullu, UPDATED: Aug 28, 2025 13:59 IST
Edited By: Sahil Sinha

Hundreds of vehicles, including trucks and passenger cars, were stranded for the third

MANDI KULLA NH Closed on 28.08.2025	MANDI KULLA NH Closed on 29.08.2025

ROAD CLOSED ON 31.08.2025	ROAD CLOSED ON 01.09.2025	MANDI MANALI NH Closed till 02.09.2025

Mandi Kullu NH Closed till 05.09.2025

Mandi Kullu NH Opened on 06.09.2025

Mandi Kullu NH Closed on 07.09.2025

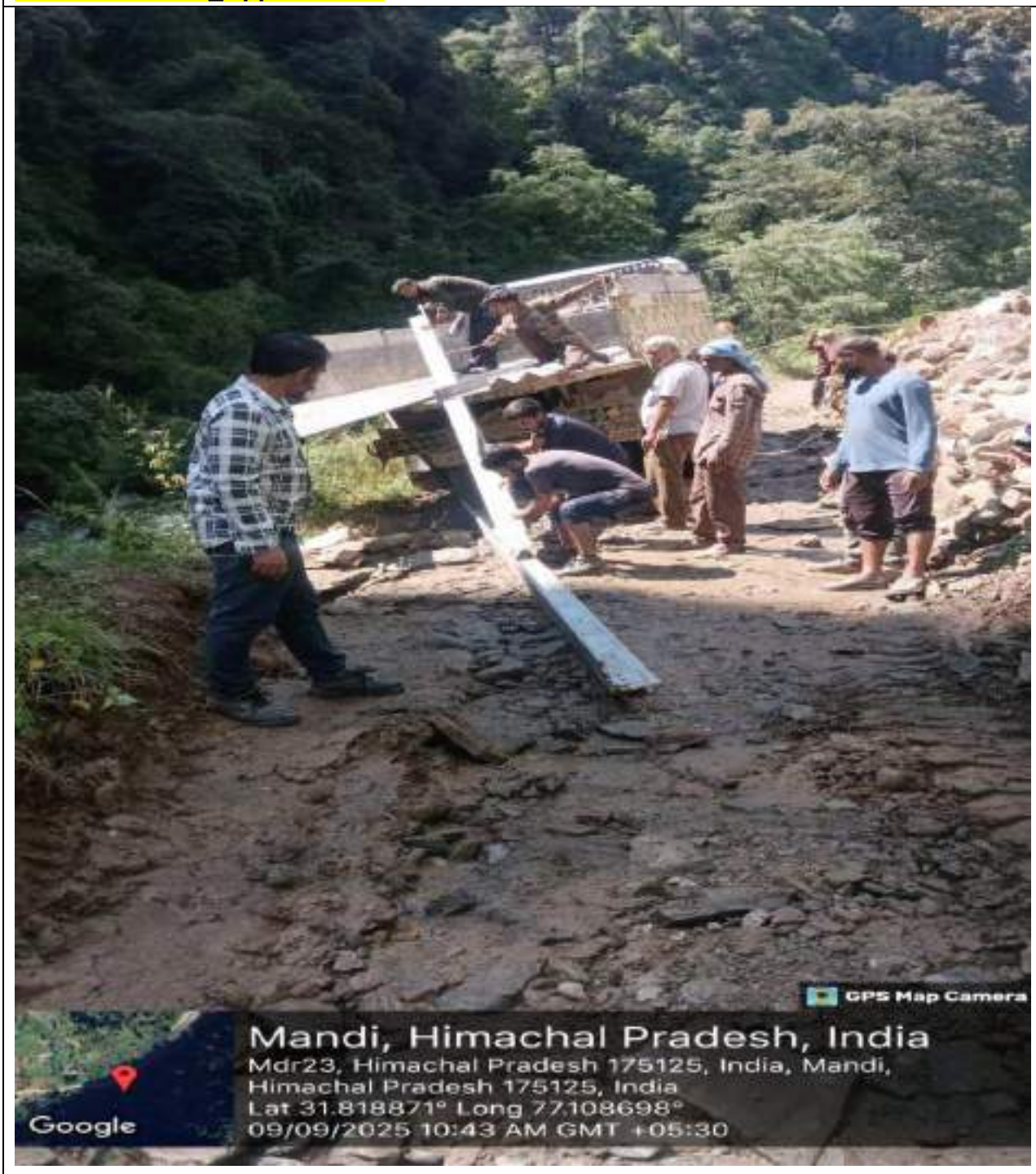
Mandi Kullu NH closed on 10.09.2025

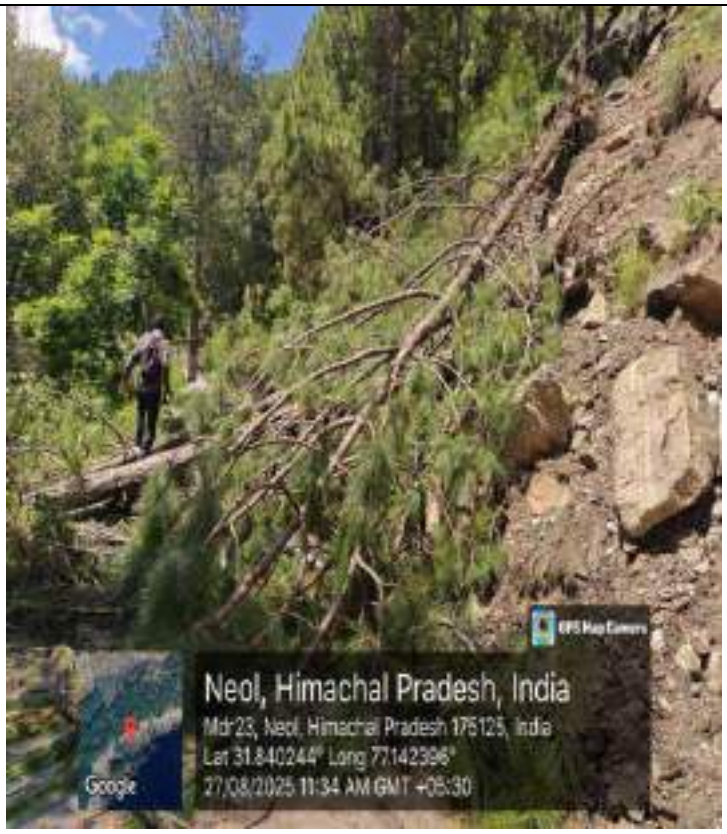
Mandi Kullu road remains partially closed on 14.09.2026

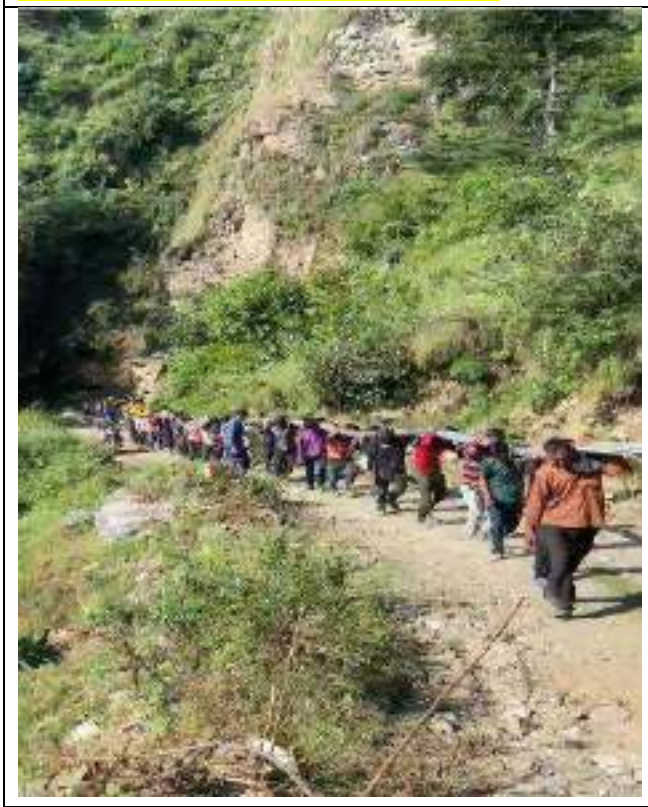
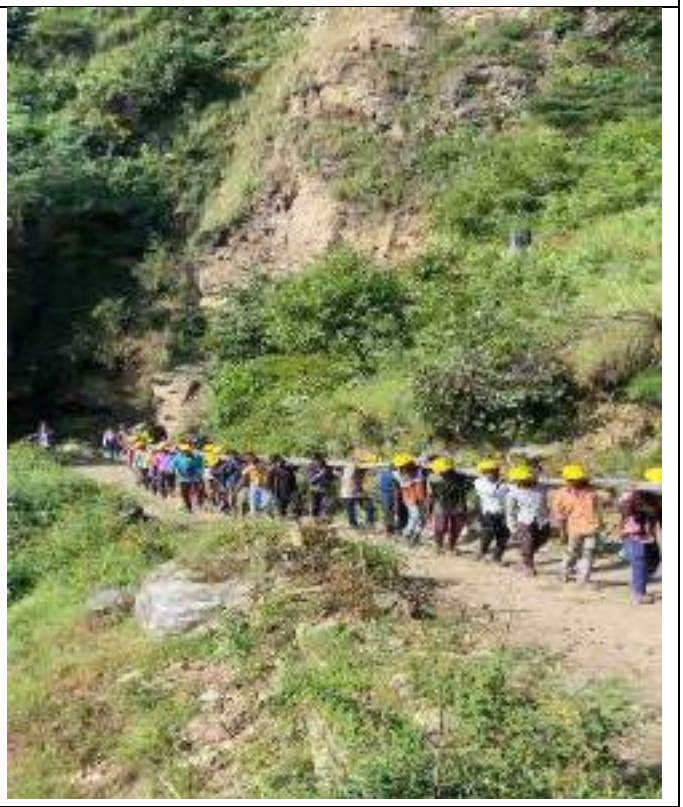
NH closed due to heavy rains and land slides on 21.09.2025

LINK ROAD from Kullu to upto Tower 7.0KM

HEADLOADING_Approx. 1KM



Truck with Tower material	3.17 KM From Tower
	
5.5KM FROM TOWER	**5.7KM FROM TOWER**

5.0KM FROM TOWER	5.9KM FROM TOWER
CONDUCTOR HEAD LOADING	
	

ROW ISSUE

GPS Map Camera
Mandi, Himachal Pradesh, India
R4f8+3g5, Himachal Pradesh 175125, India, Mandi, Himachal Pradesh 175125, India
Lat 31.823046° Long 77.11812°
12/09/2025 01:43 PM GMT +05:30
Google

Delay summary

Summary of NH Blocked for 14 days:

Sr No	Date	Remarks
1	**27.08.2025 to 05.09.2025**	Mandi to Kullu NH remains closed due NH washed away at multipl locations
2	07.09.2025	Mandi Kullu NH remains closed due to shooting stones caused by frequent rains/landslides
3	10.09.2025	Mandi Kullu NH suspended due to damage to Flyover in Kullu area
4	14.09.2025	Mandi Kullu NH suspended due to Rains/Landslides
5	21.09.2025	Due to heavy rains and land slides, several patches of Mandi Kullu NH washed away resulting in suspension of traffic

Summary of link road blocked :

Link Road from NH to Tower remains blocked resulting in headloading for longer distance		
1	27.08.2025	Link Road 3.17 KM from Tower Blocked
2	05.09.2025	Link Road 5.5 KM from Tower Blocked
3	05.09.2025	Link Road 5.7 KM from Tower Blocked
4	06.09.2025	Link Road 5.0 KM from Tower Blocked
5	06.09.2025	Link Road 5.9 KM from Tower Blocked
6	09.09.2025	Link Road Approx 1 KM from Tower Blocked

Thanks

REPORT ON INSPECTION OF TOWER LOCATION NO. 39 OF 400 KV D/C BANALA-AMRITSAR & BANALA HAMIRPUR TRANSMISSION LINE

OF

POWERGRID CORPORATION OF INDIA LIMITED

(BY COMMITTEE CONSTITUTED BY MEMBER SECRETARY, NRPC)

DECEMBER-2024

NEW DELHI

Report on inspection of tower loc. no. 39 of 400 kV D/C Banala-Amritsar & Banala Hamirpur T/L

A. Reporting of event

POWERGRID vide letter no N2JM/AM/TL/2024/92-93 dated 02.09.2024 (Copy attached at **Annexure-I**) reported that tower location no. 39 of 400 kV D/C Banala-Amritsar & Banala Hamirpur Transmission line has become vulnerable and critical due to incessant rainfall and hill sinking that took place in and around village Payal (Distt. Mandi, H.P.) during July and August 2024. Further, it was informed that multiple cracks in land near tower base of tower location no. 39, adjoining areas as well as cracks on walls & floors of the nearby houses have been observed.

B. Committee for inspection

During 69th NRPC meeting held on 27.09.2023, it was decided to form a committee in case of tower collapse and equipment failure to inspect site for finding out cause of incident so that monthly availability certification of transmission licensees may be done timely. As per the reporting of PowerGrid, the tower at location no. 39 of 400 kV D/C Banala – Amritsar & Banala Hamirpur T/L line was prone to damage and collapse, a committee consisting of following members from NRPC, HPPTCL and M/S AD Hydro was constituted by NRPC Secretariat for inspection of aforesaid tower:

1. Sh. Ravi Kant, EE NRPC
2. Sh. Rajinder Kumar, Sr. Mgr (E) HPPTCL
3. Er. Devesh Sharma, Asst. Engineer (Civil), HPPTCL
4. Sh. Pankaj Rana, Mgr, ADHYDRO

(Committee constitution order attached at **Annexure-II**)

Er. Devesh Sharma could not come to the site for inspection. Accordingly, the above constituted committee visited the site of affected tower location no. 39 of 400 kV D/C Banala – Amritsar & Banala Hamirpur Transmission line on 06.12.2024 along with PowerGrid officers.

C. Committee observation during inspection

C.1 Condition of tower

i. The horizontal belt member of bottom section connecting tower legs A and B was **found bent** due to the land sinking at leg A.

ii. The main tower leg A found bent inwards.

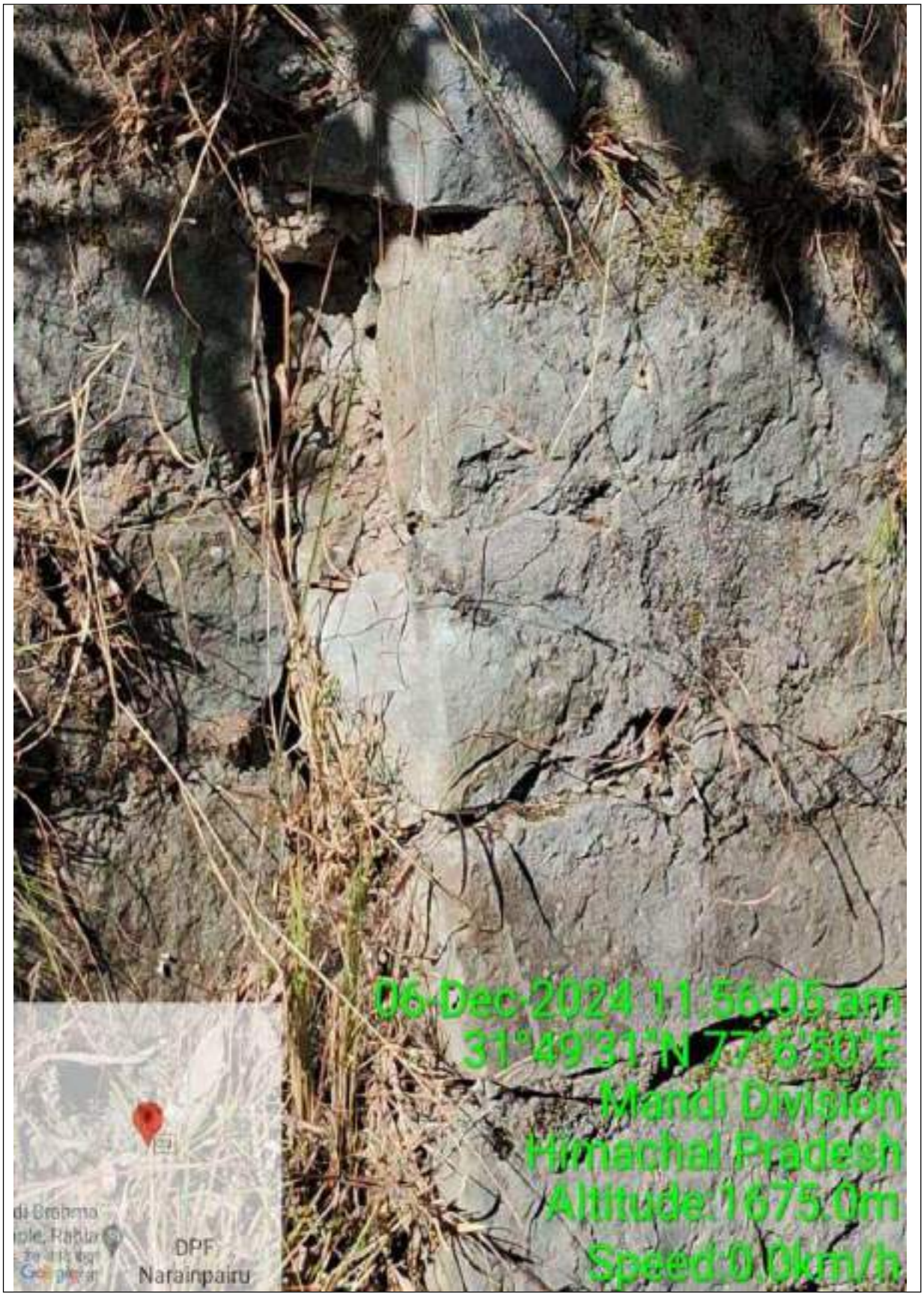
iii. The main tower leg B found bent inwards

iv. The main tower leg C found was also bent inwards and the horizontal belt member of bottom section connecting tower legs C and D found bent. Due to bending of tower leg, crack in associated cleat plate was also observed.

C.2 Condition of nearby area and destruction due to rain reported by POWERGRID:

i. During the site visit, it has been observed that land settlement/ sinking has taken place on both the uphill side and the downhill side of tower location no. 39. Multiple cracks in land near the tower no. 39 have been observed. The satellite depiction of tower and nearby land sinking issues found during committee visit is given as under:

ii. PHOTO SET #1 - Major cracks nearby tower (17m from tower):

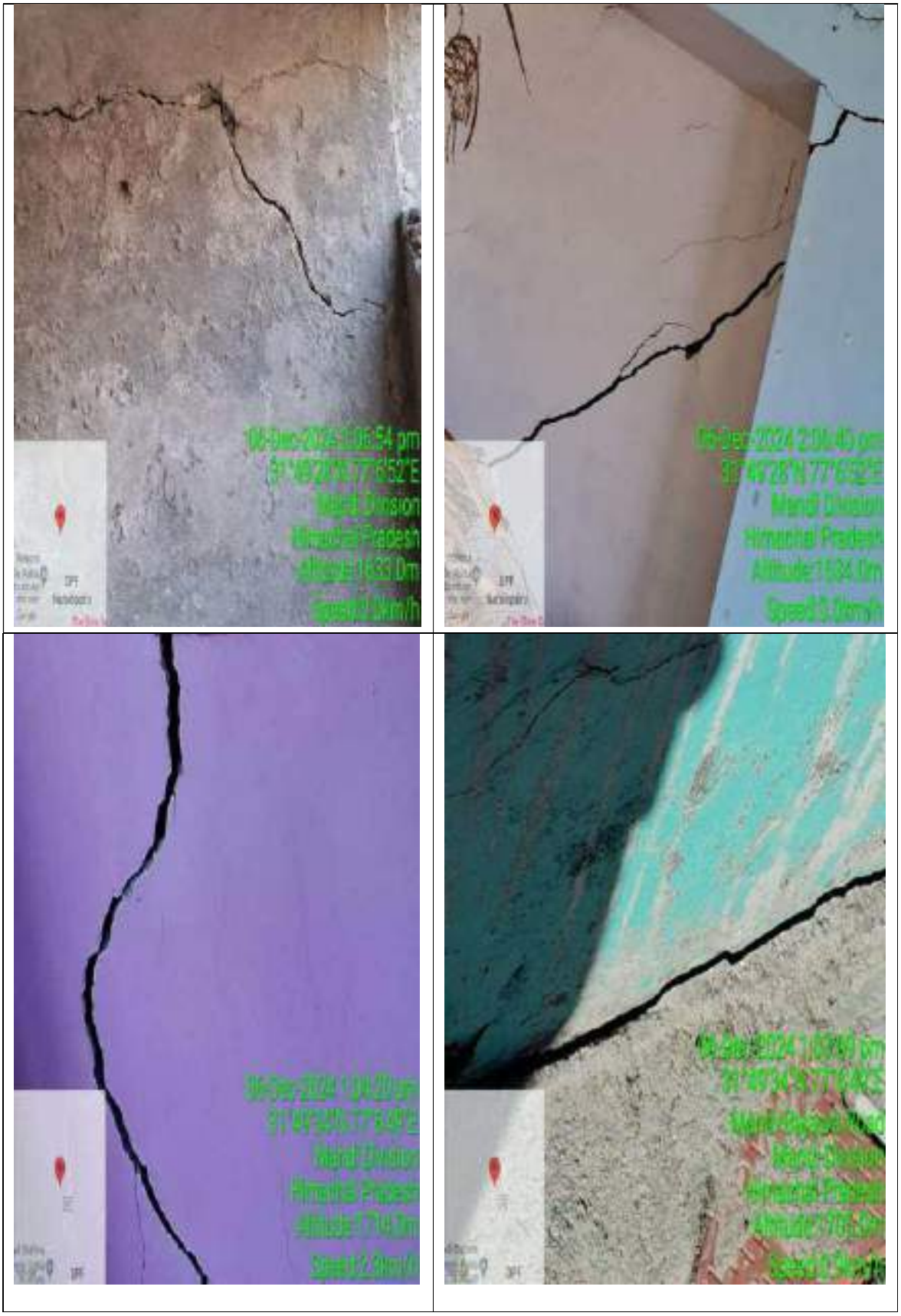

06 Dec 2024 11:56:05 am
31°49'31"N 77°6'50"E
Mandi Division
Himachal Pradesh
Altitude:1675.0m
Speed:0.0km/h
DPF
Narainpairu

iii. Photo Set #2 - Around 4-5 nos. of deep cracks (10 Feet long and 2 feet deep) have been observed approx. 50m away from tower on uphill side:

06 Dec 2024 1:41:13 pr
31°49'32"N 77°6'50"
Mandi Divisio
Himachal Prades
Altitude 1657.0r
Speed 0.0km/
DPF
Narainpairu
Google

iv. Photo Set # 3 - Cracks in village approach path and land sinking at around 95m away from the tower location

v. Photo Set # 4 - Cracks in village Houses towards uphill side around 80m from affected tower



vi. Photo Set # 5 - Cracks in village Houses towards downhill side around 60m from affected tower

vii) Committee member along with PowerGrid Officers at site of tower location - 39

D. Committee Observations

i. Based on above findings, it may be arrived that land /hill sinking had occurred at multiple locations near and around the tower no. 39.

ii. Due to above sinking, main tower legs as well as belt members connecting these legs were found bent. Due to bending of tower leg C, crack in associated cleat plate was also observed.

iii. As a temporary protection measure, stay arrangement using guy wires has been provided to safeguard the tower from further bending.

E. Conclusion and recommendations

As tower location 39 of 400 kV Banala – Amritsar & Banala Hamirpur Transmission line has become vulnerable due to land sinking and consequent bending of main legs and other tower members. POWERGRID may assess the strength of tower and may take necessary action to support tower structure. Patrolling of tower may be increased. PowerGrid may take necessary preventive action including assessing measures for diversion of line from affected tower on new tower located in stable area.

Sh Ravi Kant Executive Engineer, NRPC	Er Rajinder Kumar Sr. Manager(E) HPPTCL	Sh Pankaj Rana Manager, AD Hydro

Date: 13/12/2024

Govt. of India,
Ministry of Earth Sciences,
India Meteorological Department,
Meteorological Centre,
Shimla-171004

Monthly Weather Report (August 2025)

1. Weather summary

- Himachal Pradesh has received **widespread** precipitation during many days of August month with **normal to active** activity on many days; **vigorous** activity on 2 days (dated 25th & 26th August 2025) and **weak** activity on 5 days (dated 08th, 10th, 11th, 13th and 22nd August 2025).
- Himachal Pradesh has received the **9th highest rainfall** (431.3 mm) in August since 1901. This is the **highest August rainfall since 1949**, with the highest ever recorded in **1927** (542.4 mm).

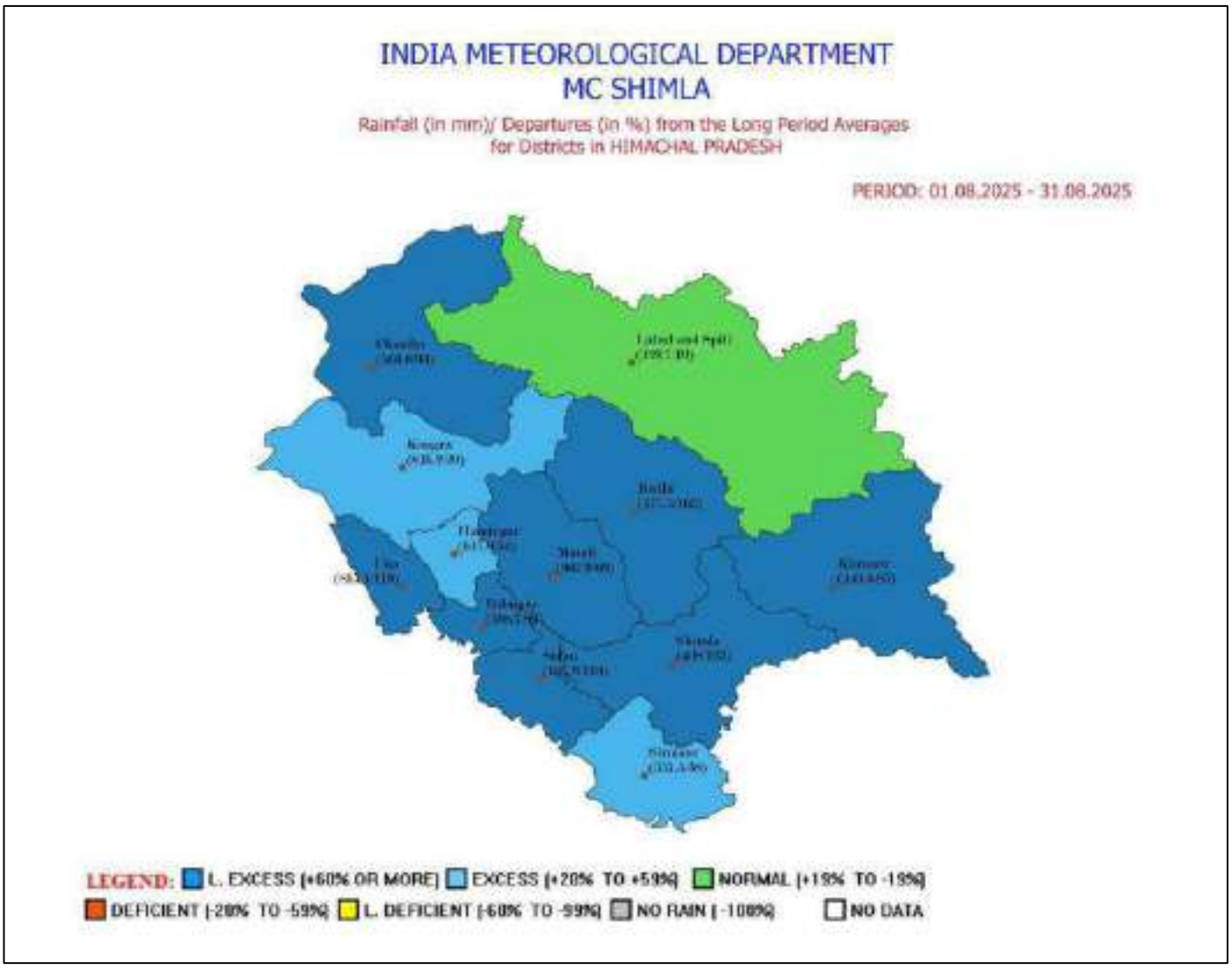
2. Monthly precipitation and departure-

- The State received **large excess** precipitation **(68%)** with **431.3 mm** actual rainfall against **256.8 mm** normal rainfall in August month.
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.

❖ Himachal Pradesh has received

- **Extremely Heavy rain** (in mm) in Una (distt. Una) 222.8 on 02nd August, 2025.
- **Very Heavy rain** (in mm) in Chuari (Distt. Chamba) 118 On 01ST August; Amb(Distt. Una) 154.8, Bilaspur Sadar (Distt. Bilaspur) 120.8 On 02ND Aug; Mandi (Distt. Mandi) 151.2 On 05TH Aug; Kasauli (Distt. Solan) 145, Dharampur (Distt. Solan) 122.8, Gohar (Distt. Mandi) 120 on 06TH Aug; Nalagarh (Distt. Solan) 120, Bharwain (Distt. Una) 120 On 07TH Aug; Nagrota Surian (Distt. Kangra) 180.2, Guler (Distt. Kangra) 161.2 On 12TH Aug; Pachhad (Distt. Sirmaur) 153.2 On 14TH Aug; Naina Devi (Distt. Bilaspur) 160.6 On 16TH Aug; Kataula (Distt. Mandi) 116.3 On 17TH Aug; Amb (Distt. Una) 150 On 20TH Aug; Una (Distt. Una) 132.6 On 21ST Aug; Kheri (distt. Chamba) 129, Pandoh (Distt. Mandi) 123 On 24TH Aug, Kahu (Distt. Bilaspur) 190.5, Ghumarwin (Distt. Bilaspur) 160, Barthin (Distt. Bilaspur) 156.4, Naina Devi (Distt. Bilaspur) 148.4, Kheri (distt. Chamba) 142, Bilaspur Sadar (Distt. Bilaspur) 140.8, Chuari (Distt. Chamba) 140.2, Mehre (Barsar) (Distt. Hamirpur) 127 On 25TH Aug; Naina Devi (Distt. Bilaspur) 160.8, Kheri (distt. Chamba) 128.6, Chuari (Distt. Chamba) 125.2 On 26TH Aug; Jatton Barrage (distt. Sirmaur) 138 on 29th Aug.
- **Heavy rain** (in mm) in CHUARI (distt. Chamba) 96, BHARWAIN (distt. Una) 92, NADAUN (distt. Hamirpur) 73.6, BARTHIN (distt. Bilaspur) 69.6, SUJANPUR TIRA (distt. Hamirpur) 68.4, DEHRA GOPIPUR (distt. Kangra) 67.2, CHAMBA AWS (distt. Chamba) 66 on 02nd Aug; BHARERI (distt. Hamirpur) 108.2, NAINA DEVI (distt. Bilaspur) 74.4, on 03rd Aug; KASAULI (distt. Solan) 82 on 04th Aug; BIJAHI (distt. Mandi) 105.6, SUNDARNAGAR (distt. Mandi) 84.1, NADAUN (distt. Hamirpur) 78, GOHAR (distt. Mandi) 72 on 05th Aug; CHUARI (distt. Chamba) 98.4, NAGROTA SURIAN (distt. Kangra) 93.4, PACHHAD (distt. Sirmaur) 88, NAINA DEVI (distt. Bilaspur) 86.4, BIJAHI (distt. Mandi) 84.4, KUMARSAIN (distt. Shimla) 80.4, SUNDARNAGAR (distt. Mandi) 80.3, KANGRA (distt. Kangra) 71.4, BILASPUR SADAR (distt. Bilaspur) 70.4, GULER (distt. Kangra) 68.4, KARSOG (distt. Mandi) 68, Dhaulakuan (distt. Sirmaur) 67, BANJAR (distt. Kullu) 66, SUNIBHAJJI (distt. Shimla) 66, NALAGARH (distt. Solan) 66, MANDI (distt. Mandi) 65.8, on 06th Aug; NAINA DEVI (distt. Bilaspur) 92.6, PACHHAD (distt. Sirmaur) 75.1, R L BBMB (distt. Bilaspur) 73 on 07th Aug; NAINA DEVI (distt. Bilaspur) 112.4, PANDOH (distt. Mandi) 102, BANGANA_R (distt. Una) 86.4, R L BBMB (distt. Bilaspur) 67, PACHHAD (distt. Sirmaur) 67, NARKANDA AWS (distt. Shimla) 66.5, KUMARSAIN (distt. Shimla) 65.4, KASAULI (distt. Solan) 65.2 on 09th Aug; KANGRA (distt. Kangra) 68.4 on 10th Aug; GHAMROOR (distt. Kangra) 112.2, Sandhole (distt. Mandi) 78.8, NADAUN (distt. Hamirpur) 78.5, DEHRA GOPIPUR (distt. Kangra) 76.2, JOGINDARNAGAR (distt. Mandi) 74, KANGRA (distt. Kangra) 73.8, Bhareri (distt. Hamirpur) 70.2, PALAMPUR (distt. Kangra) 69, SUJANPUR TIRA (distt. Hamirpur) 66, BIJAHI (distt. Mandi) 65.2 on 12th Aug; RAJGARH (distt. Sirmaur) 102, KANDAGHAT (distt. Solan)100, JATTON BARRAGE (distt. Sirmaur) 87, UNA (distt. Una) 85.4 SOLAN (distt. Solan)81.4, KOTKHAI (distt. Shimla) 77.4, Shillaro (distt. Shimla) 73, JUBBAL (distt. Shimla) 72.6, SHIMLA (distt. Shimla) 69, KUFRI (distt. Shimla) 66, JUBBERHATTI (distt. Shimla) 65.2, RENUKA / DADHAU (distt. Sirmaur) 64.6 on 14th Aug; JOGINDARNAGAR (distt. Mandi) 106, PALAMPUR (distt. Kangra) 102.4, Bhareri (distt. Hamirpur) 75.4, KHERI (distt. Chamba) 73.2, Kataula (distt. Mandi) 67.2, NARKANDA AWS (distt. Shimla) 66, NAINA DEVI (distt. Bilaspur) 64.8 on 15th Aug;

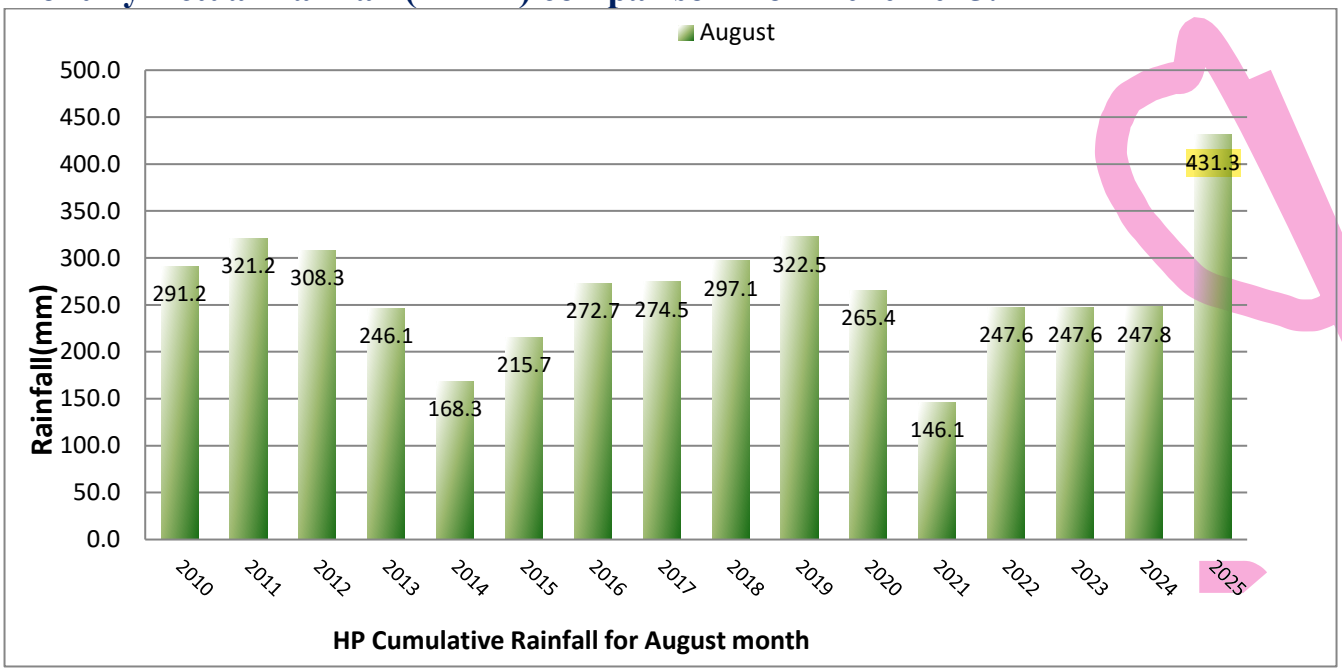
PALAMPUR (distt. Kangra) 101.4, Sandhole (distt. Mandi) 80.2, PANDOH (distt. Mandi) 72.4 on 16th Aug; KANGRA (distt. Kangra) 110.8, NAGROTA SURIAN (distt. Kangra) 107, NAHAN (distt. Sirmaur) 103.2, JOGINDARNAGAR (distt. Mandi) 84, NALAGARH (distt. Solan) 80, PAONTA (distt. Sirmaur) 69.8, KHERI (distt. Chamba) 67.6, Dhaulakuan (distt. Sirmaur) 67 on 17th Aug; Dhaulakuan (distt. Sirmaur) 113, AGHAR (distt. Hamirpur) 80, SANGRAHA (distt. Sirmaur) 72 on 18th Aug; JUBBERHATTI (distt. Shimla) 73 on 19th Aug; BHARWAIN (distt. Una) 68 on 20th Aug; NALAGARH (distt. Solan) 65 on 23rd Aug; Kasauli (distt. Solan) 105, Sarkaghat (distt. Mandi) 80.5, KARSOG (distt. Mandi) 68, MANDI (distt. Mandi) 68, on 24th Aug; AMB (distt. Una) 111, AGHAR (distt. Hamirpur) 110.6, BANGANA_R (distt. Una) 104, GHAMROOR (distt. Kangra) 95.8, BHARWAIN (distt. Una) 94.4, NADAUN (distt. Hamirpur) 94, HAMIRPUR (distt. Hamirpur) 92, DHARMSHALA (distt. Kangra) 87.4, Bhareri (distt. Hamirpur) 85.9, Sandhole (distt. Mandi) 85.2, KASAULI (distt. Solan) 85, SUNDARNAGAR (distt. Mandi) 84.2, BALDWARA (distt. Mandi) 84, SALONI (distt. Chamba) 83.3, UNA (distt. Una) 80.8, SUJANPUR TIRA (distt. Hamirpur) 80, NALAGARH (distt. Solan) 75, DHARAMPUR (distt. Solan) 68.6, DEHRA GOPIPUR (distt. Kangra) 68.3, CHAMBA AWS (distt. Chamba) 67, R L BBMB (distt. Bilaspur) 66, PALAMPUR (distt. Kangra) 65.4 on 25th Aug; DHARMSHALA (distt. Kangra) 102, MANALI (distt. Kullu) 102, GHAMROOR (distt. Kangra) 91.4, KANGRA (distt. Kangra) 89, NAGROTA SURIAN (distt. Kangra) 88.8, PALAMPUR (distt. Kangra) 88, KOTHI (distt. Kullu) 85.8, BHARWAIN (distt. Una) 85, Tissa (distt. Chamba) 80, BHUNTAR (distt. Kullu) 77.2, Gondla (distt. Lahaul-Spiti) 75.6, CHAMBA AWS (distt. Chamba) 74, SANGRAHA (distt. Sirmaur) 72, GULER (distt. Kangra) 71.8, Kukumseri Aws (distt. Lahaul-Spiti) 71.5, Seobagh (distt. Kullu) 70.8, Kumarsain (distt. Shimla) 70.6, KARSOG (distt. Mandi) 65.2, Kasol (distt. Kullu) 65 on 26th Aug; Kheri (distt. Chamba) 89.2, Kothi (distt. Kullu) 69, Saloni (distt. Chamba) 65.2 on 27th August; Pandoh (distt. Mandi) 108 on 28th Aug; Renuka / Dadhau (distt. Sirmaur) 114, Palampur (distt. Kangra) 91.4, Bharwain (distt. Una) 80, Sandhole (distt. Mandi) 77.8, Paonta (distt. Sirmaur) 75, Kataula (distt. Mandi) 73.4, Sangraha (distt. Sirmaur) 70, Rajgarh (distt. Sirmaur) 65 on 29th Aug; Chuari (distt. Chamba) 104, Jogindarnagar (distt. Mandi) 86, Rampur Bushar (distt. Shimla) 75.5, Dharmshala (distt. Kangra) 69.4 on 30th Aug; Naina Devi (distt. Bilaspur) 82.8, R L Bbmb (distt. Bilaspur) 80, Chuari (distt. Chamba) 75.2 on 31st Aug.



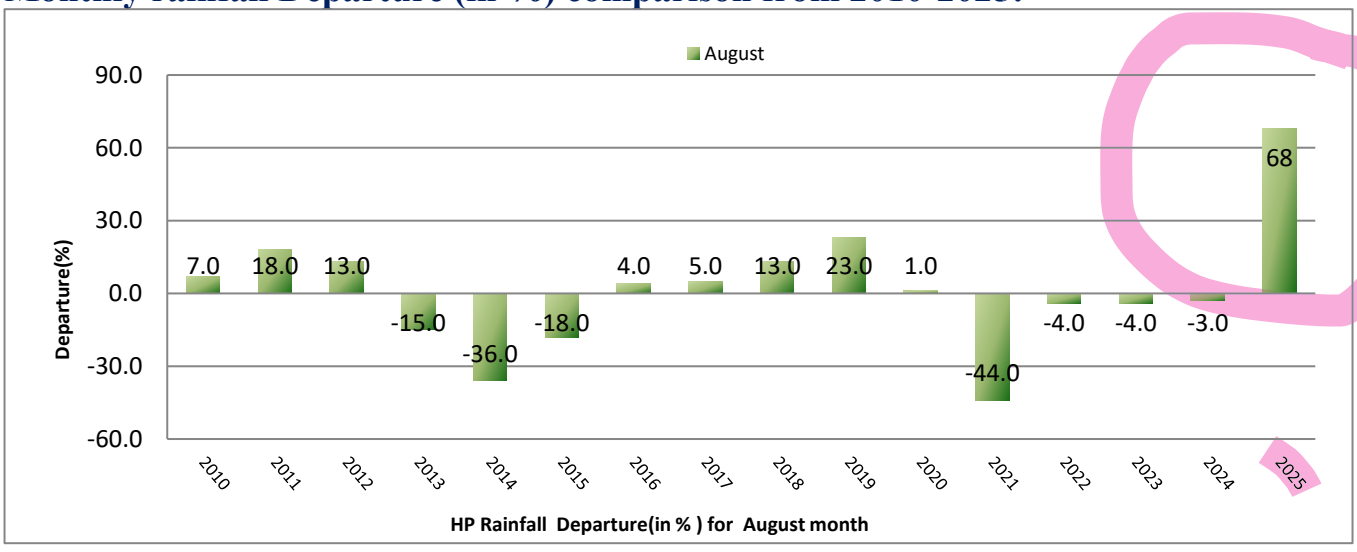
3. District wise monthly rainfall (in mm) and Departure (in %)

(01st August to 31st August) 2025			
DISTRICTS	Actual (in mm)	Normal (in mm)	Dep (in%)
BILASPUR	598.7	316.8	89
CHAMBA	561.6	291.7	93
HAMIRPUR	617.9	400.6	54
KANGRA	816.2	631.5	29
KINNAUR	143.3	77.6	85
KULLU	477.5	180.2	165
LAHAUL & SPITI	129.7	117.6	10
MANDI	667.9	395.3	69
SHIMLA	438	196.4	123
SIRMAUR	557.5	402.1	39
SOLAN	627.9	287.9	118
UNA	815.1	372.2	119
HP	431.3	256.8	68

4. Monthly Actual Rainfall (in mm) comparison from 2010-2025: -



5. Monthly rainfall Departure (in %) comparison from 2010-2025: -



6. Monthly Rainfall distribution and Rainfall Activity for August month.

HIMACHAL PRADESH					
Date	**Distribution**	**Activity**	Date	**Distribution**	**Activity**
01-08-2025	WIDE SPREAD	NORMAL	**17-08-2025**	WIDE SPREAD	ACTIVE
02-08-2025	WIDE SPREAD	ACTIVE	**18-08-2025**	WIDE SPREAD	NORMAL
03-08-2025	WIDE SPREAD	NORMAL	**19-08-2025**	FAIRLY WIDE SPREAD	NORMAL
04-08-2025	WIDE SPREAD	NORMAL	**20-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
05-08-2025	WIDE SPREAD	ACTIVE	**21-08-2025**	FAIRLY WIDE SPREAD	NORMAL
06-08-2025	WIDE SPREAD	ACTIVE	**22-08-2025**	ISOLATED	WEAK
07-08-2025	FAIRLY WIDE SPREAD	NORMAL	**23-08-2025**	SCATTERED	NORMAL
08-08-2025	ISOLATED	WEAK	**24-08-2025**	WIDE SPREAD	ACTIVE
09-08-2025	FAIRLY WIDE SPREAD	NORMAL	**25-08-2025**	WIDE SPREAD	VIGOROUS
10-08-2025	SCATTERED	WEAK	**26-08-2025**	WIDE SPREAD	VIGOROUS
11-08-2025	FAIRLY WIDE SPREAD	WEAK	**27-08-2025**	WIDE SPREAD	ACTIVE
12-08-2025	WIDE SPREAD	ACTIVE	**28-08-2025**	FAIRLY WIDE SPREAD	NORMAL
13-08-2025	SCATTERED	WEAK	**29-08-2025**	WIDE SPREAD	ACTIVE
14-08-2025	WIDE SPREAD	ACTIVE	**30-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
15-08-2025	WIDE SPREAD	ACTIVE	**31-08-2025**	WIDE SPREAD	ACTIVE
16-08-2025	FAIRLY WIDE SPREAD	NORMAL			

7. Chief Amount of Rainfall (in mm) August 2025

Date	Station
01-08-2025	Chuari 118, Manali 57, Banjar 52.4, Bharwain 47, Bhareri 45.2, Kothi 40, Naina Devi 36, Saloni 36, Tinder 35, Kasol 34, Amb 32.6, Sarahan 30, Chamba Aws 29, Tissa 28, Kheri 27, Sarkaghat 25.3, Baldwara 23, Sangraha 23, Renuka / Dadhau 22.7, Hamirpur 21, Wangtoo 20.6, Jatton Barrage 19.6, Nichar 18.5, Jogindarnagar 17, Bharmaur 16, Chhatrari 14.9, Bijahi 14.6, Sunibhajji 13, Karsog 12.1, Bhoranj 12, Sundarnagar 12, Mandi 11.6, Guler 11.2, Bilaspur Sadar 10.4, Nagrota Surian 10, Sangla 9.8, Ghamroor 9.4, Palampur 9.4, R L Bbmb 9.2, Ghumarwin 9, Nadaun 8.4, Seo Bagh 8.4, Dharmshala 8.3, Aghar 8.2, Sujanpur Tira 8, Paonta 8, Kukumsheri Aws 7.6, Bhuntar 6.4, Kalpa 5.6, Dehra Gopipur 5.4, Keylong 5, Gohar 5, Janjehli 5, Rampur Bushar 5, Kangra 4.9, Barthin 4.8, Pachhad 4.3, Koksar 3.7, Bangana_R 3.6, Una 3.6, Nahan 3.1, Gondla 2.8, Kufri 2.6, Pandoh 2.5, Jubbal 2.4, Shillaro 2, Kahu 1.8, Theog 1.8, Shimla 1.7, Jubberhatti 1.6, Kataula 1.1, Bilaspur Aws 0.5, Moorang 0.2, Kotkhai 0.1
02-08-2025	Una 222.8, Amb 154.8, Bilaspur Sadar 120.8, Chuari 96, Bharwain 92, Nadaun 73.6, Barthin 69.6, Sujanpur Tira 68.4, Dehra Gopipur 67.2, Chamba Aws 66, Dharmshala 64, Nahan 62.3, Ghamroor 62.2, Hamirpur 62, Kheri 54.4, Aghar 52.8, Bangana_R 52.3, Kumarsain 50.6, Kataula 50.4, R L Bbmb 48.2, Saloni 48.2, Bhareri 48.2, Mehre (Barsar) 46, Kangra 42.3, Kothi 41, Nagrota Surian 40.2, Tissa 40, Jogindarnagar 40, Palampur 36, Bhuntar 35.8, Manali 35, Mandi 34.4, Seo Bagh 30.8, Bhoranj 30, Gohar 30, Guler 29.4, Wangtoo 28.2, Banjar 28.2, Bharmaur 28, Paonta 27.4, Nichar 27.2, Karsog 26, Chhatrari 25.5, Sangraha 24, Naina Devi 22.8, Bijahi 22, Janjehli 22, Renuka / Dadhau 21.6, Pandoh 20.5, Sarkaghat 19.6, Theog 19.2, Baldwara 19, Pachhad 17, Kahu 16.5, Kasol 15, Narkanda Aws 12, Sundarnagar 11.9, Jatton Barrage 11.4, Gondla 11.2, Rampur Bushar 9.8, Shillaro 9.7, Kukumsheri Aws 9.6, Kufri 9.2, Keylong 7, Sunibhajji 6.2, Shimla 5.6, Kandaghat 5.6, Jubbal 5.2, Kasauli 5.2, Jubberhatti 5, Sangla 4.2, Sarahan 4, Kalpa 3.2, Dharampur 2.8, Khadrala 2.2, Bajaura Aws 2, Koksar 2, Bilaspur Aws 1, Solan 0.8, Reckong Peo Aws 0.5, Kotkhai 0.4
03-08-2025	Bhareri 108.2, Naina Devi 74.4, Ghumarwin 40, Sunibhajji 40, Jatton Barrage 40, R L Bbmb 39, Una 38, Kheri 28.8, Nalagarh 28, Aghar 24.8, Mehre (Barsar) 23, Pachhad 20, Bangana_R 18.4, Chamba Aws 18, Hamirpur 18, Jogindarnagar 17, Barthin 14.6, Nadaun 14.5, Sujanpur Tira 14.5, Seo Bagh 11.6, Kothi 11.2, Palampur 10.8, Kumarsain 10.4, Guler 10.2, Sarahan 9.5, Nagrota Surian 9.4, Bhuntar 9.2, Kasol 9, Sarkaghat 8.3, Kotkhai 8.2, Kasauli 8.2, Kangra 8.1, Bharmaur 8, Tinder 8, Sundarnagar 7.9, Renuka / Dadhau 7.2, Chuari 7, Paonta 6.6, Dharampur 6.4, Bhoranj 6, Gondla 5.4, Jubberhatti 5.4, Shimla 5.4, Kataula 5.2, Manali 5, Dehra Gopipur 4.3, Kukumsheri Aws 4.2, Koksar 4.2, Bijahi 4.2, Khadrala 4.2, Dharmshala 4.1, Janjehli 4, Karsog 4, Shillaro 4, Kufri 4, Mandi 3.2, Keylong 3, Solan 3, Bajaura Aws 2.5, Chhatrari 2.3, Bilaspur Sadar 2.2, Gohar 2, Pandoh 2, Nahan 1.2, Ghamroor 1, Kandaghat 1, Kalpa 0.8, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Kahu 0.4, Sangla 0.2
04-08-2025	Kasauli 82, Naina Devi 62.6, Ghumarwin 60, Jogindarnagar 60, Manali 45, Mehre (Barsar) 42, Guler 29, Pandoh 27, Karsog 26.2, Sarahan 25.5, R L Bbmb 24, Shimla 22.8, Baldwara 19, Bijahi 18.4, Gohar 18, Kataula 15.3, Bhoranj 15, Hamirpur 14, Janjehli 14, Kufri 13.8, Dharampur 12.6, Dharmshala 12.1, Berthin Agro 12, Dehra Gopipur 12, Palampur 11.6, Shillaro 11.6, Narkanda Aws 11.5, Nichar 11, Paonta 10.8, Nadaun 9.8, Sarkaghat 9.3, Ghamroor 9.2, Kotkhai

	9.2, Pachhad 9.2, Wangtoo 8.2, Tinder 8, Kumarsain 8, Jubbal 7.2, Jatton Barrage 7, Aghar 6.8, Barthin 6.6, Chuari 6.2, Amb 5.4, Mandi 5.2, Bangana_R 5.2, Kasol 5, Kahu 4.4, Sujanpur Tira 4, Sangraha 4, Bharwain 3.6, Bajaura Aws 3.5, Nagrota Surian 3.2, Chamba Aws 3, Sunibhajji 2.4, Nahan 2.4, Jubberhatti 2.2, Renuka / Dadhau 2.2, Kothi 2, Keylong 2, Theog 2, Solan 1.8, Bhareri 1.4, Dalhousie Aws 1, Khadrala 1, Kandaghat 1, Kalpa 0.8, Rampur Bushar 0.8, Bilaspur Aws 0.5, Gondla 0.2, Sundarnagar 0.1
05-08-2025	Mandi 151.2, Bijahi 105.6, Sundarnagar 84.1, Nadaun 78, Gohar 72, Ghumarwin 60, Karsog 56.3, Palampur 55.8, Pandoh 53, Hamirpur 45, Bhareri 44.5, Baldwara 41, Janjehli 40, Sangraha 40, Nalagarh 40, Berthin Agro 36.5, Guler 36.4, Mehre (Barsar) 35, Tinder 35, Jubbal 33.4, Bilaspur Sadar 30.8, R L Bbmb 30, Shillaro 30, Rohru 30, Sarahan 30, Bharwain 30, Manali 29.2, Barthin 28.4, Naina Devi 24.8, Sujanpur Tira 24, Aghar 23.6, Kangra 23.2, Narkanda Aws 22, Shimla 20.4, Dehra Gopipur 18.4, Kataula 18.2, Jubberhatti 18, Nagrota Surian 17.8, Jogindarnagar 14, Kumarsain 12.8, Dharmshala 10.7, Kandaghat 10.6, Una 10.6, Kahu 10.5, Bhuntar 10.4, Paonta 10.4, Bhoranj 10, Bangana_R 9.4, Sangla 8.6, Chuari 8.1, Kasauli 7.2, Kothi 7, Hansa 7, Theog 7, Amb 7, Banjar 6.2, Khadrala 6, Kotkhai 5.2, Jatton Barrage 4.4, Dharampur 4.2, Renuka / Dadhau 4, Wangtoo 3.8, Rampur Bushar 3.6, Seo Bagh 3.4, Kasol 3, Kheri 2.4, Kufri 2.4, Koksar 2.1, Bajaura Aws 2, Nahan 2, Kalpa 1.6, Moorang 1.5, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
06-08-2025	Kasauli 145, Dharampur 122.8, Gohar 120, Chuari 98.4, Nagrota Surian 93.4, Pachhad 88, Naina Devi 86.4, Bijahi 84.4, Kumarsain 80.4, Sundarnagar 80.3, Kangra 71.4, Bilaspur Sadar 70.4, Guler 68.4, Karsog 68, Dhaulakuan 67, Banjar 66, Sunibhajji 66, Nalagarh 66, Mandi 65.8, Shimla 64.4, Dharmshala 64, Pandoh 63, Janjehli 60, Kandaghat 60, Kahu 58, Renuka / Dadhau 55.3, Rampur Bushar 55, Jogindarnagar 53, Wangtoo 50.2, R L Bbmb 47, Nadaun 47, Kufri 47, Jatton Barrage 47, Khadrala 46.2, Narkanda Aws 44.5, Jubberhatti 44, Shillaro 43.6, Sarahan 42.5, Palampur 40, Rohru 40, Bangana_R 40, Bharwain 39, Sangraha 38, Solan 32.2, Sujanpur Tira 32, Kataula 31.2, Paonta 29, Dehra Gopipur 27, Hamirpur 25, Mehre (Barsar) 25, Kothi 25, Tinder 25, Sangla 24.6, Nichar 23.5, Barthin 23.2, Bhuntar 22.2, Kotkhai 22.1, Berthin Agro 22, Aghar 22, Rajgarh 22, Kheri 21.2, Seo Bagh 21.2, Bhareri 20.4, Jubbal 18.4, Ghamroor 18.2, Kasol 18, Amb 14.8, Kalpa 14, Reckong Peo Aws 13.5, Nahan 12.6, Baldwara 12, Chhatrari 10, Tissa 8.7, Theog 6, Una 5.6, Manali 5.2, Bharmaur 4.6, Moorang 4.5, Sarkaghat 4.5, Koksar 3, Bajaura Aws 2, Pooh 1, Keylong 1, Kukumsheri Aws 0.8, Bilaspur Aws 0.5
07-08-2025	Nalagarh 120, Bharwain 120, Naina Devi 92.6, Pachhad 75.1, R L Bbmb 73, Mehre (Barsar) 64, Kangra 62.5, Theog 60, Dharmshala 42.5, Bangana_R 34.8, Nahan 32.6, Kasauli 32.5, Dehra Gopipur 31.4, Bilaspur Sadar 30.2, Sarahan 29.5, Barthin 22.4, Una 22.2, Amb 21, Gohar 19, Shimla 19, Kahu 18.8, Sujanpur Tira 18, Aghar 17.6, Nagrota Surian 17.2, Baldwara 17, Berthin Agro 16, Jubbal 15.2, Dharampur 14, Bhareri 13.4, Manali 12.2, Palampur 11.6, Nadaun 10, Sundarnagar 9.4, Kufri 9.2, Chuari 9.1, Rampur Bushar 8.5, Hamirpur 8, Kothi 8, Kumarsain 5.6, Tinder 5, Janjehli 5, Jogindarnagar 5, Rohru 5, Wangtoo 4.6, Kataula 4.2, Jubberhatti 3.8, Sangla 3.6, Solan 3.6, Guler 3.4, Bhuntar 3, Bijahi 3, Kalpa 2.8, Renuka / Dadhau 2.8, Kandaghat 2.6, Bajaura Aws 2.5, Jatton Barrage 1.6, Reckong Peo Aws 1, Banjar 1, Paonta 1, Bilaspur Aws 0.5, Pandoh 0.5, Narkanda Aws 0.5
08-08-2025	Bajaura Aws 9, Kataula 8.2, Sangraha 8, Sarkaghat 6.2, Jogindarnagar 4, Dharmshala 3.2, Nagrota Surian 2.4, Bhareri 2, Nadaun 2, Jatton Barrage 2, Bilaspur Aws 0.5, Barthin 0.4
09-08-2025	Naina Devi 112.4, Pandoh 102, Bangana_R 86.4, R L Bbmb 67, Pachhad 67, Narkanda Aws 66.5, Kumarsain 65.4, Kasauli 65.2, Shillaro 63, Rajgarh 56, Kufri 55.2, Dharampur 52.6, Nahan 49.3, Solan 45.6, Janjehli 42, Nalagarh 35, Kotkhai 29.3, Dehra Gopipur 29, Sunibhajji 27, Sundarnagar 23.6, Nagrota Surian 22.5, Kataula 22.2, Barthin 21.8, Kandaghat 21.8, Kasol 20, Berthin Agro 18.5, Baldwara 18, Shimla 16.8, Jubberhatti 14, Bharwain 14, Renuka / Dadhau 13.6, Bajaura Aws 13.5, Kothi 12.4, Nadaun 11.8, Sarkaghat 11.4, Una 11.4, Palampur 10.6, Bhareri 10.2, Hamirpur 10, Bhuntar 9.4, Rampur Bushar 9, Chuari 8.2, Jatton Barrage 8.2, Bhoranj 8, Jubbal 6.4, Mehre (Barsar) 6, Bilaspur Sadar 5.8, Sujanpur Tira 5, Manali 5, Jogindarnagar 5, Nichar 4.3, Banjar 4.2, Theog 4, Bharmaur 3.6, Wangtoo 3.6, Dharmshala 3.4, Paonta 3.2, Mandi 2.4, Chamba Aws 2, Kheri 2, Gohar 2, Sangraha 2, Bilaspur Aws 1, Khadrala 1, Kangra 0.5, Kahu 0.4, Guler 0.4, Sangla 0.2
10-08-2025	Kangra 68.4, Palampur 52, Baldwara 42, Bharwain 39.4, Sarahan 25, Theog 20, Tinder 18, Jubberhatti 17, Dharmshala 16.8, Pandoh 16.5, Bangana_R 11.8, Bajaura Aws 11.5, Kufri 11.2, Bilaspur Sadar 10.4, Kasauli 10, Shimla 9, Bijahi 8, Chuari 7.6, Kotkhai 6.3, Sarkaghat 6.2, Rampur Bushar 6, Bhareri 5.4, Una 5.4, Saloni 5.2, Bharmaur 5, Sujanpur Tira 4.5, Mandi 4.4, Bhoranj 4, Jogindarnagar 4, Chhatrari 2.8, Narkanda Aws 2.5, Kasol 2, Nagrota Surian 1.2, Nahan 1.2, Dalhousie Aws 1, Nadaun 1, Sunibhajji 1, Jatton Barrage 1, Koksar 0.8, Bilaspur Aws 0.5, Barthin 0.2
11-08-2025	Nalagarh 56, Bilaspur Sadar 50.2, Kheri 33.4, Sarahan 30, Chuari 26.2, Rajgarh 20, Hamirpur 19, Aghar 16, Dehra Gopipur 16, Baldwara 16, Tinder 15, Dharmshala 14.8, Sarkaghat 14.7, Ghumarwin 14, Bajaura Aws 10.5, Palampur 9.6, Kothi 9.6, Kasol 9, Kahu 8.5, Gohar 8, Mandi 7.4, Jubberhatti 7, Theog 6, Kangra 5.4, Shimla 4.2, Sundarnagar 3.7, Pooh 3.2, Koksar 3, Jogindarnagar 3, Shillaro 3, Kalpa 2.2, Chamba Aws 2, Bijahi 2, Kasauli 2, Sangla 1.8, Reckong Peo Aws 1.5, Nagrota Surian 1.4, Wangtoo 1.4, Dharampur 1.4, Nadaun 1.2, Kandaghat 1.2, Nahan 1.1, Sujanpur Tira 1, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.4, Kufri 0.4, Moorang 0.3, Barthin 0.2

12-08-2025	Nagrota Surian 180.2, Guler 161.2, Ghamroor 112.2, Sandhole 78.8, Nadaun 78.5, Dehra Gopipur 76.2, Jogindarnagar 74, Kangra 73.8, Bhareri 70.2, Palampur 69, Sujanpur Tira 66, Bijahi 65.2, Kataula 56.2, Shillaro 54, Kandaghat 52.8, Theog 50.6, Chuari 48.3, Naina Devi 46.4, Shimla 45.6, Dharmshala 42.5, Mandi 42.2, Hamirpur 41, Kufri 39.8, Una 38.4, Kasauli 38, Bharwain 38, Dharampur 36.8, Jubberhatti 36.2, Kahu 35.3, Aghar 34, Solan 33, Sarahan 30.5, Pandoh 29.5, Narkanda Aws 28.5, Sundarnagar 27.3, Gohar 27, Bharmaur 26.7, Jubbal 25.4, Karsog 24, Sunibhajji 23, Kotkhai 22.3, Chhatrari 22.1, Pachhad 22, Saloni 21.2, Kheri 21, Bilaspur Sadar 20.8, Nalagarh 20, R L Bbmb 19.6, Barthin 18.8, Amb 18.8, Tissa 18, Kothi 17.4, Nahan 17.2, Mehre (Barsar) 17, Bangana_R 16, Janjehli 15, Sarkaghat 12.2, Moorang 10.2, Bhoranj 10, Manali 10, Sangla 8.6, Paonta 8.4, Banjar 8.2, Chamba Aws 8, Bajaura Aws 7.5, Rampur Bushar 7.2, Kasol 7, Kumarsain 6.4, Kalpa 6, Nichar 5.4, Reckong Peo Aws 5, Wangtoo 4.8, Bhuntar 4.8, Jatton Barrage 4.2, Renuka / Dadhau 3.8, Koksar 3, Kukumsheri Aws 2.8, Seo Bagh 2.4, Keylong 2
13-08-2025	Baldwara 31, Tinder 25, Kasauli 23, Naina Devi 18.2, Bhoranj 15, Sarahan 15, Karsog 13.2, Theog 10, Dharampur 7.2, Bajaura Aws 7, Jogindarnagar 5, Dharmshala 4.4, Tissa 4.2, Bijahi 4.2, Una 4.2, Sundarnagar 3.6, Kothi 3.4, Gohar 3, Kangra 2.8, Pandoh 2.5, Bilaspur Sadar 2.2, Kheri 2.2, Nagrota Surian 2.2, Khadrala 2.2, Bharmaur 2, Banjar 2, Bangana_R 2, Jubberhatti 1.8, Narkanda Aws 1.5, Chuari 1.3, Kalpa 1.3, Guler 1.2, Shimla 1.2, Paonta 1.2, R L Bbmb 1, Chamba Aws 1, Palampur 1, Reckong Peo Aws 1, Shillaro 1, Bilaspur Aws 0.5, Barthin 0.4, Kotkhai 0.1
14-08-2025	Pachhad 153.2, Rajgarh 102, Kandaghat 100, Jatton Barrage 87, Una 85.4, Solan 81.4, Kotkhai 77.4, Shillaro 73, Jubbal 72.6, Shimla 69, Kufri 66, Jubberhatti 65.2, Renuka / Dadhau 64.6, Banjar 62, Kasauli 62, Kothi 61.2, Nalagarh 60, Sarkaghat 59.4, R L Bbmb 59.2, Amb 59, Theog 58.8, Rohru 55, Naina Devi 54.2, Dharampur 50.2, Sangraha 50, Paonta 49, Pandoh 44, Karsog 43.1, Kahu 41.5, Kumarsain 40.8, Bharwain 40, Narkanda Aws 39.5, Bhareri 37.2, Tinder 35, Nahan 33.3, Baldwara 33, Barthin 32.6, Nadaun 32.4, Bangana_R 31.4, Bilaspur Sadar 30.8, Sarahan 29, Sujanpur Tira 25.4, Manali 25, Dehra Gopipur 24.3, Jogindarnagar 24, Hamirpur 23, Tissa 20, Sundarnagar 19.5, Kasol 19, Kukumsheri Aws 18.2, Gondla 16.2, Bharmaur 15, Sunibhajji 14, Mandi 13.4, Palampur 13, Kangra 12.5, Mehre (Barsar) 12, Ghamroor 11.8, Dharmshala 10.8, Aghar 10, Bhoranj 10, Hansa 10, Pooh 9.4, Bajaura Aws 7.5, Bijahi 7.4, Khadrala 6.2, Guler 5.8, Sangla 5.8, Rampur Bushar 5.4, Gohar 5, Saloni 4.2, Wangtoo 4.2, Bhuntar 4, Nagrota Surian 3.8, Moorang 3.7, Nichar 3.5, Reckong Peo Aws 2.5, Chhatrari 2.4, Kalpa 2.2, Chamba Aws 2, Janjehli 2, Seo Bagh 1, Keylong 1, Bilaspur Aws 0.5
15-08-2025	Jogindarnagar 106, Palampur 102.4, Bhareri 75.4, Kheri 73.2, Kataula 67.2, Narkanda Aws 66, Dharmshala 65.5, Naina Devi 64.8, Kangra 62.8, Nahan 57.7, Kothi 54.6, Bijahi 50, Mandi 49.8, Pandoh 46, Sarahan 40.5, Shillaro 40, Hamirpur 37, R L Bbmb 36.4, Ghumarwin 34, Chuari 32.6, Rohru 30, Pachhad 30, Sarkaghat 28.3, Janjehli 28, Reckong Peo Aws 27, Dehra Gopipur 26, Kasauli 26, Kalpa 25.2, Baldwara 25, Gohar 25, Bhuntar 24.3, Rampur Bushar 24, Sangla 23.4, Kotkhai 23, Barthin 21.6, Chamba Aws 21, Sundarnagar 20.3, Sujanpur Tira 20, Solan 19.8, Shimla 19.7, Jatton Barrage 19.4, Bangana_R 19, Bilaspur Sadar 18.8, Renuka / Dadhau 18.6, Nadaun 18.5, Manali 18.4, Kufri 18.4, Dharampur 18, Khadrala 16.4, Pooh 16, Chhatrari 15.6, Nichar 15.5, Keylong 15, Theog 15, Sangraha 15, Bharwain 15, Kahu 14.3, Wangtoo 14.2, Kasol 14, Nagrota Surian 13.4, Bhoranj 13, Guler 12.6, Seo Bagh 12, Sunibhajji 12, Una 11.8, Koksar 11.6, Kandaghat 11.4, Jubberhatti 11, Tissa 10, Karsog 10, Gondla 9.4, Jubbal 9.2, Paonta 8.2, Bajaura Aws 6.5, Banjar 6.4, Saloni 6.3, Mehre (Barsar) 6, Kumarsain 5.6, Bharmaur 5, Tinder 5, Moorang 3.5, Amb 3.4, Bilaspur Aws 0.5
16-08-2025	Naina Devi 160.6, Palampur 101.4, Sandhole 80.2, Pandoh 72.4, Mandi 62.4, Kataula 60.1, Kothi 48.2, Ghumarwin 45, Gohar 35, Nalagarh 35, Bhareri 32.4, Jogindarnagar 32, Dharmshala 28.4, Karsog 28.2, Sarahan 28, Bilaspur Sadar 25.8, Tinder 25, Kheri 23, Nahan 22.9, Sumdo 20, Paonta 19.4, Chhatrari 16.4, Sujanpur Tira 16, Chuari 12.4, Dharampur 12.4, Banjar 12, Baldwara 12, Kasauli 11.2, R L Bbmb 10.2, Kahu 10, Aghar 10, Nichar 9.4, Kangra 9.2, Bhoranj 9, Theog 8, Sarkaghat 7.7, Bharmaur 7, Bajaura Aws 6.5, Barthin 6.4, Dehra Gopipur 6.3, Bijahi 6, Bhuntar 5.4, Tissa 5, Shillaro 3.6, Pachhad 3, Kandaghat 2.4, Renuka / Dadhau 2.3, Chamba Aws 2, Keylong 2, Koksar 2, Narkanda Aws 2, Jatton Barrage 2, Sangraha 2, Bangana_R 1.4, Manali 1.2, Jubberhatti 1.2, Kasol 1, Kalpa 0.8, Seo Bagh 0.8, Rampur Bushar 0.8, Sundarnagar 0.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Sangla 0.2, Kotkhai 0.2, Shimla 0.2
17-08-2025	Kataula 116.3, Kangra 110.8, Nagrota Surian 107, Nahan 103.2, Jogindarnagar 84, Nalagarh 80, Paonta 69.8, Kheri 67.6, Dhaulakuan 67, Bhuntar 63.3, Palampur 60.4, Guler 57, Kasol 49, Renuka / Dadhau 49, Seo Bagh 48.6, Banjar 45.2, Bhareri 44.6, Sujanpur Tira 43.5, Sarahan 35.5, Kumarsain 35.4, Karsog 35, Pandoh 32, Rohru 30, Narkanda Aws 27, Mandi 26, Bijahi 24.4, Chuari 22.4, Bhoranj 21, Dharmshala 20.6, Tinder 18, Nadaun 17.5, Jubbal 15.4, Tissa 15, Jatton Barrage 15, Bharwain 14.2, Baldwara 14, Nichar 13.5, Hamirpur 13, Pachhad 13, Barthin 12.2, Dehra Gopipur 12, Janjehli 12, Kothi 11.4, Bilaspur Sadar 10.4, Sangraha 10, Chhatrari 8.9, Manali 8, Gohar 8, Kotkhai 7.2, Shillaro 6.8, Saloni 6.2, Kalpa 6.2, Bajaura Aws 6, Rampur Bushar 5.2, Naina Devi 4.4, Kufri 4.4, Amb 4.4, Kahu 4.1, Bangana_R 3.6, Theog 3.4, Sundarnagar 3.3, Ghamroor 3.2, Mehre (Barsar) 3, Sarkaghat 2.1, Reckong Peo Aws 1.5, Sangla 1.2, Shimla 1, Solan 0.6, Bilaspur Aws 0.5, Jubberhatti 0.4
18-08-2025	Dhaulakuan 113, Aghar 80, Sangraha 72, Kheri 62.4, Chuari 58.9, Palampur 58.2, Nalagarh 55, Baldwara 54, Jatton Barrage 49.4, Kasol 44, Paonta 40.6, Khadrala 36.4, Saloni 35.3, Tinder 35, Gohar 32, Nahan 30.1, Sarahan 28.5, Ghumarwin 27, Renuka / Dadhau 27, Jogindarnagar 25, Dharmshala 24.7, Hamirpur 23, Manali 23, Bhuntar 22, Rohru

	18, Chhatrari 15.4, Tissa 15, Karsog 14.4, Kufri 13.4, Rajgarh 13, Jubbal 12.6, Pachhad 12.3, Bhoranj 11, Bijahi 10.4, Pandoh 10, Shimla 10, Bhareri 9.8, Kataula 8.1, Bharmaur 8, Chamba Aws 8, Bajaura Aws 7, Kothi 6.8, Sundarnagar 6.3, Bharwain 5.6, Narkanda Aws 5.5, Sujanpur Tira 5, Solan 5, Seo Bagh 4.8, Banjar 4.2, Rampur Bushar 4, Sangla 3.4, Kotkhai 3.4, Kukumsheri Aws 3.1, Bilaspur Sadar 2.8, Wangtoo 2.8, Kumarsain 2.8, Kangra 2.7, Amb 2.6, Shillaro 2.4, Jubberhatti 2.4, Kandaghat 2.4, Mandi 2.2, Barthin 2, Mehre (Barsar) 2, Bangana_R 2, Janjehli 1, Theog 1, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
19-08-2025	Jubberhatti 73, Amb 56, Bhuntar 44.8, Bilaspur Sadar 40.2, Shimla 38, Kasol 33, Seo Bagh 32, Banjar 30, Kothi 25.4, Bhareri 23, Kufri 21.2, Tissa 20, Bijahi 18.6, Kangra 18.2, Barthin 17.6, Jogindarnagar 16, Kumarsain 15.4, Kahu 11.8, Sarahan 10.5, Dharmshala 9.5, Bajaura Aws 8.5, Janjehli 8, Jubbal 7.6, Nichar 7.5, Dehra Gopipur 7.2, Una 7.2, Wangtoo 6.8, Palampur 6, Sundarnagar 5.3, Bhoranj 5, Tinder 5, Kotkhai 4.3, Bharmaur 4, Nagrota Surian 3.8, Kheri 3.2, Chamba Aws 3, Sangla 2.6, Bangana_R 2.4, Ghamroor 2.2, Chhatrari 2.1, Kataula 2.1, Narkanda Aws 2, Sunibhajji 2, Aghar 1.8, Guler 1.8, Mandi 1.8, Manali 1.4, Gondla 1.2, Kalpa 1, Bilaspur Aws 0.5, Bharwain 0.5
20-08-2025	Amb 150, Bharwain 68, Dehra Gopipur 63, Palampur 60.4, Bangana_R 60, Solan 56, Guler 55.8, Bilaspur Sadar 50.8, Jubberhatti 47.2, Naina Devi 46.6, Nadaun 40, Wangtoo 39.2, Kataula 38.4, Jogindarnagar 38, Nagrota Surian 37.4, Sujanpur Tira 36.4, Pachhad 36, Pandoh 31.5, Renuka / Dadhau 30, Kangra 27.8, Seo Bagh 24.4, Bhoranj 22, Shimla 21, Jatton Barrage 20, Mandi 18.2, Ghumarwin 18, Nahan 15.9, Kufri 14.8, Kahu 13.3, Kheri 13, Nichar 12.4, Kasauli 12.2, Bharmaur 12, Sangraha 11, Kothi 10, Barthin 9.4, Kasol 9, Rajgarh 9, Bhuntar 8.8, Bajaura Aws 8, Shillaro 6.5, Paonta 6.4, Sangla 6.2, Chuari 6, Hamirpur 6, Jubbal 5.2, Manali 5, Tinder 5, Dharmshala 4.4, Dharampur 4.2, Mehre (Barsar) 4, Narkanda Aws 3.5, Banjar 3, Kalpa 2.8, Kukumsheri Aws 2.8, Reckong Peo Aws 2, Kandaghat 1.8, Sarkaghat 1.7, Chhatrari 1.4, Koksar 1.1, Chamba Aws 1, Keylong 1, Bilaspur Aws 0.5, Sundarnagar 0.5, Rampur Bushar 0.4
21-08-2025	Una 132.6, Naina Devi 54.6, Sujanpur Tira 53, Amb 42, Nadaun 41.5, Paonta 38, Nalagarh 34, R L Bbmb 28.4, Tinder 25, Bangana_R 22.2, Bharwain 22, Kumarsain 20.6, Rohru 17, Dharampur 16.4, Hamirpur 16, Mehre (Barsar) 13, Aghar 11.6, Palampur 11.3, Jogindarnagar 11, Dehra Gopipur 10.2, Kasauli 10, Guler 9.8, Nagrota Surian 9, Shillaro 8.8, Bhareri 8.2, Kangra 7.8, Dharmshala 7.4, Nahan 7.1, Pachhad 7, Bajaura Aws 6.5, Sunibhajji 5.4, Narkanda Aws 5, Jatton Barrage 4.4, Barthin 4.2, Kufri 3.4, Solan 3, Bilaspur Sadar 2.4, Sangla 2.4, Mandi 2.4, Jubbal 2.4, Chamba Aws 2, Kasol 2, Seo Bagh 2, Bijahi 2, Kataula 2, Sangraha 2, Kahu 1.8, Bhuntar 1.8, Shimla 1.8, Pandoh 1.5, Sundarnagar 1.2, Jubberhatti 1.1, Dalhousie Aws 1, Manali 0.8
22-08-2025	Tinder 35, Manali 18, R L Bbmb 15.6, Bangana_R 15, Kufri 14.6, Bajaura Aws 7.5, Jubberhatti 3.6, Una 2.8, Narkanda Aws 1.5, Bilaspur Aws 1, Shimla 0.3
23-08-2025	Nalagarh 65, Nadaun 58.6, Bijahi 47.4, Bangana_R 47, Jogindarnagar 45, Jatton Barrage 44.2, Bharwain 40.4, Nagrota Surian 39.2, Kangra 35.7, Naina Devi 34.8, Paonta 33, Renuka / Dadhau 32, Baldwara 31, Tinder 30, Chuari 22.2, Amb 20, Rajgarh 19, Dharmshala 15.8, Ghumarwin 11, Palampur 11, Nahan 10.9, Tissa 10, Sangraha 10, Bajaura Aws 7.5, Gohar 5, Ghamroor 4.6, Sujanpur Tira 4.4, R L Bbmb 3.2, Theog 3.2, Una 2.6, Shillaro 2.4, Dehra Gopipur 2, Banjar 2, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.1
24-08-2025	Kheri 129, Pandoh 123, Kasauli 105, Sarkaghat 80.5, Karsog 68, Mandi 68, Amb 60, Hamirpur 58, Kataula 57.3, Jogindarnagar 54, Nadaun 52.8, Sunibhajji 50, Dharampur 44.6, Chuari 40.6, Nalagarh 40, Kotkhai 39.4, Palampur 33.2, Gohar 32.4, Saloni 32.1, Sarahan 30, Bijahi 27.6, Kumarsain 25.4, Dehra Gopipur 25, Kothi 25, Tissa 24.3, Chamba Aws 24, Manali 21, Janjehli 20, Seo Bagh 19.8, Una 18.2, Rohru 17, Bhuntar 16.6, Kangra 16.2, Bilaspur Sadar 15.2, Tinder 15, Baldwara 15, Sundarnagar 14.8, Sujanpur Tira 14.5, Bharmaur 14, Banjar 14, Bhareri 12.8, Jubbal 12.6, Jatton Barrage 12, Aghar 11.8, Pachhad 11, Sangla 10.2, Shillaro 10, Kalpa 8.4, Nichar 8, Solan 7.8, Chhatrari 7.6, Bajaura Aws 7.5, Nagrota Surian 7, Narkanda Aws 7, Rampur Bushar 7, Wangtoo 6.4, Dharmshala 5.8, Guler 5.8, Reckong Peo Aws 5.5, Jubberhatti 5.4, Bharwain 5, Kufri 4.5, Naina Devi 4.2, Renuka / Dadhau 4.2, Shimla 4, Kukumsheri Aws 3.9, Kasol 3, Khadrala 3, R L Bbmb 2.4, Ghamroor 2.4, Gondla 2.4, Theog 2.4, Barthin 2.2, Moorang 2, Keylong 2, Paonta 2, Sangraha 2, Kandaghat 2, Bangana_R 1.8, Kahu 1.6, Bilaspur Aws 0.5
25-08-2025	Kahu 190.5, Ghumarwin 160, Barthin 156.4, Naina Devi 148.4, Kheri 142, Bilaspur Sadar 140.8, Chuari 140.2, Mehre (Barsar) 127, Amb 111, Aghar 110.6, Bangana_R 104, Ghamroor 95.8, Bharwain 94.4, Nadaun 94, Hamirpur 92, Dharmshala 87.4, Bhareri 85.9, Sandhole 85.2, Kasauli 85, Sundarnagar 84.2, Baldwara 84, Saloni 83.3, Una 80.8, Sujanpur Tira 80, Nalagarh 75, Dharampur 68.6, Dehra Gopipur 68.3, Chamba Aws 67, R L Bbmb 66, Palampur 65.4, Kangra 61.6, Nagrota Surian 60.8, Sangraha 60, Bijahi 57, Guler 54.6, Jogindarnagar 54, Mandi 49, Gohar 47, Kothi 46, Banjar 45, Bharmaur 43.6, Chhatrari 39.6, Sunibhajji 38, Manali 37, Kukumsheri Aws 35.6, Sarahan 35.5, Tinder 35, Jubberhatti 35, Kandaghat 32.4, Karsog 32.1, Pandoh 32, Sarkaghat 31.2, Kasol 31, Gondla 30.4, Kumarsain 30.2, Keylong 30, Kataula 29.3, Seo Bagh 29, Rajgarh 28, Janjehli 26, Rohru 25, Kufri 24.6, Bhuntar 23.8, Jubbal 22.4, Rampur Bushar 22.4, Kotkhai 22.3, Shimla 21.3, Tissa 20, Theog 20, Solan 17.2, Narkanda Aws 16.5, Shillaro 15.8, Pachhad 14.4, Nahan 13.1, Renuka / Dadhau 8.7, Nichar 6, Jatton Barrage 5.2, Paonta 5, Wangtoo 4.2, Hansa 4, Kalpa 3.8, Sangla 3.8, Bajaura Aws 2.5, Khadrala 1.8, Reckong Peo Aws 1.5, Bilaspur Aws 0.5, Moorang 0.2

26-08-2025	Naina Devi 160.8, Kheri 128.6, Chuari 125.2, Dharmshala 102, Manali 102, Ghamroor 91.4, Kangra 89, Nagrota Surian 88.8, Palampur 88, Kothi 85.8, Bharwain 85, Tissa 80, Bhuntar 77.2, Gondla 75.6, Chamba Aws 74, Sangraha 72, Guler 71.8, Kukumsheri Aws 71.5, Seo Bagh 70.8, Kumarsain 70.6, Karsog 65.2, Kasol 65, Ghumarwin 62, Renuka / Dadhau 61, Sujanpur Tira 60.6, Rohru 60, Jogindarnagar 59, Nadaun 58.2, Koksar 58, Dehra Gopipur 57, Banjar 57, Aghar 55, Barthin 52.8, Bangana_R 52, Sundarnagar 51.3, Jatton Barrage 51, Hamirpur 49, Kotkhai 43.1, Amb 43, Paonta 41.2, Narkanda Aws 40.5, Bilaspur Sadar 40.2, Janjehli 40, Kufri 39, Saloni 38.4, Sarahan 37.5, Pachhad 37.4, Mandi 36.6, Keylong 35.5, Mehre (Barsar) 35, Baldwara 34, Una 34, Bhareri 33.2, Pandoh 33, Shillaro 33, Sunibhajji 32.8, Kahu 30.5, Bijahi 30.4, Theog 30, Shimla 28.8, Jubbal 28.4, Kasauli 28.2, R L Bbmb 28, Gohar 25, Dharampur 22.4, Nichar 22, Solan 19.2, Kandaghat 18.4, Hansa 15, Rampur Bushar 14.2, Sarkaghat 13.8, Sangla 10.6, Jubberhatti 8.6, Wangtoo 8.4, Nahan 7.6, Kalpa 6.6, Bajaura Aws 5.5, Khadrala 5, Moorang 3.2, Reckong Peo Aws 3, Bilaspur Aws 0.5
27-08-2025	Kheri 89.2, Kothi 69, Saloni 65.2, Chamba Aws 51, Nalagarh 45, Dharmshala 40.4, Kukumsheri Aws 33.2, Gondla 31.8, Tissa 29, Keylong 29, Chuari 27.4, Koksar 27, Naina Devi 26.8, Sangraha 26, Palampur 22.4, Kangra 21.6, Bilaspur Sadar 20.4, Kataula 20.2, Amb 20, Dehra Gopipur 18.4, Karsog 18, Nagrota Surian 15, Seo Bagh 15, Sujanpur Tira 14, Bijahi 13.2, Hansa 12, Guler 11.2, Kasol 11, Barthin 10.4, Bhuntar 10.4, Ghumarwin 10, Wangtoo 10, Baldwara 10, Jogindarnagar 10, Mandi 6.4, Solan 6.4, Reckong Peo Aws 6, Bharwain 6, Kalpa 5.9, Sangla 5.4, Kumarsain 5.4, Jatton Barrage 5.4, Bajaura Aws 5, Narkanda Aws 5, Ghamroor 4.6, Una 4.4, Bhareri 3.8, Nadaun 3.6, Sundarnagar 3.6, Gohar 3, Kasauli 3, Kahu 2.6, Pandoh 2.5, Aghar 2.4, R L Bbmb 2, Janjehli 2, Dharampur 2, Jubbal 1.6, Nichar 1.5, Kufri 1.4, Kotkhai 1.3, Sunibhajji 1.2, Pachhad 1.2, Mehre (Barsar) 1, Shillaro 1, Kandaghat 1, Bangana_R 1, Shimla 0.6, Theog 0.6, Bilaspur Aws 0.5, Renuka / Dadhau 0.3
28-08-2025	Pandoh 108, Bhareri 63.8, Nalagarh 60, Mandi 56.8, Gohar 53, Naina Devi 36.6, Saloni 33.3, Sarahan 30.5, Manali 25, Koksar 19, Sarkaghat 18.5, Baldwara 18, Rampur Bushar 18, Amb 15.4, Sundarnagar 11.9, Sunibhajji 11.6, Kataula 10.2, Hamirpur 9, Shillaro 9, Aghar 8.6, Kasauli 8.2, R L Bbmb 8, Bhuntar 8, Narkanda Aws 7.5, Jubberhatti 7.3, Bajaura Aws 5.5, Jogindarnagar 5, Nadaun 2.8, Shimla 2.4, Bilaspur Sadar 2.2, Ghamroor 2.2, Kahu 2, Dehra Gopipur 2, Kasol 2, Kufri 2, Jatton Barrage 2, Nagrota Surian 1.8, Chamba Aws 1, Guler 1, Seo Bagh 1, Barthin 0.6, Berthin Agro 0.5, Bangana_R 0.4
29-08-2025	Jatton Barrage 138, Renuka / Dadhau 114, Palampur 91.4, Bharwain 80, Sandhole 77.8, Paonta 75, Kataula 73.4, Sangraha 70, Rajgarh 65, Kasauli 62, Nahan 60.8, Solan 57.8, Gohar 55.6, Bilaspur Sadar 50.4, Nagrota Surian 48.2, Kahu 45.5, Pachhad 43, Bijahi 42, Sarahan 37.5, Pandoh 36, Bhareri 35.6, Rohru 29, Sunibhajji 28, Manali 27, Kothi 25, Kangra 24.8, Jogindarnagar 23, Dharampur 22.6, Dehra Gopipur 21.4, Nalagarh 20, Kasol 19, Janjehli 18, Kandaghat 18, Kheri 16, Mehre (Barsar) 15, Sundarnagar 14.7, Karsog 14.1, Narkanda Aws 13.5, Dharmshala 10.8, Kumarsain 10.6, Nichar 10.5, Sangla 10.2, Rampur Bushar 10, Kalpa 8.6, Shimla 8.5, Kufri 7.8, Nadaun 7.4, Koksar 7.2, Amb 7, Reckong Peo Aws 6.5, Bajaura Aws 6.5, Naina Devi 6.4, Shillaro 6.4, Mandi 6.2, Bangana_R 6.2, Jubberhatti 5.2, Moorang 4.7, Kotkhai 4.3, Sujanpur Tira 3.6, Chuari 3.2, Guler 2.6, Barthin 2.2, Chamba Aws 2, Bhuntar 2, Baldwara 2, Theog 2, Una 1.6, Seo Bagh 0.6, Bilaspur Aws 0.5
30-08-2025	Chuari 104, Jogindarnagar 86, Rampur Bushar 75.5, Dharmshala 69.4, Bijahi 63.4, Shimla 62, Kataula 60.1, Nahan 60.1, Palampur 60, Theog 59, Kheri 54, Sarahan 45.5, Kumarsain 45.4, Nichar 44.5, Gohar 43, Shillaro 41.4, Kangra 40.8, Narkanda Aws 40, Khadrala 38.2, Sunibhajji 29.6, Kothi 28, Kufri 26, Kotkhai 25.2, Nagrota Surian 24.4, Manali 24, Baldwara 24, Jatton Barrage 23, Rohru 18, Kasol 16, Paonta 14.8, Kalpa 14.6, Sundarnagar 14.1, Chamba Aws 14, Sujanpur Tira 13, Jubbal 11.4, Pandoh 11, Reckong Peo Aws 10, Keylong 10, Koksar 8.9, Bhuntar 8.6, Jubberhatti 8, Sangla 7.6, Kandaghat 7.2, Mandi 6.2, Gondla 5.4, Bharwain 5.2, Seo Bagh 5, Renuka / Dadhau 5, Guler 4.8, Bhareri 4.2, Pooh 4.2, Bajaura Aws 3.5, Kahu 3.2, Dehra Gopipur 3, Nadaun 2.5, Kukumsheri Aws 2.1, Bilaspur Aws 0.5
31-08-2025	Naina Devi 82.8, R L Bbmb 80, Chuari 75.2, Kumarsain 60.8, Jogindarnagar 59, Kangra 45.4, Sarahan 44, Kandaghat 43.8, Nalagarh 42, Una 37.2, Kufri 35, Kahu 34.6, Bangana_R 34.6, Palampur 32, Nagrota Surian 25.5, Mehre (Barsar) 24, Nadaun 22.5, Shillaro 20, Rajgarh 20, Bijahi 19.4, Aghar 18.6, Shimla 18.2, Manali 18, Narkanda Aws 17.5, Kataula 16.3, Jubberhatti 16.2, Mandi 15.8, Sujanpur Tira 15.5, Gohar 15, Rohru 15, Baldwara 14, Sundarnagar 13.8, Paonta 12.6, Bharwain 12.6, Dehra Gopipur 12.3, Barthin 12.2, Pandoh 10.5, Ghamroor 9.8, Dharmshala 8.8, Bhareri 8.2, Kotkhai 8.1, Kasauli 8, Nahan 7.6, Rampur Bushar 7.5, Nichar 7.4, Jatton Barrage 7.4, Guler 7.2, Dharampur 6.2, Bajaura Aws 6, Bilaspur Sadar 5.8, Sangla 5.8, Pachhad 5.3, Bhuntar 5, Sarkaghat 4.8, Solan 4.4, Kothi 3.2, Keylong 3, Seo Bagh 2.6, Chamba Aws 2, Hansa 2, Gondla 2, Kalpa 1.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5

8. Forecast for Next 7 Days

Light to moderate rainfall very likely at most places on 01st & 02nd September 2025. Light to moderate rainfall likely at many places on 03rd September 2025 and at few places from 04th to 07th September 2025. One or two spells of heavy rain likely at few places from 01st to 03rd September 2025 and one or two spells of very heavy rain likely at few places on 01st & 02nd September 2025. One or two spells of extremely heavy rain likely at isolated places on 01st September 2025.

With Regards
Meteorological Centre Shimla

Note: Forecast/Warning for any day is valid from 0830 hours IST of that day till 0830 hours IST of next day

WARNING	PROBABILISTIC FORECAST		SPATIAL		RAINFALL INTENSITY	
[illegible]	Terms	Probability of Occurrence	DRY	No Rainfall	Light	2.5-15.5 mm
ALERT (BE PREPARED)	Unlikely	<25%	ISOLATED	1-25%	Moderate	15.6-64.4 mm
WATCH (BE UPDATED)	Likely	25-50%	FEW	26-50%	Heavy	64.5-115.5 mm
NO WARNING (NO ACTION)	Very Likely	50-75%	MANY	51-75%	Very Heavy	115.6-204.4 mm
	Most Likely	>75%	MOST	76-100%	Extremely Heavy	>204.5 mm

For more information kindly visit:

Website:https://mausam.imd.gov.in/shimla/
Twitter-https://twitter.com/himachalmausam
Facebook-https://www.facebook.com/profile.php?id=100018411811087

Ignore Block Delete Archive Report Reply Reply all Forward Meeting Share to Teams Zoom Move Sweep Rules Quick steps Read / Unread Categorize Flag Policy Pin Sr
Delete Report Respond Teams Zoom Move Quick steps Tags

Shut Down of D/C 400KV Amritsar Banala and Banala Hamirpur Lines.

RD Rajat Dixit<dixit.rajat@gov.in>
To: nrldcoutage <nrldcoutage@grid-india.in>; Rakesh Kumar Gupta {राकेश कुमार गुप्ता}
Cc: SANTOSH KUMAR <seo-nrpc@nic.in>; Omkishor sahu <omkishor.sahu@gov.in>; Vipul Kumar <vipul.cea@gov.in>

Reply Reply all Forward
Wed 2025-08-27 17:25
Some content in this message has been blocked because the sender isn't in your Safe senders list. Trust sender Show blocked content
You forwarded this message on Wed 2025-08-27 17:40 View conversation

महोदय/महोदया,

Undersigned is directed to inform that approval is hereby accorded for shutdown of below mentioned lines-

Sr No	Line Name	Daily/Continuous	From	To	Remarks
1	400KV Banala Amritsar	Continuous	19:00 Hrs of 27.08.2025	19:00 Hrs of 22.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee
2	400KV Banala Hamirpur	Continuous	19:00 Hrs of 27.08.2025	19:00 Hrs of 22.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee

subject to following conditions-

1. HP consent and
2. PowerGrid may explore possibility for early revival of lines.

सादर

Outlook

Shut Down of D/C 400KV Amritsar Banala and Banala Hamirpur Lines.

From Rajat Dixit <dixit.rajat@gov.in>
Date Wed 2025-08-27 17:25
To nrldcoutage <nrldcoutage@grid-india.in>; Rakesh Kumar Gupta {राकेश कुमार गुप्ता} <rakeshgupta@powergrid.in>
Cc SANTOSH KUMAR <seo-nrpc@nic.in>; Omkishor sahu <omkishor.sahu@gov.in>; Vipul Kumar <vipul.cea@gov.in>

महोदय/महोदया,

Undersigned is directed to inform that approval is hereby accorded for shutdown of below mentioned lines-

Sr No	Line Name	Daily/Continuous	From	To	Remarks
1	400KV Banala Amritsar	Continuous	19:00 Hrs of 27.08.2025	19:00 Hrs of 22.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee
2	400KV Banala Hamirpur	Continuous	19:00 Hrs of 27.08.2025	19:00 Hrs of 22.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee

subject to following conditions-

1. HP consent and
2. PowerGrid may explore possibility for early revival of lines.

सादर
रजत दीक्षित
सहायक कार्यपालक अभियंता (प्रचालन)
उत्तर क्षेत्रीय विद्युत् समिति सचिवालय, नई दिल्ली
विद्युत मंत्रालय,भारत सरकार

========== Forwarded message ==========
From: NRLDC Outage <nrldcoutage@grid-india.in>
To: "Rajat Dixit"<dixit.rajat@gov.in>
Cc: "SANTOSH KUMAR"<seo-nrpc@nic.in>, "Vipul Kumar"<vipul.cea@gov.in>, "Omkishor sahu"<omkishor.sahu@gov.in>, "Babloo Ram Meena (बबलू राम मीणा)"<brmeena@grid-india.in>, "Sunil Kumar Aharwal (सुनील कुमार अहरवाल)"<skaharwal@grid-india.in>
Date: Wed, 27 Aug 2025 16:52:43 +0530
Subject: Re: Shut Down of D/C 400KV Amritsar Banala and Banala Hamirpur Lines.
========== Forwarded message ==========

Sir,

NRLDc consent is hereby given subject to:

1. HP consent and
2. PowerGrid may explore possibility for early revival of lines.

Thanks & Regards,

NRLDC Outage Coordination Team

From: Rajat Dixit <dixit.rajat@gov.in>
Sent: Wednesday, August 27, 2025 3:59:08 PM
To: NRLDC Outage
Cc: SANTOSH KUMAR; Vipul Kumar; Omkishor sahu
Subject: Fwd: Shut Down of D/C 400KV Amritsar Banala and Banala Hamirpur Lines.

****Warning****
This email has not originated from Grid-India. Do not click on attachment or links unless sender is reliable. Malware/ Viruses can be easily transmitted via email.

महोदय/महोदया,

With reference to trailing mail, comments of NRLDC is requested on cited subject matter.

सादर
रजत दीक्षित
सहायक कार्यपालक अभियंता (प्रचालन)
उत्तर क्षेत्रीय विद्युत् समिति सचिवालय, नई दिल्ली
विद्युत मंत्रालय,भारत सरकार

========== Forwarded message ==========
From: Rakesh Kumar Gupta {राकेश कुमार गुप्ता} <rakeshgupta@powergrid.in>
To: "NRPC"<seo-nrpc@nic.in>
Cc: "Shafat Ahmad Wani {एस.ए. वानी}"<ahmed.shafat@powergrid.in>, "Vijay Srivastava {विजय श्रीवास्तव}"<vijay.srivastava@powergrid.in>, "Vivek Sundariyal {विवेक सुन्दरियाल}"<viveks@powergrid.in>, "Somara Lakra (सोमारा लाकरा)"<somara.lakra@grid-india.in>, "Sunil Kumar Aharwal (सुनील कुमार अहरवाल)"<skaharwal@grid-india.in>, "Babloo Ram Meena (बबलू राम मीणा)"<brmeena@grid-india.in>, "Omkishor"<omkishor.sahu@gov.in>, "Vipul Kumar"<vipul.cea@gov.in>, "Rajat Dixit"<dixit.rajat@gov.in>
Date: Wed, 27 Aug 2025 15:44:14 +0530
Subject: Shut Down of D/C 400KV Amritsar Banala and Banala Hamirpur Lines.
========== Forwarded message ==========

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

Dear Sir

In reference to trailing mail regarding S/D of 400KV D/C Amritsar Banala and Banala Hamirpur Lines for diversion of Loc No 39. In the evening of 27.08.2025, nearby villagers intimated in panic that there was huge sound of jerks heard in the tower and that created panic in the area. We also received call from local administration for immediate switching off the Line keeping in view safety of life and property but S/D was not allowed . During morning, local villagers shared photos showing Bolts completely shared and members detached from its position indicating further deterioration of Tower No 39.

POWERGRID T/L team has also mobilised but due to continuous rain, heavy traffic and road blocked, they could only reach site at 1:30pm.

Keeping in view criticality of the tower and safety of nearby habitat, it is requested to allow S/D as per details

Sr No	Line Name	Daily/Continuous	From	To	Remarks
1	400KV Banala Amritsar	Continuous	19:00 Hrs of 27.08.2025	19:00 Hrs of 22.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee
2	400KV Banala Hamirpur	Continuous	19:00 Hrs of 27.08.2025	19:00 Hrs of 22.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee

In view of above, S/D may please be allowed on priority In case of delay in S/D, tower may fail and failure of tower will have following implications:

1. Huge Risk to nearby life and property
2. Consequential damages to nearby towers thus longer outage
3. Unrest among locals in case of and accident resulting in major ROW Issues

Reason for longer outage is due to Loss of road Connectivity due to due to landslide at multiple locations enroute, head loading required from 1.5-2KM

may please allow above S/D on priority. matter most urgent please

With Regards

Rakesh Kumar Gupta
DGM (RTAMC)
NR-II Jammu

From: Rtamcjammu <Rtamcjammu@powergrid.in>
Sent: Tuesday, August 26, 2025 22:23
To: nrldcso@grid-india.in <nrldcso@grid-india.in>; NRLDC Outage <nrldcoutage@grid-india.in>

Cc: Shafat Ahmad Wani {एस.ए. वानी} <ahmed.shafat@powergrid.in>; Rakesh Kumar Gupta {राकेश कुमार गुप्ता} <rakeshgupta@powergrid.in>; Vivek Sundariyal {विवेक सुन्दरियाल} <viveks@powergrid.in>; somara lakra <somara.lakra@grid-india.in>; Babloo Ram Meena (बबलू राम मीणा) <brmeena@grid-india.in>; Santosh Kumar <seo-nrpc@nic.in>; NRLDC Availability <nr_availability@grid-india.in>; Sunil Kumar Aharwal (सुनील कुमार अहरवाल) <skaharwal@grid-india.in>
Subject: Fw: Emergency Shut Down of D/C 400KV Amritsar Banala and Banala Hamirpur Lines.

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

आदरणीय महोदय,

This is in reference to vulnerable condition of LOC No 39 of D/C 400KV Amritsar Banala and Banala Hamirpur Line. During recent patrolling, it is observed that area current weather spell had resulted in mass sinking around the tower and situation had become more precaurious. As such it warrants immediate redressal of he situation.

Land sinking in above location was observed in November 2024 Immediate after that matter was reported to NRPC . To access condition of the Tower, a committee consisting of members from NRPC, HPPTCL and M/S AD Hydro was constituted. committee visited site in Dec'2024 and submitted report with following recommendations.

"QUOTE"
" As tower location 39 of 400 kV Banala – Amritsar & Banala Hamirpur Transmission line has become vulnerable due to land sinking and consequent bending of main legs and other tower members. POWERGRID may assess the strength of tower and may take necessary action to support tower structure. Patrolling of tower may be increased. PowerGrid may take necessary preventive action including assessing measures for diversion of line from affected tower on new tower located in stable area".

As per the recommendations of the committee, we had taken all measures including proper tightening of members and provided additional guys to support tower structure. Further frequent patrolling was also carried out continuously .
For diversion of the line to bypass loc No 39, S/D request was planned during June 2025 and submitted for approval in 231st OCC meeting. However, due to other system constraints, the said requested SD was continuously denied in OCC meetings up to 15.09.2025 subject to real time real time hydro generation pattern in Parbati complex.

During recent patrolling, it has been observed that the condition of the tower is very critical and the same needs to be bypassed immediately without any further delay. The criticality in tower/ nearby area observed during recent patrolling are as under:

1 Bending details

2 member shearing details
3 nut bolt shearing details
4 conductor stress details
5 land sinking near the tower details

Further due to continuous rain and land sliding in the area, approach road had completely damaged and restoration of tower now requires head loading of around 1.5-2KM against earlier head loading of approx. 200-300 Meters
For reference photo showing in stress & broken conductor strands is attached

In view of above facts, following S/D may please be allowed on priority to bypass Tower Loc No 39:

Sr No	Line Name	Daily/Continuous	From	To	Remarks
1	400KV Banala Amritsar	Continuous	22:30 Hrs of 26.08.2025	19:00 Hrs of 20.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee
2	400KV Banala Hamirpur	Continuous	22:30 Hrs of 26.08.2025	19:00 Hrs of 20.09.2025	S/D required for diversion of the Line at LOC No 39 by installing 02 number new tower as per recomendation of the committee

In case S/D is not allowed, tower may collapse and resultant cascading effect may result in failure of adjoining towers also which may endanger the lives and property of locals residing nearby. Further, in case of cascading failure, the restoration of affected tower section may take around 2 months as towers are located on steep hill.

Matter most urgent please

धन्यवाद और सादर /Thanks and Regards,

पाली प्रभारी/Shift Incharge,
आर°टी°ए°एम°सी°/RTAMC,

ऊ:क्षे:-II,जम्मू/NR-II, JAMMU.
मोबाइल/Mobile : 09596882770, 09622138150
लैंड्लाइन/Landline: (0191)2471187, 2471185

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दावात्याग : यह ईमेल पावरग्रिड के दावात्याग नियम व शर्तों द्वारा शासित है जिसेhttp://apps.powergrid.in/Disclaimer.htm पर देखा जा सकता है। Disclaimer: This e-mail is governed by the Disclaimer Terms & Conditions of POWERGRID which may be viewed at http://apps.powergrid.in/Disclaimer.htm

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POWERGRID Himachal Transmission Limited (PHTL)

Report on Shutdown and Line Availability Claim for Tower T-244

400 kV Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line
(Earlier Known as Karcham Wangtoo-Abdullapur Transmission Line)

(Section T-243 to T-245)

Shutdown Period

Wangtoo-Kala amb line 8.10.2025 (13:01hrs) to 18.10.2025 (18:05 hrs)
Sorang-Kala amb line 8.10.2025 (13:05 hrs) to 18.10.2025 (18:46 hrs)

OCTOBER-2025

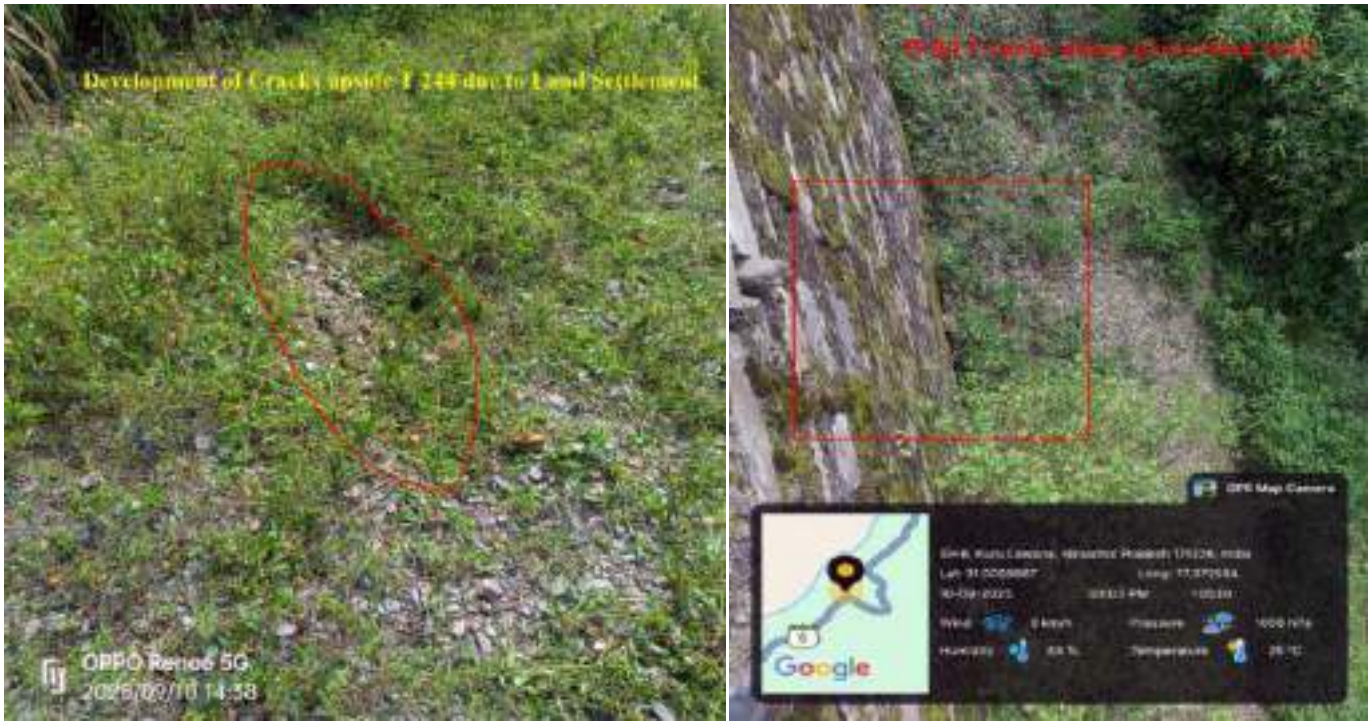
Rampur Bushahr

Background:-

The 400 kV Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line (Earlier Known as Karcham Wangtoo-Abdullapur Transmission line) is responsible for the evacuation of power generated by M/s JSW 1046 MW Karcham Wangtoo HEP.

In the month of July-Sept 2025, entire state of Himachal Pradesh witnessed unprecedented heavy rainfall leading to land settlement/sliding issues throughout the state causing heavy damages to Roads, houses and other infrastructures properties throughout the state. As per IMD's Monthly Weather Report in the month of August 2025, the state received 431.3 mm rainfall (≈68% above normal), making it the wettest August since 1949 and the 9th highest since 1901.

As a result of unprecedented heavy rainfall in the month of Aug & Sept. in Sirmour Distt.,on dated 09.09.2025, Land settlement issue was reported at Tower no. 244(DB+0) of 400 Kv Kala amb-Abdullapur Transmission line, which is located in Village Tella, Tehsil Rajgarh Distt. Sirmaur(HP). Development of cracks in Tower area, adjoining link road MDR road and house located in nearby areas are found. Further major settlement in MDR road just ahead of Tower location (by apprx. 1.0 Mtrs) was observed. On inspection & Level/Diagonal Measurement Leg B was found settled by 5.0 Cm w.r.t. other legs leading to Bending & Shearing of Tower members at Bottom Cage Level. Immediately safety measure were undertaken by PHTL by providing back stays to Tower for load balancing and tower was kept on Regular Monitoring.



Development of Ground Cracks Near Tower Location T-244

The photographs show wide ground cracks that have developed near Tower T-244, indicating significant land settlement and slope movement in the area. These fissures appeared following continuous heavy rainfall during August–September 2025, causing loss of soil strength and slope instability. The cracks extend downslope towards the tower foundation zone, confirming progressive ground displacement that directly impacted the structural stability of Tower T-244.

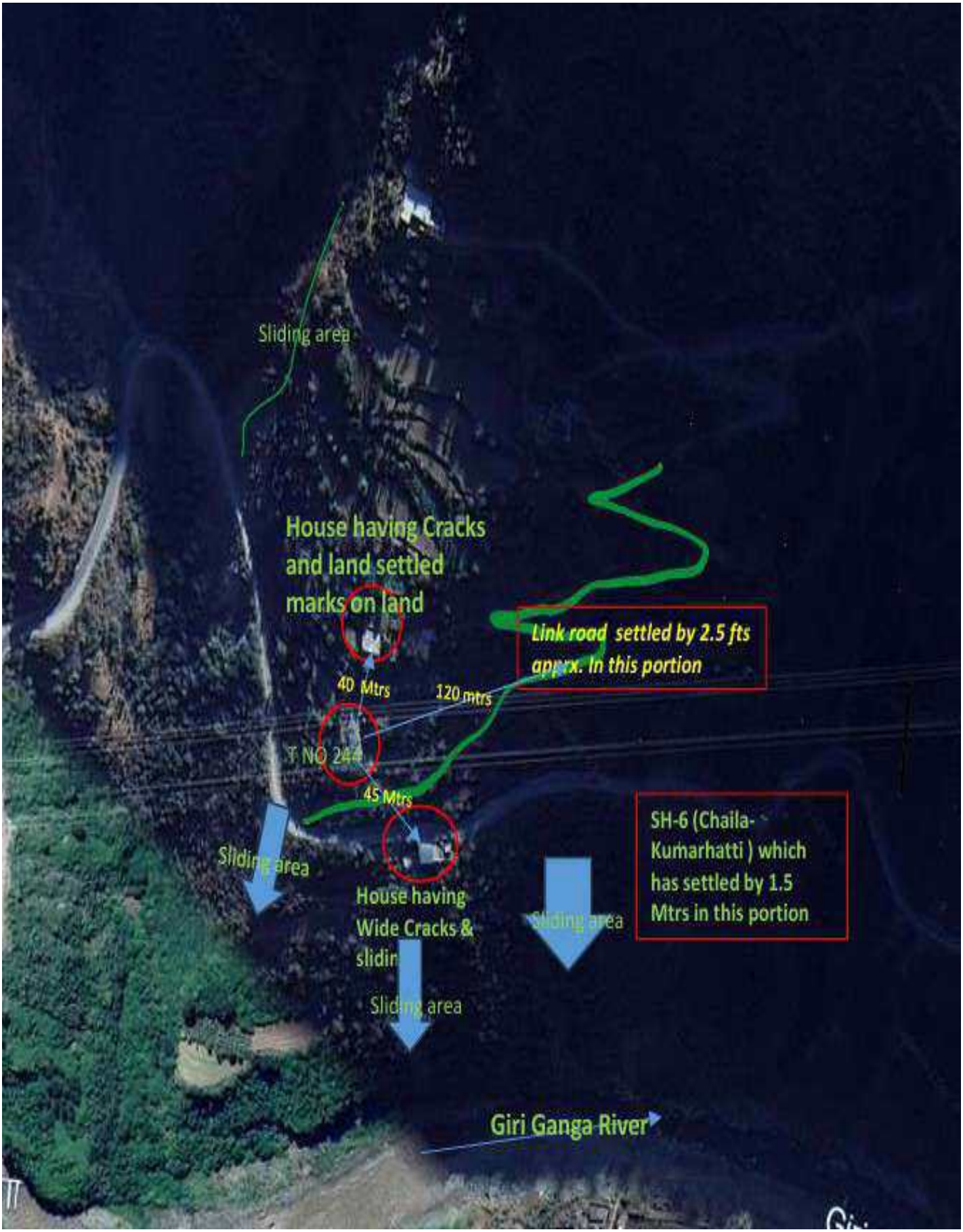
Visible Ground Cracks Near Foundation of Tower T-244 (Leg-C Side)

The photograph shows major cracks developing around the foundation zone of Leg-C of Tower T-244, indicating active ground settlement and subsurface soil movement. The cracks, extending several meters from the base, reflect continuous slope instability caused by prolonged heavy rainfall and erosion in the area. Such visible distress at the foundation level highlights the loss of structural support and validates the urgency for dismantling and rerouting the transmission line to prevent tower failure.

The photographs show the section of State Highway-6 (Chhaila–Kumarhatti Road) located directly below Tower T-244, where visible road subsidence and slope movement have occurred due to continuous heavy rainfall and land settlement. The warning sign installed by the Himachal Pradesh Public Works Department (HPPWD) cautions commuters about the ongoing slope failure and falling stones in the area. The image on the right highlights the extent of road sinking and crack development, demonstrating the active slope instability that also affected the foundation stability of Tower T-244 situated immediately uphill.

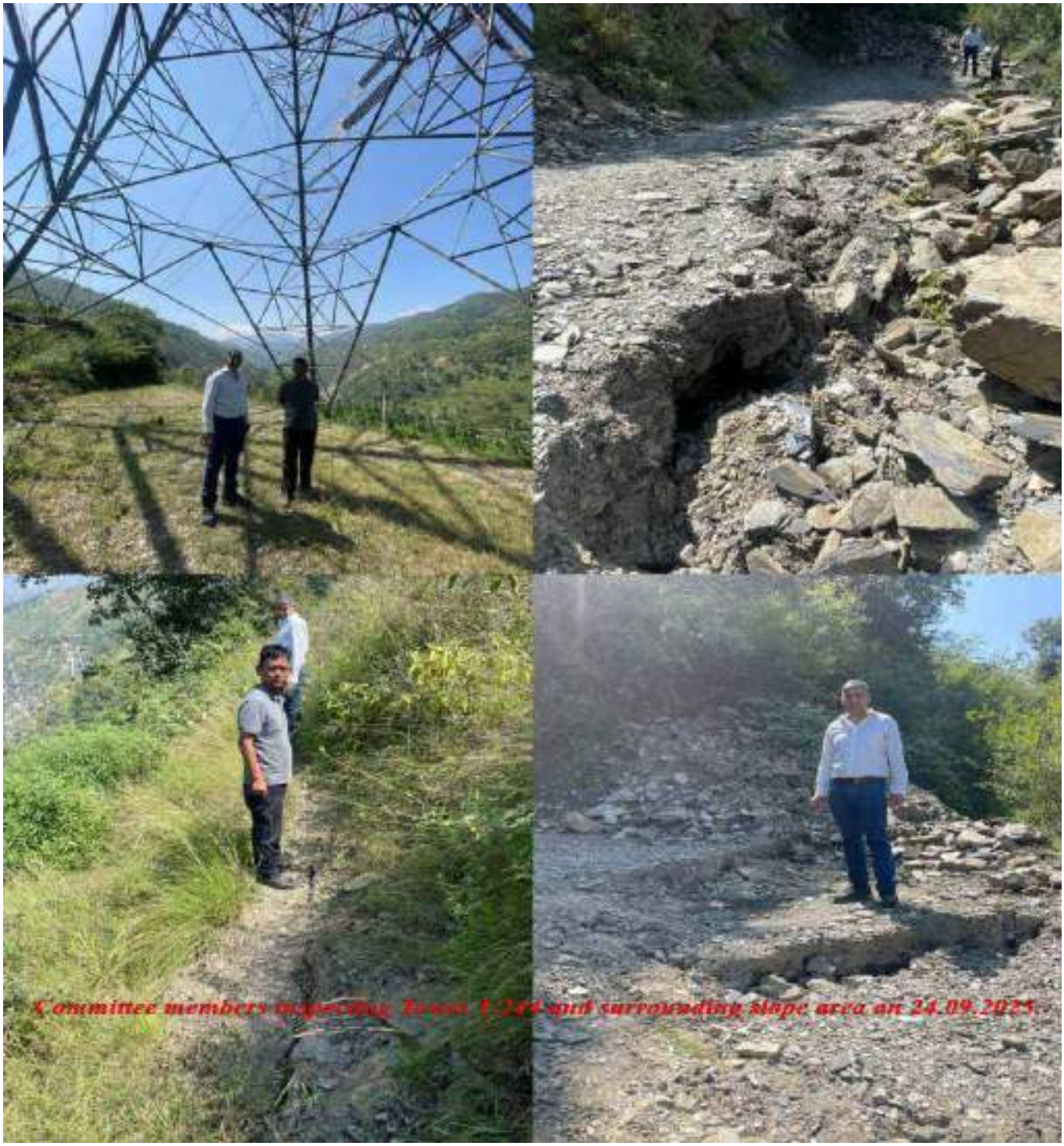
Photographs show ground cracks and slope settlement around Tower Location T-244 along State Highway-6 (Chhaila–Kumarhatti Road) and the adjoining village link road near village Tella. Cracks were observed upslope, around the retaining wall, and along roads, indicating progressive slope movement and soil displacement caused by the heavy monsoon rains of August 2025. These conditions confirm that the tower distress resulted from natural slope failure and land subsidence, establishing it as a Force Majeure (natural calamity) event.

Satellite Imagery showing the extent of damages due to Land settlement in this area is as under:



Site Inspection dated 24.09.2025

Further site visit was conducted by a committee on dated 24.09.2025 to assess the condition of Tower T-244 and nearby slope stability. The team observed severe land settlement, cracks around the foundation, bending of Leg-C, and failure of retaining structures. Considering the unstable ground and continuous slope movement, the committee recommended immediate rerouting of the line between Towers T-243 and T-245 to ensure safety and maintain line reliability. Photographs of the committee visit showing ground settlement, tower tilt, and slope damage are enclosed below.



Photographs show the committee inspecting Tower T-244 and its surroundings, highlighting ground fissures, slope movement, Leg-C deformation, and road damage caused by continuous land settlement.

Further on dated 26.09.2025, Land settlement was again reported at this tower leading to severe bending of Leg C and its adjoining Tower members. Further on inspection of Tower, Bending & Shearing & Development of cracks are found in tower members in cage portion of Tower, making the tower vulnerable for any mis-happening if any further settlement in land occurred. Moreover development of cracks in land upside of Tower no. 244, nearby house and widening of cracks along Protection wall at this tower are found.

Cracks Observed on Retaining Wall Above Tower T-244 (Leg-C Side)

The retaining wall constructed above Tower T-244 shows severe longitudinal cracks and structural separation between stone masonry joints, indicating loss of support and progressive slope instability. The cracks have widened due to continuous land settlement and soil erosion following the heavy rainfall events of August 2025. This failure of the retaining structure has further weakened the stability of the slope above the tower, contributing to the foundation distress observed at T-244 and validating the classification of the event as a Force Majeure condition caused by natural calamity.

Site Video Evidence ⇨ T244.mp4

Comprehensive Video Documentation Showcasing the Extent of Land Settlement, Structural Distress, and Environmental Impact around Tower Location T-244.

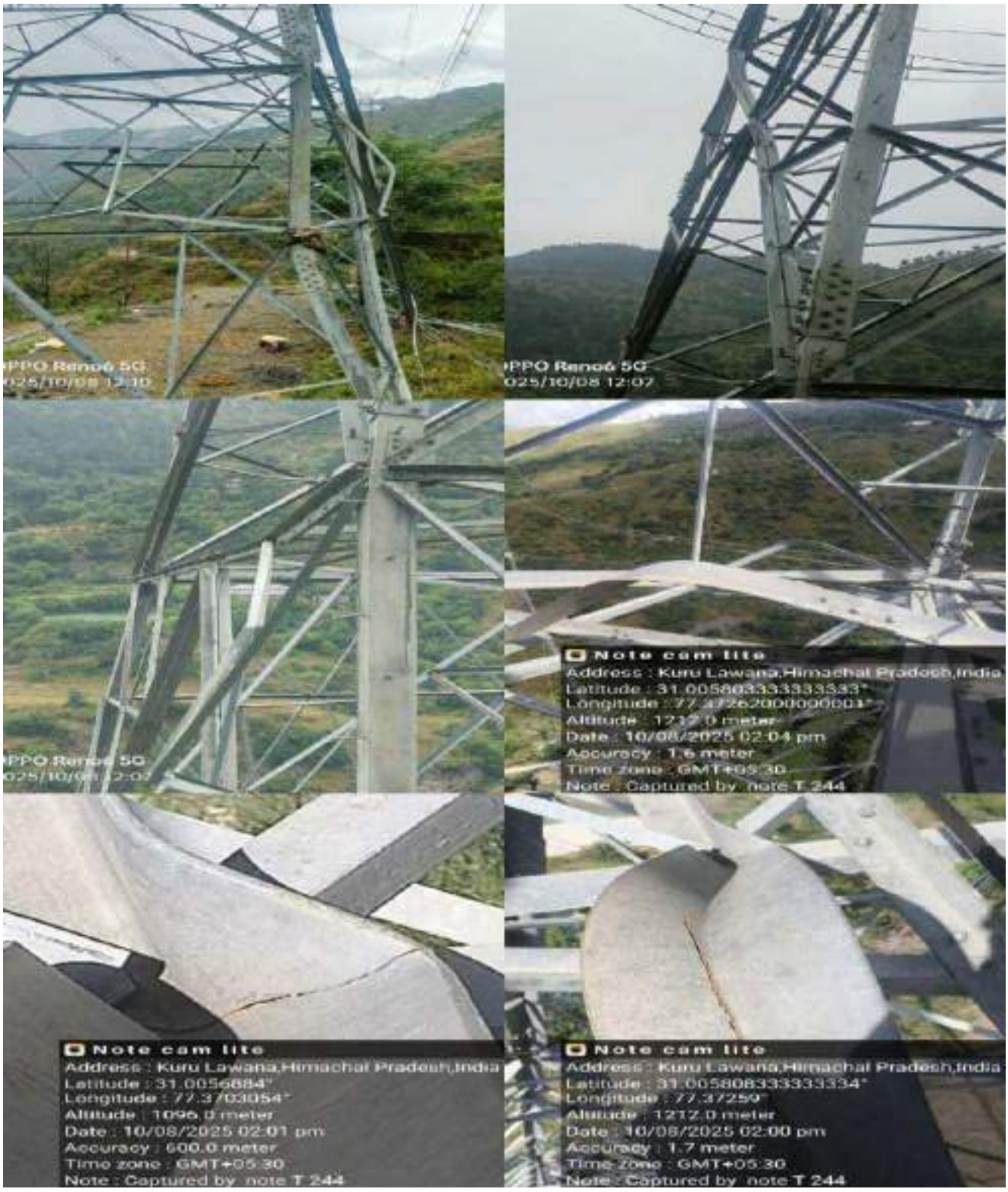
The accompanying site video provides a detailed visual record of the prevailing field conditions around Tower No. T-244 of the 400 kV D/C Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line. The footage vividly captures multiple indicators of ground instability, including wide surface cracks near the tower foundation, settlement of the approach road (SH-6), and damage to nearby residential structures located approximately 40–50 meters downslope.

The video further highlights the extent of ground subsidence and its direct impact on nearby residential structures situated approximately 45 meters downslope of Tower No. T-244. The footage clearly shows extensive cracking in the plinth, walls, and floor slabs of a house located adjacent to the affected slope, confirming progressive land settlement and structural distress in the vicinity. These visuals provide strong evidence that the slope failure not only compromised the tower foundation but also caused collateral damage to the built environment below the tower site. This substantiates the severity of the terrain instability observed during the post-monsoon inspection and reinforces the classification of the event as a Force Majeure condition.

This evidence collectively reinforces the classification of the incident as a Force Majeure – Natural Calamity, resulting from exceptional rainfall and subsequent land settlement during August–September 2025. The video serves as a crucial supporting record for the justification of shutdown and deemed availability claim submitted by PHTL to NRPC.

Photographs Showing Damaged Condition of Tower T-244

The photographs below show the extent of structural damage to Tower T-244 caused by continuous land settlement. Visible bending of Leg-C, distortion of bracing members, cracked joints, and misalignment of tower panels clearly indicate that the foundation was displaced due to soil movement following heavy monsoon rains. The deformation pattern confirms loss of vertical alignment and compromised load-bearing capacity, making the tower unsafe for continued operation.



Damaged condition of Tower T-244 showing bent Leg-C, cracked members, and foundation distress caused by land settlement and slope failure

Photographs Showing Damage to Residential House Downhill of Tower T-244

The photographs below show a residential house located approximately 45 meters downhill from Tower T-244 that sustained severe structural damage due to continuous land settlement and slope movement following the heavy rains of August 2025.Visible cracks in walls, plinth separation, and collapse of retaining portions clearly indicate that the entire hill slope below the tower experienced progressive soil displacement. This ground movement affected not only the tower foundation but also nearby civilian structures, confirming the extent and severity of the slope failure triggered by the Force Majeure event.

Final Arrangement of Transmission Line after Dismantling of Tower T-244 and Direct Stringing between Towers T-243 and T-245 (as on 18.10.2025)

The photograph hereunder shows the final configuration of the 400 kV D/C Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line following completion of rerouting works on 18.10.2025. The dismantled location of Tower T-244 can be seen along the steep slope adjacent to State Highway-6 (Chhaila–Kumarhatti Road), where continuous land settlement had rendered the tower foundation unsafe. The transmission conductors have been directly strung between Towers T-243 and T-245, maintaining the required electrical and mechanical clearances. This arrangement successfully restored the line to full operational status, ensuring safe and reliable power transmission across the section. The line was successfully re-energized on 18.10.2025 (18:49 hrs) after all integrity and clearance checks.

Additional Reference – Official Disaster Declaration by GoHP

The Government of Himachal Pradesh, Department of Revenue, Disaster Management Cell (DMC), vide Order No. Rev. (DMC)(F)11-1/2023 dated 01.09.2025, has officially acknowledged the unprecedented monsoon rainfall across the state since June 2025, resulting in widespread landslides, flash floods, and large-scale infrastructure damage.The order highlights severe slope failures, road blockages, and habitation losses across Shimla, Kullu, Lahaul-Spiti, and Sirmaur districts, confirming the exceptional intensity of the monsoon and its prolonged impact.This official notification further substantiates that the damages and slope movements observed near Tower Location T-244 of the 400 kV D/C Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line fall under Force Majeure (Natural Calamity) conditions. **(Annexure-I Enclosed)**

Local Administrative Communication and Support Request

In view of the visible settlement and structural distress at Tower Location T-244, Powergrid Himachal Transmission Limited (PHTL) formally intimated the matter to the Sub-Divisional Magistrate (SDM), Rajgarh, for administrative intervention and support in ensuring the safety of nearby habitations and for facilitating restoration activities. vide letter Ref: PHTL/KWTL/2025-26/521 dated 26.09.2025 The letter highlighted that Tower T-244, located near State Highway-6, Tehsil Rajgarh, District Sirmaur, was exhibiting visible foundation settlement and bending, posing a potential risk to line stability and nearby population. PHTL sought administrative coordination with local authorities for timely mitigation and safe restoration of this critical transmission infrastructure. Copy of the official letter (Ref: PHTL/KWTL/2025-26/521, dated 26.09.2025) addressed to SDM Rajgarh is enclosed herewith. **(Annexure-V Enclosed)**

Intimation to NRPC

Accordingly, intimation was given to the Northern Regional Power Committee (NRPC) vide PHTL letter dated 29.09.2025, reporting severe settlement and distress at Tower T-244 and requesting expert assessment. Subsequent inspection by the PHTL O&M and Engineering teams revealed further deterioration, including increased bending of Leg-C, multiple bent/sheared/cracked members, and widening cracks in the retaining wall, confirming ongoing slope movement and foundation instability. The tower was declared unsafe for operation, and it was decided to dismantle and reroute the line between Towers T-243 and T-245 to prevent collapse and maintain reliable power transmission. Copies of letters to NRPC and inspection photographs are enclosed as **Annexure-VI.**

In view of the continuous land subsidence and foundation distress observed at Tower No. 244, it was decided to reroute the transmission line section between Towers T-243 and T-245 by bypassing the affected Tower T-244, where the land sinking issue was progressively worsening.

Accordingly, shutdowns on both circuits were availed on 08.10.2025 —

- Wangtoo–Kala Amb Line: From 13:01 hrs
- Sorang–Kala Amb Line: From 13:05 hrs

Rerouting works were undertaken as per approved engineering and safety procedures involving:

1. De-stringing of conductors at Tower No. 244
2. Dismantling of the existing Tower No. 244
3. Stringing of conductors directly between Towers T-243 and T-245

All works were completed on 18.10.2025, and both circuits were successfully charged thereafter at:

- 18:05 hrs (Wangtoo–Kala Amb)
- 18:46 hrs (Sorang–Kala Amb)

Summarized Information (in Brief)

Particular	Details
Transmission Line	400 kV D/C Wangtoo–Kala Amb & Sorang–Kala Amb
Owner / Operator	Powergrid Himachal Transmission Limited (PHTL)
Tower Number	T-244
Type of Tower	DB
Location	Tella, Tehsli Rajgarh District Sirnaur Himachal Pradesh
Date of Occurrence	Sept.2025
Nature of Damage	Bending and settlement of Leg 'C' due to continuous land movement
Cause	Heavy rains leading to slope failure and soil erosion
Outage Requested	Force Majeure – Natural Calamity- Deemed Available
Shutdown Availed	From 08.10.2025 (13:01 hrs) to 18.10.2025 (18:19 hrs) Wangtoo-Kala amb From 08.10.2025 (13:05 hrs) to 18.10.2025 (18:46 hrs) Sornag-Kala amb
Restoration Action	De-stringing at Tower no. 244 Towards 244 & 245 respectively Dismantling of Tower no. 244 and Stringing by direct connecting Tower no. 243 with 245 using existing corridor

Request for Deemed Availability Consideration by NRPC

The Indian Meteorological Department (IMD) recorded extremely heavy rainfall in Sirmaur District during August 2025, approximately 225% above normal for the period. This unprecedented rainfall triggered multiple landslides, slope failures, and erosion across the various regions of Himachal Pradesh.

Supporting Documents:

- Annexure II: Monthly Weather Report Published by Govt. of India,Ministry of Earth Sciences, India Meteorological Department, Meteorological Centre, Shimla for m/o August 2025
- Annexure III: Newspaper Reports – Landslides and Heavy Rainfall in Sirmaur/ HP Region

The shutdown period from 08.10.2025 to 18.10.2025 was utilized exclusively for rerouting and restoration of the affected transmission line section under Force Majeure conditions.

The incident involving Tower No. 244 of the 400 kV D/C Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line was a direct consequence of exceptionally heavy rainfall and subsequent land settlement in the region, as substantiated by official IMD reports and newspaper coverage.
The extreme meteorological conditions led to foundation failure and structural distress, categorically classifying the event as a Force Majeure (Natural Calamity).

To ensure safety and continuity of power transmission, PHTL promptly undertook rerouting of the line between Towers T-243 and T-245, bypassing the affected Tower T-244. The restoration works were completed within the approved shutdown period, ensuring reliable system operation and avoiding any prolonged outage impact on the grid. (Revised Profile: Exit.AP-243 TO 245 Enclosed as **Annexure-IV**)

In accordance with CERC Transmission Availability Regulations (Regulations 5.3 & 5.4), the shutdown duration from 08.10.2025 to 18.10.2025, utilized solely for emergency restoration under Force Majeure conditions, is hereby requested to be treated as **"Deemed Available**" for line availability computation.

Supporting Annexures Enclosed with this Report

Annexure No.	Description	Remarks
I	Official Disaster Declaration by GoHP	Order No. Rev. (DMC)(F)11-1/2023 dated 01.09.2025
II	Monthly Weather Report Govt. of India,Ministry of Earth Sciences, India Meteorological Department, Meteorological Centre, Shimla-171004 (August 2025)	https://mausam.imd.gov.in/Forecast/mcmarq/mcmarq_data/August_monthly_weather_report%202025.pdf
III	Newspaper Reports – Landslides in Rampur & Sirmaur Region	Different News Sources
IV	Revised Line Profile Drawing (T-243 to T-245)	Approved by Engineering Section
V	Administrative Letter to SDM Rajgarh (Ref: PHTL/KWTL/2025-26/521 dated 26.09.2025)	Request for local support
VI	Intimation to NRPC regarding T-244 (Dated 29.09.2025)	PHTL Correspondence

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ANNEXURE-I

Government of Himachal Pradesh
Department of Revenue,
Disaster Management Cell (DMC)

No. Rev. (DMC)(F)11-1/2023 Dated, Shimla-171002, 01 September 2025

ORDER

WHEREAS, during this season the Monsoon is active in the State since 19th June 2025 and it has been continuously raining ever since then. The State has experienced large-scale damage and losses during different heavy spells of rains i.e. 26th June in Dharamshala and Kullu; 30th June and 01 July in various parts of the Mandi district; 5-6 and 13-14 August across the entire state; 24-26 August in Chamba, Kullu and Lahaul & Spiti districts. In Chamba district due to the ongoing Sri Mani Mahesh Yatra many yatris got stranded along the yatra route and between Chamba and Bhamour due to disruption of road connectivity. The state has also been experiencing heavy spell of rainfall from 30th August 2025 and it is likely to continue till 2nd of September and this is further likely to aggravate the problem and normal life is likely to experience disruption;

WHEREAS, during this period 45 cloudbursts; 91 flash floods; 105 major landslides have been reported from different parts of the state. Due to various incidents 161 people have lost their lives and 40 are missing. 154 people have died due to road accidents during this period. 845 houses have been fully damaged and 3254 houses have been partially damaged. Total damage to the tune of Rs. 3056 Cr. has been reported so far. Still a lot of damage is yet to be assessed and reported. This does not reflect the damage caused to the national highways. Road connectivity of national highways to Manali, Lahaul & Spiti and Chamba Bhamour has been severely damaged. Many yatris along Chamba and Mani Mahesh still remain stranded despite the fact thousands have already been rescued. More than 780 roads are still blocked; 360 water supply schemes are still disrupted and 2274 DTRs are down. Many motorable and footbridges have been damaged. This has disrupted movement of vehicles, ration, local produce like apple, vegetables, etc. Because of this widespread disruption, the entire State is severely affected by disaster;

WHEREAS, the district and State authorities have been proactively engaged in restoring damaged and disrupted services and making all out effort to provide relief to the affected people, but still this needs to be further accelerated and speeded up keeping in view the fact that Monsoon is still very active and heave spells are still affecting the states;

NOW THEREFORE, in view of current situation and in order to ameliorate the suffering of the people of the state and those visiting HP, the undersigned as Chief Secretary cum Chairman of the State Executive Committee constitute under the Disaster Management Act 20025, in exercise of the powers conferred on me under **sub section (e) of Section 24 of the Act** ibid to further strengthen the implementation of the Act order as under:

i) All the Departments of the State shall ensure that the Emergency Support Functions (ESFs) notified vide order Rev.(DMC-C)20-2/2020-COVID19 dated 28th March 2024 by the SEC are strictly adhered to and necessary actions taken by all concerned to ensure prompt action for emergency response.

ii) The District Magistrate may issue all necessary orders under section 34 of the Act, which authorizes them to do so in the event of a threatening disaster situation.

iii) The PWD, JSV and HPSEBL shall take adequate measures to ensure restoration of their respective services on war footing.

iv) All the Departments and DDMAs of the State shall take all measures required to ensure smooth movement of people, goods and services within their respective jurisdiction.

v) All the DDMAs shall ensure that relief measures are taken timely to provide relief to the affected people.

vi) All the Telecom Services Providers shall ensure that mobile and landline connectivity is restored and maintained on war footing across the State.

vii) All the Local Authorities (PRIs and ULBs) shall take all measures for emergency response, restoration and relief in the affected areas and render necessary assistance to the DDMAs and Departments of the State.

By order

(Prabodh Saxena, IAS)
Chief Secretary-cum-CEO
SDMA, Himachal Pradesh.

Endst. No. As above **Dated Shimla-171002, the 01 September 2025**

Copy forwarded to the following for information and immediate necessary action:

1) All the Administration Secretary to the Govt. Of Himachal Pradesh
2) The Secretary to the Governor, Himachal Pradesh, Shimla-2
3) All the Divisional Commissioner of Himachal Pradesh
4) The Chairman HPSEBL/CMD SJVNL/ NHPC/NTPC
5) All Deputy Commissioners-cum Chairman, DDMA, Himachal Pradesh
6) All the Heads of the Departments of the Himachal Pradesh.
7) The Principal Pvt. Secretary-cum-Special Secretary to the Chief Minister, HP, Shimla-2
8) The Sr. Pvt. Secretaries of all Hon'ble Ministers of the State.
9) The Sr. Pvt. Secretary to the Chief Secretary to the GoHP.
10) Guard File.

(K.K. Pant, IAS)
Additional Chief Secretary (Revenue) to the
Government of Himachal Pradesh.

Govt. of India,
Ministry of Earth Sciences,
India Meteorological Department,
Meteorological Centre,
Shimla-171004

ANNEXURE-II

Monthly Weather Report (August 2025)

1. Weather summary

- Himachal Pradesh has received **widespread** precipitation during many days of August month with **normal to active** activity on many days; **vigorous** activity on 2 days (dated 25th & 26th August 2025) and **weak** activity on 5 days (dated 08th, 10th, 11th, 13th and 22nd August 2025).
- Himachal Pradesh has received the **9th highest rainfall** (431.3 mm) in August since 1901. This is the **highest August rainfall since 1949**, with the highest ever recorded in **1927** (542.4 mm).

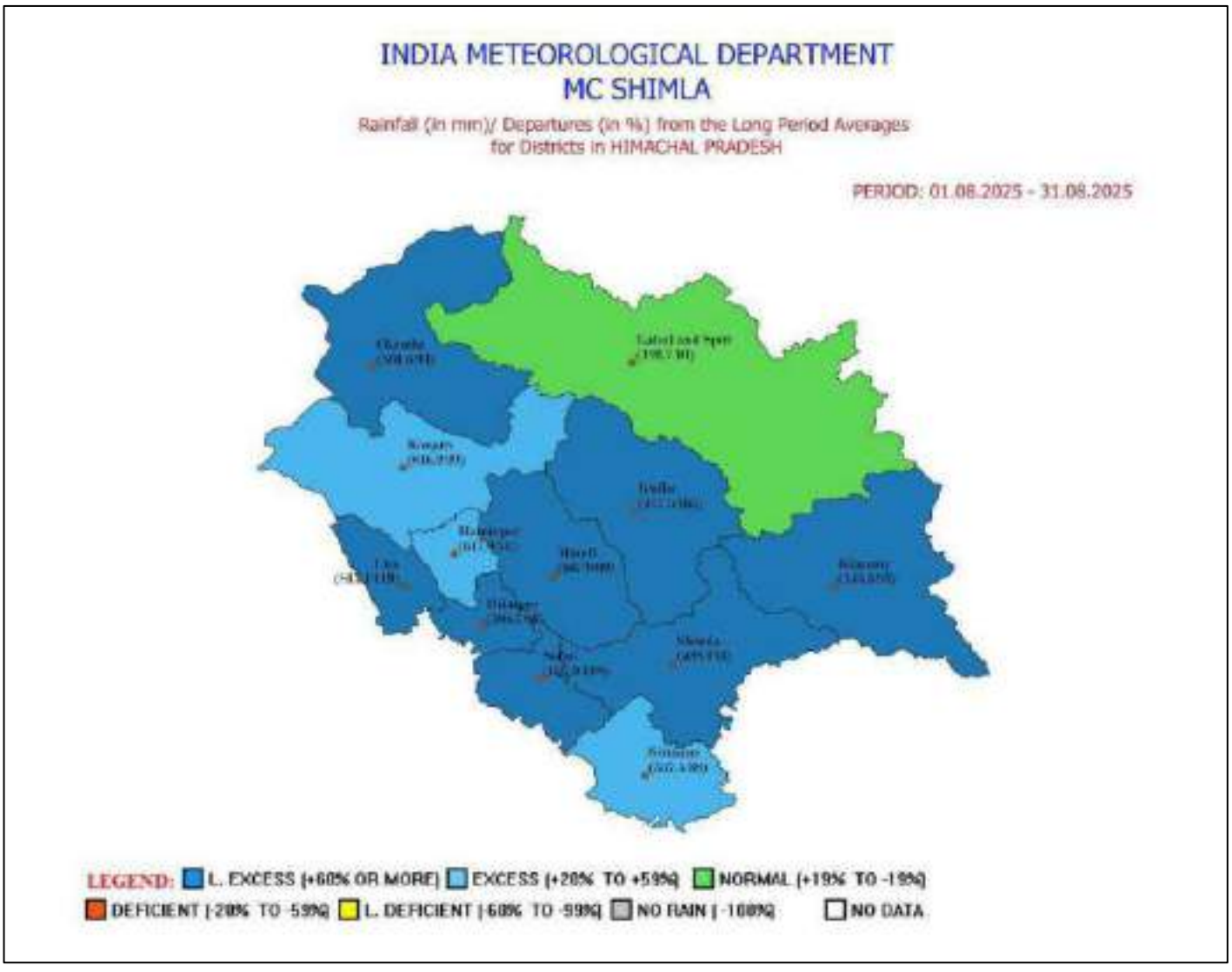
2. Monthly precipitation and departure-

- The State received **large excess** precipitation **(68%)** with **431.3 mm** actual rainfall against **256.8 mm** normal rainfall in August month.
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.

❖ Himachal Pradesh has received

- **Extremely Heavy rain** (in mm) in Una (distt. Una) 222.8 on 02nd August, 2025.
- **Very Heavy rain** (in mm) in Chuari (Distt. Chamba) 118 On 01ST August; Amb(Distt. Una) 154.8, Bilaspur Sadar (Distt. Bilaspur) 120.8 On 02ND Aug; Mandi (Distt. Mandi) 151.2 On 05TH Aug; Kasauli (Distt. Solan) 145, Dharampur (Distt. Solan) 122.8, Gohar (Distt. Mandi) 120 on 06TH Aug; Nalagarh (Distt. Solan) 120, Bharwain (Distt. Una) 120 On 07TH Aug; Nagrota Surian (Distt. Kangra) 180.2, Guler (Distt. Kangra) 161.2 On 12TH Aug; Pachhad (Distt. Sirmaur) 153.2 On 14TH Aug; Naina Devi (Distt. Bilaspur) 160.6 On 16TH Aug; Kataula (Distt. Mandi) 116.3 On 17TH Aug; Amb (Distt. Una) 150 On 20TH Aug; Una (Distt. Una) 132.6 On 21ST Aug; Kheri (distt. Chamba) 129, Pandoh (Distt. Mandi) 123 On 24TH Aug, Kahu (Distt. Bilaspur) 190.5, Ghumarwin (Distt. Bilaspur) 160, Barthin (Distt. Bilaspur) 156.4, Naina Devi (Distt. Bilaspur) 148.4, Kheri (distt. Chamba) 142, Bilaspur Sadar (Distt. Bilaspur) 140.8, Chuari (Distt. Chamba) 140.2, Mehre (Barsar) (Distt. Hamirpur) 127 On 25TH Aug; Naina Devi (Distt. Bilaspur) 160.8, Kheri (distt. Chamba) 128.6, Chuari (Distt. Chamba) 125.2 On 26TH Aug; Jatton Barrage (distt. Sirmaur) 138 on 29th Aug.
- **Heavy rain** (in mm) in CHUARI (distt. Chamba) 96, BHARWAIN (distt. Una) 92, NADAUN (distt. Hamirpur) 73.6, BARTHIN (distt. Bilaspur) 69.6, SUJANPUR TIRA (distt. Hamirpur) 68.4, DEHRA GOPIPUR (distt. Kangra) 67.2, CHAMBA AWS (distt. Chamba) 66 on 02nd Aug; BHARERI (distt. Hamirpur) 108.2, NAINA DEVI (distt. Bilaspur) 74.4, on 03rd Aug; KASAULI (distt. Solan) 82 on 04th Aug; BIJAHI (distt. Mandi) 105.6, SUNDARNAGAR (distt. Mandi) 84.1, NADAUN (distt. Hamirpur) 78, GOHAR (distt. Mandi) 72 on 05th Aug; CHUARI (distt. Chamba) 98.4, NAGROTA SURIAN (distt. Kangra) 93.4, PACHHAD (distt. Sirmaur) 88, NAINA DEVI (distt. Bilaspur) 86.4, BIJAHI (distt. Mandi) 84.4, KUMARSAIN (distt. Shimla) 80.4, SUNDARNAGAR (distt. Mandi) 80.3, KANGRA (distt. Kangra) 71.4, BILASPUR SADAR (distt. Bilaspur) 70.4, GULER (distt. Kangra) 68.4, KARSOG (distt. Mandi) 68, Dhaulakuan (distt. Sirmaur) 67, BANJAR (distt. Kullu) 66, SUNIBHAJJI (distt. Shimla) 66, NALAGARH (distt. Solan) 66, MANDI (distt. Mandi) 65.8, on 06th Aug; NAINA DEVI (distt. Bilaspur) 92.6, PACHHAD (distt. Sirmaur) 75.1, R L BBMB (distt. Bilaspur) 73 on 07th Aug; NAINA DEVI (distt. Bilaspur) 112.4, PANDOH (distt. Mandi) 102, BANGANA_R (distt. Una) 86.4, R L BBMB (distt. Bilaspur) 67, PACHHAD (distt. Sirmaur) 67, NARKANDA AWS (distt. Shimla) 66.5, KUMARSAIN (distt. Shimla) 65.4, KASAULI (distt. Solan) 65.2 on 09th Aug; KANGRA (distt. Kangra) 68.4 on 10th Aug; GHAMROOR (distt. Kangra) 112.2, Sandhole (distt. Mandi) 78.8, NADAUN (distt. Hamirpur) 78.5, DEHRA GOPIPUR (distt. Kangra) 76.2, JOGINDARNAGAR (distt. Mandi) 74, KANGRA (distt. Kangra) 73.8, Bhareri (distt. Hamirpur) 70.2, PALAMPUR (distt. Kangra) 69, SUJANPUR TIRA (distt. Hamirpur) 66, BIJAHI (distt. Mandi) 65.2 on 12th Aug; RAJGARH (distt. Sirmaur) 102, KANDAGHAT (distt. Solan)100, JATTON BARRAGE (distt. Sirmaur) 87, UNA (distt. Una) 85.4 SOLAN (distt. Solan)81.4, KOTKHAI (distt. Shimla) 77.4, Shillaro (distt. Shimla) 73, JUBBAL (distt. Shimla) 72.6, SHIMLA (distt. Shimla) 69, KUFRI (distt. Shimla) 66, JUBBERHATTI (distt. Shimla) 65.2, RENUKA / DADHAU (distt. Sirmaur) 64.6 on 14th Aug; JOGINDARNAGAR (distt. Mandi) 106, PALAMPUR (distt. Kangra) 102.4, Bhareri (distt. Hamirpur) 75.4, KHERI (distt. Chamba) 73.2, Kataula (distt. Mandi) 67.2, NARKANDA AWS (distt. Shimla) 66, NAINA DEVI (distt. Bilaspur) 64.8 on 15th Aug;

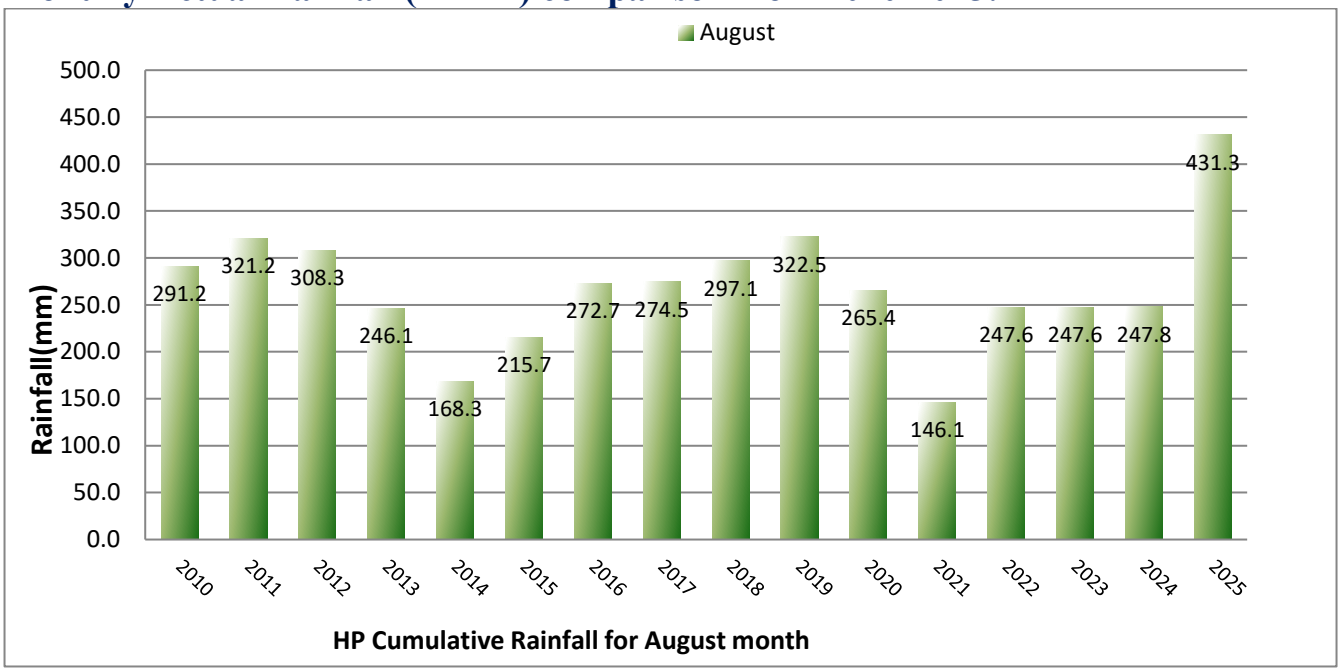
PALAMPUR (distt. Kangra) 101.4, Sandhole (distt. Mandi) 80.2, PANDOH (distt. Mandi) 72.4 on 16th Aug; KANGRA (distt. Kangra) 110.8, NAGROTA SURIAN (distt. Kangra) 107, NAHAN (distt. Sirmaur) 103.2, JOGINDARNAGAR (distt. Mandi) 84, NALAGARH (distt. Solan) 80, PAONTA (distt. Sirmaur) 69.8, KHERI (distt. Chamba) 67.6, Dhaulakuan (distt. Sirmaur) 67 on 17th Aug; Dhaulakuan (distt. Sirmaur) 113, AGHAR (distt. Hamirpur) 80, SANGRAHA (distt. Sirmaur) 72 on 18th Aug; JUBBERHATTI (distt. Shimla) 73 on 19th Aug; BHARWAIN (distt. Una) 68 on 20th Aug; NALAGARH (distt. Solan) 65 on 23rd Aug; Kasauli (distt. Solan) 105, Sarkaghat (distt. Mandi) 80.5, KARSOG (distt. Mandi) 68, MANDI (distt. Mandi) 68, on 24th Aug; AMB (distt. Una) 111, AGHAR (distt. Hamirpur) 110.6, BANGANA_R (distt. Una) 104, GHAMROOR (distt. Kangra) 95.8, BHARWAIN (distt. Una) 94.4, NADAUN (distt. Hamirpur) 94, HAMIRPUR (distt. Hamirpur) 92, DHARMSHALA (distt. Kangra) 87.4, Bhareri (distt. Hamirpur) 85.9, Sandhole (distt. Mandi) 85.2, KASAULI (distt. Solan) 85, SUNDARNAGAR (distt. Mandi) 84.2, BALDWARA (distt. Mandi) 84, SALONI (distt. Chamba) 83.3, UNA (distt. Una) 80.8, SUJANPUR TIRA (distt. Hamirpur) 80, NALAGARH (distt. Solan) 75, DHARAMPUR (distt. Solan) 68.6, DEHRA GOPIPUR (distt. Kangra) 68.3, CHAMBA AWS (distt. Chamba) 67, R L BBMB (distt. Bilaspur) 66, PALAMPUR (distt. Kangra) 65.4 on 25th Aug; DHARMSHALA (distt. Kangra) 102, MANALI (distt. Kullu) 102, GHAMROOR (distt. Kangra) 91.4, KANGRA (distt. Kangra) 89, NAGROTA SURIAN (distt. Kangra) 88.8, PALAMPUR (distt. Kangra) 88, KOTHI (distt. Kullu) 85.8, BHARWAIN (distt. Una) 85, Tissa (distt. Chamba) 80, BHUNTAR (distt. Kullu) 77.2, Gondla (distt. Lahaul-Spiti) 75.6, CHAMBA AWS (distt. Chamba) 74, SANGRAHA (distt. Sirmaur) 72, GULER (distt. Kangra) 71.8, Kukumseri Aws (distt. Lahaul-Spiti) 71.5, Seobagh (distt. Kullu) 70.8, Kumarsain (distt. Shimla) 70.6, KARSOG (distt. Mandi) 65.2, Kasol (distt. Kullu) 65 on 26th Aug; Kheri (distt. Chamba) 89.2, Kothi (distt. Kullu) 69, Saloni (distt. Chamba) 65.2 on 27th August; Pandoh (distt. Mandi) 108 on 28th Aug; Renuka / Dadhau (distt. Sirmaur) 114, Palampur (distt. Kangra) 91.4, Bharwain (distt. Una) 80, Sandhole (distt. Mandi) 77.8, Paonta (distt. Sirmaur) 75, Kataula (distt. Mandi) 73.4, Sangraha (distt. Sirmaur) 70, Rajgarh (distt. Sirmaur) 65 on 29th Aug; Chuari (distt. Chamba) 104, Jogindarnagar (distt. Mandi) 86, Rampur Bushar (distt. Shimla) 75.5, Dharmshala (distt. Kangra) 69.4 on 30th Aug; Naina Devi (distt. Bilaspur) 82.8, R L Bbmb (distt. Bilaspur) 80, Chuari (distt. Chamba) 75.2 on 31st Aug.



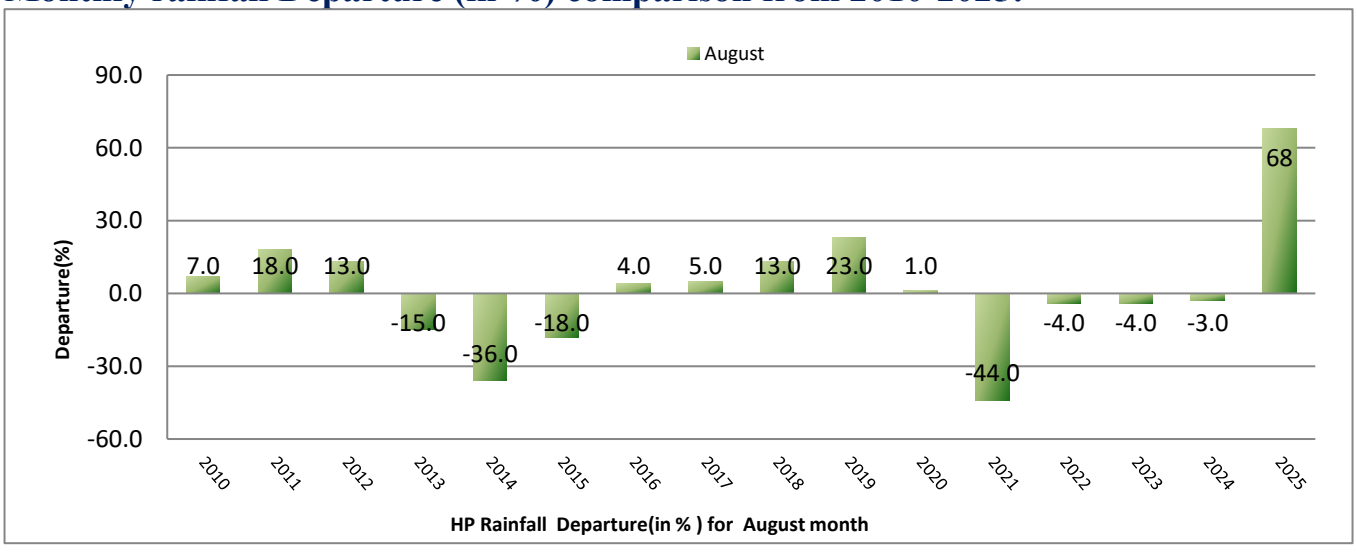
3. District wise monthly rainfall (in mm) and Departure (in %)

(01st August to 31st August) 2025			
DISTRICTS	Actual (in mm)	Normal (in mm)	Dep (in%)
BILASPUR	598.7	316.8	89
CHAMBA	561.6	291.7	93
HAMIRPUR	617.9	400.6	54
KANGRA	816.2	631.5	29
KINNAUR	143.3	77.6	85
KULLU	477.5	180.2	165
LAHAUL & SPITI	129.7	117.6	10
MANDI	667.9	395.3	69
SHIMLA	438	196.4	123
SIRMAUR	557.5	402.1	39
SOLAN	627.9	287.9	118
UNA	815.1	372.2	119
HP	431.3	256.8	68

4. Monthly Actual Rainfall (in mm) comparison from 2010-2025: -



5. Monthly rainfall Departure (in %) comparison from 2010-2025: -



6. Monthly Rainfall distribution and Rainfall Activity for August month.

HIMACHAL PRADESH					
Date	**Distribution**	**Activity**	Date	**Distribution**	**Activity**
01-08-2025	WIDE SPREAD	NORMAL	**17-08-2025**	WIDE SPREAD	ACTIVE
02-08-2025	WIDE SPREAD	ACTIVE	**18-08-2025**	WIDE SPREAD	NORMAL
03-08-2025	WIDE SPREAD	NORMAL	**19-08-2025**	FAIRLY WIDE SPREAD	NORMAL
04-08-2025	WIDE SPREAD	NORMAL	**20-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
05-08-2025	WIDE SPREAD	ACTIVE	**21-08-2025**	FAIRLY WIDE SPREAD	NORMAL
06-08-2025	WIDE SPREAD	ACTIVE	**22-08-2025**	ISOLATED	WEAK
07-08-2025	FAIRLY WIDE SPREAD	NORMAL	**23-08-2025**	SCATTERED	NORMAL
08-08-2025	ISOLATED	WEAK	**24-08-2025**	WIDE SPREAD	ACTIVE
09-08-2025	FAIRLY WIDE SPREAD	NORMAL	**25-08-2025**	WIDE SPREAD	VIGOROUS
10-08-2025	SCATTERED	WEAK	**26-08-2025**	WIDE SPREAD	VIGOROUS
11-08-2025	FAIRLY WIDE SPREAD	WEAK	**27-08-2025**	WIDE SPREAD	ACTIVE
12-08-2025	WIDE SPREAD	ACTIVE	**28-08-2025**	FAIRLY WIDE SPREAD	NORMAL
13-08-2025	SCATTERED	WEAK	**29-08-2025**	WIDE SPREAD	ACTIVE
14-08-2025	WIDE SPREAD	ACTIVE	**30-08-2025**	FAIRLY WIDE SPREAD	ACTIVE
15-08-2025	WIDE SPREAD	ACTIVE	**31-08-2025**	WIDE SPREAD	ACTIVE
16-08-2025	FAIRLY WIDE SPREAD	NORMAL			

7. Chief Amount of Rainfall (in mm) August 2025

Date	Station
01-08-2025	Chuari 118, Manali 57, Banjar 52.4, Bharwain 47, Bhareri 45.2, Kothi 40, Naina Devi 36, Saloni 36, Tinder 35, Kasol 34, Amb 32.6, Sarahan 30, Chamba Aws 29, Tissa 28, Kheri 27, Sarkaghat 25.3, Baldwara 23, Sangraha 23, Renuka / Dadhau 22.7, Hamirpur 21, Wangtoo 20.6, Jatton Barrage 19.6, Nichar 18.5, Jogindarnagar 17, Bharmaur 16, Chhatrari 14.9, Bijahi 14.6, Sunibhajji 13, Karsog 12.1, Bhoranj 12, Sundarnagar 12, Mandi 11.6, Guler 11.2, Bilaspur Sadar 10.4, Nagrota Surian 10, Sangla 9.8, Ghamroor 9.4, Palampur 9.4, R L Bbmb 9.2, Ghumarwin 9, Nadaun 8.4, Seo Bagh 8.4, Dharmshala 8.3, Aghar 8.2, Sujanpur Tira 8, Paonta 8, Kukumsheri Aws 7.6, Bhuntar 6.4, Kalpa 5.6, Dehra Gopipur 5.4, Keylong 5, Gohar 5, Janjehli 5, Rampur Bushar 5, Kangra 4.9, Barthin 4.8, Pachhad 4.3, Koksar 3.7, Bangana_R 3.6, Una 3.6, Nahan 3.1, Gondla 2.8, Kufri 2.6, Pandoh 2.5, Jubbal 2.4, Shillaro 2, Kahu 1.8, Theog 1.8, Shimla 1.7, Jubberhatti 1.6, Kataula 1.1, Bilaspur Aws 0.5, Moorang 0.2, Kotkhai 0.1
02-08-2025	Una 222.8, Amb 154.8, Bilaspur Sadar 120.8, Chuari 96, Bharwain 92, Nadaun 73.6, Barthin 69.6, Sujanpur Tira 68.4, Dehra Gopipur 67.2, Chamba Aws 66, Dharmshala 64, Nahan 62.3, Ghamroor 62.2, Hamirpur 62, Kheri 54.4, Aghar 52.8, Bangana_R 52.3, Kumarsain 50.6, Kataula 50.4, R L Bbmb 48.2, Saloni 48.2, Bhareri 48.2, Mehre (Barsar) 46, Kangra 42.3, Kothi 41, Nagrota Surian 40.2, Tissa 40, Jogindarnagar 40, Palampur 36, Bhuntar 35.8, Manali 35, Mandi 34.4, Seo Bagh 30.8, Bhoranj 30, Gohar 30, Guler 29.4, Wangtoo 28.2, Banjar 28.2, Bharmaur 28, Paonta 27.4, Nichar 27.2, Karsog 26, Chhatrari 25.5, Sangraha 24, Naina Devi 22.8, Bijahi 22, Janjehli 22, Renuka / Dadhau 21.6, Pandoh 20.5, Sarkaghat 19.6, Theog 19.2, Baldwara 19, Pachhad 17, Kahu 16.5, Kasol 15, Narkanda Aws 12, Sundarnagar 11.9, Jatton Barrage 11.4, Gondla 11.2, Rampur Bushar 9.8, Shillaro 9.7, Kukumsheri Aws 9.6, Kufri 9.2, Keylong 7, Sunibhajji 6.2, Shimla 5.6, Kandaghat 5.6, Jubbal 5.2, Kasauli 5.2, Jubberhatti 5, Sangla 4.2, Sarahan 4, Kalpa 3.2, Dharampur 2.8, Khadrala 2.2, Bajaura Aws 2, Koksar 2, Bilaspur Aws 1, Solan 0.8, Reckong Peo Aws 0.5, Kotkhai 0.4
03-08-2025	Bhareri 108.2, Naina Devi 74.4, Ghumarwin 40, Sunibhajji 40, Jatton Barrage 40, R L Bbmb 39, Una 38, Kheri 28.8, Nalagarh 28, Aghar 24.8, Mehre (Barsar) 23, Pachhad 20, Bangana_R 18.4, Chamba Aws 18, Hamirpur 18, Jogindarnagar 17, Barthin 14.6, Nadaun 14.5, Sujanpur Tira 14.5, Seo Bagh 11.6, Kothi 11.2, Palampur 10.8, Kumarsain 10.4, Guler 10.2, Sarahan 9.5, Nagrota Surian 9.4, Bhuntar 9.2, Kasol 9, Sarkaghat 8.3, Kotkhai 8.2, Kasauli 8.2, Kangra 8.1, Bharmaur 8, Tinder 8, Sundarnagar 7.9, Renuka / Dadhau 7.2, Chuari 7, Paonta 6.6, Dharampur 6.4, Bhoranj 6, Gondla 5.4, Jubberhatti 5.4, Shimla 5.4, Kataula 5.2, Manali 5, Dehra Gopipur 4.3, Kukumsheri Aws 4.2, Koksar 4.2, Bijahi 4.2, Khadrala 4.2, Dharmshala 4.1, Janjehli 4, Karsog 4, Shillaro 4, Kufri 4, Mandi 3.2, Keylong 3, Solan 3, Bajaura Aws 2.5, Chhatrari 2.3, Bilaspur Sadar 2.2, Gohar 2, Pandoh 2, Nahan 1.2, Ghamroor 1, Kandaghat 1, Kalpa 0.8, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Kahu 0.4, Sangla 0.2
04-08-2025	Kasauli 82, Naina Devi 62.6, Ghumarwin 60, Jogindarnagar 60, Manali 45, Mehre (Barsar) 42, Guler 29, Pandoh 27, Karsog 26.2, Sarahan 25.5, R L Bbmb 24, Shimla 22.8, Baldwara 19, Bijahi 18.4, Gohar 18, Kataula 15.3, Bhoranj 15, Hamirpur 14, Janjehli 14, Kufri 13.8, Dharampur 12.6, Dharmshala 12.1, Berthin Agro 12, Dehra Gopipur 12, Palampur 11.6, Shillaro 11.6, Narkanda Aws 11.5, Nichar 11, Paonta 10.8, Nadaun 9.8, Sarkaghat 9.3, Ghamroor 9.2, Kotkhai

	9.2, Pachhad 9.2, Wangtoo 8.2, Tinder 8, Kumarsain 8, Jubbal 7.2, Jatton Barrage 7, Aghar 6.8, Barthin 6.6, Chuari 6.2, Amb 5.4, Mandi 5.2, Bangana_R 5.2, Kasol 5, Kahu 4.4, Sujanpur Tira 4, Sangraha 4, Bharwain 3.6, Bajaura Aws 3.5, Nagrota Surian 3.2, Chamba Aws 3, Sunibhajji 2.4, Nahan 2.4, Jubberhatti 2.2, Renuka / Dadhau 2.2, Kothi 2, Keylong 2, Theog 2, Solan 1.8, Bhareri 1.4, Dalhousie Aws 1, Khadrala 1, Kandaghat 1, Kalpa 0.8, Rampur Bushar 0.8, Bilaspur Aws 0.5, Gondla 0.2, Sundarnagar 0.1
05-08-2025	Mandi 151.2, Bijahi 105.6, Sundarnagar 84.1, Nadaun 78, Gohar 72, Ghumarwin 60, Karsog 56.3, Palampur 55.8, Pandoh 53, Hamirpur 45, Bhareri 44.5, Baldwara 41, Janjehli 40, Sangraha 40, Nalagarh 40, Berthin Agro 36.5, Guler 36.4, Mehre (Barsar) 35, Tinder 35, Jubbal 33.4, Bilaspur Sadar 30.8, R L Bbmb 30, Shillaro 30, Rohru 30, Sarahan 30, Bharwain 30, Manali 29.2, Barthin 28.4, Naina Devi 24.8, Sujanpur Tira 24, Aghar 23.6, Kangra 23.2, Narkanda Aws 22, Shimla 20.4, Dehra Gopipur 18.4, Kataula 18.2, Jubberhatti 18, Nagrota Surian 17.8, Jogindarnagar 14, Kumarsain 12.8, Dharmshala 10.7, Kandaghat 10.6, Una 10.6, Kahu 10.5, Bhuntar 10.4, Paonta 10.4, Bhoranj 10, Bangana_R 9.4, Sangla 8.6, Chuari 8.1, Kasauli 7.2, Kothi 7, Hansa 7, Theog 7, Amb 7, Banjar 6.2, Khadrala 6, Kotkhai 5.2, Jatton Barrage 4.4, Dharampur 4.2, Renuka / Dadhau 4, Wangtoo 3.8, Rampur Bushar 3.6, Seo Bagh 3.4, Kasol 3, Kheri 2.4, Kufri 2.4, Koksar 2.1, Bajaura Aws 2, Nahan 2, Kalpa 1.6, Moorang 1.5, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
06-08-2025	Kasauli 145, Dharampur 122.8, Gohar 120, Chuari 98.4, Nagrota Surian 93.4, Pachhad 88, Naina Devi 86.4, Bijahi 84.4, Kumarsain 80.4, Sundarnagar 80.3, Kangra 71.4, Bilaspur Sadar 70.4, Guler 68.4, Karsog 68, Dhaulakuan 67, Banjar 66, Sunibhajji 66, Nalagarh 66, Mandi 65.8, Shimla 64.4, Dharmshala 64, Pandoh 63, Janjehli 60, Kandaghat 60, Kahu 58, Renuka / Dadhau 55.3, Rampur Bushar 55, Jogindarnagar 53, Wangtoo 50.2, R L Bbmb 47, Nadaun 47, Kufri 47, Jatton Barrage 47, Khadrala 46.2, Narkanda Aws 44.5, Jubberhatti 44, Shillaro 43.6, Sarahan 42.5, Palampur 40, Rohru 40, Bangana_R 40, Bharwain 39, Sangraha 38, Solan 32.2, Sujanpur Tira 32, Kataula 31.2, Paonta 29, Dehra Gopipur 27, Hamirpur 25, Mehre (Barsar) 25, Kothi 25, Tinder 25, Sangla 24.6, Nichar 23.5, Barthin 23.2, Bhuntar 22.2, Kotkhai 22.1, Berthin Agro 22, Aghar 22, Rajgarh 22, Kheri 21.2, Seo Bagh 21.2, Bhareri 20.4, Jubbal 18.4, Ghamroor 18.2, Kasol 18, Amb 14.8, Kalpa 14, Reckong Peo Aws 13.5, Nahan 12.6, Baldwara 12, Chhatrari 10, Tissa 8.7, Theog 6, Una 5.6, Manali 5.2, Bharmaur 4.6, Moorang 4.5, Sarkaghat 4.5, Koksar 3, Bajaura Aws 2, Pooh 1, Keylong 1, Kukumsheri Aws 0.8, Bilaspur Aws 0.5
07-08-2025	Nalagarh 120, Bharwain 120, Naina Devi 92.6, Pachhad 75.1, R L Bbmb 73, Mehre (Barsar) 64, Kangra 62.5, Theog 60, Dharmshala 42.5, Bangana_R 34.8, Nahan 32.6, Kasauli 32.5, Dehra Gopipur 31.4, Bilaspur Sadar 30.2, Sarahan 29.5, Barthin 22.4, Una 22.2, Amb 21, Gohar 19, Shimla 19, Kahu 18.8, Sujanpur Tira 18, Aghar 17.6, Nagrota Surian 17.2, Baldwara 17, Berthin Agro 16, Jubbal 15.2, Dharampur 14, Bhareri 13.4, Manali 12.2, Palampur 11.6, Nadaun 10, Sundarnagar 9.4, Kufri 9.2, Chuari 9.1, Rampur Bushar 8.5, Hamirpur 8, Kothi 8, Kumarsain 5.6, Tinder 5, Janjehli 5, Jogindarnagar 5, Rohru 5, Wangtoo 4.6, Kataula 4.2, Jubberhatti 3.8, Sangla 3.6, Solan 3.6, Guler 3.4, Bhuntar 3, Bijahi 3, Kalpa 2.8, Renuka / Dadhau 2.8, Kandaghat 2.6, Bajaura Aws 2.5, Jatton Barrage 1.6, Reckong Peo Aws 1, Banjar 1, Paonta 1, Bilaspur Aws 0.5, Pandoh 0.5, Narkanda Aws 0.5
08-08-2025	Bajaura Aws 9, Kataula 8.2, Sangraha 8, Sarkaghat 6.2, Jogindarnagar 4, Dharmshala 3.2, Nagrota Surian 2.4, Bhareri 2, Nadaun 2, Jatton Barrage 2, Bilaspur Aws 0.5, Barthin 0.4
09-08-2025	Naina Devi 112.4, Pandoh 102, Bangana_R 86.4, R L Bbmb 67, Pachhad 67, Narkanda Aws 66.5, Kumarsain 65.4, Kasauli 65.2, Shillaro 63, Rajgarh 56, Kufri 55.2, Dharampur 52.6, Nahan 49.3, Solan 45.6, Janjehli 42, Nalagarh 35, Kotkhai 29.3, Dehra Gopipur 29, Sunibhajji 27, Sundarnagar 23.6, Nagrota Surian 22.5, Kataula 22.2, Barthin 21.8, Kandaghat 21.8, Kasol 20, Berthin Agro 18.5, Baldwara 18, Shimla 16.8, Jubberhatti 14, Bharwain 14, Renuka / Dadhau 13.6, Bajaura Aws 13.5, Kothi 12.4, Nadaun 11.8, Sarkaghat 11.4, Una 11.4, Palampur 10.6, Bhareri 10.2, Hamirpur 10, Bhuntar 9.4, Rampur Bushar 9, Chuari 8.2, Jatton Barrage 8.2, Bhoranj 8, Jubbal 6.4, Mehre (Barsar) 6, Bilaspur Sadar 5.8, Sujanpur Tira 5, Manali 5, Jogindarnagar 5, Nichar 4.3, Banjar 4.2, Theog 4, Bharmaur 3.6, Wangtoo 3.6, Dharmshala 3.4, Paonta 3.2, Mandi 2.4, Chamba Aws 2, Kheri 2, Gohar 2, Sangraha 2, Bilaspur Aws 1, Khadrala 1, Kangra 0.5, Kahu 0.4, Guler 0.4, Sangla 0.2
10-08-2025	Kangra 68.4, Palampur 52, Baldwara 42, Bharwain 39.4, Sarahan 25, Theog 20, Tinder 18, Jubberhatti 17, Dharmshala 16.8, Pandoh 16.5, Bangana_R 11.8, Bajaura Aws 11.5, Kufri 11.2, Bilaspur Sadar 10.4, Kasauli 10, Shimla 9, Bijahi 8, Chuari 7.6, Kotkhai 6.3, Sarkaghat 6.2, Rampur Bushar 6, Bhareri 5.4, Una 5.4, Saloni 5.2, Bharmaur 5, Sujanpur Tira 4.5, Mandi 4.4, Bhoranj 4, Jogindarnagar 4, Chhatrari 2.8, Narkanda Aws 2.5, Kasol 2, Nagrota Surian 1.2, Nahan 1.2, Dalhousie Aws 1, Nadaun 1, Sunibhajji 1, Jatton Barrage 1, Koksar 0.8, Bilaspur Aws 0.5, Barthin 0.2
11-08-2025	Nalagarh 56, Bilaspur Sadar 50.2, Kheri 33.4, Sarahan 30, Chuari 26.2, Rajgarh 20, Hamirpur 19, Aghar 16, Dehra Gopipur 16, Baldwara 16, Tinder 15, Dharmshala 14.8, Sarkaghat 14.7, Ghumarwin 14, Bajaura Aws 10.5, Palampur 9.6, Kothi 9.6, Kasol 9, Kahu 8.5, Gohar 8, Mandi 7.4, Jubberhatti 7, Theog 6, Kangra 5.4, Shimla 4.2, Sundarnagar 3.7, Pooh 3.2, Koksar 3, Jogindarnagar 3, Shillaro 3, Kalpa 2.2, Chamba Aws 2, Bijahi 2, Kasauli 2, Sangla 1.8, Reckong Peo Aws 1.5, Nagrota Surian 1.4, Wangtoo 1.4, Dharampur 1.4, Nadaun 1.2, Kandaghat 1.2, Nahan 1.1, Sujanpur Tira 1, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.4, Kufri 0.4, Moorang 0.3, Barthin 0.2

12-08-2025	Nagrota Surian 180.2, Guler 161.2, Ghamroor 112.2, Sandhole 78.8, Nadaun 78.5, Dehra Gopipur 76.2, Jogindarnagar 74, Kangra 73.8, Bhareri 70.2, Palampur 69, Sujanpur Tira 66, Bijahi 65.2, Kataula 56.2, Shillaro 54, Kandaghat 52.8, Theog 50.6, Chuari 48.3, Naina Devi 46.4, Shimla 45.6, Dharmshala 42.5, Mandi 42.2, Hamirpur 41, Kufri 39.8, Una 38.4, Kasauli 38, Bharwain 38, Dharampur 36.8, Jubberhatti 36.2, Kahu 35.3, Aghar 34, Solan 33, Sarahan 30.5, Pandoh 29.5, Narkanda Aws 28.5, Sundarnagar 27.3, Gohar 27, Bharmaur 26.7, Jubbal 25.4, Karsog 24, Sunibhajji 23, Kotkhai 22.3, Chhatrari 22.1, Pachhad 22, Saloni 21.2, Kheri 21, Bilaspur Sadar 20.8, Nalagarh 20, R L Bbmb 19.6, Barthin 18.8, Amb 18.8, Tissa 18, Kothi 17.4, Nahan 17.2, Mehre (Barsar) 17, Bangana_R 16, Janjehli 15, Sarkaghat 12.2, Moorang 10.2, Bhoranj 10, Manali 10, Sangla 8.6, Paonta 8.4, Banjar 8.2, Chamba Aws 8, Bajaura Aws 7.5, Rampur Bushar 7.2, Kasol 7, Kumarsain 6.4, Kalpa 6, Nichar 5.4, Reckong Peo Aws 5, Wangtoo 4.8, Bhuntar 4.8, Jatton Barrage 4.2, Renuka / Dadhau 3.8, Koksar 3, Kukumsheri Aws 2.8, Seo Bagh 2.4, Keylong 2
13-08-2025	Baldwara 31, Tinder 25, Kasauli 23, Naina Devi 18.2, Bhoranj 15, Sarahan 15, Karsog 13.2, Theog 10, Dharampur 7.2, Bajaura Aws 7, Jogindarnagar 5, Dharmshala 4.4, Tissa 4.2, Bijahi 4.2, Una 4.2, Sundarnagar 3.6, Kothi 3.4, Gohar 3, Kangra 2.8, Pandoh 2.5, Bilaspur Sadar 2.2, Kheri 2.2, Nagrota Surian 2.2, Khadrala 2.2, Bharmaur 2, Banjar 2, Bangana_R 2, Jubberhatti 1.8, Narkanda Aws 1.5, Chuari 1.3, Kalpa 1.3, Guler 1.2, Shimla 1.2, Paonta 1.2, R L Bbmb 1, Chamba Aws 1, Palampur 1, Reckong Peo Aws 1, Shillaro 1, Bilaspur Aws 0.5, Barthin 0.4, Kotkhai 0.1
14-08-2025	Pachhad 153.2, Rajgarh 102, Kandaghat 100, Jatton Barrage 87, Una 85.4, Solan 81.4, Kotkhai 77.4, Shillaro 73, Jubbal 72.6, Shimla 69, Kufri 66, Jubberhatti 65.2, Renuka / Dadhau 64.6, Banjar 62, Kasauli 62, Kothi 61.2, Nalagarh 60, Sarkaghat 59.4, R L Bbmb 59.2, Amb 59, Theog 58.8, Rohru 55, Naina Devi 54.2, Dharampur 50.2, Sangraha 50, Paonta 49, Pandoh 44, Karsog 43.1, Kahu 41.5, Kumarsain 40.8, Bharwain 40, Narkanda Aws 39.5, Bhareri 37.2, Tinder 35, Nahan 33.3, Baldwara 33, Barthin 32.6, Nadaun 32.4, Bangana_R 31.4, Bilaspur Sadar 30.8, Sarahan 29, Sujanpur Tira 25.4, Manali 25, Dehra Gopipur 24.3, Jogindarnagar 24, Hamirpur 23, Tissa 20, Sundarnagar 19.5, Kasol 19, Kukumsheri Aws 18.2, Gondla 16.2, Bharmaur 15, Sunibhajji 14, Mandi 13.4, Palampur 13, Kangra 12.5, Mehre (Barsar) 12, Ghamroor 11.8, Dharmshala 10.8, Aghar 10, Bhoranj 10, Hansa 10, Pooh 9.4, Bajaura Aws 7.5, Bijahi 7.4, Khadrala 6.2, Guler 5.8, Sangla 5.8, Rampur Bushar 5.4, Gohar 5, Saloni 4.2, Wangtoo 4.2, Bhuntar 4, Nagrota Surian 3.8, Moorang 3.7, Nichar 3.5, Reckong Peo Aws 2.5, Chhatrari 2.4, Kalpa 2.2, Chamba Aws 2, Janjehli 2, Seo Bagh 1, Keylong 1, Bilaspur Aws 0.5
15-08-2025	Jogindarnagar 106, Palampur 102.4, Bhareri 75.4, Kheri 73.2, Kataula 67.2, Narkanda Aws 66, Dharmshala 65.5, Naina Devi 64.8, Kangra 62.8, Nahan 57.7, Kothi 54.6, Bijahi 50, Mandi 49.8, Pandoh 46, Sarahan 40.5, Shillaro 40, Hamirpur 37, R L Bbmb 36.4, Ghumarwin 34, Chuari 32.6, Rohru 30, Pachhad 30, Sarkaghat 28.3, Janjehli 28, Reckong Peo Aws 27, Dehra Gopipur 26, Kasauli 26, Kalpa 25.2, Baldwara 25, Gohar 25, Bhuntar 24.3, Rampur Bushar 24, Sangla 23.4, Kotkhai 23, Barthin 21.6, Chamba Aws 21, Sundarnagar 20.3, Sujanpur Tira 20, Solan 19.8, Shimla 19.7, Jatton Barrage 19.4, Bangana_R 19, Bilaspur Sadar 18.8, Renuka / Dadhau 18.6, Nadaun 18.5, Manali 18.4, Kufri 18.4, Dharampur 18, Khadrala 16.4, Pooh 16, Chhatrari 15.6, Nichar 15.5, Keylong 15, Theog 15, Sangraha 15, Bharwain 15, Kahu 14.3, Wangtoo 14.2, Kasol 14, Nagrota Surian 13.4, Bhoranj 13, Guler 12.6, Seo Bagh 12, Sunibhajji 12, Una 11.8, Koksar 11.6, Kandaghat 11.4, Jubberhatti 11, Tissa 10, Karsog 10, Gondla 9.4, Jubbal 9.2, Paonta 8.2, Bajaura Aws 6.5, Banjar 6.4, Saloni 6.3, Mehre (Barsar) 6, Kumarsain 5.6, Bharmaur 5, Tinder 5, Moorang 3.5, Amb 3.4, Bilaspur Aws 0.5
16-08-2025	Naina Devi 160.6, Palampur 101.4, Sandhole 80.2, Pandoh 72.4, Mandi 62.4, Kataula 60.1, Kothi 48.2, Ghumarwin 45, Gohar 35, Nalagarh 35, Bhareri 32.4, Jogindarnagar 32, Dharmshala 28.4, Karsog 28.2, Sarahan 28, Bilaspur Sadar 25.8, Tinder 25, Kheri 23, Nahan 22.9, Sumdo 20, Paonta 19.4, Chhatrari 16.4, Sujanpur Tira 16, Chuari 12.4, Dharampur 12.4, Banjar 12, Baldwara 12, Kasauli 11.2, R L Bbmb 10.2, Kahu 10, Aghar 10, Nichar 9.4, Kangra 9.2, Bhoranj 9, Theog 8, Sarkaghat 7.7, Bharmaur 7, Bajaura Aws 6.5, Barthin 6.4, Dehra Gopipur 6.3, Bijahi 6, Bhuntar 5.4, Tissa 5, Shillaro 3.6, Pachhad 3, Kandaghat 2.4, Renuka / Dadhau 2.3, Chamba Aws 2, Keylong 2, Koksar 2, Narkanda Aws 2, Jatton Barrage 2, Sangraha 2, Bangana_R 1.4, Manali 1.2, Jubberhatti 1.2, Kasol 1, Kalpa 0.8, Seo Bagh 0.8, Rampur Bushar 0.8, Sundarnagar 0.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5, Sangla 0.2, Kotkhai 0.2, Shimla 0.2
17-08-2025	Kataula 116.3, Kangra 110.8, Nagrota Surian 107, Nahan 103.2, Jogindarnagar 84, Nalagarh 80, Paonta 69.8, Kheri 67.6, Dhaulakuan 67, Bhuntar 63.3, Palampur 60.4, Guler 57, Kasol 49, Renuka / Dadhau 49, Seo Bagh 48.6, Banjar 45.2, Bhareri 44.6, Sujanpur Tira 43.5, Sarahan 35.5, Kumarsain 35.4, Karsog 35, Pandoh 32, Rohru 30, Narkanda Aws 27, Mandi 26, Bijahi 24.4, Chuari 22.4, Bhoranj 21, Dharmshala 20.6, Tinder 18, Nadaun 17.5, Jubbal 15.4, Tissa 15, Jatton Barrage 15, Bharwain 14.2, Baldwara 14, Nichar 13.5, Hamirpur 13, Pachhad 13, Barthin 12.2, Dehra Gopipur 12, Janjehli 12, Kothi 11.4, Bilaspur Sadar 10.4, Sangraha 10, Chhatrari 8.9, Manali 8, Gohar 8, Kotkhai 7.2, Shillaro 6.8, Saloni 6.2, Kalpa 6.2, Bajaura Aws 6, Rampur Bushar 5.2, Naina Devi 4.4, Kufri 4.4, Amb 4.4, Kahu 4.1, Bangana_R 3.6, Theog 3.4, Sundarnagar 3.3, Ghamroor 3.2, Mehre (Barsar) 3, Sarkaghat 2.1, Reckong Peo Aws 1.5, Sangla 1.2, Shimla 1, Solan 0.6, Bilaspur Aws 0.5, Jubberhatti 0.4
18-08-2025	Dhaulakuan 113, Aghar 80, Sangraha 72, Kheri 62.4, Chuari 58.9, Palampur 58.2, Nalagarh 55, Baldwara 54, Jatton Barrage 49.4, Kasol 44, Paonta 40.6, Khadrala 36.4, Saloni 35.3, Tinder 35, Gohar 32, Nahan 30.1, Sarahan 28.5, Ghumarwin 27, Renuka / Dadhau 27, Jogindarnagar 25, Dharmshala 24.7, Hamirpur 23, Manali 23, Bhuntar 22, Rohru

	18, Chhatrari 15.4, Tissa 15, Karsog 14.4, Kufri 13.4, Rajgarh 13, Jubbal 12.6, Pachhad 12.3, Bhoranj 11, Bijahi 10.4, Pandoh 10, Shimla 10, Bhareri 9.8, Kataula 8.1, Bharmaur 8, Chamba Aws 8, Bajaura Aws 7, Kothi 6.8, Sundarnagar 6.3, Bharwain 5.6, Narkanda Aws 5.5, Sujanpur Tira 5, Solan 5, Seo Bagh 4.8, Banjar 4.2, Rampur Bushar 4, Sangla 3.4, Kotkhai 3.4, Kukumsheri Aws 3.1, Bilaspur Sadar 2.8, Wangtoo 2.8, Kumarsain 2.8, Kangra 2.7, Amb 2.6, Shillaro 2.4, Jubberhatti 2.4, Kandaghat 2.4, Mandi 2.2, Barthin 2, Mehre (Barsar) 2, Bangana_R 2, Janjehli 1, Theog 1, Bilaspur Aws 0.5, Reckong Peo Aws 0.5
19-08-2025	Jubberhatti 73, Amb 56, Bhuntar 44.8, Bilaspur Sadar 40.2, Shimla 38, Kasol 33, Seo Bagh 32, Banjar 30, Kothi 25.4, Bhareri 23, Kufri 21.2, Tissa 20, Bijahi 18.6, Kangra 18.2, Barthin 17.6, Jogindarnagar 16, Kumarsain 15.4, Kahu 11.8, Sarahan 10.5, Dharmshala 9.5, Bajaura Aws 8.5, Janjehli 8, Jubbal 7.6, Nichar 7.5, Dehra Gopipur 7.2, Una 7.2, Wangtoo 6.8, Palampur 6, Sundarnagar 5.3, Bhoranj 5, Tinder 5, Kotkhai 4.3, Bharmaur 4, Nagrota Surian 3.8, Kheri 3.2, Chamba Aws 3, Sangla 2.6, Bangana_R 2.4, Ghamroor 2.2, Chhatrari 2.1, Kataula 2.1, Narkanda Aws 2, Sunibhajji 2, Aghar 1.8, Guler 1.8, Mandi 1.8, Manali 1.4, Gondla 1.2, Kalpa 1, Bilaspur Aws 0.5, Bharwain 0.5
20-08-2025	Amb 150, Bharwain 68, Dehra Gopipur 63, Palampur 60.4, Bangana_R 60, Solan 56, Guler 55.8, Bilaspur Sadar 50.8, Jubberhatti 47.2, Naina Devi 46.6, Nadaun 40, Wangtoo 39.2, Kataula 38.4, Jogindarnagar 38, Nagrota Surian 37.4, Sujanpur Tira 36.4, Pachhad 36, Pandoh 31.5, Renuka / Dadhau 30, Kangra 27.8, Seo Bagh 24.4, Bhoranj 22, Shimla 21, Jatton Barrage 20, Mandi 18.2, Ghumarwin 18, Nahan 15.9, Kufri 14.8, Kahu 13.3, Kheri 13, Nichar 12.4, Kasauli 12.2, Bharmaur 12, Sangraha 11, Kothi 10, Barthin 9.4, Kasol 9, Rajgarh 9, Bhuntar 8.8, Bajaura Aws 8, Shillaro 6.5, Paonta 6.4, Sangla 6.2, Chuari 6, Hamirpur 6, Jubbal 5.2, Manali 5, Tinder 5, Dharmshala 4.4, Dharampur 4.2, Mehre (Barsar) 4, Narkanda Aws 3.5, Banjar 3, Kalpa 2.8, Kukumsheri Aws 2.8, Reckong Peo Aws 2, Kandaghat 1.8, Sarkaghat 1.7, Chhatrari 1.4, Koksar 1.1, Chamba Aws 1, Keylong 1, Bilaspur Aws 0.5, Sundarnagar 0.5, Rampur Bushar 0.4
21-08-2025	Una 132.6, Naina Devi 54.6, Sujanpur Tira 53, Amb 42, Nadaun 41.5, Paonta 38, Nalagarh 34, R L Bbmb 28.4, Tinder 25, Bangana_R 22.2, Bharwain 22, Kumarsain 20.6, Rohru 17, Dharampur 16.4, Hamirpur 16, Mehre (Barsar) 13, Aghar 11.6, Palampur 11.3, Jogindarnagar 11, Dehra Gopipur 10.2, Kasauli 10, Guler 9.8, Nagrota Surian 9, Shillaro 8.8, Bhareri 8.2, Kangra 7.8, Dharmshala 7.4, Nahan 7.1, Pachhad 7, Bajaura Aws 6.5, Sunibhajji 5.4, Narkanda Aws 5, Jatton Barrage 4.4, Barthin 4.2, Kufri 3.4, Solan 3, Bilaspur Sadar 2.4, Sangla 2.4, Mandi 2.4, Jubbal 2.4, Chamba Aws 2, Kasol 2, Seo Bagh 2, Bijahi 2, Kataula 2, Sangraha 2, Kahu 1.8, Bhuntar 1.8, Shimla 1.8, Pandoh 1.5, Sundarnagar 1.2, Jubberhatti 1.1, Dalhousie Aws 1, Manali 0.8
22-08-2025	Tinder 35, Manali 18, R L Bbmb 15.6, Bangana_R 15, Kufri 14.6, Bajaura Aws 7.5, Jubberhatti 3.6, Una 2.8, Narkanda Aws 1.5, Bilaspur Aws 1, Shimla 0.3
23-08-2025	Nalagarh 65, Nadaun 58.6, Bijahi 47.4, Bangana_R 47, Jogindarnagar 45, Jatton Barrage 44.2, Bharwain 40.4, Nagrota Surian 39.2, Kangra 35.7, Naina Devi 34.8, Paonta 33, Renuka / Dadhau 32, Baldwara 31, Tinder 30, Chuari 22.2, Amb 20, Rajgarh 19, Dharmshala 15.8, Ghumarwin 11, Palampur 11, Nahan 10.9, Tissa 10, Sangraha 10, Bajaura Aws 7.5, Gohar 5, Ghamroor 4.6, Sujanpur Tira 4.4, R L Bbmb 3.2, Theog 3.2, Una 2.6, Shillaro 2.4, Dehra Gopipur 2, Banjar 2, Bilaspur Aws 0.5, Pandoh 0.5, Kotkhai 0.1
24-08-2025	Kheri 129, Pandoh 123, Kasauli 105, Sarkaghat 80.5, Karsog 68, Mandi 68, Amb 60, Hamirpur 58, Kataula 57.3, Jogindarnagar 54, Nadaun 52.8, Sunibhajji 50, Dharampur 44.6, Chuari 40.6, Nalagarh 40, Kotkhai 39.4, Palampur 33.2, Gohar 32.4, Saloni 32.1, Sarahan 30, Bijahi 27.6, Kumarsain 25.4, Dehra Gopipur 25, Kothi 25, Tissa 24.3, Chamba Aws 24, Manali 21, Janjehli 20, Seo Bagh 19.8, Una 18.2, Rohru 17, Bhuntar 16.6, Kangra 16.2, Bilaspur Sadar 15.2, Tinder 15, Baldwara 15, Sundarnagar 14.8, Sujanpur Tira 14.5, Bharmaur 14, Banjar 14, Bhareri 12.8, Jubbal 12.6, Jatton Barrage 12, Aghar 11.8, Pachhad 11, Sangla 10.2, Shillaro 10, Kalpa 8.4, Nichar 8, Solan 7.8, Chhatrari 7.6, Bajaura Aws 7.5, Nagrota Surian 7, Narkanda Aws 7, Rampur Bushar 7, Wangtoo 6.4, Dharmshala 5.8, Guler 5.8, Reckong Peo Aws 5.5, Jubberhatti 5.4, Bharwain 5, Kufri 4.5, Naina Devi 4.2, Renuka / Dadhau 4.2, Shimla 4, Kukumsheri Aws 3.9, Kasol 3, Khadrala 3, R L Bbmb 2.4, Ghamroor 2.4, Gondla 2.4, Theog 2.4, Barthin 2.2, Moorang 2, Keylong 2, Paonta 2, Sangraha 2, Kandaghat 2, Bangana_R 1.8, Kahu 1.6, Bilaspur Aws 0.5
25-08-2025	Kahu 190.5, Ghumarwin 160, Barthin 156.4, Naina Devi 148.4, Kheri 142, Bilaspur Sadar 140.8, Chuari 140.2, Mehre (Barsar) 127, Amb 111, Aghar 110.6, Bangana_R 104, Ghamroor 95.8, Bharwain 94.4, Nadaun 94, Hamirpur 92, Dharmshala 87.4, Bhareri 85.9, Sandhole 85.2, Kasauli 85, Sundarnagar 84.2, Baldwara 84, Saloni 83.3, Una 80.8, Sujanpur Tira 80, Nalagarh 75, Dharampur 68.6, Dehra Gopipur 68.3, Chamba Aws 67, R L Bbmb 66, Palampur 65.4, Kangra 61.6, Nagrota Surian 60.8, Sangraha 60, Bijahi 57, Guler 54.6, Jogindarnagar 54, Mandi 49, Gohar 47, Kothi 46, Banjar 45, Bharmaur 43.6, Chhatrari 39.6, Sunibhajji 38, Manali 37, Kukumsheri Aws 35.6, Sarahan 35.5, Tinder 35, Jubberhatti 35, Kandaghat 32.4, Karsog 32.1, Pandoh 32, Sarkaghat 31.2, Kasol 31, Gondla 30.4, Kumarsain 30.2, Keylong 30, Kataula 29.3, Seo Bagh 29, Rajgarh 28, Janjehli 26, Rohru 25, Kufri 24.6, Bhuntar 23.8, Jubbal 22.4, Rampur Bushar 22.4, Kotkhai 22.3, Shimla 21.3, Tissa 20, Theog 20, Solan 17.2, Narkanda Aws 16.5, Shillaro 15.8, Pachhad 14.4, Nahan 13.1, Renuka / Dadhau 8.7, Nichar 6, Jatton Barrage 5.2, Paonta 5, Wangtoo 4.2, Hansa 4, Kalpa 3.8, Sangla 3.8, Bajaura Aws 2.5, Khadrala 1.8, Reckong Peo Aws 1.5, Bilaspur Aws 0.5, Moorang 0.2

26-08-2025	Naina Devi 160.8, Kheri 128.6, Chuari 125.2, Dharmshala 102, Manali 102, Ghamroor 91.4, Kangra 89, Nagrota Surian 88.8, Palampur 88, Kothi 85.8, Bharwain 85, Tissa 80, Bhuntar 77.2, Gondla 75.6, Chamba Aws 74, Sangraha 72, Guler 71.8, Kukumsheri Aws 71.5, Seo Bagh 70.8, Kumarsain 70.6, Karsog 65.2, Kasol 65, Ghumarwin 62, Renuka / Dadhau 61, Sujanpur Tira 60.6, Rohru 60, Jogindarnagar 59, Nadaun 58.2, Koksar 58, Dehra Gopipur 57, Banjar 57, Aghar 55, Barthin 52.8, Bangana_R 52, Sundarnagar 51.3, Jatton Barrage 51, Hamirpur 49, Kotkhai 43.1, Amb 43, Paonta 41.2, Narkanda Aws 40.5, Bilaspur Sadar 40.2, Janjehli 40, Kufri 39, Saloni 38.4, Sarahan 37.5, Pachhad 37.4, Mandi 36.6, Keylong 35.5, Mehre (Barsar) 35, Baldwara 34, Una 34, Bhareri 33.2, Pandoh 33, Shillaro 33, Sunibhajji 32.8, Kahu 30.5, Bijahi 30.4, Theog 30, Shimla 28.8, Jubbal 28.4, Kasauli 28.2, R L Bbmb 28, Gohar 25, Dharampur 22.4, Nichar 22, Solan 19.2, Kandaghat 18.4, Hansa 15, Rampur Bushar 14.2, Sarkaghat 13.8, Sangla 10.6, Jubberhatti 8.6, Wangtoo 8.4, Nahan 7.6, Kalpa 6.6, Bajaura Aws 5.5, Khadrala 5, Moorang 3.2, Reckong Peo Aws 3, Bilaspur Aws 0.5
27-08-2025	Kheri 89.2, Kothi 69, Saloni 65.2, Chamba Aws 51, Nalagarh 45, Dharmshala 40.4, Kukumsheri Aws 33.2, Gondla 31.8, Tissa 29, Keylong 29, Chuari 27.4, Koksar 27, Naina Devi 26.8, Sangraha 26, Palampur 22.4, Kangra 21.6, Bilaspur Sadar 20.4, Kataula 20.2, Amb 20, Dehra Gopipur 18.4, Karsog 18, Nagrota Surian 15, Seo Bagh 15, Sujanpur Tira 14, Bijahi 13.2, Hansa 12, Guler 11.2, Kasol 11, Barthin 10.4, Bhuntar 10.4, Ghumarwin 10, Wangtoo 10, Baldwara 10, Jogindarnagar 10, Mandi 6.4, Solan 6.4, Reckong Peo Aws 6, Bharwain 6, Kalpa 5.9, Sangla 5.4, Kumarsain 5.4, Jatton Barrage 5.4, Bajaura Aws 5, Narkanda Aws 5, Ghamroor 4.6, Una 4.4, Bhareri 3.8, Nadaun 3.6, Sundarnagar 3.6, Gohar 3, Kasauli 3, Kahu 2.6, Pandoh 2.5, Aghar 2.4, R L Bbmb 2, Janjehli 2, Dharampur 2, Jubbal 1.6, Nichar 1.5, Kufri 1.4, Kotkhai 1.3, Sunibhajji 1.2, Pachhad 1.2, Mehre (Barsar) 1, Shillaro 1, Kandaghat 1, Bangana_R 1, Shimla 0.6, Theog 0.6, Bilaspur Aws 0.5, Renuka / Dadhau 0.3
28-08-2025	Pandoh 108, Bhareri 63.8, Nalagarh 60, Mandi 56.8, Gohar 53, Naina Devi 36.6, Saloni 33.3, Sarahan 30.5, Manali 25, Koksar 19, Sarkaghat 18.5, Baldwara 18, Rampur Bushar 18, Amb 15.4, Sundarnagar 11.9, Sunibhajji 11.6, Kataula 10.2, Hamirpur 9, Shillaro 9, Aghar 8.6, Kasauli 8.2, R L Bbmb 8, Bhuntar 8, Narkanda Aws 7.5, Jubberhatti 7.3, Bajaura Aws 5.5, Jogindarnagar 5, Nadaun 2.8, Shimla 2.4, Bilaspur Sadar 2.2, Ghamroor 2.2, Kahu 2, Dehra Gopipur 2, Kasol 2, Kufri 2, Jatton Barrage 2, Nagrota Surian 1.8, Chamba Aws 1, Guler 1, Seo Bagh 1, Barthin 0.6, Berthin Agro 0.5, Bangana_R 0.4
29-08-2025	Jatton Barrage 138, Renuka / Dadhau 114, Palampur 91.4, Bharwain 80, Sandhole 77.8, Paonta 75, Kataula 73.4, Sangraha 70, Rajgarh 65, Kasauli 62, Nahan 60.8, Solan 57.8, Gohar 55.6, Bilaspur Sadar 50.4, Nagrota Surian 48.2, Kahu 45.5, Pachhad 43, Bijahi 42, Sarahan 37.5, Pandoh 36, Bhareri 35.6, Rohru 29, Sunibhajji 28, Manali 27, Kothi 25, Kangra 24.8, Jogindarnagar 23, Dharampur 22.6, Dehra Gopipur 21.4, Nalagarh 20, Kasol 19, Janjehli 18, Kandaghat 18, Kheri 16, Mehre (Barsar) 15, Sundarnagar 14.7, Karsog 14.1, Narkanda Aws 13.5, Dharmshala 10.8, Kumarsain 10.6, Nichar 10.5, Sangla 10.2, Rampur Bushar 10, Kalpa 8.6, Shimla 8.5, Kufri 7.8, Nadaun 7.4, Koksar 7.2, Amb 7, Reckong Peo Aws 6.5, Bajaura Aws 6.5, Naina Devi 6.4, Shillaro 6.4, Mandi 6.2, Bangana_R 6.2, Jubberhatti 5.2, Moorang 4.7, Kotkhai 4.3, Sujanpur Tira 3.6, Chuari 3.2, Guler 2.6, Barthin 2.2, Chamba Aws 2, Bhuntar 2, Baldwara 2, Theog 2, Una 1.6, Seo Bagh 0.6, Bilaspur Aws 0.5
30-08-2025	Chuari 104, Jogindarnagar 86, Rampur Bushar 75.5, Dharmshala 69.4, Bijahi 63.4, Shimla 62, Kataula 60.1, Nahan 60.1, Palampur 60, Theog 59, Kheri 54, Sarahan 45.5, Kumarsain 45.4, Nichar 44.5, Gohar 43, Shillaro 41.4, Kangra 40.8, Narkanda Aws 40, Khadrala 38.2, Sunibhajji 29.6, Kothi 28, Kufri 26, Kotkhai 25.2, Nagrota Surian 24.4, Manali 24, Baldwara 24, Jatton Barrage 23, Rohru 18, Kasol 16, Paonta 14.8, Kalpa 14.6, Sundarnagar 14.1, Chamba Aws 14, Sujanpur Tira 13, Jubbal 11.4, Pandoh 11, Reckong Peo Aws 10, Keylong 10, Koksar 8.9, Bhuntar 8.6, Jubberhatti 8, Sangla 7.6, Kandaghat 7.2, Mandi 6.2, Gondla 5.4, Bharwain 5.2, Seo Bagh 5, Renuka / Dadhau 5, Guler 4.8, Bhareri 4.2, Pooh 4.2, Bajaura Aws 3.5, Kahu 3.2, Dehra Gopipur 3, Nadaun 2.5, Kukumsheri Aws 2.1, Bilaspur Aws 0.5
31-08-2025	Naina Devi 82.8, R L Bbmb 80, Chuari 75.2, Kumarsain 60.8, Jogindarnagar 59, Kangra 45.4, Sarahan 44, Kandaghat 43.8, Nalagarh 42, Una 37.2, Kufri 35, Kahu 34.6, Bangana_R 34.6, Palampur 32, Nagrota Surian 25.5, Mehre (Barsar) 24, Nadaun 22.5, Shillaro 20, Rajgarh 20, Bijahi 19.4, Aghar 18.6, Shimla 18.2, Manali 18, Narkanda Aws 17.5, Kataula 16.3, Jubberhatti 16.2, Mandi 15.8, Sujanpur Tira 15.5, Gohar 15, Rohru 15, Baldwara 14, Sundarnagar 13.8, Paonta 12.6, Bharwain 12.6, Dehra Gopipur 12.3, Barthin 12.2, Pandoh 10.5, Ghamroor 9.8, Dharmshala 8.8, Bhareri 8.2, Kotkhai 8.1, Kasauli 8, Nahan 7.6, Rampur Bushar 7.5, Nichar 7.4, Jatton Barrage 7.4, Guler 7.2, Dharampur 6.2, Bajaura Aws 6, Bilaspur Sadar 5.8, Sangla 5.8, Pachhad 5.3, Bhuntar 5, Sarkaghat 4.8, Solan 4.4, Kothi 3.2, Keylong 3, Seo Bagh 2.6, Chamba Aws 2, Hansa 2, Gondla 2, Kalpa 1.6, Bilaspur Aws 0.5, Reckong Peo Aws 0.5

8. Forecast for Next 7 Days

Light to moderate rainfall very likely at most places on 01st & 02nd September 2025. Light to moderate rainfall likely at many places on 03rd September 2025 and at few places from 04th to 07th September 2025. One or two spells of heavy rain likely at few places from 01st to 03rd September 2025 and one or two spells of very heavy rain likely at few places on 01st & 02nd September 2025. One or two spells of extremely heavy rain likely at isolated places on 01st September 2025.

With Regards
Meteorological Centre Shimla

For more information kindly visit:

Website:https://mausam.imd.gov.in/shimla/
Twitter-https://twitter.com/himachalmausam
Facebook-https://www.facebook.com/profile.php?id=100018411811087

करने का काम आरंभ कर दिया गया है। आवश्यकता पड़ने पर हेलिकॉप्टर की

अगस्त के बीच सोलह लोगों की मौत हुई है। कुगति रूट से तीन शवों को

श्रद्धालुओं को सुरक्षित घर वापस करवाई गई है। उपायुक्त मुकेश रेपस्वाल

ANNEXURE-III

पांच जिलों में दोगुना से ज्यादा बरसे बादल

कुल्लू; शिमला, सोलन, ऊना, चंबा में सौ फीसदी से अधिक बारिश

स्टाफ रिपोर्टर – शिमला

हिमाचल प्रदेश में इस बार अगस्त माह में सामान्य से अधिक बारिश हुई है और कई जिलों में दोगुना से अधिक बारिश दर्ज की गई है। प्रदेश में औसतन 440.8 मिलीमीटर बारिश दर्ज की गई है, जबकि सामान्य स्तर 256.8 मिली मीटर है। बरसात में सामान्य 256.8 मिमी वर्षा के मुकाबले 440.8 मिलीमीटर वर्षा दर्ज की गई है, जो 72 प्रतिशत अधिक बारिश दर्ज की गई है। पांच जिलों में इस बार बरसात में दोगुने से भी अधिक बारिश हुई है। प्रदेश के कुल्लू, शिमला, सोलन, ऊना और चंबा जिला में 100 फीसदी से ज्यादा बारिश दर्ज की गई है। सभी

जिलों में सामान्य से अधिक वर्षा दर्ज की गई है। कुल्लू जिला में 162 प्रतिशत, शिमला 126, सोलन में 118, ऊना में 121 और चंबा में 104 प्रतिशत सबसे अधिक वर्षा वाले क्षेत्र रहे हैं। बिलासपुर में सामान्य 316.8 मिलीमीटर वर्षा के मुकाबले 598.7 मिलीमीटर वर्षा हुई, जो 89 प्रतिशत अधिक, जबकि हमीरपुर में 400.6 मिलीमीटर वर्षा के मुकाबले

- प्रदेश में अभी तक 72 फीसदी अधिक बरसात

622.1 मिलीमीटर वर्षा दर्ज की गई, जो 55 प्रतिशत अधिक है। मंडी जिला में भी 681.5 मिलीमीटर वर्षा हुई, जो सामान्य से लगभग 72 प्रतिशत अधिक है। लाहुल-स्पीति जिला में 26 प्रतिशत अधिक और कांगड़ा में 29 प्रतिशत अधिक बारिश दर्ज की गई है। किन्नौर में 140.5 मिलीमीटर वर्षा हुई, जो सामान्य से 81 प्रतिशत अधिक है। प्रदेश में हो रही लगातार भारी बारिश के कारण कई क्षेत्रों में व्यापक भू-स्खलन, सड़कें अवरुद्ध और फसलों को नुकसान हुआ है।

अब त
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दिव्य हिमाचल
मेरा सोलन
घरती सबसे जुड़ा होता प्रकाश प्रकाश
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बारिश का रेड अलर्ट, आज बंद रहेंगे सभी शिक्षण संस्थान

दो दिनों से हो रही भारी बारिश से जनजीवन अस्त व्यस्त, नदी-नाले उफान पर

बीबीएन में निर्माणाधीन फोरलेन बेहाल

गाड़ियों में घुसा पानी, अधूरी पड़ी फोरलेन परियोजना लोगों के लिए बनी आफत

बीबीएन: बारिश के बाद सड़कों में जलभराव से लोगों में उत्पन्न संकट

सोलन: बारिश से बंद पड़ा रास्ता

सोलन: बारिश ने मचाई भारी तबाही

सड़कें बनी तालाब, कहीं गिरा मलबा

सोलन जिला के सभी शिक्षण संस्थान आज रहेंगे बंद

बरसात आते ही सड़कें बनी दरिया

सोहरी-बेहली में खाली करवाए चार घर...लोग सुरक्षित जगह शिफ्ट

पहाड़ी से मलबा गिरने और जमीन खिसकने से हिली मकानों की नींव, पीड़ितों ने छोड़े आशियाने

दिव्य हिमाचल ब्यूरो-नाहन

सड़कों पर मलबा, बीबीएन में चरमराई यातायात व्यवस्था

दिव्य हिमाचल ब्यूरो-बीबीएन

नाहन में वंदना शर्मा नेल्स, लैशिज एंड स्किन केयर स्टुडियो का शुभारंभ

शीतकुंड में स्वास्थ्य जागरूकता शिविर

विवेक इंटरनेशनल स्कूल बद्दी के छात्रों ने पेश किए शानदार मॉडल

दिव्य हिमाचल ब्यूरो-बद्दी

बद्दी: विवेक इंटरनेशनल स्कूल बद्दी में प्रदर्शनी के दौरान मॉडल दिखाते छात्र

वॉलीबाल और खो-खो में बीएड और बेसिक साइंस की टीम विजेता

इंटरनल यूनिवर्सिटी बद्दू स्पोर्ट्स में राष्ट्रीय खेल दिवस पर प्रतियोगिताओं का आयोजन, खाकियों ने किया उत्कृष्ट प्रदर्शन

करियर प्वाइंट यूनिवर्सिटी भोरंज में रोजगार मेला 20 से

दिव्य हिमाचल ब्यूरो-बद्दी

सहयोग संगठन सम्मेलन के इतर
य और ऊर्जा क्षेत्रों
ध्यान केंद्रित किया
ने, दोनों नेताओं ने
अपने कार्यक्रम

तियानजिन: रूस के राष्ट्रपति व्लादिमीर पुतिन तथा चीनी राष्ट्रपति शी जिनपिंग से बातचीत करते प्रधानमंत्री नरेन्द्र मोदी। बैठक आयोजित करने के 2 सप्ताह बाद हुई है।

बनाए रखे हैं और वह संबंधों के भविष्य के विकास की नींव है। उन्होंने कहा, "ये संबंध पूरी तरह से दलगत राजनीति से ऊपर हैं और इन्हें हमारे अधिकांश लोगों का समर्थन प्राप्त है। मोदी पुतिन वार्ता अमरीकी राष्ट्रपति डोनाल्ड ट्रम्प द्वारा युद्ध समाप्त कराने के प्रयासों के तहत रूस के राष्ट्रपति के साथ शिखर बैठक आयोजित करने के 2 सप्ताह बाद हुई है।

तथा यह हमले के अपराधियों, आयोजकों और उन्हें समर्थन देने वालों को सजा दिलाना जरूरी है। इस साल 22 अप्रैल को जम्मू-कश्मीर के पहलगाम में आतंकियों ने 26 पर्यटकों की गोली मारकर हत्या कर दी थी।

हिमाचल प्रदेश आपदा प्रभावित राज्य घोषित, अधिसूचना जारी : सुक्खू

■ बरसात थमने के बाद हालात सामान्य होने पर वापस होगी अधिसूचना

शिमला, 1 सितम्बर (कुलदीप): मुख्यमंत्री सुखविंदर सिंह सुक्खू ने पूरे हिमाचल प्रदेश को आपदा प्रभावित राज्य घोषित किया है। सरकार की तरफ से इस संदर्भ में अधिसूचना जारी कर दी गई है।

मुख्यमंत्री ने विधानसभा में वक्तव्य देते हुए इसकी घोषणा की। उन्होंने कहा कि बरसात थमने के बाद हालात सामान्य होने पर इस अधिसूचना को वापस लिया जाएगा। उन्होंने कहा कि प्रदेश में मानसून से प्रारंभिक अनुमान के

(शेष पृष्ठ 2 कालम 6 पर)

शिमला : हिमाचल प्रदेश विधानसभा के मानसून सत्र के 11वें दिन सदन को संबोधित करते मुख्यमंत्री सुखविंदर सिंह सुक्खू। (वि.स.)

केलांग में सेना के 2 हैलीकॉप्टरों से राशन पहुंचाया

मुख्यमंत्री ने कहा कुल्लू से मंडी राष्ट्रीय राजमार्ग की बहाली का कार्य युद्ध स्तर पर जारी है। गत रविवार को भारतीय वायुसेना के 2 हैलीकॉप्टरों के माध्यम से केलांग में राशन पहुंचाया गया तथा 5 मरीजों 1 गर्भवती महिला व 1 बच्चे को हैलीकॉप्टर से सुरक्षित क्षेत्रीय अस्पताल कुल्लू पहुंचाया गया है। उन्होंने कहा कि लाहौल उपमंडल के गोमाछांग नाला में भूमि धसने का मामला सामने आया है।

किस जिले में कितने

पाठक एवं एजेंट नोट करें
पंजाब केसरी, जग बाणी एवं हिंद समाचार में विज्ञापन एवं सर्कुलेशन संबंधी पूछताछ एवं किसी समस्या के लिए निम्नलिखित नम्बर पर सम्पर्क करें :
0181-2212121
ई मेल jagbani@pkesari.in

सोलन-सिरमौर केसरी

SOLAN

TUESDAY, 2 SEPTEMBER 2025 | सूर्योदय 06.01 | सूर्यास्त 06.47 | अगले 24 घंटों के दौरान बारिश हो सकती है। | SOLAN-SIRMOUR KESARI

न्यूज बीफ

उदयपुर में दोमंजिला भवन गिरा

कुमारहट्टी, 1 सितम्बर (सचिन)। सितम्बर की रात हुई भारी बारिश के चलते विकास खंड सोलन की ग्राम पंचायत बेड़ा में कुमारहट्टी के समीप वार्ड उदयपुर में एक दोमंजिला मकान पूरी तरह ढह गया। हादसे के समय मकान में 6 लोग रह रहे थे।

जानकारी के अनुसार सोमवार सुबह करीब 2:30 बजे हुए इस हादसे के दौरान जब इस इलाके में हर तरफ पानी ही पानी दिखाई दे रहा था, तभी मकान में रहने वाले लोगों ने घबराहट में बाहर निकलकर अपनी जान बचाई। मकान में रहने वाले लाल सिंह व उनकी पत्नी लता देवी को चोटें आई हैं, जबकि उनकी भाभी व तीन बच्चे सकुशल बाहर निकल गए। लाल सिंह और उनकी पत्नी लता देवी को इलाज के लिए सामुदायिक अस्पताल सोलन भेज दिया गया है।

दिव्यांग महिला का आशियाना उजड़ा

पुरेनवार, 1 सितम्बर। (गौ)। ग्राम पंचायत बनेड़ खरड़ बड़ी के गांव तौलेरी डोल से संबंध रखने वाली रेशमा कुमारी पुत्री केसराम अपने अन्य परिजनों सहित मकान में रहती है। गत रविवार देर रात मकान के गिरने के आभास होने के चलते वह स्वयं समेत अपने बड़े भाई के मकान में रहने चली गई। रात करीब 12 बजे के आसपास इनकी परिजनों को जोरदार आवाज होने का अंदेशा हुआ।

बाहर निकलकर देखा तो रेशमा कुमारी का पुश्तैनी मकान पूरी तरह से अर्धरात्रि को मुलबा का व मकान में रखा सारा सामान, जरूरी दस्तावेज तथा मिट्टी के बर्तन में दब गए। उक्त महिला के अन्य परिजनों ने तुरन्त मकान गिरने की सूचना संबंधित पटवार क्षेत्र को दी। प्रधान ग्राम पंचायत बनेड़ खरड़ बड़ी का डी. पूल ने बताया कि देर

बारिश का कहर, करोड़ों का नुकसान

सोलन में 68 मार्ग बंद, 123.73 करोड़ पहुंचा नुकसान का आंकड़ा

सोलन : सोलन सुबाथू मार्ग पर निर्माणाधीन भवन में घुसा मलबा व सड़क पर खड़े में फंसी गाड़ियां। (भूपे)

सोलन, 1 सितम्बर (भूपे)। जिले में लगातार हो रही भारी बारिश ने लोगों की भी आफत बढ़ा दी है। भारी बारिश से जिला में 68 मार्ग बंद हो गए हैं। जिला में अब नुकसान का आंकड़ा 123.73 करोड़ रुपए तक पहुंच गया है। सोमवार को भी देखते ही देखते कई मार्ग बंद हो गए।

सोलन कंडाघाट बाया धरोट सड़क मार्ग भी भूस्खलन के चलते अब बंद हो गया है। भूस्खलन बारिश के चलते गुरुवार रात में भारी भूस्खलन के चलते यह मार्ग यातायात के लिए पूरी तरह से बंद हो गया है। इससे आधा दर्जन गांवों का संपर्क जिला मुख्यालय से कट गया है। सोमवार सुबह जब सन्नाटा में हाईवे भूस्खलन से बंद हुआ था तो इसी मार्ग से वाहन जा रहे थे।

शिमला रोड बाई पास नंबर 9 में देर रात 70 वर्षीय चुन्नी वाहन कुमार के घर का एक कमरा अचानक भरभराकर ढह गया। रात को भारी बारिश के साथ हुए जोरदार धमाके से पूरे परिवार को दहला दिया। गनीमत रही कि मदन कुमार और उनके परिवार के सदस्य उस वक्त दूसरे कमरों में थे, अन्यथा बड़ा हादसा हो सकता था। स्थानीय प्रशासन मौके पर पहुंच चुका है और स्थापता का मोहल्ला दिलाया है। कंडाघाट के बड़ा में जाने वाले रास्ते में भारी बारिश से रिड़ क्य धारण का लिया। चाले का पानी सड़क पर जाने के चलते बाया बोटू मार्ग जहानें की आवाजाही के लिए पूर्ण रूप से बंद हो गया है। यहां लोगों का घर तक पहुंचना भी मुश्किल हो गया है।

सोलन-रामशहर रोड पर शगुन होटल के पास सोलन सुबाथू भूस्खलन हुआ और एक बड़ी चट्टान सड़क पर आ गई। इसके कारण मार्ग वाहनों के लिए बंद हो गया है। इसी कारण के लिए आने-जाने वाले लोग जान जोखिम में डालकर वहां पैदल ही निकल रहे हैं।

सोलन सुबाथू मार्ग पर रोड डूंगा मोड़ पर भारी भूस्खलन से मलबा एक निर्माणाधीन भवन के अंदर घुस गया। भारी मलबा मकान में घुसने से निर्माणाधीन भवन को भी खतरा पैदा हो गया है।

इसके अलावा यहां सड़क मार्ग पर भी मलबा फैल गया और इसमें वाहन फंस गए। काफी मशक्कत के बाद वाहनों को निकाला गया और बाद में यहां सिंगल मार्ग को चालू कर दिया गया।

सोलन : शहर में आपदा प्रबंधन अभियान टीम के सदस्य मलबा आने से अलग हुआ

सिरमौर में 171 सड़कें प्रभावित, 89 पेयजल स्कीमें हुईं ठप्प

सहन : सिरमौर में बारिश से प्रभावित सड़कों से मलबा हटाती जेसीबी।

सहन : सिरमौर में बारिश से घरों को हुआ नुकसान।

सहन, 1 सितम्बर (दिनेश) : जिला सिरमौर में मूसलाधार बारिश का कहर लगातार जारी है। इससे आम जनजीवन पूरी तरह अस्त-व्यस्त हो गया है। सड़कों पर जगह-जगह मलबा पड़ गया है। कई इलाकों में बिजली और पानी का संकट भी खड़ा हो गया है। पिछले 24 घंटे के भीतर भारी बारिश के बीच भारी भूस्खलन और मलबा आने से 171 सड़कों पर यातायात को जीवन की रफ्तार रुक गई। जिले के कई इलाकों का संपर्क जिला मुख्यालय सहन सहित उपमंडल मुख्यालयों से भी कट गया है। गंतव्य तक पहुंचने के लिए वाहन चालकों सहित यात्रियों को भारी दिक्कतों का सामना करना पड़ रहा है। इन सड़कों पर 42 से अधिक लगातार और बिजली बाधित पांच पंप फंसे हैं। बारिश से सिरमौर डिवीजन में सबसे ज्यादा 46 सड़कें प्रभावित हुई।

इसके साथ-साथ संगड़ाह में 34, पांवटा साहिब में 27, नाहन और राजगढ़ में 23-23 और रेणुका डिवीजन में 18 सड़कों पर यातायात घंटों तक ठप्प रहा। हालांकि लोक निर्माण विभाग की मशीनरी लगातार सड़कों को खोलने में जुटी है, लेकिन कई सड़कों पर मलबा इतना अधिक है कि उसे हटाने में कई दिन लग सकते हैं। इसके अलावा 89 पेयजल स्कीमें भी प्रभावित हुई हैं।

बिजली बोर्ड के राजगढ़ डिवीजन में 4 फीडरों को नुकसान होने से कई गांवों में पेयजल संकट खड़ा हो गया है।

की रिपेयर करवाई जाएगी।

परेशानियों का सामना करना पड़ रहा है। उन्होंने

मानपुरा: बारिश के चलते पशु औषधालय बरोटीवाला की गिरी दीवार का चित्र। (बस्सी)

बारिश के चलते ब्लॉक का डंगा गिरा

परवाणू, 1 सितम्बर (विकास): क्षेत्र में शनिवार से हो रही लगातार बारिश के चलते सैक्टर 6 के 71 नंबर ब्लॉक के आगे लगा डंगा गिर गया, जिससे फिलहाल वहां बने मकानों को अभी कोई खतरा नहीं है। अगर यह दोबारा गिरता है तो साथ लगे बिजली के खंभे के गिरने से भवन में रहने वालों के लिए चिंता की स्थिति हो सकती है।

जमीन खिसकने की के तीन परिवारों ने

मकानों को खाई में जाता देख निकाले दरवाजे व खिड़कियां

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के मलेहणी पंचायत के सौहरी गांव के नीचे जमीन खिसकनी शुरू हो गई है, जिससे पूरे गांव के लिए खतरा पैदा हो गया है। खोते दिन इस गांव के तीन परिवारों के मकान खाली करा दिए। सोमवार को इन

धर्माणा पंचायत के तीन गांवों में 12 परिवारों के घरों में आई दरारें

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के धर्माणा पंचायत के तीन गांवों से 12 परिवारों के घरों में दरारें आ गई हैं। इसके चलते पंचायत प्रतिनिधियों व पटवारी ने मौके पर जाकर इन लोगों के मकान को खाली कराया। इन लोगों के सामान को एक टैंट के नीचे रखा और लोगों को गांव के अन्य घरों में शिफ्ट किया गया। इन लोगों के मवेशियों को भी अन्य लोगों के घरों में बांधा गया।

नालागढ़ : धर्माणा पंचायत के जखोल गांव में लोगों के घरों में आई दरारें।

राजगढ़ : राजगढ़ व इसके आसपास के क्षेत्रों में अलग-अलग स्थानों पर भूस्खलन व रिहायशी मकानों को हुई क्षति (पंचाल)

राजगढ़ क्षेत्र में अंधेरे में डूबे सैंकड़ों गांव

राजगढ़, 1 सितम्बर (गोपाल): समूचे राजगढ़ क्षेत्र में पिछले लगभग 36 घंटों से लगातार भारी बारिश होने के कारण पूरा जनजीवन अस्त-व्यस्त हो गया है। पूरे क्षेत्र में दर्जनों सड़कें बंद पड़ी हैं। क्षेत्र की गिरि नदी, परेरी नदी, बड़ोतू नदी, पाताल नदी के साथ-साथ छोटे-छोटे नाले उफान पर हैं और सभी नदियों ने पिछले लगभग 50 सालों के रिकार्ड तोड़ दिए हैं। अगर बिजली आपूर्ति की बात करें तो रविवार देर रात से नगर पंचायत राजगढ़ सहित दर्जनों पंचायतों के सैकड़ों गांव अंधेरे में डूबे गए हैं।

यहां तक कि सोलन-राजगढ़ मुख्य सड़क भी अनेक स्थानों पर भूस्खलन के कारण बार-बार बंद हो रही है। इसके साथ क्षेत्र की राजगढ़-नौहराधार, राजगढ़-खैरी, राजगढ़-हब्बन, सनौरा-नेरीधूल, हब्बन-खैरी, राजगढ़-हब्बन, सनौरा-नेरीधूल, हब्बन-धामला-चंदोल के साथ पड़ोसी व राजू मंदिर क्षेत्र की सभी सड़कें बंद पड़ी हैं। किसानी व बागवानी की कृषि एवं बागवानी उत्पादन खेतों में ही खराब हो रहे हैं। उपतहसील पड़ोला के पैणकुफर गांव में भारी भूस्खलन के कारण गांव को खतरा पैदा हो गया है। यहां लगभग 9 लोगों के घरों को खाली करा दिया गया है। एस. डी. एम. राजगढ़ राज कुमार ठाकुर के अनुसार क्षेत्र में हो रही भारी बारिश से भारी नुकसान हुआ है, जिसका आकलन राजस्व विभाग व स्थानीय प्रशासन लगा है दूरदराज के क्षेत्रों में भारी नुकसान हुआ है। प्रभावित परिवारों को पीरी राहत प्रदान की जा रही है। उधर, बिजली विभाग की 33 के.वी. लाइन सनौरा के पास टूट गई है जिसके कारण पूरा क्षेत्र पिछले लगभग 24 घंटों से अंधेरे में डूबा है। बिजली विभाग द्वारा सुबह से ही बिजली लाइन को ठीक करने का कार्य किया जा रहा है।

सोलन : राजगढ़ रोड पर मोरिडियन के पास हुआ भूस्खलन। स्थ

सिरमौर में बारिश ब

लोक निर्माण को

अढ़ाई महीने में जान-माल को हुई भारी क्षति

नाहन, 1 सितम्बर (हितेश शर्मा): जिला सिरमौर में इस बार की बरसात विभिन्न सरकारी विभागों और आम जनता के लिए भारी तबाही लेकर आई। पिछले अढ़ाई महीने के भीतर (20 जून से 31 अगस्त, 2025) मूसलाधार बारिश से 125 करोड़ (1,05,28,58,985) रुपए का नुकसान हो चुका है और ये आंकड़ा लगातार बढ़ रहा है।

इस प्राकृतिक आपदा में अब तक 17 लोगों को (सड़क दुर्घटना, छत से गिरना, आग और सर्पदंश) अपनी जान गंवानी पड़ी है, जबकि 17 लोग घायल हुए। सड़कों से लेकर पानी की लाइनों और बिजली के बुनियादी ढांचे तक हर क्षेत्र में बारिश ने भारी तबाही मचाई है, जिससे जनजीवन बुरी तरह प्रभावित हुआ है।

इस प्राकृतिक आपदा से सबसे ज्यादा नुकसान लोक निर्माण विभाग को हुआ है। भारी भूस्खलन और मलबे से सड़कों के क्षतिग्रस्त होने से 60.32 करोड़ रुपए का नुकसान हुआ है। जल शक्ति विभाग को पानी की आपूर्ति लाइनों को नुकसान पहुंचने से 36.90 करोड़ रुपए की क्षति हुई है। विद्युत बोर्ड को बिजली के बुनियादी ढांचे को 5.31 करोड़ रुपए का नुकसान हुआ है।

उच्च शिक्षा विभाग को 71.74 लाख रुपए और कृषि विभाग को 59.48 लाख रुपए का नुकसान

ई। हालांकि
ना को दुरुस्त

दुरुस्त होने
ाग के नाहन
एस.डी.ओ.
भी धौण में

चुकी है। सप्ताह भर के भीतर 10वीं बार यहां राइजिंग मेन भूस्खलन के कारण क्षतिग्रस्त हुई है। विभाग के कर्मचारी बार-बार लाइन को दुरुस्त कर रहे हैं, लेकिन लगातार हो रही भारी बारिश और भूस्खलन विभाग के सामने बड़ी समस्या खड़ी कर रहा है। दूसरी तरफ भारी बरसात के चलते गिरि नदी भी उफान पर है।

भाजपा के अधीक्षण अभियंता से उठाया मामला

उधर, नाहन शहर में पिछले कई दिनों से सामने आ रही पेयजल समस्या को लेकर भाजपा नेताओं ने सोमवार को जल शक्ति विभाग के अधीक्षण अभियंता राजीव महाजन से मुलाकात कर उन्हें समस्या से अवगत करवाया। भाजपा जिला मीडिया प्रभारी राकेश गर्ग, प्रदीप बिज, संजय चौहान, ललित व राज कुमार ने बताया कि शहर के कई वार्डों में पिछले करीब एक महीने से लगातार पेयजल समस्या चल रही है, लेकिन इसे लेकर संबंधित महकमा गंभीर नहीं है। कई दिन बाद पेयजल सप्लाई की जा रही है। इससे लोगों को परेशानियों का सामना करना पड़ रहा है। उन्होंने अधीक्षण अभियंता से समस्या के समाधान की मांग की है।

बारिश के चलते ब्लॉक का डंगा गिरा

परवाणू, 1 सितम्बर (विकास): क्षेत्र में शनिवार से हो रही लगातार बारिश के चलते सैक्टर 6 के 71 नंबर ब्लॉक के आगे लगा डंगा गिर गया, जिससे फिलहाल वहां बने मकानों को अभी कोई खतरा नहीं है। अगर यह दोबारा गिरता है तो साथ लगे बिजली के खंभे के गिरने से भवन में रहने वालों के लिए चिंता की स्थिति हो सकती है।

जमीन खिसकने की वजह से सौहरी गांव के तीन परिवारों ने मकान किए खाली

मकानों को खाई में जाता देख निकाले दरवाजे व खिड़कियां

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के मलेहणी पंचायत के सौहरी गांव के नीचे जमीन खिसकनी शुरू हो गई है, जिससे पूरे गांव के लिए खतरा पैदा हो गया है। बीते दिन इस गांव के तीन परिवारों के मकान खाली करा दिए। सोमवार को इन मकानों के नीचे और ज्यादा भूमि कटाव हो गया है, जिससे इन लोगों ने अपनी इन मकानों की उम्मीद ही छोड़ दी और सामान तो पहले खाली कर दिया था। अब दरवाजे व खिड़कियां भी उतारनी शुरू कर दी हैं। इस गांव में 26 मकान हैं।

एस.डी.एम. राज कुमार ने बताया कि मलेहणी पंचायत के सौहरी गांव में लगातार भूमि कटाव से गांव को खतरा पैदा हो गया है। अभी तीन परिवारों को शिफ्ट कर दिया है।

(सतविन्द्र)

मलेहणी पंचायत के जखोल गांव में लोगों के घरों में आई दरारें।

सोलन-सिरमौर केसरी

WEDNESDAY, 3 SEPTEMBER 2025 | सूर्योदय 06:01 | सूर्यास्त 06:46 | अगले 24 घंटों के दौरान बारिश की संभावना है। | SOLAN-SIRMOUR KESARI

...क एवं एजेंट चाहिए
...ा केसरी, जिला कार्यालय एवं विभिन्न ...मण्डलों में विज्ञापन एवं समाचार संबंधी पूछताछ एवं किसी अखबार के लिए रिप्रेजेंटेटिव नियुक्त करने या समाचार भेजने के लिए संपर्क करें :
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SOLAN

न्यूज़ वीक

20 से 26 सितम्बर तक होंगी विशेष ग्राम सभाएं

उपचार दौरान मजदूर की मौत

सोलन में 11 मकान ध्वस्त, 46 सड़कें बंद, 191 ट्रांसफार्मर खराब, 12 पेयजल योजनाएं ठप्प

सोलन : सेहरा के पास गिरा 17 में से एक का टीन निकाले में खोले में आए 2 मकान, दीवारों में आई दरार। (भट्ट)

सोलन, 2 सितम्बर (एजेंसी)। जिला सोलन में भारी बारिश से कार्यालय अलर्ट मोड पर है। सोमवार रात से हो रही बारिश के कारण कई मकान ध्वस्त हो गए हैं। इसके अलावा लोक निर्माण खंड की अरकी पंचायत के बालाग गांव की एक सड़क भी बंद हो गई है।

जिला में पिछले 24 घंटे के दौरान 12.40 मिलीमीटर वर्षा दर्ज हुआ है जबकि इस मानसून सीजन में अभी तक कुल 1201 मिलीमीटर वर्षा का मुकाबला हो चुका है। जिला में अभी भी 46 सड़कें बंद हैं। इन सड़कों में 2 ट्रांसफार्मर विंग मुख्यालय सोलन के दो खंड अरकी और जाबली के तहत आते हैं। इन खंडों के अधीन आने वाले 191 ट्रांसफार्मर खराब हो गए हैं। इन ट्रांसफार्मरों को जल्द से जल्द ठीक करने के लिए एक अभियान चलाया जा रहा है।

जिला में करीब 191 ट्रांसफार्मर खराब हो गए हैं। ये सभी बारिश के कारण बिजली के फाल्ट होने के कारण खराब हुए हैं। इनके अलावा कई ट्रांसफार्मरों के ऑयल स्तर को भी चैक किया जा रहा है। इन ट्रांसफार्मरों को जल्द से जल्द ठीक करने के लिए एक अभियान चलाया जा रहा है। इस अभियान के तहत 191 ट्रांसफार्मरों को ठीक करने के लिए एक अभियान चलाया जा रहा है।

जिला में करीब 191 ट्रांसफार्मर खराब हो गए हैं। ये सभी बारिश के कारण बिजली के फाल्ट होने के कारण खराब हुए हैं। इनके अलावा कई ट्रांसफार्मरों के ऑयल स्तर को भी चैक किया जा रहा है। इन ट्रांसफार्मरों को जल्द से जल्द ठीक करने के लिए एक अभियान चलाया जा रहा है। इस अभियान के तहत 191 ट्रांसफार्मरों को ठीक करने के लिए एक अभियान चलाया जा रहा है।

प्रशासन के दावों में यह इसे टाल के दावों में हुए हैं। जिला में ये करीब 11 मकान

पूरी रात से बारिश हो रही है। इसके अलावा 2 पशुओं के 11 अन्य मकानों को आंशिक रूप से नुकसान हुआ है। 21 पोलपाइट

अधिकतर हुई हैं।

जिलाभर में 24 घंटे में सबसे जिलोग्राम बारिश 8.58 कसौली, 7.74 मिमी की 12.50 लाख, मशरूमपाल जिलाधीश को 42 लाख तथा मकानों के लिए 56 लाख रुपए का नुकसान हुआ है।

डी.सी. सोलन मनमोहन शर्मा ने बताया कि जिला में हो रही भारी बारिश से भूत नुकसान हुआ है। मानसून सीजन में अभी तक 148 करोड़ रुपए का नुकसान हो चुका है। इसकी रिपोर्ट सरकार मुख्यालय को भेज दी है।

सोलन : सेहरा के पास गिरा 17 में से एक का टीन निकाले में खोले में आए 2 मकान, दीवारों में आई दरार। (भट्ट)

सिरमौर में 172 सड़कें व 443 डी.टी.आर. प्रभावित

नाहन। पुलिसकर्मी पेड़ को पेड़ हुआ रास्ता। (भट्ट)

2 घंटे बाधित रहा एन.एच.-7

पांवटा साहिब-शिलाई हाईवे प्रभावित

पीएच.डी. कोर्स की परीक्षाएं अब 6 को

सांझी-सिरमौर दर्पण

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संवाददाता : सड़क के चार फुट नीचे आ गिरा हुआ।

बागवान : संवेदनशील पुरानी सड़क पर आ रहा मलबा।

संवाददाता : सुरक्षा के लिए बिजली का पोल सड़क पर गिरने वाला।

संवाददाता : बाड़ागढ़ विकास खंड की आवासी पंचायत में

ओगली में भूमि कटाव से 12 उद्योगों को खतरा

बागवान : भारी बारिश के बाद सड़क का हिस्सा।

संवाददाता : सड़क साहिब से टकराते पानी।

कोट स्कूल के भवन में आई दरारें

संवाददाता : कोट स्कूल में आई दरारें।

संवाददाता : कोटले ग्राम पंचायत के गांवों में कटान के कारण के उजड़ गिरा नजारा।

बी.बी.एन. : बारिशों में नए बार आई पुराने बस अड्डे तक सड़क जोड़ी जो पानी होने पर खतरा बन जाती है। यात्रियों को होने के पानी पैदल पानी के लिए भी जगह नहीं होती, स्थानीय लोगों ने विभाग से खड़ा पर

सोलन में 6 मकान ध्वस्त, 56 सड़कें बंद

सोलन : क्षतिग्रस्त हुई सलोगड़ा-कंडाघाट सड़क। (नवी)

सोलन, 4 दिसम्बर (रामा): जिला में भारी बारिश से प्रभावित हुआ कार्यालय दफ्तरों का सिलसिला हुआ सामान्य नहीं आ पाई है। जिला सोलन में अभी भी 56 सड़कें बंद हैं। यहां भारी 138 ट्रांसफार्मर खराब होने से कई गांव अभी भी अंधेरे में डूबे हुए हैं। 28 पेयजल योजनाएं अभी बंद हैं। जिले में पिछले 24 घंटे में करीब 2 करोड़ रुपए का नुकसान हुआ है। 6 कच्चे मकान ध्वस्त हुए हैं, जबकि 32 मकानों को आंशिक रूप से नुकसान हुआ है। जिले में नुकसान का आंकड़ा 200 करोड़ रुपए तक पहुंच गया है। एसडीएम कसौली को पिछले 24 घंटे में करीब 3.45 करोड़ रुपए का नुकसान हुआ है। डीसी डॉ. अनुपम कश्यप ने बताया कि जिले में अवरुद्ध हुई सड़कों को बहाल करने के प्रयास किए जा रहे हैं।

इन जगहों पर क्षतिग्रस्त हुए मकान

प्रशासन की ओर से जिले से जारी जानकारी के अनुसार कुनिहार उपकार्यालय के तहत ये बाधुरेड़ व नालागढ़ में भारी बारिश के कारण पूरी तरह से क्षतिग्रस्त हुआ है। वहीं नालागढ़ में संचालन में मंजोत कुमारी, जिलापरिषद के सदस्य, सलोगड़ा के सरपंच, कुनिहार नगरपरिषद के पार्षद, कुनिहार तहसील के अधिकारी, कुनिहार के तहसीलदार, कानूनगो, पटवारी व अन्य संबंधित कर्मचारी मौजूद रहे।

आंशिक रूप से क्षतिग्रस्त हुए मकान

अर्की तहसील में सबसे ज्यादा प्रभावित देवी का पक्का मकान, कुम्हारसैन के कंडाघाटवाला में रोशनलाल, मानोवाड़ा के इन्दौरा में सुखदेव, सोलन के सलाकलां के जंगलेन में बलवीर, ओल्ड डी के कनेटर, ठारी के रोशनलाल में रोशनेन, लाडूरी, सूरत, जगदीश सिंह, दास पाल व सलाहल जब सिहपड़ी में किशोर के पक्के मकानों को आंशिक रूप से नुकसान हुआ है। कुनिहार तहसील के देवी चंद, कुनिहार तहसील के इंजीनियर व पार्षदगण, कुनिहार तहसील कार्यालय के सामने देवी, कुनिहार तहसीलदार के अतिरिक्त मकान क्षतिग्रस्त हुआ है।

आंशिक रूप से क्षतिग्रस्त हुए मकान

अर्की तहसील में सबसे ज्यादा प्रभावित देवी का पक्का मकान, कुम्हारसैन के कंडाघाटवाला में रोशनलाल, मानोवाड़ा के इन्दौरा में सुखदेव, सोलन के सलाकलां के जंगलेन में बलवीर, ओल्ड डी के कनेटर, ठारी के रोशनलाल में रोशनेन, लाडूरी, सूरत, जगदीश सिंह, दास पाल व सलाहल जब सिहपड़ी में किशोर के पक्के मकानों को आंशिक रूप से नुकसान हुआ है। कुनिहार तहसील के देवी चंद, कुनिहार तहसील के इंजीनियर व पार्षदगण, कुनिहार तहसील कार्यालय के सामने देवी, कुनिहार तहसीलदार के अतिरिक्त

शामती बाईपास सड़क जमींदोज

ज्ञात, सड़क में दरारें आ जाने के कारण 3 सौ मीटर लंबी शामती बाईपास सड़क का निर्माण में पास वाह हिमाचल जनरीडोर हो गया है इसके साथ पहले भी आवाजाही बंद हो गई है। सड़क के बड़े हिस्से के जमींदोज होने से पुनर्निर्माण का खतरा भी बढ़ गया है। इसके साथ अनंतहरा के गांव के लोग भी दहशत में आ गए हैं। सड़क के बंद होने से सब कामकाजी की छोटी-मोटी दुकानें भी प्रभावित हुई हैं। इसके अलावा सलोगड़ा से कंडाघाट जाने वाली पुराना सड़क भी बंद पड़ी है। इसके साथ ही सलोगड़ा से कंडाघाट जाने वाली पुराना सड़क भी बंद पड़ी है। इसके साथ ही सलोगड़ा से कंडाघाट जाने वाली पुराना सड़क भी बंद पड़ी है।

सिरमौर में 7 मकान गिरे, 120 सड़कें, 130 डी.टी.आर., 93 पेयजल योजनाएं प्रभावित

नाहन : खतरे की चेतावनी के बावजूद पक्के मकानों के मलबे में रहने को मजबूर हुआ परिवार।

नाहन, 4 दिसम्बर (हरीश): जिला सिरमौर में भारी बारिश से हुए भूस्खलन व मलबे के कारण 7 मकान पूरी तरह ध्वस्त हो गए हैं, जबकि 120 सड़कें बंद पड़ी हैं। जिसमें कुल 130 डी.टी.आर. (ट्रांसफार्मर) खराब होने से अंधेरे में डूबे हुए हैं। 93 पेयजल योजनाएं प्रभावित हुई हैं। इसके अलावा 11 बिजली के पोल भी गिर गए हैं। इससे लगातार बिजली आपूर्ति ठप है। जिला प्रशासन ने सभी प्रभावित क्षेत्रों में राहत एवं बचाव कार्य तेज कर दिए हैं। जिला आपदा प्रबंधन प्राधिकरण के अनुसार, जिले में अब तक 1,200 से अधिक लोगों को सुरक्षित स्थानों पर पहुंचाया गया है। इनमें से 450 लोगों को अस्थायी राहत शिविरों में ठहराया गया है। प्रशासन ने 24 घंटे काम करने के निर्देश दिए हैं।

थामती बाईपास सड़क जमींदोज

ज्ञात, सड़क में दरारें आ जाने के कारण 3 सौ मीटर लंबी शामती बाईपास सड़क का निर्माण में पास वाह हिमाचल जनरीडोर हो गया है इसके साथ पहले भी आवाजाही बंद हो गई है। सड़क के बड़े हिस्से के जमींदोज होने से पुनर्निर्माण का खतरा भी बढ़ गया है। इसके साथ अनंतहरा के गांव के लोग भी दहशत में आ गए हैं। सड़क के बंद होने से सब कामकाजी की छोटी-मोटी दुकानें भी प्रभावित हुई हैं। इसके अलावा सलोगड़ा से कंडाघाट जाने वाली पुराना सड़क भी बंद पड़ी है। इसके साथ ही सलोगड़ा से कंडाघाट जाने वाली पुराना सड़क भी बंद पड़ी है। इसके साथ ही सलोगड़ा से कंडाघाट जाने वाली पुराना सड़क भी बंद पड़ी है।

पत्रकार प्रताप ने पेयजल योजना को दुरुस्त करने में जुटे कर्मियों तक पहुंचाया भोजन

बस सड़क से बाहर निकली, पेड़ पर अटकी

एन.एच. पर पहाड़ियों से गिरते रहे से पत्थर, आवाजाही रही सुचारू

चक्की मोड़ के अलावा रूनवारा व मनसार बना भूस्खलन संभावित क्षेत्र

सोलन-सिरमौर केसरी

SOLAN

ER 2025 सूर्योदय 06.02 सूर्यास्त 06.43 अगले 24 घंटों के दौरान बारिश हो सकती है। SOLAN-SIRMOUR KESARI

धर्मपुर के बठोल गांव में 8 मकानों में आईं दरारें, 3 खतरे की जद में

सोलन, 4 सितम्बर (एन.)। धर्मपुर के बठोल गांव में वर्ष 2023 की तरह इस बार भी प्राकृतिक आपदा ने कहर बरपाना शुरू कर दिया है। गांव में हुए भारी भूस्खलन से करीब 8 मकानों में दरारें आ गई हैं। 3 मकान तो खतरे की जद में।

इसे देखते हुए प्रशासन ने तीन मकानों को खाली करवा दिया है। गांव की नीचे की पहाड़ी से लगातार भूस्खलन हो रहा है। इसके कारण ऊपर की जमीन लगातार नीचे की ओर धंस रही है। बता दें कि वर्ष 2023 में आई प्राकृतिक आपदा में भी इस गांव में भारी भूस्खलन हुआ था। उस दौरान भी इन मकानों को खाली करवाया गया था। उस समय भी 7 से 8 मकानों में दरारें आई थीं। कुछ समय बाद मकान मालिकों ने इनकी रिपेयर करवाकर इनमें रहना शुरू कर दिया।

हैरानी की बात यह है कि जिला प्रशासन ने इस गांव की सुरक्षा के लिए वहां पर डंगा लगाने की जहमत नहीं उठाई। यदि डंगे का निर्माण होता तो शायद इस बार ऐसा भूस्खलन नहीं होता। इससे स्पष्ट हो गया कि जिले में वर्ष 2023 के आपदा प्रभावित कई क्षेत्रों में रिपेयर व रिस्टोरेशन के काम पूरे नहीं हुए हैं। बठोल गांव के सतर्क प्रधान ने बताया कि 2023 में भी उन्होंने आपदा का दंश झेला और वर्ष 2025 में भी झेल रहे हैं। पहले भी उन्हें मकान खाली करना पड़ा था और इस बार भी खाली करना पड़ रहा है। वे पिछले 2 वर्षों से प्रशासन के चक्कर काट रहे हैं कि गांव की सुरक्षा के लिए वहां पर डंगे का निर्माण किया जाए। हैरानी की बात है कि न प्रशासन और न ही पंचायत ने इसे गंभीरता से लिया। अब फिर उन्हें अपने मकान छोड़कर रिश्तेदारों के घर रहना पड़ रहा है।

बता दें कि पंचायत में भी मकान को खाली करवाया गया है। भूस्खलन के कारण मकान के पीछे का बड़ा हिस्सा गिर गया है। खतरे को देखते अब तिरपाल से इस हिस्से को ढका गया है।

सोलन : बठोल गांव में हुआ भूस्खलन कई मकान खतरे की जद में (इनसेट में) मकानों में आई दरारें।

गांव में हुआ भारी भूस्खलन, 2023 में भी खाली करवाए थे मकान

भूस्खलन से खाली करवाया पन्नारी गांव, 10 परिवार सुरक्षित जगह भेजे

कुनिहार, 4 सितम्बर (मदन)। क्षेत्र में 3 दिन से लगातार हो रही बारिश ने कोटला पंचायत के पन्नारी गांव में कहर बरपाया है। भूस्खलन से गांव के करीब 10 परिवारों के घरों में मलबा घुस गया, जिससे घरों की दीवारों में दरारें आ गई व सामान खराब हो गया।

भूस्खलन के प्रभाव महसूस करते ही स्थानीय प्रशासन ने तुरंत प्रभावित परिवारों को सुरक्षित जगह पर भेज दिया। गांव की खाली करवाए गए घरों में एसडीएम कुनिहार अजय कुमार, तहसीलदार कुनिहार अमित कुमार, बीडीओ कुनिहार अमित कुमार, पंचायत प्रधान सुनीता देवी, उपप्रधान सुरेश कुमार, वार्ड पंच सुनीता देवी, पूर्व प्रधान सुरेश कुमार, पूर्व उपप्रधान सुनीता देवी, पूर्व वार्ड पंच सुनीता देवी, पूर्व वार्ड पंच सुनीता देवी, पूर्व वार्ड पंच

भी डी.सी. ऑफिस पहुंच गए।

यह बात अलग है कि शहर में लोगों को पीने के लिए 7 से 8 दिन के बाद ही पानी की आपूर्ति हो रही है लेकिन हालात को सुधारने के लिए ईमानदारी के साथ प्रयास नहीं हो रहे हैं। 3 दिन पूर्व ऐसा लग रहा था कि स्थिति सामान्य हो रही है। कुछ क्षेत्रों में चौथे दिन पानी की आपूर्ति शुरू हो गई थी लेकिन पिछले 3-4 दिनों से जल शक्ति विभाग से पानी

की कम आपूर्ति के कारण हालात फिर से वैसे ही बन गए हैं।

अब तो इसमें बिजली बोर्ड की भी एंट्री हो गई है। सोलन शहर व इसके ग्रामीण क्षेत्रों में बीरवार को सुबह 9.30 बजे से शाम करीब 6.30 बजे तक बिजली कट के कारण गिरो व अश्वनी

होनी थी। अब इन क्षेत्रों को 7 से 8 दिन के बाद पानी मिलेगा। नगर निगम ने बीरवार को वार्ड नंबर 3 के कथेड़ क्षेत्र में करीब 7वें दिन पानी की आपूर्ति की है। शुक्रवार को पानी की आपूर्ति अप्पर गिरो व अश्वनी पेयजल योजनाओं से रात भर होने वाली पानी की लिफ्टिंग पर निर्भर रहेगी।

डी.सी. ऑफिस कर्मचारी संघ के अध्यक्ष लोकेन्द्र चौहान ने बताया कि

परेशानी का सामना करना पड़ा लेकिन दोपहर बाद पानी की आपूर्ति शुरू होने से हालात सामान्य हो गए।

नगर निगम आयुक्त पंकज कांटा ने बताया कि बीरवार सुबह 9 बजे से शाम करीब 6.30 बजे तक बिजली कट के कारण गिरो व अश्वनी पेयजल योजनाओं से पानी की आपूर्ति नहीं हुई। पिछले 3-4 दिनों से जल शक्ति विभाग से नगर निगम को सामान्य से कम पानी मिल रहा है।

नालागढ़ के कई गांवों में घरों व जमीनों को नुक्सान

बी.बी.एन., 18 सितम्बर (शेर सिंह): भारी वर्षा के कारण नालागढ़ के कई गांवों में घरों व जमीनों को नुक्सान हुआ है। गांव कपोली, कासला, मलेहणी व सल्लीण आदि गांवों में मकानों व पशुशालाओं को नुक्सान हुआ है। नालागढ़ रामशहर रोड सिलनुपुल के पास ल्हासा गिरने से कुछ समय के लिए बंद रहा। लोक निर्माण विभाग ने बाद में सड़क को खोल दिया।

इस सड़क पर बीरवार से रामशहर तक बसों की भी आवाजाही शुरू हो गई है। इससे पहले रामशहर की तरफ से बसें कुमारहट्टी तक और नालागढ़ की तरफ से पैट्रोल पम्प तक ही जा रही थीं और लोगों को करीब 1 किलोमीटर पैदल चलना पड़ रहा था। विभाग द्वारा यहां वैकल्पिक सड़क बना दी गई है, लेकिन वर्षा के समय दलदल हो जाती

बी.बी.एन. : नालागढ़-रामशहर रोड पर सिलनुपुल के पास गिरा ल्हासा। (शेर सिंह)

है और वाहनों की आवाजाही प्रभावित हो जाती है। लोक निर्माण विभाग मंडल नालागढ़ के अधिशासी अभियंता परमसर सिंह ने बताया कि नालागढ़-रामशहर रोड को खोल दिया गया है तथा जो भी सड़कें बंद हैं, उन्हें खोला जा रहा है।

म्ब के मोगीनंद में खुदाई कर संपर्क मार्ग किया बंद, उद्योगपति व

समाधान की गुहार लगाई है। इसके साथ पुलिस थाना करसोग के

मोगीनंद के गोदाम और बी.पी. पैट्रोल

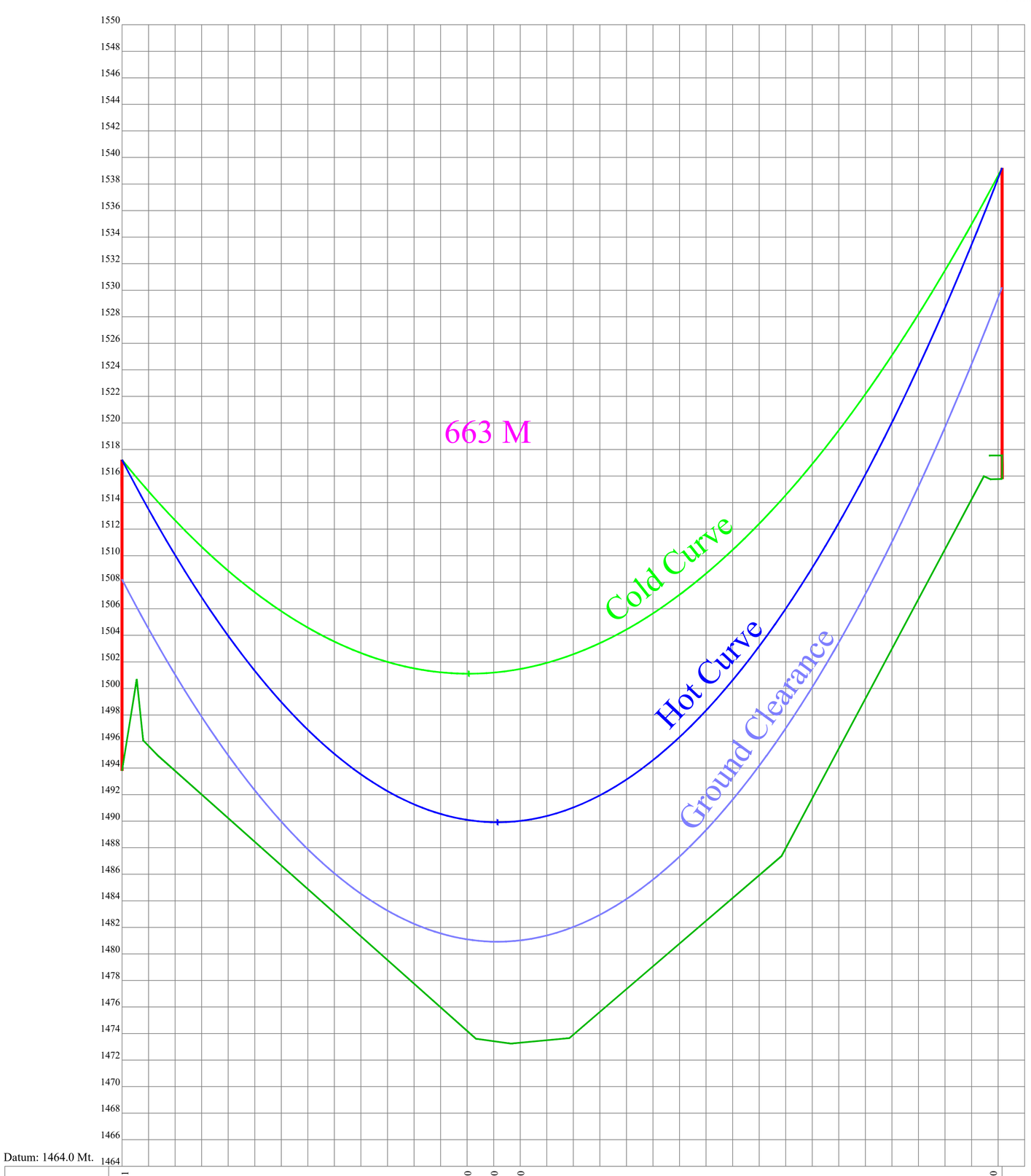
कार्रवाई का आश्वासन दिया है।

भारी बारिश से झाड़ग्राम में तबाही का मंजर

243
DD+0
Wind Span:829.50
Weight Span (Cold):=893.6
629.07(L)+264.53(R)
Weight Span (Hot):=873.85
588.68(L)+285.16(R)

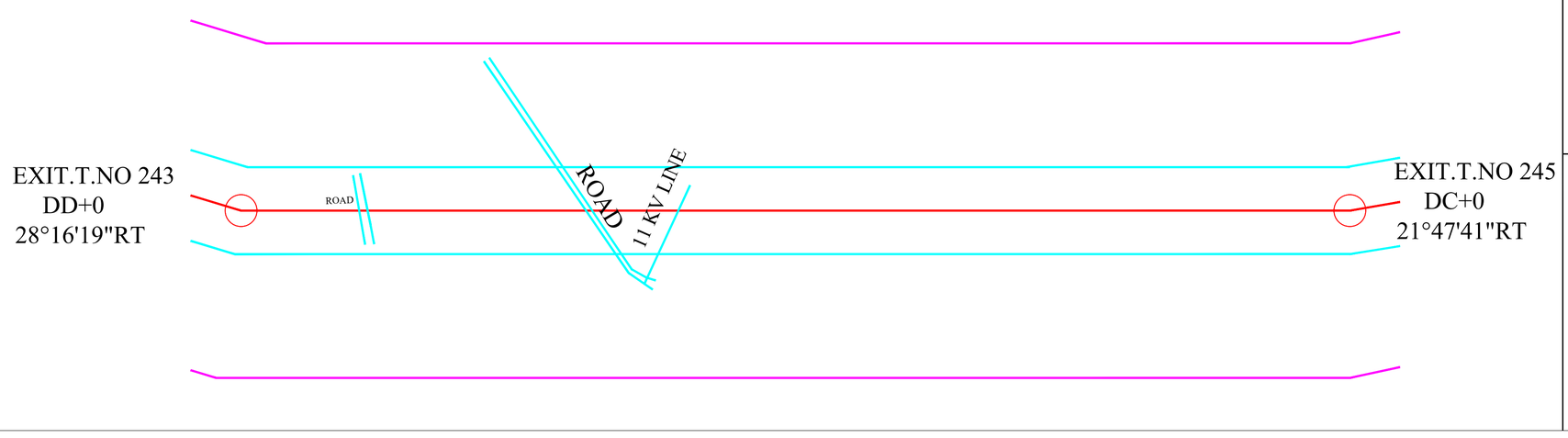
PROPOSED ROUTE -1

245
DC+0
Wind Span:498.50
Weight Span (Cold):=215.57
398.467(L)+-182.89(R)
Weight Span (Hot):=302.75
377.83(L)+-75.082(R)



Datum: 1464.0 Mt.

Reduced Level	1493.81													1473.60	1473.40	1473.10										1515.80
Chainage in Mtr.	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00	663.00



400kV D/C KARCHAM WANGTOO-ABDULLAPUR TL LINE

Revised Profile: Exit.AP-243 TO 245

Client: POWER GRID CORPORATION OF INDIA LTD. (A Govt. of India Enterprise)

Survey :

Copy of Profile Submitted to:

Approved By:-

Drawn By:-		Sheet Size :	Scale:-	1:20(H), 1:2(V)
Checked By:-				
Approved By:-		Project No.	Date:.	Rev.

Profile Drawing

Tower Spotting Data

01). Conductor	Twin ACSR Moose
02). Cable Diameter	31.77 mm.
03). Area	597 Sq.mm.
04). UTS	16428 Kg
05). Normal Span (Ruling)	400m.
06). Max.Sag (85° NW)	13.263 m.
07). Ground Clearance	9.00 m.
08). Sag Error	0.150 Mtr.

Legends:-

Sr.No.	Description	Symbol
1).	Alingment	
2).	Power Line Corridor	
3).	Building	
4).	Railway Track	
5).	Cart Track	
6).	Road	
7).	Exi.220kv D/C Line	
8).	LT.Line / 11kv Line	
9).	Exi.66kv H-Frame Line	
10).	Pond /Nala / River	
11).	Bund / Wall / Tube Well	

Notes:- 1.All Dimension are in Metre

Scale:-

Horizontal Scale 200m. 180 160 140 120 100 80 60 40 20 00 20 40m.

1 cm = 20m.

Vertical Scale 20m. 18 16 14 12 10 8 6 4 2 00 2 4m.

1 cm = 2m.

Approved By Power Grid

ANNEXURE-V

पावरग्रिड हिमाचल ट्रान्समिशन लिमिटेड
(पावरग्रिडकीपूर्णस्वामित्ववालीसहायककंपनी)
POWERGRID HIMACHAL TRANSMISSION LTD.
(A Wholly Owned Subsidiary of POWERGRID)
(Formerly known as Jaypee POWERGRID Ltd

Ref: PHTL/KWTL/ /2025-26/521 **Date: 26.09.2025**

To,

The Sub-Divisional Magistrate (SDM)
Rajgarh, District Sirmaur
Himachal Pradesh – 173101

Subject: ***Request for Administrative Support regarding Settlement of Tower No. 244 of 400 kV D/C (Quad) Karcham Wangtoo – Abdullapur Transmission Line in Tella Area, Tehsil Rajgarh***

Respected Sir,

POWERGRID Himachal Transmission Limited (PHTL), a wholly owned subsidiary of POWERGRID Corporation of India Ltd., operates and maintains the 400 kV D/C (Quad) Karcham Wangtoo – Kala Amb – Abdullapur Transmission Line, a vital link for evacuating hydro power from JSW's 1,045 MW Karcham Wangtoo HEP, 300 MW Baspa HEP, and other HPPCL projects. Commissioned in 2011–2012, the system includes the main transmission line, associated LILO at Karcham Wangtoo, and bays at Abdullapur and Karcham Wangtoo substations. Spanning 224.30 km with 518 towers, it plays a crucial role in transferring power from Himachal Pradesh's major hydro projects to the Northern Grid while traversing the challenging hilly terrains of Kinnaur, Shimla, and Sirmaur districts.The total line length is 224.30 km with 518 towers across Himachal Pradesh and adjoining regions.

It is brought to your kind notice that **on 26.09.2025, a bend was observed in Tower No. 244**, located in **Tella area, Tehsil Rajgarh, beside State Highway-6, District Sirmaur (H.P.)**. The tower is showing **visible settlement in the foundation region and is on the verge of bending further**, which may pose a serious risk to the structural stability of the line as well as the safety of the local population, road users, and nearby habitations.

In this regard, we kindly request your **administrative support and necessary directions to the concerned local authorities** for facilitating the safe execution of restoration/mitigation measures at the site on priority. Your intervention will help in ensuring smooth and safe operation of this critical transmission infrastructure and protection of people in the vicinity.

We look forward to your cooperation and necessary guidance in this matter.

Thanking you,

Yours sincerely,

(Praveen Kumar)
Deputy General Manager / Site Head
PHTL

पावरग्रिड हिमाचल ट्रांसमिशन लिमिटेड
(पावरग्रिड की पूर्ण स्वामित्व वाली सहायक कंपनी)
POWERGRID HIMACHAL TRANSMISSION LIMITED
(A wholly owned subsidiary of POWERGRID)
(Formerly Known as Jaypee Powergrid Ltd.)

Ref: PHTL/NRC-Corres/2025-26-523 Dated: 29.09.2025

To

The Member Secretary,
Northern Regional Power Committee,
18-A, Qutab Institutional Area,
Katwaria Sarai, New Delhi – 110 016

Subject: Reg. Endangerment of Tower No. 244 of 400 kV D/C (Quad) Karcham Wangtoo – Kala amb-Abdullapur Transmission Line on account of land sinking/sliding in Tehsil Rajgarh Dsitt. Sirmaur, Himachal Pradesh.

Dear Sir,

POWERGRID Himachal Transmission Limited (PHTL) is a fully owned subsidiary of Powergrid Corporation of India Limited and is engaged in the operation and maintenance of the 400 kV D/C (Quad) Karcham Wangtoo – Abdullapur Transmission Line. This line plays a crucial role in transmitting 1045 MW of generation from Karcham-Wangtoo HEP as well as 300 MW of Baspa HEP generation.

PHTL has executed the 400 kV D/C (Quad) Karcham Wangtoo – Abdullapur Transmission System for the evacuation of power from Karcham-Wangtoo HEP located in the state of Himachal Pradesh. The project comprises the following elements: -

1. 400 kV D/C (Quad) Karcham Wangtoo – Abdullapur Transmission Line
2. 400 kV D/C LILO of 400 kV Baspa–Jhakri Transmission Line at Karcham Wangtoo
3. 04 nos. bays at 400 kV Substation Abdullapur
4. 02 nos. bays at Karcham Wangtoo HEP

The commercial operation of the LILO component was declared w.e.f. 01.06.2011, and that of the line along with associated bays w.e.f. 01.04.2012.

During the month of August - September 2025, whole state of Himachal Pradesh has witnessed unprecedented incidents of rainfall, flash flood and land slide/sinking/settlement causing massive destruction/ damages to landmass including public and private properties. These incidents of unprecedented rainfall, flash floods and land slide/ sinking were also covered by national media and Indian Meteorological Deptt. (IMD report attached as **Annex-A.**)

To assess the healthiness of transmission lines in Himachal region in view of the above incidents, PHTL has checked the physical condition of each transmission line tower during Sept.2025. During the checking, it was noticed that protection walls were damaged in around 04 to 05 nos. of towers of 400 kV Lines in Himachal Pradesh due to land sliding/sinking. This has been attended by providing gabion

walls, repair of damaged revetment walls and other protection measures.

It is to mention that POWERGRID Himachal Transmission Limited (PHTL) 400 kV D/C Karcham Wangtoo-Kala amb-Abdullapur Transmission Line is an important link for evacuation of Hydrogeneration from JSWs 1045MW Karcham Wangtoo HEP, 300 MW Baspa HEP& HPPCL's other major/minor HEPs etc. and it traverses through tough hilly terrains of Districts Kinnaur, Shimla and Sirmour in Himachal Pradesh. During this year's monsoon season, heavy rainfall coupled with cloud bursts have occurred in Himachal Pradesh. Consequent heavy rainfall has also led to uneven land settlement/Sliding in and around village Tella in Tehsil Rajgarh in Distt. Sirmour (HP) through which Tower No. 244(DB+0) of subject mentioned ne traverses and significant bending in Leg C, adjoining members & Members in Cage Section & sections below cage has been observed due to above extreme weather events. It is pertinent to mention that development of cracks on nearby link road, MDR-73 (Chaila-Kumarhatti), walls & floors of nearby Dhaba/houses located on both the sides of the existing line corridor 244-245 has also been observed. Supporting photographs are attached as **Annex-B.** In addition, supporting news clippings about cloudbursts/floods is attached as **Annex-C.**

In view of the above, there is an apprehension of a major damage to the tower which would also impact the power flow (as around 1200 MW flows in both circuits), thus immediate stay arrangement using guy wires and tower strengthening by additional members was provided to safeguard the tower from further bending. Considering the importance of 400 kV D/C Karcham Wangtoo-Kala amb-Abdullapur Transmission Line, continual efforts & monitoring to prevent the further sinking of critical tower is being made by PHTL to avoid any exigency. Further Cameras are installed to monitor any further damage to tower and we are continuously monitoring on the condition of tower.

Pertinently, as aforementioned, PHTL has taken and is ensuring all necessary measures to prevent any mishap and maintain availability of the line. Therefore, keeping in view the importance of transmission line and also critical condition of tower no 244, It is most humbly requested that site visit of experts, may kindly be arranged so that further rectification works required may be done.

Thanking you with regards.

Yours faithfully,
For & on behalf of Powergrid Himachal Transmission Limited

(Pritpal Singh)
Dy. General Manager (Site Head)

Cc:

- CEO, PHTL, Jammu for kind information please.
- CGM, AM, NR2, Jammu

Line Outage Details

For the Month of OCTOBER 2025

In Respect of

Powergrid Himachal Transmission Limited (PHTL)

vis-à-vis

Force Majeure: Natural Calamity (Heavy Rainfall & Land Settlement)

Shutdown Period: 08 Oct 2025 – 18 Oct 2025

Location: Rajgarh, Sirmaur (HP)

INTRODUCTION – OUTAGE EVENT SUMMARY

Particular	Details
Utility	Powergrid Himachal Transmission Ltd (PHTL)
Event Type	Force Majeure – Natural Calamity (Heavy Rainfall & Land Settlement)
Location	Tower T-244, Village Tella, Rajgarh, Distt. Sirmaur (HP)
Period of Natural Event	July – September 2025 (Unprecedented Heavy Rainfall in HP)
Affected Asset	400 kV D/C Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line(Earlier Known as Karcham wangtoo-Abdullapur transmission line)
Cause of Disturbance	Severe land settlement at Tower T-244 leading to bending & shearing of tower members
Risk Observed	Tower structural instability & risk to public/property
Action Taken	Emergency shutdown & rerouting of line by dismantling Tower T-244 and direct stringing between T-243 & T-245

OUTAGE DETAILS FOR REVIEW AS PER ANNEXURE-I

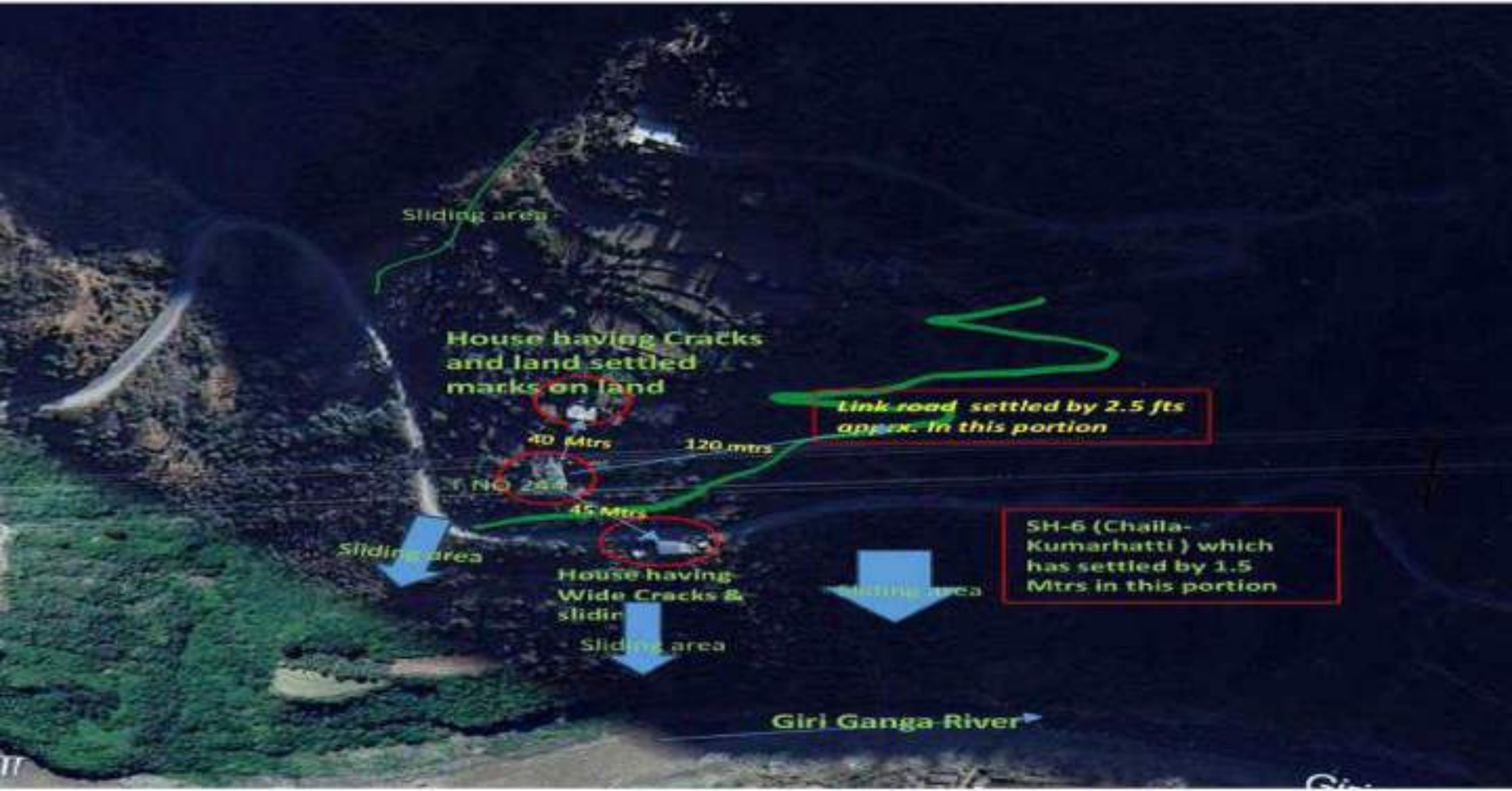
Event No.	Element Name	Shutdown Start	Shutdown End	Duration
2628	400 kV Wangtoo–Kala Amb Ckt-I	08.10.2025 – 13:01 hrs	18.10.2025 – 18:19 hrs	245:18 hrs
2629	400 kV Sorang–Kala Amb Ckt-II	08.10.2025 – 13:05 hrs	18.10.2025 – 18:46 hrs	245:41 hrs

LOCATION NO 244 FOUND CRITICAL DURING PATROLLING

Site Inspection BY EXPERT COMMITTEE ON 24,09.25

- Land sinking near tower area
- Slope instability around the Tower & Nearby areas
- Sinking of (SH-6) passing through the area
- Bending of tower members in cage portion and below cage portion observed.
- Risk of further land movement and possibility of tower collapse,
- Threat to nearby houses

Satellite Imagery showing the extent of damages due to Land settlement in this area is as under:



SINKING NEAR TOWER

Development of wide cracks near Leg B

Development of wide cracks near tower

Latitude: 31.005803
Longitude: 77.372586
Elevation: 1195.28 ± 47.3
Accuracy: 60.9
Time: 2025-09-26 10:39
Note: Trib:244
Powered by NoteCam

Development of wide Cracks in Tower area & near Protection wall

Development of wide cracks in Protection wall at Leg A&B

Background of the Incident

- ➔ 400 kV Wangtoo–Kala Amb & Sorang–Kala Amb Transmission Line is a critical corridor for evacuation of power from 1045 MW JSW Karcham Wangtoo HEP & 100 MW Sorang HEP.
- ➔ During July–September 2025, Himachal Pradesh experienced unprecedented heavy rainfall, causing widespread landslides and land settlement across the state.
- ➔ As per IMD report (Aug-2025):
  - ◆ 431.3 mm rainfall received (~68% above normal) Wettest August since 1949
- ➔ On 09.09.2025, severe land settlement reported at Tower T-244 (Village Tella, Rajgarh, Sirmaur).
- ➔ Observations at site:
  - ◆ Ground cracks in tower area & adjoining road Settlement of nearby MDR road (~1 m)
  - ◆ Tower leg settlement (~5 cm)
  - ◆ Bending & shearing of tower members at Cage Level
- ➔ Immediate safety measures taken by PHTL:
  - ◆ Back-stays provided for load balancing
  - ◆ Continuous monitoring of tower stability

Development of wide Cracks along Link Road & SH-06

Road Subsidence & Slope Instability Near Tower T-244

- Section of State Highway-6 (Chhaila–Kumarhatti Road) located below Tower T-244 affected
- Visible road subsidence, Cracks in nearby dwellings and slope movement observed after heavy rainfall
- HPPWD installed warning signage indicating active slope failure zone
- Major sinking and crack development seen along road stretch

Inference

- Clear evidence of large-scale slope instability in tower vicinity
- Risk to public movement and transmission infrastructure
- Supports classification as Force Majeure – Natural Calamity

Road subsidence and warning alerts by HPPWD confirm active land movement affecting Tower T-244 foundation and surrounding terrain.

Development of wide Cracks along Link Road & SH-06

Sinking in nearby areas

Photo showing damage to nearby area

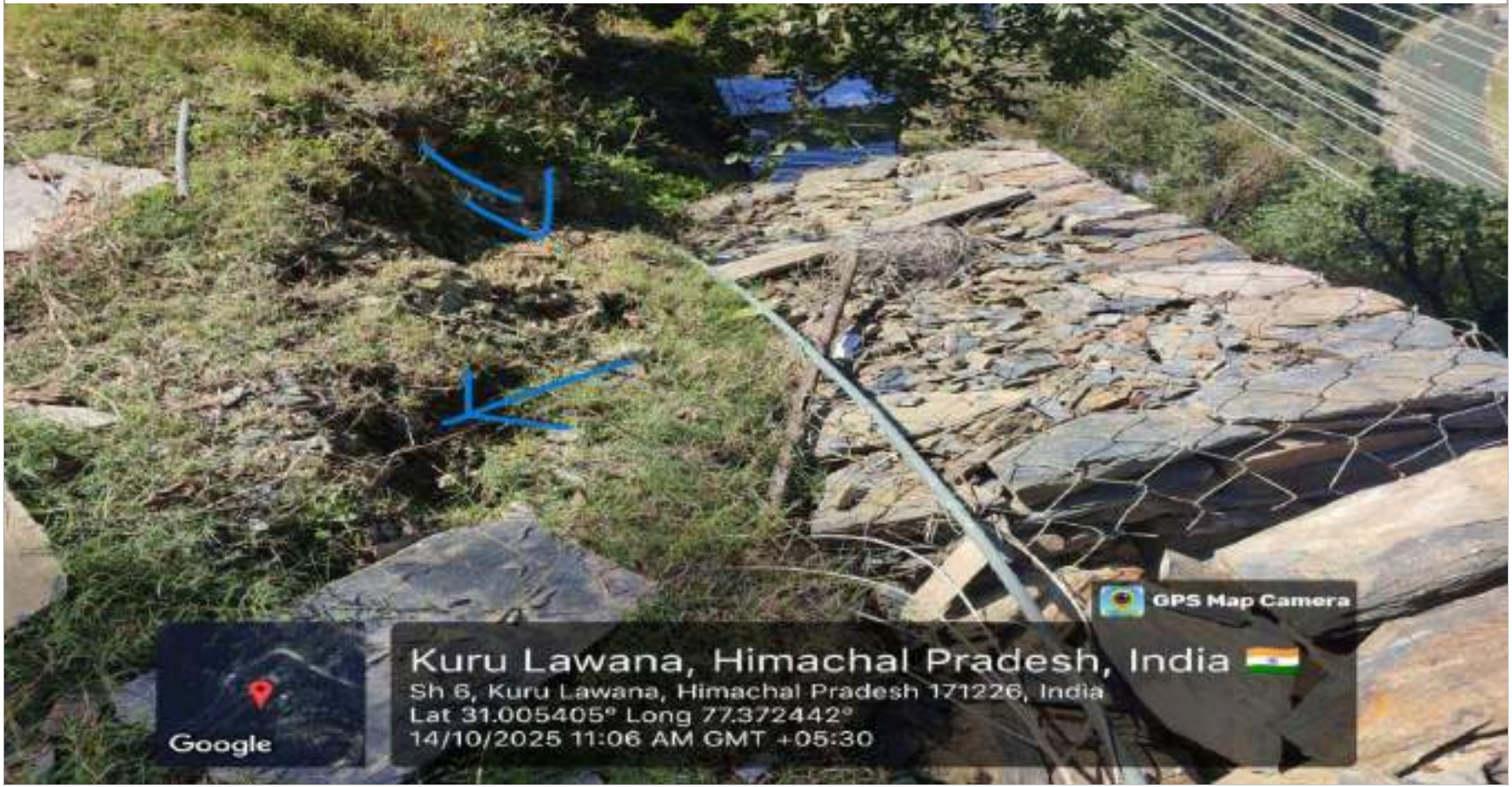


Photo showing damage to nearby area

Photo showing damage to nearby area

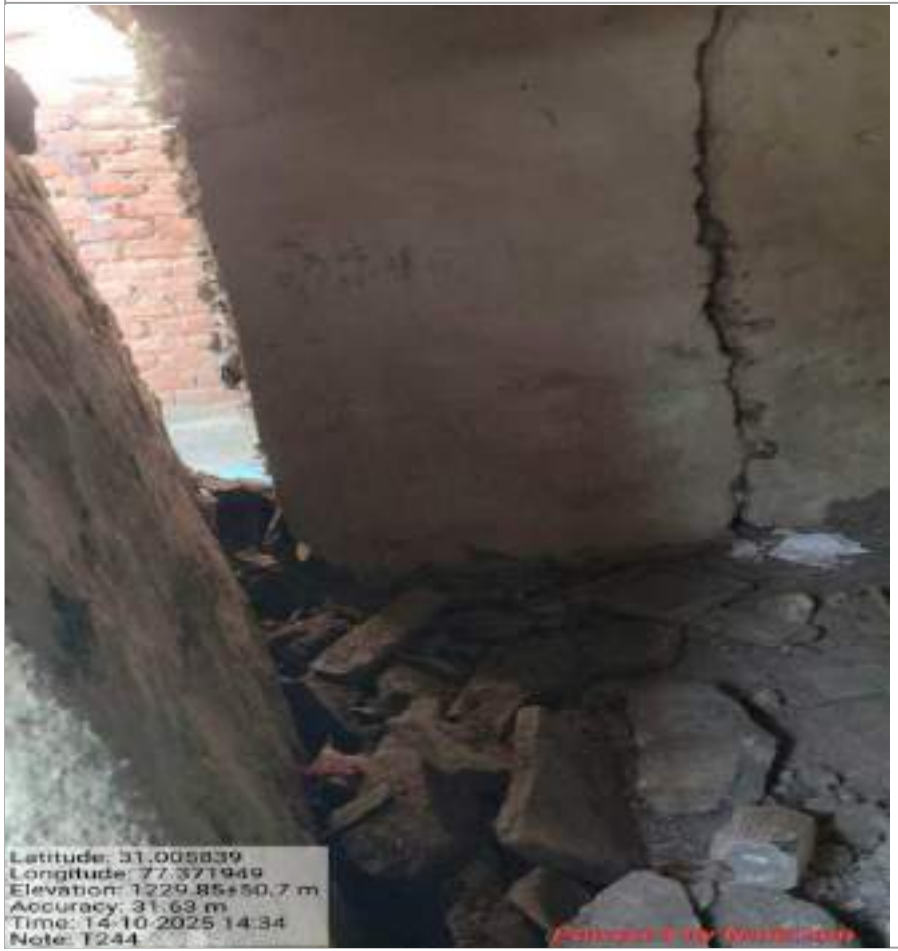
Photo showing damage to nearby area

Damage to nearby Houses due to land sinking

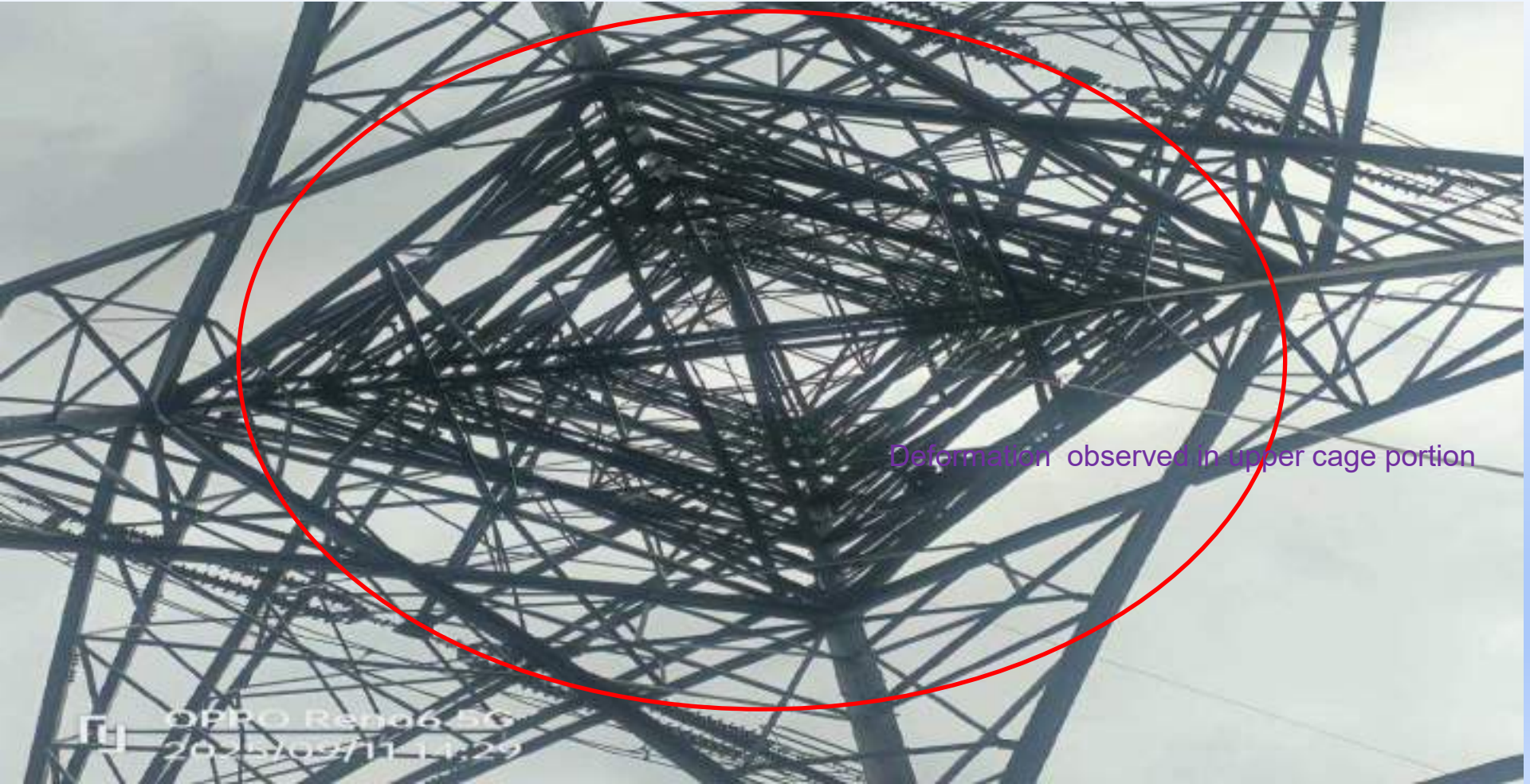
Photo showing damage to nearby houses

Photo showing damage to nearby houses

Photo showing damage to nearby houses



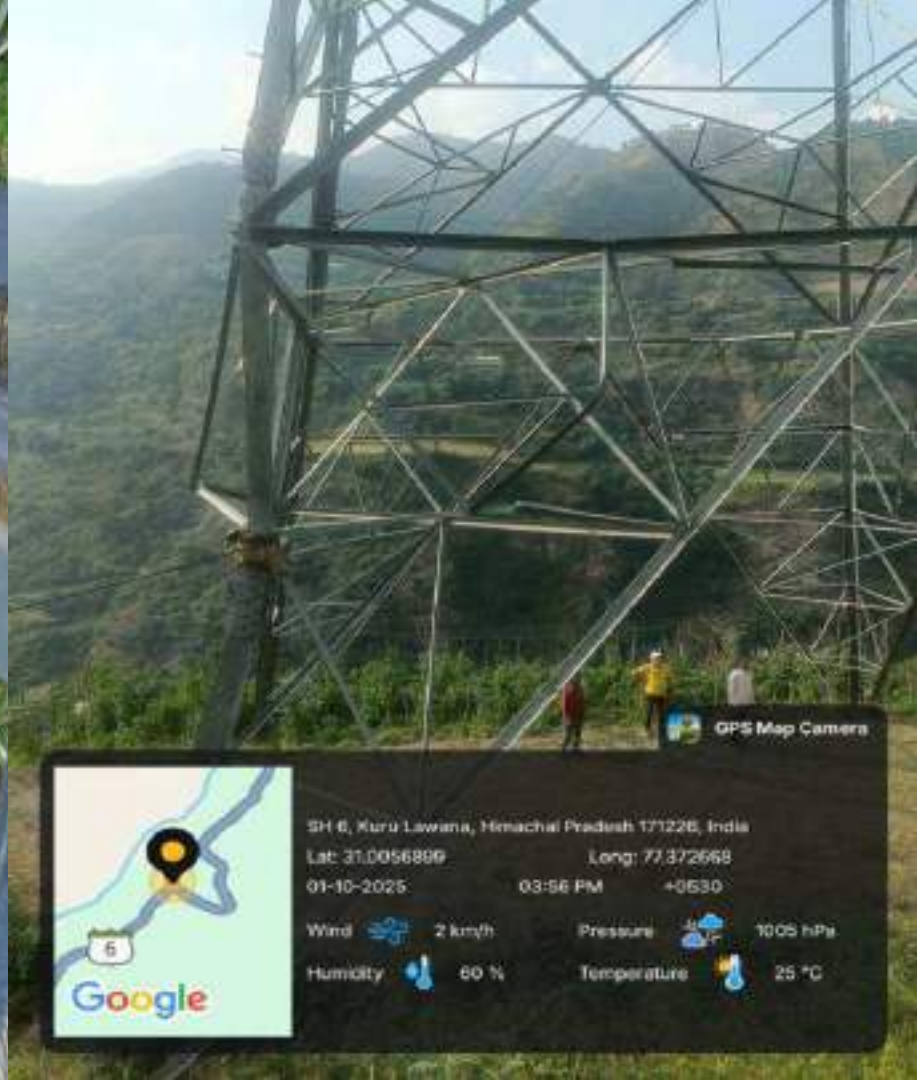
Condition of the Tower



GPS Map Camera
SH 6, Kuru Lawana, Himachal Pradesh 171226, India
Lat: 31.0057667 Long: 77.37258
01-10-2025 03:54 PM +0530
Wind 2 km/h
Pressure 1005 hPa
Humidity 60 %
Temperature 25 °C
6
Google

Latitude 31.005803
Longitude 77.3720
Elevation 1267.38±38.9 m
Accuracy 2.74 m
Time 01.10.2025 16:05
Note Loc no:244
Powered by Note

Latitude: 31.005798
Longitude: 77.372605
Elevation: 1274.78+22.9 m
Accuracy: 1.783 m
Time: 01-10-2025 16:03
Note: Loc no244
Powered by NoteCam


GPS Map Camera
SH 6, Kuru Lawana, Himachal Pradesh 171226, India
Lat: 31.0056899 Long: 77.372668
01-10-2025 03:56 PM +0530
Wind 2 km/h
Pressure 1005 hPa
Humidity 60 %
Temperature 25 °C
6
Google

Note cam lite
Address : Kuru Lawana,Himachal Pradesh,India
Latitude : 31.005868333333336°
Longitude : 77.37259°
Altitude : 1174.0 meter
Date : 10/08/2025 02:15 pm
Accuracy : 1.8 meter
Time zone : GMT+05:30
Note : Captured by note T 244

Note cam lite
Address : Kuru Lawana,Himachal Prad
Latitude : 31.0057383333333337°
Longitude : 77.372636666666666°
Altitude : 1212.0 meter
Date : 10/08/2025 02:02 pm
Accuracy : 1.4 meter
Time zone : GMT+05:30
Note : Captured by note T 244

Note cam lite
Address : Kuru Lawana,Himachal Prad
Latitude : 31.005803333333333°
Longitude : 77.372620000000001°
Altitude : 1212.0 meter
Date : 10/08/2025 02:04 pm
Accuracy : 1.6 meter
Time zone : GMT+05:30
Note : Captured by note T 244

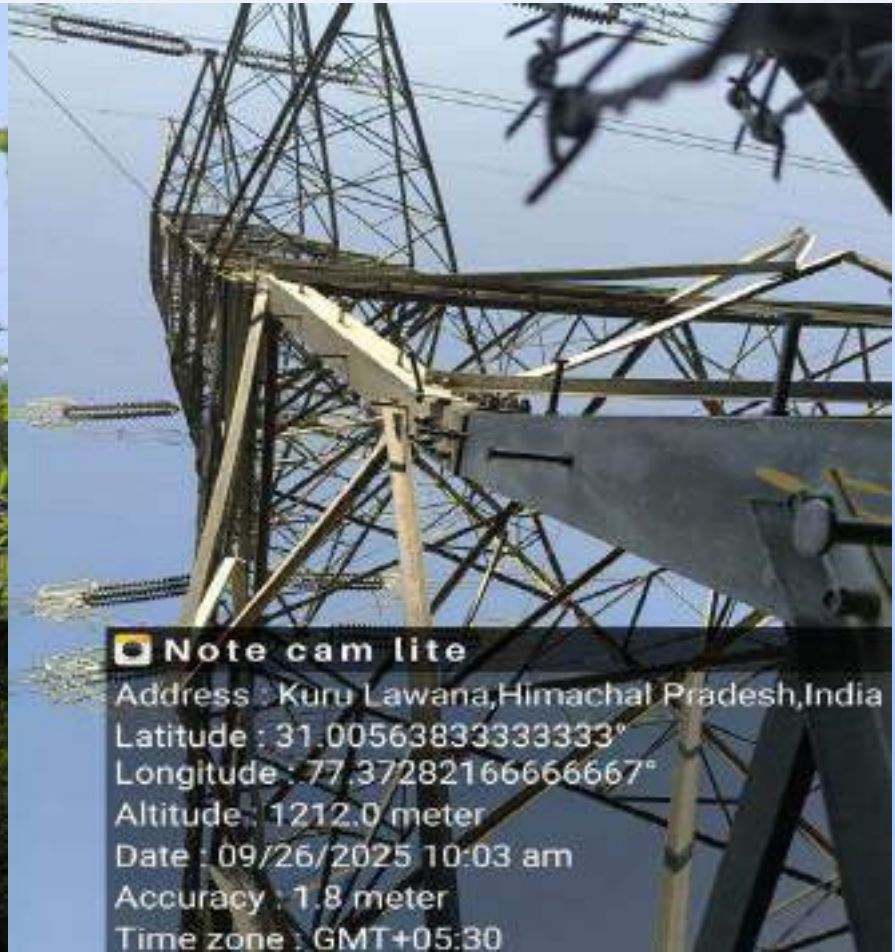
OPPO Reno6 5G
2025/10/08 12:10

OPPO Reno6 5G
2025/10/08 12:07

OPPO Reno6 5G

With passage of Time,further deformations are observed in Tower members leading to bending, shearing in upper cage level & below, making the requirement of bypassing Tower no. 244 essential at the earliest possible.

Further Land settlement observed on dated 26.09.2025 leading to severe bending of Tower Leg C and adjoining members and shearing of members at Cage level.



Severity of Situation & Need for Immediate Action

- On inspection ,Increased bending and structural distress in tower members
- Risk of sudden tower collapse due to unstable foundation,Threat to nearby residential houses and State Highway (SH-6), Possibility of major grid disturbance if line tripped under load necessitates the requirement of SD on line for re-routing

Considering public safety, grid security, and continuous land movement, immediate shutdown and rerouting was the only technically viable and prudent decision under Force Majeure conditions.

Intimation to local Admin

- ➔ Matter formally intimated to SDM Rajgarh for local administrative support (Photo of the letter)
- ➔ Safety concerns for nearby habitation and road highlighted
- ➔ Intimation submitted to NRPC regarding severe distress at Tower T-244
- ➔ Continuous monitoring reports shared with competent authorities
- ➔ Safety measures by Backstay arrangement done.
- ➔ Government of Himachal Pradesh issued notification on widespread monsoon damage

Objective of Intimation

- Ensure public safety and administrative coordination

➞ Official communications and disaster notifications substantiate the event as Force Majeure (Natural Calamity).

पावरग्रिड हिमाचल ट्रान्समिशन लिमिटेड

POWERGRID HIMACHAL TRANSMISSION LTD.

Ref: PHTL/KWTL/ (2025-26/521) Date: 26.09.2025

To,

The Sub-Divisional Magistrate (SDM)
Rajgarh, District Sirmaur
Himachal Pradesh – 173101

Subject: *Request for Administrative Support regarding Settlement of Tower No. 244 of 400 kV D/C (Quad) Kanchan Wangtoo – Abdullapur Transmission Line in Telli Area, Tehsil Rajgarh*

Respected Sir,

POWERGRID Himachal Transmission Limited (PHTL), a wholly owned subsidiary of POWERGRID Corporation of India Ltd., operates and maintains the 400 kV D/C (Quad) Kanchan Wangtoo – Kala Amb – Abdullapur Transmission Line, a vital link for evacuating hydro power from JSW's 1,045 MW Kanchan Wangtoo HEP, 300 MW Baspa HEP, and other HPPCL projects. Commissioned in 2011–2012, the system includes the main transmission line, associated LILO at Kanchan Wangtoo, and bays at Abdullapur and Kanchan Wangtoo substations. Spanning 224.30 km with 518 towers, it plays a crucial role in transferring power from Himachal Pradesh's major hydro projects to the Northern Grid while traversing the challenging hilly terrains of Kinnaur, Shimla, and Sirmaur districts.The total line length is 224.30 km with 518 towers across Himachal Pradesh and adjoining regions.

It is brought to your kind notice that **on 26.09.2025, a bend was observed in Tower No. 244**, located in **Telli area, Tehsil Rajgarh, beside State Highway-6, District Sirmaur (H.P.)**. The tower is showing **visible settlement in the foundation region and is on the verge of bending further**, which may pose a serious risk to the structural stability of the line as well as the safety of the local population, road users, and nearby habitations.

In this regard, we kindly request your **administrative support and necessary directions to the concerned local authorities** for facilitating the safe execution of restoration/mitigation measures at the site on priority. Your intervention will help in ensuring smooth and safe operation of this critical transmission infrastructure and protection of people in the vicinity.

We look forward to your cooperation and necessary guidance in this matter.

Thanking you,

Yours sincerely,

(Parveen Kumar)
Deputy General Manager / Site Head
PHTL

HP STATE DECLARED DISASTER HIT

NDTV BEEPS

Live TV Latest India Videos Beeps World Life

Sep 01, 2025 17:31 pm IST

Read Time: 2 mins

Read In App

Himachal Pradesh Chief Minister Sukhvinder Singh Sukhu on Monday declared in the state assembly that the hill state has been declared disaster-hit due to the extensive damage caused by cloudburst, flash floods and landslides over the past few weeks.

Hindustan Times

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Himachal declares entire state disaster-hit

The Himachal Pradesh government declared the rain-battered entire state as "disaster affected" under Section 34 of the National Disaster Management Act, following widespread devastation caused by incessant monsoon rains, landslides and cloudbursts since June 20.

Published on: Sept 02, 2025 07:04 am IST

Govt. of India,
Ministry of Earth Sciences,
India Meteorological Department,
Meteorological Centre,
Shimla-171004

Monthly Weather Report (August 2025)

1. Weather summary

- Himachal Pradesh has received **widespread** precipitation during many days of August month with **normal to active** activity on many days; **vigorous** activity on 2 days (dated 25th & 26th August 2025) and **weak** activity on 5 days (dated 08th, 10th, 11th, 13th and 22nd August 2025).
- Himachal Pradesh has received the **9th highest rainfall** (431.3 mm) in August since 1901. This is the **highest August rainfall since 1949**, with the highest ever recorded in **1927** (542.4 mm).

2. Monthly precipitation and departure-

- The State received **large excess** precipitation **(68%)** with **431.3 mm** actual rainfall against **256.8 mm** normal rainfall in August month.
- District Kangra has received highest precipitation amount viz 816.2 mm and district Lahaul-Spiti has received lowest precipitation amount viz 129.7 mm.
- District Kullu has received highest positive rainfall departure (165%) and district Lahaul-Spiti has received lowest rainfall departure (10%).
- Districts Bilaspur, Chamba, Kinnaur, Kullu, Mandi, Shimla, Solan & Una have received **large excess** precipitation; districts Hamirpur, Kangra & Sirmaur have received **excess** precipitation and district Lahaul-Spiti has received **normal** precipitation in the month of August 2025.
- Himachal Pradesh has received

Justification for Classification as Force Majeure (Natural Calamity)

- Himachal Pradesh experienced exceptional and unprecedented rainfall during July–Sept 2025
- IMD reported rainfall significantly above normal causing landslides and land subsidence
- Severe land settlement occurred at Tower T-244 due to natural slope failure
- Widespread damage to roads, houses and infrastructure across region
- Tower foundation distress and structural deformation caused solely by natural conditions
- HP State declared Declared disaster Hit due to extensive damage caused by cloud brusts, land slides and fast floods
- All above events were beyond the control of TRANSMISSION LICENSEE

HUMBLE REQUEST

- **All above events were beyond the control of TRANSMISSION LICENSEE**
- Hence outage of lines from **08.10.2025 to 18.10.2025** may please be treated as **“Deemed Available”** for transmission availability calculation

THANK U

करने का काम आरंभ कर दिया गया है। आवश्यकता पड़ने पर हेलिकॉप्टर की

अगस्त के बीच सोलह लोगों की मौत हुई है। कुगति रूट से तीन शवों को

श्रद्धालुओं को सुरक्षित घर वापस करवाई गई है। उपायुक्त मुकेश रेपस्वाल

ANNEXURE-III

पांच जिलों में दोगुना से ज्यादा बरसे बादल

कुल्लू; शिमला, सोलन, ऊना, चंबा में सौ फीसदी से अधिक बारिश

स्टाफ रिपोर्टर – शिमला

हिमाचल प्रदेश में इस बार अगस्त माह में सामान्य से अधिक बारिश हुई है और कई जिलों में दोगुना से अधिक बारिश दर्ज की गई है। प्रदेश में औसतन 440.8 मिलीमीटर बारिश दर्ज की गई है, जबकि सामान्य स्तर 256.8 मिली मीटर है। बरसात में सामान्य 256.8 मिमी वर्षा के मुकाबले 440.8 मिलीमीटर वर्षा दर्ज की गई है, जो 72 प्रतिशत अधिक बारिश दर्ज की गई है। पांच जिलों में इस बार बरसात में दोगुने से भी अधिक बारिश हुई है। प्रदेश के कुल्लू, शिमला, सोलन, ऊना और चंबा जिला में 100 फीसदी से ज्यादा बारिश दर्ज की गई है। सभी

जिलों में सामान्य से अधिक वर्षा दर्ज की गई है। कुल्लू जिला में 162 प्रतिशत, शिमला 126, सोलन में 118, ऊना में 121 और चंबा में 104 प्रतिशत सबसे अधिक वर्षा वाले क्षेत्र रहे हैं। बिलासपुर में सामान्य 316.8 मिलीमीटर वर्षा के मुकाबले 598.7 मिलीमीटर वर्षा हुई, जो 89 प्रतिशत अधिक, जबकि हमीरपुर में 400.6 मिलीमीटर वर्षा के मुकाबले

- प्रदेश में अभी तक 72 फीसदी अधिक बरसात

622.1 मिलीमीटर वर्षा दर्ज की गई, जो 55 प्रतिशत अधिक है। मंडी जिला में भी 681.5 मिलीमीटर वर्षा हुई, जो सामान्य से लगभग 72 प्रतिशत अधिक है। लाहुल-स्पीति जिला में 26 प्रतिशत अधिक और कांगड़ा में 29 प्रतिशत अधिक बारिश दर्ज की गई है। किन्नौर में 140.5 मिलीमीटर वर्षा हुई, जो सामान्य से 81 प्रतिशत अधिक है। प्रदेश में हो रही लगातार भारी बारिश के कारण कई क्षेत्रों में व्यापक भू-स्खलन, सड़कें अवरुद्ध और फसलों को नुकसान हुआ है।

दिव्य हिमाचल
मेरा सोलन
धरती खाई जुड़ा होंदा अकेला अखबार

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सोलन, सोमवार, 1 दिसंबर, 2025

बलानू बैंक में नगर लेवे रेजिडेंट वेलफेयर एसोसिएशन के पदाधिकारी

...टकों के ध्यानार्थ

...ा के अनुरोध है कि दिव्य ...ल से प्रसार संबंधी शिकायत भी ...की समस्या या सुझाव हो तो ...विभाग के निम्नलिखित फोन ...संपर्क करें:

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...ऐतिहासिक जिला कार्यालय की ...ताड़ी छत में बारिश ने खलल ...दिया। इस कारण छाड़ ...ने तब्दील हो गया।

...पुलिस सप्ताह में भी तीसरे ही ...दिवस बारिश ने डाला खलल। ...पहली ...ुलिस बैंड के नाम मात्र के ...ही कार्यक्रम रद्द। विदित हो कि ...सिविल लाइन मैदान में सुबह 9 बजे ...से पुलिस सप्ताह के अंतर्गत ...कार्यक्रम होने थे। लेकिन सुबह से ...ही मैदान में जलभराव का आलम ...था। कई जगह तो पानी खड़ा हो ...गया। इस कारण सभी कार्यक्रम ...रद्द करने पड़े।

बारिश का रेड अलर्ट, आज बंद रहेंगे सभी शिक्षण संस्थान

दो दिनों से हो रही भारी बारिश से जनजीवन अस्त व्यस्त, नदी-नाले उफान पर

स्टाफ रिपोर्टर-सोलन

सोलन: बारिश के बाद सड़क पर आया मलबा

सोलन: बारिश से सड़के बनी तालाब

सोलन में दो दिनों से जारी मूसलाधार बारिश ने जनजीवन अस्त-व्यस्त कर दिया है। बारिश के चलते जहां नदी-नाले उफान पर हैं, वहीं कई जगहों पर सड़कों पर भारी मलबा आने से 26 मार्ग भी अवरुद्ध हुए हैं। आलम यह है कि कहीं घरों में तो कहीं पर भूस्खलन से मलबा सड़कों पर आ गया है। भारी बारिश से सड़कें भी तालाब बन गई हैं, जिसमें इनका खुलना भी मुश्किल हो गया है। मौसम विभाग की मानें तो आने वाले दिनों में और अधिक बारिश होने की संभावना है। उल्लेखनीय है कि शुक्रवार देर शाम हुई बारिश का क्रम सनिवार शाम तक लगातार जारी रहा। जिसके चलते कई इलाकों में भूस्खलन हुआ है। इन मार्गों को खोलने के लिए रविवार को भारी जद्दोजहद के बीच भी ठीक निर्माण विभाग के कर्मी डटे रहे और फिलहाल एक मार्ग ही अवरुद्ध बचा है। अब तक बरसात के मौसम में विभाग को 77 करोड़ 19 लाख रुपए का नुकसान हुआ है। इसमें सबसे अधिक 26 करोड़ 94 लाख नौ हजार का नुकसान कसौली मंडल को हुआ है। वहीं, नालागढ़ मंडल भी खासा पीछे नहीं है और अब तक यहां 24 करोड़ 91 लाख 21 हजार रुपए की चपत लग चुकी है। अर्की मंडल में 20 करोड़ 68 लाख 57 हजार और सोलन मंडल में 4 करोड़ 65 लाख 20 हजार रुपए का नुकसान हुआ है।

सड़कें बनी तालाब, कहीं गिरा मलबा

सोलन शहर की बात करें तो इस बारिश के चलते सड़कें तालाब का रूप ले चुकी हैं और अनगिनत जगहों पर गड्ढे पड़ चुके हैं। कुछ ऐसा ही सोलन के सब्जी मंडी रोड पर भी देखने को मिला। इसके अलावा कंडाघाट-2 पर भी जगह-जगह सड़कों से पत्थर गिर रहे हैं। शहर के बीचों बीच नगर निगम कार्यालय के सामने और जंक्शन चौक पर बारिश का पानी सड़कों पर इकट्ठा होने से दुपहिया वाहन चालकों को खासा परेशानी का सामना करना पड़ा। इस कारण यहां से गुजरने वाले

सोलन जिला के सभी शिक्षण संस्थान आज रहेंगे बंद

सोलन। जिलाभर में हो रही बारिश के चलते सोमवार को जिला के सभी शिक्षण संस्थान बंद रहेंगे। इस संबंध में उपायुक्त सोलन ने रविवार देर शाम आदेश जारी कर दिए। आदेशों के तहत यह साफ किया गया है कि भारी बारिश की चेतावनी के चलते सभी सरकारी व निजी शिक्षण संस्थान बंद रहेंगे। इसी अधिसूचना में लेकर सभी स्कूल, आईटीआई, डायट, टेक्निकल इंस्टिट्यूट, कालेज, पॉलीटेक्निक, नर्सिंग इंस्टिट्यूट आदि शामिल हैं। सभी संबंधित प्रमुखों को और संबंधित अधिकारियों को इन आदेशों की पालना

बीबीएन में निर्माणाधीन फोरलेन बेहाल

गाड़ियों में घुसा पानी, अधूरी पड़ी फोरलेन परियोजना लोगों के लिए बनी आफत

बीबीएन: बारिश के बाद बद्दी में जलभराव से तालाब में तब्दील सड़क

दिव्य हिमाचल ब्यूरो-बीबीएन

औद्योगिक क्षेत्र बद्दी-बरोटीवाला-नालागढ़ शनिवार रात से जारी मूसलाधार बारिश से बेहाल है। नदी-नाले उफान पर हैं और अधूरी पड़ी फोरलेन परियोजना लोगों के लिए आफत बन गई है। जगह-जगह सड़कें जलभराव से तालाब में बदल चुकी हैं, वहीं बद्दी में पहले पैदा पुल से और कई जगह खड़ी गाड़ियों के पहिए तक पानी में डूब गया है। भारी ट्रैफिक जाम, घंटों फंसे रहे लोग व देर रात तक निकलने तक मुश्किल हो गया है। कि खिलौर बद्दी नालागढ़ फोरलेन का काम महीनों से लंबित पड़ा है। बरसात शुरू होने से पहले

बरसात आते ही सड़कें बनी तालाब

स्थानीय लोग प्रशासन पर नाराजगी जता रहे हैं। उनका कहना है कि हर साल यही हालात बनते हैं, लेकिन न तो समय पर निर्माण पूरा होता है और न ही बारिश से पहले स्थायी इंतजाम किए जाते हैं। नालागढ़ उपमंडल के मुख्यधिकारी अंकित शर्मा ने कहा कि महीनों से रुके पड़े फोरलेन के काम ने बरसात आते ही सड़कों को दलदल में बदल दिया है। प्रशासन से बार-बार गुहार लगाई जाती है, मगर हालात जस के तस बने रहते हैं। किसान गुहार लगाते-लगाते थक चुका है और उनकी पीड़ा यही झलकती है कि विकास की एक अधूरी डगर अब तक सहन से ज्यादा मुसीबत लेकर आई है।

नाला और अन्य लगातार बारिश ने मरम्मत व बहालों का काम भी रोक दिया है। मरम्मत कार्य के लिए तैयार किया गया डंगर है, लेकिन लगातार बारिश और पुनर्वास के कारण काम शिरे नहीं चढ़ पा रहा है। बीबीएन में ही कार पुकारने वाले कुछ एकमात्र एप एक की कर्मचारी ने औद्योगिक क्षेत्र में आना-जाना पूरी तरह प्रभावित हुआ है। कैमिकल्स तक कच्चा माल समय पर नहीं पहुंच रहा और तैयार माल को समय पर अंतिम रहा है। एसएचओ बद्दी के अधिकारियों का कहना है कि लगातार बारिश के चलते कहीं-कहीं पानी भर गया है। फिलहाल यातायात को सुचारू और वाहनों को सुरक्षित रूप से निकालने का प्रयास किया जा रहा है।

सोहरी-बेहली में खाली करवाए चार घर...लोग सुरक्षित जगह शिफ्ट

पहाड़ी से मलबा गिरने और जमीन खिसकने से हिली मकानों की नींव, पीड़ितों ने छोड़े आशियाने

दिव्य हिमाचल ब्यूरो-नालागढ़

ढलमोड़ा नालागढ़ में बीते कुछ दिनों से तेज बारिश के चलते पहाड़ी से लगातार मलबा गिर रहा है। इसके चलते कई लोगों के लिए घर में रहना खतरे से खाली नहीं है। इसी को देखते हुए प्रशासन ने संवेदनशील परिवारों को सुरक्षित स्थानों पर पहुंचाया। मौके पर पहुंचे नायब तहसीलदार फतेहचंद कुल्लू ने प्रभावित परिवारों को प्रशासन की ओर से हर संभव सहायता का भरोसा दिया। इससे पहले कोहंडी पंचायत के बेहली गांव में दरार पड़ने के बाद वार्ड नंबर एक के एक घर को जमीन खिसकने लगी। धीरे-धीरे यह दरार बढ़ती चली गई और घर में रहना खतरनाक हो गया। इसके बाद परिवार को सुरक्षित स्थान पर भेज दिया गया। इसी तरह सोहरी पंचायत के सोहरी गांव में दो मकानों में दरारें आने के बाद परिवारों को सुरक्षित स्थानों पर भेजा गया। इसके अलावा सोहरी-बेहली संपर्क मार्ग पर भी कई जगहों पर मलबा गिरा है। इससे आवाजाही प्रभावित हुई है। प्रशासन ने संबंधित विभागों को मलबा हटाने के निर्देश दिए हैं। इसके अलावा बेहली गांव में एक पानी का टैंक भी क्षतिग्रस्त हो गया है। इसके चलते पानी की आपूर्ति भी प्रभावित हुई है। प्रशासन ने पीड़ित परिवारों को हर संभव सहायता का आश्वासन दिया है।

सड़कों पर मलबा, बीबीएन में चरमराई यातायात व्यवस्था

दिव्य हिमाचल ब्यूरो-बीबीएन

बीबीएन क्षेत्र इन दिनों बारिशों और भूस्खलन से लगातार जारी चुनौती से संघर्ष कर रहा है। पुलिस अधीक्षक के अनुसार अब तक कुल 8 मार्ग ट्रैफिक के लिए अवरुद्ध हुए थे, जिनमें से 6 को खोल दिया गया है। फिलहाल दो मार्ग—सिंगरी से बीबीएन और बीबीएन से ढाबा—अब भी बंद हैं। सिंगरी से बीबीएन के बीच करीब 1.5 किलोमीटर लंबे हिस्से में मलबा और बड़े पत्थर सड़क पर गिरे हैं। इसी तरह बीबीएन से ढाबा के बीच भी कई जगह सड़क पर मलबा जमा है। प्रशासन ने दोनों मार्गों को बंद घोषित कर दिया है। वैकल्पिक मार्ग के रूप में लोगों को बीबीएन से पालमपुर होकर जाने की सलाह दी गई है। इस दौरान पालमपुर से बीबीएन के लिए 20 बसों में से 15 बसें चलाई जा रही हैं। लोगों को आवश्यकता पड़ने पर पालमपुर से बीबीएन के लिए टैक्सी सेवा की व्यवस्था भी की गई है। बीबीएन से ढाबा के लिए 5 बसों में से 3

सहयोग संगठन
सम्मेलन के इतर
और ऊर्जा क्षेत्रों
यान केंद्रित किया
, दोनों नेताओं ने
अपने कार्यक्रम

तियानजिन: रूस के राष्ट्रपति व्लादिमीर पुतिन तथा चीनी राष्ट्रपति शी जिनपिंग से बातचीत करते प्रधानमंत्री नरेन्द्र मोदी।

बनाए रखे हैं और यह संबंधों के भविष्य के विकास की नींव है। उन्होंने कहा, "ये संबंध पूरी तरह से दलगत राजनीति से ऊपर हैं और इन्हें हमारे अधिकांश लोगों का समर्थन प्राप्त है। मोदी पुतिन वार्ता अमरीकी राष्ट्रपति डोनाल्ड ट्रम्प द्वारा युद्ध समाप्त करने के प्रयासों के तहत रूस के राष्ट्रपति के साथ शिखर बैठक आयोजित करने के 2 सप्ताह बाद हुई है।

एस.सी.ओ. के घोषणापत्र में कहा गया कि इस हमले के अपराधियों, आयोजकों और उन्हें समर्थन देने वालों को सजा दिलाना जरूरी है। इस साल 22 अप्रैल को जम्मू-कश्मीर के पहलगाम में आतंकियों ने 26 पर्यटकों की गोली मारकर हत्या कर दी थी।

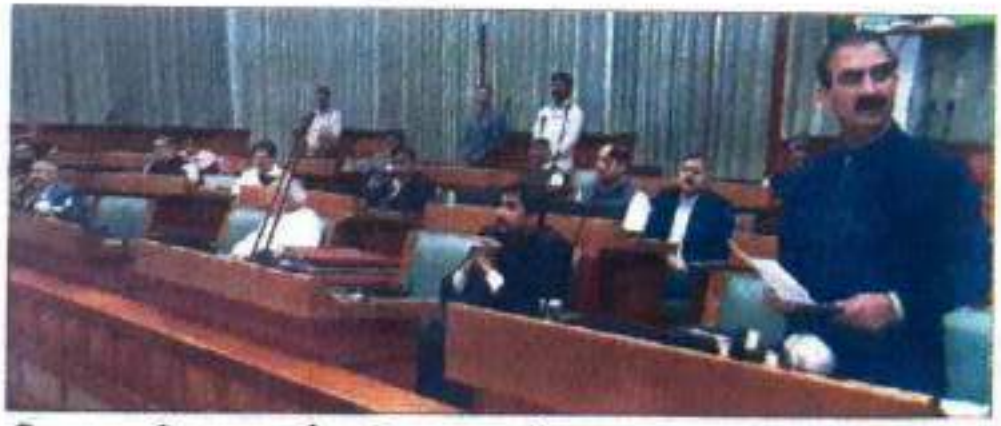
हिमाचल प्रदेश आपदा प्रभावित राज्य घोषित, अधिसूचना जारी : सुक्खू

बरसात थमने के बाद हालात सामान्य होने पर वापस होगी अधिसूचना

शिमला, 1 सितम्बर (कुलदीप): मुख्यमंत्री सुखविंदर सिंह सुक्खू ने पूरे हिमाचल प्रदेश को आपदा प्रभावित राज्य घोषित किया है। सरकार की तरफ से इस संदर्भ में अधिसूचना जारी कर दी गई है।

मुख्यमंत्री ने विधानसभा में वक्तव्य देते हुए इसकी घोषणा की। उन्होंने कहा कि बरसात थमने के बाद हालात सामान्य होने पर इस अधिसूचना को वापस लिया जाएगा। उन्होंने कहा कि प्रदेश में मानसून से प्रारंभिक अनुमान के

(शेष पृष्ठ 2 कालम 6 पर)



शिमला : हिमाचल प्रदेश विधानसभा के मानसून सत्र के 11वें दिन सदन को संबोधित करते मुख्यमंत्री सुखविंदर सिंह सुक्खू। (नि.स.)

केलांग में सेना के 2 हैलीकॉप्टरों से राशन पहुंचाया

मुख्यमंत्री ने कहा कुल्लू से मंडी राष्ट्रीय राजमार्ग की बहाली का कार्य युद्ध स्तर पर जारी है। गत रविवार को भारतीय वायुसेना के 2 हैलीकॉप्टरों के माध्यम से केलांग में राशन पहुंचाया गया तथा 5 मरीजों। गर्भवती महिला व 1 बच्चे को हैलीकॉप्टर से सुरक्षित क्षेत्रीय अस्पताल कुल्लू पहुंचाया गया है। उन्होंने कहा कि लाहौल उपमंडल के गोम्पाथांग नाला में भूमि धंसने का मामला सामने आया है।

किस जिले में कितने

पाठक एवं एजेंट नोट करें
पंजाब केसरी, जग बाणी एवं हिन्द समाचार में विज्ञापन एवं सब्सक्रिप्शन संबंधी पूछताछ एवं किसी समाचार के बारे निम्नलिखित नम्बर पर सम्पर्क करें :
0181-2212121
ई-मेल : jagbani@pkesari.in

सोलन-सिरमौर केसरी

SOLAN 79

SOLAN-SIRMOUR KESARI

TUESDAY, 2 SEPTEMBER 2025 | सूर्योदय 06.01 | सूर्यास्त 06.47 | अगले 24 घंटों के दौरान बारिश हो सकती है।

न्यूज बीफ

उदयपुर में दोमंजिला भवन गिरा

कुमारसैन, 1 सितम्बर। (नरेश)। सितम्बर की रात हुई भारी बारिश के चलते विकास खंड भरतन की ग्राम पंचायत बेरा से कुमारसैन के सटीय गांव उदयपुर में एक दोमंजिला मकान पूरी तरह ढह गया। हादसे के समय मकान में 6 लोग रह रहे थे।

जानकारी के अनुसार सोमवार सुबह करीब 5.30 बजे हुए इस हादसे के दौरान जब बड़ा धमाका हुआ तो पड़ोस में रहने वाले ग्रामीण मौके पर पहुंचे। उन्होंने गहरा ढार्य शुरू होने हुए मकान में रहने वाले सभी लोगों को सुरक्षित बाहर निकाल लिया। मकान में रहने वाले तारा सिंह ठाकुर की पत्नी तारा देवी को चोटें आई हैं, जबकि उनकी मां व तीन अन्य सदस्यों का बचाव हो गया है। तारा सिंह और उनकी पत्नी तारा देवी को इलाज के लिए सामुदायिक हॉस्पिटल सोलन भेज दिया गया है।

दिव्यांग महिला का आशियाना उजड़ा

कुनिहार, (सितम्बर। मोंटी)। ग्राम पंचायत बनोह खरड़ टेढ़ी के गांव धीरोरी डोगा में लगातार हो रही बारिश के चलते दिव्यांग पूरी वर्षीय अंकिता अपने पुश्तैनी डाक मकान में रहती है। गत शनिवार देर रात मकान के गिरने के आभास होने के चलते वह अपने आसपास बने भाई के मकान में रहने चली गई। रात करीब 12 बजे के आसपास उसके परिजनों को जोरदार धमाका होने का अंदेशा हुआ।

वार्ड निरीक्षक देखने तो रेखा पुत्री रोशन लाल मकान पूरी तरह से जमींदोज हो चुका था। मकान में रखा सारा सामान, जिसमें दस्तावेज तक मिट्टी के मलबे में दब गए। उक्त महिला के अन्य परिजनों ने तुरन्त मकान गिरने की सूचना संबंधित पंचायत प्रधान को दे दी। प्रधान राम प्रसाद कनौड खरड़ टेढ़ी को भी पूरे मामले की जानकारी दी गई। प्रधान ने मौके पर पहुंचकर पीड़ित परिवार को हर संभव मदद का आश्वासन दिया।

बारिश का कहर, करोड़ों का नुकसान

सोलन में 68 मार्ग बंद, 123.73 करोड़ पहुंचा नुकसान का आंकड़ा

सोलन : सोलन-सुबाथू मार्ग पर भिलोगघाटी मकान में भूस्खलन व सड़क पर मलबे में दबी गाड़ियां। (भूषण)

सोलन, 1 सितम्बर (भूषण)। जिले में लगातार हो रही भारी बारिश ने सोमवार को भी आफत बरपाए। भारी बारिश से जिला में 68 मार्ग बंद हो गए हैं। जिला में अब नुकसान का आंकड़ा 123.73 करोड़ रुपए तक पहुंच गया है। सोमवार को नैशनल हाईवे भी कई बार बंद हुआ।

सोलन कंडाघाट बाया धगोट सड़क मार्ग भी भूस्खलन के चलते अब बंद हो गया है। सुबलताघाट बारिश के चलते सुबह सात में भारी भूस्खलन के चलते यह मार्ग यातायात के लिए पूरी तरह से बंद हो गया है। इससे लगभग दर्जन गांवों का संपर्क जिला मुख्यालय से कट गया है। सोमवार सुबह लगभग सवा सात बजे हाईवे भूस्खलन से बंद हुआ था तो इसे शाम के लगभग जा रहे थे।

जिलेवी रोड वार्ड नंबर 9 में देर रात 70 वर्षीय बुजुर्ग मदन कुमार के घर का एक कमरा अचानक भरभराकर ढह गया। रात को भारी बारिश के साथ हुए जोरदार धमाके ने पूरे परिवार को दहला दिया। गनीमत रही कि मदन कुमार और उनके परिवार के सदस्य इस समय दूसरे कमरे में थे, अन्यथा बड़ा हादसा हो सकता था। स्थानीय प्रशासन मौके पर पहुंच चुका है और सहायता का भरोसा दिलाया है। कंडाघाट के हड़ा में बहने वाले नाले के पानी ने भारी बारिश से रौद्र रूप धारण कर लिया। नाले का पानी सड़क पर बहने के चलते बाता-धोंद मार्ग वाहनों की आवाजाही के लिए पूर्ण रूप से बंद हो गया है। यहां लोगों का घर तक पहुंचना भी मुश्किल हो गया है।

सोलन राजगढ़ रोड पर कालुन होटल के पास सोमवार सुबह भूस्खलन हुआ और एक बड़ी चट्टान सड़क पर आ गई। इसके कारण मार्ग वाहनों के लिए बंद हो गया है।

सोलन : ठंडीघाट में आपदाकालीन अस्पताल गेट के सामने पानी भरने से अस्पताल हुआ

जरूरी कार्यों के लिए आने-जाने वाले लोग जान जोखिम में डालकर वहां पैदल ही निकल रहे हैं।

सोलन-सुबाथू मार्ग पर रोड हुंगा मोड़ पर भारी भूस्खलन में मलबा एक निर्माणाधीन भवन के अंदर घुस गया। भारी मलबा दाखल में घुसने से निर्माणाधीन भवन को भी खतरा पैदा हो गया है।

इसके अलावा यहां सड़क मार्ग पर भी मलबा फैल गया और इसमें जहान फंस गए। काफी जद्दोजहद के बाद जहानों को निकाला गया और बाद में यहां सिंगल मार्ग को चालू कर दिया गया।

सिरमौर में 171 सड़कें प्रभावित, 89 पेयजल स्कीमें हुईं ठप्प

नाहन : सिरमौर में बारिश से प्रभावित सड़कों से मलबा हटाती जेसीबी। (भूषण)

नाहन, 1 सितम्बर (हितेश)। जिला सिरमौर में मूसलाधार बारिश का कहर लगातार जारी है। इससे अब जनजीवन पूरी तरह अस्त-व्यस्त हो गया है। सड़कों पर आवाजाही ठप्प पड़ गई है। कई इलाकों में बिजली और पानी का संकट भी खड़ा हो गया है। पिछले 24 घंटे के भीतर भारी बारिश के बीच भूस्खलन और मलबा आने से 171 सड़कों पर यातायात को जीवन की रफ्तार रुक गई। जिले के कई इलाकों का संपर्क जिला मुख्यालय नाहन सहित उपमंडल मुख्यालयों से भी कट गया है। गंतव्य तक पहुंचने के लिए वाहन चालकों सहित यात्रियों को भारी दिक्कतों का सामना करना पड़ रहा है। इन सड़कों पर 40 से अधिक सरकारी और निजी बसें घंटों फंसी रहीं। बारिश से सिलाई डिवीजन में सबसे ज्यादा 46 सड़कें प्रभावित हुईं।

इसके साथ-साथ संगड़ाह में 34, पांवटा साहिब में 27, नाहन और राजगढ़ में 23-23 और नाहता डिवीजन में 18 सड़कों पर यातायात घंटों तक ठप्प रहा। हालांकि लोक निर्माण विभाग की मशीनरी लगातार सड़कों को खोलने में जुटी है, लेकिन कई सड़कों

नाहन : सिरमौर में बारिश से घरों को हुआ नुकसान। (भूषण)

पर मलबा हटने में कई घंटों का समय लग रहा है। जिले में 691 डी.टी.आर. (ट्रांसफार्मर) भी प्रभावित हुई हैं।

बिजली बोर्ड के राजगढ़ डिवीजन में 4 सोलरलाइनों को नुकसान होने से कई इलाकों में पेयजल संकट खड़ा हो गया है।

की रिपेयर करवाई जाएगी।

परेशानियों का सामना करना पड़ रहा है। उन्हीं

मानपुरा: बारिश के चलते पशु औषधालय बरोटीवाला की गिरी दीवार का चित्र। (बस्सी)

बारिश के चलते ब्लॉक का डंगा गिरा

परवाणू, 1 सितम्बर (विकास): क्षेत्र में शनिवार से हो रही लगातार बारिश के चलते सैक्टर 6 के 71 नंबर ब्लॉक के आगे लगा डंगा गिर गया, जिससे फिलहाल वहां बने मकानों को अभी कोई खतरा नहीं है। अगर यह दोबारा गिरता है तो साथ लगे बिजली के खंभे के गिरने से भवन में रहने वालों के लिए चिंता की स्थिति हो सकती है।

जमीन खिसकने की के तीन परिवारों ने

मकानों को खाई में जाता देख निकाले दरवाजे व खिड़कियां

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के मलेहणी पंचायत के सौहरी गांव के नीचे जमीन खिसकनी शुरू हो गई है, जिससे पूरे गांव के लिए खतरा पैदा हो गया है। बीते दिन इस गांव के तीन परिवारों के मकान खाली करा दिए। सोमवार को इन

धर्माणा पंचायत के तीन गांवों में 12 परिवारों के घरों में आई दरारें

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के धर्माणा पंचायत के तीन गांवों से 12 परिवारों के घरों में दरारें आ गई हैं। इसके चलते पंचायत प्रतिनिधियों व पटवारी ने मौके पर जाकर इन लोगों के मकान को खाली कराया। इन लोगों के सामान को एक टैंट के नीचे रखा और लोगों को गांव के अन्य घरों में शिफ्ट किया गया। इन लोगों के मवेशियों को भी अन्य लोगों के घरों में बांधा गया।

नालागढ़ : धर्माणा पंचायत के जखोल गांव में लोगों के घरों में आई दरारें।

राजगढ़ : राजगढ़ व इसके आसपास के क्षेत्रों में अलग- अलग स्थानों पर भूस्खलन व रिहायशी मकानों को हुई क्षति (सैनी)

राजगढ़ क्षेत्र में अंधेरे में डूबे सैंकड़ों गांव

राजगढ़, 1 सितम्बर (गोपाल): समूचे राजगढ़ क्षेत्र में पिछले लगभग 36 घंटों से लगातार भारी बारिश होने के कारण पूरा जनजीवन अस्त-व्यस्त हो गया है। पूरे क्षेत्र में दर्जनों सड़कें बंद पड़ी हैं। क्षेत्र की गिरि नदी, परेवी नदी, बड़ेलू नदी, पातल नदी के साथ-साथ छोटे-छोटे नाले उफान पर हैं और सभी नदियों ने पिछले लगभग 50 सालों के रिकार्ड तोड़ दिए हैं। अगर बिजली आपूर्ति की बात करें तो रविवार देर रात से नगर पंचायत राजगढ़ सहित दर्जनों पंचायतों के सैकड़ों गांव अंधेरे में डूबे गए हैं।

यहां तक कि सोलन-राजगढ़ मुख्य सड़क भी अनेक स्थानों पर भूस्खलन के कारण बार-बार बंद हो रही है। इसके साथ क्षेत्र की राजगढ़-नौहराधार, राजगढ़-ठौरी, राजगढ़-हब्बन, सनौरा-नेरीधूल, हब्बन-कामला-चंदौल के साथ पड़ोता व रामू मांदर क्षेत्र की सभी सड़कें बंद पड़ी हैं। किसानों व बागवानों की कृषि एवं बागवानी उत्पादन खेतों में ही खराब हो रहे हैं। उपतहसील पड़ोता के पैणकुफर गांव में भारी भूस्खलन के कारण गांव को खतरा पैदा हो गया है। यहां लगभग 9 लोगों के घरों को खाली करा दिया गया है। एस.डी.एम. राजगढ़ राज कुमार ठाकुर के अनुसार क्षेत्र में हो रही भारी बारिश से भारी नुकसान हुआ है, जिसका आकलन राजस्व विभाग व स्थानीय प्रशासन लगा है। दूरदराज के क्षेत्रों में भारी नुकसान हुआ है। प्रभावित परिवारों को पूरी राहत प्रदान की जा रही है। उधर, बिजली विभाग की 33 के.वी. लाइन सनौरा के पास टूट गई है जिसके कारण पूरा क्षेत्र पिछले लगभग 24 घंटों से अंधेरे में डूबा है। बिजली विभाग द्वारा सुबह से ही बिजली लाइन को ठीक करने का कार्य किया जा रहा है।

सिरमौर में बारिश ब

लोक निर्माण को

अढ़ाई महीने में जान-माल को हुई भारी क्षति

नाहन, 1 सितम्बर (हितेश शर्मा): जिला सिरमौर में इस बार की बरसात विभिन्न सरकारी विभागों और आम जनता के लिए भारी तबाही लेकर आई। पिछले अढ़ाई महीने के भीतर (20 जून से 31 अगस्त, 2025) मूसलाधार बारिश से 105 करोड़ (1,05,28,58,985) रुपए का नुकसान हो चुका है और ये आंकड़ा लगातार बढ़ रहा है।

इस प्राकृतिक आपदा में अब तक 12 लोगों को (सड़क दुर्घटना, छत से गिरना, आग और सर्पदंश) अपनी जान गंवानी पड़ी है, जबकि 17 लोग घायल हुए। सड़कों से लेकर पानी की लाइनों और बिजली के बुनियादी ढांचे तक हर क्षेत्र में बारिश ने भारी तबाही मचाई है, जिससे जनजीवन बुरी तरह प्रभावित हुआ है।

इस प्राकृतिक आपदा से सबसे ज्यादा नुकसान लोक निर्माण विभाग को हुआ है। भारी भूस्खलन और मलबे से सड़कों के क्षतिग्रस्त होने से 62.32 करोड़ रुपए का नुकसान हुआ है। जल शक्ति विभाग को पानी की आपूर्ति लाइनों को नुकसान पहुंचने से 36.90 करोड़ रुपए की क्षति हुई है। विद्युत बोर्ड को बिजली के बुनियादी ढांचे को 5.31 करोड़ रुपए का नुकसान हुआ है।

उच्च शिक्षा विभाग को 71.74 लाख रुपए और कृषि विभाग को 59.46 लाख रुपए का नुकसान

सोलन : राजगढ़ रोड पर मोंटिडिबन के पास हुआ भूस्खलन। स्व०

ई। हालांकि
ा को दुरुस्त

दुरुस्त होने
ाग के नाहन
एस.डी.ओ.
भी धौण में

चुकी है। सप्ताह भर के भीतर 10वीं बार यहां राइजिंग मेन भूस्खलन के कारण क्षतिग्रस्त हुई है। विभाग के कर्मचारी बार-बार लाइन को दुरुस्त कर रहे हैं, लेकिन लगातार हो रही भारी बारिश और भूस्खलन विभाग के सामने बड़ी समस्या खड़ी कर रहा है। दूसरी तरफ भारी बरसात के चलते गिरि नदी भी उफान पर है।

भाजपा ने अधीक्षण अभियंता से उठाया मामला

उधर, नाहन शहर में पिछले कई दिनों से सामने आ रही पेयजल समस्या को लेकर भाजपा नेताओं ने सोमवार को जल शक्ति विभाग के अधीक्षण अभियंता राजीव महाजन से मुलाकात कर उन्हें समस्या से अवगत करवाया। भाजपा जिला मीडिया प्रभारी राकेश गर्ग, प्रदीप विज, संजय चौहान, ललित व राज कुमार ने बताया कि शहर के कई वार्डों में पिछले करीब एक महीने से लगातार पेयजल समस्या चल रही है, लेकिन इसे लेकर संबंधित महकमा गंभीर नहीं है। कई दिन बाद पेयजल सप्लाई की जा रही है। इससे लोगों को परेशानियों का सामना करना पड़ रहा है। उन्होंने अधीक्षण अभियंता से समस्या के समाधान की मांग की है।

बारिश के चलते ब्लॉक का डंगा गिरा

परवाणू, 1 सितम्बर (विकास): क्षेत्र में शनिवार से हो रही लगातार बारिश के चलते सैक्टर 6 के 71 नंबर ब्लॉक के आगे लगा डंगा गिर गया, जिससे फिलहाल वहां बने मकानों को अभी कोई खतरा नहीं है। अगर यह दोबारा गिरता है तो साथ लगे बिजली के खंभे के गिरने से भवन में रहने वालों के लिए चिंता की स्थिति हो सकती है।

जमीन खिसकने की वजह से सौहरी गांव के तीन परिवारों ने मकान किए खाली

मकानों को खाई में जाता देख निकाले दरवाजे व खिड़कियां

नालागढ़, 1 सितम्बर (सतविन्द्र): नालागढ़ के मलेहणी पंचायत के सौहरी गांव के नीचे जमीन खिसकनी शुरू हो गई है, जिससे पूरे गांव के लिए खतरा पैदा हो गया है। बीते दिन इस गांव के तीन परिवारों के मकान खाली करा दिए। सोमवार को इन मकानों के नीचे और ज्यादा भूमि कटाव हो गया है, जिससे इन लोगों ने अपनी इन मकानों की उम्मीद ही छोड़ दी और सामान तो पहले खाली कर दिया था। अब दरवाजे व खिड़कियां भी उतारनी शुरू कर दी हैं। इस गांव में 26 मकान हैं।

एस.डी.एम. राज कुमार ने बताया कि मलेहणी पंचायत के सौहरी गांव में लगातार भूमि कटाव से गांव को खतरा पैदा हो गया है। अभी तीन परिवारों को शिफ्ट कर दिया है।

(सतविन्द्र)

धर्मपुर पंचायत के जखोल गांव में लोगों के घरों में आई दरारें।

...क एवं एजेंट नोट करें
...विज्ञापन केवल, जन वाणी एवं किन्...
...समाचार में विज्ञापन एवं सर्कुलेशन
...संबंधी चूलाखड़ एवं किसी समस्या
के लिए निम्नलिखित नम्बर पर
सम्पर्क करें :
0181-2212121
...ई-मेल : jagbani@pkesari.in

सोलन-सिरमौर केसरी

SOLAN 75

WEDNESDAY, 3 SEPTEMBER 2025 सूर्योदय 06.01 सूर्यास्त 06.46 अगले 24 घंटों के दौरान बारिश हो सकती है। SOLAN-SIRMOUR KESARI

न्यूज बीफ

20 से 26 सितम्बर तक होंगी विशेष ग्राम सभाएं

नाहन, 2 सितम्बर (शर्मा)। ...सी सिरमौर जिपका अन्तर्गत ...ने हुए जारी करते हुए बताया कि ...पंचायतों राज संस्थाओं के आगामी ...कार्यकाल के लिए सभी 259 ...पंचायतों में 20 से 26 सितम्बर ...तक विशेष ग्राम सभा की बैठक ...बैठक की जाएगी।

...बैठक में ग्राम सभावार सूचियां ...तैयार/अनुमोदन के उपरांत ...सत्यापन के लिए रखी जाएंगी। ...इसके पश्चात सूचियों में ...ई भी प्रकार की त्रुटियों की जांच ...की जाएगी और अंतिम सत्यापन ...की जा सके। ग्राम सभा में ...ग्राम सचिव को उपस्थिति ...करनी होगी।

...दि मतदाता सूचियों के प्रकाशन ...सी प्रकार की शिकायतें पाई ...ई जो बैठक की कार्यवाही में ...ा उपलब्ध किया जाएगा। साथ ...त्येक से जारी दिशा-निर्देशों के ...ार इसमें सुधार किया जाएगा।

उपचार दौरान मजदूर की मौत

...ाटी, 2 सितम्बर (सुरेंद्र)। ...खनाला में ब्लास्ट करते ...तीय मजदूर (निवासी बिलासपुर ...जिला) की उपचार के ...उसकी मौत हो गई। ...जानकारी के अनुसार ...ने कोटी और भड़ोई के मध्य ...ाकृतिक परिवर्तन का निर्माण ...हा था। सोमवार रात्रि करीब ...की अनुमानित आयु में ...ा ...ा गया हुआ। ...

सोलन में 11 मकान ध्वस्त, 46 सड़कें बंद, 191 ट्रांसफार्मर खराब, 12 पेयजल योजनाएं ठप्प

सोलन : अपर के डाई नम्बर 17 में गलने का डाटा गिरने से खबरें में आए 2 मकान, दीवारों में आई दरार। (भूषण)

सोलन, 2 सितम्बर (भूषण): जिला सोलन में भारी बारिश से अस्तव्यस्त जनजीवन अब पटरी पर लौट रहा है। सोमवार रात से ही रुकी बारिश के बाद कई मकान धराशायी हो गए हैं। सूचना विकास खंड की भाखाड़ी पंचायत के अन्तर्गत गांव की एक महिला की मौत हो गई है।

जिला में पिछले 24 घंटों के दौरान 12.01 करोड़ रुपए का नुकसान हुआ है जबकि इस मानसून सीजन में अभी तक करीब 148 करोड़ रुपए का नुकसान हो चुका है। जिला में अभी भी 46 सड़कें बंद हैं। इस कारण कई इलाकों में खोरी का भोजन, जिला मुख्यालय से ही नहीं अपितु आसपास के गांव से टूट गया है। इस कारण किसानों की अपनी सब्जी मंडियों तक पहुंचना मुश्किल हो गया है।

जिला में करीब 191 ट्रांसफार्मर खराब हो गए हैं। ये सभी खंभों में भूस्खलन के कारण पिछले के दौरान गिर गए हैं। इसके चलते कई क्षेत्रों में अनिश्चितकालीन की स्थिति है। 259 में से 12 पेयजल योजनाएं ठप्प पड़ी हैं। आसपास के क्षेत्रों में भी इसी तरह के हालात बने हुए हैं। जिला भर में करीब 11 मकान

पूरी तरह से क्षतिग्रस्त हो गए हैं। इसके अलावा 9 मकान व 11 कमरे मकानों को आंशिक रूप से नुकसान हुआ है। 27 गौशालाएं क्षतिग्रस्त हुई हैं।

पिछले 24 घंटे में लोक निर्माण विभाग को करीब 8.58 करोड़, एन.एच. को 10.50 लाख, जलशक्ति विभाग को 40 लाख तथा स्वास्थ्य विभाग को 56 लाख रुपए का नुकसान हुआ है।

डी.सी. सोलन मनमोहन शर्मा ने बताया कि जिला में हो रही भारी बारिश से बहुत नुकसान हुआ है। मानसून सीजन में अभी तक 148 करोड़ रुपए का नुकसान हो चुका है। इसकी रिपोर्ट बनाकर सरकार को भेज दी है।

सिरमौर में 172 सड़कें व 443 डी.टी.आर. प्रभावित

नाहन, 2 सितम्बर (शिवेंद्र): जिला सिरमौर में भारी बारिश से सड़कें, बिजली और पानी जैसी मूलभूत सुविधाएं बुरी तरह प्रभावित हुई हैं। जिले में 172 सड़कों पर आवाजाही पूरी तरह ठप्प रही। शिलाई में 46, राजगढ़ व संगड़ाह में 33-33, पांवटा साहिब व पच्छाद में 23-23 और रेणुका में 14 सड़कें बंद रहीं। इससे लोक निर्माण विभाग को 5.50 करोड़ का नुकसान हुआ है। 24 घंटे के भीतर जल शक्ति विभाग को 10.26 करोड़ की क्षति हुई है। भारी बारिश ने जिले में 81 पेयजल और सिंचाई योजनाओं को नुकसान पहुंचाया है जिसमें गिरिपार क्षेत्र में सबसे ज्यादा 59, पांवटा साहिब में 20 और शिलाई में 4 योजनाएं प्रभावित हैं। मंगलवार को 443 डी.टी.आर. (ट्रांसफार्मर) प्रभावित रहे, जिससे कई इलाकों में घंटों तक ब्लैक आऊट बना रहा। जगटा साहिब में सबसे ज्यादा 217, राजगढ़ में 210 और नाहन में 16 डी.टी.आर. प्रभावित होने से जिनकी पूल रहे।

बारिश के कारण उपमंडल पच्छाद के फागला (खंड शिलाई) में दुकान सिंह का मकान पूरी तरह क्षतिग्रस्त हो गया। पच्छाद के ही गेहरी बालण में प्रेम सिंह का पक्का मकान ढह गया। इसके साथ साथ पच्छाद के रोहीण में नेटवाड़, पांवटा साहिब के कोटड़ी के रमेश के पक्के मकानों को आंशिक क्षति हुई है।

वहीं शिलाई के गंगटोली की सांवरी देवी, शिलाई के सुरेंद्र सिंह, नाहन के नरेंद्र सिंह और पैंहरावाला के रेहान

नाहन : भूस्खलन से घर को पैदा हुआ खतरा। (अब्दुल)

2 घंटे बाधित रहा एन.एच.-7

पांवटा साहिब-कालाअम्ब नैशनल हाईवे-7 पर वैहलाघाट और पोंटा इंटरचेंज से पालताखर सुबह करीब 2 घंटे आवाजाही ठप्प रही। खतरनाक और मारकंडा पुल के पास सुबह लगभग 5 बजे हुए भूस्खलन से सड़क पर पानी और मलबा पूरी तरह से रुक गया था। इसके बाद

सुभाष कालखंडा।

पांवटा साहिब-शिलाई हाईवे प्रभावित

पांवटा साहिब-शिलाई नैशनल हाईवे-7 की कैंडिकल में बंद हुआ है। लगातार होरहे पहाड़ों से गुजर रहे हैं, लेकिन बड़े वाहनों के लिए हाईवे बंद है। छोटे वाहनों के लिए भी सतर्क होकर आवाजाही

PUBLIC NOTICE

सोलन : शहर के वार्ड नम्बर 17 में खराब पड़ा ट्रांसफार्मर।

सोलन : संघाला सुनवाई सड़क पर भरा पानी।

सोलन : खराब पड़े ट्रांसफार्मर को लेकर सड़क पर लिखे नारे।

सोलन : कंडाघाट विकास खंड की बाजली पंचायत में

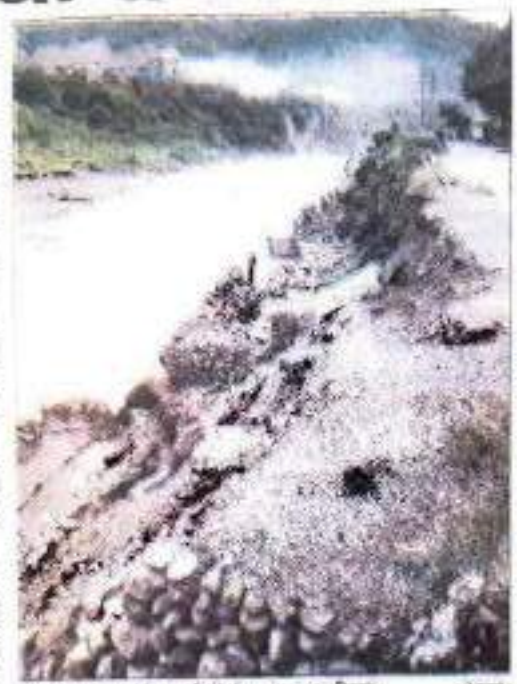
ओगली में भूमि कटाव से 12 उद्योगों को खतरा

कालाअम्ब, 2 सितम्बर। (एसएस): सोलन जिले के कालाअम्ब क्षेत्र में बरसाती नदी में कटाव के कारण औद्योगिक क्षेत्र खतरे में आ गया है। इसके कारण दर्जनों को छोटे-बड़े उद्योगों की सड़क लड़खड़ाने लगी है। बता दें कि कालाअम्ब-पिंजौर औद्योगिक क्षेत्र में 12 उद्योग स्थापित हैं।

उद्योगपति अशोक कपिला, प्रकाश चंद, मुकेश चंद, सुरेंद्र सिंह व दर्शन सैनी ने बताया कि बरसाती नदी में भारी कटाव के कारण बरसाती नदी ने औद्योगिक क्षेत्र को अपनी चपेट में ले लिया है। इससे कालाअम्ब सड़क लड़खड़ाने लगी है। इससे पहले पहुंचे उद्योग अब नहीं आ पा रहे हैं, जिससे इन लोगों को नुकसान हो रहा है।

भूमि कटाव से उद्योगों को भी खतरा है। उद्योगपतियों ने सरकार से मांग की कि जल्द से जल्द सुरक्षा दीवार लगाई जाए।

जिला उद्योग विभाग के जी.एम. सतीश शर्मा ने बताया कि आपदा क्षेत्र से सड़क किसी भूमि सर्वेक्षण के लिए 12 लाख रुपए की राशि पंचायत को दे दिए हैं। टेंडर भी अलॉट हो चुके हैं।



कालाअम्ब : बरसाती नदी में धंसा सड़क का हिस्सा।

सड़क : धंसता रोड़ीक में दरकती सड़क नदी।

सोलन : कंडाघाट विकास खंड की बाजली पंचायत में

कोट स्कूल के भवन में आई दरारें

सोलन, 2 सितम्बर। (एसएस): कसौली विधानसभा क्षेत्र के ग्राम पंचायत कोट के राजकीय प्राथमिक पाठशाला कोट के भवन में दरारें के कारण दहशत आ गई हैं और स्कूल भवन के लिए खतरा हो गया है। इस संबंध में पंचायत प्रधान राजा राम ठाकुर की अध्यक्षता में एक प्रतिनिधिमंडल डी.सी. सोलन यशोधन शर्मा से मिला और स्कूल की हालत के बारे में अवगत करवाया। उन्होंने स्कूल का असुरक्षित घोषित करने की मांग उठाई।

डी.सी. ने आश्वासन दिया कि जल्द ही खंड शिक्षा व लोक निर्माण विभाग की टीम जो स्कूल का निरीक्षण कर उसकी व्यवस्था बच्चों के लिए करेंगे।

इस अवसर पर स्थानीय ग्रामीण युवक मंडल कोट के प्रधान कुलदीप ठाकुर, धृति दत्त शर्मा, आशु शर्मा, कमलेश ठाकुर, लोमेश शर्मा, संजीव ठाकुर, कपिल ठाकुर व सूरज ठाकुर आदि मौजूद थे।

सोलन : कोट स्कूल में आई दरारें।

रोपड़ : कोड़ो ग्राम पंचायत के गोबरपा में कमान के मकान के ऊपर गिरा मलबा।

डी.सी. एन : बरोटीवाला में नए बस अड्डे से पुराने बस अड्डे तक सड़क चौड़ी नहीं बनने पर जाम बन जाती है। कालिका बंद होने के चलते पैदल चलने के लिए भी जगह नहीं होती। रविवार शर्मा ने विभाग से यहां पर

सोलन में 6 मकान ध्वस्त, 56 सड़कें बंद

सोलन, 4 सितम्बर (भाल): जिला में भारी बारिश से प्रभावित हुआ जन-जीवन पटरी पर लौटता हुआ नजर नहीं आ रहा है। जिला सोलन में अभी भी 56 सड़कें बंद हैं। यहां पहले 138 ट्रांसफार्मर खराब होने से कई गांव अभी भी अंधेरे में डूबे हुए हैं। 18 पेयजल योजनाएं अभी बंद हैं। जिले में पिछले 24 घंटे में करीब 4 करोड़ रुपए का नुकसान हुआ है। 6 कच्चे मकान जमींदोज हुए हैं, जबकि 30 मकानों को आंशिक रूप से नुकसान हुआ है। जिले में नुकसान का आंकड़ा 200 करोड़ रुपए तक पहुंच गया है। लोकनिर्माण विभाग को पिछले 24 घंटे में करीब 3.45 करोड़ रुपए का नुकसान हुआ है। डी.सी. सन्दीप शर्मा ने बताया कि जिले में अवरुद्ध हुई सड़कों को बहाल करने के प्रयास किए जा रहे हैं।

सोलन : जमींदोज हुई अरकाले-कंडाघाट सड़क। (भाल)

इन जगहों पर क्षतिग्रस्त हुए मकान

प्रशासन की ओर से मिली जानकारी के अनुसार कुम्भारापत्तन पंचायत के पट्टा में बाबूदेव के मकान पूरी तरह से क्षतिग्रस्त हुआ है। वहीं सहरोल में अंबेडकर में मंजीत कुमारी, सोलनाद के रामलाल, पत्याणू के शेर में तुलसी राम और कांसीली के साधो कनौत में प्रेम का कच्चा मकान क्षतिग्रस्त हुआ है।

आंशिक रूप से क्षतिग्रस्त हुए मकान

अर्की तहसील में पनहार से सुनिता देवी का पक्का मकान, कुम्भारापत्तन में रोशनलाल, सालोगड़ा के तपोग में कृष्णमोहन, सोलन के कामाक्षानगर के जचेता में बेनीराम, खरदूं के बलदेव, बद्दी के गोरखनाथ में दिलीप, अर्जुन, सुरेश, जसविंदर सिंह, राम नाथ व रामलाल तथा सिंहारड़ी में सिरौर के पक्के मकानों को आंशिक रूप से नुकसान हुआ है। कुनिहार हरिपुर के देवी चंद, कुनिहार जालग के देवराज व कमलेश, कुनिहार शाकली की गीता देवी, कुनिहार हाटकोट के अगतिराम मोहम्मद, अर्की डाराघाट के कैलाश, कृष्णगढ़ के कांशी पनहार के पोहाल, पट्टा की शकुन्तला, बद्दी ईंधू के कमल चंद, जौणाजी के सोहन व सुभाष, धनतोल कलां के कमलजीत, कंडाघाट के मुनीलाल, कसौली के भरत के मोहन लाल, कसौली के भड़ोली कुकरना की सुनिता, कसौली ओटल का चंदा के कुलदीप और कसौली के पेर के राज प्रकाश के पक्के मकानों का आंशिक रूप से नुकसान हुआ है।

शामती बाईपास सड़क जमींदोज

उधर, शहर में वाहनों का दबाव कम करने के लिए 3 वर्ष पूर्व बनी शामती बाईपास सड़क का स्पीयल में एक बड़ा हिस्सा जमींदोज हो गया है इसके कारण सहनी की आवाजाही बंद हो गई है। सड़क के कई हिस्से के जमींदोज होने से भूस्खलन का खतरा भी बढ़ गया है। इसके कारण आमजन के साथ ही लोक निर्माण विभाग की परेशानी बढ़ गई है क्योंकि जिला शिमला के ऊपरी क्षेत्रों का सीधा इसी मार्ग से सोलन फागली पहुंचता था। सूचना मिलते ही लोक निर्माण विभाग ने यहां पर खतरे से रोड के एक साइड को कवर किया था, लेकिन बीती रात रोड पूरी तरह से धंस गया है। लोक निर्माण विभाग के एक्सियन रवि कटूच ने बताया कि टीमें मौके पर जारी हैं। इस नुकसान को कैसे कम किया जाए इसको लेकर भी विभाग कार्य कर रहा है।

सिरमौर में 7 मकान गिरे, 120 सड़कें, 130 डी.टी.आर., 93 पेयजल योजनाएं प्रभावित

नाहन, 4 सितम्बर (हितेश): जिला सिरमौर में भारी बारिश से पैदा हुई भूस्खलन जैसी स्थिति का नाम नहीं ले रही है। पिछले कुछ घंटे से बारिश न होने से जिले को थोड़ी राहत जरूर मिली है। बीते कल कुछ हिस्सों में कई दिन बाद धूप निकली, लेकिन पिछले 24 घंटे के भीतर जिले में 13.27 करोड़ रुपए का भारी नुकसान आंका गया है। जिले के कई हिस्सों में सड़कों पर भूस्खलन हो रहा है। सोमवार को भी 120 सड़कों पर आवाजाही प्रभावित रही।

सबसे ज्यादा तिरोहा इलाके में 36 सड़कें बंद रहीं। इसके अलावा संगड़ाह में 29, राजगढ़ में 22, नाहन में 15, पांवटा साहिब और शिलाई में 9-9 सड़कों पर भारी भूस्खलन से यातायात ठप रहा। कई मकानों और निजी बसों भी सड़कों पर गिर गईं। तिहाड़, जाखियों, गोलन तक पहुंचने के लिए भारी दिक्कतों का सामना करना पड़ा। सड़कें बंद होने से विभाग को 1.63 करोड़ रुपए की चपत लगी है।

इसके साथ-साथ बारिश से जल शक्ति विभाग की परेशानी भी कम होती नहीं दिख रही है। 24 घंटे में विभाग की 93 पेयजल और सिंचाई योजनाओं को 11.42 करोड़ रुपए का नुकसान हुआ है। इसमें 80 पेयजल और 13 सिंचाई योजनाएं शामिल हैं। सबसे ज्यादा तिरोहा में 64 योजनाओं को क्षति पहुंची है।

नाहन में 24 और राजगढ़ में 4 योजनाएं बारिश से खास तरह प्रभावित हुई हैं। इससे कई इलाकों में पानी का संकट भी खड़ा हुआ है। नाहन शहर की सहित जिले के कई कस्बों और ग्रामीण इलाकों में पानी के लिए हाहाकार मचा है। वहीं, राजगढ़ खेत के कई इलाकों में बिजली जैसी फुलफ्रूफ मुश्किल भी सामने रही है। ट्रांसफार्मर के विभिन्न क्षेत्रों में 130 डी.टी.आर. प्रभावित होने से लोगों को बिजली की समस्या से दो चार होना पड़ रहा है। हालांकि, सभी विभाग फील्ड में व्यवस्थाओं को सुचारू बनाने में जुटे हैं, लेकिन फिर भी आम जनजीवन को पटरी पर लाने के लिए कई स्तर की चुनौतियों का सामना करना पड़ रहा है।

बारिश का कहर यहीं तक सीमित नहीं है। आकाशी विभागों को नुकसान के साथ-साथ बारिश में निजी संपत्तियों को भी क्षति पहुंच रही है। नाहन के मुरला में कच्चा घर, ओरंगुका जो खेत के खानक्या के रंगड़ और संगड़ाह के भागवंट के पक्के मकानों को नुकसान हुआ है।

इसके साथ-साथ कच्चा के टिकरी, ओरंगुका रो के रफुला और संगड़ाह के लाहा भगड़ा में 4 मकानों के अलावा जिले के विभिन्न स्थानों पर 6 गौशालाओं को भी बारिश से भारी नुकसान हुआ है।

राहर : राहर के रेणुका जी सड़क पर पेड़ों के मलबे हुआ भूस्खलन।

पत्रकार प्रताप ने पेयजल योजना को दुरुस्त करने में जुटे कर्मियों तक पहुंचाया भोजन

नाहन, 4 सितम्बर (हितेश): जिला मुख्यालय नाहन में खराब पेयजल संकट के बीच फोरवा को पेयजल संकट से मुक्ति दिलाने में जुटे जलापूर्ति एवं स्वच्छता की सिंचाई पेज की। ने पत्रकार प्रताप सिंह ने मानवता की मिसाल पेश की।

वह भोजन लेकर खौज गांव पहुंचे, जहां जलापूर्ति विभाग उपखंड पेयजल योजना को दुरुस्त करने में जुटे हुए थे।

बता दें कि इस योजना की पाइप लाइन खौज गांव में भूस्खलन के कारण पूरी तरह क्षतिग्रस्त हुई है। इससे नाहन शहर में पिछले 6 दिनों से ज्यादा समय से पानी का संकट बना हुआ है। जल लोकि विभाग के कर्मचारी लगातार वैकल्पिक और भूस्खलन के बावजूद सेवाएं दे रहे हैं। ये कर्मचारी पिछले 4-5 दिनों से घर भी नहीं गए हैं। ऐसे समय में जहां पेयजल संकट को लेकर लोगों में आक्रोश है, वहीं कुछ लोग जरूरतमंदों की मदद के लिए आगे आ रहे हैं। इसी बीच प्रेस क्लब सिरमौर के पत्रकार प्रताप सिंह ने जलापूर्ति विभाग के कर्मचारियों के लिए खौज गांव में भोजन की व्यवस्था की।

बस सड़क से बाहर निकली, पेड़ पर अटकी

सोलन, 4 सितम्बर (भाल): सोलन में एक बड़ा हादसा टल गया। सोलन से रामपुरगढ़ की ओर जा रही एक बस अनियंत्रित होकर सड़क से किनारे निकल गई। गनीमत यह रही कि आई में नहीं पिछी वरना बड़ा हादसा हो सकता था। बस चालिये में भी हुई थी।

यह बस ड्राइवर को सोलन से कंडाघाट रूट पर जा रही थी। बताया जा रहा है कि इसमें चालक परिचालक समेत एक सवारी भी सुरक्षित थी। जैसी ही बस मनुपुरम के पास पहुंची तो अचानक सड़क से नीचे खाई की तरफ पेड़ के सहारे लटक गई। फिलहाल इसमें किसी

एन.एच. पर पहाड़ियों से गिरते रहे से पत्थर, आवाजाही रही सुचारू

वलकी मोड़ के अलावा सनवारा व मनसार बना भूस्खलन संभावित क्षेत्र

सोलन, 4 सितम्बर (भाल): चंडीगढ़ शिमला राष्ट्रीय उच्च मार्ग पर चक्की मोड़ के अलावा सनवारा व मनसार भी भूस्खलन संभावित क्षेत्र बन गया है। यहां पर पहाड़ी से पत्थरों का गिरना आम हो गया है। स्तरों का सफर इन 3 स्थानों पर बहुत जोखिम भरा है।

सोमवार को दोपहर 12.00 बजे सलोगड़ा के समीप सड़क पर पत्थर गिरे। इससे वहां पर आवाजाही करीब आधे घंटे तक रुकी रही। वहीं, मनसार के समीप कसौली रोड पर आए मलबे को हटाने का कार्य भी चलता रहा। इसमें भी बीच-बीच में ट्रैफिक को रोके रखा। हाईवे पर पुलिस बल की तैनाती भी की गई है। जो यात्रियों की आवाजाही को सुचारू करने में जुटी है।

पत्याणू से कैथलीघाट तक खोदरा को दिखना पत्थर और मलबे के गिरने का सिलसिला जारी रहा। इस कारण एक-एक कर आवाजाही कई स्थानों पर चली। इससे जाम की समस्या का सामना वाहन चालकों को करना पड़ा। पत्याणू से कैथलीघाट तक बीच-बीच में पहाड़ी वाली लेन को भी बंद

सोलन-सिरमौर केसरी

SOLAN 05

सूर्योदय 06.02 | सूर्यास्त 06.43 | अगले 24 घंटों के दौरान बारिश हो सकती है। | SOLAN-SIRMOUR KESARI

धर्मपुर के बठोल गांव में 8 मकानों में आईं दरारें, 3 खतरे की जद में

सोलन, 4 सितम्बर (पाल): धर्मपुर के बठोल गांव में वर्ष 2023 की तरह इस बार भी प्राकृतिक आपदा ने कहर बरपाना शुरू कर दिया है। गांव में हुए भारी भूस्खलन से करीब 8 मकानों में दरारें आ गई हैं। 3 मकान तो खतरे की जद में हैं।

इसे देखते हुए प्रशासन ने तीनों मकानों को खाली करवा दिया है। गांव की नीचे की पहाड़ी से लगातार भूस्खलन हो रहा है। इसके कारण ऊपर की जमीन लगातार नीचे की ओर धंस रही है। बता दें कि वर्ष 2023 में आई प्राकृतिक आपदा में भी इस गांव में भारी भूस्खलन हुआ था। उस दौरान भी इन मकानों को खाली करवाया गया था। उस समय भी 7 से 8 मकानों में दरारें आई थीं। कुछ समय बाद मकान मालिकों ने इनकी रिपेयर करवाकर इनमें रहना शुरू कर दिया।

हैरानी की बात यह है कि जिला प्रशासन ने इस गांव की सुरक्षा के लिए वहां पर डंगा लगाने की जहमत नहीं उठाई। यदि डंगे का निर्माण होता तो शायद इस बार ऐसा भूस्खलन नहीं होता। इससे स्पष्ट हो गया कि जिले में वर्ष 2023 के आपदा प्रभावित कई क्षेत्रों में रिपेयर व रिस्टोरेशन के काम पूरे नहीं हुए हैं। बठोल गांव के सरपंच करमपाल ने बताया कि 2023 में भी उन्होंने आपदा का दंश झेला और वर्ष 2025 में भी झेल रहे हैं। पहले भी उन्हें मकान खाली करना पड़ा था और इस बार भी खाली करना पड़ रहा है। वे पिछले 2 वर्षों से प्रशासन के चक्कर काट रहे हैं कि गांव की सुरक्षा के लिए वहां पर डंगे का निर्माण किया जाए। हैरानी की बात है कि न प्रशासन और न ही पंचायत ने इसे गंभीरता से लिया। अब फिर उन्हें अपने मकान छोड़कर रिश्तेदारों के घर रहना पड़ रहा है।

आशा पंचायत में भी मकान को खतरा

कंडाघाट विकासखंड की भाग पंचायत के शठीयाल में भी एक मकान को भारी खतरा हो गया है। भूस्खलन के कारण मकान के पीछे का बड़ा हिस्सा गिर गया है। खतरे को देखते अब तिरपाल से उस एरिया को ढका गया है।

सोलन : बठोल गांव में हुआ भूस्खलन कई मकान खतरे की जद में व (इनसैट में) मकानों में आईं दरारें। (पाल)

गांव में हुआ भारी भूस्खलन, 2023 में भी खाली करवाए थे मकान

भूस्खलन से खाली करवाया पन्नाथरी गांव, 10 परिवार सुरक्षित जगह भेजे

कुठाड़, 4 सितम्बर (मदन): क्षेत्र में 3 दिन से लगातार हो रही बारिश ने गोपला पंचायत के पन्नाथरी गांव में कहर बरपाया है। भूस्खलन से गांव के करीब 10 परिवारों के घरों में मलबा घुस गया, जिससे घरों की दीवारों में दरारें आ गईं व सामान खराब हो गया।

गोपला के प्रधान मदन वर्मा व नायब तहसीलदार कृष्णगढ़ ने पुलिस

राजगढ़ में भूस्खलन से 30 मकानों को खतरा

राजगढ़, 4 सितम्बर (पीयूष): नगर पंचायत राजगढ़ के वार्ड नंबर-6 में भूस्खलन से कुछ मकानों को खतरा पैदा हो गया है। दरअसल, हाल ही में किसी ने अपनी भूमि से सड़क बनाई। अब भारी वर्षा के कारण उसी सड़क में निकला मलबा और भूस्खलन नीचे बने घरों के लिए खतरा बन गया है। इस मलबे में बड़े-बड़े पत्थर भी शामिल हैं। कुछ दिन पहले भी सड़क का मलबा राम सिसक के घर तक यह मलबा पहुंच गया था। इस सड़क के ठीक नीचे करीब 30 मकान हैं। इस मामले को लेकर स्थानीय लोग एस.डी.एम. राजकुमार राजगढ़ से मिले और अपनी समस्या रखी। एस.डी.एम. ने आश्वासन दिया कि प्रशासन उनकी समस्या का समाधान करेगा।

उधर, ग्राम पंचायत भुईया में मनोज कुमार और प्रदीप कुमार के मकान में दरारें आ गई हैं। इस कारण प्रभावित लोग अब टैंट लगाकर रहने को मजबूर हैं। मनोज कुमार ने बताया कि उनका घर अब रहने के लिए असुरक्षित हो चुका है। उनके घर के आगे और पीछे भूस्खलन हो रहा है। इनके घर के पीछे स्थित हाई स्कूल भुईया के खेल मैदान में भी दरारें आ गई हैं।

करीब 60-70 फुट ऊंचा डंगा कभी भी ढह सकता है। इससे स्कूल के साथ आसपास के घरों पर खतरा मंडरा रहा है। इसके अलावा बिशन सिंह का घर भी असुरक्षित हो गया है। इसी पंचायत के धनोगा गांव में भी भारी नुकसान हुआ है। यहां लेख राम के घर पर मलबा और पेड़ आ गिरे हैं। इससे घर को भारी क्षति पहुंची है। परिवार को घर खाली कर टैंट में रहना पड़ रहा है।

भी डी.सी. ऑफिस पहुंच गए।

यह बात अलग है कि शहर में लोगों को पीने के लिए 7 से 8 दिन के बाद ही पानी की आपूर्ति हो रही है लेकिन हालात को सुधारने के लिए ईमानदारी के साथ प्रयास नहीं हो रहे हैं। 3 दिन पूर्व ऐसा लग रहा था कि स्थित सामान्य हो रही है। कुछ क्षेत्रों में चौथे दिन पानी की आपूर्ति शुरू हो गई थी लेकिन पिछले 3-4 दिनों से जल शक्ति विभाग से पानी

की कम आपूर्ति के कारण हालात फिर से वैसे ही बन् गए हैं।

अब तो इसमें बिजली बोर्ड की भी एंट्री हो गई है। सोलन शहर व इसके ग्रामीण क्षेत्रों में वीरवार को सुबह 9.30 बजे से शाम करीब 6.30 बजे तक बिजली कट के कारण गिरी व अश्वनी

होनी थी। अब इन क्षेत्रों को 7 से 8 दिन के बाद पानी मिलेगा। नगर निगम ने वीरवार को वार्ड नंबर 3 के कथेड़ क्षेत्र में करीब 7वें दिन पानी की आपूर्ति की है। शुक्रवार को पानी की आपूर्ति अब गिरी व अश्वनी पेयजल योजनाओं से रातभर होने वाली पानी की लिफ्टिंग पर निर्भर रहेगी।

डी.सी. ऑफिस कर्मचारी संघ के अध्यक्ष लोकेन्द्र चौहान ने बताया कि

परेशानी का सामना करना पड़ा लेकिन दोपहर बाद पानी की आपूर्ति शुरू होने से हालात सामान्य हो गए।

नगर निगम आयुक्त एकता काप्टा ने बताया कि वीरवार सुबह 9 बजे से शाम करीब 6.30 बजे तक बिजली कट के कारण गिरी व अश्वनी पेयजल योजनाओं से पानी की आपूर्ति नहीं हुई। पिछले 3-4 दिनों से जल शक्ति विभाग से नगर निगम को संपत से कम पानी मिल रहा है।

नालागढ़ के कई गांवों में घरों व जमीनों को नुक्सान

बी.बी.एन., 18 सितम्बर (शेर सिंह): भारी वर्षा के कारण नालागढ़ के कई गांवों में घरों व जमीनों को नुक्सान हुआ है। गांव कपोली, कासला, मलैहणी व सलौण आदि गांवों में मकानों व पशुशालाओं को नुक्सान हुआ है। नालागढ़-रामशहर रोड सिलनुपुल के पास लैहासा गिरने से कुछ समय के लिए बंद रहा। लोक निर्माण विभाग ने बाद में सड़क को खोल दिया।

इस सड़क पर वीरवार से रामशहर तक बसों की भी आवाजाही शुरू हो गई है। इससे पहले रामशहर की तरफ से बसें कुमारहट्टी तक और नालागढ़ की तरफ से पैट्रोल पम्प तक ही जा रही थीं और लोगों को करीब 1 किलोमीटर पैदल चलना पड़ रहा था। विभाग द्वारा यहां वैकल्पिक सड़क बना दी गई है, लेकिन वर्षा के समय दलदल हो जाती

बी.बी.एन. : नालागढ़-रामशहर रोड पर सिलनुपुल के पास गिरा लैहासा। *(शेर सिंह)*

है और वाहनों की आवाजाही प्रभावित हो जाती है। लोक निर्माण विभाग मंडल नालागढ़ के अधिशासी अभियंता परवसर सिंह ने बताया कि नालागढ़ रामशहर रोड को खोल दिया गया है तथा जो भी सड़कें बंद हैं, उन्हें खोला जा रहा है।

म्ब के मोगीनंद में खुदाई कर संपर्क मार्ग किया बंद, उद्योगपति व

समाधान की गुहार लगाई है। इसके साथ पुलिस थाना कालाअम्ब के

सीमेंट के गोदाम और बी.पी. मैटल

कार्रवाई का आश्वासन दिया है।

भारी बारिश से झाड़माजरी में तबाही का मंजर

बी बी एन : बीटी डी आई, झाड़माजरी के जिला बोर्ड में तब्दील हुआ खेत।

बी बी एन : जिला अथॉरिटीज और ग्रामीणों को जोने वाला मार्ग पर हुआ भूस्खलन।

बी बी एन : भारी बारिश के चलते आए मलबे में तब्दील कार सवार।

बी बी एन : झाड़माजरी को एकमात्र तौर को भारी बारिश के चलते नाले में आए बाढ़ से हुआ नुकसान।

बी बी एन : झाड़माजरी में कॉलोनी नाले के आए उफान से चलता ट्रैक्टरों को हुआ नुकसान।

बी बी एन : ई पी आई पी, जैस एक झाड़माजरी में भारी बारिश के चलते लोगबाड़ नाले का बहा हुआ।

बी बी एन : राजकीय आधारिक पाठशाला हमीरा माजरा की गिरी हुई मीटर लंबी चारदीवारी।

बी बी एन : झाड़माजरी में कॉलोनी नाले में आए उफान से किनारे के खेत भी बह गए। हर में झुलस खेत।

Annexure-13

भारत सरकार/Government of India
विद्युत मंत्रालय/Ministry of Power
केन्द्रीय विद्युत प्राधिकरण/Central Electricity Authority
विद्युत प्रणाली अभियांत्रिकी एवं प्रौद्योगिकी विकास प्रभाग
Power System Engineering & Technology Development Division

दिनांक: 15.10.2025

सेवा में,

<As per attached list>

विषय: Minutes of the meeting of Standing Committee of Experts on failure of EHV transmission towers failed during the period from January 2025 to June 2025-reg.

महोदया/महोदय,

You are kindly aware that a Standing Committee of Experts was constituted vide CEA Letter No -41/98/Secy/CEA/809 dated 24.09.1999 and reconstituted vide CEA letter no. CEA/5-41(18)/Secy-2012/166 dated 08.08.2012 under Section 73, Clause (I) of the Electricity Act, 2003 to investigate the failure of 220 kV and above voltage class transmission line towers and recommend remedial measures to avert failures in future.

2. In this connection, a meeting of the Standing Committee of the Experts was held under the chairmanship of Chief Engineer (PSE&TD), CEA on 08.09.2025 at CEA HQ, New Delhi to discuss the cause of failures of the transmission line towers reported by various utilities to CEA that had failed during the period from January 2025 to June 2025.

3. Minutes of the meeting of the Standing Committee are enclosed herewith kind reference and necessary action by all concerned.

Encl: as above

भवदीय,
Signed by Bhanwar Singh Meena
Date: 15-10-2025 17:30:25
(भंवर सिंह मीना /Bhanwar Singh Meena)
Director (PSE&TD) & Member Secretary of the Committee

Copy to:

1. SA to Chairperson, CEA
2. SA to Member (PS), CEA
3. PA to Chief Engineer, PSE&TD, CEA

कमरा सं. 305, तीसरी मंजिल,सेवा भवन, आर. के. पुरम-I, नई दिल्ली-110066 टेलीफैक्स: 011-26732304 ईमेल: ce-psetd@nic.in वेबसाइट:www.cea.nic.in
Room No.305, 3rd Floor, Sewa Bhawan, R.K Puram-I, New Delhi-110066 Telefax: 011-26732304 Email: ce-psetd@nic.in Website: www.cea.nic.in

4. Deliberations held during Standing Committee Meeting

1. A total of 22 Nos. of EHV Transmission Line tower failure incidences consisting 59 Nos. are of Suspension Type Tower and 16 Nos. are of Tension Type Towers between 1st January 2025 and 30th June 2025 were reported by 11 Utilities (PGCIL, RVPN, THDCIL, GETCO, MPPTCL, UPPTCL, RENEW, KPTCL, NTPC, NRSSXXXVI and ADANI). Complete details of all the reported EHV Transmission Line Tower failures are given at **Annexure-II**. The details of the deliberations of the standing committee meeting are presented in the ensuing paragraphs.

2. The Representative of **PGCIL** presented failures of 2 nos. of transmission lines covering total 2 nos. of Towers (1 no. of Suspension Type Tower and 1 no. of tension Type Tower). The transmission line wise deliberations are as under:

   (i) 220 kV D/C Samba- Chowadhi-I/ Samba-Hiranagar-I Line (within 10 years): In 220 kV D/C Samba- Chowadhi-I/ Smba-Hiranagar-I Transmission Line, 1 no. of tension type tower (DD+18) collapsed at tower location number 26. The line was commissioned in the year 2016 and the line length is 14.043 km. The reported cause of the failure is high speed localized cyclonic wind.

   PGCIL representative mentioned that the tower at location no. 26 (D+18) had collapsed from ground level and all four stubs were found damaged near the chimney level. Due to sudden impact, Coping was also found cracked from top in all four stubs. The collapsed tower had fallen on the right side in transverse direction facing Samba S/S. Due to sudden jerk caused by collapsed tower no. 26, the top phase cross arm at adjacent tower (Loc No 25) was also damaged.

   Chief Engineer (PSE&TD), CEA, suggested that wind speed data from IMD observatories may be utilized for analysing the cause of tower failures. He further enquired about the reasons for failures occurring within 10 years of commissioning, to which the representative from Powergrid informed that, as per the revised wind zone map, the failed tower was located within 50 km of Wind Zone 5, whereas it had been designed for Wind Zone 4. The Chief Engineer (PSE&TD) clarified that, for towers located in overlapping wind zones, the higher wind zone shall be considered if the tower is situated within 50 km of the border area, and requested to ensure the same.

   He also enquired about the increased span between towers, in response to which the representative of PGCIL explained that a higher tower span results in reduced angle of deviation, enabling more effective utilization of towers. Chief Engineer (PSE&TD), CEA, suggested that CEA clearance must be obtained prior to implementation of higher spans as it effects the RoW requirements and further suggested to submit the tower design report and material test report. Director (PSE&TD), CEA requested to check the restored tower strength as per IS 802: 2015 as the tower was earlier designed as per IS 802: 1995 and to furnish the justification for utilizing the higher span.

After detailed deliberations in the meeting, it was concluded that the primary reason for the failure was the design of the tower for wind zone-4, whereas the tower has been experiencing the effects of Wind Zone–5 due to it falling in the overlapping area between Wind Zone-4 & Wind Zone-5.

(ii) **765 KV Fatehpur-Agra 2 Transmission Line (within 12 years):** In 765 KV Fatehpur-Agra 2 Transmission Line, 1 no. of suspension type tower (A+0) at Tower Location Number 722 got failed. The line was commissioned in the year 2013 and line length is 335 km. The reported probable cause of failure is Extremely high-speed cyclonic windstorm.

As informed by representative of PGCIL**,** an internal committee of PGCIL visited the site to assess the damage. The committee observed that the tower had buckled above waist level and both peaks were damaged. No tower members, nuts, or bolts were found missing. Material testing of the components was carried out, and the reports were found to be satisfactory. The failed tower has been restored by erecting a spare tower on the existing foundation. For meteorological assessment, PGCIL requested wind speed data from IMD corresponding to the time of failure. However, IMD expressed its inability to provide the information owing to the absence of wind sensors in Shikohabad District, where the tower was located.

Chief Engineer (PSE&TD), CEA enquired about the reasons for failures occurring within just 12 years of commissioning, to which the representative from Powergrid informed that the tower configuration is 'Delta Type' which might have contributed to the failure despite the tower having undergone strengthening.

Director (PSE&TD), CEA highlighted that several failures of Delta-type towers have been reported in recent years. Detailed studies carried out by CPRI and Manitoba on this tower type had revealed certain inherent design-related concerns. Based on these studies, it was advised to strengthen such towers. Strengthening is done by adding additional members rather than replacing the member entirely.

Chief Engineer (PSE&TD), CEA remarked that submitted information as per CEA format is incomplete and asked PGCIL to furnish full details as per CEA format. Additionally, Director (PSE&TD), CEA mentioned that restored tower should be designed as per latest IS, i.e., IS 802: 2015.

After detailed deliberation, it was concluded that the primary cause of the failure was the inherent vulnerability of the Delta-type tower configuration, which remains structurally less reliable even after strengthening interventions.

पावरग्रिड

Contract Agreement

for

Turnkey Tower Package-TW01 for LILO of Agra-Bharatpur 220 kV S/C line at Agra & LILO of Sarna-Hiranagar 220 kV S/C line at Samba under Northern Region System Strengthening – XXXIV.

executed between Power Grid Corporation of India Ltd., New Delhi and Mohan Energy Corporation Pvt.Ltd., New Delhi

VOLUME – A & C

of

Supply & Services Contract Agreement No.

CC-CS/455-NR1/TW-2605/3/G6/CA-I/5274 dtd 05.06.2015
CC-CS/455-NR1/TW-2605/3/G6/CA-II/5275 dtd 05.06.2015

Contents

- **Contract Agreement for Supply & Services Contract -Volume-A**
- **Bid Submitted by MEC - Volume-C.**

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
पावरग्रिड

केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. 2, सैक्टर-29, गुड़गाँव-122 001, हरियाणा
फोन : 2571700 - 719, फैक्स : 2571760, 2571761 तार 'नेटग्रिड'
Corporate Office : "Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001, Haryana
Tel. : 2571700 - 719, Fax : 2571760, 2571761 Gram : 'NATGRID'

010

संदर्भ संख्या/Ref. Number

Ref. No.: CC-CS/455-NR1/TWT-2605/3/G6/Amend-II Date: 01.07.2014

To,

All the Prospective Bidders

Sub: Turnkey Tower Package - TW01 including supply of Conductors, Insulators, Earthwire, Hardware Fittings and accessories for Conductor & Earthwire for LILO of Agra-Bharatpur 220 kV S/C line at Agra & LILO of Sarna-Hiranagar 220 kV S/C line at Samba under Northern Region System Strengthening – XXXIV. [Specification No.: CC-CS/455-NR1/TWT-2605/3/G6]

Bidding: Domestic Competitive Bidding,
Single Stage Two Envelope under e-procurement. Funding: Domestic

- *Regarding Issuance of Amendment No.-II to the Bidding Documents*

Dear Sir/Madam,

1.0 This has reference to the bidding documents for the subject package, Amendment No. I and Errata no. I uploaded on the portal *https://www.tcil-india-electronictender.com*.

2.0 In this regard, please note that **Amendment No.-II** have been issued on 01.07.2014.

3.0 Save and Except for the changes brought-out in the above mentioned **Amendment No.-II**, all other terms and conditions of the original bidding documents, Errata No. I and Amendment No. I shall remain unaltered.

Yours faithfully,

7/1/2014

X संजय शर्मा

Sanjay Sharma
Ch. Manager (CS-G6)

पंजीकृत कार्यालय : बी-9, कुतब इन्स्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016 दूरभाष : 26560121 फैक्स : 011-26560039 तार 'नेटग्रिड'
Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 Tel : 26560121 Fax : 011-26560039 Gram : 'NATGRID'

INVITATION FOR BIDS (IFB)

for

TURNKEY TOWER PACKAGE - TW01 INCLUDING SUPPLY OF CONDUCTORS, INSULATORS, EARTHWIRE, HARDWARE FITTINGS AND ACCESSORIES FOR CONDUCTOR & EARTHWIRE FOR LILO OF AGRA-BHARATPUR 220 KV S/C LINE AT AGRA & LILO OF SARNA-HIRANAGAR 220 KV S/C LINE AT SAMBA UNDER NORTHERN REGION SYSTEM STRENGTHENING – XXXIV.

(DOMESTIC COMPETITIVE BIDDING)

(SINGLE STAGE TWO ENVELOPE BIDDING)

DATE OF ISSUANCE OF IFB: 11/06/2014

SPECIFICATION NO(S).: CC-CS/455-NR1/TWT-2605/3/G6

FUNDING: DOMESTIC

1.0 This invitation for bids follows the e-procurement notice (Invitation for Bids) for the subject package(s) which appeared in National and Regional Newspapers on 11/06/2014. This shall also be available on POWERGRID's website given at para 12.0 below on the same date.

2.0 Power Grid Corporation of India Ltd. (A Government of India Enterprise) incorporated under the Companies Act, 1956, having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 (hereinafter referred to as 'POWERGRID'/'Owner'/'Employer') has decided to set up, as an Owner, "**Northern Region System Strengthening – XXXIV.**".

2.1 The procurement activities in respect of the aforesaid Project shall be carried out by the Owner itself and it intends to use domestic funding for eligible payments under the contract for the package as mentioned above. For the purpose of all procurement activities, the Owner shall also be referred to as 'Employer'.

3.0 POWERGRID, therefore, invites bids from eligible bidders for the following Package(s) for the project on Domestic Competitive Bidding basis under secured e-procurement procedure:

पावर ग्रिड कार्पोरेशन आफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

पावरग्रिड

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

Northern Region-II, Regional Head Quarter, Off-26, GRID INDIA BHAWAN, Rail Head Complex, Jammu (J&K) - 180012, Ph. /Fax: 0191-2477305

उत्तरी क्षेत्र-2 क्षेत्रीय मुख्य कार्यालय ऑफिस 26 ग्रिड भवन रेल हेड कॉम्प्लेक्स जम्मू 180 012 फोन 0191 247 7305

पंजीकृत डाक | कोरियर

संदर्भसंख्या- N2JM / PESM / DOCO / 2016 /

दिनांक: 27.06.2016

NOTIFICATION OF DOCO

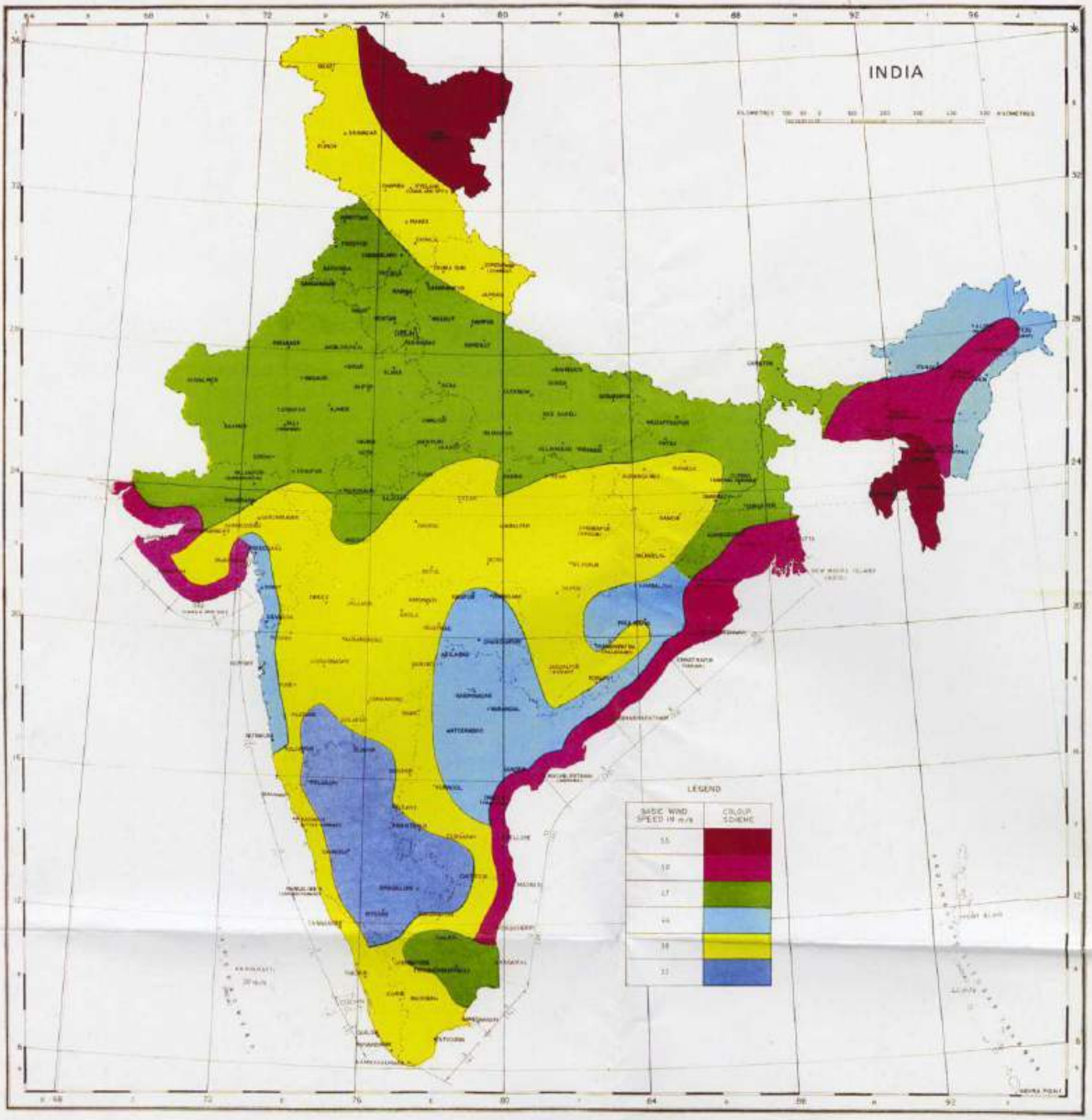
This is further to our Notification of Trial Operation Ref. N2JM/PESM/DOCO/2016, dated 02/06/2016. Consequent to the successful Trial Operation, following asset under **"Transmission System Associated with NRSS-XXXIV"** has been put under Commercial Operation w.e.f 00.00 Hrs of 4th June, 2016 in terms of Clause 4 of CERC (Terms and Conditions of Tariff) Regulations, 2014 :

"LILO of 220KV Gladni-Hiranagar line at 400/220KV Samba substation".

Name: **Anil Jain**
Designation: **ED, NR-II**

Distribution:

1. Member Secretary, NRPC
2. NRLDC/NLDC
3. Beneficiaries as per enclosed list.



Based upon Survey of India map with the permission of the Surveyor General of India.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

Responsibility for the correctness of Internal details shown on the map rests with the publisher.

The boundary of Meghalaya shown on this map is as Interpreted from the North-Eastern Areas (Reorganization) Act, 1971, but has yet to be verified.

NOTE 1 — The occurrence of a tornado is possible in virtually any part of India. They are particularly more severe in the northern parts of India. The recorded number of these tornados is too small to assign any frequency. The devastation caused by a tornado is due to exceptionally high winds about its periphery, and the sudden reduction in atmospheric pressure at its centre, resulting in an explosive outward pressure on the elements of the structure. The regional basic wind speeds do not include any specific allowance for tornados. It is not the usual practice to allow for the effect of tornados unless special requirements are called for as in the case of important structures such as, nuclear power reactors and satellite communication towers.

NOTE 2 — The total number of cyclonic storms that have struck different sections of east and west coasts are included in Fig. 1, based on available records for the period from 1877 to 1982. The figures above the lines (between the stations) indicate the total number of severe cyclonic storms with or without a core of hurricane winds (speeds above 87 km/h) and the figures in the brackets below the lines indicate the total number of cyclonic storms. Their effect on land is already reflected in the basic wind speeds specified in Fig. 1. These have been included only as an additional information.

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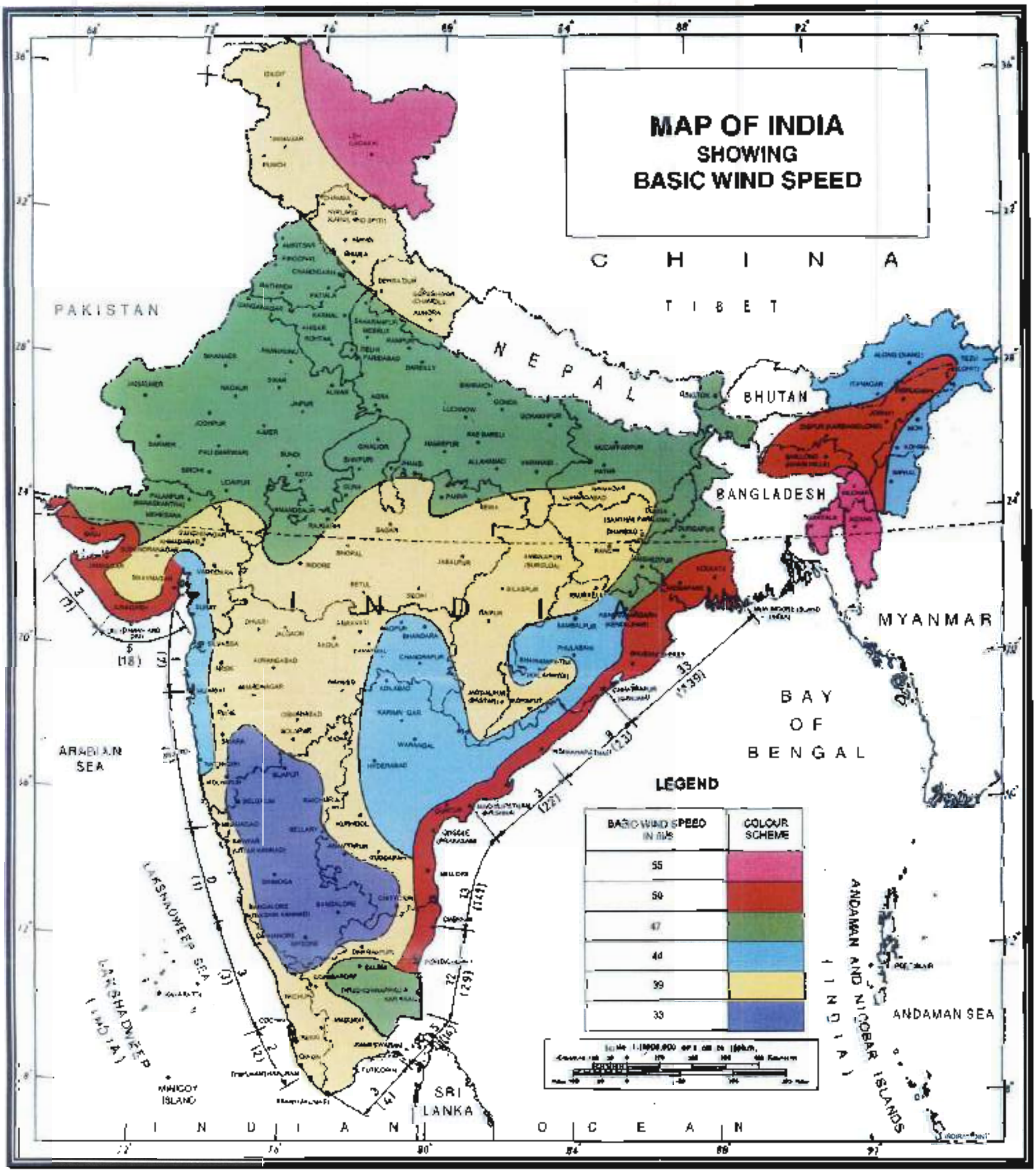
FIG. 1 BASIC WIND SPEED IN m/s (BASED ON 50-YEAR RETURN PERIOD)



Based upon Survey of India Outline Map printed in 1993

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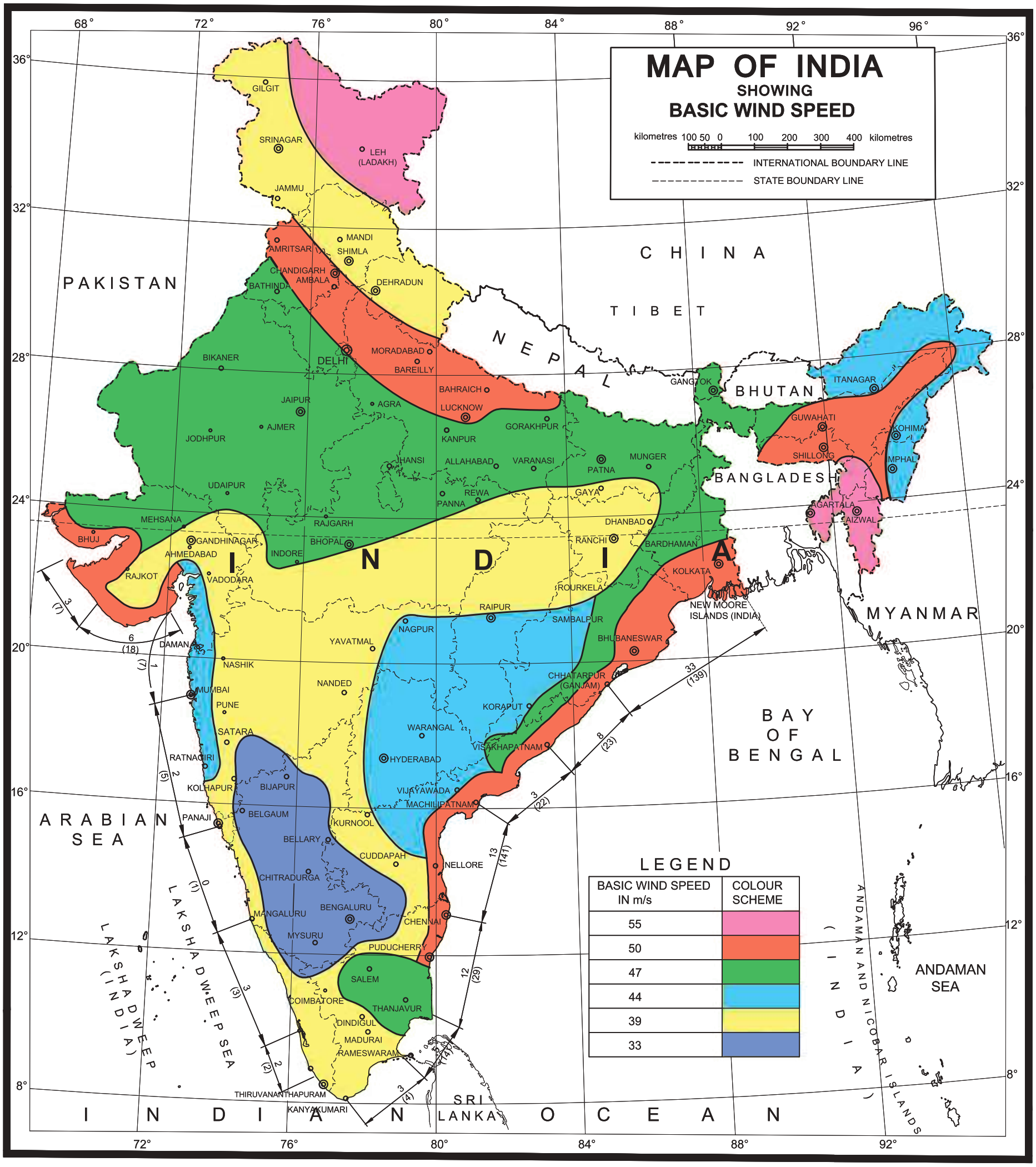
The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.
The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.
Responsibility for correctness of internal details shown on the map rests with the publisher
The state boundaries between Uttaranchal & Uttar Pradesh, Bihar & Jharkhand and Chhatisgarh & Madhya Pradesh have not been verified by Governments concerned

FIG. 1 BASIC WIND SPEED IN m/s (BASED ON 50-YEARS RETURN PERIOD)

height of any object surrounding the structure is less than 1.5m. The equivalent aerodynamic roughness height, (z_0) for this terrain is 0.002 m. Typically this category represents open sea-coasts and flat plains without trees.

b) *Category2*- Open terrain with well scattered obstructions having heights generally between 1.5 m and 10 m. The equivalent aerodynamic roughness height, (z_{02}) for this terrain is 0.02 m.



Based upon Survey of India Political map printed in 2002.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate baseline.

The interstate boundaries between Arunachal Pradesh, Assam and Meghalaya shown on this map are as interpreted from the North-Eastern Areas (Reorganization) Act, 1971, but have yet to be verified.

The state boundaries between Uttarakhand & Uttar Pradesh, Bihar & Jharkhand, and Chhattisgarh & Madhya Pradesh have not been verified by the Governments concerned.

The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.

The external boundaries and coastlines of India agree with the Record/Master Copy certified by Survey of India.

The responsibility for the correctness of internal details rests with the publisher.

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NOTES

1 The occurrence of a tornado is possible in virtually any part of India. They are particularly more severe in the northern parts of India. The recorded number of these tornados is too small to assign any frequency. The devastation caused by a tornado is due to exceptionally high winds about its periphery, and the sudden reduction in atmospheric pressure at its centre, resulting in an explosive outward pressure on the elements of the structure. The regional basic wind speeds do not include any specific allowance for tornados. It is not the usual practice to allow for the effect of tornados unless special requirements are called for as in the case of important structures such as, nuclear power reactors and satellite communication towers.

2 The total number of cyclonic storms that have struck different sections of east and west coasts are included in Fig. 1, based on available records for the period from 1877 to 1982. The figures above the lines (between the stations) indicate the total number of severe cyclonic storms with or without a core of hurricane winds (speeds above 87 km/h) and the figures in the brackets below the lines indicate the total number of cyclonic storms. Their effect on land is already reflected in the basic wind speeds specified in Fig. 1. These have been included only as additional information.

FIG. 1 BASIC WIND SPEED IN m/s (BASED ON 50-YEARS RETURN PERIOD)

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रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

सी.जी.-डी.एल.-अ.-02012023-241581
CG-DL-E-02012023-241581

असाधारण
EXTRAORDINARY

भाग III—खण्ड 4
PART III—Section 4

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 699] नई दिल्ली, मंगलवार, दिसम्बर 27, 2022/पौष 6, 1944
No. 699] NEW DELHI, TUESDAY, DECEMBER 27, 2022/PAUSHA 6, 1944

केंद्रीय विद्युत प्राधिकरण

अधिसूचना

नई दिल्ली, 23 दिसम्बर, 2022

केविप्रा-टीएच-17/1/2021-टीईटीडी प्रभाग.—विद्युत अधिनियम, 2003 (2003 का 36) की धारा 177 के उप धारा (3) के साथ पठित विद्युत (पिछले प्रकाशन की प्रक्रिया) नियम, 2005 के नियम (3) के उप नियम (2) द्वारा यथाअपेक्षित केंद्रीय विद्युत प्राधिकरण (विद्युत संयंत्रों और विद्युत लाइनों के निर्माण के लिए तकनीकी मानक) विनियम, 2022 का प्रारूप छः दैनिक समाचार पत्रों में प्रकाशित किया गया था, उन सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना थी, उस तारीख से जिसको उक्त प्रारूप विनियमों से युक्त समाचार पत्र की प्रतियां जनता को उपलब्ध करा दी गई थीं, सैंतालीस दिन की अवधि के समाप्ति से पूर्व आक्षेप और सुझाव आमंत्रित किये गये थे;

और उक्त समाचार पत्रों की प्रतियां, जिनमें सार्वजनिक सूचनाएं और उक्त प्रारूप विनियम सम्मिलित हैं, केंद्रीय विद्युत प्राधिकरण की वेबसाइट पर 30 दिसंबर, 2021 को जनता को उपलब्ध करा दिए गए थे;

और उक्त प्रारूप विनियमों पर जनता से प्राप्त आपत्तियों और सुझावों पर केंद्रीय विद्युत प्राधिकरण द्वारा विचार कर लिया गया था;

अतः, विद्युत अधिनियम, 2003 (2003 का 36) की धारा 177 की उप-धारा (1) के साथ पठित उक्त अधिनियम की धारा 73 के खण्ड (ख) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, केंद्रीय विद्युत प्राधिकरण निम्नलिखित विनियम बनाता है, अर्थात्: -

अध्याय 1

1. **संक्षिप्त नाम, प्रारंभ और लागू होना - (1) इन विनियमों का संक्षिप्त नाम केंद्रीय विद्युत प्राधिकरण (विद्युत संयंत्रों और विद्युत लाइनों के निर्माण के लिए तकनीकी मानक) विनियम, 2022 है।**

CENTRAL ELECTRICITY AUTHORITY

NOTIFICATION

New Delhi, the 23rd December, 2022

CEA-TH-17/1/2021-TETD Division.–Whereas the draft of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022 was published in six newspaper dailies, as required by sub-section (3) of section 177 of the Electricity Act, 2003 (36 of 2003) read with sub-rule (2) of rule 3 of the Electricity (Procedure for Previous Publication) Rules, 2005, inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of forty-seven days, from the date on which the copies of the newspaper containing the said draft regulations were made available to the public;

And whereas copies of the said newspapers containing the public notices and the said draft regulations on the website of the Central Electricity Authority were made available to the public on the 30th December, 2021;

And whereas the objections and suggestions received from the public on the said draft regulations were considered by the Central Electricity Authority;

Now, therefore, in exercise of the powers conferred by clause (e) of sub-section (2) of section 177 of the Electricity Act, 2003 (36 of 2003) read with clause (b) of section 73 of the said Act, the Central Electricity Authority hereby makes the following regulations, namely: -

CHAPTER I

1. Short title, commencement and applicability. - (1) These regulations may be called the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022.

(2) Applicability. - These regulations shall apply to generating companies, transmission licensees, distribution licensees, Central Transmission Utility, State Transmission Utilities.

(3) They shall come into force on the date of their publication in the Official Gazette.

2. Definitions- (1) In these regulations, unless the context otherwise requires,

(a) "Act" means the Electricity Act, 2003;

(b) "Authority" means the Central Electricity Authority established under sub-section (2) of Section 70 of the Act;

(c) "Automatic voltage regulator" means a continuously acting automatic excitation control system to regulate a generating unit terminal Voltage;

(d) "Autotransformer" means a power transformer in which at least two windings have common section;

(e) "Base load operation" means operation at maximum continuous rating or its high fraction;

(f) "Basic insulation level" means reference voltage level expressed in peak voltage with standard 1.2/50 µs lightning impulse wave. Apparatus shall be capable of withstanding test wave of basic insulation level or higher;

(g) "Black start" means the startup of a generating unit or gas turbine or internal combustion engine based generating set without use of external power following grid failure;

(h) "Boiler maximum continuous rating" means the maximum steam output, the steam generator can deliver continuously at rated parameters;

(i) "Break time" means interval of time between the beginning of the opening of a switching device and the end of the arcing;

(j) "Cold start", in relation to steam turbine, means start up after a shutdown period exceeding seventy two hours (turbine metal temperatures below approximately forty percent of their full load values);

(k) "Combined cycle gas turbine module" means gas turbine generators, associated heat recovery steam generators and steam turbine generator;

(l) "Control load", in relation to coal or lignite based thermal generating units, means the lowest load at which the rated steam temperature can be maintained under auto control system;

(m) "Design head" means the net head at which peak efficiency of hydraulic turbine is attained while operating at rated output;

(n) "Generator transformer" means power transformer required to step up generator voltage to connected bus voltage;

(o) "Gross head" means the difference in elevation between the water levels of upstream reservoir and the center line of the turbine runner in case of Pelton turbine and tail race water level at the exit end of the

(2) Conductor.—

(a) Minimum two conductors per phase for 400 kV AC; four conductors per phase for ± 500 kV HVDC and 765 kV single circuit AC; six conductors per phase for 765 kV Double Circuit AC and ± 800kV HVDC; and eight conductors per phase for 1200 kV AC shall be used to meet the corona and Radio Interference requirement.

(b) The conductors shall be Aluminum Conductor Steel Reinforced or All Aluminum Alloy Conductor or Aluminium Alloy Conductor Steel Reinforced or High Conductivity Aluminium Alloy stranded conductors or High Performance conductors or High Temperature and Low Sag conforming to relevant Indian or international standards.

(3) Earthwire.—

(a) The earthwire of appropriate size to cater to predicted and design fault currents and lightning shall be used.

(b) Single earthwire shall be used for transmission lines up to 220 kV and two earthwires shall be used for transmission lines of 400 kV and higher voltage classes.

(c) The earthwire used in 66 kV voltage class lines shall be Optical Ground Wire or galvanized stranded steel or Aluminium Alloy Conductor Steel Reinforced type.

(d) The earthwire used in 110 kV and above voltage class lines shall be Optical Ground Wire.

Provided that in case of 400kV and above voltage class lines, at least one out of two earthwires shall be Optical Ground Wire and second earthwire shall be either of galvanized stranded steel or Aluminium Alloy Conductor Steel Reinforced conductor type.

(4) Towers.—

(a) The towers shall be self-supporting lattice steel structure or steel pole structure or structure with insulated cross arms or guyed tower and shall be fully galvanized.

(b) All electrical clearances shall be as per relevant standard and Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 or any successor or subsequent Regulations in this regard.

(c) The pole, towers, and towers with insulated cross-arms shall be designed considering design loading criteria and conditions as per relevant IS.

(d) Wind Zone considered for wind loading shall be as per wind map given in National Building Code till the relevant Indian Standard is revised.

(e) For design of transmission line structures in eastern coast and Gujarat coast upto 60 km from sea coast, importance factor for cyclonic region i.e. K4 factor of 1.3 shall be considered to take care of cyclonic wind condition.

(f) For the transmission lines to be laid within 50 km of the border of the two wind zones specified in the Wind Map, towers shall be designed for the higher of the two wind zones.

(g) Reliability level as per Table-17 shall be considered for design of towers and steel pole structures of following transmission lines:

Table-17

66 kV to 400 kV Transmission lines with one or two circuits and one or two conductors per phase	Reliability level 1 corresponding to 50 years return period
66 kV to 400 kV Transmission lines with more than 2 circuits; 400 kV Transmission lines with more than two conductors per phase; Above 400 kV transmission lines	Reliability level 2 corresponding to 150 years return period
Special towers or Pole ; Tall River crossing towers or Pole; Multicircuit towers or Pole whose full scale prototype can not be tested due to limitation of testing facility	Reliability level 3 corresponding to 500 years return period

(h) The prototype of towers or poles shall be tested as per relevant Indian Standards. However, it shall not be mandatory to test prototype of tall river crossing towers or poles and other special towers or poles designed for reliability level 3 (500 year return period).

(i) Drag coefficient for calculation of wind load on tower as per Table 18 shall be considered for design of tower:

Regarding failure of Tower of 220KV D/C Samba Hiranagar and Samba Chowadi at 20:04 Hrs of 16.04.2025

Rakesh Kumar Gupta {राकेश कुमार गुप् ता} < rakeshgupta@powergrid.in >

Mon, 23 Mar 2026 11:40:06 AM +0530

To "NRPC"<seo-nrpc@nic.in>,"seo-nrpc@gov.in"<seo-nrpc@gov.in>

Cc "MS NRPC"<ms-nrpc@nic.in>,"Shafat Ahmad Wani {एस.ए. वानी}"<ahmed.shafat@powergrid.in>,"Reeturaj Pandey" <pandeyr.cea@gov.in>,"AKASH JAIN"<akashjain.cea@gov.in>,"Vivek Sundariyal {विवेक सुन्दरियाल}" <viveks@powergrid.in>,"Dhanurjay Nikhandia {धनुर्जय निखण्डिया}"<dnikhandia@powergrid.in>,"Rakesh Gupta" <rkg16597@gmail.com>

Dear Sir

This is in reference to failure of Tower of 220KV D/C Samba Hiranagar and Samba Chowadi at 20:04 Hrs of 16.04.2025.
As per MOM of CEA Standing Committee Meeting for failure of Towers, Copy attached as Annexure 1,
QUOTE
"*primary reason for the failure was the design of the tower for wind zone-4, whereas the tower has been experiencing the effects of Wind Zone–5 due to it falling in the overlapping area between Wind Zone-4 & Wind Zone-5.*

In this regard, it is submitted as under:

LINE Construction details

- NIT for construction of Line (LILO portion) was floated on 01.07.2014 and TS for line construction was finalised before issue of NIT. Further LOA for construction of Line was placed in Jun'2015 . Copy of NIT & LOA attached as Annexure 2.

- Line was commissioned on 27th of Jun'2016. Copy of DOCO letter attached as Annexure 3

APPLICABLE IS for wind zone Details

As per IS - 875.3.1987, applicable for line construction at the time of NIT, area falls in Wind zone 4. Copy attached as Annexure 4

As per IS 875.3.2015, (revised in 2015), area again falls in Wind zone 4. Copy attached as Annexure 5

As per NATIONAL BUILDING CODE OF INDIA 2016 VOLUME 1, released in 2016, wind zone was revised from Zone 4 to Zone 5 for above tower line (Overlapping zone). Copy attached as Annexure 6

As per CEA manual for transmission planning dated 23 Dec' 2022, Wind Zone considered for wind loading for Tower Lines shall be as per wind map given in National Building Code till the relevant Indian Standard is revised. Copy attached as Annexure 7.

In view of above facts, it is to submit that at the time of Line commissioning , applicable wind zone for the area where tower was located was Wind zone 4 and revision in wind zone was done by NBFC in 2016 only after commercial operation of the Line

Submitted pl

राकेश कुमार गुप्ता
उप महाप्रबंधक, आरटीएएमसी
उत्तरी क्षेत्र-2, जम्मू

Bharat Electricity Summit 2026
https://www.bharatelectricitysummit.com/

दावात्याग : यह ईमेल पावरग्रिड के दावात्याग नियम व शर्तों द्वारा शासित है जिसे http://apps.powergrid.in/Disclaimer.htm पर देखा जा सकता है। Disclaimer: This e-mail is governed by the Disclaimer Terms & Conditions of POWERGRID which may be viewed at http://apps.powergrid.in/Disclaimer.htm

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7 Attachment(s)

Annexure 1 Mom Standing Co…
373.4 KB

Annexure 2 Bid Document LO…
1.2 MB

Annexure 3 DOCO Letter.pdf.pdf
307.8 KB

Annexure 4 IS .875.3.1987.pdf…
6.1 MB

Annexure 5 IS 875.3.2015.pdf.…
572.9 KB

Annexure 7 CEA Standards for…
902.6 KB

Annexure 6 NBC_2016_Volum…
10.2 MB

डेटा वर्गीकरण : प्रतिबंधित/RESTRICTED

Annexure-15

NRTS Outage Data JULY 2025: Additional Clarification on NRLDC Observations

Sheet name / Row No.	ELEMENT CODE	EVENT NO.	ELEMENT NAME	OUTAGE	RESTORATION	DURATION OF OUTAGE				NRLDC CODE	Classification/ Category Code	REASON OF OUTAGE	NRLDC COMMENT	Renlv	NRLDC Reverified comments as on 15.09.2025
				DATE TIME	DATE TIME	POWER GRID	OTHERS	System constraint/ Natural calamity/ Militancy	Deemed Available					POWERGRID CLARIFICATION	
OUTAGE_Self	NR176528	107250227	765KV AJMER-BHADLA_2 Ckt-I	12/07/25 17:33	13/07/25 04:58	11:25	00:00	00:00	00:00		OSPT	Shutdown for Reactor Switching and attending COE Observations.	Outage p reason verified as per NRLDC records./As per NRLDC records; Line revived at 08:45 Hrs	Line was ready for charging since 04:58 hrs only but due to high voltages at both end charging was delayed and same was intimated to NRLDC via mail (copy attached). OMS screenshot also attached where it can be seen that charging code was requested at 05:10 hrs but charging code issued at 07:17 hrs, but voltage was still at higher end, hence mail sent regading this. Line was charged at 08:45 hrs when voltage drops within permissible limit. Outage from 04:58 hrs to 08:45 may be considered under LVRD.	Ok, PowerGrid requested time for charging 05:10 Hrs may be considered as time for revival as per documents received.
OUTAGE_Self	NR176525	107250408	765KV MEERUT-KOTESHWR-II	22/07/25 19:46	23/07/25 10:59	15:13	00:00	00:00	00:00		LHWT	Tripped on B-N fault Meerut-122.815KM/5.946KA, Koteshwar-60.860KM/3.437KA.Fault under Roorkee TLM Jurisdiction.Charging attempt failed from Meerut at 20:42Hrs.Meerut-M1: 113.7kM, B-N, 1.27kA.M2: 114.0kM, B-N, 5.7kA.765KV Meerut-Koteshwar Ckt-2 : B-ph sub	Outage period and reason verified as per NRLDC records./1430 MW Generation los occurred at Tehri and Koteshwar		As per NRLDC records, NRLDC comments remains same .
OUTAGE_Self	NR1ICT47	307060	100MVA ICT-I RAIBAREILLY	12/07/25 10:45	12/07/25 12:39	01:54	00:00	00:00	00:00	N-2412	OSFT	E/S/D taken for replacement of faulty CT cable (CT MB to Bus-Bar panel). Charging code received at 1239 hrs/12.07.25 ; however due to problem in Secondary side CB which belongs to UPPTCL could not be charged on time.	Outage period and reason verified as per NRLDC records./As per NRLDC records, ICT revived at 14:08 Hrs		As per NRLDC records, NRLDC comments remains same .
OUTAGE_Self	NR376509	307047	765KV ORAI-ALIGARH-I	09/07/25 14:00	09/07/25 20:13	06:13	00:00	00:00	00:00	N-1804	OSFT	Taken under E/S/D to rectify decapped CLR insulator at loc no 74	Outage reason verified as per NRLDC records./As per NRLDc records, line revived at 22:04 Hrs		As per NRLDC records, NRLDC comments remains same .
OUTAGE_Self			400 KV Vindhyachal(PG)-Vindhyachal(NT) (PG) Ckt-2	30-07-2025	20:25	31-07-2025	00:08				OMSU	Tripped from Vindhyachal NTPC end due to tripping of both auxiliary supply of NTPC Vindhyachal units.	Outage period and reason verified as per NRLDC records.	Due to tripping of Generator Unit#3 at NTPC-Vindhyachal, both the feeders 400kV Vindhyachal(NTPC)-Vindhyachal (PG)-I &II tripped from NTPC-Vindhyachal end simultaneously. As a supporting document mail cummincation from NTPC-Vindhyachal is enclosed. Since the tripping is due to NTPC-Vindhyachal , the outage is not attributable to POWERGRID.	NRLDC Comments- There is no provision in terms and condition, 2024 Regulation to consider such kind of outage either to be exclude d from total outage time or deemed available. /Availability may be curtailed accordingly/Outage must be considered in self category.
OUTAGE_Self			400 KV Vindhyachal(PG)-Vindhyachal(NT) (PG) Ckt-1	30-07-2025	20:25	31-07-2025	00:08				OMSU	Tripped from Vindhyachal NTPC end due to tripping of both auxiliary supply of NTPC Vindhyachal units.	Outage period and reason verified as per NRLDC records.	Due to tripping of Generator Unit#3 at NTPC-Vindhyachal, both the feeders 400kV Vindhyachal(NTPC)-Vindhyachal (PG)-I &II tripped from NTPC-Vindhyachal end simultaneously. As a supporting document mail cummincation from NTPC-Vindhyachal is enclosed. Since the tripping is due to NTPC-Vindhyachal , the outage is not attributable to POWERGRID.	NRLDC Comments- There is no provision in terms and condition, 2024 Regulation to consider such kind of outage either to be exclude d from total outage time or deemed available. /Availability may be curtailed accordingly/Outage must be considered in self category.
OUTAGE_Self			400 KV VINDHYACHAL(PG)-VINDHYACHAL(NT) (PG) CKT-2	31-07-2025	12:26	31-07-2025	17:54				OSPT	For Bay AMP work	Outage period and reason verified as per NRLDC records.		As per NRLDC records, NRLDC comments remains same ./Outage may be curtailed accordingly
OUTAGE_Self	NR1BRT53		50MVAR B/Reactor-II BASSI	10-07-2025	16:46	10-07-2025	20:32				OSFT	for ongoing 400kV Busbar protection retrofit work	Outage period and reason verified as per NRLDC records.	Outage already submitted vide event no.- 107250188	As per NRLDC records, NRLDC comments remains same ./Outage may be curtailed accordingly
OUTAGE_Self	NR1STAT01		-425/+550MVAR STATCOM-I BHADLA_2	03/07/25 19:15	04/07/25 23:32	28:17	00:00	00:00	00:00		OSFT	Maloperation of relay	Outage period and reason verified as per NRLDC records.	Outage already submitted vide event no.- 107250062	As per NRLDC records, NRLDC comments remains same ./Outage may be curtailed accordingly
OUTAGE_Self	NR1STAT01		-425/+550MVAR STATCOM-I BHADLA_2	05/07/25 06:12	25/07/25 10:40	28:17	00:00	00:00	00:00		OSFT	Tripped due to the controller issue	Outage period and reason verified as per NRLDC records.	Tripping time is 06:12 hrs/05.07.2025 & restoration time is **14:49 hrs/05.07.2025**. Wrong entry in OMS. A detailed presentation is attached where restoration time can be verified from DR/EL attached in presentation.	As per NRLDC records, NRLDC comments remains same ./Outage may be curtailed accordingly

Fwd: Re: Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025. **akashjain.cea** < akashjain.cea@gov.in >

AKASH JAIN < akashjain.cea@gov.in >
Mon, 06 Apr 2026 6:52:37 PM +0530

To "Reeturaj Pandey"<pandeyr.cea@gov.in>

महोदय/ महोदया

भवदीय,
आकाश जैन,
सहायक निदेशक -II (संरक्षण),
उत्तर क्षेत्रीय विद्युत समिति सचिवालय
18-ए, शहीद जीत सिंह मार्ग,
नई दिल्ली - 16

========== Forwarded message ==========
From: NRLDC Availability <nr_availability@grid-india.in>
To: "AKASH JAIN"<akashjain.cea@gov.in>
Cc: "Babloo Ram Meena (बब्लू राम मीना)"<brmeena@grid-india.in>
Date: Thu, 02 Apr 2026 11:22:02 +0530
Subject: Re: Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.
========== Forwarded message ==========

Sir,

NRLDC reverify data as:

NRLDC verify and accept the data submitted by PowerGRID. STATCOM revival time can be considered as 14:49 Hrs on 05.07.2025.

Thanks and Regards,
NRLDC Availability Team.

From: AKASH JAIN <akashjain.cea@gov.in>
Sent: Tuesday, March 24, 2026 11:29:20 AM
To: NRLDC Availability; Babloo Ram Meena (बब्लू राम मीना)
Cc: Ashish (आशीष); "Vishal Roy {विशाल रॉय}"; "Jigyasu . {जिज्ञासु}"; D K Meena; Reeturaj Pandey
Subject: Re: Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.

****Warning****
This email has not originated from Grid-India. Do not click on attachment or links unless sender is reliable. Malware/ Viruses can be easily transmitted via email.

महोदय/ महोदया

Reminder....

As per discussion in meeting held on 17.03.2026, Comment of NRLDC is requested as per documents provided in trailing mail by Powergrid.

भवदीय,
आकाश जैन,
सहायक निदेशक -II (संरक्षण),
उत्तर क्षेत्रीय विद्युत समिति सचिवालय
18-ए, शहीद जीत सिंह मार्ग,
नई दिल्ली - 16

From: Jigyasu . {जिज्ञासु} <jigyasu@powergrid.in>
To: "NRLDC Availability"<nr_availability@grid-india.in>, "brmeena@grid-india.in"<brmeena@grid-india.in>, "Ashish (आशीष)"<ashish@grid-india.in>
Cc: "Vishal Roy {विशाल रॉय}"<vishal.roy@powergrid.in>, "AKASH JAIN"<akashjain.cea@gov.in>
Date: Wed, 18 Mar 2026 16:03:50 +0530
Subject: Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.

Dear Sir,

PFA Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.
SCADA Events & MVAR graph attached.

Regards

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https://www.bharatelectricitysummit.com/

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Re: Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.

2 emails

akashjain.cea < akashjain.cea@gov.in >

AKASH JAIN < akashjain.cea@gov.in >

Tue, 24 Mar 2026 11:29:23 AM +0530

To "NRLDC Availability"<nr_availability@grid-india.in>,"brmeena@grid-india.in"<brmeena@grid-india.in>

Cc "Ashish"<ashish@grid-india.in>,"Vishal Roy {विशाल रॉय}"<vishal.roy@powergrid.in>,"Jigyasu . {जिज्ञासु}"<jigyasu@powergrid.in>,"D K Meena"<seo-nrpc@nic.in>,"Reeturaj Pandey"<pandeyr.cea@gov.in>

महोदय/ महोदया

Reminder....

As per discussion in meeting held on 17.03.2026, Comment of NRLDC is requested as per documents provided in trailing mail by Powergrid.

भवदीय,
आकाश जैन,
सहायक निदेशक -II (संरक्षण),
उत्तर क्षेत्रीय विद्युत समिति सचिवालय
18-ए, शहीद जीत सिंह मार्ग,
नई दिल्ली - 16

From: Jigyasu . {जिज्ञासु} <jigyasu@powergrid.in>
To: "NRLDC Availability"<nr_availability@grid-india.in>, "brmeena@grid-india.in"<brmeena@grid-india.in>, "Ashish (आशीष)"<ashish@grid-india.in>
Cc: "Vishal Roy {विशाल रॉय}"<vishal.roy@powergrid.in>, "AKASH JAIN"<akashjain.cea@gov.in>
Date: Wed, 18 Mar 2026 16:03:50 +0530
Subject: Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.

Dear Sir,

PFA Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.
SCADA Events & MVAR graph attached.

Regards

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Jigyasu . {जिज्ञासु} < jigyasu@powergrid.in >

Wed, 18 Mar 2026 4:04:17 PM +0530

To "NRLDC Availability"<nr_availability@grid-india.in>,"brmeena@grid-india.in"<brmeena@grid-india.in>,"Ashish (आशीष)"<ashish@grid-india.in>

Cc "Vishal Roy {विशाल रॉय}"<vishal.roy@powergrid.in>,"AKASH JAIN"<akashjain.cea@gov.in>

Dear Sir,

PFA Supporting documents of Statcom-1 at Bhadla (2) tripping dated 05.07.2025.
SCADA Events & MVAR graph attached.

Regards

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1 Attachment(s)

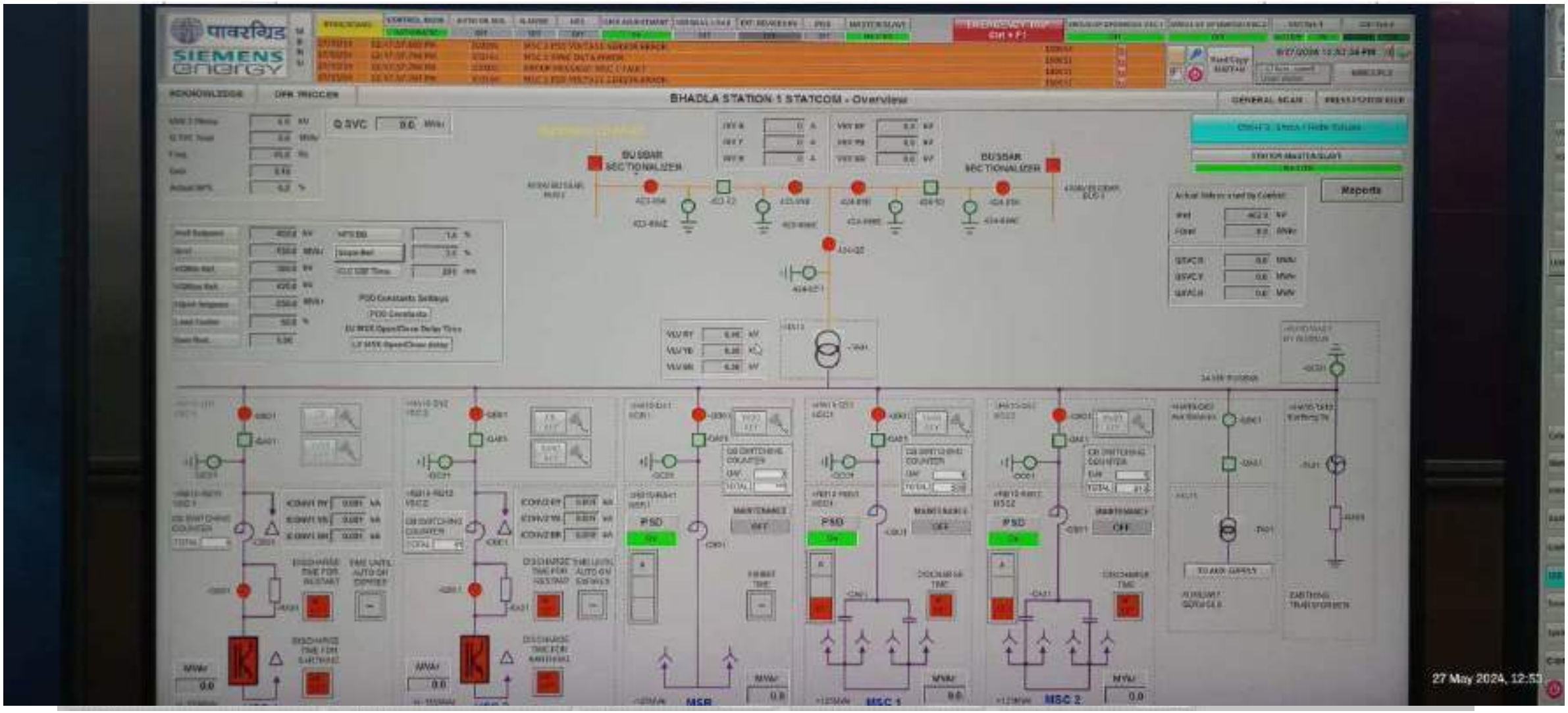
STATCOM.zip
5.9 MB

Tripping (Off Sequence) of VSC-1 & VSC-2 STATCOM-1 at Bhadla-2

Date/Time of occurrence

05-07-2024, 06:02 Hrs

STATCOM STATION-1 SLD



Sequence of events

Time	Event
06:02:01.141	2-PHASE GRID FAULT DETECTION ON THE HV BUS
06:02:01.460	EXTERNAL DEVICE LV MSR 1 CB MONITORING FAULT
06:02:10.141	SYSTEM 2: SWITCHOVER FREQUENCY EVALUATION HV TO MV
06:02:10.916	NPS AT HV GREATER THAN 1.5% FOR MORE THAN 1 MINUTES
06:02:14.142	VSC1: AUTOMATIC OFF SEQUENCE AFTER EXTENDED CONVERTER BLOCKING
06:02:14.142	VSC2: AUTOMATIC OFF SEQUENCE AFTER EXTENDED CONVERTER BLOCKING
06:02:14.146	SC 1: BLOCK REQUEST
06:02:14.146	VSC 2: BLOCK REQUEST
06:02:01.141	MMS: EXTERNAL CONVERTER BLOCK SYSTEM 2
06:02:01.141	MMS: EXTERNAL CONVERTER BLOCK SYSTEM 1
06:02:01.141	CCS: EXTERNAL CONVERTER BLOCK SYSTEM 1
06:02:01.141	CCS: EXTERNAL CONVERTER BLOCK SYSTEM2

2 Phase Grid Fault Detection on the HV Bus at 06:02:09.109

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\\WINCCPC3\WinCC_Project_STATCOM_BHADLA_S1\STATCOM_BHADLA_S1.mcp

	Date	Time	Number	Device	WinCC Message text	Class	Status	FCT_GRP	Duration
760	05/07/25	02:37:37.758 AM	108235	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST ACKNOWLEDGE TO OTHER STATION	STAT	+	0	00:00:00
761	05/07/25	02:37:37.758 AM	108236	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST FROM OTHER STATION	STAT	+	0	00:00:00
762	05/07/25	02:37:38.814 AM	108235	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST ACKNOWLEDGE TO OTHER STATION	STAT	-	0	00:00:01
763	05/07/25	02:37:38.814 AM	108236	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST FROM OTHER STATION	STAT	-	0	00:00:01
764	05/07/25	04:27:01.302 AM	108246	-AF01-KF01/2-D03	GAIN REDUCTION BY HUNTING DETECTION	WRN	+	100001	00:00:00
765	05/07/25	04:27:01.302 AM	100001	-AF01-KF01/2-D01	GROUP MESSAGE: STATCOM CONTROL WARNING	WRN	+	100001	00:00:00
766	05/07/25	04:27:09.406 AM	108234	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST TO OTHER STATION	STAT	+	0	00:00:00
767	05/07/25	04:27:09.474 AM	108237	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST ACKNOWLEDGE FROM OTHER STATION	STAT	+	0	00:00:00
768	05/07/25	04:27:10.476 AM	108243	-AF01-KF01/2-D03	GAIN TEST RUNNING	STAT	+	0	00:00:00
769	05/07/25	04:27:10.480 AM	108234	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST TO OTHER STATION	STAT	-	0	00:00:01
770	05/07/25	04:27:10.548 AM	108237	-AF01-KF01/2-D03	CONTROLER FREEZE REQUEST ACKNOWLEDGE FROM OTHER STATION	STAT	-	0	00:00:01
771	05/07/25	04:27:10.944 AM	108243	-AF01-KF01/2-D03	GAIN TEST RUNNING	STAT	-	0	00:00:00
772	05/07/25	04:27:10.952 AM	108246	-AF01-KF01/2-D03	GAIN REDUCTION BY HUNTING DETECTION	WRN	-	100001	00:00:00
773	05/07/25	04:27:10.952 AM	100001	-AF01-KF01/2-D01	GROUP MESSAGE: STATCOM CONTROL WARNING	WRN	-	100001	00:00:00
774	05/07/25	04:55:14.022 AM	100805	-AF01-KF12-A040	CONVERTER ROOM-1 AHU FAN OFF	STAT	+	0	00:00:00
775	05/07/25	06:02:09.009 AM	108220	-AF01-KF01/2-D03	MSR OFF BY CLC	STAT	+	0	00:00:00
776	05/07/25	06:02:09.012 AM	105645	-AF01-KF01/2-D01	EXTERNAL DEVICE LV MSR 1 HUNTING DETECTED	STAT	+	0	00:00:00
777	05/07/25	06:02:09.041 AM	108274	-AF01-KF01/2-D03	AT LEAST ONE IREG AT MINIMUM LIMIT	WRN	+	100001	00:00:00
778	05/07/25	06:02:09.041 AM	100001	-AF01-KF01/2-D01	GROUP MESSAGE: STATCOM CONTROL WARNING	WRN	+	100001	00:00:00
779	05/07/25	06:02:09.109 AM	108289	-AF01-KF01/2-D03	2-PHASE GRID FAULT DETECTION ON THE HV BUS	WRN	+	100001	00:00:00
780	05/07/25	06:02:09.156 AM	104537	-AF01-KF01/2-D01	STATCOM SYSTEM READY FOR OPERATION	STAT	-	0	06:29:25
781	05/07/25	06:02:09.156 AM	104545	-AF01-KF01/2-D01	VSC 1 READY FOR OPERATION	STAT	-	0	06:29:25
782	05/07/25	06:02:09.156 AM	104546	-AF01-KF01/2-D01	VSC 2 READY FOR OPERATION	STAT	-	0	06:45:23
783	05/07/25	06:02:09.165 AM	100492	-AF01-CF01	DFR IS RECORDING	STAT	+	0	00:00:00
784	05/07/25	06:02:09.188 AM	104537	-AF01-KF01/2-D01	STATCOM SYSTEM READY FOR OPERATION	STAT	+	0	00:00:00
785	05/07/25	06:02:09.188 AM	104545	-AF01-KF01/2-D01	VSC 1 READY FOR OPERATION	STAT	+	0	00:00:00
786	05/07/25	06:02:09.188 AM	104546	-AF01-KF01/2-D01	VSC 2 READY FOR OPERATION	STAT	+	0	00:00:00
787	05/07/25	06:02:09.220 AM	104537	-AF01-KF01/2-D01	STATCOM SYSTEM READY FOR OPERATION	STAT	-	0	00:00:00
788	05/07/25	06:02:09.220 AM	104545	-AF01-KF01/2-D01	VSC 1 READY FOR OPERATION	STAT	-	0	00:00:00
789	05/07/25	06:02:09.220 AM	104546	-AF01-KF01/2-D01	VSC 2 READY FOR OPERATION	STAT	-	0	00:00:00
790	05/07/25	06:02:09.233 AM	108274	-AF01-KF01/2-D03	AT LEAST ONE IREG AT MINIMUM LIMIT	WRN	-	100001	00:00:00
791	05/07/25	06:02:09.284 AM	102061	-HA10-Q41-QA01	MSR 1 CIRCUIT BREAKER -HA10-Q41-QA01 OPEN COMMAND	CMD_wo_go	+	0	00:00:00
792	05/07/25	06:02:09.284 AM	102074	-HA10-Q41-QA01	MSR 1 CIRCUIT BREAKER HA10-Q41-QA01 CB OPEN COMMAND (FOR PSD)	CMD_wo_go	+	0	00:00:00

"NPS at HV Bus Greater Than 1.5% for More Than 1 Minutes" alarm triggered

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	Date	Time	Number	Device	WinCC Message text	Class	Status	FCT_GRP	Duration
793	05/07/25	06:02:09.412 AM	102079	-RB10-RB41-BU01	MSR 1 PSD OUT	STAT	+	0	00:00:00
794	05/07/25	06:02:09.412 AM	102207	-RB10-RB51-BU01	MSC 1 PSD OUT	STAT	+	0	00:00:00
795	05/07/25	06:02:09.412 AM	102217	-HA10-Q51-QA01	MSC 1 CIRCUIT BREAKER -HA10-Q51-QA01 CB INTERLOCK ENABLE	STAT	-	0	06:50:54
796	05/07/25	06:02:09.412 AM	102335	-RB10-RB52-BU01	MSC 2 PSD OUT	STAT	+	0	00:00:00
797	05/07/25	06:02:09.412 AM	102345	-HA10-Q52-QA01	MSC 2 CIRCUIT BREAKER -HA10-Q52-QA01 CB INTERLOCK ENABLE	STAT	-	0	06:50:54
798	05/07/25	06:02:09.437 AM	102454	-AF01-KF01/2-D05	MSR 1 R PH CLOSED	STAT	-	0	06:28:00
799	05/07/25	06:02:09.444 AM	102456	-AF01-KF01/2-D05	MSR 1 Y PH CLOSED	STAT	-	0	06:28:00
800	05/07/25	06:02:09.444 AM	102474	-AF01-KF01/2-D07	MSR 1 B PH CLOSED	STAT	-	0	06:28:00
801	05/07/25	06:02:09.449 AM	102019	-HA10-Q41-QA01	MSR 1 CIRCUIT BREAKER -HA10-Q41-QA01 CB CLOSE	STAT	-	0	06:28:00
802	05/07/25	06:02:09.452 AM	102453	-AF01-KF01/2-D05	MSR 1 R PH OPEN	STAT	+	0	00:00:00
803	05/07/25	06:02:09.459 AM	102455	-AF01-KF01/2-D05	MSR 1 Y PH OPEN	STAT	+	0	00:00:00
804	05/07/25	06:02:09.459 AM	102473	-AF01-KF01/2-D07	MSR 1 B PH OPEN	STAT	+	0	00:00:00
805	05/07/25	06:02:09.460 AM	105641	-AF01-KF01/2-D01	EXTERNAL DEVICE LV MSR 1 CB MONITORING FAULT	WRN	+	100024	00:00:00
806	05/07/25	06:02:09.460 AM	100024	-AF01-KF01/2-D01	GROUP MESSAGE: LV EXTERNAL DEVICE WARNING	WRN	+	100024	00:00:00
807	05/07/25	06:02:09.461 AM	105220	-AF01-KF01/2-D03	MSR OFF BY CLC	STAT	-	0	00:00:00
808	05/07/25	06:02:09.464 AM	102018	-HA10-Q41-QA01	MSR 1 CIRCUIT BREAKER -HA10-Q41-QA01 CB OPEN	STAT	+	0	00:00:00
809	05/07/25	06:02:09.476 AM	901573	-RB10-RB41-BU01-BU	MSR 1 PROTECTION RELAY -BU412 NEGATIVE SEQUENCE PROTECTION STAGE-1 PICKUP	WRN	+	900092	00:00:00
810	05/07/25	06:02:09.476 AM	900092	-PROT-IEC61850	GROUP MESSAGE: MSR 1 PROTECTION WARNING	WRN	+	900092	00:00:00
811	05/07/25	06:02:09.476 AM	105641	-AF01-KF01/2-D01	EXTERNAL DEVICE LV MSR 1 CB MONITORING FAULT	WRN	-	100024	00:00:00
812	05/07/25	06:02:09.476 AM	100024	-AF01-KF01/2-D01	GROUP MESSAGE: LV EXTERNAL DEVICE WARNING	WRN	-	100024	00:00:00
813	05/07/25	06:02:09.486 AM	901573	-RB10-RB41-BU01-BU	MSR 1 PROTECTION RELAY -BU412 NEGATIVE SEQUENCE PROTECTION STAGE-1 PICKUP	WRN	-	900092	00:00:00
814	05/07/25	06:02:09.486 AM	900092	-PROT-IEC61850	GROUP MESSAGE: MSR 1 PROTECTION WARNING	WRN	-	900092	00:00:00
815	05/07/25	06:02:09.502 AM	102037	-HA10-Q41-QA01	MSR 1 PSD CB OPEN SIGNAL	STAT	+	0	00:00:00
816	05/07/25	06:02:09.503 AM	102038	-HA10-Q41-QA01	MSR 1 PSD CB CLOSE SIGNAL	STAT	-	0	06:28:00
817	05/07/25	06:02:09.536 AM	104615	-AF01-KF01/2-D01	STATCOM NOT READY: HV AND MV VOLTAGE NOT IN SPECIFIED RANGE	WRN	+	100030	00:00:00
818	05/07/25	06:02:09.536 AM	100030	-AF01-KF01/2-D01	GROUP MESSAGE: STATCOM NOT READY	WRN	+	100030	00:00:00
819	05/07/25	06:02:09.668 AM	102059	-HA10-Q41-QB01	MSR 1 DISCONNECTOR -HA10-Q41-QB01 INTERLOCK ENABLE	STAT	+	0	00:00:00
820	05/07/25	06:02:09.668 AM	102089	-HA10-Q41-QA01	MSR 1 CIRCUIT BREAKER HA10-Q41-QA01 CB INTERLOCK ENABLE	STAT	-	0	06:50:54
821	05/07/25	06:02:10.141 AM	105507	-AF01-KF02-D03	SYSTEM 2: SWITCHOVER FREQUENCY EVALUATION HV TO MV	WRN	+	100001	00:00:00
822	05/07/25	06:02:10.309 AM	102217	-HA10-Q51-QA01	MSC 1 CIRCUIT BREAKER -HA10-Q51-QA01 CB INTERLOCK ENABLE	STAT	+	0	00:00:00
823	05/07/25	06:02:10.309 AM	102345	-HA10-Q52-QA01	MSC 2 CIRCUIT BREAKER -HA10-Q52-QA01 CB INTERLOCK ENABLE	STAT	+	0	00:00:00
824	05/07/25	06:02:10.316 AM	105276	-AF01-KF01/2-D03	NPS AT HV GREATER THAN 1.5% FOR MORE THAN 1 MINUTES	WRN	+	100001	00:00:00
825	05/07/25	06:02:12.880 AM	102161	-RB10-RB51-BU01	MSC 1 SYNC DATA ERROR	ALARM	+	100051	00:00:00

OFF Sequence initiated for VSC-1 & VSC-2

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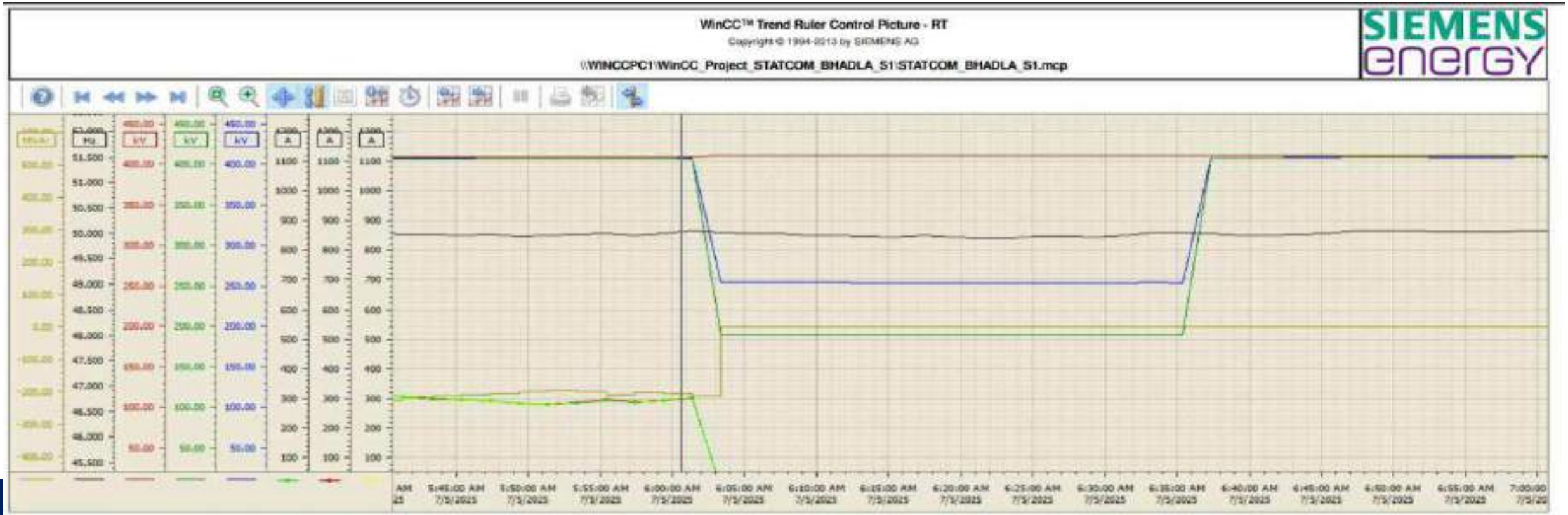
SIEMENS energy

	Date	Time	Number	Device	WinCC Message text	Class	Status	PCT_GRP	Duration
826	05/07/25	06:02:12.836 AM	100051	-AF01-KF01/2-D01	GROUP MESSAGE: MSC 1 FAULT	ALARM	+	100051	00:00:00
827	05/07/25	06:02:12.881 AM	102164	-RB10-RB51-BU01	MSC 1 PSD VOLTAGE SENSOR ERROR	ALARM	+	100051	00:00:00
828	05/07/25	06:02:12.934 AM	102289	-RB10-RB52-BU01	MSC 2 SYNC DATA ERROR	ALARM	+	100054	00:00:00
829	05/07/25	06:02:12.934 AM	100054	-AF01-KF01/2-D01	GROUP MESSAGE: MSC 2 FAULT	ALARM	+	100054	00:00:00
830	05/07/25	06:02:12.935 AM	102292	-RB10-RB52-BU01	MSC 2 PSD VOLTAGE SENSOR ERROR	ALARM	+	100054	00:00:00
831	05/07/25	06:02:13.021 AM	102033	-RB10-RB41-BU01	MSR 1 SYNC DATA ERROR	ALARM	+	100093	00:00:00
832	05/07/25	06:02:13.021 AM	100093	-AF01-KF01/2-D01	GROUP MESSAGE: MSR 1 PROTECTION FAULT	ALARM	+	100093	00:00:00
833	05/07/25	06:02:13.022 AM	102036	-RB10-RB41-BU01	MSR 1 PSD VOLTAGE SENSOR ERROR	ALARM	+	100093	00:00:00
834	05/07/25	06:02:14.142 AM	108033	-AF01-KF01/2-D03	VSC 1: AUTOMATIC OFF SEQUENCE AFTER EXTENDED CONVERTER BLOCKING	WRN	+	100001	00:00:00
835	05/07/25	06:02:14.142 AM	108065	-AF01-KF01/2-D03	VSC 2: AUTOMATIC OFF SEQUENCE AFTER EXTENDED CONVERTER BLOCKING	WRN	+	100001	00:00:00
836	05/07/25	06:02:14.146 AM	108046	-AF01-KF01/2-D03	VSC 1: STATUS DEBLOCK FROM PLUSCONTROL NOT ACTIVE	STAT	+	0	00:00:00
837	05/07/25	06:02:14.146 AM	108047	-AF01-KF01/2-D03	VSC 1: CCS MMS OPERATIONAL	STAT	-	0	06:29:21
838	05/07/25	06:02:14.146 AM	108053	-AF01-KF01/2-D03	VSC 1: BLOCK REQUEST	WRN	+	100001	00:00:00
839	05/07/25	06:02:14.146 AM	108078	-AF01-KF01/2-D03	VSC 2: STATUS DEBLOCK FROM PLUSCONTROL NOT ACTIVE	STAT	+	0	00:00:00
840	05/07/25	06:02:14.146 AM	108079	-AF01-KF01/2-D03	VSC 2: CCS MMS OPERATIONAL	STAT	-	0	06:29:01
841	05/07/25	06:02:14.146 AM	108085	-AF01-KF01/2-D03	VSC 2: BLOCK REQUEST	WRN	+	100001	00:00:00
842	05/07/25	06:02:14.151 AM	114688	-AF01-KF01/2	MMS: EXTERNAL CONVERTER BLOCK SYSTEM2	WRN	+	100061	00:00:00
843	05/07/25	06:02:14.151 AM	114689	-AF01-KF01/2	MMS: EXTERNAL CONVERTER BLOCK SYSTEM1	WRN	+	100061	00:00:00
844	05/07/25	06:02:14.152 AM	214688	-AF01-KF01/2	MMS: EXTERNAL CONVERTER BLOCK SYSTEM2	WRN	+	200061	00:00:00
845	05/07/25	06:02:14.152 AM	214689	-AF01-KF01/2	MMS: EXTERNAL CONVERTER BLOCK SYSTEM1	WRN	+	200061	00:00:00
846	05/07/25	06:02:14.156 AM	214329	-AF01-KF01/2	CCS: EXTERNAL CONVERTER BLOCK SYSTEM1	WRN	+	200061	00:00:00
847	05/07/25	06:02:14.158 AM	214328	-AF01-KF01/2	CCS: EXTERNAL CONVERTER BLOCK SYSTEM2	WRN	+	200061	00:00:00
848	05/07/25	06:02:14.159 AM	200061	-AF01-KF01/2-VSC 2	GROUP MESSAGE: VSC WARNING	WRN	+	200061	00:00:00
849	05/07/25	06:02:14.160 AM	114329	-AF01-KF01/2	CCS: EXTERNAL CONVERTER BLOCK SYSTEM1	WRN	+	100061	00:00:00
850	05/07/25	06:02:14.160 AM	114328	-AF01-KF01/2	CCS: EXTERNAL CONVERTER BLOCK SYSTEM2	WRN	+	100061	00:00:00
851	05/07/25	06:02:14.160 AM	100061	-AF01-KF01/2-VSC 1	GROUP MESSAGE: VSC WARNING	WRN	+	100061	00:00:00
852	05/07/25	06:02:14.209 AM	104678	-AF01-KF01/2-D01	VSC 2 AUTOMATIC OFF REQUEST FROM CLC	STAT	+	0	00:00:00
853	05/07/25	06:02:14.209 AM	105044	-AF01-KF01/2-VSC 1	AUTOMATIC OFF REQUEST FROM CLC	STAT	+	0	00:00:00
854	05/07/25	06:02:15.265 AM	104666	-AF01-KF01/2-D01	VSC 2 SEQUENCE RUNNING	STAT	+	0	00:00:00
855	05/07/25	06:02:15.265 AM	105034	-AF01-KF01/2-VSC 1	VSC 1 SEQUENCE RUNNING	STAT	+	0	00:00:00
856	05/07/25	06:02:15.297 AM	104670	-AF01-KF01/2-D01	VSC 2 STATUS OF OPERATION ON	STAT	-	0	06:29:11
857	05/07/25	06:02:15.553 AM	102217	-HA10-Q51-QA01	MSC 1 CIRCUIT BREAKER -HA10-Q51-QA01 CB: INTERLOCK ENABLE	STAT	-	0	00:00:05
858	05/07/25	06:02:15.553 AM	102345	-HA10-Q52-QA01	MSC 2 CIRCUIT BREAKER -HA10-Q52-QA01 CB: INTERLOCK ENABLE	STAT	-	0	00:00:05

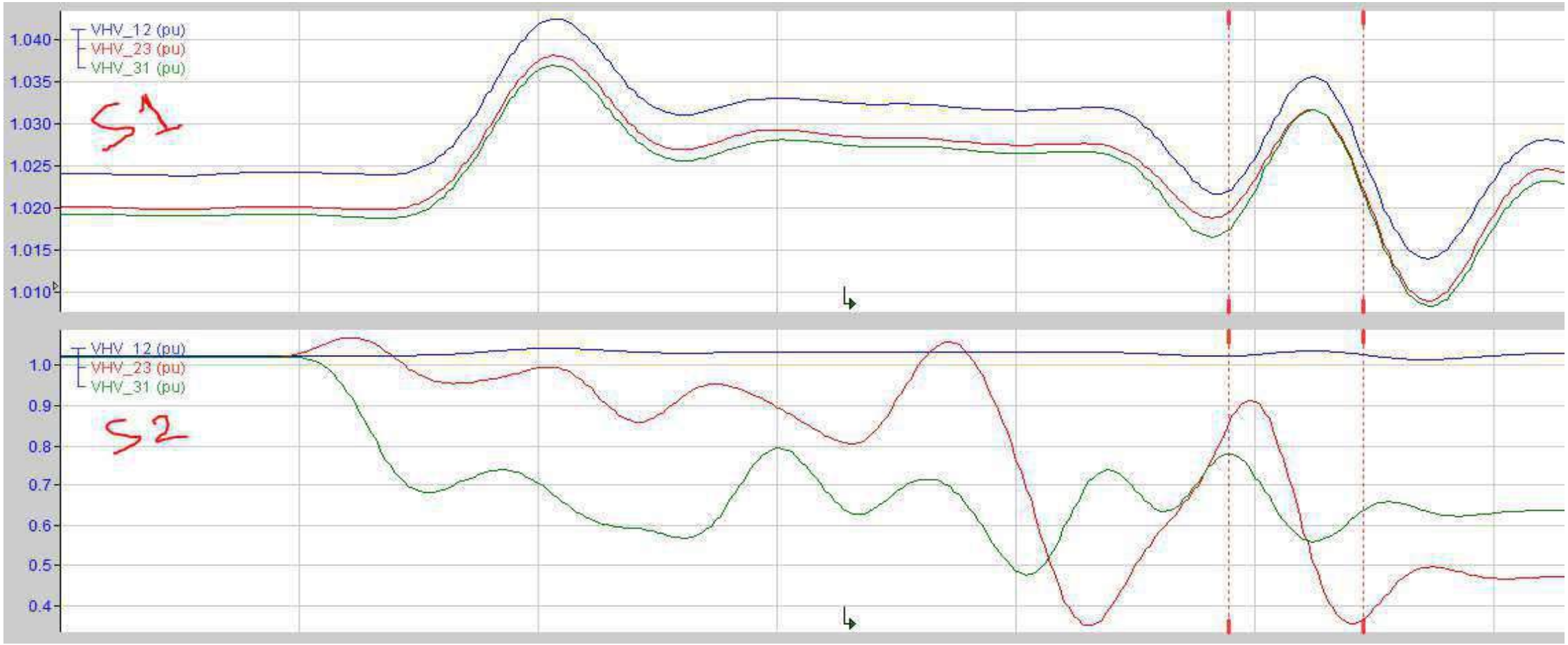
Analysis:

VSC-1 and VSC-2 of STATCOM-1 went off-sequence at 06:02 hrs due to Negative Phase Sequence Protection. The voltages read by the controller at that time were: VHV-RY: 410.9 V, VHV-YB: 189.2 V, and VHV-BR: 253.8 V.
However, the voltage at the IVT JB, BCU were normal in all three phases at 06:20 hrs. Despite this, the controller continued to read abnormal voltages until 06:35 hrs. At 06:37 hrs, the voltages returned to normal in SCADA.



Analysis:

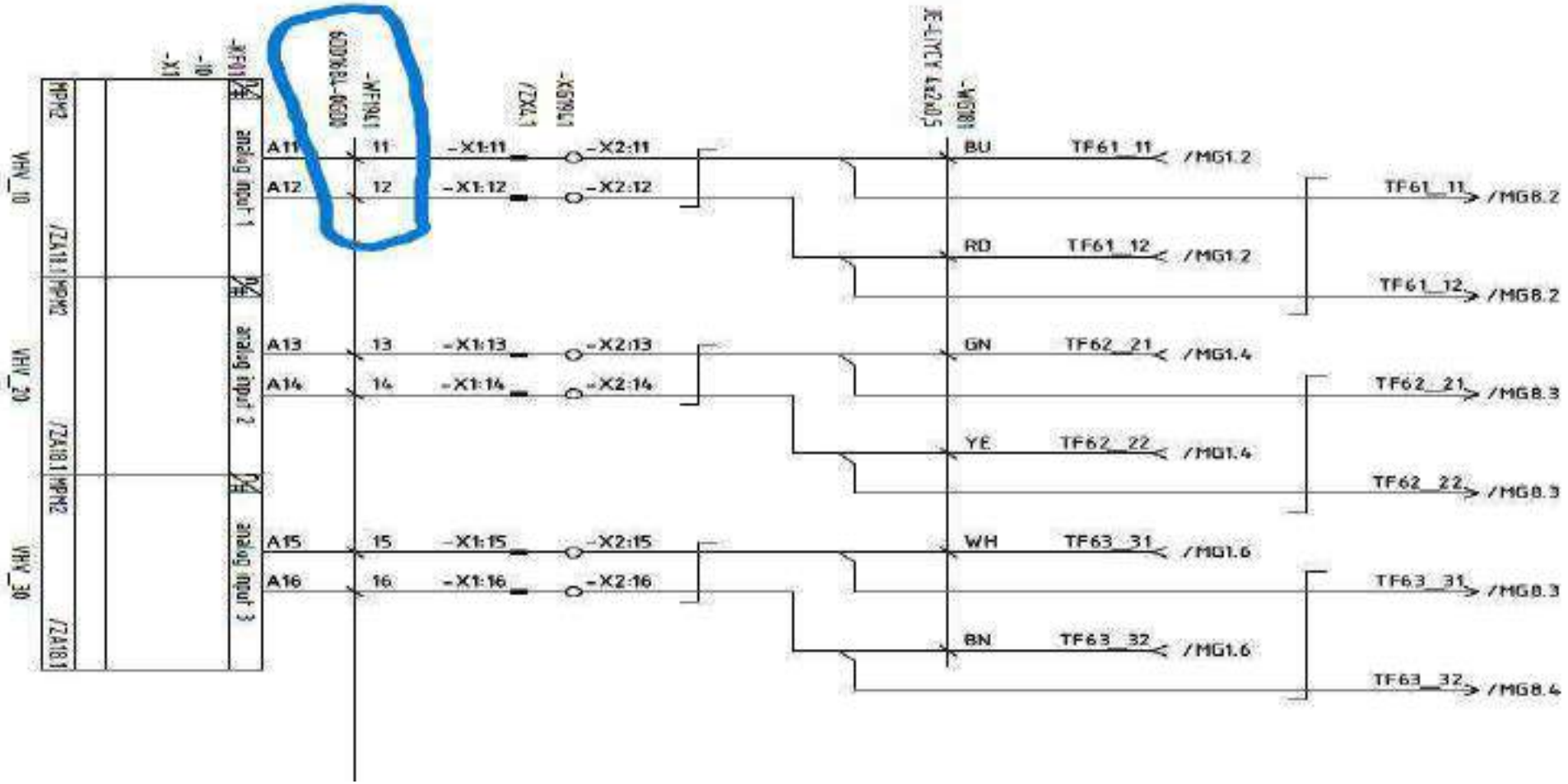
At 06:02 hrs, TDC Controller System-2 was active, while System-1 was passive. Upon analysis, it was found that the VHV voltage inputs in System-2 were disturbed (refer to the screenshot below).



Analysis:

VHV Input circuit has been checked and no loose connections observed.

Further, VHV measurement are connected to Controller through SU13 (-XG1941) Module. Hence, this module were suspected. Due to mal operation of this module VHV measurement were not properly recorded by System-2.



Corrective Action

- SU13 (-XG1941) Module in Overall Control panel, replaced with the available spare.
- Voltage at IVT JB, BCU & Controller Input Card were checked and found was normal in all three phases.
- VSC-1 & VSC-2 of STATCOM-1 energized at 14:49 Hrs.

Annexure-18

हिसार में चंडीगढ़ हाईवे पर तेल टैंकर पलटा: टायर फटने से हादसा, ड्राइवर और क्लीनर ने कूदकर बचाई अपनी जान

उकलाना | 21/08/25

शेयर

हिसार-चंडीगढ़ नेशनल हाईवे पर तेल टैंकर में धधकती आग के दृश्य।

हिसार जिले में चंडीगढ़ नेशनल हाईवे पर वीरवार शाम उस समय हड़कंप मच गया, जब सुरेवाला मोड़ के पास जाजन वाला गांव के समीप एक तेल से भरा टैंकर अचानक टायर फटने के बाद असंतुलित होकर पलट गया और देखते ही देखते उसमें भीषण आग लग गई। सड़क के बीच उठते आग के गोले और धुएं के गुबार दूर-दूर तक दिखाई देने लगे।

हादसा इतना भयंकर था कि कुछ ही देर में टैंकर पूरी तरह आग की लपटों में घिर गया। हालांकि गनीमत रही कि ड्राइवर

2:44
◄ WA Business

हादसा इतना भयंकर था कि कुछ ही देर में टैंकर पूरी तरह आग की लपटों में घिर गया। हालांकि गनीमत रही कि ड्राइवर और क्लीनर ने समय रहते कूदकर अपनी जान बचा ली, जिससे बड़ा हादसा टल गया।

शेयर

आग पर काबू पाते फायर ब्रिगेड कर्मी व मौजूद भीड़।

टैंकर में तेल भरा होने से फैली आग

जानकारी के अनुसार टैंकर हिसार की ओर से नरवाना की तरफ जा रहा था। जाजनवाला गांव के पास हंसावाला माइनर के निकट अचानक उसका टायर फट गया। तेज आवाज के साथ टैंकर बेकाबू होकर पलट गया और पलटते ही उसमें आग भड़क उठी। टैंकर में तेल भरा होने के कारण आग तेजी से फैल गई और पूरा टैंकर धू-धू करके जलने लगा। कुछ ही पलों में हाईवे पर अफरा-तफरी का माहौल बन गया।

2:44
◄ WA Business
56

घंटों तक यातायात रहा बाधित

सूचना मिलते ही उकलाना, बरवाला और नरवाना से फायर ब्रिगेड की कई गाड़ियां मौके पर पहुंची। कड़ी मशक्कत के बाद आग पर काबू पाया जा सका, लेकिन तब तक लाखों रुपए मूल्य का तेल टैंकर पूरी तरह जलकर राख हो चुका था। इस हादसे के कारण हिसार-चंडीगढ़ हाईवे पर घंटों तक यातायात बाधित रहा और वाहनों की लंबी कतारें लग गईं।

मौके पर मौजूद लोगों ने बताया कि हादसे में किसी प्रकार की जनहानि नहीं हुई है। यदि आग लगने के समय टैंकर किसी अन्य वाहन से टकरा जाता तो स्थिति बेहद भयावह हो सकती थी।

खबरें और भी हैं...

हिसार में युवक की हत्या करने वाला गिरफ्तार: मोबाइल चोरी के शक में हाथ बांधे, सिर में चोट मारी; शव रेलवे ट्रैक पर फेंका

हिसार › शेयर

हरियाणा में बनेगा स्टेट इंटरप्रेन्योरशिप कमीशन: CM का हिसार में ऐलान; बोले-स्टार्टअप 5 करोड़ रुपए का टर्नओवर कर रहे; 1 करोड़ का प्राइज देंगे

हरियाणा › शेयर

पुलिस चौकी दनौदा

थाना सदर नरवाना

क्र. सं.	सूचना देने वाले का नाम	पता	समय	सूचना का सार
20	HC सुनील No 2	आयुध निर्माणी का पब्लिसिटी कार्यालय हिसार व स्थानीय पुलिस का अधिकारी एवं OCR का परिवादी		समय 9:40 PM दर्ज हुई कि मुख्य निर्माण प्रबंधक नेशनल फर्टिलाइजर कारपोरेशन लिमिटेड इंडिया लिमिटेड हिसार से हापिर ट्रांसपोर्ट ऑफिस दनौदा की ई रिक्शा संख्या HR-16-AL-1554 जो कि चालक सुनील कुमार पुत्र चंदगी राम निवासी गांव दनौदा तहसील नरवाना जिला जींद द्वारा चलाई जा रही थी जो कि दिनांक 31-3-2025 को समय करीब 1 बजे दोपहर को ई रिक्शा संख्या 554, 555, 556 के यात्रियों को लेकर दनौदा से नरवाना की ओर आ रही थी जो कि ग्राम दनौदा के पास पहुंचे तो सामने से एक ट्रक जो कि अज्ञात था उसके चालक द्वारा अपने ट्रक को तेज लापरवाही व उतावलेपन से चलाते हुए ई रिक्शा को टक्कर मारी जिससे ई रिक्शा में सवार यात्रियों को चोटें आई जिनको राष्ट्रीय राजमार्ग पर तेज चल रहे यातायात के कारण ई रिक्शा को साइड में लगाने में दिक्कत आई जिसके कारण ई रिक्शा पलट गया जिसमें सवार 6 यात्रियों को चोटें आई जिनको उपचार हेतु सामुदायिक स्वास्थ्य केंद्र नरवाना में लाया गया जहां पर डॉक्टर द्वारा उनका उपचार किया जा रहा है जिसके बारे में उचित कार्यवाही करने बारे मुख्य निर्माण प्रबंधक नेशनल फर्टिलाइजर कारपोरेशन लिमिटेड इंडिया लिमिटेड हिसार से मौखिक सूचना प्राप्त हुई व मौके पर जाने का आदेश सादर अनुरोध है कि मुकदमा दर्ज करके उचित कार्यवाही की जाए।
				Sd-DGM 9971399077 9:39 PM दिनांक 31-3-2025 को मुख्य HC सुप CT सुनील 774 हाल पुलिस चौकी दनौदा से सरकारी गाड़ी सरकारी चालक CT सतीश 1132 से बताये दस्तखत हमारे परिवादी की हाजरी में लेकर नरवाना मौका वारदात हिसार रोड दनौदा का होना पाये गये

True Copy

HC
P.P. Dandoliya
31-3-2025

पुलिस चौकी दनौदा HR जिला जींद

पुलिस चौकी रनोदा

थाना सदर नरवाना

क्र. सं.	सूचना देने वाले का नाम	पता	सूचना का सार
2	HC सुरेन्द्र 102	वादिया ड्यूटी पर तैनात PCR	समय 3:30 PM दिनांक 21/8/25 को HC सुरेन्द्र 102 द्वारा थाना सदर नरवाना को सूचना दी गई कि वह वादिया ड्यूटी पर तैनात PCR के साथ मौजूद था। लगभग 3:00 PM पर वादिया से लेकर रनोदा तक सड़क पर भारी जाम लगा हुआ था। जाम के कारण एम्बुलेंस को रनोदा पहुंचने में लगभग 30 मिनट की देरी हुई। जाम खुलने के बाद एम्बुलेंस रनोदा पहुंची।

True Copy

MHC
B.B. Danodia
Dt 22.8.2025

पुलिस चौकी रनोदा HR जिला जींद

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सिर्फ खबर पढ़ें

जींद में टला बड़ा हादसा, अनियंत्रित तेल टैंकर पलटने से लगी आग; हाईटेंशन तार टूटकर सड़कों पर गिरा

जींद के नरवाना में हिसार-अंबाला हाईवे पर एक तेल टैंकर अनियंत्रित होकर पलट गया जिससे उसमें आग लग गई। घटना जाजनवाला और दनौदा गांव के बीच हुई। पुलिस और दमकल विभाग ने मौके पर पहुंचकर आग पर काबू पाया। टैंकर के ऊपर से गुजर रही हाइटेंशन लाइन भी टूट गई लेकिन कोई बड़ा हादसा नहीं हुआ। टैंकर पलटने से मार्ग अवरुद्ध हो गया था जिसे बाद में खुलवा दिया गया।

BY
DHARMBIR SHARMA
EDITED BY:
NITISH KUMAR KUSHWAHA
UPDATED:
THU, 21 AUG 2025 08:34 PM (IST)

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सिर्फ खबर पढ़ें

खबरें और भी

अनियंत्रित होकर पलट गया। टैंकर के पलटने के साथ ही उसमें आग लग गई। आग लगने के बाद काले धुएं का गुबार उठ गया।

आग लगने के बाद पुलिस मौके पर पहुंची और स्थिति का जायजा लिया। फायर ब्रिगेड की गाड़ियों को बुलाकर आग पर काबू पाया गया। बताया जा रहा है कि हिसार से अंबाला पेट्रोल से भरा तेल टैंकर जा रहा था, तो वह गांव जाजनवाला व दनौदा के बीच में अंनियंत्रित होकर हाईवे पर पलट गया।

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पहले भाई को भेजा मैसेज, फिर जहर निगलकर कर ली आत्महत्या; हिसार के युवक पर लगा गंभीर आरोप
HARYANA

Jind News: नहर में नहाते समय बहा तैराकी कोच, तलाश जारी; गोताखोर बुलाकर चलाया सर्च अभियान
HARYANA

महाराणा प्रताप हॉर्टिकल्चर यूनिवर्सिटी में 25 को होगी पहली काउंसलिंग, वेबसाइट से ले सकते हैं पूरी जानकारी
HARYANA

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सिर्फ खबर पढ़ें

सिर्फ खबर पढ़ें

इसी बीच टैंकर का चालक उससे बाहर निकल गया। टैंकर के पलटने के साथ ही उसमें आग लग गई। जहां वह टैंकर पलटा, उसके ऊपर से हाइटेंशन लाइन गुजर रही थी। ऊपर उठती हुई लपटों के कारण तार पिघलकर टूट गया।

गनीमत यह रही कि जहां तार टूटा, वहां कोई वाहन नहीं खड़ा था, नहीं तो कोई बड़ा हादसा हो सकता था। तेल टैंकर सड़क के बीच में पलटने से मार्ग अवरूद्ध हो गया। मार्ग अवरूद्ध होने से वाहनों को जाजनवाला से सैंथली होते हुए गांव दनौदा निकाला गया।

वहीं, फायर ब्रिगेड की गाड़ियों ने मौके पर पहुंचकर आग पर काबू पा लिया और जलते टैंकर को क्रेन की मदद से एक तरफ कर दिया गया। जिसके बाद यातायात सुचारू हो सका।

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Gx85+rj8, Kaithal - Hisar Rd, Haryana 126152, भारत, Jind, Haryana 126152, भारत
Lat 29.517205° Long 75.959896°
21/08/2025 06:45 PM GMT +05:30
Google

GPS Map Camera
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Gx85+rj8, Kaithal - Hisar Rd, Haryana 126152, भारत, Jind, Haryana 126152, भारत
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HARYANA FIRE EMERGENCY SERVICE
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Annexure-19

	CODE	EVENT NO.	ELEMENT NAME	OUTAGE	RESTORATION	DURATION OF OUTAGE ATTRIBUTABLE TO				Classification/ Category Code	SITE REMARKS	REASON OF OUTAGE
				DATE TIME	DATE TIME	POWER GRID	OTHERS	System constraint/ Natural calamity/ Militancy	Deemed Available			
						@ (T)	# (U)	& (C)	* (D)			
						Hrs:Min	Hrs:Min	Hrs:Min	Hrs:Min			
A	**Commissioning of ICT-8 (FTC – 29.03.2025)**											
1	N1PBTSLICT3	TBCB10225124	400/220 KV 500 MVA ICT III AT BIKANER_2	14/02/25 18:01	15/02/25 01:17	00:00	00:00	00:00	07:16	SCSD	As Tie Bays of 400kV ICT-III & IV were not commissioned, **S/D of 400kV ICT-III & IV was required during the S/D 400kV Bus-2** during **ICT-8 bay extension** work.	Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT4	TBCB10225125	400/220 KV 500 MVA ICT IV AT BIKANER_2	14/02/25 18:03	15/02/25 01:18	00:00	00:00	00:00	07:15	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
B	**Bus Bar Relay Retrofitting of Bay-216 & 218 for Bay-212 commissioning(212 FTC-04.09.2025)**											
1	N1PBTSLICT6	TBCB10225165	400/220 KV 500 MVA ICT VI AT BIKANER_2	19/02/25 19:38	20/02/25 03:33	00:00	00:00	00:00	07:55	SCSD	Initially line **bay-216 & 218 (of Sec-B)** were charged with Siemens Bus Bar relay & integrated with siemens MCU in 220kv section-A. During this time 220kV Bus Sectionalizer-2 (Bay-212) was bypassed & Bay-216 & 218 were connected to 220kV Bus-2. During the current availed s/d, **retrofitting of Simens bus bar to GE bus bar relay** & integration with GE MCU in 220kV Section-B done as per original CRP scheme. For this Bus bar testing with 220kV Bus-3 was required. 400kV ICT-VI & VII are connected to 220kV Bus-3 only in IV side due to non readyness of 220kV Bus sectionalizer-2(Bay-212). **Hence during 220kV Bus-3 S/D , S/D of 400kV ICT-VI & VII are required**. Without this retrofitting work commissioning of 220kV Bus Sectionalizer-2 (Bay-212) was not possible.	Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT6	TBCB10225177	400/220 KV 500 MVA ICT VI AT BIKANER_2	20/02/25 20:19	21/02/25 06:06	00:00	00:00	00:00	09:47	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT6	TBCB10225188	400/220 KV 500 MVA ICT VI AT BIKANER_2	21/02/25 18:59	22/02/25 00:03	00:00	00:00	00:00	05:04	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT7	TBCB10225166	400/220 KV 500 MVA ICT VII AT BIKANER_2	19/02/25 19:39	20/02/25 03:34	00:00	00:00	00:00	07:55	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT7	TBCB10225178	400/220 KV 500 MVA ICT VII AT BIKANER_2	20/02/25 20:20	21/02/25 06:07	00:00	00:00	00:00	09:47	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT7	TBCB10225189	400/220 KV 500 MVA ICT VII AT BIKANER_2	21/02/25 19:00	22/02/25 00:23	00:00	00:00	00:00	05:23	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
C	**Commissioning of ICT-8 (FTC – 29.03.2025)**											
1	N1PBTSLICT3	TBCB103225095	400/220 KV 500 MVA ICT III AT BIKANER_2	11/03/25 18:27	12/03/25 07:17	00:00	00:00	00:00	12:50	SCSD	As Tie Bays of 400kV ICT-III & IV were not commissioned, **S/D of 400kV ICT-III & IV was required during the S/D 400kV Bus-2** during **ICT-8 bay extension** work.	Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT3	TBCB103225149	400/220 KV 500 MVA ICT III AT BIKANER_2	17/03/25 18:38	18/03/25 06:49	00:00	00:00	00:00	12:11	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT3	TBCB103225186	400/220 KV 500 MVA ICT III AT BIKANER_2	21/03/25 20:51	22/03/25 02:28	00:00	00:00	00:00	05:37	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT3	TBCB103225216	400/220 KV 500 MVA ICT III AT BIKANER_2	24/03/25 19:30	25/03/25 02:20	00:00	00:00	00:00	06:50	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT3	TBCB103225227	400/220 KV 500 MVA ICT III AT BIKANER_2	25/03/25 19:03	26/03/25 06:55	00:00	00:00	00:00	11:52	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT4	TBCB103225096	400/220 KV 500 MVA ICT IV AT BIKANER_2	11/03/25 18:44	12/03/25 07:20	00:00	00:00	00:00	12:36	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT4	TBCB103225150	400/220 KV 500 MVA ICT IV AT BIKANER_2	17/03/25 18:38	18/03/25 06:50	00:00	00:00	00:00	12:12	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT4	TBCB103225187	400/220 KV 500 MVA ICT IV AT BIKANER_2	21/03/25 20:52	22/03/25 02:33	00:00	00:00	00:00	05:41	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT4	TBCB103225217	400/220 KV 500 MVA ICT IV AT BIKANER_2	24/03/25 19:31	25/03/25 02:22	00:00	00:00	00:00	06:51	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT4	TBCB103225228	400/220 KV 500 MVA ICT IV AT BIKANER_2	25/03/25 19:05	26/03/25 06:55	00:00	00:00	00:00	11:50	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
2	N1PBTSLICT6	TBCB103225063	400/220 KV 500 MVA ICT VI AT BIKANER_2	07/03/25 19:27	08/03/25 05:55	00:00	00:00	00:00	10:28	SCSD	Due to non readyness of Bay-212, 220kV Bus Sectionalizer-2 (Bay-212) is bypassed. Accordingly, 400kV ICT-VI & VII are connected to 220kV Bus-3 only in 220kV side due to non readyness of 220kV Bus sectionalizer-2(Bay-212). Hence **during 220kV Bus-3 S/D (For ICT-8 commissioning work) , S/D of 400kV ICT-VI & VII are required**.	Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT7	TBCB103225062	400/220 KV 500 MVA ICT VII AT BIKANER_2	07/03/25 19:25	08/03/25 05:56	00:00	00:00	00:00	10:31	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
D	**Foreign Material Removal**											

	CODE	EVENT NO.	ELEMENT NAME	OUTAGE	RESTORATION	DURATION OF OUTAGE ATTRIBUTABLE TO				Classification/ Category Code	SITE REMARKS	REASON OF OUTAGE
				DATE TIME	DATE TIME	POWER GRID	OTHERS	System constraint/ Natural calamity/ Militancy	Deemed Available			
						@ (T)	# (U)	& (C)	* (D)			
						Hrs:Min	Hrs:Min	Hrs:Min	Hrs:Min			
1	N1PBTSLICT3	TBCB103225159	400/220 KV 500 MVA ICT III AT BIKANER_2	18/03/25 18:41	18/03/25 19:29	00:00	00:00	00:00	00:48	SCSD	**S/D of 220kV Bus-2** was taken for **removal of foreign material** in 89B isloator of Bay-202. 400kV ICT-3 & 4 are connected with 220kV Bus-2 only with 89B isolator (via Bay-217 & 215) & reporting to siemens Bus Bar MCU in 220k Bus Section-A by bypassing 220kV Bus Sectionalizer-2(Bay-212). 220kV Bus-3 is being protected with GE Bus Bar. Hence transfer of Bay-215 & 217 to 220kV Bus-3 via 89A isolator is not possible untill retrofitting of Siemens Bus Bar to GE Bus bar done. Hence during S/D of 220kV Bus-2, S/D of 400kV ICT-3 & 4 also required.	Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
	N1PBTSLICT4	TBCB103225160	400/220 KV 500 MVA ICT IV AT BIKANER_2	18/03/25 18:41	18/03/25 19:29	00:00	00:00	00:00	00:48	SCSD		Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
E	**Bay-210 89A ISO (of ICT-5) Alignment Work**											
1	N1PBTSLICT5	TBCB103225053	400/220 KV 500 MVA ICT V AT BIKANER_2	06/03/25 19:22	07/03/25 05:00	00:00	00:00	00:00	09:38	SCSD	89A isolator alignment issue was pending in ICT-V 220kV side bay-210 during commissioing due to non availability of OEM engineer. Hence s/d of 400kV ICT-V along with 220kV Bus-1 was availaed under ICT-5 bay extension work.	Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.
F	**Commissioning of TBC-205 (205 FTC-09.07.2025)**											
1	N1PBTSLICT1	TBCB10625171	400/220 KV 500 MVA ICT 1 AT BIKANER_2	23/06/25 20:25	24/06/25 00:39	00:00	00:00	00:00	04:14	SCSD	S/D of 400kV ICT-1(Bay-415/414/209) was taken for carry out **primary stability of Bay-209 with TBC bay-205 via 220kV Bus-1** for commissioning of TBC Bay-205 at Bikaner-2 SS.	Shutdown for Bay extension work at Bikaner 2. Shutdown taken for upcoming TBC Bay commissioning work. Approved in CTU office memorendum dated 16.11.2021on point no 01 on page 01. Copy attached.
2	N1PBTSLICT3	TBCB10625143	400/220 KV 500 MVA ICT III AT BIKANER_2	19/06/25 19:48	20/06/25 04:24	00:00	00:00	00:00	08:36	SCSD	**S/D of 220kV Bus-2** was taken for carry out **primary stability of future TBC Bay-205 with 220kV Bus-2** at Bikaner-2 SS. 400kV ICT-3 & 4 are connected with 220kV Bus-2 only with 89B isolator (via Bay-217 & 215) & reporting to siemens Bus Bar MCU in 220k Bus Section-A by bypassing 220kV Bus Sectionalizer-2(Bay-212). 220kV Bus-3 is being protected with GE Bus Bar. Hence transfer of Bay-215 & 217 to 220kV Bus-3 via 89A isolator is not possible untill retrofitting of Siemens Bus Bar to GE Bus bar done. Hence during S/D of 220kV Bus-2, S/D of 400kV ICT-3 & 4 also required.	Shutdown for Bay extension work at Bikaner 2. Shutdown taken for upcoming TBC Bay commissioning work. Approved in CTU office memorendum dated 16.11.2021on point no 01 on page 01. Copy attached.
	N1PBTSLICT3	TBCB10625152	400/220 KV 500 MVA ICT III AT BIKANER_2	20/06/25 19:20	21/06/25 00:43	00:00	00:00	00:00	05:23	SCSD		Shutdown for Bay extension work at Bikaner 2. Shutdown taken for upcoming TBC Bay commissioning work. Approved in CTU office memorendum dated 16.11.2021on point no 01 on page 01. Copy attached.
	N1PBTSLICT4	TBCB10625142	400/220 KV 500 MVA ICT IV AT BIKANER_2	19/06/25 19:47	20/06/25 04:24	00:00	00:00	00:00	08:37	SCSD		Shutdown for Bay extension work at Bikaner 2. Shutdown taken for upcoming TBC Bay commissioning work. Approved in CTU office memorendum dated 16.11.2021on point no 01 on page 01. Copy attached.
	N1PBTSLICT4	TBCB10625153	400/220 KV 500 MVA ICT IV AT BIKANER_2	20/06/25 19:20	21/06/25 00:41	00:00	00:00	00:00	05:21	SCSD		Shutdown for Bay extension work at Bikaner 2. Shutdown taken for upcoming TBC Bay commissioning work. Approved in CTU office memorendum dated 16.11.2021on point no 01 on page 01. Copy attached.
G	**Transfer Bus Stringing work (TBC 219 FTC-09.07.2025)**											
1	N1PBTSLICT3	TBCB10725147	400/220 KV 500 MVA ICT III AT BIKANER_2	21/07/25 20:02	22/07/25 05:44	00:00	00:00	00:00	09:42	SCSD	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-217 & 218 area.	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
2	N1PBTSLICT3	TBCB10725163	400/220 KV 500 MVA ICT III AT BIKANER_2	23/07/25 20:57	24/07/25 05:29	00:00	00:00	00:00	08:32	SCSD	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-215,216 & 217 area.	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT4	TBCB10725164	400/220 KV 500 MVA ICT IV AT BIKANER_2	23/07/25 21:04	24/07/25 05:27	00:00	00:00	00:00	08:23	SCSD		Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
3	N1PBTSLICT3	TBCB10725223	400/220 KV 500 MVA ICT III AT BIKANER_2	31/07/25 19:23	01/08/25 00:00	00:00	00:00	00:00	04:37	SCSD	Shutdown for Bus extension work i.e for Transfer Bus Jumpering work in Bay-215 & 217.	Shutdown for Bus extension work i.e for Transfer Bus Stringing & Jumpering work in Bay-213, 215, 216 , 217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT4	TBCB10725224	400/220 KV 500 MVA ICT IV AT BIKANER_2	31/07/25 19:34	01/08/25 00:00	00:00	00:00	00:00	04:26	SCSD		Shutdown for Bus extension work i.e for Transfer Bus Stringing & Jumpering work in Bay-213, 215, 216 , 217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
4	N1PBTSLICT4	TBCB10725181	400/220 KV 500 MVA ICT IV AT BIKANER_2	25/07/25 19:47	26/07/25 04:29	00:00	00:00	00:00	08:42	SCSD	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-213,214 & 215 area.	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
5	N1PBTSLICT6	TBCB10725129	400/220 KV 500 MVA ICT VI AT BIKANER_2	18/07/25 19:51	19/07/25 06:20	00:00	00:00	00:00	10:29	SCSD	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-221 & 222 area.	Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-221 & 222. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT7	TBCB10725130	400/220 KV 500 MVA ICT VII AT BIKANER_2	18/07/25 19:52	19/07/25 06:22	00:00	00:00	00:00	10:30	SCSD		Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-221 & 222. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
6	N1PBTSLICT3	TBCB10725223	400/220 KV 500 MVA ICT III AT BIKANER_2	01/08/25 00:00	01/08/25 02:58	00:00	00:00	00:00	02:58	SCSD	Shutdown for Bus extension work i.e for Transfer Bus Jumpering work in Bay-215 & 217.	Shutdown for Bus extension work i.e for Transfer Bus Stringing & Jumpering work in Bay-213, 215, 216 , 217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT4	TBCB10725224	400/220 KV 500 MVA ICT IV AT BIKANER_2	01/08/25 00:00	01/08/25 02:59	00:00	00:00	00:00	02:59	SCSD		Shutdown for Bus extension work i.e for Transfer Bus Stringing & Jumpering work in Bay-213, 215, 216 , 217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
H	**Bus Bar Relay Retrofitting of Bay-215 & 217 for Bay-212 commissioning(212 FTC-04.09.2025)**											

	CODE	EVENT NO.	ELEMENT NAME	OUTAGE	RESTORATION	DURATION OF OUTAGE ATTRIBUTABLE TO				Classification/ Category Code	SITE REMARKS	REASON OF OUTAGE
				DATE TIME	DATE TIME	POWER GRID	OTHERS	System constraint/ Natural calamity/ Militancy	Deemed Available			
						@ (T)	# (U)	& (C)	* (D)			
						Hrs:Min	Hrs:Min	Hrs:Min	Hrs:Min			
1	N1PBTSLICT3	TBCB10825142	400/220 KV 500 MVA ICT III AT BIKANER_2	19/08/25 20:09	20/08/25 04:43	00:00	00:00	00:00	08:34	SCSD	Initially line **bay-215 & 217 (of Sec-B)** were charged with Siemens Bus Bar relay & integrated with siemens MCU in 220kv section-A. During this time 220kV Bus Sectionalizer-2 (Bay-212) was bypassed & Bay-215 & 217 were connected to 220kV Bus-2. During the current availed s/d, retrofitting of **Simens bus bar to GE bus bar relay** & integration with GE MCU in 220kV Section-B done as per original CRP scheme. For this Bus bar testing with 220kV Bus-3 was required. 400kV ICT-VI & VII are connected to 220kV Bus-3 only in IV side due to non readyness of 220kV Bus sectionalizer-2(Bay-212). Hence **during 220kV Bus-3 S/D , S/D of 400kV ICT-VI & VII are required**. As retrofitting work was carried out in Bay-215 & 217, S/D of ICT-III & IV was also taken. Without this retrofitting work commissioning of 220kV Bus Sectionalizer-2 (Bay-212) was not possible.	Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT3	TBCB10825152	400/220 KV 500 MVA ICT III AT BIKANER_2	20/08/25 19:29	21/08/25 05:27	00:00	00:00	00:00	09:58	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT3	TBCB10825163	400/220 KV 500 MVA ICT III AT BIKANER_2	21/08/25 19:36	22/08/25 01:11	00:00	00:00	00:00	05:35	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT4	TBCB10825144	400/220 KV 500 MVA ICT IV AT BIKANER_2	19/08/25 20:12	20/08/25 04:44	00:00	00:00	00:00	08:32	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT4	TBCB10825153	400/220 KV 500 MVA ICT IV AT BIKANER_2	20/08/25 19:29	21/08/25 05:28	00:00	00:00	00:00	09:59	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT4	TBCB10825164	400/220 KV 500 MVA ICT IV AT BIKANER_2	21/08/25 19:36	22/08/25 01:01	00:00	00:00	00:00	05:25	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT6	TBCB10825143	400/220 KV 500 MVA ICT VI AT BIKANER_2	19/08/25 20:11	20/08/25 04:38	00:00	00:00	00:00	08:27	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT6	TBCB10825154	400/220 KV 500 MVA ICT VI AT BIKANER_2	20/08/25 19:31	21/08/25 05:05	00:00	00:00	00:00	09:34	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT6	TBCB10825165	400/220 KV 500 MVA ICT VI AT BIKANER_2	21/08/25 19:37	22/08/25 01:02	00:00	00:00	00:00	05:25	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT7	TBCB10825145	400/220 KV 500 MVA ICT VII AT BIKANER_2	19/08/25 20:12	20/08/25 04:39	00:00	00:00	00:00	08:27	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
	N1PBTSLICT7	TBCB10825155	400/220 KV 500 MVA ICT VII AT BIKANER_2	20/08/25 19:31	21/08/25 04:51	00:00	00:00	00:00	09:20	SCSD		Shutdown for Bay Extension Work, i.e Bus Jumpering & Bus Bar Retrofitting work in Bay-215 & 217. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached.
I	**Commissioning of Bus Coupler-220 (220 FTC-17.10.2025)**											
1	N1PBTSLICT3	TBCB10925012	400/220 KV 500 MVA ICT III AT BIKANER_2	9/2/2025 20:31	9/3/2025 5:07	00:00	00:00	00:00	08:36	SCSD	S/D for **Future Bay-220 extesion work**, i.e Bus Jumpering to Coupler Bay-220 from 220kV BUS-3. As **400kV ICT-3,4,6 & 7 were charged with 220kV Bus-3 only** (Testing was pending with 220kV Bus-4), S/D of same ICTs were taken during 220kV Bus-3 S/D.	S/D for Future Bay-220 extesion work, i.e Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT4	TBCB10925013	400/220 KV 500 MVA ICT IV AT BIKANER_2	9/2/2025 20:34	9/3/2025 5:08	00:00	00:00	00:00	08:34	SCSD		S/D for Future Bay-220 extesion work, i.e Bus Jumpering to Coupler Bay-220,. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT6	TBCB10925014	400/220 KV 500 MVA ICT VI AT BIKANER_2	9/2/2025 20:35	9/3/2025 5:09	00:00	00:00	00:00	08:34	SCSD		S/D for Future Bay-220 extension work, i.e Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT7	TBCB10925015	400/220 KV 500 MVA ICT VII AT BIKANER_2	9/2/2025 20:36	9/3/2025 5:11	00:00	00:00	00:00	08:35	SCSD		S/D for Future Bay-220 extension work, i.e Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
2	N1PBTSLICT3	TBCB10925135	400/220 KV 500 MVA ICT III AT BIKANER_2	9/15/2025 20:36	9/16/2025 4:10	00:00	00:00	00:00	07:34	SCSD	S/D for **Future Bay-220 extesion work**, i.e Bus Jumpering to Coupler Bay-220 from 220kV BUS-3. As **400kV ICT-3,4,6 & 7 were charged with 220kV Bus-3 only** (Testing was pending with 220kV Bus-4), S/D of same ICTs were taken during 220kV Bus-3 S/D.	S/D for Future Bay-220 extension work, i.e Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT4	TBCB10925136	400/220 KV 500 MVA ICT IV AT BIKANER_2	9/15/2025 20:37	9/16/2025 4:13	00:00	00:00	00:00	07:36	SCSD		Future Bay-220 extesion work, i.e Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT6	TBCB10925137	400/220 KV 500 MVA ICT VI AT BIKANER_2	9/15/2025 20:38	9/16/2025 4:15	00:00	00:00	00:00	07:37	SCSD		Future Bay-220 extesion work, i.e Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT7	TBCB10925138	400/220 KV 500 MVA ICT VII AT BIKANER_2	9/15/2025 20:39	9/16/2025 4:17	00:00	00:00	00:00	07:38	SCSD		Future Bay-220 extesion work, i.e Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
3	N1PBTSLICT3	TBCB10925272	400/220 KV 500 MVA ICT III AT BIKANER_2	9/30/2025 19:39	01/10/25 00:00	00:00	00:00	00:00	04:21	SCSD	S/D for **Future Bay-220 extesion work**, i.e Bus Bar Testing work in Coupler Bay-220 with 220kV BUS-3. As **400kV ICT-3,4,6 & 7 were charged with 220kV Bus-3 only** (Testing was pending with 220kV Bus-4), S/D of same ICTs were taken during 220kV Bus-3 S/D.	Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT4	TBCB10925273	400/220 KV 500 MVA ICT IV AT BIKANER_2	9/30/2025 19:41	01/10/25 00:00	00:00	00:00	00:00	04:19	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT6	TBCB10925274	400/220 KV 500 MVA ICT VI AT BIKANER_2	9/30/2025 19:44	01/10/25 00:00	00:00	00:00	00:00	04:16	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.
	N1PBTSLICT7	TBCB10925275	400/220 KV 500 MVA ICT VII AT BIKANER_2	9/30/2025 19:46	01/10/25 00:00	00:00	00:00	00:00	04:14	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Apprvoed in CTUIL OM dated 25.08.2022 on MOM item no 3(2) on page 04. Approval copy attached.

	CODE	EVENT NO.	ELEMENT NAME	OUTAGE	RESTORATION	DURATION OF OUTAGE ATTRIBUTABLE TO				Classification/ Category Code	SITE REMARKS	REASON OF OUTAGE
				DATE TIME	DATE TIME	POWER GRID	OTHERS	System constraint/ Natural calamity/ Militancy	Deemed Available			
						@ (T)	# (U)	& (C)	* (D)			
						Hrs:Min	Hrs:Min	Hrs:Min	Hrs:Min			
4	N1PBTSLICT3	TBCB10925272	400/220 KV 500 MVA ICT III AT BIKANER_2	01/10/25 00:00	01/10/25 03:38	00:00	00:00	00:00	03:38	SCSD	S/D for **Future Bay-220 extesion work**, i.e Bus Bar Relay Testing work in Coupler Bay-220 with 220kV BUS-3. As **400kV ICT-3,4,6 & 7 were charged with 220kV Bus-3 only** (Testing was pending with 220kV Bus-4), S/D of same ICTs were taken during 220kV Bus-3 S/D.	Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT4	TBCB10925273	400/220 KV 500 MVA ICT IV AT BIKANER_2	01/10/25 00:00	01/10/25 03:38	00:00	00:00	00:00	03:38	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT6	TBCB10925274	400/220 KV 500 MVA ICT VI AT BIKANER_2	01/10/25 00:00	01/10/25 03:40	00:00	00:00	00:00	03:40	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT7	TBCB10925275	400/220 KV 500 MVA ICT VII AT BIKANER_2	01/10/25 00:00	01/10/25 03:44	00:00	00:00	00:00	03:44	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
5	N1PBTSLICT3	TBCB11025007	400/220 KV 500 MVA ICT III AT BIKANER_2	10/1/2025 19:31	02/10/25 00:28	00:00	00:00	00:00	04:57	SCSD	S/D for **Future Bay-220 extesion work**, i.e Bus Bar Relay Testing work in Coupler Bay-220 with 220kV BUS-3. As **400kV ICT-3,4,6 & 7 were charged with 220kV Bus-3 only** (Testing was pending with 220kV Bus-4), S/D of same ICTs were taken during 220kV Bus-3 S/D.	Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT4	TBCB11025008	400/220 KV 500 MVA ICT IV AT BIKANER_2	10/1/2025 19:35	02/10/25 00:28	00:00	00:00	00:00	04:53	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT6	TBCB11025010	400/220 KV 500 MVA ICT VI AT BIKANER_2	10/1/2025 19:43	02/10/25 00:28	00:00	00:00	00:00	04:45	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT7	TBCB11025009	400/220 KV 500 MVA ICT VII AT BIKANER_2	10/1/2025 19:42	02/10/25 00:28	00:00	00:00	00:00	04:46	SCSD		Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220. Approved in CTUIL OM dated 25.08.2022 on MOM item no. 3(2) on page 04. Approval copy attached.
J	**Commissioning of 400kV Bus Sectionalizer-2 Bay-429 (429 FTC-21.01.2026)**											
1	N1PBTSLICT3	TBCB10925174	400/220 KV 500 MVA ICT III AT BIKANER_2	9/18/2025 21:46	9/19/2025 5:20	00:00	00:00	00:00	07:34	SCSD	**Shutdown of 400kV Bus-2** was required for Equipment erection of **future 400kV Bus sectionalizer-2 Bay-429** as Bay-429 falls under induction area of 400kV Bus-2. As Tie Bays of 400kV ICT-III & IV were not commissioned, **S/D of 400kV ICT-III & IV was required during the S/D 400kV Bus-2** during Bay-429 extension work	Shutdown for Equipment erection of future 400kV Bus sectionalizer-2 Bay-429. Approved vide CTU OM dated 26.10.2023 vide MOM item no 07 on page 07. Approval copy attached.
	N1PBTSLICT4	TBCB10925175	400/220 KV 500 MVA ICT IV AT BIKANER_2	9/18/2025 21:48	9/19/2025 5:22	00:00	00:00	00:00	07:34	SCSD		S/D for Equipment erection of future 400kV Bus sectionalizer-2 Bay-429. Approved vide CTU OM dated 26.10.2023 vide MOM item no 07 on page 07. Approval copy attached.
2	N1PBTSLICT3	TBCB10925219	400/220 KV 500 MVA ICT III AT BIKANER_2	9/23/2025 17:50	9/24/2025 2:32	00:00	00:00	00:00	08:42	SCSD	**Shutdown of 400kV Bus-2** was required for Equipment erection of **future 400kV Bus sectionalizer-2 Bay-429** as Bay-429 falls under induction area of 400kV Bus-2. As Tie Bays of 400kV ICT-III & IV were not commissioned, **S/D of 400kV ICT-III & IV was required during the S/D 400kV Bus-2** during Bay-429 extension work	Shutdown for Equipment erection of future 400kV Bus sectionalizer-2 Bay-429. Approved vide CTU OM dated 26.10.2023 vide MOM item no 07 on page 07. Approval copy attached.
	N1PBTSLICT4	TBCB10925220	400/220 KV 500 MVA ICT IV AT BIKANER_2	9/23/2025 17:51	9/24/2025 2:35	00:00	00:00	00:00	08:44	SCSD		Shutdown for Equipment erection of future 400kV Bus sectionalizer-2 Bay-429. Approved vide CTU OM dated 26.10.2023 vide MOM item no 07 on page 07. Approval copy attached.
H	**Commissioning of TBC Bay-219 (219 FTC-27.11.2025)**											
1	N1PBTSLICT3	TBCB11125182	400/220 KV 500 MVA ICT III AT BIKANER_2	11/18/2025 19:41	11/19/2025 5:25	00:00	00:00	00:00	09:44	SCSD	S/D for **Future Bay-219 extesion work**, i.e Bus Bar Jumpering & Relay Testing work in Transfer Bus Coupler Bay-219 with 220kV BUS-3. As **400kV ICT-3,4,6 & 7 were charged with 220kV Bus-3 only** (Testing was pending with 220kV Bus-4), S/D of same ICTs were taken during 220kV Bus-3 S/D.	Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT3	TBCB11125196	400/220 KV 500 MVA ICT III AT BIKANER_2	11/19/2025 19:13	11/20/2025 0:45	00:00	00:00	00:00	05:32	SCSD		Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT4	TBCB11125181	400/220 KV 500 MVA ICT IV AT BIKANER_2	11/18/2025 19:37	11/19/2025 5:23	00:00	00:00	00:00	09:46	SCSD		Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT4	TBCB11125197	400/220 KV 500 MVA ICT IV AT BIKANER_2	11/19/2025 19:14	11/20/2025 0:43	00:00	00:00	00:00	05:29	SCSD		Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT6	TBCB11125183	400/220 KV 500 MVA ICT VI AT BIKANER_2	11/18/2025 19:42	11/19/2025 5:21	00:00	00:00	00:00	09:39	SCSD		Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT6	TBCB11125194	400/220 KV 500 MVA ICT VI AT BIKANER_2	11/19/2025 19:10	11/20/2025 0:42	00:00	00:00	00:00	05:32	SCSD		Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT7	TBCB11125184	400/220 KV 500 MVA ICT VII AT BIKANER_2	11/18/2025 19:43	11/19/2025 5:19	00:00	00:00	00:00	09:36	SCSD		Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.
	N1PBTSLICT7	TBCB11125195	400/220 KV 500 MVA ICT VII AT BIKANER_2	11/19/2025 19:12	11/20/2025 0:40	00:00	00:00	00:00	05:28	SCSD		Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219. Approved in CTUIL OM dated 25.08.2022 vide MOM item no. 3(2) on page 04. Approval copy attached.

PBTSL Construction Outage Discussion

- **Revision on Representation For Feb and March**
- **April Onwards Outage Certification**

Case- February Month Revision

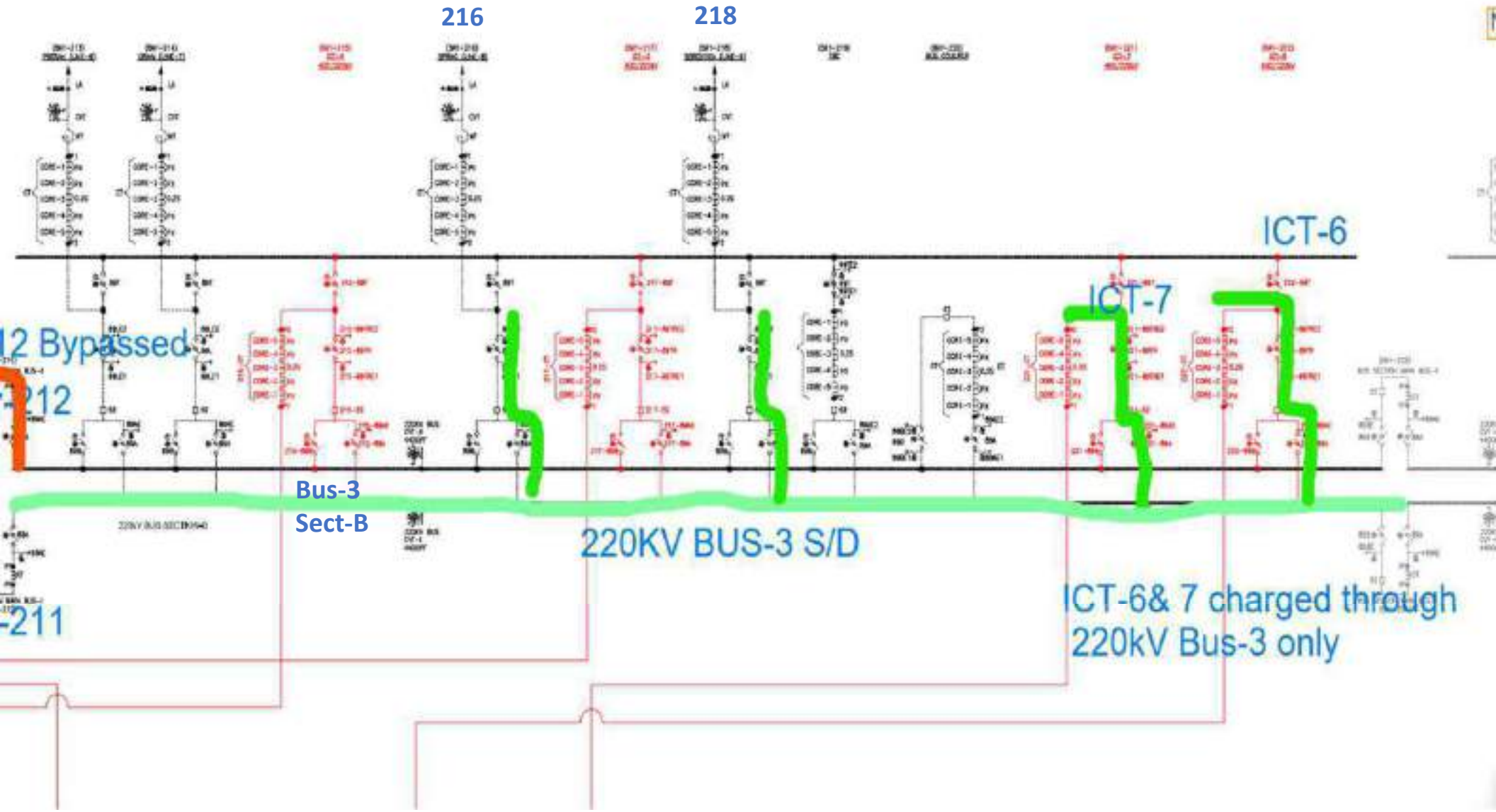
- **Name of Element-**
- **a.** 400/220 KV 500 MVA ICT VI AT BIKANER_2 (**as Per attached Sheet of Feb**)
- b. 400/220 KV 500 MVA ICT VII AT BIKANER_2
- **Reason of Outage- February**
- **a. Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). (Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24.)**

- Licensee vide mail dated 04/08/2025 informed that **Initially** line bay-216 & 218 were charged with Siemens Bus Bar relay & integrated with siemens MCU in 220kv section-A**(Bus-2**). **During this time 220kV Bus Sectionalizer-2 (Bay-212) was bypassed & Bay-216 & 218 were connected to 220kV Bus-2.**

- During the availed s/d, retrofitting of Simens bus bar to GE bus bar relay & integration with GE MCU in 220kV Section-B done as per original CRP scheme. For this Bus bar testing with 220kV Bus-3 was required. **400kV ICT-VI & VII are connected to 220kV Bus-3 only in IV** side due to non readiness of 220kV Bus sectionalizer-2(Bay-212). Hence during 220kV Bus-3 S/D , S/D of 400kV ICT-VI & VII are required. Annex-2 SLD..

- **NRLDC comment-** Outage period and reason verified as per NRLDC records..

- **Bay 212(Bus Sectionalizer-2) FTC was done on 04.09.2025.**


216
218
ICT-6
ICT-7
12 Bypassed
212
Bus-3
Sect-B
220KV BUS-3 S/D
211
ICT-6& 7 charged through
220kV Bus-3 only

Case- March Month Revision

- **Name of Element-**
- **a.** 400/220 KV 500 MVA ICT III & IV AT BIKANER_2(**foreign Material**)
- b. 400/220 KV 500 MVA ICT V, VI and VII AT BIKANER_2 (as Per attached Sheet)
- **Reason of Outage- March**

b. ICT-V-

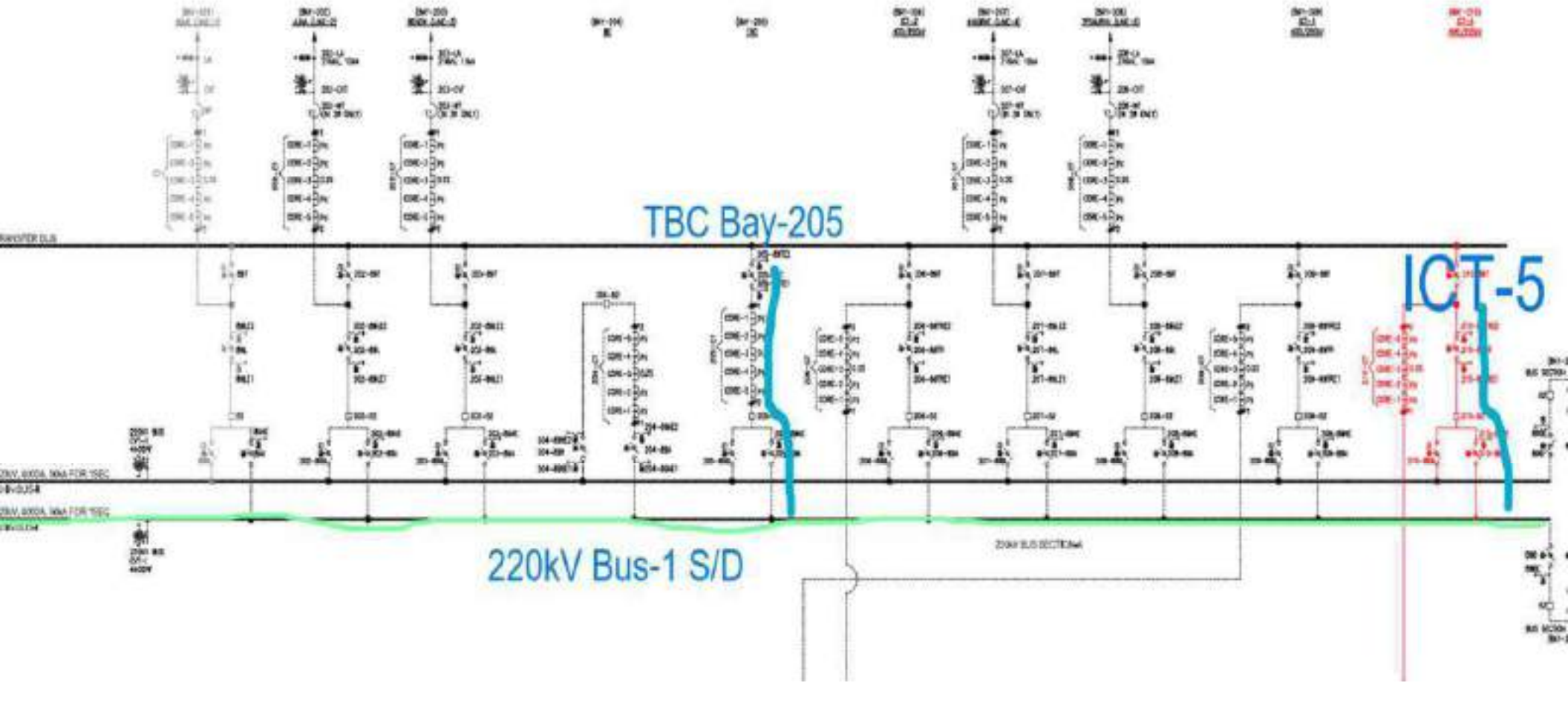
- Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2).
- **Licensee vide mail dated 04/08/2025 informed** that Bus Bar Testing of Bay-210 with TBC bay -205 with 220kV Bus-1 was done. Hence S/D of 220kV Bus-1 along with 400kv ICT-5 (Bay-426,427/210) was required. Annex-3 SLD
- **Revised Comment- (03/03/2026)-**89A isolator alignment issue was pending in ICT-V 220kV side bay-210 during commissioning due to non availability of OEM engineer. Hence S/D of 400kV ICT-V along with 220kV Bus-1 was availed under ICT-5 bay extension work.

b. ICT-VI and VII-

Revised Comment- (03/03/2026)- Due to non readiness of Bay-212, 220kV Bus Sectionalizer-2 (Bay-212) is bypassed. Accordingly, 400kV ICT-VI & VII are connected to 220kV Bus-3 only in 220kV side due to non readiness of 220kV Bus sectionalizer-2(Bay-212). Hence during 220kV Bus-3 S/D (For ICT-8 commissioning work) , S/D of 400kV ICT-VI & VII are required.

- **NRLDC comment-** Outage period and reason verified as per NRLDC records.

ICT-5 (Reason Submitted during Re-Submission of Document)



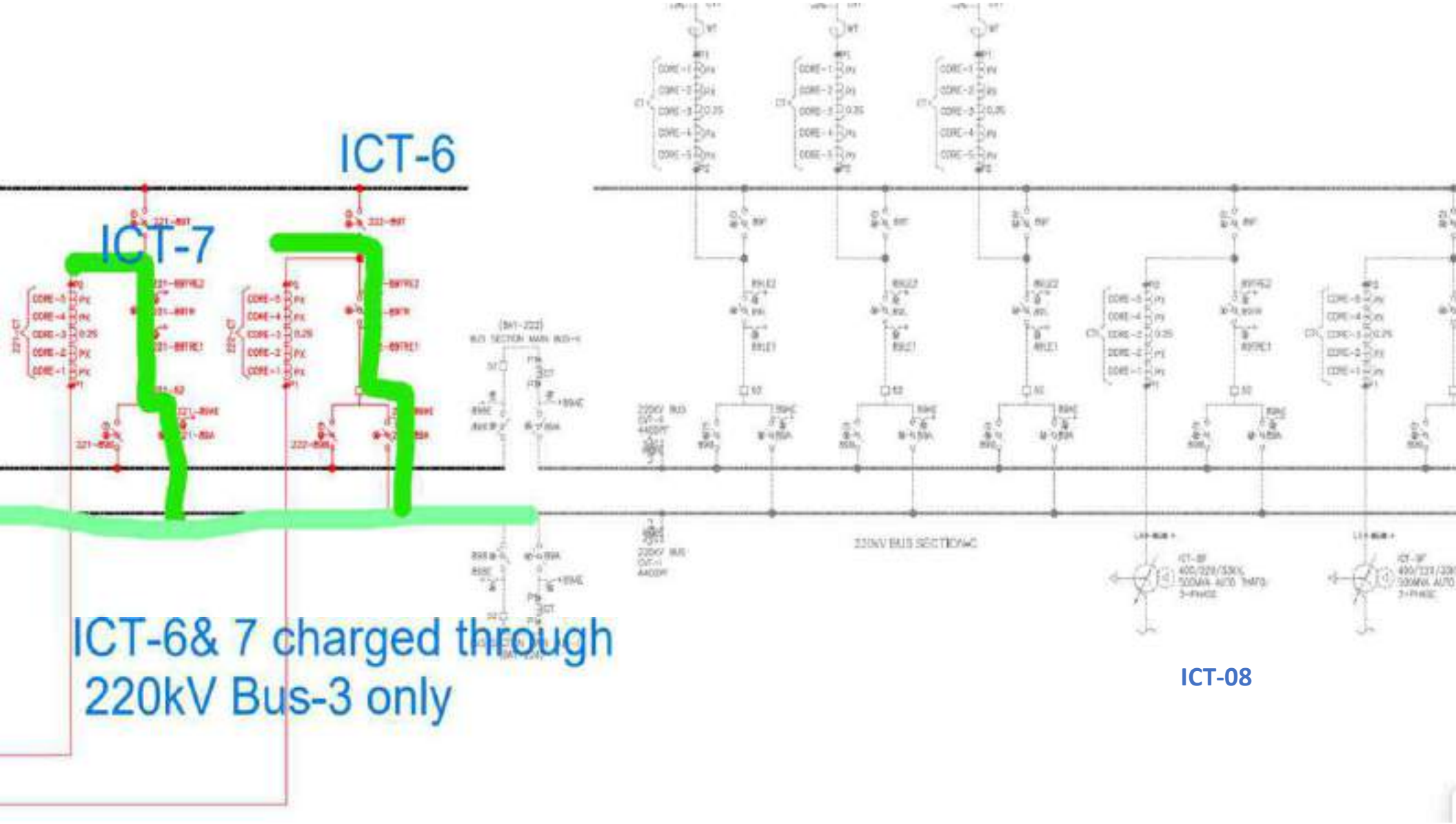
- **Reason of Outage- March**

- **b. ICT-VI and VII -** Shutdown for Bay extension works of upcoming ICT-8 at Bikaner(2). Approved in th NCT meeting dated 28.09.2022 on point no 4.5.2no 9/& 4.54 part E point no 3 on page no 19& 24. Copy of approval attached.

- Licensee vide mail dated 04/08/2025 informed that Due to non readiness of Bay-212, 220kV Bus Sectionalizer-2 (Bay-212) is bypassed. Accordingly, 400kV ICT-VI & VII are connected to 220kV Bus- 3 only in 220kV side due to non readiness of 220kV Bus sectionalizer-2(Bay-212). Hence during 220kV Bus-3 S/D **(For ICT-8 commissioning work**) , S/D of 400kV ICT-VI & VII are required. **Annex-2 SLD.**

- **NRLDC comment-** Outage period and reason verified as per NRLDC records.

- Hence Certificate needs to be revised based on decision of Feb and March
- Further , No Construction Related outage in April and May'2025


ICT-6
ICT-7
ICT-6& 7 charged through
220kV Bus-3 only
ICT-08

Case-June_construction

- **Name of Element-**
- **a.** 400/220 KV 500 MVA ICT 1 AT BIKANER_2
- b. 400/220 KV 500 MVA ICT III, & IV AT BIKANER_2 (as Per attached Sheet)
- **Reason of Outage- June**

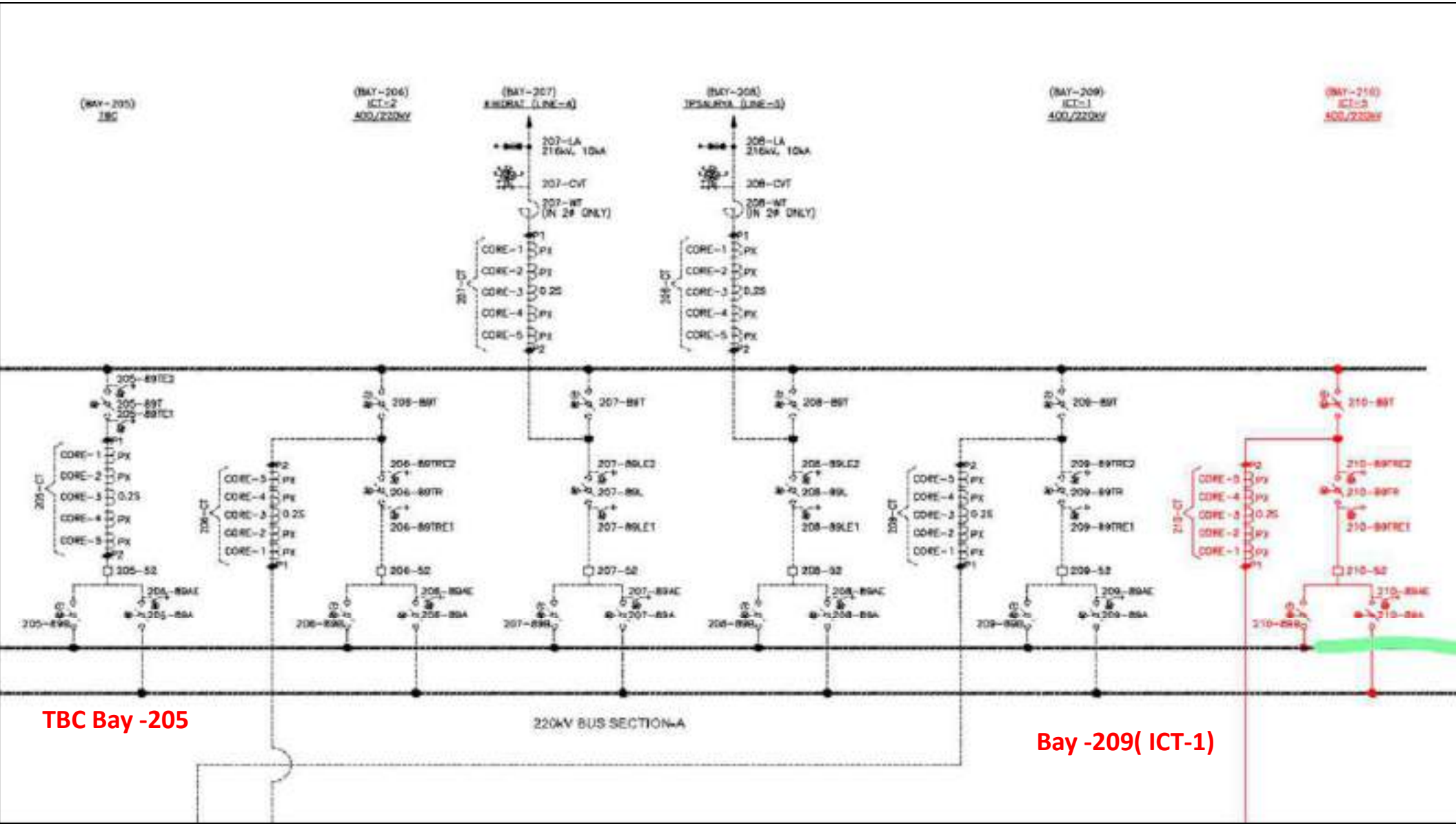
b. ICT-1-

- Shutdown for Bay extension work at Bikaner 2. Shutdown taken for upcoming TBC Bay commissioning work. Approved in CTU office memorendum dated 16.11.2021on point no 01 on page 01. Copy attached**.**

- S/D of 400kV ICT-1(Bay-415/414/209) was taken for carry out primary stability of Bay-209 with TBC bay-205 via 220kV Bus-1 for commissioning of TBC Bay-205 at Bikaner-2 SS.

- **NRLDC comment-** Outage period and reason verified as per NRLDC records.

It was informed by Licensee. In Bus Section-A , TBC bay 205 was not commissioned . Hence Each element of Bus section-A need testing with TBC Bay.Hence in this shutdown testing with TBC Bay was done.


(BAY-205)
TBC
(BAY-206)
ICT-2
400/220kV
(BAY-207)
KHEDRAI (LINE-A)
(BAY-208)
TPSAURYA (LINE-B)
(BAY-209)
ICT-1
400/220kV
(BAY-210)
ICT-2
400/220kV
207-LA
216kV, 10kA
207-CVT
207-WT
(IN 2# ONLY)
208-LA
216kV, 10kA
208-CVT
208-WT
(IN 2# ONLY)
CORE-1 PX
CORE-2 PX
CORE-3 0.2S
CORE-4 PX
CORE-5 PX
205-89TC2
205-89T
205-89TC1
205-52
205-89AE
205-89A
206-89T
206-89TRC2
206-89TR
206-89TRE1
206-52
206-89AE
206-89A
207-89T
207-89LC2
207-89L
207-89LE1
207-52
207-89AE
207-89A
208-89T
208-89LC2
208-89L
208-89LE1
208-52
208-89AE
208-89A
209-89T
209-89TRC2
209-89TR
209-89TRE1
209-52
209-89AE
209-89A
210-89T
210-89TRC2
210-89TR
210-89TRE1
210-52
210-89AE
210-89A
220kV BUS SECTION-A
TBC Bay -205
Bay -209(ICT-1)

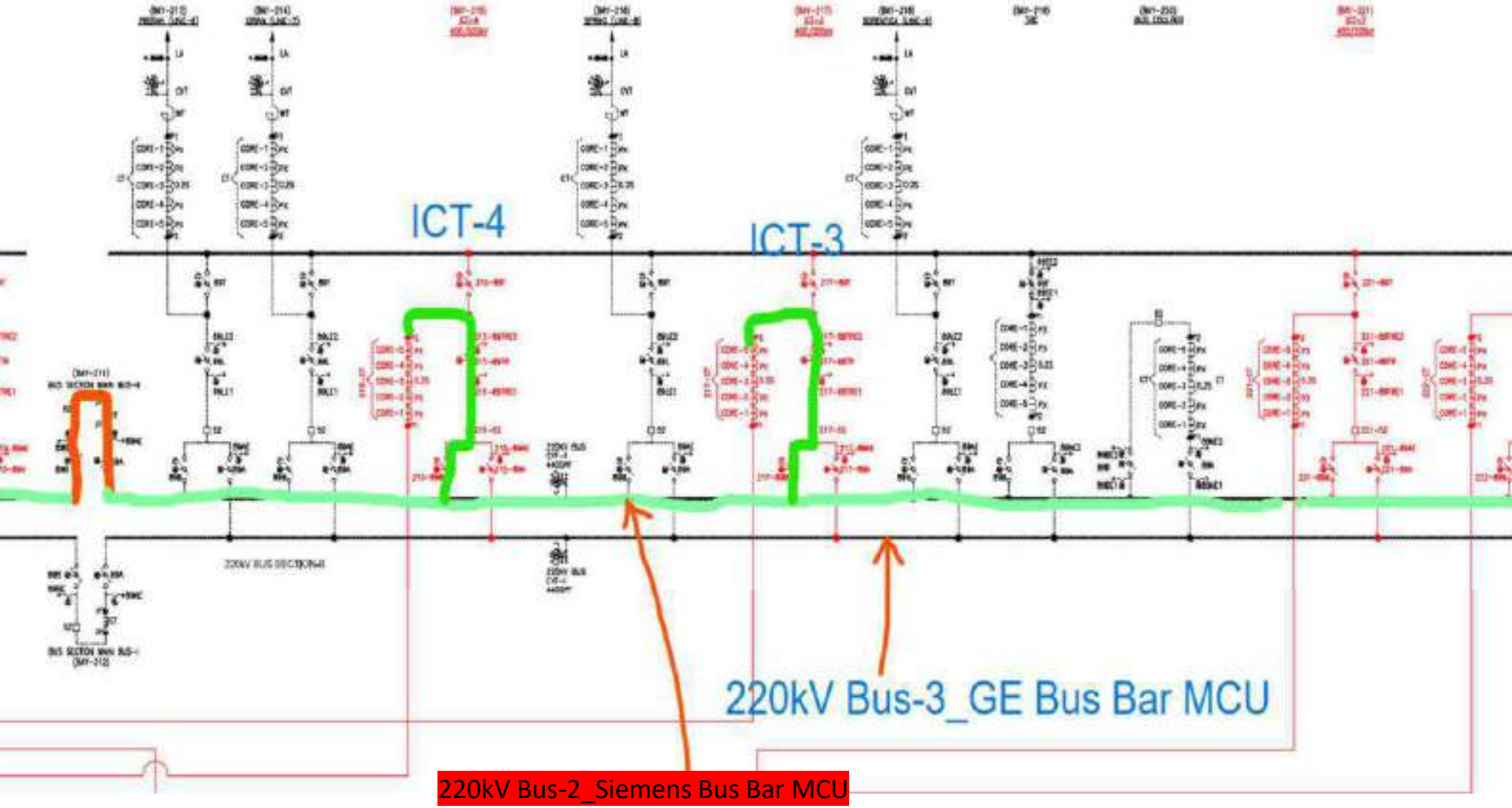
- **Reason of Outage- June**

- **b. ICT-III and IV -** Shutdown for Bay extension work at Bikaner 2. Shutdown taken for upcoming TBC Bay commissioning work. Approved in CTU office memorendum dated 16.11.2021on point no 01 on page 01. Copy attached..

- S/D of 220kV Bus-2 was taken for carry out primary stability of future **TBC Bay-205** with **220kV Bus-2** at Bikaner-2 SS. 400kV ICT-3 & 4 are connected with 220kV Bus-2 only with 89B isolator (via Bay-217 & 215) & reporting to siemens Bus Bar MCU in 220k Bus Section-A by bypassing 220kV Bus Sectionalizer-2(Bay-212). 220kV Bus-3 is being protected with GE Bus Bar. Hence transfer of Bay-215 & 217 to 220kV Bus-3 via 89A isolator is not possible untill retrofitting of Siemens Bus Bar to GE Bus bar done. Hence during S/D of 220kV Bus-2, S/D of 400kV ICT-3 & 4 also required. **.**

- **NRLDC comment-** Outage period and reason verified as per NRLDC records.

Commissioning of TBC-205 (205 FTC-09.07.2025) & Bay-212 commissioning(212 FTC-04.09.2025)


ICT-4
ICT-3
220kV Bus-3_GE Bus Bar MCU
220kV Bus-2_Siemens Bus Bar MCU

Case-July_construction

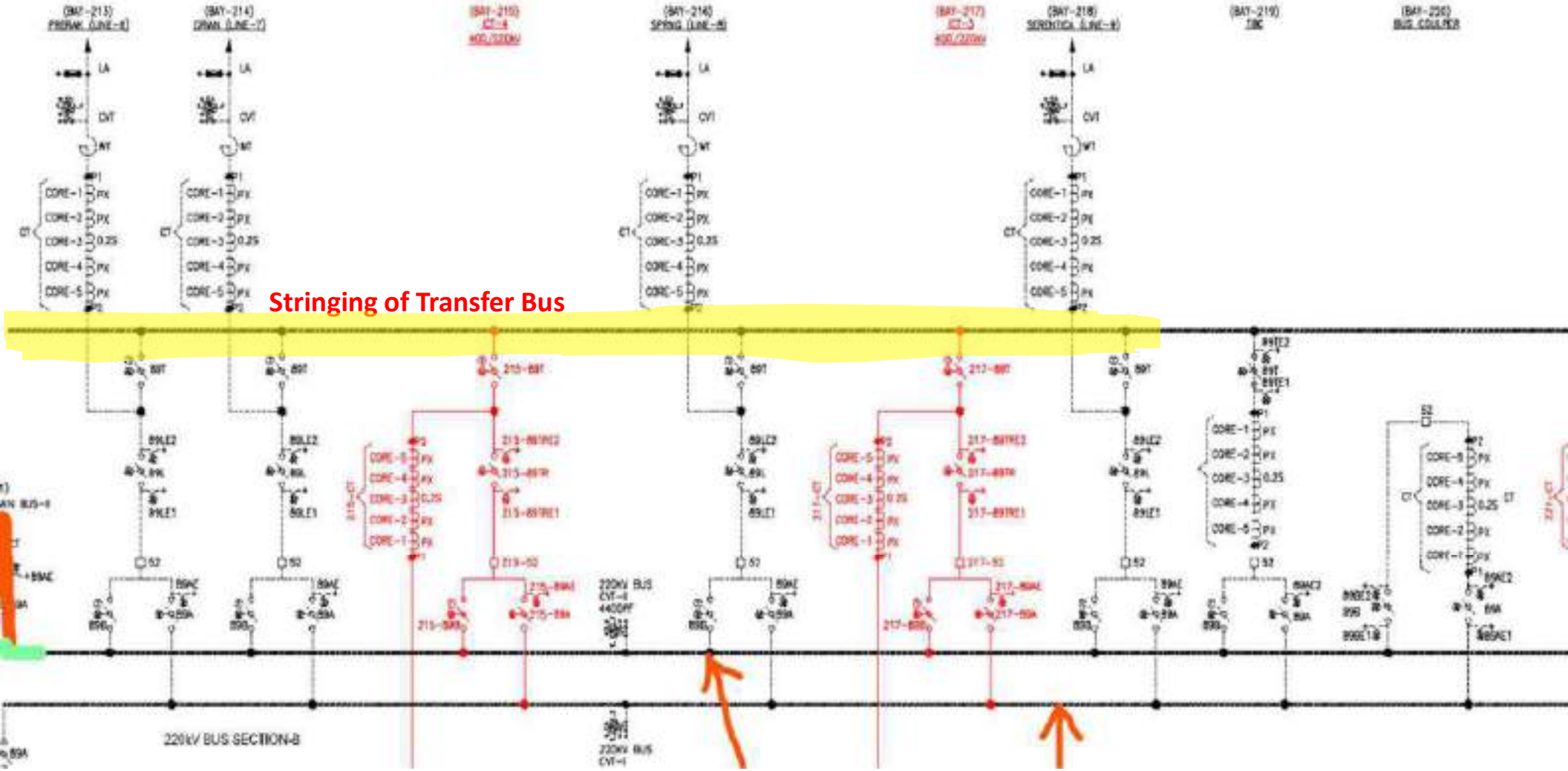
- **Name of Element-**
- **a.** 400/220 KV 500 MVA ICT III and IV AT BIKANER_2 (as Per attached Sheet)
- b. 400/220 KV 500 MVA ICT VI and VII AT BIKANER_2 (as Per attached Sheet)
- **Reason of Outage- June**

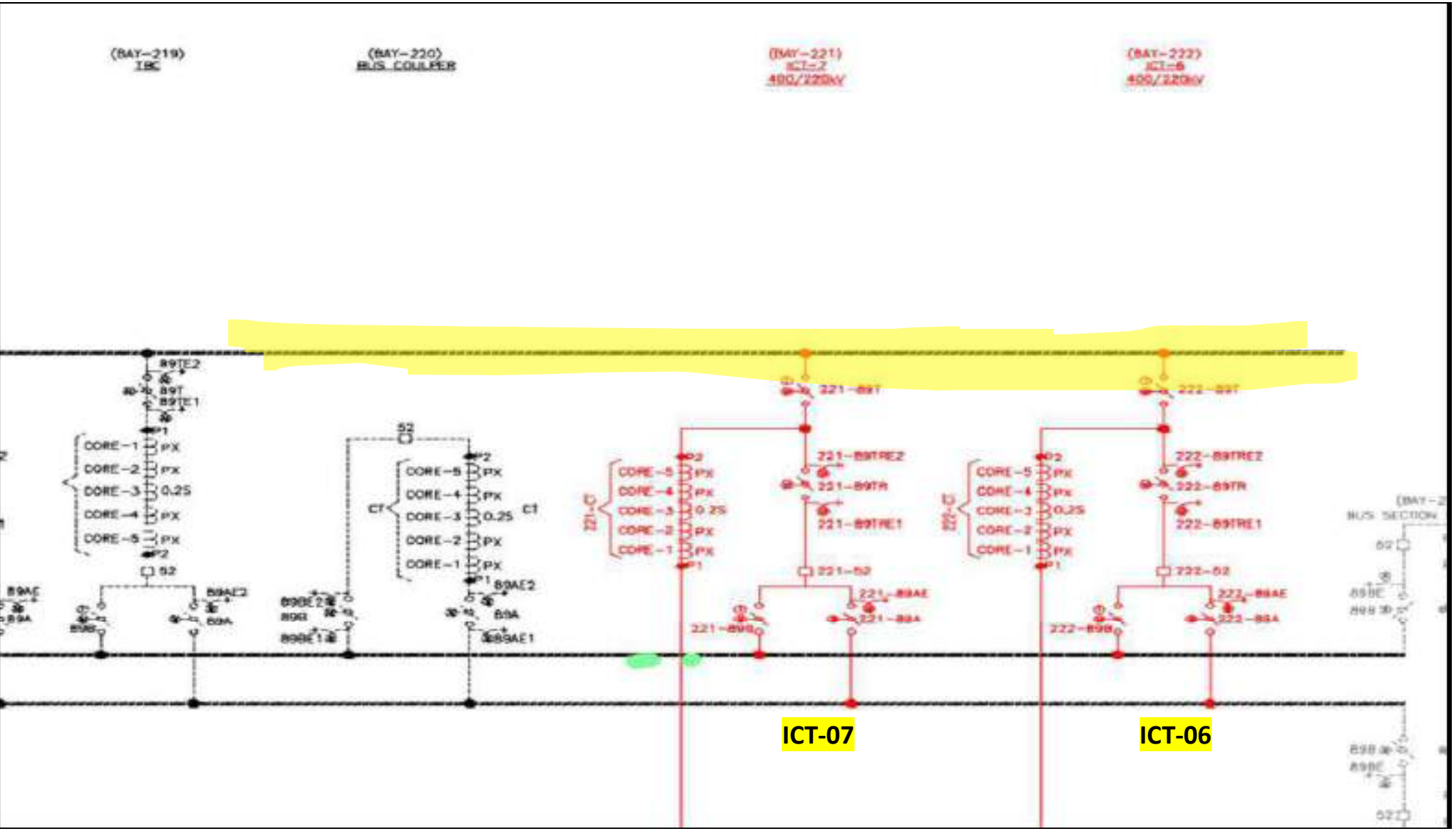
ICT-III and IV – **a**. Shutdown for Bus extension work i.e for **Transfer Bus Stringing** & Jumpering work in Bay-213, 215, 216 , 217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached**.**.

ICT VI and VII- b. Shutdown for Bus extension work i.e for Transfer Bus Stringing work in Bay-221 & 222. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022. Approval copy attached**.**

NRLDC comment- Outage period and reason verified as per NRLDC records.

It was informed by Licensee. In Bus Section-B , Transfer Bus was not commissioned.


Stringing of Transfer Bus
220kV BUS SECTION-B


(BAY-219)
IBC
(BAY-220)
BUS COUPLER
(BAY-221)
ICT-7
400/220kV
(BAY-222)
ICT-6
400/220kV
ICT-07
ICT-06

Case-August_construction

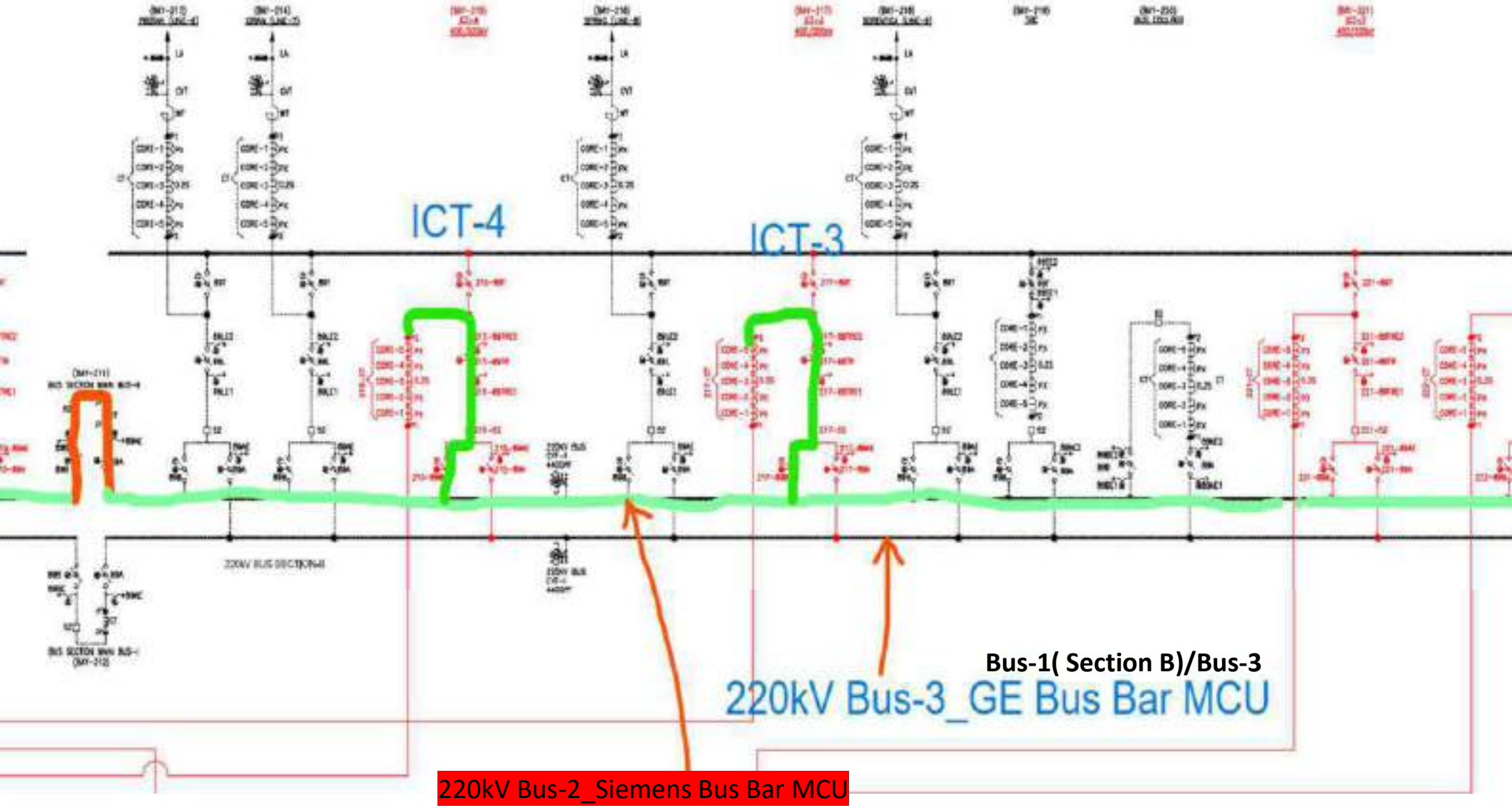
- **Name of Element-**
- **a.** 400/220 KV 500 MVA ICT III and IV AT BIKANER_2 (as Per attached Sheet)
- b. 400/220 KV 500 MVA ICT VI and VII AT BIKANER_2 (as Per attached Sheet)
- **Reason of Outage-**

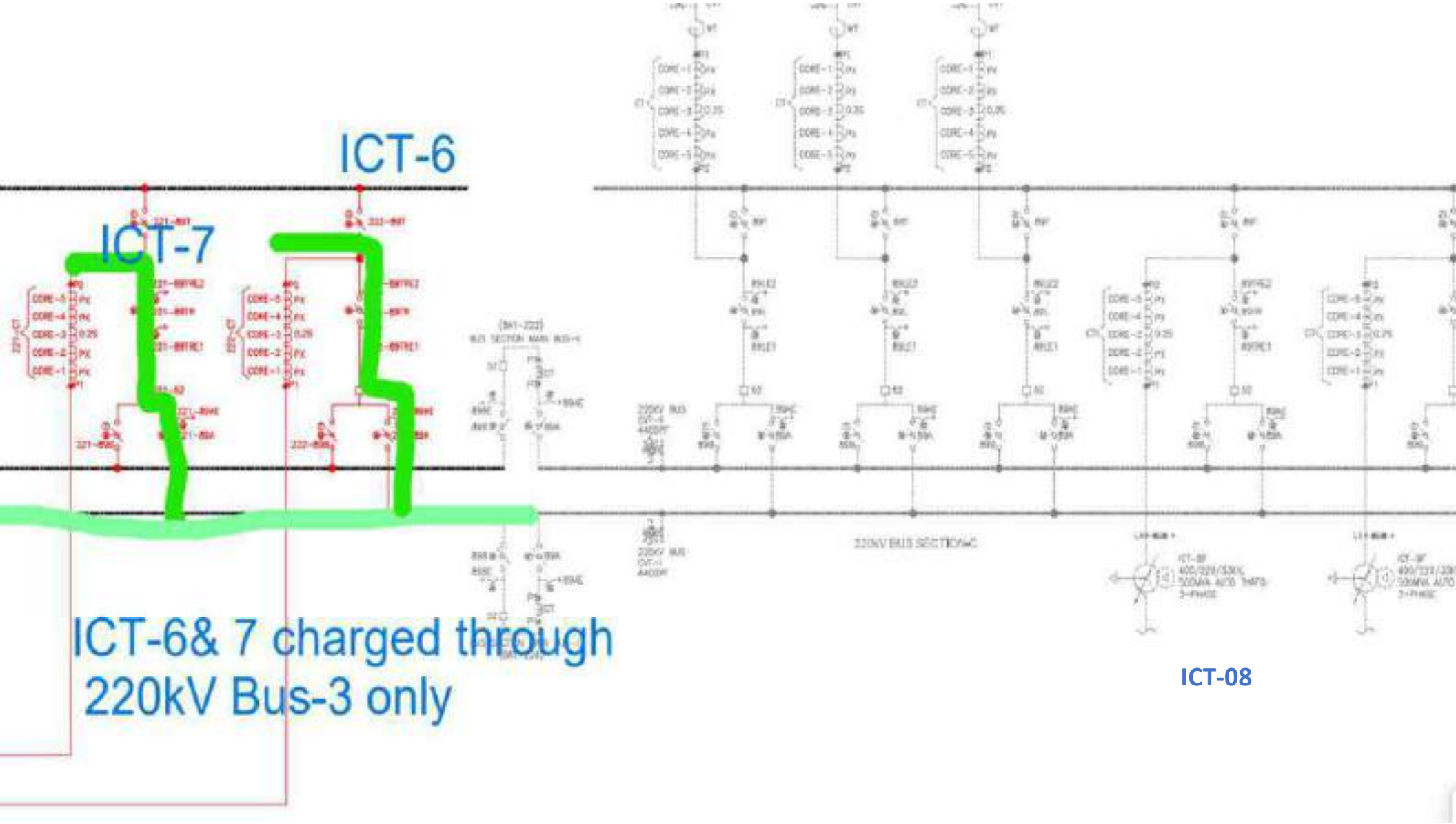
ICT-III and IV – **a**. Shutdown for Bus extension work i.e for **Transfer Bus Stringing** & Jumpering work in Bay-213, 215, 216 , 217 & 218. Approved vide CTUL OM, Ref: C/CTU/AI/00/7TH CCTP dated 25.08.2022**. (Pending Work of July)**

b. **Earlier -** ICT-3 & 4 are connected with 220kV Bus-2 only with 89B isolator (via Bay-217 & 215) & reporting to siemens Bus Bar MCU in 220k Bus Section-A by bypassing 220kV Bus Sectionalizer-2(Bay-212). **Licensee has informed that ICT III and IV were charged to Bus-1 (Section B) with GE bus bar as per approved Scheme.**

ICT VI and VII b**.** Shutdown was taken for facilitation of ICT III and IV to Bus Section – 1 (Section B) as ICT VI and VII was Connected to this bus.

NRLDC comment- Outage period and reason verified as per NRLDC records.


ICT-4
ICT-3
Bus-1(Section B)/Bus-3
220kV Bus-3_GE Bus Bar MCU
220kV Bus-2_Siemens Bus Bar MCU


ICT-6
ICT-7
ICT-6& 7 charged through
220kV Bus-3 only
ICT-08

Case-September_construction

- **Name of Element-**
- **a.** 400/220 KV 500 MVA ICT III and IV AT BIKANER_2 (as Per attached Sheet)
- b. 400/220 KV 500 MVA ICT VI and VII AT BIKANER_2 (as Per attached Sheet)
- **Reason of Outage-**

- **ICT-III and IV** –

- S/D for Future Bay-220 extension work, i.e Bus Jumpering to Coupler Bay-220 from 220kV BUS-3. ***As 400kV ICT-3,4,6 & 7 were charged with 220kV Bus-3 only (Testing was pending with 220kV Bus-4), S/D of same ICTs were taken during 220kV Bus-3 S/D.*** .(2nd and 15th September 2025)

- Shutdown for Equipment erection of future 400kV Bus sectionalizer-2 Bay-429. (**18th and 23th September 2025**). Licensee mentioned that ICT III and IV were charged in Half dia and Earlier Bus sectionalizer-2 (Bay 429) was bypassed. Hence for Bus Shutdown ICT III and IV shutdown was taken.

- Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220.(30th Sept).
- **ICT VI and VII.**
- S/D for Future Bay-220 extesion work, i.e Bus Jumpering to Coupler Bay-220.(2nd and 15th September 2025)
- Shutdown for Construction work of Future Bay-220 i.e Bus Bar Stability Testing & Balance Bus Jumpering to Coupler Bay-220.(30th Sept).

Commissioning of 400kV Bus Sectionalizer-2 Bay-429 (429 FTC-21.01.2026)

NRLDC comment- Outage period and reason verified as per NRLDC records.

Case-November_construction

- **Name of Element-**
- **a.** 400/220 KV 500 MVA ICT III , IV , VI and VII AT BIKANER_2 (as Per attached Sheet)

- **Reason of Outage-**

- Shutdown for Future Bay-219 extension work, i.e Bus Jumpering to Transfer Bus Coupler Bay-219 (18th and 19th November)

NRLDC comment- Outage period and reason verified as per NRLDC records.

Licensee has informed that shutdown was taken for TBC bay of Section -B.

Commissioning of TBC Bay-219 (219 FTC-27.11.2025)

In the 71st NRPC meeting held on 29.01.24, it was deliberated that RE power is being integrated in fast pace countrywide and to ensure grid stability and provide inertial support in RE complex, requirement of dynamic compensation like Synchronous Condensers needs to be identified separately based on the detailed reactive power planning studies and the Short Circuit Ratios (SCRs) at different locations.

Accordingly, a committee was formed under Chairmanship of Member Secretary, NRPC along with members from CEA, NRPC, NRLDC, NLDC, NTPC, BHEL, CTU and STUs to do futuristic analysis for the requirement of Synchronous Condensers based on the inertia considerations for NR. Subsequently, the Committee conducted various meetings (Apr'24-Dec'24) wherein deliberations were held on the requirements of Synchronous Condenser including other available technologies. During the committee meetings, presentations by different OEMs viz BHEL, Hitachi and Andritz Hydro were also made, highlighting various technological options available and its suitability under different system requirements.

Committee has concluded that in view of huge RE capacity addition in the Northern Region, particularly in Rajasthan State, and the challenges thereafter like Oscillations in RE complexes, Reactive Power, Inertia & Short Circuit ratio (SCR) requirements must be addressed accordingly. The Committee is in, therefore, consensus of installation of SynCons in RE complexes because of the following advantages of SynCons :

- Enhancement in System Strength/ Short Circuit Ratio (SCR)
- Fast Reactive Power Support during Faults/Transients
- Increased Inertia and Frequency Response
- Damping of Low Frequency Oscillations
- Steady-state Reactive Power Support

A methodology has been adopted to identify optimal location for installation of SynCons, which includes low SCR (<5), proximity of HVDC station, dynamic compensation requirement, real time grid issues etc. Based on the selection criteria discussed above, seven nos. RE pooling stations incl. Fatehgarh-II, Ramgarh, Bhadla-III and Fatehgarh IV (Sec-II) were identified in RE complexes in Rajasthan for placement of SynCons with implementation schedule of 2026-27 to 2029-30, subject to availability of space at respective station. SynCon at Fatehgarh-II PS & Barmer-II PS is already approved and under bidding. In this sequence, SynCon at other identified locations Ramgarh, Bhadla-III & Fatehgarh-IV (Sec-II) is proposed for approval in present meeting.

Further, the issue of high and low voltages in Northern region was highlighted at various forums/reports (OCC forum, Grid India Quarterly Operational Feedback report, earlier CMETS-NR meetings). In the 236th OCC meeting held on 16.10.25, POWERGRID submitted that overvoltage conditions prevail at Orai (GIS), Aligarh (GIS) and Agra Substations, which are causing stress on installations in service. Frequent switching operations of lines and tripping on overvoltage conditions are being faced. In the OCC meeting, Powergrid had requested that to control the voltage profile, Bus reactor/STATCOM etc. of suitable capacity may be installed.

In the OCC meeting, NRLDC stated that high voltage issues are being observed in this area, as a short-term measure, transmission lines are opened based on real time grid condition, however high voltage issues continue to persist. Further NRLDC representative stated that all existing reactive power resources are being utilised to control voltages during low-demand

period of NR. As a last resort, a number of 765kV and 400kV EHVAC lines are also being opened to control high voltages. Even after taking all measures due to a huge reduction in NR demand during certain times of the year, high voltages are seen in the grid. In the same OCC meeting MS NRPC, requested CTU to carry out a comprehensive study analysis to examine the requirement of further reactive power devices for voltage control in this area.

A major grid event occurred at 13:53 hours on 17th June 2024 in the Northern Region, leading to a substantial load reduction of approximately 16.5 GW. This event started with the tripping of both bi-poles of the +/-800 kV HVDC Champa (WR) – Kurukshetra (NR) link, which was transferring 4500 MW of power from the Western Region (WR) to the Northern Region (NR). There was simultaneous reduction of around 2800 MW of RE based generation in the Rajasthan RE complex. There was also trappings of conventional generating units leading to a generation loss of 3909 MW at the all India level. The significantly higher load loss resulted in the rise in frequency of the Indian power system from 50.03 Hz to 50.68 Hz. The load drop resulted in a rise in the voltages of stations in the Northern region. This high voltage resulted in the tripping of 18 nos. of EHVAC lines in the Northern Region on over-voltage protection. Based on the observations, several actions incl. planning for dynamic reactive power sources near load centers based on load composition were recommended for avoiding the recurrence of such grid event

Further in 38th NCT meeting held on 25.02.2026 Grid-India also highlighted low SCR Issues in Northern and Western Region ISTS RE Complexes. Grid-India informed that fault level / short circuit ratio (SCR) at some of the ISTS RE pooling buses in Northern Region (Rajasthan RE complex) and Western Region (especially Khavda and Pachora complex) is on the lower side. In the Rajasthan RE complex, oscillations (oscillatory behaviour linked to low SCR) are being observed on a daily basis due to high RE penetration and inadequate system strength. Commissioning of additional transmission lines is not expected to significantly improve the fault level, and therefore SCR is expected to reduce further in the near future with addition of new RE generation. Grid-India suggested Planning and commissioning of Synchronous Condensers or any other suitable device for improvement in fault level and dynamic reactive power support on priority as a remedial measure for ensuring the stability of RE complexes. In the NCT meeting CTUIL was directed to plan suitable measures for improvement in fault level on priority

In joint study meeting held on 18.12.2025, 23.12.25 & 24.12.25 among CEA, CTU, Grid-India & RVPN (Gist of the meeting held on 23.12.25 & 24.12.25 is enclosed at **Annexure-N1**), issues of low SCR as well as Over voltage/Under voltage in the Northern Region Grid was also discussed. In the meeting, CTU informed that carried out comprehensive studies has been carried out for voltage analysis in NR from voltage profile (of past one year) provided by Grid-India and identified nodes suitable for installation of static and dynamic compensation based on space availability and voltage regulation requirement.

it was highlighted that during winter, issues of over voltage issue persist in Punjab, Haryana, Delhi and UP; and several 765kV and 400kV lines get opened on regular basis to control the high voltages. In 238th OCC meeting held on 17.12.2025 Severe Low voltages in J&K (including Wangtoo & Amargarh S/s) was highlighted. In the meeting it was stated that the 400kV as well as 220kV Bus voltages at various stations in Kashmir valley are remaining critically low also reaching 347kV and 178kV respectively. The low voltage is a perennial issue, and it has been deliberated in various meetings as well as in the recently held 56th TCC & 81 NRPC Meeting held on 30th & 31st October 2025. Further Grid-India in Quarterly Operational feedback 2025) also highlighted Low voltages at 400kV Amargarh, Wagoora & Wanpoh S/s, 400kV voltages are reaching 360kV at Amargarh, Wagoora and Wanpoh substations

In the above Joint study meeting several pockets/Substation were discussed & finalized to improve SCR in western Rajasthan and control Over voltage/Under voltage with STATCOM/bus reactor in the Northern Region.

Based on the decision taken in Joint study meeting, proposal was deliberated in the 38th CMETS-NR meeting held on 03.03.26. In the meeting it was stated that Ramgarh PS is radially connected to Bhadla-III PS through 765kV D/c line, however, the impact on SCR of Ramgarh PS with proposed synchronous condenser at Bhadla-III PS is minimal and vice versa. Grid-India emphasized that, in order to mitigate Grid oscillations under various operational scenarios & to meet future shutdown requirements, synchronous condensers will be required at both Ramgarh PS and Bhadla-III PS. Grid-India also stated that the implementation of synchronous condensers at Ramgarh PS and Bhadla-III PS is a system requirement due to Low SCR at both the pooling stations. If additional dynamic reactive compensation devices such as STATCOMs are planned, they will primarily/only improve voltage levels. However, if synchronous condensers are installed, they will not only support system voltage but will also strengthen the grid by improving the Short Circuit Ratio (SCR).

In CMETS-NR, Grid-India also emphasized the requirement of Statcom at Mandola (PG) S/s as it is connected to Generating Station (i.e. tehri pool via Meerut) & a huge power is also drown by Haryana from Mandola S/s.

In the Meeting CTUIL & Grid-India also requested to NR STUs for plan suitable reactive power compensation at Intra state level so that reactive power drawl from ISTS network may be minimise and also requested to expedite already approved reactive compensation devices at Intra State level for timely implementation.

Regarding to reactive power compensation devices at Wagoora S/s & Amargarh S/s respective TSP confirmed through mail that Space is not available in existing switchyard, new land needs to be acquired adjacent to existing sub-station. Grid-India emphasized that additional land adjacent to S/s will be electrically better option. CTU enquired about the action to be taken by J & K to mitigate low voltage issue, JKPTCL replied that DPR prepared for capacitor bank installation at every Grid of JKPTCL (220kV & 132kV level). CTUIL also requested Haryana to explore the possibility to accommodate STATCOM at their S/s. Grid-India further added that priority to be given to high load drawl S/s.

Sl No.	**Substation Name**	**Justification**	**Agreed in 44th CMETS-NR**
1	765/400/220kV Bhadla-III PS	**Low SCR** W/o SynCon SCR- 5.8 & 5.4 (220kV) & 3.2 (400kV)} With SynCon SCR : 6 & 5.6 (220kV) & 3.65 (400kV)}	2 nos. of Synchronous Condensers (SynCon) units [2x(+300 MVAr/-200 MVAr)] at 400kV level of 765/400/220kV Bhadla-III PS along with 2 nos. of 400kV bays (1 no. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum))

Sl No.	Substation Name	Justification	Agreed in 44th CMETS-NR
2	765/400/220kV Ramgarh PS	Low SCR W/o SynCon SCR- 5.7 (220kV) & 3.2 (400kV) With SynCon SCR : 6.3 (220kV) & 4 (400kV)	2 nos. of Synchronous Condensers (SynCon) units [2x(*+300 MVAr/-200 MVAr*)] at 400kV level of 765/400/220kV Ramgarh PS along with 2 nos. of 400kV bays(1 no. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum))
2	765/400/220kV Fatehgarh-IV(Sec-2)	Low SCR W/o SynCon SCR- 4.6 (220kV) & 6.2 (400kV) With SynCon SCR: 5 (220kV) & 6.2 (400kV)	1 no. of Synchronous Condenser (SynCon) unit [1x(*+300 MVAr/-200 MVAr*)] at 220kV level of 765/400/220kV Fatehgarh-IV(Sec-2) PS along with 1 no. of 220kV bay (1 no. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum))
3	Agra (PG)	**High voltage issue** From voltage duration curve, it is envisaged that voltage is 412kV and above for 60 % of time(days) in each month for Apr'24-Oct'25 duration. In the last quarter, multiple 765 kV transmission lines were opened from Agra S/s for voltage regulation to manage grid stability and maintain optimal operating conditions	1x125 MVAr (420kV) bus reactor at 400kV Bus
4	Orai (PG)	High voltage issue From voltage duration curve, it is envisaged that voltage is 412kV and above for 65 % of time(days) in each month for Apr'24-Oct'25 duration	1x330 MVAr (765kV) bus reactor at 765kV Bus

Sl No.	Substation Name	Justification	Agreed in 44th CMETS-NR
		In the last quarter, multiple 765 kV transmission lines were opened from Orai S/s for voltage regulation to manage grid stability and maintain optimal operating conditions	
5	Aligarh (PG) (high voltage)	High voltage issue From voltage duration curve, it is envisaged that voltage is 412kV and above for 40 % of time(days) in Oct'24, Nov'24, Jul'25, Oct,25 month and for 50 % of time(days) in Dec'24-Mar'25 month. In the last quarter, multiple 765 kV transmission lines were opened from Aligarh S/s for voltage regulation to manage grid stability and maintain optimal operating conditions	One unit of STATCOM (±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr)
6	Patran (IndiGrid) (low/high voltage)	High voltage issue From voltage duration curve, it is envisaged that voltage is 412kv and above for 50 % of time(days) in Dec'24-Mar'25 & Oct'25 month.	1x125 MVAr (420kV) additional bus reactor at 400kV Bus
8	Wagoora(PG)	Low voltage issue In 238th OCC meeting held on 17.12.2025 Severe Low voltages in J&K (including Wangtoo & Amargarh S/s) was highlighted. In the meeting it was stated	2 units of STATCOM (±300MVAr) along with MSC (2x125 MVAr with each unit) at Wagoora(PG)

Sl No.	Substation Name	Justification	Agreed in 44th CMETS-NR
		that the 400kV as well as 220kV Bus voltages at various stations in Kashmir valley are remaining critically low also reaching 347kV and 178kV respectively. The low voltage is a perennial issue, and it has been deliberated in various meetings as well as in the recently held 56th TCC & 81 NRPC Meeting held on 30th & 31st October 2025. Further Grid-India in Quarterly Operational feedback 2025) also highlighted Low voltages at 400kV Amargarh, Wagoora & Wanpoh S/s, 400kV voltages are reaching 360kV at Amargarh, Wagoora and Wanpoh substations	
9	Amargarh(Indigrid)	Low voltage issue In 238th OCC meeting held on 17.12.2025 Severe Low voltages in J&K (including Wangtoo & Amargarh S/s) was highlighted. In the meeting it was stated that the 400kV as well as 220kV Bus voltages at various stations in Kashmir valley are remaining critically low also reaching 347kV and 178kV respectively. The low voltage is a perennial issue, and it has been deliberated in	2 units of STATCOM (±300MVAr) along with MSC (2x125 MVAr with each unit) at Amargarh (Indigrid)

Sl No.	Substation Name	Justification	Agreed in 44th CMETS-NR
		various meetings as well as in the recently held 56th TCC & 81 NRPC Meeting held on 30th & 31st October 2025. Further Grid-India in Quarterly Operational feedback 2025 also highlighted Low voltages at 400kV Amargarh, Wagoora & Wanpoh S/s, 400kV voltages are reaching 360-370kV at Amargarh, Wagoora and Wanpoh substations	
10	Jhatikara(PG)	Low/High voltage issue Jhatikara (PG)- From voltage duration curve, it is envisaged that voltage is 412kV and above for 55% of time(days) in Nov'24-Jan'25, Oct'25 and for 70% of time(days) in Mar'25	2 units of STATCOM (±300MVAr) along with MSC (2x125 MVAr with each unit) & MSR (2x125 MVAr with each unit) at Jhatikara(PG) S/s
11	Mandola(PG)	Low/High voltage issue	1 unit of STATCOM (±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr) at Mandola (PG) S/s.

Outlook

Transmission scheme for evacuation of power as part of Rajasthan REZ Ph-IV (Part-6 : 6GW) (Bikaner Complex) (Bikaner V: 6GW)

From PSPA I Division CEA <cea-pspa1@gov.in>
Date Thu 2/5/2026 6:29 PM
To COO-CTU <coo-ctu@ctuil.in>; Sandeep Kumawat {संदीप कुमावत} <sandeepk@powergrid.in>
Cc Member System <memberpscea@nic.in>; Ammi Ruhama Toppo <ammi_rt@nic.in>; Nitin Deswal <nitindeswal@nic.in>; SHOBHNA SINGH <shobhnasingh@cea.nic.in>; rk porwal <rk.porwal@posoco.in>; somara lakra <somara.lakra@grid-india.in>; bikaskjha <bikaskjha@grid-india.in>; Gaurav Malviya <gauravmalviya@grid-india.in>; Gaurav Singh <gauravsingh@grid-india.in>; Priyam Jain <priyam.jain@grid-india.in>; Manish Ranjan Keshari {मनीष रंजन केशरी} <manish.keshari@powergrid.in>; Madhusudan Meena {मधुसूदन मीना} <madhusudanmeena@powergrid.in>; Narendra Sathvik Ranganath . {नरेंद्र सात्विक आर} <rnsathvik@powergrid.in>

1 attachment (290 KB)
Gist Study Meeting Bikaner V Trans Scheme.pdf;

Madam/Sir,

This has reference to the subject matter wherein on the request of CTUIL & based on the deliberations held in RPC meeting regarding the subject transmission scheme; a meeting under Member (Power System), CEA was held on 01.12.2025.

In the meeting, Member (PS) opined that CEA, CTU and Grid-India to carry out joint studies separately and mitigate issues highlighted by Grid-India. Subsequently, joint study meetings were held on 23.12.2025 & 24.12.2025 to discuss issues highlighted by Grid-India during the earlier discussions of Transmission scheme.

The Gist of the study meeting, as consented by Member (Power System), CEA is attached. CTUIL is requested to take further necessary action in this regard.

--
Regards,

O/o Chief Engineer,
Power System Planning & Appraisal - I (PSPA-I) Division,
Central Electricity Authority
Ministry of Power
Govt. of India
011-26732305

---- On Fri, 21 Nov 2025 18:26:59 +0530 **Sandeep Kumawat {संदीप कुमावत} <sandeepk@powergrid.in>** wrote ---

Dear Sir/Madam,

The comprehensive scheme "Transmission scheme for evacuation of power as part of Rajasthan REZ Ph-IV (Part-6 : 6GW) (Bikaner Complex) (Bikaner V: 6GW)" was agreed in 40th CMETS-NR meeting held on 12.09.25 and 47th CMETS-ER meeting held on 30.09.25.

The Scheme was further deliberated in 56th TCC & 81st NRPC Meeting held on 30-31st Oct'25, wherein based on observation of ERPC and Grid-India following was concluded in NROC meeting :

- *Forum advised that a separate meeting under Member (Power System), CEA may be convened within one month by CTU with concerned stakeholders and outcome of CMETS meeting shall be discussed at NRPC/ERPC forum of respective region at the earliest.*
- *CTU and STU may do necessary studies & take up corrective measures in matching timeframe of the proposed scheme to address the observation raised by GRID-INDIA.*

Based on suggestions from MS, ERPC in the meeting, CTUIL reviewed the studies comprehensively and identified additional interconnection to Eastern region. In the revised studies, LILO of both ckts of 400kV Balia – Patna D/c line at Asana S/s was not considered and in place of above LILO arrangement, a direct interconnection between Asana & Nawada S/s through 765kV D/c line is considered. Balance scheme remains the same as agreed in CMETS-NR and CMETS-ER meeting earlier.

Considering an additional interconnection to ER, Revised Study files along with agenda are also attached with proposal.

PSSE file link :

https://drive.google.com/drive/folders/1xUyed677an8YXNI4VXjQNPpZpNkmZVNX?usp=sharing

Considering the urgency of scheme, it is requested that a meeting may be convened under the Chairmanship of Member (Power System), CEA with concerned stakeholders i.e. CEA, CTU, Grid-India, NRPC, ERPC etc. so that proposal may be finalized in meeting for further deliberation in NRPC/ERPC meeting and forwarded to NCT for approval.

Thanks & Regards,

Sandeep Kumawat

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Gist of the meeting regarding Transmission scheme for evacuation of 6 GW RE power from Bikaner complex (Bikaner V PS)

Background

A Transmission scheme has been evolved for evacuation of 6 GW RE power from Bikaner complex (Bikaner V PS) in Rajasthan.

An EHVAC system has been evolved from Bikaner-V PS to various load centers in NR. The broad feature of scheme is as under:

1. For evacuation of 6 GW RE power from Bikaner V PS on EHVAC system which will be take lesser implementation time than HVDC system
2. Resolve the issue of critical loading of 765kV Bikaner - Moga D/c line as well as issue of higher angular separation (>20 degree) under N-1/N-1-1 contingency
3. Resolve the issue of critical loading of 765kV Aligarh - Greater Noida line
4. Provide supply to Mohali region to resolve the power deficit situation in Punjab based on the request of PSTCL. This will also improve ATC/TTC limits of Punjab.
5. Feed the RE power to new load centres of Punjab, Delhi and UP to cater the future load demand
6. Feed the RE power to Greater Noida complex as suggested by UPPTCL

The scheme comprises EHVAC system with evacuation of 6 GW RE power from Bikaner-V PS as well as about 3GW additional power (to relive overloading of 765kV Bikaner Moga D/c line and 765kV Aligarh-G'noida line) to various load centers of NR (Punjab, Haryana, UP) and ER. As part of scheme, STATCOM is also proposed at Bikaner-V PS and space for SynCon/STATCOMs shall be kept a spart of future scope on various intermediate substations.

Studies were carried out in 2029-30, time frame in various scenarios (solar maximized, evening peak and night off peak scenarios). Study files were circulated on 29.07.25. To deliberate on above proposal, joint study meeting was held on 18.08.25 with all stakeholders. Grid-India vide email 11.08.25 provided their observations on studies as well as on transmission scheme. Major observations of Grid-India and resolution suggested by CTU is as under:

- Severe low voltage issue in NR Grid in Solar maximized scenarios & High fault level on Various substation in Rajasthan: Separate network studies to be carried out by CTU in consultation with CEA and Grid India.
- Higher angular separation in 400kV Kishenpur - Moga D/c line in N-1 contingency: Feasibility of upgradation of 400kV Kishenpur - Moga at 765kV level is being carried out in future planning studies with envisaged hydro generation in J&K and solar injection at Moga.
- Planning of dynamic compensation as part of scheme: Incorporated as part of present and future scope.

- High loading on 400kV Agra (PG) - Agra (UPPTCL) line: Based on loading data, reconductoring proposal for 400kV Agra (PG)-Agra (UPPTCL) line to be taken up.
- N-1 violation issues pertaining to Intra State lines/ICTs (STU network) in NR: STUs may take remedial measures for identified STU lines/ICTs which are under N-1 violation. Overloading of some of the 400/220kV ICTs and 220kV lines (breaching thermal limit in N-1 scenarios) & N-1 noncompliance issues at Kankroli, Bhinmal and Chittorgarh S/s - High loading & stability issue is observed due to nearby PSP generators for which system is yet to be planned by RVPN. Loadings will be reviewed for Chittorgarh ICTs (Banswara) which is under approval by RVPN
- Overloading of 400kV Bikaner - Sikar D/c line in planning files: proposal will be examined with all possible alternatives and will be deliberated in discussion with CEA, Grid-India and RVPN.
- N-1 non-compliance of Ramgarh 765/400kV ICTs, 400kV Bhiwani (PG) – Bhiwani line (On opening of Bhiwani-Moga line) and high loading of 400/220kV Saharanpur ICT: ICT augmentation at Ramgarh S/s is taken up in ensuing CMETS-NR meeting (subsequently approved in 37th NCT meeting) whereas ICT augmentation at Saharanpur S/s shall be taken up after reviewing the real time loading data and approval of Leh RE park scheme (5GW). Regarding 400kV Bhiwani (PG) – Bhiwani line, CTU will examine the loading and take up the suitable measures

The comprehensive scheme was agreed in 40th CMETS-NR meeting held on 12.09.25 and 47th CMETS-ER meeting held on 30.09.25.

Tentative timeframe of scheme: 24 months from SPV transfer with an Estimated cost: Rs 27,000 Cr.

The Scheme was further deliberated in 56th TCC & 81st NRPC Meeting held on 30-31st Oct'25. In the meeting NRLDC stated that CTU had informed during the CMETS-NR meeting that all the issues highlighted by Grid-India would be addressed progressively and that appropriate remedial measures would be implemented so these solutions remain in matching timeframe of transmission scheme.

In the meeting, CTU stated that studies for reactive compensation and high loading of ISTS lines as well as higher angular separation (Kishenpur-Moga) are undergoing. Studies for high short circuit levels will be carried out in next 1-2 months after receipt of data. CTU stated that applications have already been received for RE Bikaner-V totaling 6 GW, with a scheduled completion in 2027–28. The proposal has been submitted for technical approval and will subsequently be forwarded for ERPC approval.

MS, ERPC stated that a comprehensive scheme may be submitted by CTU as the present scheme has implications on the Eastern region also. MS, ERPC stated that this scheme has been presented for the first time and there was not sufficient time for detailed deliberation, as it was only recently discussed in the OCC meeting of ERPC. Therefore, additional time is required to assess the entire scheme.

CTU stated that the scheme had already been discussed with Eastern Region constituents during the CMETS-ER meeting; however, it can be discussed again with ERPC any required

modifications can be discussed before submission to the NCT. Furthermore, any delay in approving the transmission system will further constrain RE generation, which is already an issue in the current scenario. Based on deliberation, it was concluded that:

- *Forum advised that a separate meeting under Member (Power System), CEA may be convened within one month by CTU with concerned stakeholders and outcome of CMETS meeting shall be discussed at NRPC/ERPC forum of respective region at the earliest.*
- *CTU and STU may do necessary studies & take up corrective measures in matching timeframe of the proposed scheme to address the observation raised by GRID-INDIA.*

Subsequently, CTUIL reviewed the studies for additional interconnection to Eastern region. In the revised studies, LILO of both ckts of 400kV Balia – Patna D/c line at Asana S/s was not considered and in place of above LILO arrangement, a direct interconnection between Asana to Nawada S/s through 765kV D/c line was considered. Balance scheme remains the same as agreed in CMETS-NR and CMETS-ER meeting earlier. Revised study files were also circulated on 21.11.25.

Detailed scheme is as under:

Transmission scheme for evacuation of power as part of Rajasthan REZ Ph-IV (Part-6: 6GW) (Bikaner Complex) (Bikaner V: 6GW)

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
1	Establishment of 765/400 kV, 6x1500 MVA & 400/220 kV, 8x500 MVA Bikaner-V Pooling Station along with 2x240 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors at a suitable location near Bikaner **<u>Future provisions (excl. scope of present scheme):</u>** ➢ 765 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400/220 kV ICT along with bays-2 Nos. ➢ 400 kV Sectionalization bays: 1 set ➢ 220 kV line bays for connectivity RE Applications -4 Nos. ➢ 220kV Sectionalization bay: 2 sets ➢ 220 kV BC (2 Nos.) & TBC (2 Nos.) ➢ 1 No. of Syncon units* at 400kV level along with 1 nos. of 400kV bay	Bikaner-V PS - AIS • 765/400 kV 1500 MVA ICTs- 6 Nos. (19x500 MVA including one spare unit) • 400/220 kV 500 MVA ICTs- 8 Nos. • 765kV line bays – 4 nos. (for 765kV interconnection with Pallu S/s) • 400kV line bays – 4 nos. (for 400kV interconnection with LILO of one D/c of 400kV Bikaner II PS- Khetri 2xD/c line) • 765kV ICT bays – 6 nos. • 400 kV ICT bays- 14 Nos. • 220 kV ICT bays - 8 Nos. • 240 MVAr Bus Reactor-2 Nos. (7x80 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	➢ 1 No. of Syncon units* at 220kV level along with 1 nos. of 220kV bay *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	• 400kv line bays– 3 Nos. (for RE interconnection) • 220KV line bays – 10 Nos. (for RE interconnection) • 220kV Sectionalization bay: 1 set • 220 kV BC (2 Nos.) & TBC (2 Nos.) • 400kV sectionaliser bay- 1 Set
2	STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) at Bikaner-V PS	• STATCOM (2x+300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) • 400 kV bays: 2 Nos. (for STATCOM)
3	LILO of one double ckt of 400kV Bikaner II PS- Khetri (Twin HTLS) 2xD/c line at Bikaner-V PS along with 50 MVAr switchable line reactor for each circuit at Bikaner-V PS end of 400kV Bikaner-V-Khetri D/c line	Length-45km (Quad) (LILO length) • 420 kV, 50 MVAr switchable line reactors at Bikaner-V PS end– 4 Nos. • Switching equipment for 420kV, 50MVAr switchable line reactors at Bikaner-V PS end – 4 Nos.
4	Establishment of 765/400 kV, 2x1500 MVA S/s at suitable location near Pallu (Distt. Hanumangarh) along with 2x240 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors **Future provisions (excl. scope of present scheme):** ➢ 765 kV line bays along with switchable line reactor –2 nos. ➢ 765/400 kV 1500 MVA ICTs- 2 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos.	Pallu S/s - AIS • 765/400 kV 1500 MVA ICTs- 2 Nos. (7x500 MVA including one spare unit) • 765kV line bays – 12 nos. (for 765kV 2xD/c interconnection each with Bikaner-IV PS, Panipat S/s and LILO of both ckts of 765kV Bikaner – Moga D/c line) • 400kV line bays – 2 nos. (for 400kV interconnection with Hanumangarh S/s) • 765kV ICT bays – 2 nos. • 400 kV ICT bays- 2 Nos. • 240 MVAr Bus Reactor-2 Nos. (7x80 MVAr, including one

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 Nos.) ➢ STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) along with 400kv bays (2nos.) ➢ 2 No. of Syncon units* at 220kV level along with 2 nos. of 220kV bay ***1** No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.
5	765 kV Bikaner-V PS – Pallu 2xD/c line	Line Length -120 km
6	LILO of both ckts of 765kV Bikaner – Moga D/c line at Pallu S/s along with 240MVAr switchable line reactor for each circuit at Pallu S/s end of 765kV Pallu-Moga D/c line	Length-50km (LILO length) • 765 kV, 240 MVAr switchable line reactors at Pallu S/s end– 2 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Pallu S/s end – 2 Nos.
7	400 kV Pallu – Hanumangarh (RVPN) D/c (Quad) line	Line Length -80 km • 400kV line bays – 2 nos. (at Hanumangarh (RVPN) S/s)
8	Establishment of 765/400 kV, 3x1500 MVA S/s at suitable location near Panipat (Distt. Panipat) along with 2x240 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors **Future provisions (excl. scope of present scheme):** ➢ 765 kV line bays along with switchable line reactor –4 nos. ➢ 765/400 kV 1500 MVA ICTs- 3 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set	Panipat S/s - AIS • 765/400 kV 1500 MVA ICTs- 3 Nos. (10x500 MVA including one spare unit) • 765kV line bays –8 nos. (for 765kV 2xD/c interconnection each with Pallu S/s and Bulandshahr S/s) • 400kV line bays – 4 nos. (for 400kV interconnection with Mohali and Mandola S/s) • 765kV ICT bays – 3 nos. • 400 kV ICT bays- 3 Nos. • 240 MVAr Bus Reactor-2 Nos. (7x80 MVAr, including one

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) along with 400kv bays (2nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.
9	765 kV Pallu-Panipat 2xD/c line along with 240 MVAr switchable line reactor for each circuit at each end	Length-280km • 765 kV, 240 MVAr switchable line reactors at Pallu S/s end– 4 Nos. • 765 kV, 240 MVAr switchable line reactors at Panipat S/s end– 4Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Pallu S/s end – 4 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Panipat S/s end – 4 Nos.
10	Establishment of 400/220kV, 3x500 MVA S/s at suitable location near Mohali (Distt. Mohali district) along with 2x125 MVAr (420kV) Bus Reactors **<u>Future provisions (excl. scope of present scheme):</u>** ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –2 Nos. ➢ 400 kV Bus Reactor along with bays: 1 No.	• 400kV line bays – 4 nos. (for 400kV interconnection with Panipat S/s & LILO of one circuit of 400kV Patiala-Panchkula D/c line) • 400kV ICT bays – 3 nos. • 220 kV ICT bays- 3 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos. • 220 kV line bays -6 Nos. (as

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	➢ 400/220 kV ICT along with bays-3 Nos. ➢ 400 kV Sectionalization bays: 1 set ➢ 220 kV line bays -4 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 Nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	informed by PSTCL in meeting)
11	LILO of one circuit of 400kV Patiala-Panchkula D/c line at Mohali	Length-30km (LILO length)
12	400 kV Panipat S/s – Mohali D/c (Quad Moose) line along with 80 MVAr (420kV) switchable line reactor for each circuit at Mohali end (155km)	Line Length-155km (Quad) • 420 kV, 80 MVAr switchable line reactors at Mohali S/s end– 2 Nos. • Switching equipment for 420kV, 80MVAr switchable line reactors at Mohali S/s end – 2Nos.
13	400 kV Panipat S/s – Mandola D/c (Quad) line	Line Length-75km (Quad) • 400kV line bays at Mandola S/s – 2 nos.
14	Establishment of 765 kV S/s at suitable location near Bulandshahr (Distt. Bulandshahr) along with 2x330 MVAr (765kV) Bus Reactors **<u>Future provisions (excl. scope of present scheme):</u>** ➢ 765 kV line bays along with switchable line reactor –4 nos. ➢ 765/400 kV 1500 MVA ICTs- 4 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No.	Bulandshahr S/s – AIS • 765kV line bays –10 nos. (for 765kV 2xD/c interconnection with Panipat S/s, 765kV D/c interconnection with Lucknow-II S/s & Noida sec-148 (UPPTCL) S/s and LILO of 765kV Aligarh – Gr. Noida line) • 330 MVAr Bus Reactor-2 Nos. (7x110 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	
15	765 kV Panipat- Bulandshahr 2xD/c line along with 240 MVAr switchable line reactor for each circuit at Bulandshahr end	Line Length-150km • 765 kV, 240 MVAr switchable line reactors at Bulandshahr S/s end– 4 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Bulandshahr S/s end – 4 Nos. • 1x80 MVAr, 765kV reactor spare unit
16	LILO of 765kV Aligarh – Gr. Noida line at Bulandshahr S/s (Lilo length-30km)	Length-30km (LILO length)
17	765kV Bulandshahr - Noida sec-148 (UPPTCL) D/c line	Line Length- 50km • 765kV line bays at Noida sec-148 S/s(UPPTCL) – 2 nos.
18	Establishment of 765/400 kV, 2x1500 MVA Lucknow-II S/s at suitable location near Lucknow along with 2x330 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors **<u>Future provisions (excl. scope of present scheme):</u>** ➢ 765 kV line bays along with switchable line reactor –8 nos. ➢ 765/400 kV 1500 MVA ICTs- 4 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos.	Lucknow-II S/s – AIS • 765/400 kV 1500 MVA ICTs- 2 Nos. (7x500 MVA including one spare unit) • 765kV line bays –4 nos. (for 765kV D/c interconnection each with Asana & Bulandshahr S/s) • 400kV line bays – 2 nos. (for 400kV interconnection with Gonda (UPPTCL) S/s) • 765kV ICT bays – 2 nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	• 400 kV ICT bays- 2 Nos. • 330 MVAr Bus Reactor-2 Nos. (7x110 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.
19	765 kV Bulandshahr – Lucknow-II D/c line along with 330 MVAr switchable line reactor for each circuit at each end	Line Length- 350km • 765 kV, 330 MVAr switchable line reactors at Bulandshahr S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Bulandshahr S/s end – 2 Nos. • 765 kV, 330 MVAr switchable line reactors at Lucknow-II S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Lucknow-II S/s end – 2 Nos.
20	400 kV Lucknow-II – Gonda D/c (Quad Moose) line	Line Length- 160km • 400kV line bays at Gonda S/s(UPPTCL) – 2 nos.
21	Establishment of 765/400 kV, 2x1500 MVA S/s at suitable location near Asana Village (Chandauli District) along with 2x330 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors	Asna (Chandauli) S/s – AIS • 765/400 kV 1500 MVA ICTs- 2 Nos. (7x500 MVA including one spare unit) • 765kV line bays –4 nos. (for

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	Future provisions (excl. scope of present scheme): ➢ 765 kV line bays along with switchable line reactor –6 nos. ➢ 765/400 kV 1500 MVA ICTs- 4 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays ➢ STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) along with 400kv bays (2nos.) ***1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	765kV D/c interconnection each with Lucknow-II S/s & Nawada) • 400kV line bays – 4 nos. (for LILO of both ckts of 400kV Varanasi – Biharsharif D/c line) • 765kV ICT bays – 2 nos. • 400 kV ICT bays- 2 Nos. • 330 MVAr Bus Reactor-2 Nos. (7x110 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.
22	765 kV Lucknow-II-Asana D/c line along with 330 MVAr switchable line reactor for each circuit at each end	Line Length- 350km • 765 kV, 330 MVAr switchable line reactors at Asana S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Asana S/s end – 2 Nos. • 765 kV, 330 MVAr switchable line reactors at Lucknow-II S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Lucknow-II S/s end –

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
		2 Nos.
23	LILO of both ckts of 400kV Varanasi – Biharsharif D/c line at Asana S/s along with 80 MVAr switchable line reactor for each circuit at Asana end of 400kV Asana-Biharsharif section	Length-25km (LILO length) • 420 kV, 80 MVAr switchable line reactors at Asana S/s end– 2 Nos. • Switching equipment for 420kV, 80MVAr switchable line reactors at Asana S/s end – 2 Nos.
24	Asana – Nawada 765kV D/c line along with 240MVAr switchable line reactors in each circuits at both ends	Line Length - 250km • 765 kV, 240 MVAr switchable line reactors at Asana S/s end– 2 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Asana S/s end – 2 Nos. • 765 kV, 240 MVAr switchable line reactors at Nawada S/s end– 2 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Nawada S/s end – 2 Nos. • Single phase spare unit (80MVAr) – 1 no.

Meeting under Member (Power System), CEA

As agreed in the RPC meeting and on the request of CTUIL, a meeting was convened on 27.11.25 under Chairmanship of Member (PS) for deliberations on the scheme. In the meeting MS (ERPC) stated that proposed connection towards Nawada *would help ER states in import of RE power from Rajasthan complex.* The proposal is in order and shall be discussed in ensuing ERPC meeting for approval for ER portion.

Further in meeting Grid-India highlighted the following issues particularly for NR:

- Higher load considered in Scenario 7 as per LGB
- Severe low voltage issue in NR Grid in Solar maximized scenarios
- High voltage issues in winter night off peak scenario
- High fault level on Various substation in Rajasthan & Punjab

- Higher angular separation in 400kV Kishenpur - Moga D/c line in N-1 contingency
- N-1 violation issues pertaining to Intra State lines/ICTs (STU network) in NR
- Overloading of some of the 400/220kV ICTs and 220kV lines
- N-1 non-compliance of inter-state ICTs and higher angular separation of various lines in N-1 and N-1-1 contingency

Grid-India emphasized that above issues may be discussed and resolved as part of Grid strengthening scheme and may be taken up in matching timeframe of proposed Transmission scheme from Bikaner complex.

Member (PS) opined that CEA, CTU and Grid-India to carry out joint studies separately and mitigate issues highlighted by Grid-India.

Joint Study Meeting

Accordingly, joint study meetings were held on 23.12.2025 & 24.12.2025 to discuss issues highlighted by Grid-India during the earlier discussions of Transmission scheme for evacuation of power as part of Rajasthan REZ Ph-IV (Part-6: 6GW) (Bikaner Complex) (Bikaner V: 6GW), along with Intra-state transmission schemes proposed by RVPN and Transmission Resource Adequacy report of Rajasthan was also discussed.

The various issues discussed in the meeting along with their solution/rectification measures are given below:

1. Load Generation Balance Scenario-7 (Feb Solar Peak):

In the meeting Grid-India highlighted that as per the CEA 20th EPS, the projected peak load for 2029-30 is ~335 GW. However, a load of 380 GW has been considered in Scenario-7 (Feb Solar) study case. The same may be reviewed and the regional load may be appropriately scaled to reflect realistic real-time operating conditions. GRID-INDIA also highlighted that the demand has been considered on the higher side and RE curtailment may be required in the future in the event of lower actual demand. This should be explicitly reflected in the proposed transmission schemes.

In the meeting, CTU mentioned that additional demand from Green Hydrogen, Bulk consumer in ER/SR/WR region is also considered in the studies files. Green hydrogen / Bulk loads considered in various regions are considered to about 54 GW (ER:13.2 GW SR:23 GW, WR: 18GW) for which transmission scheme is under various stages of finalization and linked with envisaged RE of SR and WR.

Further Grid-India emphasized that in Northern region also load is on higher side (116 GW). Considering sensitivity of Summer and winter season load of NR in winter season should be about 93GW. CTU mentioned that in Northern region load of about 6.2 GW is considered for KBNAIR complex which is linked with intra state RE of Rajasthan as part of GEC-III scheme. Additionally, 1GW of new load is considered at Mohali S/s. Further CTUIL vide mail dated 26.12.2025 to NR STUs requested to review Load demand considered in planning

files for 2029-2030 timeframes for winter season. Details of NR states load considered in PSSE planning files for 2029-2030 timeframe are as under:

Sl. no.	States	EPS load (in MW) (2029-2030 timeframe)	Load considered in Planning PSSE files (in MW)		STU reply on projected load demand for 2029-30	Load considered in Revised PSSE file (SC-7)
			Summer Solar Max	Winter Solar max		
1	**Jammu & Kashmir**	4211	2800	4270	In joint study meeting, J&K indicated that load of 6-7GW needs to be considered in winter season (by 2029-30), However on conservative side load is considered to the tune of 5 GW.	5000
3	**Punjab**	19466	20310	15670	Load is in order. Considering diversity, load is considered 13.5GW in revised cases	13500
4	**Haryana**	19744	16420	13100	Load to be considered to about 11GW in revised cases	11000
5	**Delhi**	11046	9370	6150	Load is in order	6150
6	**Uttar Pradesh**	39781	38000	32600	UP increase their load trajectory of 44GW in summer season (evening) from 39GW. Considering above winter load is in order.	32600
7	**Himachal Pradesh**	2983	1780	2440	Load is in order	2440
8	**Uttarakhand**	3847	2960	2630	winter load to be considered is 2742MW	2742
9	**Rajasthan**	25048	31400	32300	Winter load is considered 25GW (incl. 6GW of KBNAIR load)	31000
10	**BBMB & Chandigarh**			1000		1000

	Total			**110160**		**105432 (incl. 7.5 GW additional load not envisaged in EPS)**

As per the revised load, files for Scenario-7 have been modified and circulated.

2. For Over voltage/Under voltage issues in the Northern Region Grid

In the meeting, it was highlighted that during winter, issues of over voltage persist in Punjab, Haryana, Delhi and UP; and several 765kV and 400kV lines get opened on regular basis to control the high voltages. Further due to inadequate capacitor banks in J&K intra state network, severe low voltages have been seen in J&K grid.

To resolve above issues CTU sought voltage duration curve from Grid-India and analyzed the nodes suitable for installation of static and dynamic compensation. From the studies, nodes that were identified to be over-voltage nodes are Agra(PG), Orai(PG), Aligarh(PG), Sonepat(PG), Patran(IndiGrid), Jind(PG), Jhatikara(PG), Bamnauli(DTL), Mandola(PG) & Narela(PG) and nodes identified to mitigate low voltage are Wagoora(PG) & Amargarh(PG).

The issue of high and low voltage was already highlighted at various forum/reports (i.e. OCC forum, Quarterly Operational Feedback report). Further, POWERGRID vide letter dated 05.12.2025 also highlighted over voltage issue at Agra(PG), Orai(PG) Aligarh(PG) S/s. In the letter POWERGRID stated that as per 236th OCC meeting CTUIL has been advised to carry out a comprehensive study to examine the requirement of reactive power compensation devices for voltage control in particular area.

Following pockets/Substation were identified wherein reactive compensation measure is required to control Over voltage/Under voltage in the Northern Region. Details are as under:

Sl No.	**Substation Name**	**Details of Proposed TCR/ STATCOM/ SYNCON/ REACTOR**	**Space Availability confirmation by respective TSP**
1	Bhadla-III PS (Low voltage & Low SCR)	2 nos. of Synchronous Condensers (SynCon) units [2x(*+300 MVAr/-200 MVAr*)] at 220kV level of 765/400/220kV Bhadla-III PS along with 2 nos. of 220kV bays	Space Available-Taken up in CMETS-NR meeting for stakeholder consultation
2	Fatehgarh-IV(Sec-2) (Apraava) (Low voltage & Low SCR)	2 nos. of Synchronous Condensers (SynCon) units [2x(*+300 MVAr/-200 MVAr*)] at 220kV level of 765/400/220kV Fatehgarh-IV(Sec-2) PS along	space is available for two (02) line bays and one (01) synchronous condenser. However, placing the second synchronous condenser

		with 2 nos. of 220kV bays	obstructs the corridor for four (04) future 400 kV line bays. As the requirement for these future bays is currently unconfirmed, an alternative arrangement such as a 400kV UG cable connection from the dead-end tower to the gantry or any other could be explored later. Taken up in CMETS-NR meeting for stakeholder consultation
3	Agra (PG) (High voltage)	TCR (2x250MVAr) **or** STATCOM (2x+300MVAr) along with MSC (2x125 MVAr) & MSR (4x125 MVAr) **and** 1x330 MVAr additional bus reactor at 765kV Bus & 1x125 MVAr additional bus reactor at 400kV Bus	Space for 1x125MVAr Additional BUS reactor is available. Space for STATCOM/TCR & 1X330MVAR reactor is not available. Due to Grid Operation requirement, CTU again requested to review the space availability/feasibility for TCR(2X250 MVAr) or STATCOM (2x+300MVAr) along with MSC (2x125 MVAr) & MSR (4x125 MVAr) at Agra(PG) S/s
4	Orai (PG) (high voltage)	1x330 MVAr bus reactor at 765kV Bus	Space Available Taken up in CMETS-NR meeting for stakeholder consultation
5	Aligarh (PG) (high voltage)	STATCOM (2x±300MVAr) along with MSC (2x125 MVAr) & MSR (4x125 MVAr)	Space can be made available only for one STATCOM (1x±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr) after compromising with the future scope of work. Taken up in CMETS-NR meeting for stakeholder consultation
6	Patran (IndiGrid)	1x125 MVAr additional bus	Space Available

	(low/high voltage)	reactor at 400kV Bus	Taken up in CMETS-NR meeting for stakeholder consultation
7	Sonepat(PG) **or** Jind(PG) (low/high voltage)	STATCOM (2x+300MVAr) along with MSC (2x125 MVAr) & MSR (4x125 MVAr)	**Sonepat(PG)**- Space not available **Jind(PG)**- Space not available Alternatives shall be discussed in CMETS-NR meeting
8	Wagoora(PG) (low voltage)	STATCOM (2x+300MVAr) along with MSC (4x125 MVAr)	Space is not available in existing switchyard. New land needs to be acquired adjacent to existing sub-station for STATCOM. Taken up in CMETS-NR meeting for stakeholder consultation (modalities of land procurement will be decided with CEA)
9	Amargarh(Indigrid) (low voltage)	STATCOM (2x+300MVAr) along with MSC (4x125 MVAr)	space is available with procurement of additional land in adjacent to S/s for ICT and STATCOM Taken up in CMETS-NR meeting for stakeholder consultation
10	Jhatikara(PG) **or** Bamnauli(DTL) (low/high voltage)	STATCOM (2x+300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr)	**Jhatikara(PG)-**Space can be made available with minor adjustment at site. **Bamnauli(DTL)**- Space not available Taken up in CMETS-NR meeting for stakeholder consultation

11	Mandola(PG) **or** Narela(PG) (low/high voltage)	STATCOM (2x+300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr)	**Mandola(PG)-** Space can be made available only for one STATCOM (1x±300MVAr) along with MSC (1x125 MVAr) & MSR (2x125 MVAr) after compromising with the future scope of work **Narela(PG) -** Space not available Taken up in CMETS-NR meeting for stakeholder consultation

3. **High Short Circuit level issues in the Northern Region Grid**

During the discussion of various RE power evacuation scheme in NR, Grid-India highlighted the issue of high fault levels at various substations in Rajasthan/NR and suggest Necessary network/bus arrangements need to be planned to limit the fault current in coming future. Details of those substations in Rajasthan are as under:

Stations	**Base kV**	**SC Current (in kA)**
Bikaner-IV	400	72
Rampura Tonk	400	71
Bassi	400	69
Neemrana (PG)	400	69
Jaipur (Phagi)-RVPN	400	71
Bikaner (PG)	400	72
Bhadla (PG)	400	66
Fatehgarh-3	400	66
Bikaner-II	400	71
Bhadla-2	400	66
Bikaner-3	400	91
Barmer (RVPN)	400	64
Khuskhera	400	70
Bhiwadi (PG)	400	70
Bikaner (PG)	765	51
Sikar New	765	58
Bhadla-2	765	52
Beawar	765	58
Jaipur	765	62
Dausa	765	57

In the meeting, it was decided that remedial measures for high fault levels to be taken in phase-wise manner. Subsequently, drawee substations & few RE PS are to be considered in Phase-I & RE Injection substations are considered in Phase-II. Details of these substations are as under:

Phase-I:

Stations	Base kV	SC Current (As per IEC) (in kA)	SC Current (as per ASCC) (in kA)	Remarks
Bassi(PG)	400	69	60	Substations are designed for 40kA. Information regarding Space provision of series reactor & its placement on all substations is under finalization. Scheme shall be taken up in CMETS-NR meeting.
Neemrana(PG)	400	69	60	
Jaipur Phagi (RVPN)	400	71	63	
Jaipur Phagi (RVPN)	765	62	55	
Khuskhera/ Bhojrajka (RVPN)	400	70	56	
Bhiwadi(PG)	400	70	55	
Ludhiana	400	34	34 (220kV-52kA)	Based on OCC recommendation, series reactor & its placement will be finalized. Scheme shall be taken up in CMETS-NR meeting.
Moga	400	26 32	26 32 (220kV-44kA)	
Bhadla-III	220KV	-	54	Issue resolved with additional ICT augmentation in Sec-1.
Bikaner-V	400	63	58	Issue resolved with augmentation of ICT in Sec-1 with sectionlizer arrangement

CTUIL vide mail dated 31.12.2025 to respective TSPs, requested for Space for 1 no. of 400kV Bus sectionalizer bay with 12ohms per phase, Series Bus Reactor unit at Bassi(PG), Neemrana(PG), Bhiwadi(PG) & Jaipur South(PG) S/s.

Phase-II (RE Injection/Intermediate S/s):

Stations	Base kV	SC Current (as per IEC) (in kA)	SC Current (as per ASCC) (in kA)
Bikaner-IV	400	72	66
Rampura Tonk (RVPN)	400	71	63

Bikaner (PG)	765	51	47
Bikaner-NW	400	72	66
Bhadla PG	400	66	59
Fatehgarh-3	400	66	60
Bikaner-II	400	71	68
Bhadla-II	400	66	60
Bikaner-III	400	91	84
Barmer (RVPN)	400	64	58
Sikar-II	765	58	51
Bhadla-2	765	52	47
Beawar	765	58	51
Dausa	765	57	50

It was stated that after resolution of Ph-I substations, scheme will be evolved for Ph-II substations. SLD and space provision for sectionalizer is being sought from respective TSP.

GRID-INDIA stated that a number of series bus reactors may be required and planned in the RE complex for limiting high fault current. Accordingly, an interaction study may be carried out by the TSP, and a clear provision in this regard should be explicitly incorporated.

4. N-1 Compliance and angular separation issues in Various ISTS lines

GRID-INDIA stated that the Manual on Transmission planning criteria 2023 clause no. 3.14.12 states that

" …. the lines for which the angular difference between its terminal buses is more than 20 degrees after contingency of one circuit may be selected for performing stability studies"

Therefore, transient stability analysis may be carried out to ascertain the stability of the system.

For the following high angular separation issues under N-1

1) 400 kV Kishenpur – Moga line (275 km & 287 km): scheme for Upgradation of Moga - Kishenpur 400kV D/c line at 765kV level is already evolved and taken up in Joint study meeting to schedules shorlty.
2) 400 kV Bhiwani - Moga line (273 km) & 400 kV Moga - Fatehabad D/c line (179 km) - CTU will examine the proposal and resolve the issue in next 2 months time.
3) 400 kV Bikaner-II - Khetri line (275 km) - CTU will take up the LILO of above line with subsequent scheme planned in Bikaner complex.
4) 400 kV Singraulli – Lucknow line (409 km) - Being a longest 400 kV line in NR, CTU will examine the proposal and discuss it with CEA/Grid-India.

5. SCR at Bikaner-V Pooling station.

Pooling Station	Total RE Injection	Direct RE	Voltage	POI Fault	SCR	After proposed sectionalizer

	in the Region (MW)	Injection at POI (MW)	Level of POI (kV)	MVA		arrangement at 220kV level at Bikaner V PS
Bikaner-V	6000	3500	220	16600	**4.74**	**220 kV Sec-1 : 8.4** **220 kV Sec-2 : 6.8**
		2500	400	34700	5.78	**5.7**

Grid-India highlighted in meeting that the SCR of 220 kV Bikaner-V stations is observed to be less than 5 under base case. It further reduced under N-1 contingencies. It is also understood that the above schemes will be commissioned in phases, the SCR in the initial phases will be very low. In the study case, 3,500 MW has been considered at the 220 kV level. However, it is possible that the entire 6,000 MW may eventually get connected at 220 kV, which could lead to operational challenges. Further, 2 Nos. of STATCOMs have been considered at Bikaner-V and a synchronous condenser (SynCON) has been kept under future scope. Grid India proposed that one STATCOM along with one SynCON be considered to strengthen the system.

CTU stated that connectivity of about 6 GW (3500MW at 220 kV & 2500MW at 400 kV) is already been granted at Bikaner-V PS. In the modified studies, Sectionalizer arrangement (normally open) is being kept at 220 kV level of Bikaner-V PS, which will also improve the SCR (>6) of both 220 kV sections as well as limit the short circuit current. Requirement of SynCon could be evaluated in case of any change in generation configuration (at 220kV and 400 kV level) at Bikaner-V PS.

6. Other major comments and measures

- Generation from Vedanta project in ER is kept to zero dispatch due to captive nature
- Dispatches of PSP were modified in consultation with other regional planning groups and incorporated in revised file.
- 0.95 pf Load power factor has been incorporated in all NR states wherever required. However, at certain places pf has been considered optimistically (0.99 pf).
- Grid-India highlighted that a total of ~11 GW of generation is being pooled at the 765 kV Pallu station, making it critical from system resiliency view point. In the event of complete outage of this station, evacuation of power from the RE complex would be severely impacted and may lead to a large disturbance also. Multiple stations may be planned in place of pooling such high RE generation at a single station.

  Regarding resiliency of the system, CTU mentioned that in case of RE, various polling stations i.e. Sikar-II, Beawar, Siwani, Mandsaur, Neemrana-II are carrying power of more than 8 GW. In the event of complete outage of this station, evacuation of power from the RE complex would be impacted, however considering techno economics for RE evacuation (with low TUF) as well as RoW/Land issues it is not recommended that additional transmission to be planned from such complexes. CEA endorsed the same. Further, Pallu S/s could be utilized in future planning studies to increase resiliency.

- Regarding 765/400kV ICT augmentation at Panipat S/s (1375MW in N-1 contingency), CTU stated that an additional ICT may be planned based on real time loadings for which additional ICT is also kept as part of future scope.
- Regarding 765/400kV ICT augmentation at Noida-sec 148 S/s, CTU stated that substation belongs to UPPTCL and they will send communication to UPPTCL to augment additional ICT (3rd) in matching timeframe of Bikaner-V transmission scheme.
- Regarding N-1 Compliance issues at Mohali S/s, an additional 1x500MVA ICT (4th) included as part of scheme.
- Regarding high loading of Bikaner (RVPN) – Sikar (PG) D/c line in planning files, CTU stated that loading will be reviewed on real time basis and suitable measures i.e. reconductoring of line with high ampacity conductor will be carried out by RVPNL in matching timeframe of the above scheme. RVPNL agreed for the same
- Regarding high loading of 400kV Bhadla(RVPN) – Bhadla Sultanagar(RVPN) D/c line in planning files, it was agreed that RVPN will upgrade the conductor to quad moose / HTLS equivalent in matching timeframe of the intra state scheme.
- Regarding high loading of Patiala-Mohali section (formed after LILO of one circuit of 400kV Patiala-Panchkula D/c line at Mohali), it was agreed that reconductoring of 400kV Patiala-Mohali section is to be carried out as part of scheme.
- Sc-9 was also corrected with lower load of Rajasthan and ER region. The off- peak base case will be shared for assessing any voltage issues during night off peak hours. GRID-INDIA also highlighted that significant RE penetration is anticipated in the near future. The generation is also getting evacuated through large EHV lines. Therefore, dynamic simulation studies may be carried out to assess the stability of the planned system. CTU highlighted that considering the severe convergence issues in dynamics file, CTUIL is carrying out dynamic studies to converged files on truncated network specific to RE pockets in Rajasthan and Gujarat rather than to converge the file on All India level. In this regard, CTU is also pursuing for consultation with IIT Bombay for preparation of dynamics file. CEA opined that CTUIL, Grid India and other stakeholders may work together for formulation of required simulation files for dynamic studies.
- GRID-INDIA also requested to assign unique name for envisaged RE pooling stations. As several pooling substations with identical names but different numerical suffixes have been planned in the same district along with multiple interconnections, there is a chance of miscommunication during real-time operation among multiple constituents. For clarity of operation and ensuring that names of different substations are easily distinguished from each other, it is suggested that after finalization of the exact location, the ISTS substations are uniquely named as per the geographical name of the nearest location like village or taluk. CEA/CTU noted the same as issues is already highlighted with the NCT.

Conclusion

As per the discussion in joint study meeting, revised files after incorporating study related comments of CEA and Grid-India were circulated on 16.01.26. The scheme to be put up to RPC for its concurrence. Further, for various other issues related to grid highlighted in the meeting; corresponding mitigation measures as deliberated in the meeting to be taken up separately and appropriately for stakeholder consultation.

After detailed deliberation following scheme was agreed in the Joint study meeting:

Transmission scheme for evacuation of power as part of Rajasthan REZ Ph-IV (Part-6: 6GW) (Bikaner Complex) (Bikaner V: 6GW)

Sl. No.	**Description of Transmission Element**	**Scope of work** **(Type of Substation/Conductor capacity/km/no. of bays etc.)**
1	Establishment of 765/400 kV, 6x1500 MVA & 400/220 kV, 10x500 MVA Bikaner-V Pooling Station along with 2x240 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors at a suitable location near Bikaner **<u>Future provisions (excl. scope of present scheme)</u>:** ➢ 765 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400/220 kV ICT along with bays-2 Nos. ➢ 400 kV Sectionalization bays: 1 set ➢ 220 kV line bays for connectivity RE Applications -4 Nos. ➢ 220kV Sectionalization bay: 2 sets ➢ 220 kV BC (2 Nos.) & TBC (2 Nos.) ➢ 1 No. of Syncon units* at 400kV level along with 1 nos. of 400kV bay ➢ 1 No. of Syncon units* at 220kV level along with 1 nos. of 220kV bay *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-	Bikaner-V PS - AIS • 765/400 kV 1500 MVA ICTs - 6 Nos. (19x500 MVA including one spare unit) • 400/220 kV 500 MVA ICTs - 8 Nos. • 765kV line bays - 4 nos. (for 765kV interconnection with Pallu S/s) • 400kV line bays - 4 nos. (for 400kV interconnection with LILO of one D/c of 400kV Bikaner II PS- Khetri 2xD/c line) • 765kV ICT bays - 6 nos. • 400 kV ICT bays - 16 Nos. • 220 kV ICT bays - 10 Nos. • 240 MVAr Bus Reactor-2 Nos. (7x80 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos. • 400kv line bays - 3 Nos. (for RE interconnection) • 220KV line bays - 10 Nos. (for RE interconnection) • 220kV Sectionalization bay: 1 set • 220 kV BC (2 Nos.) & TBC (2

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	secs) shall be provided in RfP document)	Nos.) • 400kV Sectionaliser bay- 1 Set
2	STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) at Bikaner-V PS	• STATCOM (2x+300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) • 400 kV bays: 2 Nos. (for STATCOM)
3	LILO of one double ckt of 400 kV Bikaner II PS - Khetri (Twin HTLS) 2xD/c line at Bikaner-V PS along with 50 MVAr switchable line reactor for each circuit at Bikaner-V PS end of 400kV Bikaner-V - Khetri section	Length-45km (Quad) (LILO length) • 420 kV, 50 MVAr switchable line reactors at Bikaner-V PS end - 4 Nos. • Switching equipment for 420kV, 50MVAr switchable line reactors at Bikaner-V PS end - 4 Nos.
4	Establishment of 765/400 kV, 2x1500 MVA S/s at suitable location near Pallu (Distt. Hanumangarh) along with 2x240 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors **Future provisions (excl. scope of present scheme):** ➢ 765 kV line bays along with switchable line reactor –2 nos. ➢ 765/400 kV 1500 MVA ICTs- 2 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 Nos.) ➢ STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125	Pallu S/s - AIS • 765/400 kV, 1500 MVA ICTs- 2 Nos. (7x500 MVA including one spare unit) • 765kV line bays – 12 nos. (for 765kV 2xD/c interconnection each with Bikaner-IV PS, Panipat S/s and LILO of both ckts of 765kV Bikaner – Moga D/c line) • 400kV line bays – 2 nos. (for 400kV interconnection with Hanumangarh S/s) • 765kV ICT bays – 2 nos. • 400 kV ICT bays- 2 Nos. • 240 MVAr Bus Reactor-2 Nos. (7x80 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	MVAr) along with 400kv bays (2nos.) ➢ 2 No. of Syncon units* at 220kV level along with 2 nos. of 220kV bay ***1** No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	
5	765 kV Bikaner-V PS – Pallu 2xD/c line	Line Length -120 km
6	LILO of both ckts of 765kV Bikaner – Moga D/c line at Pallu S/s along with 240MVAr switchable line reactor for each circuit at Pallu S/s end of 765kV Pallu-Moga D/c line	Length-50km (LILO length) • 765 kV, 240 MVAr switchable line reactors at Pallu S/s end– 2 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Pallu S/s end – 2 Nos.
7	400 kV Pallu – Hanumangarh (RVPN) D/c (Quad) line	Line Length -80 km • 400kV line bays – 2 nos. (at Hanumangarh (RVPN) S/s)
8	Establishment of 765/400 kV, 3x1500 MVA S/s at suitable location near Panipat (Distt. Panipat) along with 2x240 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors **<u>Future provisions (excl. scope of present scheme):</u>** ➢ 765 kV line bays along with switchable line reactor –4 nos. ➢ 765/400 kV 1500 MVA ICTs- 3 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set	Panipat S/s - AIS • 765/400 kV 1500 MVA ICTs- 3 Nos. (10x500 MVA including one spare unit) • 765kV line bays –8 nos. (for 765kV 2xD/c interconnection each with Pallu S/s and Bulandshahr S/s) • 400kV line bays – 4 nos. (for 400kV interconnection with Mohali and Mandola S/s) • 765kV ICT bays – 3 nos. • 400 kV ICT bays- 3 Nos. • 240 MVAr Bus Reactor-2 Nos. (7x80 MVAr, including one spare unit)

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) along with 400kv bays (2nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	• 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.
9	765 kV Pallu-Panipat 2xD/c line along with 240 MVAr switchable line reactor for each circuit at each end	Length-280km • 765 kV, 240 MVAr switchable line reactors at Pallu S/s end– 4 Nos. • 765 kV, 240 MVAr switchable line reactors at Panipat S/s end– 4 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Pallu S/s end – 4 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Panipat S/s end – 4 Nos.
10	Establishment of 400/220kV, 4x500 MVA S/s at suitable location near Mohali (Distt. Mohali district) along with 2x125 MVAr (420kV) Bus Reactors **Future provisions (excl. scope of present scheme):** ➢ 400 kV line bays along with switchable line	• 400kV line bays – 4 nos. (for 400kV interconnection with Panipat S/s & LILO of one circuit of 400kV Patiala-Panchkula D/c line) • 400kV ICT bays – 4 nos. • 220 kV ICT bays- 4 Nos. • 125 MVAr Bus Reactor-2 Nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	reactor –4 nos. ➢ 400 kV line bays –2 Nos. ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400/220 kV ICT along with bays-3 Nos. ➢ 400 kV Sectionalization bays: 1 set ➢ 220 kV line bays -4 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 Nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays ***1** No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	• 400 kV Bus reactor bays- 2 Nos. • 220 kV line bays -6 Nos. (as informed by PSTCL in meeting)
11	LILO of one circuit of 400kV Patiala-Panchkula D/c line at Mohali along with reconductoring of 400kV Patiala – Mohali section with twin HTLS line (2100MVA)	Length-30km (LILO length)
12	400 kV Panipat S/s – Mohali D/c (Quad Moose) line along with 80 MVAr (420kV) switchable line reactor for each circuit at Mohali end (155km)	Line Length-155km (Quad) • 420 kV, 80 MVAr switchable line reactors at Mohali S/s end– 2 Nos. • Switching equipment for 420kV, 80MVAr switchable line reactors at Mohali S/s end – 2 Nos.
13	400 kV Panipat S/s – Mandola D/c (Quad) line	Line Length-75km (Quad) • 400kV line bays at Mandola S/s – 2 nos.
14	Establishment of 765 kV S/s at suitable location near Bulandshahr (Distt. Bulandshahr) along with 2x330 MVAr (765kV) Bus Reactors **<u>Future provisions (excl. scope of present</u>**	Bulandshahr S/s – AIS • 765kV line bays –10 nos. (for 765kV 2xD/c interconnection with Panipat S/s, 765kV D/c interconnection with Lucknow-II

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	<u>scheme):</u> ➢ 765 kV line bays along with switchable line reactor –4 nos. ➢ 765/400 kV 1500 MVA ICTs- 4 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	S/s & Noida sec-148 (UPPTCL) S/s and LILO of 765kV Aligarh – Gr. Noida line) • 330 MVAr Bus Reactor-2 Nos. (7x110 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos.
15	765 kV Panipat- Bulandshahr 2xD/c line along with 240 MVAr switchable line reactor for each circuit at Bulandshahr end	Line Length-150km • 765 kV, 240 MVAr switchable line reactors at Bulandshahr S/s end– 4 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Bulandshahr S/s end – 4 Nos. • 1x80 MVAr, 765kv reactor spare unit
16	LILO of 765kV Aligarh – Gr. Noida line at Bulandshahr S/s (Lilo length-30km)	Length-30km (LILO length)
17	765kV Bulandshahr - Noida sec-148	Line Length- 50km

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	(UPPTCL) D/c line	• 765kV line bays at Noida sec-148 S/s(UPPTCL) – 2 nos.
18	Establishment of 765/400 kV, 2x1500 MVA Lucknow-II S/s at suitable location near Lucknow along with 2x330 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors **<u>Future provisions (excl. scope of present scheme):</u>** ➢ 765 kV line bays along with switchable line reactor –8 nos. ➢ 765/400 kV 1500 MVA ICTs- 4 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays *****1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	Lucknow-II S/s – AIS • 765/400 kV 1500 MVA ICTs- 2 Nos. (7x500 MVA including one spare unit) • 765kV line bays –4 nos. (for 765kV D/c interconnection each with Asana & Bulandshahr S/s) • 400kV line bays – 2 nos. (for 400kV interconnection with Gonda (UPPTCL) S/s) • 765kV ICT bays – 2 nos. • 400 kV ICT bays- 2 Nos. • 330 MVAr Bus Reactor-2 Nos. (7x110 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.
19	765 kV Bulandshahr – Lucknow-II D/c line along with 330 MVAr switchable line reactor for each circuit at each end	Line Length- 350km • 765 kV, 330 MVAr switchable line reactors at Bulandshahr S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Bulandshahr S/s end

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
		– 2 Nos. • 765 kV, 330 MVAr switchable line reactors at Lucknow-II S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Lucknow-II S/s end – 2 Nos.
20	400 kV Lucknow-II – Gonda D/c (Quad Moose) line	Line Length- 160km • 400kV line bays at Gonda S/s(UPPTCL) – 2 nos.
21	Establishment of 765/400 kV, 2x1500 MVA S/s at suitable location near Asana Village (Chandauli District) along with 2x330 MVAr (765kV) & 2x125 MVAr (420kV) Bus Reactors **<u>Future provisions (excl. scope of present scheme):</u>** ➢ 765 kV line bays along with switchable line reactor –6 nos. ➢ 765/400 kV 1500 MVA ICTs- 4 Nos. ➢ 400 kV line bays along with switchable line reactor –4 nos. ➢ 400 kV line bays –4 Nos. ➢ 765 kV Bus Reactor along with bays: 1 No ➢ 400 kV Bus Reactor along with bays: 1 No. ➢ 400 kV Sectionalization bays: 1 set ➢ 400/220 kV ICT along with bays-5 Nos. ➢ 220 kV line bays -8 Nos. ➢ 220kV Sectionalization bay: 1 set ➢ 220 kV BC (2 Nos.) & TBC (2 nos.) ➢ 2 No. of Syncon units* at 400kV level along with 2 nos. of 400kV bays ➢ STATCOM (2x±300MVAr) along with MSC (4x125 MVAr) & MSR (2x125 MVAr) along with 400kv bays (2nos.)	Asna (Chandauli) S/s – AIS • 765/400 kV 1500 MVA ICTs- 2 Nos. (7x500 MVA including one spare unit) • 765kV line bays –4 nos. (for 765kV D/c interconnection each with Lucknow-II S/s & Nawada) • 400kV line bays – 4 nos. (for LILO of both ckts of 400kV Varanasi – Biharsharif D/c line) • 765kV ICT bays – 2 nos. • 400 kV ICT bays- 2 Nos. • 330 MVAr Bus Reactor-2 Nos. (7x110 MVAr, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 125 MVAr Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos.

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
	*1 No. of SynCon unit comprises dynamic support of +300MVAr/-200MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum)) (Value of inertia (MW-secs) shall be provided in RfP document)	
22	765 kV Lucknow-II-Asana D/c line along with 330 MVAr switchable line reactor for each circuit at each end	Line Length- 350km • 765 kV, 330 MVAr switchable line reactors at Asana S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Asana S/s end – 2 Nos. • 765 kV, 330 MVAr switchable line reactors at Lucknow-II S/s end– 2 Nos. • Switching equipment for 765kV, 330MVAr switchable line reactors at Lucknow-II S/s end – 2 Nos.
23	LILO of both ckts of 400kV Varanasi – Biharsharif D/c line at Asana S/s along with 80 MVAr switchable line reactor for each circuit at Asana end of 400kV Asana-Biharsharif section	Length-25km (LILO length) • 420 kV, 80 MVAr switchable line reactors at Asana S/s end– 2 Nos. • Switching equipment for 420kV, 80MVAr switchable line reactors at Asana S/s end – 2 Nos.
24	Asana – Nawada 765kV D/c line along with 240MVAr switchable line reactors in each circuits at both ends	Line Length - 250km • 765 kV, 240 MVAr switchable line reactors at Asana S/s end– 2 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Asana S/s end – 2 Nos. • 765 kV, 240 MVAr switchable

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
		line reactors at Nawada S/s end– 2 Nos. • Switching equipment for 765kV, 240MVAr switchable line reactors at Nawada S/s end – 2 Nos. • Single phase spare unit (80MVAr) – 1 no.

Report of Committee

on

Futuristic analysis for requirement of Synchronous Condensers based on System Strength and Inertia considerations for Northern Region

NORTHERN REGIONAL POWER COMMITTEE

Ministry of Power

Government of India

December 2024

Acknowledgement

I would like to acknowledge and thank all Committee members from various organization viz., CEA, NRLDC, NLDC, NRPC, CTUIL, NTPC, BHEL, RVPNL, PSTCL and UPPCL for their active participation during the meetings and providing valuable inputs for this report. The technical support provided by NLDC/NRLDC and CTUIL is duly acknowledged. The report by NTPC 'Synchronous Condenser- A Novel Solution for Grid Stability for Integration of Renewables (Version 2.0)' was very helpful as reference document.

I also thank OEMs for Synchronous condensers, viz., BHEL, Hitachi, Siemens and Andritz Hydro for their active Participation and providing valuable technical inputs.

I would also like to acknowledge the efforts put by officers of NRPC, especially Shri Anzum Parwej (SE) and Shri Ravi Kant (EE) for convening the Committee meetings and preparing the Minutes and compiling the Report of the Committee.

(V. K. Singh)

Member Secretary, NRPC

List of Abbreviations

AC	Alternating Current
AVR	Automatic Voltage Regulator
BESS	Battery Energy Storage System
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
DC	Direct Current
EHV	Extra High Voltage
E-STATCOM	Enhanced Static Synchronous Compensator
FACTS	Flexible AC Transmission System
GCB	Generator Circuit Breaker
GENCO	Generation Company
GT	Gas Turbine
GW	Giga Watt
HVDC	High Voltage Direct Current
Hz	Hertz
IEGC	Indian Electricity Grid Code
kA	Kilo Ampere
kV	Kilo Volt
MVA	Mega Volt Ampere
MVAR	Mega Volt Ampere Reactive
MW	Mega Watt
NDC	Nationally Determined Contributions
NLDC	National Load Despatch Centre
O&M	Operation and Maintenance
OEM	Original Equipment Manufacturer
PLF	Plant Load Factor
PSP	Pumped Storage Plants
PU	Per Unit
R&M	Renovation and Modernization
RE	Renewable Energy
RLDC	Regional Load Despatch Centre
ROCOF	Rate of Change of Frequency
RPM	Revolutions Per Minute
SCR	Short Circuit Ratio
SLDC	State Load Despatch Centre
SFC	Static Frequency Converter
STATCOMs	Static Synchronous Compensators
SVC	Static VAR Compensator
SYNCON	Synchronous Condenser
TRANSCO	Transmission Company
VFD	Variable Frequency Drive
VSC	Voltage Source Converter
UFLS	Under Frequency Load Shedding

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Executive Summary

The Government of India has set the target of establishing 500 GW of non – fossil generation capacity by 2030 and achieving net zero emissions by 2070. For achieving the COP26 commitments and Net Zero Emission (NZE) targets, there has been constant addition of renewable energy in the Indian grid over the past few years. The Renewable Energy generators are integrated into the power system with the use of inverter-based power electronic devices.

The renewable generators connected through these power electronic devices pose challenges to the power system as they cannot provide inertia, have the limitations of providing short circuit power, reactive power compensation and may also introduce harmonics in the power system. Therefore, the increase in renewable energy sources coupled with the withdrawal of conventional energy-based plants will pose considerable challenges for grid stability in future.

In the 71st NRPC meeting held on 29th January 2024, it was deliberated that RE power is being integrated at fast pace country-wide and to ensure grid stability and provide inertial support in RE complex, requirement of dynamic compensation like Synchronous Condensers needs to be identified at different locations based on the detailed studies.

Accordingly, a committee was formed under Chairmanship of Member Secretary, NRPC along with members from CEA, NLDC, NRLDC, NTPC, BHEL, CTU and STUs to do futuristic analysis for requirement of Synchronous Condensers based on the inertia considerations for Northern Region.

The Committee conducted numerous meetings wherein deliberations on the requirements of Synchronous Condenser including other available

technologies were done. During the Committee meetings, presentation by different OEMs viz., BHEL, Hitachi & Andritz Hydro was also made highlighting the advantages of synchronous condenser in the Grid.

This brief highlight of the report is as below;

- In Chapter-1, 2 & 3, likely RE capacity in the country, need of Synchronous Condensers (SynCons) in the Grid for stability and reliability in high RE rich areas and the background for formation of the Committee has been elaborated.
- In Chapter-4, criteria for selection of site for Synchronous condensers based on inputs provided by NLDC has been discussed. As per advisory dated 20.01.2023 issued by CEA, no retirement or re-purposing of coal-based power stations shall be done before 2030. In view of the same, repurposing may not be possible before 2030. Committee agreed for installation of new machines (SynCons) up to year 2030 at suitable locations to be decided based on studies by CEA/CTU.
- In Chapter-5, study done by NRLDC on impact of Installing Synchronous Condenser in Present Scenario at Fatehgarh-II is presented which shows various benefits like 'Enhanced System Strength', 'Fast Reactive Power Support during Faults/Transients', 'Increased Inertia and Frequency Response', 'Damping of Low Frequency Oscillations' and Steady-state Reactive Power Support' are demonstrated.
- In chapter-6, various regulatory provisions pertaining to Synchronous Condensers has been described.

- In Chapter-7, other technological solutions like E-STATCOM, Hybrid SynCon & STATCOM with BESS are discussed.
- In Chapter-8, Global Scenario of SynCon is presented.
- Chapter-9 presents cost recovery mechanism for SynCon as prepared by NLDC. The committee deliberated and agreed that the Synchronous Condenser may be treated as a transmission element.
- Chapter-10 presents locations for installation of SynCons in Northern Region as provided by CTU in consultation with Grid India & CEA. Additional requirement of flywheel along with synchronous condenser to provide additional inertia in the Grid may be identified at time of finalization of proposal.
- Committee presents its recommendation in Chapter-11.

Committee has concluded that in view of huge RE capacity addition in the Northern Region, particularly in Rajasthan State, and the challenges thereafter like Oscillations in RE complexes, Reactive Power, Inertia & Short Circuit ratio (SCR) requirements must be addressed accordingly. The Committee is in, therefore, consensus of installation of SynCons in RE complexes because of its inherent advantages of providing inertia, reactive power & short circuit strength to the Grid.

*****

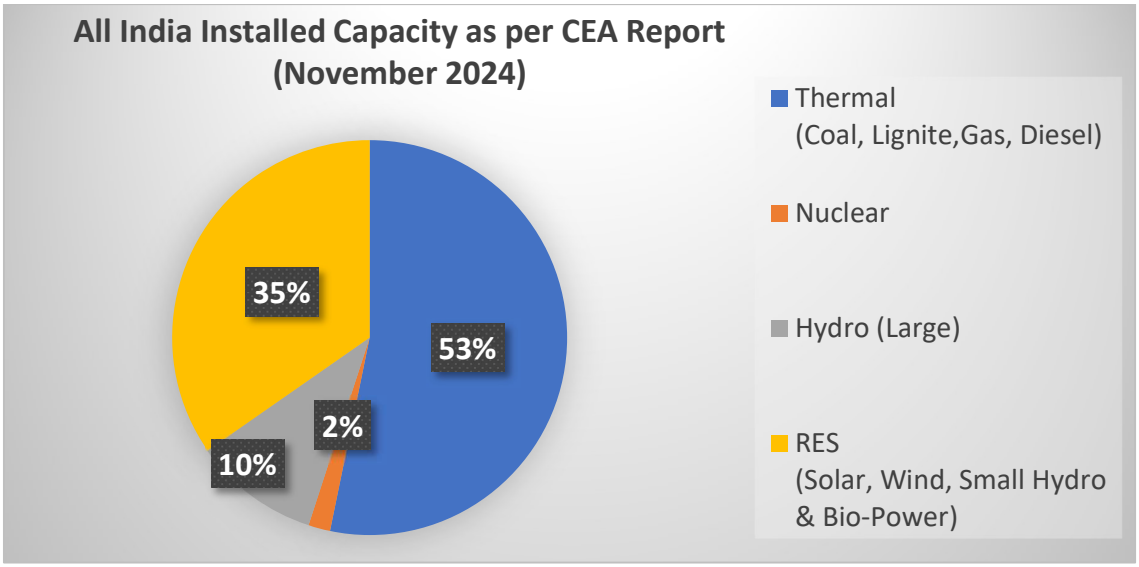
1. INTRODUCTION

At the COP26 climate summit in Glasgow in November 2021 the country has made commitment to achieve Net Zero Emissions by 2070. India has also made commitment for following short term targets:

- Increasing non-fossil fuel-based installed capacity to 500 GW by 2030,
- Meeting 50% of energy requirements from renewables BY 2030,
- Reducing cumulative carbon emissions by one billion tonnes by 2030, and
- Reducing emissions intensity of India's gross domestic product (GDP) by 45% by 2030, over 2005 levels.

India has set an ambitious target of 500 GW of non-fossil fuel-based Installed capacity by the year 2030. Going forward the RE share in All India Installed Capacity will increase significantly in comparison to that of conventional generators. Current RE Scenario in the country is as under:

CURRENT RE SHARE IN All INDIA INSTALLED CAPACITY

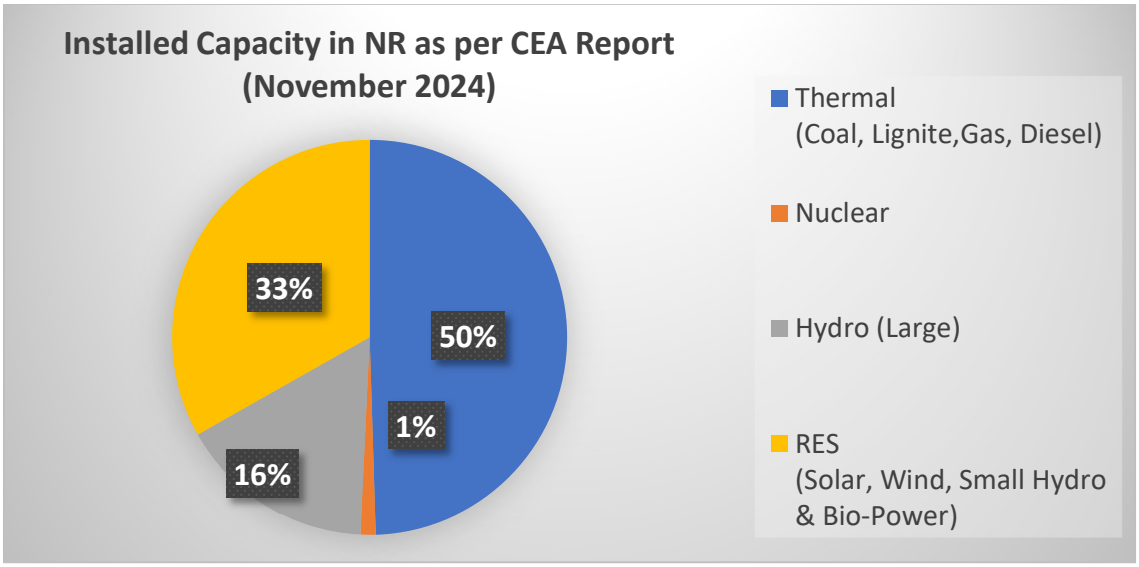


(Figure 1.1)

Table 1.1 All India Installed Capacity as per CEA Report (November 2024)

Technology	Capacity (GW)
Thermal (Coal Lignite, Gas & Diesel)	243.06
Nuclear	8.18
Hydro (Large)	46.97
RES (Solar, Wind)	158.55
Total	456.76

CURRENT RE SHARE IN NORTHERN REGION INSTALLED CAPACITY



(Figure 1.2)

Table 1.2 Northern Region Installed Capacity as per CEA Report (November 2024)

Technology	Capacity (GW)
Thermal (Coal Lignite, Gas & Diesel)	64.23

Nuclear	1.62
Hydro (Large)	20.83
RES (Solar, Wind)	43.07
Total	129.75

This transition is expected to significantly reduce the system inertia as the RE generators are connected to the grid using inverter-based power electronic devices and are unable to provide inertial response and have limitations of providing Short Circuit Power and Dynamic Reactive Power. Power System Inertia, Short Circuit Power and Dynamic Reactive Power, which are the key elements of grid stability have inherently been provided by the conventional generators.

The increase in renewable energy in the grid along with retirement of conventional energy-based plants may lead to a considerable decrease in inertia, short circuit strength, dynamic reactive power reserves, which are essential parameters for the overall stability and reliability of the power system.

The reason for the decrease in short circuit power due to increase in RE generation is that conventional generators produce significantly high level of short circuit power as compared to renewable generators which are limited by the rating of the inverters/converters. The kinetic energy of the conventional generators acts like a shock absorber to keep the grid frequency in control during sudden supply-demand changes over very short periods. In the absence of inertia from the system, there may be frequent generator tripping during the load fluctuations and this may even lead to cascading outages in system.

Further, as more and more renewable generation (low inertia) is replacing the conventional generation, the diminishing system strength and system inertia are posing new challenges to the grid stability and growing concern to the grid operators. Synchronous Condensers can be one of the solutions for improving system stability and reliability.

Indian grid experiences voltages higher than operating limits at more than half of the nodes for 10-20% of the time. To overcome this as a last resort, on an average, around sixty-five (65) lines at 400 kV level and above are opened on a daily basis to control high voltages and in a few instances, tripping incidents are reported on account of over-voltage and over-flux. These switching operations are rapidly increasing with additional transmission lines being commissioned for evacuation of renewable generation power which is not available throughout the day.

The voltage control ancillary services are a part of many power grids around the world. However, in the Indian Power system, for the last two decades, instead of direct ancillary service for voltage control, reactive power requirements are managed by mandatory support from grid connected generator.

Long distance transmission corridors may become unstable during system contingencies/faults due to lack of reactive power. Therefore, it is important to identify locations where reactive power reserves shall be required after renewable integration to ensure a stable and reliable system.

As a localized phenomenon, voltage changes in the system can be best addressed by providing reactive power support locally. Unlike real power, reactive power cannot be transferred across long distances in a bulk power system. Long distance and unchecked reactive power flows can give rise to substantial voltage variation across the system. Thus, it becomes necessary to

maintain reactive power balances between sources of generation and points of demand on a 'zonal basis’.

With the accelerated expansion of grid over the past twenty years, commissioning of new EHV lines, HVDC etc. also helped in improving the grid voltage and ‘low-voltage’ issues. Instead, ‘high-voltage’ became the new problem.

The large-scale integration of renewable energy sources in Rajasthan RE complex primarily from wind and solar power has resulted in widespread use of power electronic devices in the power systems. This has resulted in the emergence of multi-frequency oscillation problems spanning multiple frequency segments, which seriously threaten system stability and even limit renewable energy power evacuation. Voltage oscillations in the renewable complex can originate from poorly tuned controllers, line switching, sudden variation in renewable generation, communication delays etc.

Synchronous condensers can be installed at strategic locations along a transmission network, near renewable generating stations, HVDC Stations etc.

2. Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region

Background of Committee formation

In the 71st NRPC meeting held on 29th January 2024, it was deliberated that RE power is being integrated in fast pace country-wide and to ensure grid stability and provide inertial support in RE complex, requirement of dynamic compensation like Synchronous Condensers needs to be identified separately based on the detailed reactive power planning studies and the Short Circuit Ratios (SCRs) at different locations. As per the decision taken in 71st NRPC meeting, a committee of members from CEA, NRPC, NRLDC, CTU and STU was to be constituted under chairmanship of Member Secretary, NRPC to do futuristic analysis for requirement of Synchronous Condensers based on the inertia considerations for Northern Region.

Document issued by CEA in December 2022 titled **"Transmission System for Integration of over 500 GW RE Capacity by 2030"** mentions that "For the planned transmission schemes in Northern Region, dynamic compensation requirement like STATCOMs, Synchronous Condensers etc. would be identified separately based on the detailed reactive power planning studies and the Short Circuit Ratios (SCRs) at different locations. Requirement of Synchronous condensers based on inertia considerations will also be assessed based on detailed studies."

In 71st NRPC meeting, NRLDC stated that as of now only STATCOMs are being planned in the transmission system and the planning of synchronous condenser is yet to be materialised. Therefore, such studies also need to be carried out at the planning level which could provide recommendations related to

synchronous condensers or other suitable solutions to tackle such issues as being done by other countries in the world where RE power is being integrated at fast pace. CTUIL representative stated that synchronous condenser may support inertial requirement in the grid in general, but its location & efficacy may also be in other than Rajasthan region which can be explored after discussion with stakeholders.

Accordingly, a committee was formed under Chairmanship of Member Secretary, NRPC along with members from CEA, NRPC, NRLDC, NLDC, NTPC, BHEL, CTU and STUs to do futuristic analysis for the requirement of Synchronous Condensers based on the inertia considerations for Northern Region. The Constitution of Committee and subsequent amendment in constitution of committee is attached at **Annexure-I.**

The list of committee member is as under:

Table 2.1: List of Committee Members

S. No.	Name	Designation	Organization
1.	Sh. V. K. Singh	Member Secretary- In Chair	NRPC Sectt.
2.	Sh. Anzum Parwej	Superintending Engineer (System Study)	
3.	Sh. Ravi Kant	Executive Engineer (System Study)	
4.	Sh. Kanhaiya Singh Kushwaha	Asst. Director, PSPA-1	CEA
5.	Sh. V. Thiagarajan	Sr. GM	CTUIL
6.	Sh. Kashish Bhambhani	GM	CTUIL
7.	Sh. Sunil Kumar Aharwal	GM	NRLDC, Grid-India
8.	Sh. Bikas Kumar Jha	DGM	NRLDC, Grid-India
9.	Sh. Rahul Shukla	Chief Manager	NLDC, Grid-India

10.	Sh. Priyam Jain	Chief Manager	NLDC, Grid-India
11.	Sh. Nitin Kumar	Sr. XEN/Planning-1	PSTCL
12.	Ms. Ranjana	AE/Planning-1	PSTCL
13.	Sh. V. A. Kale	Superintending Engineer (P&P)	RRVPNL
14.	Dr. Om Prakash Mahela	Executive Engineer (PP&D)	RRVPNL
15.	Sh. Sanjeev Kumar Bhasker	Superintending Engineer	UPPTCL
16.	Sh. Suneet Mehta	DGM	NTPC
17.	Sh. Venkateswara Rao Bitra	DGM	NTPC
18.	Sh. Manoj Kumar	AGM	BHEL
19.	Ms. Asha Gupta	AGM	BHEL
20.	Sh. Vishal Naidu	DGM	BHEL
21.	Sh. Ranajit Dey	Sr. Manager	BHEL
22.	Sh. Dhanunjayudu Nasika	Manager	BHEL

Subsequently, the Committee conducted 05 nos. of meetings wherein deliberations on the requirements of Synchronous Condenser including other available technologies were done. During the committee meetings, presentations by different OEMs viz BHEL, Hitachi and Andritz Hydro were also made highlighting various technological options available and its suitability under different system requirements.

During the committee meeting, it was agreed that CEA, CTUIL and Grid-India shall workout the requirement of Synchronous Condenser up to year 2030 in Northern Region based on system studies. The Committee shall also recommend for the installation of first Synchronous Condenser at a suitable location of appropriate capacity (to be decided based on studies carried out by Grid India) in Northern Region. Minutes of various meetings of the committee are attached at **Annexure-II, III, IV, V & VI.**

3. SYNCHRONOUS CONDENSER

A synchronous condenser (SynCon) is a DC- excited synchronous machine whose shaft is not attached to any driving equipment/load (except flywheel, if any). Essentially, there are 2 technologies for the design of large synchronous electrical machines:

1. Cylindrical rotor (round rotor) synchronous machines
2. Salient pole synchronous machines

Both technologies have their own pros and cons. Both technologies are available from OEMs for SynCons.

Major use of SynCons can be as under:

- **System Inertia Support:** As large part of the future generation would be RE based, the inertial support in the grid would not be sufficiently available. Further depending on the operating policy adopted, like two shift operation etc, the inertial support would reduce during high RE generation periods. SynCons due to rotational energy of the generator and flywheel can provide instantaneous inertial response and play a crucial role in limiting sudden changes in frequency during system disturbances. The increase in RE penetration coupled with withdrawal of conventional energy sources from the grid can decrease the system inertia and increase Rate of Change of frequency (RoCoF). During large grid disturbances, a high Rate of Change of Frequency (RoCoF) can trigger the protection system to trip generating systems and lines out of service. SynCon can provide resistance to such sudden changes in frequency, maintaining system stability and reliability.
- **Reactive Power Support:** The excitation system of the SynCon is sensitive to the bus voltage and triggered into action with voltage deviation beyond

a certain threshold, allowing the SynCon to act as a source or sink. By increasing or decreasing the excitation (varying field current), the voltage output of the SynCon can be varied and thus reactive power can be either injected or absorbed from the grid. The SynCon voltage is varied so as to inject reactive power during the low voltage conditions such as fault in the grid.

- **Short circuit current management:** SynCons provide high level of short circuit current support during faults and improve transient stability by preventing voltage collapse. This becomes essential in areas having large concentration of renewable generation as these generation resources do not have significant short circuit contributions.

Typically, the synchronous condenser can vary from zero MVAR to full capacitive or inductive range almost immediately (0.5~3s) typically depending upon excitation and control systems, thereby maintaining the voltage profile of the grid during any transient disturbances. This fast response might help in preventing the IBRs to enter low/high voltage ride through mode in RE pockets. In addition to that, the rotor of synchronous machine has kinetic energy stored in it, and it can be released during grid events, thus providing inertia to the grid.

Synchronous Condenser have advantages like fault current support to improve power system electromagnetic strength, physical inertia to limit the initial RoCoF in the first swing, and reactive power support. Synchronous Condenser primarily does not have any inverter-based devices therefore there is no harmonic injection and it also helps to maintain the inherent sine wave to stabilize the voltage distortion following a transmission fault and facilitate grid following inverter fault ride through.

In the northern region, RE plants have reported tripping due to distorted waveform owing to phase jump issue and sensing of low frequency of inverters in the past. Synchronous Condensers would help in maintaining sine wave of voltage waveform and will reduce distortion. It is thus envisaged that tripping due to phase-jump and distorted waveform would reduce if Synchronous Condensers are available in the RE Complex.

One of the most suitable solutions for addressing the challenges of grid stability can be the installation of synchronous condensers in strategic locations. The synchronous condenser-based solutions can mitigate most of the challenges with renewable penetration.

System studies need to be carried out considering the planned renewable integration to identify possible locations for installation of mechanisms for providing reactive power. There are some challenges in SynCon deployment in India as under:

- Absence of demonstrable pilot study which can establish benefits of SynCons
- Lack of feasible cost recovery mechanism of SynCons
- No technical standards and well-defined condition assessment framework for adoption of SynCons
- Reluctance towards adoption of SynCons due to presence of other technologies such as STATCOM for reactive power.

Conversion of a retiring Thermal Power Plant into Synchronous Condenser

The conversion of a retiring plant at its existing location allows the use of existing equipment and infrastructure, thereby reducing the investments costs and providing an economical solution for critical ancillary services such as short circuit power, inertia and reactive power which can be provided as per the capability curve and design parameters of the retiring machine. Also, as per the

advisory dated 20.01.2023 issued by CEA *(attached at **Annexure-VII**)*, no retirement or re-purposing of coal-based power stations shall be done before 2030. In view of the same, repurposing may not be possible before 2030. Thermal units having capacity less than 200 MW are expected to have challenges for repurposing due to their remaining life (as these generators are very old), limitation in providing required ancillary services (due to smaller rating), old design etc.

In view of the above constraints, Committee agreed that long-old retired generators may not serve the purpose of the system requirement and agreed for installation of new machines up to year 2030 at suitable locations to be decided based on studies by CEA/CTU.

Gas Power Plants as Synchronous Condensers

Gas power plants can be made to run either in 'Generation Mode' or in 'Synchronous Condenser Mode' with provision of a new clutch arrangement between the Generator and Turbine. When active power generation is required, the gas turbine is connected to the generator with the clutch closed. The gas turbine rotates the generator which creates active power which is delivered to the grid. When no active power is required, the gas turbine is connected to the generator with clutch closed, in order to start the unit. Once the generator is synchronized to the grid, the clutch is opened, and the gas turbine is stopped. The generator remains connected to the grid and is then operated as synchronous condenser. For provision of clutch various constraints like space requirement, foundation modification, necessary adjustment/relocation/ shifting of existing equipment, cost of modifications etc. need to be studied. Accordingly, feasibility study/check for each site needs to be carried out separately for provision of clutch in gas plants.

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4. Synchronous Condenser Location and Plant Selection Criteria for Indian Power System

Synchronous Condensers, being a high-speed rotating heavy mass, have emerged as the most optimized and strongest technical solution to deal with problems of low Inertia and short circuit power. Provision of Synchronous condensers is being made world-over to improve voltage stability as well as frequency stability in renewable power rich environments. The use of generators as synchronous condenser could benefit in improving grid stability as well as power quality. The synchronous condenser offers several advantages, which makes it a must for system planned with large scale renewable integration: -

1. Ability to meet system inertia, short circuit power and MVAR requirements arising due to addition of RE and retirement of conventional generator
2. To improve system stability for solar or wind plant fed system
3. Low voltage ride through capability during fault condition
4. Facilitates dynamic compensation
5. To meet reactive MVA of HVDC
6. Good overload capacity
7. Maintains power quality

It is important to develop a selection criterion, first for selecting the area where synchronous condensers are required to be installed. After area selection, the possibility of using an existing plant as Synchronous Condenser may be explored based on the techno-economic study and other standards. In case existing plants cannot be used, new synchronous condenser installation may be planned as per

system requirement. The detailed strategy for planning a synchronous condenser in the system is given below:

Phase I: Criteria for Area Selection:

The area where the kinetic energy level has decreased below limits as mentioned in the dynamic study of long- or medium-term planning. If dynamic study couldn't be done due to unavailability of system dynamic data, then the thumb rule for area selection may be renewable power generation penetration crossing beyond 50%. In addition to renewable generation penetration, factors such as low short circuit level, low specific area inertia, connectivity and voltage variations should also be considered. Some additional parameters like proximity to load centers and HVDC systems are also used to identify the pockets in which the synchronous condenser installation is required.

Table 4.1- Criteria for Area Selection for Installation of Synchronous Condenser

S. No	Criteria Parameter	Recommendations	Rationale
1	Renewable penetration	>= 50%	Dynamic reactive support in area with low penetration of synchronous generation sources
2	Short circuit ratio	< 5	Weak system strength
3	Local kinetic energy	Below specified threshold, poorly damped oscillations	Kinetic Energy estimation at the level of control areas
4	Proximity to Renewable energy complexes	High priority over others. Graded approach based on distance is to be considered.	Proximity near RE complex provides system strength and improves performance of IBR
5	Proximity to HVDCs and load centres	Graded Approach based on proximity	Provides system strength and reduces HVDCs commutation failure
6	Voltage variations beyond ±0.05 pu	Graded Approach based on proximity	Reactive power impacts decreases away from injection point.

Phase II: Criteria for Plant Selection:

After the area selection, it is to be decided whether a new SynCon is to be deployed or an old thermal power plant due retire can be deployed. The ageing thermal plants in the selected pocket is needs to be analysed based on a techno-

economic study. Ability of existing plant (if available) to meet the system requirements shall also be considered for the selection of existing plant for use as SynCon. Also, Residual Life Analysis (RLA) of major electrical equipment and system to be used after the conversion should be planned. The scope of RLA should include Turbo-Generator (TG), excitation system, generator transformer, generator relay panels, auxiliary systems and control equipment's etc., and electrical bay equipment.

Table 4.2 -Selection Criteria for SynCon

S.No.	Criteria Parameter	Recommendations
1	Greenfield installation/Conversion	Estimation of cost for installation of new plants with conversion of old plants. Old thermal plants need to be assessed for insulation level also.
2	Feasibility study	Review the generator's operating and maintenance history. Good visual inspection of all components.
3	Techno-economic studies	Cost benefit analysis. Estimation of costs and benefits incurred in a simple decommissioning of plants vis-à-vis repurposing them. Repurposing for Syncon operation vis-à-vis PV and BESS
4	Residual Life Analysis	Analysis to include Generator, excitation system and auxiliary systems etc.
5	Dynamic studies	Installation of Flywheel for higher inertia and system strength

Apart from criteria of plant selection and area selection, there is need to introduce some regulatory framework and market mechanisms to promote the wider deployment of Synchronous Condensers in India. It would include market mechanisms for cost recovery, changes in market mechanisms, usage as ancillary services etc.

SynCon land requirements and layout (as provided by Andritz Hydro) are attached at **Annexure-VIII**.

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5. STUDY ON IMPACT OF INSTALLING SYNCHRONOUS CONDENSER IN PRESENT SCENARIO AT FATEHGARH-II

The 1st meeting of the committee was held on 22.04.2024 wherein, after deliberations, it was agreed that Grid-India shall study impact of installing synchronous condenser in present scenario at Fatehgarh-II which has the least SCR in Western Rajasthan RE complex at ISTS level. Detailed study by Grid-India is attached at **Annexure-III** along with minutes of 2nd meeting of the committee.

Following are the observations of the study on analysing the impact of installing synchronous condenser in present scenario at Fatehgarh-II:

a) Enhanced System Strength / Short Circuit Ratio (SCR)

In the simulation study, 02 nos. of 354 MVA (+300/-200 MVAR) Synchronous Condensers have been considered at 220 kV Fatehgarh-II PG. The simulation study demonstrates that the deployment of Synchronous Condensers (SYNCON) improves the Short Circuit Ratio (SCR) of the RE pooling buses in Rajasthan. This can be attributed to the high fault current contribution capability of SYNCONs (around 4-5 pu) unlike the power electronic controller-based devices where contribution is limited to 1-1.1 pu. From the study results it can be seen that the short circuit level at 220kV level improves by about 2000 MVA and under fault condition at 765 kV level the improvement in voltage would be of the order of 0.1 pu is seen.

As the SynCons are considered at 220 kV Fatehgarh-II (A and B), increase in SCR/fault level is prominent at these buses. SCR of 220 kV Fatehgarh-II (A and B) is seen to increase from 4 and 11.4 to 4.8 and 14.4 respectively.

b) Fast Reactive Power Support during Faults/Transients

Synchronous condensers can play a critical role during faults and high voltage events in power systems due to their ability to provide substantial fault current, typically in the range of 4-5 per unit (p.u.). This high fault current capability is primarily due to the low sub-transient reactance, which allows the machine to respond rapidly to changes in system conditions.

Significant reactive power support has been observed in the simulation study from the proposed SynCons during faults as well as during post-fault high voltage conditions. The short circuit current response of the order of > 5 p.u. (normalized at 1 p.u. voltage) has also been observed depending on the severity of voltage dip/rise in the study case. The support received from SynCons has arrested the voltage dip/rise during transients and improved the system stability.

c) Increased Inertia and Frequency Response

Rate of change of frequency (RoCoF) experienced by the system for a given contingency varies across the system depending on the location of the contingency and availability of synchronous machines in the vicinity. This phenomenon is also being observed in Indian power system with increasing penetration of renewable generation.

In RE- rich pockets, inadequate inertial response could result in a very high rate of decline in frequency post generation loss and the frequency may dip to a level where automatic load shedding (last line of defence) UFR and df/dt gets triggered. The addition of the SYNCONs in RE rich pockets can improve the system's inertia and thereby the ability to resist fast changes in frequency.

The simulation results also show the improvement in nadir frequency and the RoCoF after deployment of SynCons in the Rajasthan RE complex.

d) Damping of Low Frequency Oscillations

The Rajasthan renewable complex has been experiencing Low Frequency Oscillations (LFOs) and the same has been a matter of concern for system reliability. It has been seen in the simulation study that deployment of synchronous condensers (with proper tuning of excitation system + AVR) can significantly help in damping of the oscillations.

e) Steady-state Reactive Power Support

The Excitation system and Automatic Voltage Regulator (AVR) of SynCon helps in maintaining the bus voltage at a desired level and contribute to local voltage control by providing dynamically varying reactive power support as per the machine limits. The simulation study results also demonstrate the improvement in voltage profile after deployment of SYNCONs.

From the above study results, it may be concluded that installation of Synchronous condenser in Northern Region has multiple benefits towards improvement of various grid parameters specially in RE pockets and it would help in stable operation of the grid.

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6. REGULATORY PROVISIONS

CERC IEGC REGULATIONS 2023

Following are the regulatory provisions given in CERC IEGC regulations 2023 regarding Synchronous Condenser or Synchronous Condenser Operation:

- **Clause 39.(7):** NLDC, RLDCs and SLDCs shall take appropriate measures to maintain the voltage within limits, inter-alia, using the following facilities, and the facility owner shall abide by the instructions of NLDC, RLDCs and SLDCs: (i) shunt reactors, (ii) shunt capacitors (excluding HVDC automatic control), (iii) TCSC, (iv) VSC based HVDC, (v) synchronous/non-synchronous generator voltage control including inverter based reactive power support, **(vi) synchronous condenser**, (vii)static VAR compensators (SVC), STATCOM and other FACTS devices, (viii) transformer tap change: generator transformer and inter-connecting transformer, (ix) HVDC power order or HVDC controller selection to optimise filter bank.

- **Clause 39. (10):** Hydro and gas generating units having this capability shall operate in synchronous condenser mode operation as per instructions of the RLDC or SLDC of the respective control area. Standalone synchronous condenser units shall operate as per the instructions of RLDC or SLDC, as per the respective control area. The compensation for such synchronous condenser mode operation shall be included in the procedure to be submitted by NLDC and approved by the Commission.

- **Clause 30. (9):** Inertia: The power system shall be operated at all times with a minimum inertia to be stipulated by NLDC so that the minimum

nadir frequency post reference contingency stays above the threshold set for under frequency load shedding (UFLS). To maintain the minimum inertia, the NLDC may, if required, bring quick start synchronous generation on bar and reschedule generation including curtailment of wind, solar and wind-solar hybrid generation, in coordination with the respective RLDCs and SLDCs. The compensation for such quick start synchronous generation shall be included in the procedure to be prepared by NLDC and approved by the Commission.

- **Clause 39. (11)**: Any commercial settlement for reactive power shall be governed as per the regulatory framework specified in Annexure–4 until the same is separately notified as part of the CERC Ancillary Services Regulations.

  where Annexure-4 specifies that:

  "…(c) All the Inverter Based Resources (IBRs) covering wind, solar and energy storage shall ensure that they have the necessary capability, as per CEA Connectivity Standards, all the time including non-operating hours and night hours for solar. The active power consumed by these devices for purpose of providing reactive power support, when operating under synchronous condenser/night-mode, shall not be charged under deviations and shall be treated as transmission losses in the ISTS."

Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020

Clause 6, 1 (b) Components and sharing of Regional Component (RC)

"Yearly Transmission Charges for static compensators (STATCOMs), static VAR compensators (SVCs), bus reactors, spare transformers, spare

reactors **and any other transmission element(s)** located in the concerned region and identified by the Central Transmission Utility as being critical for providing stability, reliability and resilience in the grid.

Provided that where separate Yearly Transmission Charges are not available in respect of specific transmission elements, the Yearly Transmission Charges for such transmission elements shall be worked out and provided by the Central Transmission Utility, apportioning Yearly Transmission Charges approved by the Commission for the integrated project, based on indicative capital cost."

From above, it may be seen that regulatory provision has already been placed for installation of Synchronous Condenser and its tariff recovery.

CEA Manual on Transmission Planning Criteria, 2023

- **3.17 Inertia**

  3.17.2 With the high penetration of renewable energy sources like wind and solar power and gradual reduction/decommissioning of conventional generators, total system inertia of grid would decline. However, Battery Energy Storage Systems (BESS), **Synchronous Condenser** etc. can provide fast response to arrest the frequency decline and help restore the frequency.

- **5.4 Reactive Power compensation**

  5.4.1.2 Near to large RE complex(es) **synchronous condenser(s)** may be planned for dynamic voltage support, in addition to FACTS devices.

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7. OTHER TECHNOLOGICAL SOLUTIONS

Following are various other technological solutions apart from Synchronous Condensers provided by OEMs:

A) Enhanced STATCOM (E-STATCOM)

Enhanced STATCOM are STATCOMs integrated with super capacitors for energy storage which provides fast voltage/frequency support as well as synthetic inertia for shorter durations. It combines the advantages of two grid-stabilizing technologies into one solution, providing both active and reactive power.

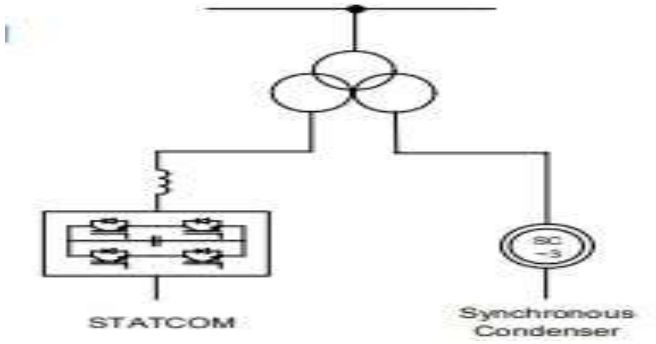
It has features like fast voltage/ frequency support, synthetic inertia, fault current contribution & system strength support. However, the fault current contribution and system strength support is limited to the rating of the device.

It has capabilities like up to over 400 MVAR in a single system – Grid-forming control and Scalable energy storage capacity in the hundreds of MWs.

(Fig 7.1)

B) Hybrid SynCon

The Hybrid SynCon consists of one parallel operating synchronous condenser along with one STATCOM. Hybrid Synchronous Condenser will combine the advantages of Synchronous Condenser and STATCOM technologies, having an optimized design due to performance and losses.



(Fig 7.2)

C) STATCOM with BESS

Battery energy storage system (BESS) in combination with STATCOMs have emerged as one of the possible solutions for active power control along with the compensation for reactive power. The integrated system compensates the reactive power and in addition stores energy in the storage system when generated power exceeds the demand and injects the stored power when the same is required in the system. However, the inertia response provided by STATCOM with BESS is not instantaneous as synchronous machines due to the use of complex measuring/comparing system (rate of change of frequency).

Studies are required to identify the most optimal technology or most optimal combination of technologies that cater to the network needs while costs remain economical.

Various technological options as discussed above may be considered by CEA/CTU while planning the new transmission system based on system studies, however, as mandated this committee has focused only on the requirements of Synchronous Condensers at existing substations/transmission networks in Northern Region.

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8. GLOBAL SCENARIO OF SYNCON DEPLOYMENT

Countries with high RE installed capacity and smaller power systems are leading the deployment as such power systems are vulnerable to stability threats on account of RE intermittency and faults. Countries like Denmark, Italy, UK, China, USA & Canada have deployed SynCons. India's share of RE will go beyond 50% of installed capacity by 2030, it is crucial to explore deployment of SynCon in power system for grid stability.

- Global installation of Synchronous Condensers

  - **Installation in Denmark:** More than 50% of generation in Denmark is from solar and wind generators. Based on the system studies carried out by local grid authorities, it was decided to install seven synchronous condensers at or near HVDC stations. Three of these synchronous condensers were commissioned in 2015.

  - **Installation for Qinghai-Henan UHVDC project (China):** Qinghai-Henan UHVDC is a 1587 800KV DC line to transmit RE power up to 8GW. Due to lack of dynamic reactive power in the system and to ensure system stability 27 nos. of 300 MVAR synchronous condensers have been commissioned for this project.

  - **Installation in Panhandle areas of Texas:** Texas Panhandle has a high wind potential and many high wind potential plant have been developed in the area. 2 nos. synchronous condensers were installed for improving the short circuit power. The synchronous condensers were commissioned in 2018.

- **Installations in South California, USA:** 7 nos. of large synchronous generators in the area for voltage regulation, inertia and short-circuit power.
- **Installation with Fly Wheel in Italy:** Italian transmission operator has tendered 16 nos. synchronous condensers with fly wheel for stabilizing the grid for short circuit power and inertia. 8 out of 16 nos. installation are proposed near HVDC stations.
- **Phoenix Hybrid STATCOM and Synchronous Condenser, UK**: The project consists of 70 MVA synchronous condenser and 70 MVA STATCOM at Scottish Power Transmission, Neilson substation. The system is designed to take advantages of both technologies.
- **Installation in South Australia:** For increasing the system strength, 4 nos. of synchronous condensers with flywheel have already been installed in the system.

It may be seen that Synchronous Condensers have already been/being installed across the countries all over the world having significant RE capacity. India is expected to achieve over 50% installed capacity from non-fossil fuel by year 2030, comprising mainly solar and wind capacity, it is right time to install new Synchronous Condenser in India also particularly in RE rich States, considering continuous addition of huge RE capacity in the Indian grid.

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9. COST RECOVERY MECHANISM

Presently, no cost recovery/tariff mechanism for synchronous condenser is specified in the regulations. Cost recovery/tariff mechanism is required for promoting installation of such devices. Uniform tariff mechanism for all such compensation devices may be adopted in this regard. (Presently STATCOMS are being installed as "Grid Element").

Synchronous condensers are rotating dynamic reactive power compensation devices that primarily exchange reactive power with the grid. The exchange of active power by these devices is minimal, limited to covering active power losses.

Accordingly, the following compensation mechanisms for a synchronous condenser facility can be considered:

a) **Classification as an active power generating unit:** Implementing a two-part tariff (Fixed and Variable charges). Variable charges could be based on the reactive power exchanged with the grid.

b) **Classification as a transmission asset:** Compensating through monthly transmission charges.

The reactive power exchange of a synchronous condenser is dependent on the grid voltage. If the voltage remains within permissible limits, there might be extended periods of no reactive exchange of the SynCon with the grid. Therefore, the first compensation mechanism which is based on reactive power exchange, may not be suitable at this stage and shall be explored in the future after gaining sufficient experience of the operation of these devices in the grid.

Given these considerations, synchronous condensers could be classified as transmission assets, with cost recovery through monthly transmission charges

(regional component). The following clause from the CERC ISTS Transmission Charges regulation also supports this compensation mechanism:

Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020

Components and sharing of Regional Component (RC), Clause 6, 1 (b)

"Yearly Transmission Charges for static compensators (STATCOMs), static VAR compensators (SVCs), bus reactors, spare transformers, spare reactors ***and any other transmission element(s)*** *located in the concerned region and* ***identified by the Central Transmission Utility as being critical for providing stability, reliability and resilience in the grid.***

Provided that where separate Yearly Transmission Charges are not available in respect of specific transmission elements, the Yearly Transmission Charges for such transmission elements shall be worked out and provided by the Central Transmission Utility, apportioning Yearly Transmission Charges approved by the Commission for the integrated project, based on indicative capital cost."

Additionally, it is proposed that the active power consumed by a Synchronous Condenser be treated as transmission losses within the ISTS and not be charged under deviations. The following clause in the CERC Indian Electricity Grid Code, 2023 regulation supports this proposal:

Reactive Power Management

39 (11) Any commercial settlement for reactive power shall be governed as per the regulatory framework specified ***in Annexure–4*** *until the same is separately notified as part of the CERC Ancillary Services Regulations.*

where Annexure-4 specifies that:

Proposed Compensation Mechanism for Synchronous Condenser Facilities

"…(c) All the Inverter Based Resources (IBRs) covering wind, solar and energy storage shall ensure that they have the necessary capability, as per CEA Connectivity Standards, all the time including non-operating hours and night hours for solar. ***The active power consumed by these devices for purpose of providing reactive power support, when operating under synchronous condenser/night-mode, shall not be charged under deviations and shall be treated as transmission losses in the ISTS."***

Classifying synchronous condensers as transmission assets would also align their bidding and compensation methodology with other similar technologies, such as STATCOMs and SVCs, thereby ensuring uniformity across different technologies.

It is also suggested that the availability computation of SynCon shall be on similar lines as specified for STATCOM in relevant regulations notified by respective commissions from time to time. The weightage factor shall be considered on pro-rata basis i.e. ratio of maximum available capacity to rated capacity of SynCon.

In future, the compensation mechanism for dynamic reactive power compensation devices shall also factor in their performance in real-time.

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10. REQUIREMENT OF SYNCHRONOUS CONDENSER IN NORTHERN REGION

There are various challenges in re-purposing coal-based plants as synchronous condensers such as residual life, re-winding of generator, transportation to new location, warranty issues, hydrogen, land, water requirements etc. Also, new synchronous condensers have advantages of design as per system requirement, can be air cooled etc., thereby reducing the land water requirements. In view of the same, it is advisable to install new synchronous condensers.

As discussed during committee meetings, CTUIL and CEA have to carry out system study for requirement of synchronous condenser as already mentioned in 500 GW RE report. The studies would be carried out for every two-year time frame until the year 2030. The need for SynCons would be identified separately based on the detailed reactive power planning studies and the Short Circuit Ratios (SCRs) as well as inertia considerations at different locations. Further, the approach mentioned in Chapter 4 regarding criteria for area selection for installation of SynCons is also considered.

It is observed that in some of the existing sub-stations in Rajasthan viz. Bhadla PS, Bikaner PS & Bikaner-III PS are touching their designed short circuit level, therefore such stations may be excluded from the above consideration. Further, suitable location for the installation of SynCons in Rajasthan ISTS system, which includes a low SCR (<5) as well as no installation of dynamic compensation [to avoid interaction between STATCOM and SynCons], are being considered. Further adequate space should also be available in the identified substation for installations of SynCons.

Convergence issues are being faced for future timeframe dynamics files, for which discussion are being carried out with OEMs/Siemens (PSS/E) & IIT

Mumbai. Therefore, a methodology has been adopted to identify optimal location for installation of SynCons in the interim which includes low SCR (<5), proximity of HVDC station as well as no installation of dynamic compensation to avoid interaction between STATCOM and SynCons.

Location of SynCons as close to the generation [220kV] may appear to increase the SCR. However, at the same time at 400kV level its efficacy in supporting the grid will be more. Therefore, a prudent decision for SynCon placement at 220kV or 400kV needs to be taken on case-to-case basis.

Based on the connectivity grant, SCR, real time grid issues, following tentative locations have been identified for placement of SynCons. However, this shall be subject to availability of space at respective station:

Based on the system study, tentative locations (RE pooling stations) for installation of synchronous condensers in Northern Region is as under:

Table 11.1- Proposed locations for Synchronous Condenser in Rajasthan

S.No.	Pooling Station	Voltage level	Synchronous condenser units *	SCR (by 2029) w/o SynCon	Reason for requirement of SynCon
	Ph-I				
1	Fatehgarh-I	400kV	• 400kV – 2 nos.	10.1	• Sustained Oscillations on real time basis as observed by Grid-India and radialized connection • No Dynamic compensation device • **Space conformation is awaited from M/s ATL** • Proposed Timeframe: 2026-27
2	Fatehgarh-II	220KV (Sec-1 & 1A) or 400kV	• 220kv - 1 No. unit each (Section 1 & 1A) or • 400kV – 2 nos.	220kV – (5.7 & 7.2) 400kV - 5.4	• Sustained Oscillations on real time basis as observed by Grid-India • Recommended at 400kV level due to relative low SCR and more impact on Grid Faults (at Bhadla, Bikaner) • **STATCOM at 400kv level - extensive evaluation is required due to control**

S.No.	Pooling Station	Voltage level	Synchronous condenser units *	SCR (by 2029) w/o SynCon	Reason for requirement of SynCon
					interaction between STATCOM and SynCon. • **M/s POWERGRID vide mail 05.10.24 confirmed the space for 2x(80x95sqm) for installation of 2 nos. 300MVAr SynCon units (on 220kV or 400kv level)** • Proposed Timeframe: 2026-27 ***Based on recommendation of committee either Fatehgarh-II PS (Priority-1) or Fatehgarh-I PS (Priority-2) may be selected for installation of SynCon***
	Ph-II				
3	Fatehgarh-IV PS (Sec-2)	220kV or 400kV	• 220kV - 2 Nos.	3.5(220kV) 6(400kV)	• Recommended at 220kV level due to low SCR • No Dynamic compensation device • Proposed Timeframe: 2027-28
4	Ramgarh PS	400kV	• 400kV - 2 Nos.	7.5(220kV) 4.5 (400kV)	• Recommended at 400kV level due to Low SCR at 400kV level (2027-3.4 & 2029-4.5) • STATCOM at 400kV level - extensive evaluation is required due to control interaction between STATCOM and Syncon • Proposed Timeframe: 2027-28
5	Bhadla-III	220kV	•220kV - 2 Nos.	4.3(220kV) 4.7 (400kV)	• Recommended at 220kV level due to relative low SCR at 220kV level (2027-3.5 & 2029-4.3) • No Dynamic compensation device • Nearby HVDC at 400kV level (through 400kV Bhadla-III-Bhadla (HVDC) 2xD/c line) - extensive evaluation is required due to control interaction between HVDC and Syncon • Proposed Timeframe: 2027-28
	Ph-III				
6	Bikaner-II PS	220kV	•220kv - 1 No.	4.5(220kV) 7.3 (400kV)	• Recommended at 220kV level due to relative low SCR at 220kV level • Only 1 no. unit is suggested due to higher Short circuit MVA

S.No.	Pooling Station	Voltage level	Synchronous condenser units *	SCR (by 2029) w/o SynCon	Reason for requirement of SynCon
					• STATCOM at 400kv level - extensive evaluation is required due to control interaction between STATCOM and Syncon • Proposed Timeframe: 2029-30
7	Merta-II PS	220kV	•220kv - 1 No.	4.8 (220kV) 9.7 (400kV)	• Recommended at 220kV level due to relative low SCR at 220kV level • No Dynamic compensation device • Proposed Timeframe: 2029-30

1 no. of SynCon unit comprises dynamic support of +300MVAr/-150MVAr (Minimum) & Short circuit contribution at PCC of 1200MVA (Minimum) with Minimum H (natural) >3 s

Additional requirement of flywheel (with natural inertia of 1000-3000MWs) may be identified at time of finalization of proposal

In the analysis, it is observed that in some of the existing substations in Rajasthan viz Bhadla PS, Bikaner PS & Bikaner-III PS are touching their designed short circuit level, therefore such stations are excluded from the above consideration.

*****

11. RECOMMENDATIONS OF THE COMMITTEE

Following are the recommendations of the committee:

(i) In view of huge RE capacity addition in the Northern Region, particularly in Rajasthan State, the Committee is in consensus of installation of SynCons in RE complexes because of the following advantages of SynCons:

a) Enhancement in System Strength/ Short Circuit Ratio (SCR)
b) Fast Reactive Power Support during Faults/Transients
c) Increased Inertia and Frequency Response
d) Damping of Low Frequency Oscillations
e) Steady-state Reactive Power Support

(ii) As per the study results, the committee recommends installation of first SynCon of 2 X +300/-200 MVAR at 400kV level either at Fatehgarh-II (Priority-1) or Fatehgarh-I (Priority-2) Substation with the completion timeline of 2026-2027 as the land for installation of SynCons is available at Fatehgarh-II Substation of POWERGRID.

(iii) Committee also recommends installation of additional SynCons in timelines of 2027-28, 2028-29 & 2029-30 as per table 11.1 based on the evolving scenarios & studies for above timeline.

(iv) Committee recommends to consider SynCon as 'transmission asset' similar to STATCOM & SVC for its compensation mechanism with cost recovery through monthly transmission charges (Regional component). Further, it is recommended that the active power consumed by SynCon be treated as transmission losses within the ISTS and not be charged under deviations.

Availability computation of SynCon shall be on similar lines as specified for STATCOM in relevant regulations notified by respective commissions from time to time. The weightage factor shall be considered on pro-rata basis i.e. ratio of maximum available capacity to rated capacity of SynCon.

(v) The CEA/MoP may consider the installation of above SynCons in TBCB or RTM mode similar to other transmission projects.

(vi) The Committee also recommends that technical standards and other regulatory framework for adoption of SynCons may be notified on priority by concerned authorities.

(vii) Committee also recommends to explore the idle/underutilized existing gas-based power plants in the country for utilization in synchronous condenser mode via suitable arrangements of clutch in gas power plants located in RE rich areas. Further, after year 2030, existing retired coal based TPS may also be explored for utilization as SynCons.

*****

References:

1. Synchronous Condenser- A Novel Solution for Grid Stability for Integration of Renewables (Version 2.0) By NTPC
2. Reactive Power Management and Voltage Control Ancillary Services (VCAS) in India Reactive Power Management and Power System Operation Corporation Ltd. (A Government of India Enterprise) Power System Operation Corporation Ltd. March 2021 (Discussion paper)
3. Report on Events Involving Transmission Grid Connected Wind & Solar Power Plants by Grid India
4. Grid-India Report on Assessment of Inertia in Indian Power System (https://posoco.in/wp-content/uploads/2022/01/Assessment-of-Inertia-in-Indian-Power-System.pdf)
5. CEA Manual on Transmission Planning Criteria, 2023

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I/34917/2024

Annexure-I

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

सेवा में,

1. Chief Engineer, PSPA-1, CEA [Email: i.sharan@nic.in]
2. COO, CTUIL, [Email: pcgarg@powergrid.in]
3. Executive Director, NRLDC, Grid-India [Email: nroy@grid-india.in]
4. Chief Engineer, PSTCL, [Email: ce-tl@pstcl.org]
5. Chief Engineer, RVPNL, [Email: ce.ppm@rvpn.co.in]
6. Director (Planning & Commercial), UPPTCL, [Email: director_comm@upptcl.org]

विषय: Constitution of Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region -reg.

महोदय/ महोदया,

In the 71st NRPC meeting held on 29th January, 2024 (refer agenda A.7 of enclosed MoM dated 23rd February, 2024), it was deliberated that RE power is being integrated in fast pace country-wide and to ensure grid stability and provide inertial support in RE complex, requirement of dynamic compensation like Synchronous Condensers needs to be identified separately based on the detailed reactive power planning studies and the Short Circuit Ratios (SCRs) at different locations.

As per decision taken in 71st NRPC meeting, a committee of members from CEA, NRPC, NRLDC, CTU and STU is to be constituted under chairmanship of Member Secretary, NRPC to do futuristic analysis for requirement of Synchronous Condensers based on the inertia considerations for Northern Region.

In view of the above, a committee is constituted with following members from planning/system study group of different organizations:

Sr. No.	Name	Designation	Organization
1	Sh. V. K. Singh	Member Secretary- **In Chair**	NRPC Sectt.
2	Sh. Anzum Parwej	Superintending Engineer (System Study)	
3	Sh. Ravi Kant	Executive Engineer (System Study)	

4	Sh. Kanhaiya Singh Kushwaha	Asst. Director, PSPA-1	CEA
5	Sh. V. Thiagarajan	Sr. GM	CTUIL
6	Sh. Kashish Bhambhani	GM	
7	Sh. Sunil Kumar Ahirwal	GM	NRLDC
8	Sh. Bikash Kumar Jha	DGM	
9	Mr. Nitin Kumar	Sr. XEN/Planning-1	PSTCL
10	Ms. Ranjana	AE/Planning-1	
11	Sh. V. A. Kale	Superintending Engineer (P&P)	RRVPNL
12	Dr. Om Prakash Mahela	Executive Engineer (PP&D)	
13	Representative from UPPTCL (Nomination awaited)		

First meeting of the committee is scheduled on **19th April 2024 at 11:00 hrs through VC**. Meeting link will be shared in due course.

Kindly make it convenient to attend the meeting.

This issues with the approval of MS, NRPC.

Sd/-

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee
****

विषय: Meeting Notice of 2nd meeting of Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region -reg.

महोदय/ महोदया,

2nd meeting of Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region has been scheduled on **30-05-2024 at 03:00 PM through VC.** Meeting link will be shared in due course.

As per the decision in 1st meeting of the committee, CTU and BHEL are requested to arrange/ make Presentations on Synchronous Condensers and other advanced technologies.

Additional Nominations have been received from NTPC, BHEL and NLDC. In view of this, constitution of committee is as under:

S. no.	Name	Designation	Organization
1	Sh. V. K. Singh	Member Secretary- **In Chair**	NRPC Sectt.
2	Sh. Anzum Parvez	Superintending Engineer (System Study)	
3	Sh. Ravi Kant	Executive Engineer (System Study)	
4	Sh. Kanhaiya Singh Kushwaha	Asst. Director, PSPA-1	CEA
5	Sh. V. Thiagarajan	Sr. GM	CTUIL
6	Sh. Kashish Bhambhani	GM	
7	Sh. Sunil Kumar Ahirwal	GM	NRLDC
8	Sh. Bikash Kumar Jha	DGM	
9	Mr. Nitin Kumar	Sr. XEN/Planning-1	PSTCL

10	Ms. Ranjana	AE/Planning-1	
11	Sh. V. A. Kale	Superintending Engineer (P&P)	RRVPNL
12	Dr. Om Prakash Mahela	Executive Engineer (PP&D)	
13	Sh. Sanjeev Kumar Bhasker	Superintending Engineer	UPPTCL
14	Sh. Priyam Jain	Chief Manager	NLDC
15	Sh. Suneet Mehta	DGM	NTPC
16	Sh. Venkateswara Rao Bitra	DGM	
17	Sh. Manoj Kumar	AGM	BHEL
18	Ms. Asha Gupta	AGM	
19	Sh.Vishal Naidu	DGM	
20	Sh. Ranajit Dey	Sr. Manager	
21	Sh. Dhanunjayudu Nasika	Manager	

Kindly make it convenient to attend the meeting.

This issues with the approval of MS, NRPC.

Signed by Anzum Parwej
Date: 16-05-2024 17:41:18

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee
****

विषय: Meeting Notice of 3rd meeting of Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region -reg.

महोदय/ महोदया,

3rd meeting of Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region has been scheduled on **7th June 2024 at 11:00 AM through VC.** Meeting link will be shared in due course.

As per the decision in 2nd meeting of the committee, CTU is requested to arrange Presentations on Synchronous Condensers by M/s Siemens in the meeting.

Additional Nomination have been received from NLDC. In view of this, constitution of committee is as under:

S. no.	Name	Designation	Organization
1	Sh. V. K. Singh	Member Secretary- **In Chair**	NRPC Sectt.
2	Sh. Anzum Parwej	Superintending Engineer (System Study)	
3	Sh. Ravi Kant	Executive Engineer (System Study)	
4	Sh. Kanhaiya Singh Kushwaha	Asst. Director, PSPA-1	CEA
5	Sh. V. Thiagarajan	Sr. GM	CTUIL
6	Sh. Kashish Bhambhani	GM	
7	Sh. Sunil Kumar Ahirwal	GM	NRLDC
8	Sh. Bikash Kumar Jha	DGM	
9	Mr. Nitin Kumar	Sr. XEN/Planning-1	PSTCL

10	Ms. Ranjana	AE/Planning-1	
11	Sh. V. A. Kale	Superintending Engineer (P&P)	RRVPNL
12	Dr. Om Prakash Mahela	Executive Engineer (PP&D)	
13	Sh. Sanjeev Kumar Bhasker	Superintending Engineer	UPPTCL
14	Sh. Priyam Jain	Chief Manager	NLDC
15	Sh. Rahul Shukla	Chief Manager	
16	Sh. Suneet Mehta	DGM	NTPC
17	Sh. Venkateswara Rao Bitra	DGM	
18	Sh. Manoj Kumar	AGM	BHEL
19	Ms. Asha Gupta	AGM	
20	Sh.Vishal Naidu	DGM	
21	Sh. Ranajit Dey	Sr. Manager	
22	Sh. Dhanunjayudu Nasika	Manager	

Kindly make it convenient to attend the meeting.

Signed by Anzum Parwej
Date: 05-06-2024 17:24:20

This issues with the approval of MS, NRPC.

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

Annexure-II

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

विषय: Minutes of 1st Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 22.04.2024 through Video Conferencing.

महोदय/ महोदया,

1st Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region was held on 22.04.2024 through Video Conferencing. Minutes of the meeting is attached at **Annexure-I** for kind information and necessary action.

This issues with the approval of MS, NRPC.

Signed by Anzum Parwej
Date: 06-05-2024 12:28:01

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

Annexure-I

Minutes of 1st Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 22.04.2024 through Video Conferencing

At the outset, Member Secretary welcomed committee members and other participants in the meeting. He briefly described that in the 71st NRPC meeting held in January 2024, it was decided that there is need of dynamic compensation in the Northern Region because more RE Generation is being integrated in the Northern Grid. Accordingly, it was decided that a committee may be setup under Member Secretary and members comprising from NRLDC, CEA, CTU & STUs. Therefore, a committee was formed with members from NRPC, CEA, NRLDC, CTU, STUs and it was agreed that committee may opt any other experts. Subsequently, committee co-opted NTPC and BHEL from the first meeting itself and they also joined the first meeting. Officials from NLDC also joined the first meeting. The committee may deliberate on the requirement of synchronous condenser in the Northern Region and particularly system study will be required about the location, capacity of synchronous condenser, economics – whether old thermal plants due for retiring can be used as synchronous condenser, all these aspects are to be deliberated by this committee. A report should be prepared and submitted to MoP/CEA, so that road map towards installation of synchronous condenser can be started on ground.

2. Executive Engineer, NRPC gave a brief presentation on Synchronous condenser based on reports from NTPC and GRID INDIA.

Reports description are as under:

(i)NTPC report on the use of Generators as Synchronous Condensers for Grid stability aspects of short circuit power and inertia

(ii)Grid India: Discussion paper titled Voltage Control Ancillary Service to CERC in March 2021 and is available in public domain.

Brief points of the presentation are as under:

- The target for renewable generation is revised in COP26 to 500GW by 2030.
- The increase in renewable energy in grid along with retirement of conventional energy-based plants may lead to considerable decrease in inertia, short circuit strength, dynamic reactive power reserves which are essential parameters for overall stability and reliability of the power system.
- System studies need to be carried out considering the planned renewable integration to identify possible locations for installation of mechanisms for providing reactive power.
- The conversion of a retiring plant allows the use of existing equipment and infrastructure, thereby reducing the investments costs and providing an economical solution for critical ancillary services such as short circuit power, inertia and reactive power.
- Gas Power Plants can be converted to synchronous condensers by the provision of a clutch to connect the gas turbine and generator. When active power generation is required, the gas turbine is connected to the generator with the clutch closed.
- Further, as more and more renewable generation (low inertia) is replacing the conventional generators, the diminishing system inertia is posing new challenges to the grid stability and growing concern to the grid operators.
- As a localized phenomenon, voltage changes in the system can be best addressed by providing reactive power support locally. Unlike real power, reactive power cannot be transferred across long distances in a bulk power system. Long distance and unchecked reactive power flows can give rise to substantial voltage variation across the system. Thus, it

becomes necessary to maintain reactive power balances between sources of generation and points of demand on a 'zonal basis'.

- Converting an obsolete synchronous generator to a synchronous condenser is a viable, economical alternative to retiring the unit.
- Besides providing reactive power support, a synchronous condenser has other advantages like contributing to system short-circuit capacity, short term overload capability, system inertia etc.

3. NTPC informed that presently the above-mentioned report is for their internal circulation and study and the same can be shared to the committee members after updating data and subsequent internal approval from NTPC management.

Member Secretary, NRPC requested NTPC to share the report on Synchronous Condensers for the studies already carried out by them to all the committee members for reference.

4. Member Secretary, NRPC asked NRLDC to inform the committee about the issues faced on day-to-day basis by the System Operators which suggest requirement of synchronous condenser in RE pockets in Western Rajasthan.

NRLDC representative shared a brief presentation about the requirement of synchronous condensers and the present grid condition. The main points highlighted by NRLDC during their presentation are mentioned below:

a) The relevant extract of CEA report on the Transmission System for Integration of over 500 GW RE Capacity by 2030 was discussed. In the report it is mentioned that for the planned transmission schemes in Northern Region, dynamic compensation requirement like STATCOMs, Synchronous Condensers etc. would be identified separately based on the detailed reactive power planning studies and the Short Circuit Ratios (SCRs) at different locations. However, no synchronous condenser has been planned as of now.

b) The RE tripping event of 4870 MW and subsequent df/dt operation in various states leading to load shedding of nearly 630 MW in NR at 11.24 hrs on 06.04.2024 was also deliberated. It was mentioned that tripping on df/dt means that the rate of change of frequency was higher than stage-1 setting. This would have been due to large amount of generation loss and less localised inertia in Northern grid as df/dt tripping was reported only in Northern Region. Repeated events of RE generation loss in Northern Region leading to load shedding on high df/dt suggest issues related to local inertia in Northern Region.

c) The comparison between different technologies viz. Capacitors, SVC, STATCOM, Synchronous Condensers was elaborated, and various advantages of Synchronous Condensers was reflected upon including its overload capability, higher short circuit contribution due to no limitation of inverter current rating and inertial support which is not provided by SVCs & STATCOMs.

d) It was highlighted that in grid with low inertia issues such as severe power system transients, high rate of change of frequency (RoCoF) due to system disturbances, Extreme power system frequency (frequency nadir) swings during contingencies, deterioration of fault detection capabilities of associated protective devices are commonly observed apart from the inability to further integrate low-inertia renewable generation resources into the power system.

e) Advantages of synchronous condenser viz. Fault current support to improve power system electromagnetic strength, Physical inertia to limit the initial RoCoF in the first swing, Reactive power support was mentioned. It was also mentioned that synchronous condenser does not have any inverter-based devices therefore there is no harmonic injection and the synchronous condenser also helps to maintain inherent sine wave to stabilize the voltage distortion following a transmission fault and facilitate grid following inverter Fault Ride Through.

It was also deliberated that RE plants have reported tripping due to distorted waveform owing to phase jump issue and sensing of low frequency of inverters in the past. Synchronous condenser would help in maintaining Sine wave of voltage waveform and will reduce distortion, it is thus envisaged that tripping due to phase-jump and distorted waveform would reduce if Synchronous condensers were available.

f) Several synchronous condensers have been installed across the world from Denmark, Germany and Italy to USA for improving the short circuit fault level or providing dynamic reactive power support. List of synchronous condensers installed worldwide as presented by NRLDC during the meeting is attached as **Annexure-II**.

g) Fault levels & SCR of ISTS RE Pooling stations in NR-Rajasthan was also presented. SCR less than 5 was highlighted at 400 KV and 220 KV side of Fatehgarh-2. NRLDC representative added that these SCR values are as per the present grid condition, and it may vary as per increased connectivity as per CTU planning for further transmission system and weaker nodes may be assessed again after commissioning of pending as well as upcoming lines which are under planning stage.

5. Member Secretary, NRPC asked CTU to provide the details for the future planning in RE pocket. CTU representative replied that SCR values which are observed to be low presently will increase with coming up of transmission lines in future and SCR value will meet CEA standards. Also, Synchronous condensers will definitely help in terms of inertia, SCR value and MVAR support but utilization of the same in world over is combination of both Synchronous condenser and STATCOM. Hence, synchronous condenser and STATCOM should be used in combination.

Member Secretary, NRPC opined that as per CEA report of 500 GW Renewable Generation (RE) corresponding transmission plan has been made and hence RE pooling station planning location, corresponding transmission lines and connectivity with load centres have already been planned. Member Secretary, NRPC enquired from CEA and CTU if any study has been carried out regarding installation of compensation devices corresponding to 500 GW Renewable Generation (RE).

CTU representative stated that pooling station wise STATCOM have been planned for controlling voltages which is quite effective for Voltage control however other features like higher short circuit current contribution and inertia are yet to be explored. He also stated that during solar peak hours, thermal generation on bar would be operating around 50% and margins would be available for inertia contribution.

Member Secretary, NRPC opined that a combination of devices would be required as per system requirement and hence system study should be carried out to know the node wise requirement as per the planned 500 GW Renewable Generation so that SCR improvement, Voltage profile improvement and inertia requirements would be met as available rotating mass would be less with

more and more RE integration. Study may be carried out for different periods e.g. 2026, 2028, 2030 regarding the compensation requirements.

CTU representative stated the following:

a) Technology is evolving and Synchronous condenser is one of the options.
b) CTU shared a slide where an OEM Hitachi had come to CTU for showcasing their technologies where enhanced STATCOM(E-STATCOM) can be used, it has benefits of synchronous condenser as well as fast and slow voltage controls and controllability in enhanced way is available.
c) Using retired generating units as Synchronous condenser is a good option but if completely new synchronous condenser is to be installed then Hybrid-Synchronous condenser and E-STATCOM can also be explored.

CTU representative enquired whether GRID-INDIA has carried out any studies which show any improvement in grid situation in Western Rajasthan with synchronous condenser.

CTU representative also stated that they have requested Hitachi for dynamic data of Hybrid Synchronous condenser/ E-STATCOM and also requested BHEL to provide dynamic data of synchronous condenser being proposed by BHEL.

6. NRLDC representative stated that GRID-INDIA had done study which suggested improvement in transient stability with synchronous condenser. As a test case simulation was done with synchronous condenser connected at Bikaner-II and is included in report published by GRID-INDIA and is available @ *https://posoco.in/wp-content/uploads/2024/01/Report-on-Events-Involving-Transmission-Grid-Connected-Wind-Solar-Plants.pdf*

NRLDC representative also stated that Hybrid synchronous condenser and E-STATCOM are still to be implemented in sites worldwide therefore their efficacy is not clear as on date. Moreover, with such technologies, issues such as short circuit contribution may not be resolved whereas inertial issues may also persist. Already STATCOMs are being installed in Indian grid, therefore pilot with synchronous condenser would be the most suitable option.

7. CEA, PSPA-I representative stated that the criteria for selection of choosing location for installing synchronous condenser also needs to be discussed; result from simulation studies need to be considered for assessing requirement of synchronous condenser.

NRLDC representative stated that some of the common parameters which determine requirement of synchronous condenser include parameters such as short circuit ratio, df/dt in case of reference contingency.

8. NLDC representative stated that feedback regarding synchronous condenser is being regularly submitted in quarterly operational feedbacks to CTUIL/CEA. Moreover, selection criteria have also been prepared by NLDC and submitted in various forum. Selection criteria along with note as shared by NLDC is attached as **Annexure-III**.

9. MS, NRPC requested NTPC to share views on the matter. NTPC representative stated that as per recent directions from Govt., no thermal unit is to be retired till 2030, therefore option for utilising existing thermal unit as synchronous condenser may not be feasible. Moreover, shifting one generating unit which has already exhausted its life to a new location would also be costly as new civil constructions would be required and also the machine would have served its life.

Repurposing of existing coal power plants for use as synchronous condenser: NTPC informed that as per advisory dated 20.01.2023 issued by CEA, no retirement or re-purposing of coal-based power stations shall be done before 2030. In view of the same, repurposing may not be possible before 2030.

Advantages of New Synchronous Condenser over repurposing of existing coal-based plants: NTPC informed that there are various challenges for re-purposing coal-based plants as synchronous condensers such as residual life, re-winding of generator, transportation to new location, warranty issues, hydrogen, land, water requirements etc. Also, new synchronous condensers have advantages of design as per system requirement, can be air cooled etc., thereby reducing the land water requirements. In view of the same, it was discussed that it is advisable to install new synchronous condensers.

Possibility of using Gas Turbines for Synchronous condensers: NTPC informed that existing gas power plants can be made to run either in 'Generation Mode' or in 'Synchronous Condenser Mode' with provision of a new clutch arrangement between Generator and Turbine. In Rajasthan, NTPC has only one gas plants i.e., Anta.

Tariff Mechanism for Synchronous Condenser Installation: NTPC representative highlighted that presently, no cost recovery/tariff mechanism for synchronous condenser is available. It was also mentioned that the mechanism is required for promoting installation of such devices.

Also, it was discussed that uniform tariff mechanism for all such compensation devices is required (presently STATCOMS are being installed as "Grid Element").

Suggestions for way forward: Initially, a techno-commercial comparison of each type of compensation device (STATCOM, Synchronous Condenser, BESS etc.) or hybrid/combination of devices may be made for selecting the most suitable optimized solution based on ancillary service required.

A suggestive way forward was proposed in the meeting:

1. **Step-1:** Grid studies to be carried out for Short Circuit Ratio, inertia and dynamic reactive power with planned RE integration.
2. **Step-2:** Based on the system studies, installation of the equipment as per system requirement and selected solutions to be done.

It was also discussed that pilot installations (if not installed earlier) of different available solutions shall be required for understanding the ground performance of the compensation solutions.

10. Member Secretary, NRPC requested BHEL to share their views. BHEL representative stated that they are ready to design synchronous condenser up to 300 MVAr capacity. BHEL stated that they have the capability to design, manufacture and supply Synchronous condenser (SC) for a varied range (100 MVAr-300MVAr). As per the network requirement, synchronous condenser size may be selected with maximum size of 300 MVAr. For requirement of 600 MVAR Synchronous condenser, two 300 MVAR Synchronous condensers can be used. MS secretary asked how much time it could take for installation of 600 MVAR Synchronous Condenser. BHEL informed that generally installation may be completed in 1.5 to 2 years. However, in case of critical requirement, the work would be expedited. In order to demonstrate the advantages, efficacy/effectiveness of the SC in the Grid, BHEL proposed for a pilot project with Indigenous technology which will give a boost to Make in India drive. BHEL requested to provide an opportunity to make a presentation about BHEL's technical

capabilities and readiness in the upcoming meeting and to further deliberate on the modalities of pilot project.

NTPC and BHEL representatives suggested that a pilot project for new synchronous condenser needs to be implemented in the country to determine the utility of synchronous condenser in Indian grid.

11. Member Secretary, NRPC enquired RVPN regarding possibility of utilising Giral TPS and Dholpur TPS for synchronous condenser mode of operation.

RVPN representative agreed to confirm the same.

12. UPPTCL representative raised the queries in the meeting, especially in pointing out the strategic locations for synchronous condensers in coordination with UPSLDC as per the prevailing and forecasted grid parameters. Query regarding the utilization of UP Rajya Vidhyut Utpadan Nigam Limited owned generating units & other IPPs as synchronous condensers was also raised.

Member Secretary, NRPC suggested that STU must coordinate with their SLDCs and Generating unit to work out such possibilities at state level.

13. Committee will then submit its report in the next 3-4 months to CEA and Ministry of Power. Concrete action on ground would then take place towards installation of synchronous condensers.

Committee also deliberated that NLDC has already done work in the area for requirement of synchronous condenser in the grid and hence one member from NLDC may also be included in the committee.

14. Following was agreed after detailed deliberations:

1. CTUIL to arrange for presentation by OEM for other advanced technologies in next meeting.
2. BHEL to give presentation on synchronous condenser in next meeting.
3. CTUIL and CEA to carry out system study for requirement of synchronous condenser as already mentioned in 500 GW RE report. The studies would be done for every two-year time frame till year 2030.
4. Grid-India to study impact of installing synchronous condenser in present scenario at Fatehgarh-II which has the least SCR in Western Rajasthan RE complex.
5. Committee to deliberate on funding for synchronous condenser.
6. RVPN to explore possibility of utilising Giral TPS and Dholpur TPS for synchronous condenser mode of operation.
7. NTPC/BHEL to submit inputs from their side regarding synchronous condenser mode of operation before next subcommittee meeting.
8. NRPC to send official mail seeking nominations from NLDC, NTPC & BHEL

Member Secretary, NRPC thanked all participants and ended the meeting.

List of Participants

NRPC

1. Sh. V K Singh, Member Secretary ---- **In Chair**
2. Sh. Anzum Parwej, SE
3. Sh. Ravi Kant, EE

CEA

4. Sh. Kanhaiya Singh Kushwaha, Asst. Director

CTU

5. Sh. V. Thiagarajan, Sr. GM
6. Sh. Kashish Bhambhani, GM

NLDC

7. Sh. Vivek Pandey, Sr. GM
8. Sh. Priyam Jain, Chief Manager
9. Sh. Aman Gautam, Manager

NRLDC

10. Sh. Bikash Kumar Jha, DGM
11. Sh. Gaurav Singh, Chief Manager
12. Sh. Gaurav Malviya, Manager

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13. Sh. Nitin Kumar, Sr. XEN/Planning-1
14. Ms. Ranjana, AE/Planning-1

RVPNL

15. Sh. V. A. Kale, Superintending Engineer (P&P)
16. Dr. Om Prakash Mahela, Executive Engineer (PP&D)

UPPTCL

17. Sh. Sanjeev Kumar Bahsker, SE

NTPC

18. Sh. Pankaj Kumar Gupta, GM
19. Sh. B S Jena, AGM
20. Sh. Suneet Mehta, DGM
21. SH. V R Bitra, DGM

BHEL

22. Sh. Manoj Kumar, AGM,
23. Sh. Vishal Naidu, DGM
24. Sh. Ranajit Dey, Sr. Manager

List of Synchronous Condenser Installations

Country	Location/Project Name	Inertia Constant MWs/MVA	Kinetic Energy MWs	Type of Machine cylindrical/salient pole (r.p.m.)	Rating		
					MVAr delivery	MVAr absorption	S.C. Support
Australia	Darlington Point	1.27	53	salient pole	42	-20	328
Australia	Darlington Point	1.27	53	salient pole	42	-20	328
Australia	Darlington Point	1.27	53	salient pole	42	-20	328
Australia	Darlington Point	1.27	53	salient pole	42	-20	328
Australia	Davenport	8.53	2x1100	cylindrical (3000)	2x129	2x-77	2x642
Australia	Finley	1.53	91.8	salient pole	60	-35	469
Australia	Finley	1.53	91.8	salient pole	60	-35	469
Australia	Haughton	1.57	102	salient pole	65	-27.3	492
Australia	Haughton	1.57	102	salient pole	65	-27.3	492
Australia	Kennedy Energy Park	2.1	10.5	salient pole	5	-5	48
Australia	Kennedy Energy Park	2.1	10.5	salient pole	5	-5	48
Australia	Kennedy Energy Park	2.1	10.5	salient pole	5	-5	48
Australia	Kiamal Solar Farm		340	cylindrical	190	-70	730
Australia	Robertstown		1100	cylindrical	125	-70	580
Australia	Silverton	1.33	53	salient pole	40	-20	325
Australia	Silverton	1.33	53	salient pole	40	-20	325
Australia	Tasmania	4.1	656	salient pole (273)	70	-72	
Australia	Tasmania	3.57	571	salient pole (273)	70	-61	
Australia	Tasmania	3.65	496	salient pole (167)	72	-74	
Australia	Tasmania	3.15	356	salient pole (200)	49	-44	
Australia	Tasmania	3.72	350	salient pole (167)	50	-42	
Australia	Tasmania	3.7	348	salient pole (167)	40	-46	
Australia	Tasmania	4.2	282	salient pole (600)	40	-20	
Australia	Tasmania	3.1	149	salient pole (500)	21	-17	
Canada	Cote Gold	1.0	7.5	salient pole	7.5	3.75	36
Canada	Cote Gold	1.0	7.5	salient pole	7.5	3.75	36
Canada	Cote Gold	1.0	7.5	salient pole	7.5	3.75	36
Canada	Hydro Quebec Cadillac	3x2.9	3x72.5	salient pole	3x25	3x-12.5	3x471
Canada	Hydro Quebec Copper Mountain	2x2.9	2x72.5	salient pole	2x25	2x-12.5	2x471
Canada	Rainbow Lake	1.43	71.5	salient pole	50	-30	467
Canada	Rainbow Lake	1.43	71.5	salient pole	50	30	467
Canada	Winnipeg, Dorsey Inverter station of BPI HVDC Bipole	1.41	226.4	salient pole	160	-80	0.653 (SCR)
Canada	Winnipeg, Dorsey Inverter station of BPI HVDC Bipole	1.99	318.09	salient pole	160	-80	0.653 (SCR)
Canada	Winnipeg, Dorsey Inverter station of BPII HVDC Bipole	2.2	660.0	salient pole	300	-165	0.653 (SCR)
Canada	Winnipeg, Riel Inverter station of BPIII HVDC Bipole	2.5	625.0	salient pole	4x250	4x-125	0.653 (SCR)
China	Guquan 2					-150	
China	Huaian 2					-150	
China	Jiuquan 2					-150	
China	Other locations 8					-150	
China	Taizhou 2					-150	
China	Ximeng 2					-150	
China	Xuming Substation (5 SynCons)					-150	
China	Zhalute 2				27x300	-150	
China	Ziangtan 2					-150	
Denmark	Bjaeverskov		450	cylindrical	270	-140	900
Denmark	Faero Island /Soderoy	2.3	18.4	salient pole	8	-7.5	127
Denmark	Fraugde		450	cylindrical	200	-120	1000
Denmark	Herslev		450	cylindrical	200	-120	1000
Estonia	Kiisa		1750	cylindrical	50	-50	900
Estonia	Püssi		1750	cylindrical	50	-50	900
Estonia	Viru		1750	cylindrical	50	-50	900
Georgia	Black Sea		80	cylindrical	60	-39	250
Germany	Ampirion GmbH				330		
Germany	Hoheneck		610	cylindrical	430	-260	1200
Germany	Oberottmarshausen		610	cylindrical	300	-200	1200
Germany	Tenne TSO				250		
Ireland	Moneypoint		4000	cylindrical	245	-111	830
Italy	Brindisi				2x250		
Italy	Brindisi Nord	7.08	1770	cylindrical	250	-125	Retrofit
Italy	Brindisi Nord	7.08	1770	cylindrical	250	-125	Retrofit

Country	Location/Project Name	Inertia Constant MWs/MVA	Kinetic Energy MWs	Type of Machine cylindrical/salient pole (r.p.m.)	Rating		
					MVAr delivery	MVAr absorption	S.C. Support
Italy	Fano		1780	cylindrical	250	-125	1100
Italy	Favara				170		
Italy	ICS Candia	7.08	1770	cylindrical	250	-125	1198
Italy	ICS Codrongianos	1.69	423	cylindrical	250	-125	1277
Italy	ICS Codrongianos	1.69	423	cylindrical	250	-125	1277
Italy	ICS Codrongianos	7.08	1770	cylindrical	250	-125	1198
Italy	ICS Foggia	7.08	1770	cylindrical	250	-125	1198
Italy	ICS Gagliano	7.08	1770	cylindrical	250	-125	1198
Italy	ICS Matera	7.08	1770	cylindrical	250	-125	1198
Italy	ICS Matera	7.08	1770	cylindrical	250	-125	1198
Italy	ICS Villanova	7.08	1770	cylindrical	250	-125	1198
Italy	Maida				2x250		
Italy	Partinico				170		
Italy	Rosara		1780	cylindrical	250	-125	1100
Italy	Selargius				2x250		
Korea	Jeju Island	1.93	2 x 97	salient pole / 1800	2 x 50	2 x -25	2 x 224
Netherlands	Rotterdam/Maasvlakte MPP2	10.5	500/625	cylindrical	280*	-280	
Norway	Feda		340	cylindrical	170	-90	740
Tasmania	Mussleroe	2x0.98	2x 13.7	salient pole	2x 14	2x-11	2x 127
UK	Grain		2 x 1700	cylindrical	2 x 115	-90	570
UK	Keith		450	salient pole	2*65	-57	
UK	Lister Drive	6.92	450	salient pole	65	-27	492
UK	Lister Drive	6.92	450	salient pole	65	-27	492
UK	Neilston	1.34	93.8	salient pole	70	-33	503
UK	Rassau		1100	cylindrical	60	-60	420
UK	Rassau		750	salient pole	60	-60	420
UK	Scottish Power				70		
UK	STATKRAFT				67		
USA	Alibates		470	cylindrical	160	-70	950
USA	Blackwater		470	cylindrical	158	-114	960
USA	California	1.46	3x118	salient pole / 1200	3X81	3X-35	3X324
USA	Connecticut	1.49	37	salient pole / 1800	25	-12.5	98
USA	Finlay solar park				60		
USA	Huckins Hill	2.2	121	salient pole	55	-32.2	539
USA	Maine - 1	1.95	117	salient pole / 1800	60	-27	350
USA	Maine - 2	1.95	117	salient pole / 1800	60	-27	350
USA	Midwest				560	-310	
USA	Miguel		2x470	cylindrical	450	- 225	970
USA	New Hampshire - 1	1.49	2x37	salient pole / 1800	2X25	2X-12.5	2X97
USA	New Hampshire - 2	1.49	2x37	salient pole / 1800	2X25	2X-12.5	2X97
USA	North Keene	2.2	121	salient pole	55	-32.2	539
USA	Panhandle Texas				2x175	2x-125	
USA	San Luis Rey		470	cylindrical	225	-120	970
USA	Shunoch	2.2	121	salient pole	55	-32.2	539
USA	Songs Mesa		470	cylindrical	225	-120	970
USA	Talega		470	cylindrical	225	-120	970
USA	Tule Canyon		470	cylindrical	160	-70	950
USA	Vermont	1.73	4x43	salient pole / 1800	4x25	4x-12.5	4x131
USA	Virginia - 1	1.39	2x139	salient pole / 1200	2X100	2X-50	2X342
USA	Virginia - 2	1.39	2x139	salient pole / 1200	2X100	2X-50	2X342
USA	Wyoming	1.84	120	salient pole / 1200	65	-40	310

Synchronous Condenser Location and Plant Selection Criteria for Indian Power System

Synchronous Condensers being a high-speed rotating heavy mass, have emerged as the most optimized and strongest technical solution to deal with problems of low Inertia. Provision of Synchronous condensers is being made world-over to improve voltage stability as well as frequency stability in renewable power rich environment. The use of generators as synchronous condenser could benefit in improving the grid stability as well as power quality. The synchronous condenser offers several advantages, which makes it a must for system planned with large scale renewable integration: -

1. Meet system MVAR requirements arising out of retiring generators
2. To improve system stability for solar or wind plant fed system
3. Low voltage ride through capability during fault condition
4. Facilitates dynamic compensation
5. To meet reactive MVA of HVDC
6. Good overload capacity
7. Maintains power quality

In Indian power system, the aging of thermal power plants offers a unique opportunity to the system operator for conversion of old thermal generation units into synchronous condensers. This solution can solve major issues of low system inertia, reactive power support and low short-circuit current. The retired and old thermal generation fleet are located across the entire country. It's important to develop a selection criteria, first for selecting the area where synchronous condensers are required to be installed. Then after the area, it's important to select a existing plant based on techno-economic study and other standards. The new plant can also be planned after area selection. The detailed strategy for planning a synchronous condenser in the system is given below:

1. Phase I : Criteria for Area Selection: The area where the kinetic energy level has decreased below limits as mentioned in the dynamic study of long or medium term planning. If dynamic study couldn't be done due to unavailability of system dynamic data , then thumb rule for area selection should be renewable power generation penetration crossing beyond 50 %. In addition to renewable generation penetration, factors such as low short circuit level, low specific area inertia and voltage variations should also be considered. Some additional parameters like proximity to load centers and HVDC systems are also used to identify the pockets in which the synchronous condenser installation is required.

S. No	Criteria Parameter	Recommendations	Rationale
1	Renewable penetration	>= 50%	Dynamic reactive support in area with low penetration of synchronous generation sources
2	Short circuit ratio	< 5	Weak system strength
3	Local kinetic energy	Below specified threshold, poorly damped oscillations	Kinetic Energy estimation at the level of control areas
4	Proximity to Renewable energy complexes	High priority over others. Graded approach based on distance is to be considered.	Proximity near RE complex provides system strength and improves performance of IBR
5	Proximity to HVDCs and load centres	Graded Approach based on proximity	Provides system strength and reduces HVDCs commutation failure
6	Voltage variations beyond ±0.05 pu	Graded Approach based on proximity	Reactive power impacts decreases away from injection point.

2. Phase II: Criteria for Plant Selection: After the area selection, the ageing thermal plants in the selected pocket is needs to be analysed based on the a techno-economic study. Also Residual Life Analysis (RLA) of major electrical equipment and system to be used after the conversion should be planned. The scope of RLA should include Turbo-Generator (TG), excitation system, generator transformer, generator relay panels, auxiliary systems and control equipment's etc., and electrical bay equipment. The RLA analysis needs to be done by third party based on the selection criteria by system operators.

S.No.	Criteria Parameter	Recommendations
1	Greenfield installation/Conversion	Estimation of cost for installation of new plants with conversion of old plants. Old thermal plants need to be assessed for insulation level also.
2	Feasibility study	Review the generator's operating and maintenance history. Good visual inspection of all components.
3	Techno-economic studies	Cost benefit analysis. Estimation of costs and benefits incurred in a simple decommissioning of plants vis-à-vis repurposing them. Repurposing for Syncon operation vis-à-vis PV and BESS
4	Residual Life Analysis	Analysis to include Generator, excitation system and auxiliary systems etc.
5	Dynamic studies	Installation of Flywheel for higher inertia and system strength

Apart from criteria of plant selection and area selection, there is need to introduce some regulatory framework and market mechanisms to promote the wider deployment of Synchronous Condensers in India. It would include market mechanisms for cost recovery , changes in market mechanisms, usage as ancillary services etc.

Annexure-III

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

विषय: Minutes of Meeting of 2nd Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 31.05.2024 through Video Conference

महोदय/ महोदया,

2nd Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region was held on 31.05.2024 through Video Conferencing. Minutes of the meeting is attached at **Annexure-I** for kind information and necessary action.

This issues with the approval of MS, NRPC.

Signed by Anzum Parwej
Date: 25-06-2024 10:13:22

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

Annexure-I

Minutes of Meeting of 2nd Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 31.05.2024 through Video Conferencing

At the outset, Member Secretary welcomed committee members and other participants in the meeting and directed EE, NRPC to proceed with agenda points.

2. EE, NRPC briefed on agenda points:
   (i) As per direction in first meeting, members from NTPC, NLDC & BHEL have been included in the committee.
   (ii) NTPC has shared its report on Synchronous condenser after taking appropriate approval and the same will be circulated among committee members.
   (iii) As per discussion in the previous meeting, BHEL is to make presentation on Synchronous condensers and CTU is to arrange presentation from other OEMs.
3. MS NRPC requested BHEL representatives to make a presentation on Synchronous Condensers. Salient points of the presentation are as under:
   a. As more Renewable Energy will integrate in the grid, grid may become a bit unstable due to intermittent nature of Renewable Energy. For making grid more stable, Synchronous Condensers (SynCon) will act as backbone of future stable grid.
   b. SynCon will provide:
      i. Reactive Power Compensation
      ii. Inherent System Inertia
      iii. Short Circuit power
   c. Reactive Power helps in maintaining the voltage level and in transportation of active power from generator to load.
   d. Inertia is required in the system to resist the changes in frequency. Synchronous generators add inertia to the power system through physical and electrical coupling of rotating masses. During sudden decrease in system frequency, the rotating masses will slow down, releasing kinetic energy stored in the form of active power injection to the grid, reducing frequency decay and damping further oscillations.
   e. Synchronous Condensers market requirement may be in range of 100-300 MVAr (Capacitive Power)
   f. BHEL is already making Synchronous generator which can be optimised to work as synchronous condensers with static excitation to cater fast response to system changes. Starting system shall be SFC + Turning gear. As per requirement, flywheel can be tailor made.
   g. Refurbishment of old phased out turbo-generators can also be done as synchronous condensers.
4. CTU informed that they have arranged presentations from M/s Hitachi and M/s Siemens. However, M/s Siemens may give presentation in next meeting. MS, NRPC requested M/s Hitachi to proceed with their presentation. Salient points of the presentation are as under:
   a. Since there is integration of RE in the grid, there are some concerns about System Inertia, System strength, Voltage control and frequency control will arise. These concerns need to be addressed to have secure and reliable grid.

b. For all the issues, a common solution may not be best. According to requirement of the grid, particular technology should be selected which best suits the need of the grid.
c. There are other technologies like STACOM with Grid forming control, Enhanced STATCOM & Hybrid Synchronous Condenser.
d. STATCOMs (GFM) are emulated to perform like a Synchronous condenser and will in comparison to traditional STATCOMs also contribute to system strength but it will be limited to 100 MVA if 100 MVAr STATCOM unlike Synchronous condenser which can support 3-4 times of its rating.
e. Enhanced STATCOM can support System Inertia, System strength, Voltage control and frequency control.
f. Based on requirement of grid whether high short circuit strength or high inertia or dynamic voltage control requirement, best technology should be selected.
g. As per CEA (Technical standard for connectivity to the grid) regulation, Short Circuit Ratio (SCR) at the interconnection point where the generating resource is proposed to be connected shall not be less than 5.
h. Many of major pooling stations are having lack of short circuit capability and several stations also have STATCOM systems. STATCOM with grid forming control will contribute to improvement of SCR.
i. Grid code of different countries like UK, Germany, US & Middle East have already started using Grid Forming control as a mandate. All requirements share common objective: instantaneously react to any change on the grid system and contributing to maintain its stability.
j. Hybrid Synchronous Condenser (H-SCS) consists of one parallel operating Synchronous condenser along with one STATCOM. It combines advantages of SynCon and STATCOM technologies, having an optimized design due to performance and losses.
k. Enhanced STATCOM integrated super capacitors for energy storage which provides Fast voltage/frequency support as well as synthetic inertia for shorter durations.

5. After the presentation of Hitachi, forum was open to questions. NTPC representative asked M/s Hitachi about the response time of the Enhanced STATCOM to which M/s Hitachi said that it is up to 40 ms w.r.t. voltage control however w.r.t. frequency deviation it will oppose the deviation as it is already in synchronism with grid and emulating the behaviour of synchronous machine. Super capacitors may support frequency response up to 30s.
6. NLDC representative asked Hitachi to explain that in Presentation SynCon is attributed to slow voltage and limited to inductive output. M/s Hitachi explained that if we take 100 MVAr Machine then it means that it can contribute 100 MVAr Capacitive but towards the inductive side it may around 50% of the rating although it may not be a thumb rule and may depend on various other factors.
7. BHEL representative asked M/s Hitachi about the footprint of 300 MAVr Enhanced STATCOM. M/s Hitachi replied that footprint of Enhanced STATCOM would that of conventional STATCOM of the same rating and additional space will be required for Super Capacitors that would depend on how much MW-s is required.
8. NTPC representative enquired about comparison of cost effectiveness of Enhance STATCOM and SynCon for providing short circuit power. M/s Hitachi replied that if there is required of only short circuit power to the grid then SynCon can contribute up to 4 times of its ratings whereas short circuit current contribution by Enhanced STATCOM will be 1 p.u. of its rating.

9. NLDC representative enquired that during fault we have to supply current for active power as well as reactive power support and therefore there will be compromise either on active power support or reactive power support. Experience in the RE pockets is that we experience large voltage dips after the fault and then loose lot of RE generation and therefore we need both active as well as reactive power support. M/s Hitachi replied that for this converter is to be designed accordingly by adding energy storage and add more converter cells for the additional stress.
10. BHEL representative asked about performance characteristic of E-STATCOM at sub-zero temperature and high altitude. M/s Hitachi replied two projects of E-STATCOM are awarded in Germany. Germany has cold winters and therefore requirement of low temperatures for E-STATCOM. For low temperatures, it can be installed but for high altitude there is currently no experience. For high altitude we need to review insulation coordination and do altitude correction. Also, with high altitude there may be transportation issues.
11. NTPC representative asked if any pilot for E-STATCOM have been done globally. M/s Hitachi replied that currently two projects of E-STATCOM are awarded in Germany. Simulation study of E -STATCOM response for inertia, short circuit strength for fault condition in network can be provided.
12. As per previous meeting decision, Grid-India did a study on impact of installing synchronous condenser in present scenario at Fatehgarh-II which has the least SCR in Western Rajasthan RE complex. The study was demonstrated by NLDC representative in the meeting and is attached at **Annexure-II.**

Member Secretary, NRPC thanked BHEL and Hitachi for their Presentations and all other participants in the meeting. CTU said that M/s Siemens will give presentation on synchronous condensers in the next meeting of the committee. The meeting ended with vote of thanks to the Chair.

List of Participants

NRPC

1. Sh. V K Singh, Member Secretary ---- **In Chair**
2. Sh. Anzum Parwej, SE
3. Sh. Ravi Kant, EE

CEA

4. Sh. Kanhaiya Singh Kushwaha, Asst. Director

CTU

5. Sh. V. Thiagarajan, Sr. GM
6. Sh. Kashish Bhambhani, GM

NLDC

7. Sh. Vivek Pandey, Sr. GM
8. Sh. Priyam Jain, Chief Manager
9. Sh. Aman Gautam, Manager

NRLDC

10. Sh. Bikash Kumar Jha, DGM
11. Sh. Gaurav Singh, Chief Manager
12. Sh. Gaurav Malviya, Manager

PSTCL

13. Sh. Nitin Kumar, Sr. XEN/Planning-1
14. Ms. Ranjana, AE/Planning-1

RVPNL

15. Sh. V. A. Kale, Superintending Engineer (P&P)
16. Dr. Om Prakash Mahela, Executive Engineer (PP&D)

UPPTCL

17. Sh. Sanjeev Kumar Bahsker, SE

NTPC

18. Sh. Pankaj Kumar Gupta, GM
19. Sh. B S Jena, AGM
20. Sh. Suneet Mehta, DGM
21. SH. V R Bitra, DGM

BHEL

22. Sh. Manoj Kumar, AGM,
23. Sh. Vishal Naidu, DGM
24. Sh. Ranajit Dey, Sr. Manager

Hitachi

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REPORT ON IMPACT OF INSTALLING SYNCHRONOUS CONDENSER IN PRESENT SCENARIO AT FATEHGARH-II

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1. Background

In the 71st NRPC meeting held in Jan'24, the issues related to RE generation were deliberated. It was decided that there is urgent requirement of dynamic compensation in NR. Accordingly, a committee under the chairmanship of Member Secretary, NRPC was constituted with members from Grid-India, CTUIL, STUs, NTPC and BHEL.

The 1st meeting of the committee was held on 22.04.2024 wherein, after deliberations, following was agreed:

a) CTUIL shall arrange for presentations by OEM for other advanced technologies.
b) CTUIL and CEA shall carry out system study for requirement of synchronous condenser as already mentioned in 500GW RE report. The studies would be done for every two-year timeframe till year 2030.
c) Grid-India shall study impact of installing synchronous condenser in present scenario at Fatehgarh-II which has the least SCR in Western Rajasthan RE complex.
d) Committee to deliberate on funding for synchronous condenser.
e) RVPN to explore possibility of utilising Giral TPS and Dholpur TPS for synchronous condenser mode of operation.
f) NTPC/BHEL to submit inputs from their side regarding synchronous condenser mode of operation before next subcommittee meeting.

As per the decisions taken in the 1st meeting (refer point-c above), Grid-India has carried out the system studies to analyse the impact of installing synchronous condenser in the present scenario at Fatehgarh-II.

The study methodology and results are provided in subsequent sections.

2. Study Assumptions and Methodology

a) Updated all India load-flow and dynamics case has been considered for study purpose. Dynamic model of the all synchronous machines of >100 MVA (including exciter, PSS and turbine-governor model), ISTS connected RE, all the HVDCs and FACTS devices are considered in the dynamic study case. Dynamic models of intra-state RE are not available and hence, same have not been taken in the case.

b) **02 nos.** of **354 MVA (+300/-200 MVAR)** Synchronous Condensers have been considered at 220 kV Fatehgarh-II PG (one at each bus section) as shown in figure-1 below.

c) The dynamic parameters considered for Synchronous Condensers are provided at Table-1 and 2 below.

d) Following studies have been conducted to assess the impact of synchronous condensers:

- Impact on Short Circuit Ratio (SCR) of RE pooling stations in Rajasthan
- Impact on System Stability during faults

- Impact on System Inertia and Rate of Change of Frequency (ROCOF)
- Impact on Damping of Oscillations
- Impact on Steady-state voltage control through dynamic reactive power support

Figure 1: Network Diagram of Fatehgarh-II and connected stations

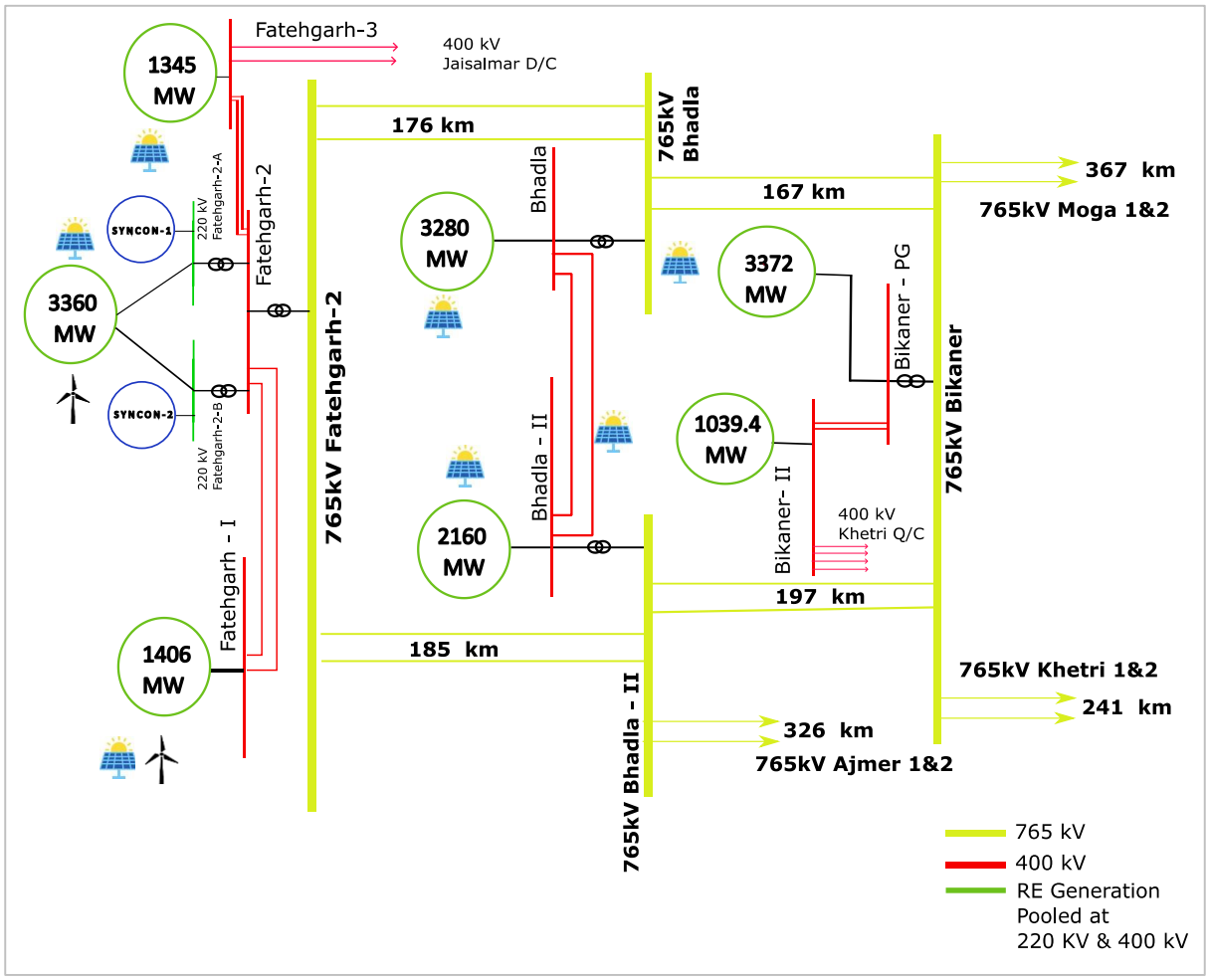
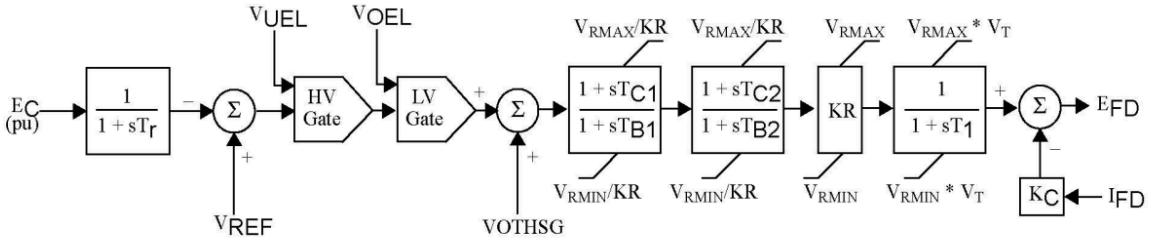


Table 1: Synchronous Condenser – Machine Parameters (GENROU)

S. No.	Parameter Description	Values
1.	T'do (> 0)	8.6000
2.	T''do (> 0)	0.0440
3.	T'qo (> 0)	0.9560
4.	T''qo (> 0)	0.7400
5.	H, Inertia	1.0000
6.	D, Speed Damping	0.0000
7.	Xd	1.8000
8.	Xq	1.7500
9.	X'd	0.2290
10.	X'q	0.3820
11.	X''d = X''q	0.1640
12.	Xl	0.1470
13.	S(1.0)	0.2480
14.	S(1.2)	0.7830

Table 2: Synchronous Condenser – Exciter+AVR Parameters

S. No.	Parameter Description	Values
1.	TR	0.0200
2.	TC1	1.0000
3.	TB1	10.0000
4.	TC2	0.1000
5.	TB2	0.1000
6.	KR (> 0)	500.0000
7.	VRMAX	11.7000
8.	VRMIN	-9.9450
9.	T1	0.0070
10.	KC	0.0000



The parameters have been taken from synchronous machine of similar size. Further, inertia has been reduced by 1/3rd. The parameters have also been verified against the parameters specified in CIGRE JWG A1/C4 TB 885: Guide on the Assessment, Specification and Design of Synchronous Condenser for Power System with Predominance of Low or Zero Inertia Generators [1] [2].

Key ratings of synchronous condenser										
		50Hz							50Hz	
Capacity	MVA	780	670	615	500	386	211	195	39	222
Frequency	Hz	50	50	50	50	50	50	50	50	50
Pole Number	-	2	2	2	2	2	2	2	18	36
Rotating Speed	min-1	3000	3000	3000	3000	3000	3000	3000	333	166.6
Cooling Type	-	H2/Water	H2	H2	H2	H2	Air	Air	Air	Air
Lagging reactive power @ Prated & Vt=1.0 p.u.	MVA	580	505	473	400	310	170	195	21	115
Leading reactive power @ Prated & Vt=1.0 p.u.	MVA	340	400	258	165	170	82	80	25	200
Impedance Xd	%	181	184	200	220	181	200	173	119	90
Sub-transient Reactance Xd" (saturated) with tol.	%	21.3	26.2	15	18	16.4	12	15.3	27	24
Moment of Inertia (approx., SI Unit)	kg-m2	12300	8900	14300	9550	9200	6500	7300	131500	5250000
Kinetic Energy	MJ	607	440	705	471	454	318	361	80	799

3. Study Results

3.1 Impact on Short Circuit Ratio (SCR) of RE pooling stations in Rajasthan

The comparison of SCR at ISTS connected RE pooling stations in Rajasthan with and without synchronous condensers at 220 kV Fatehgarh-II (A) and 220 kV Fatehgarh-II (B) is provided below:

S. No.	Pooling Station	Installed Capacity (MW)	Fault MVA Base Case	SCR – Base Case	Fault MVA – With SynCon	SCR with SynCon
1.	220 kV Fatehgarh-II (Sec-A)	2490	9845	4.0	12003	**4.8**
2.	220 kV Fatehgarh-II (Sec-B)	855	9743	11.4	12280	**14.4**
3.	400 kV Fatehgarh-I	996	12426	12.5	13604	13.7
4.	220 kV Fatehgarh-III	1345	8514	6.3	8827	6.6
5.	220 kV Bhadla PG	3130	14000	4.5	14314	**4.6**
6.	220 kV Bhadla-II PG (Sec-A, B)	1314	10943	8.3	11131	8.5
7.	220 kV Bhadla-II PG (Sec-C)	420	7863	18.7	7964	19.0
8.	400 kV Bhadla-II	2284 550 (400kV) + 1734 (220kV)	21808	9.5	22624	9.9
9.	220 kV Bikaner PG	825	5720	6.9	5749	7.0
10.	400 kV Bikaner PG	3275 2450 (400 kV) + 825 (220 kV)	20104	6.1	20470	6.3
11.	220 kV Bikaner-II	990	5476	5.5	5498	5.6

3.2 Impact on System Stability during faults

The support received from synchronous condensers during faults in the Rajasthan RE complex and subsequent high voltage has been studied through following cases:

1. **RE plants in 'Q' priority mode**

Fault Reactance: -2e+09

a) 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 100 ms – with and without SynCon
b) 3-ph fault at 765 kV Bhadla PG with fault clearing in 100 ms – with and without SynCon
c) 3-ph fault at 400 kV Fatehgarh-II PG with fault clearing in 100 ms – with and without SynCon
d) 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 200 ms – with and without SynCon

Fault Reactance: -2e+04

e) 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 100 ms – with and without SynCon
f) 3-ph fault at 400 kV Fatehgarh-II PG with fault clearing in 100 ms – with and without SynCon

2. **RE plants in 'P' priority mode**

Fault Reactance: -2e+09

a) 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 100 ms – with and without SynCon
b) 3-ph fault at 400 kV Fatehgarh-II PG with fault clearing in 100 ms – with and without SynCon

The results are provided below.

3.2.1 RE plants in 'Q' priority mode

3.2.2.1 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 100 ms

Fault Reactance: -2e+09

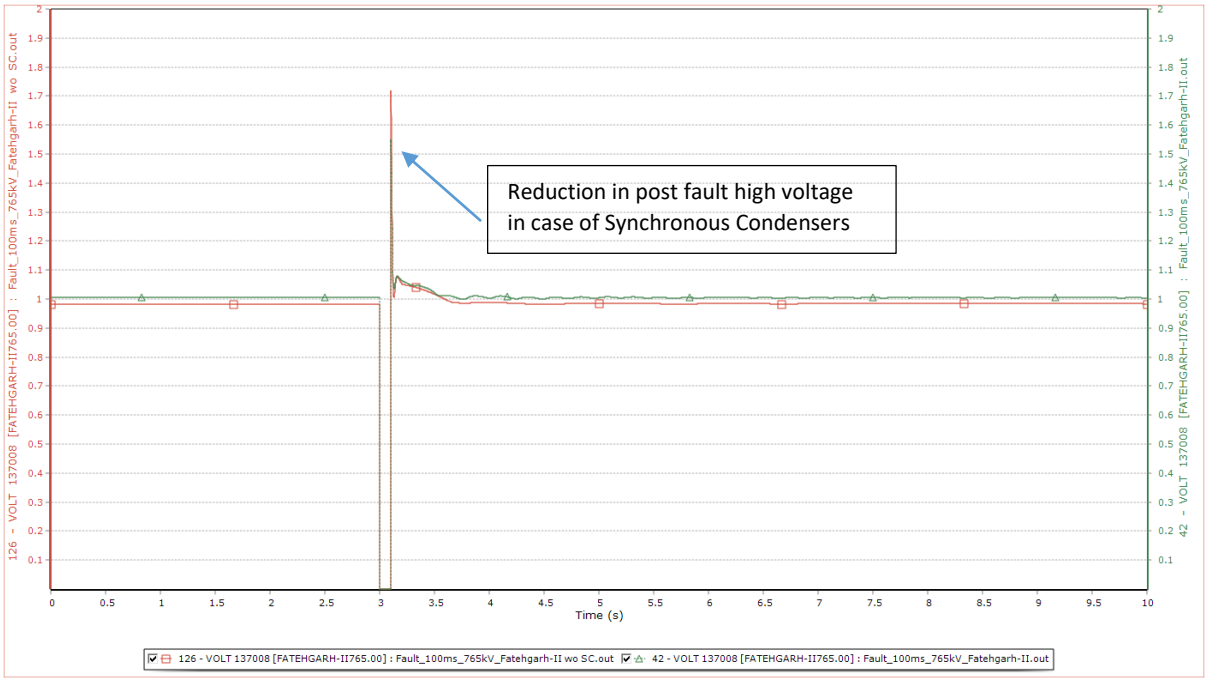


Figure 2: Voltage at 765 kV Fatehgarh-II PG bus (3-ph fault at t=3 sec) without SynCon (Red) and with SynCon (Green)

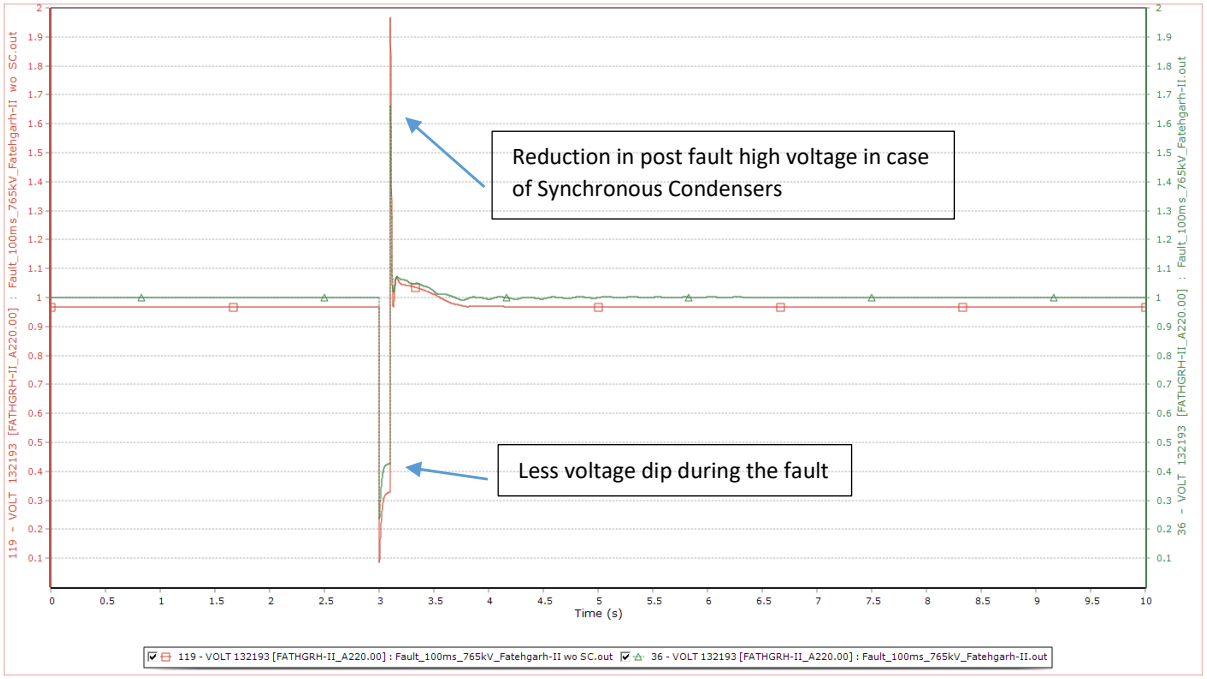


Figure 3: Voltage at 220 kV Fatehgarh-II (Bus-A) without SynCon (Red) and with SynCon (Green)

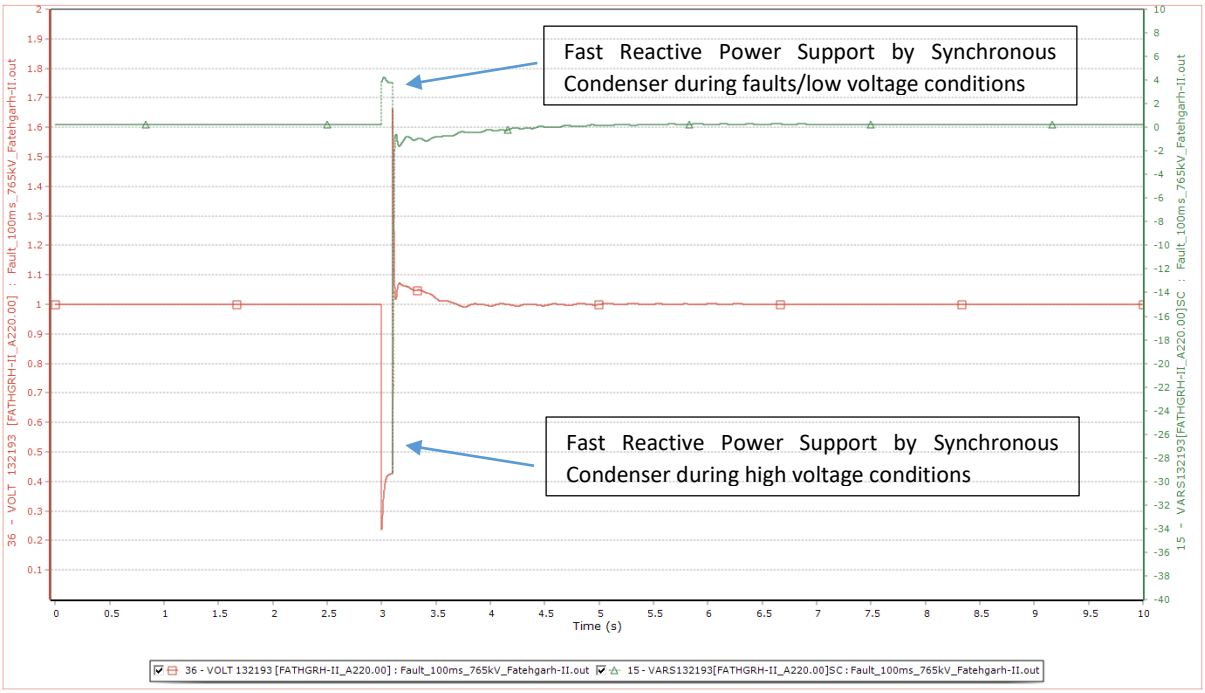


Figure 4: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

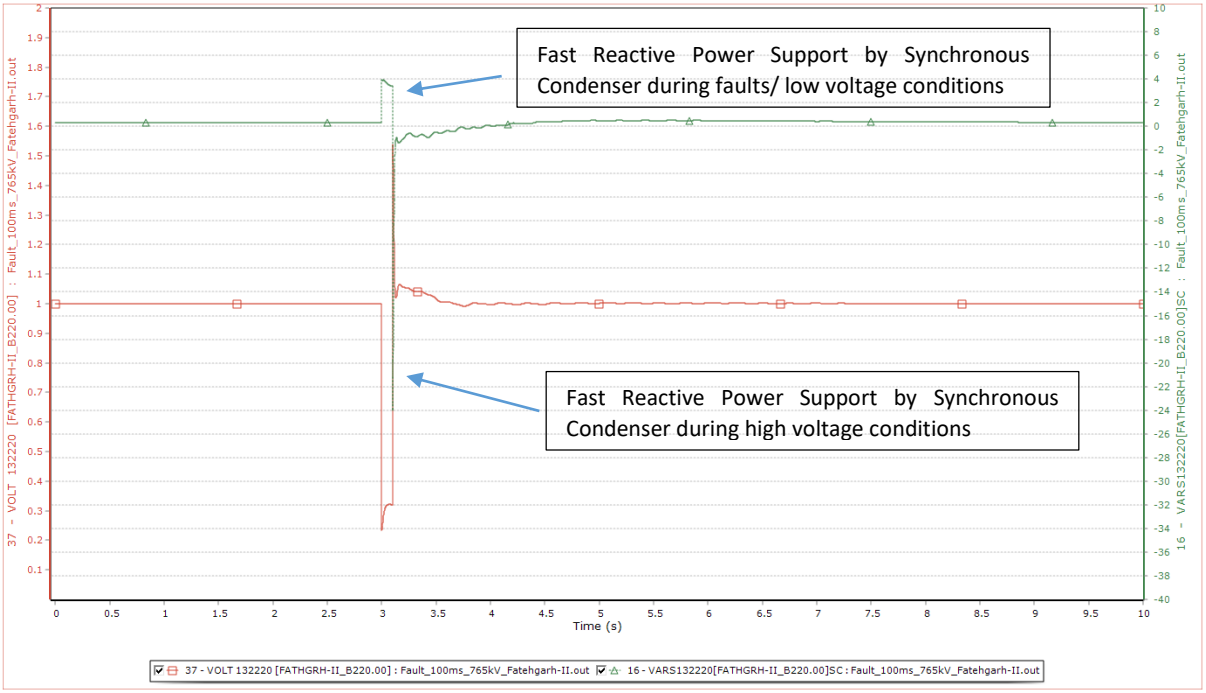


Figure 5: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green. in p.u. – 100 MVA base) from SynCon-B

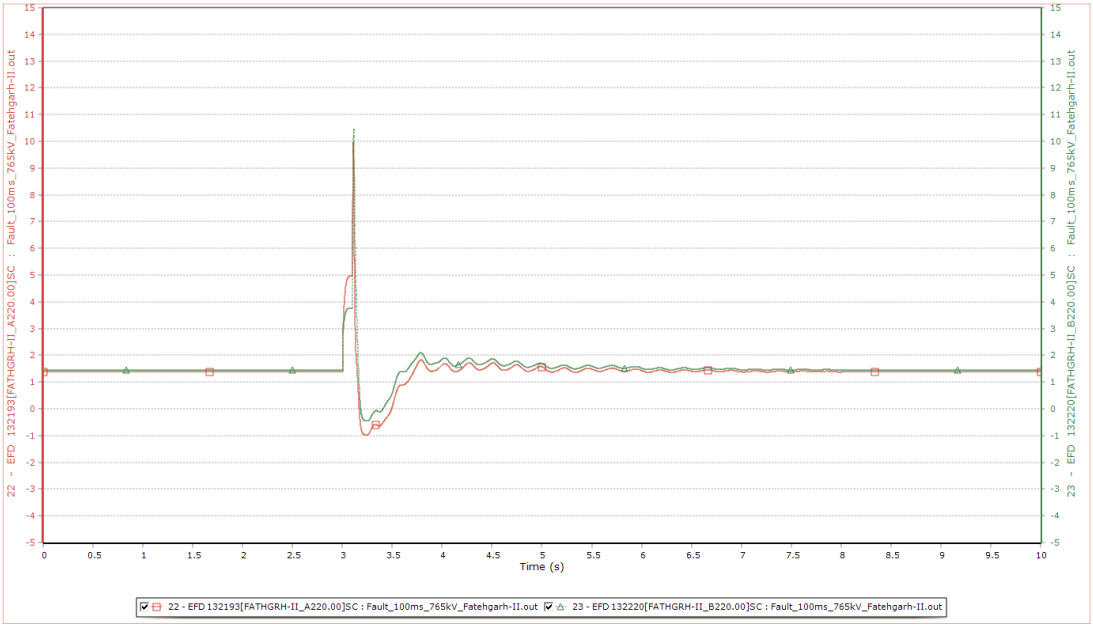


Figure 6: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) High voltage post fault clearance is observed in the system as the nearby RE plants are kept in "Q" priority mode. However, the high voltage is less in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 765 kV Fatehgarh-II PG	T = 3.05 sec	0 p.u. (Bolted Fault)	0 p.u. (Bolted Fault)
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.31 p.u.	0.41 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.21 p.u.	0.32 p.u.
4.	Voltage at 765 kV Fatehgarh-II PG	T = 3.10 sec	1.72 p.u.	1.55 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	1.96 p.u.	1.66 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	1.85 p.u.	1.54 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	x	A - 2.69 p.u. B – 3.21 p.u.
8.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.10 sec	x	A – (-) 4.97 p.u. B – (-) 4.40 p.u.
9.	Response time of SynCons		x	Within one cycle

3.2.2.2 3-ph fault at 765 kV Bhadla PG with fault clearing in 100 ms

Fault Reactance: -2e+09

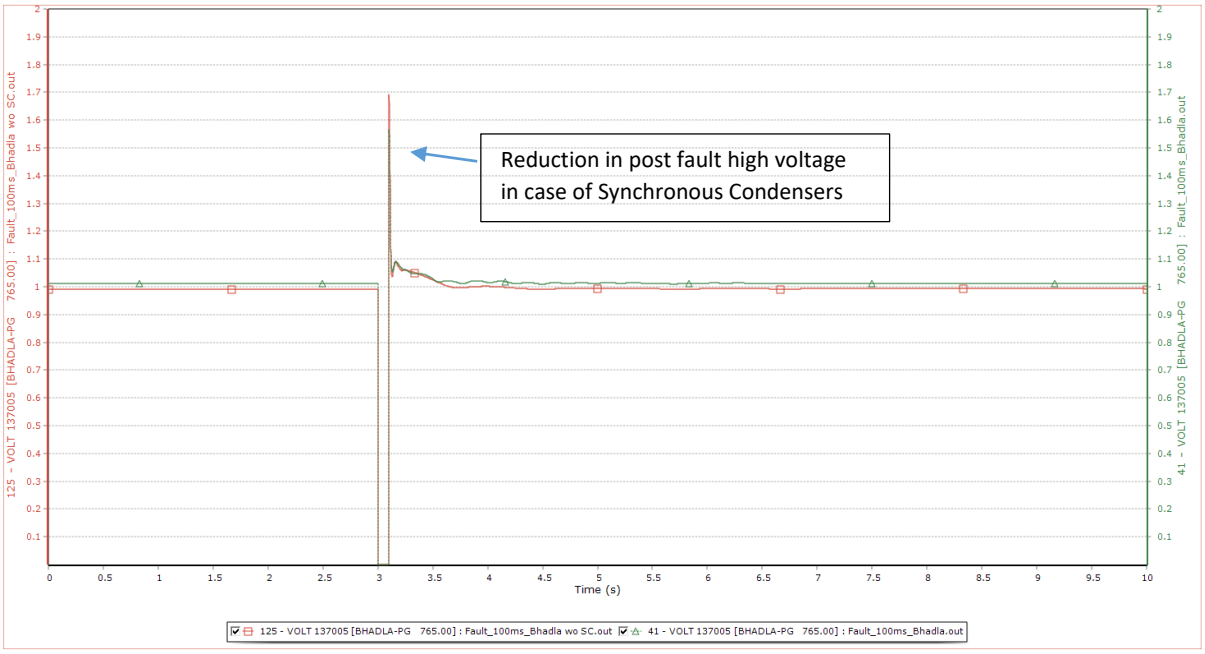


Figure 7: Voltage at 765 kV Bhadla PG bus (3-ph fault at t=3 sec)

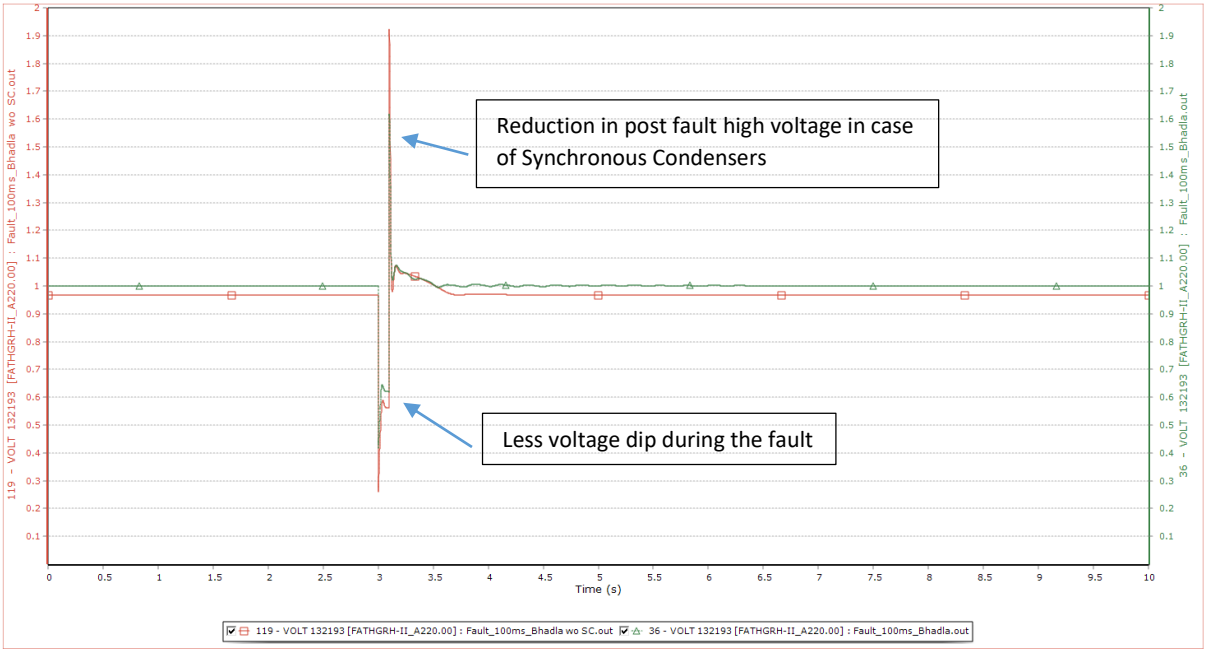


Figure 8: Voltage at 220 kV Fatehgarh-II (Bus-A) without SynCon (Red) and with SynCon (Green)

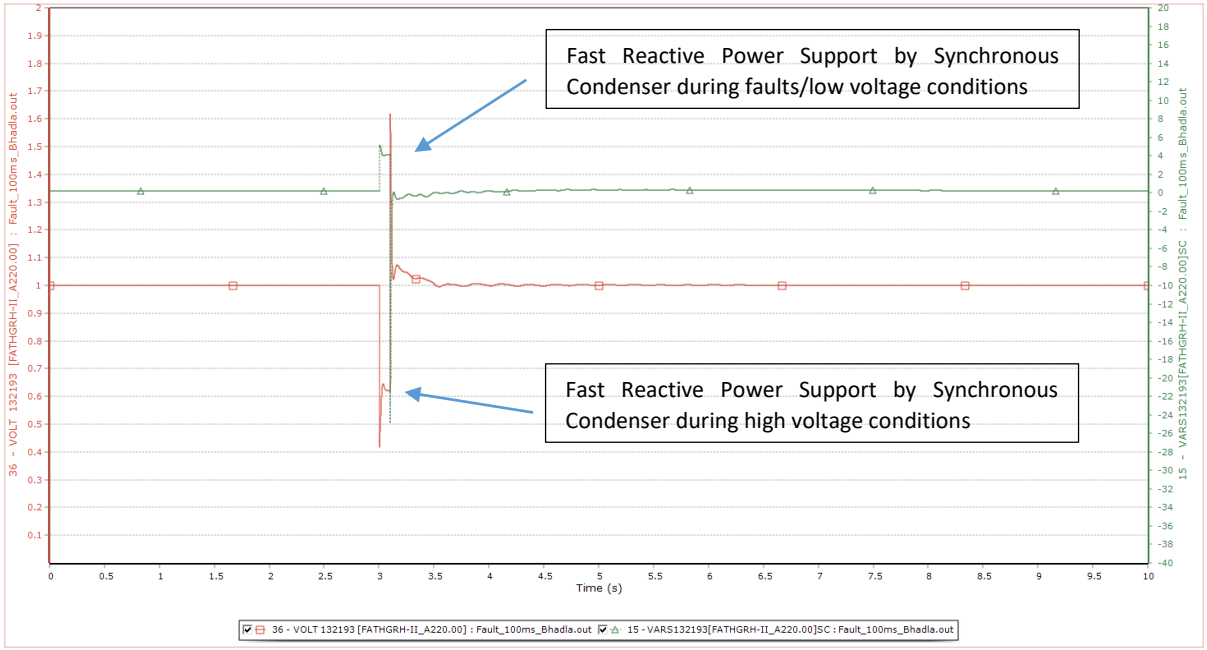


Figure 9: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

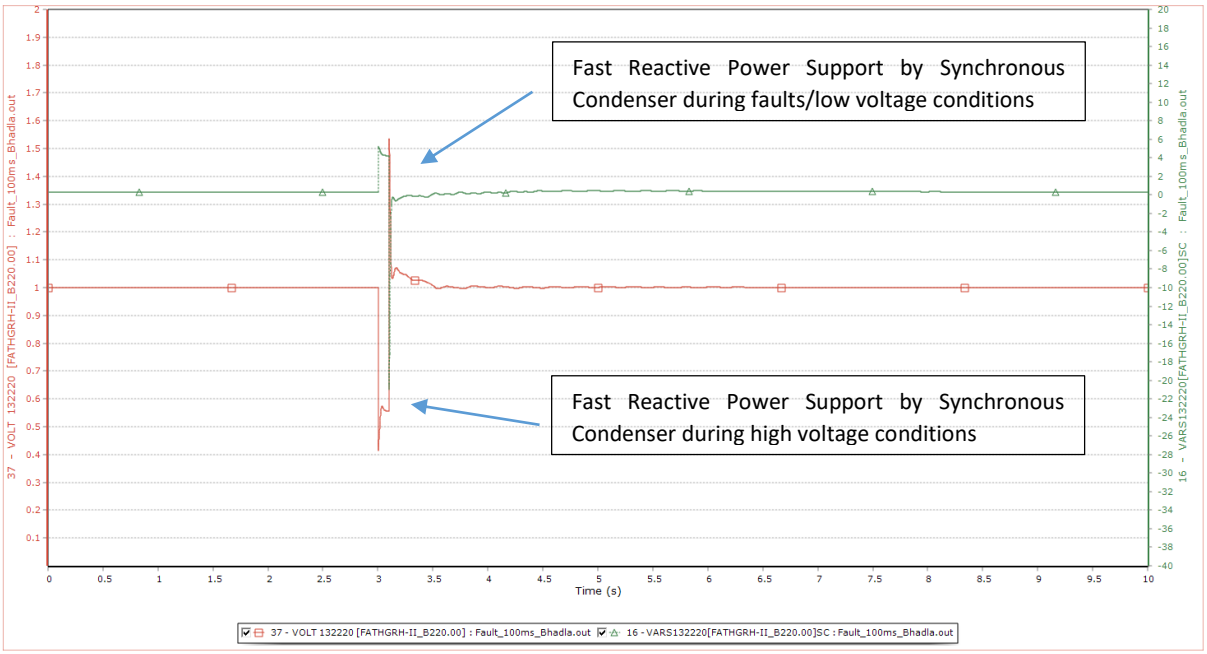


Figure 10: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-B

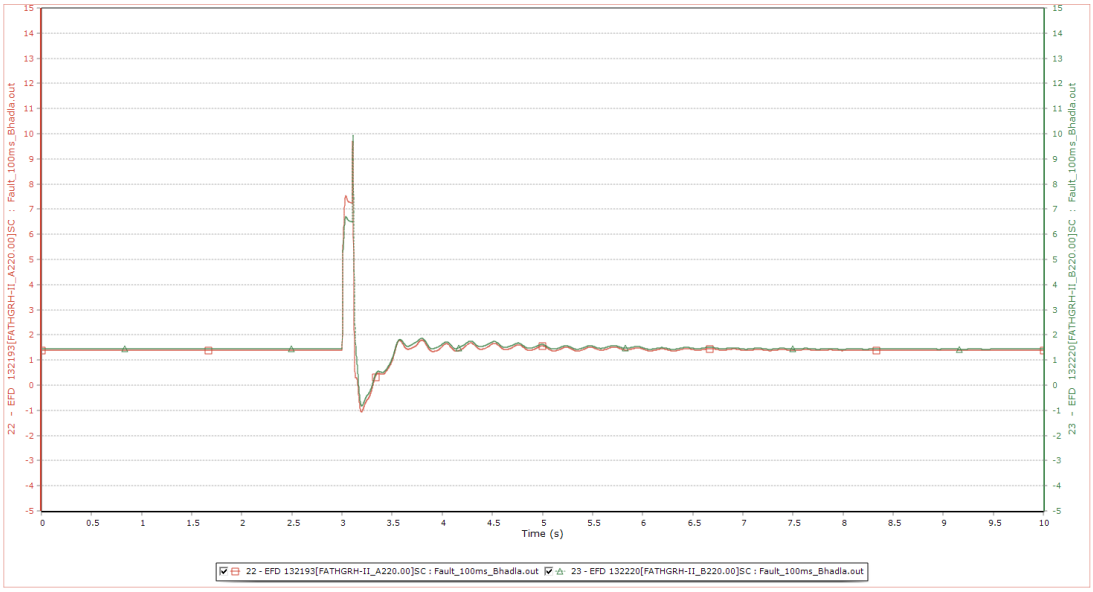


Figure 11: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) High voltage post fault clearance is observed in the system as the nearby RE plants are kept in "Q" priority mode. However, the high voltage is less in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 765 kV Bhadla PG	T = 3.05 sec	0 p.u. (Bolted Fault)	0 p.u. (Bolted Fault)
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.58 p.u.	0.63 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.49 p.u.	0.57 p.u.
4.	Voltage at 765 kV Bhadla PG	T = 3.10 sec	1.69 p.u.	1.56 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	1.92 p.u.	1.62 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	1.84 p.u.	1.53 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	x	A – 1.83 p.u. B – 2.13 p.u.
8.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.10 sec	x	A – (-) 4.33 p.u. B – (-) 3.88 p.u.
9.	Response time of SynCons		x	Within one cycle

3.2.2.3 3-ph fault at 400 kV Fatehgarh-II PG with fault clearing in 100 ms

Fault Reactance: -2e+09

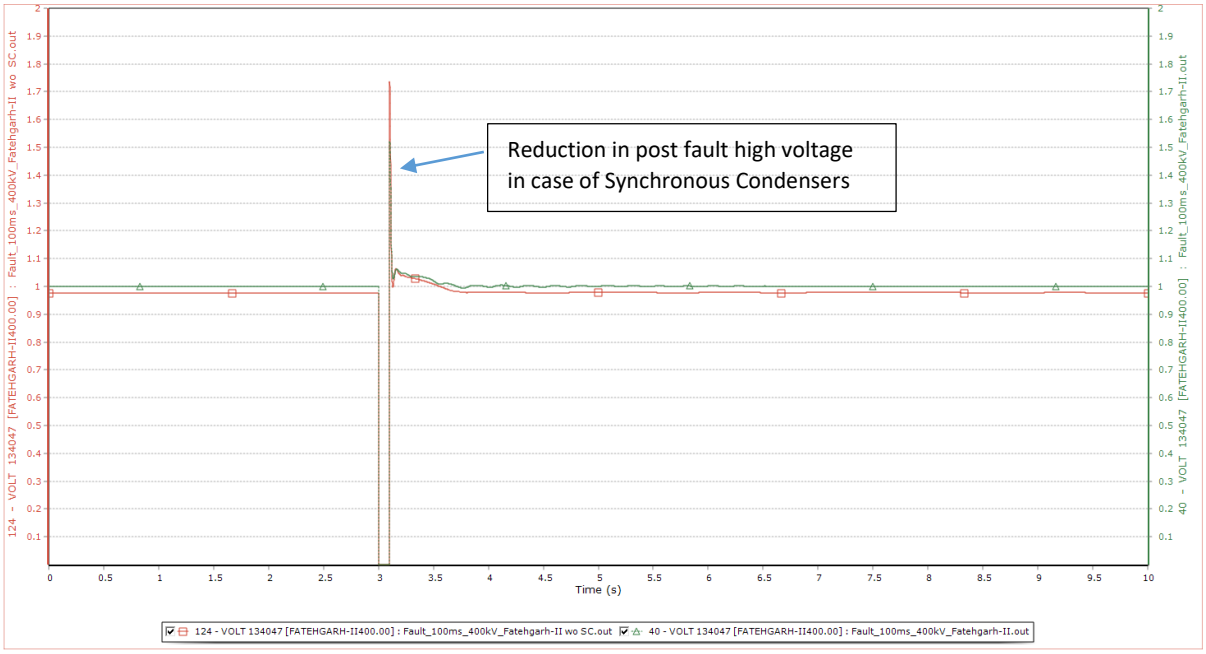


Figure 12: Voltage at 400 kV Fatehgarh-II PG bus (3-ph fault at t=3 sec) without SynCon (Red) and with SynCon (Green)

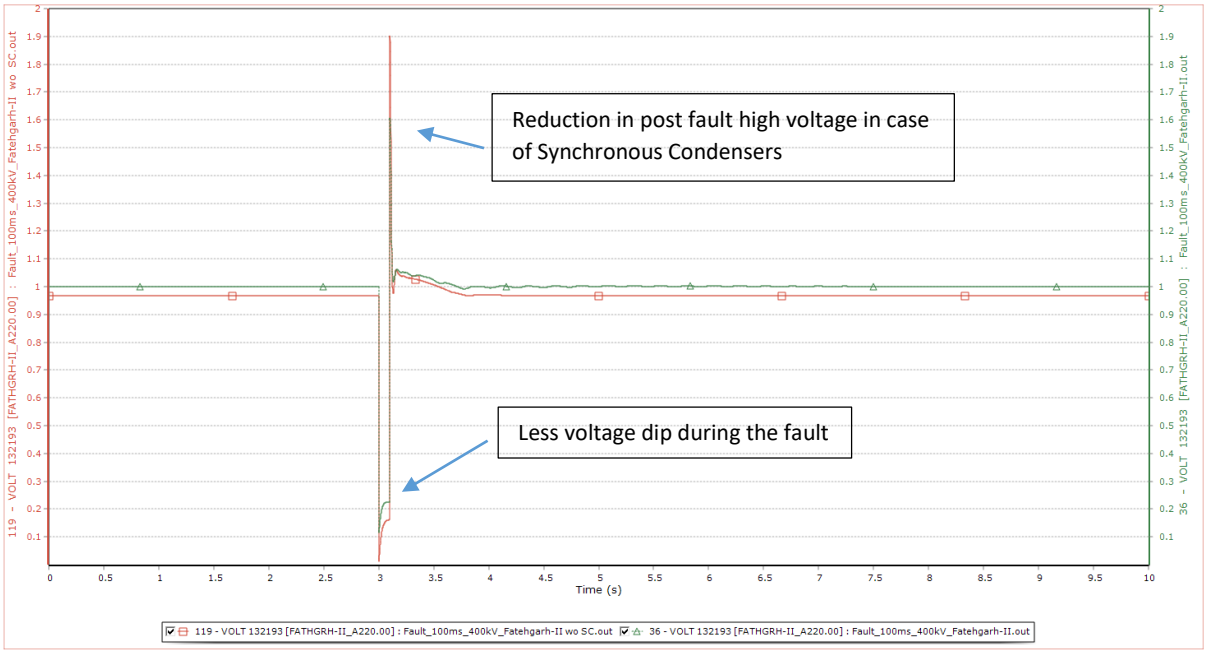


Figure 13: Voltage at 220 kV Fatehgarh-II (Bus-A) without SynCon (Red) and with SynCon (Green)

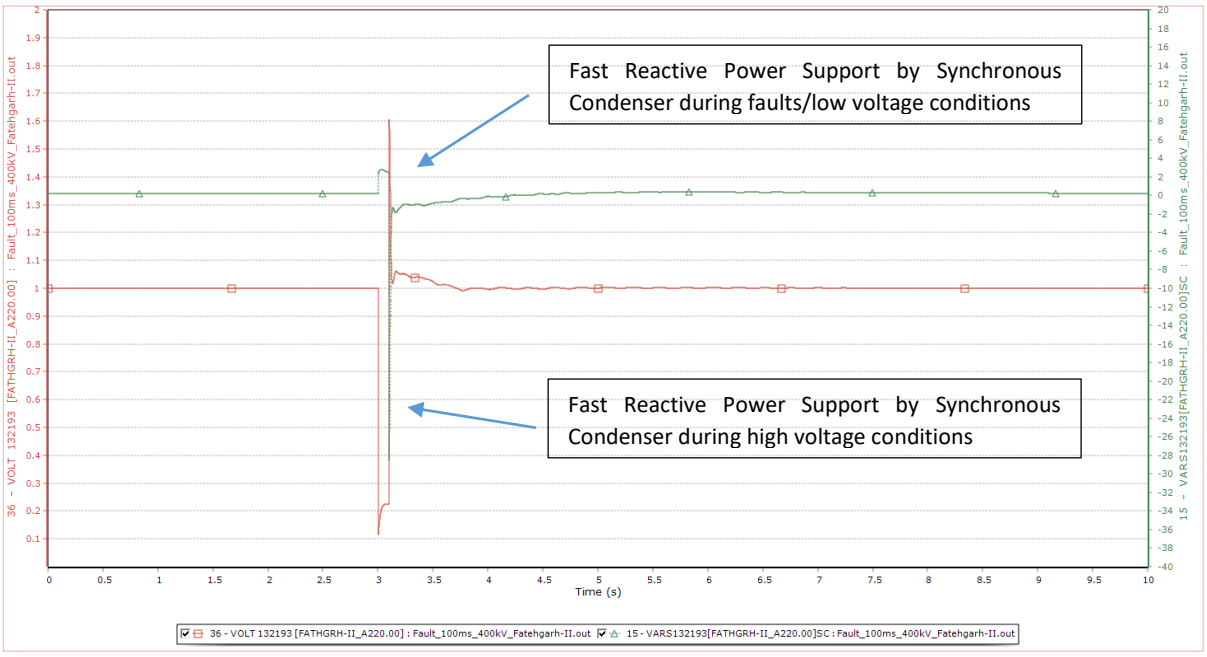


Figure 14: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

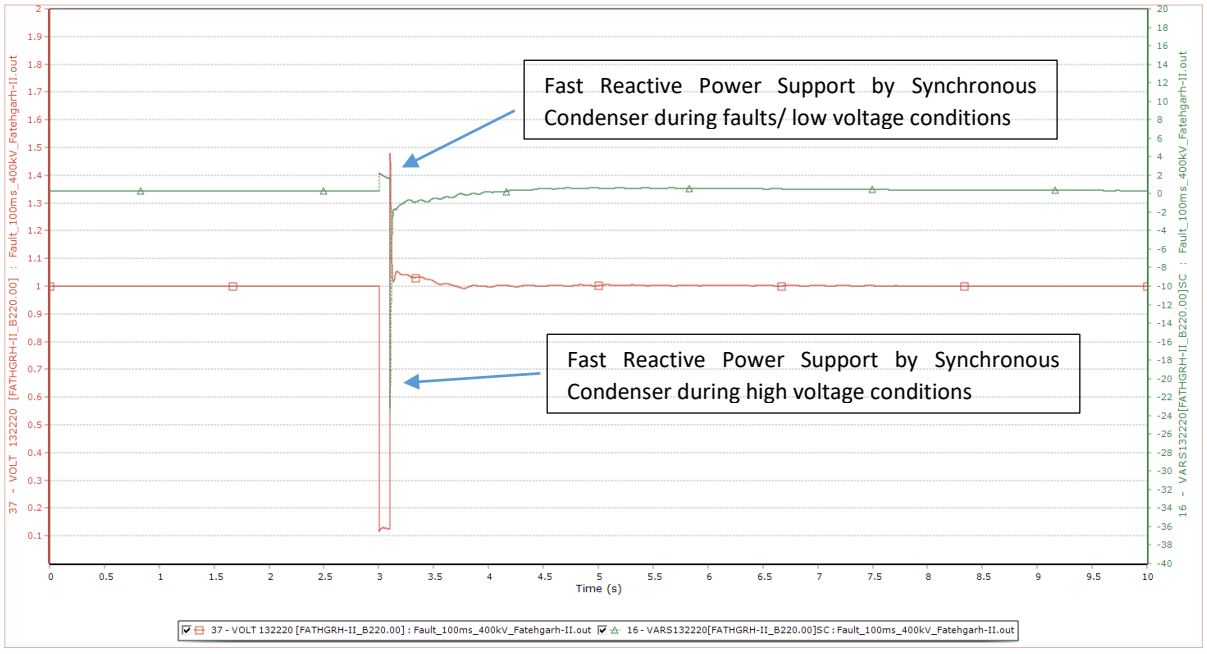


Figure 15: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green. in p.u. – 100 MVA base) from SynCon-B

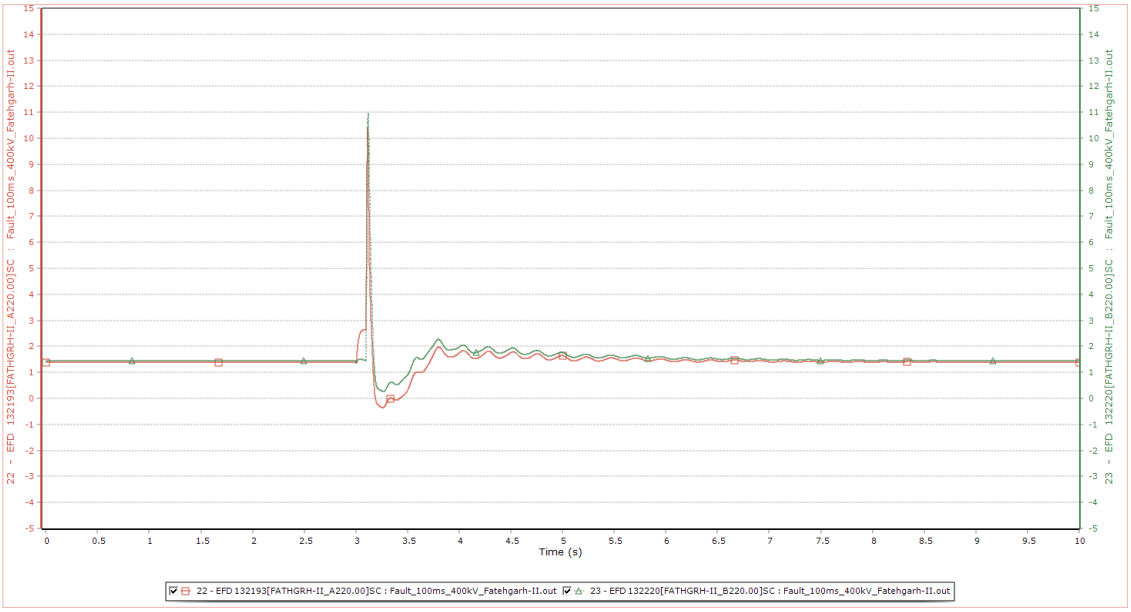


Figure 16: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) High voltage post fault clearance is observed in the system as the nearby RE plants are kept in "Q" priority mode. However, the high voltage is less in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 400 kV Fatehgarh-II PG	T = 3.05 sec	0 p.u. (Bolted Fault)	0 p.u. (Bolted Fault)
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.15 p.u.	0.22 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.04 p.u.	0.13 p.u.
4.	Voltage at 400 kV Fatehgarh-II PG	T = 3.10 sec	1.73 p.u.	1.52 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	1.90 p.u.	1.61 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	1.78 p.u.	1.48 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	x	A – 3.49 p.u. B – 4.04 p.u.
8.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.10 sec	x	A – (-) 5.01 p.u. B – (-) 4.43 p.u.
9.	Response time of SynCons		x	Within one cycle

3.2.2.4 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 200 ms

Fault Reactance: -2e+09

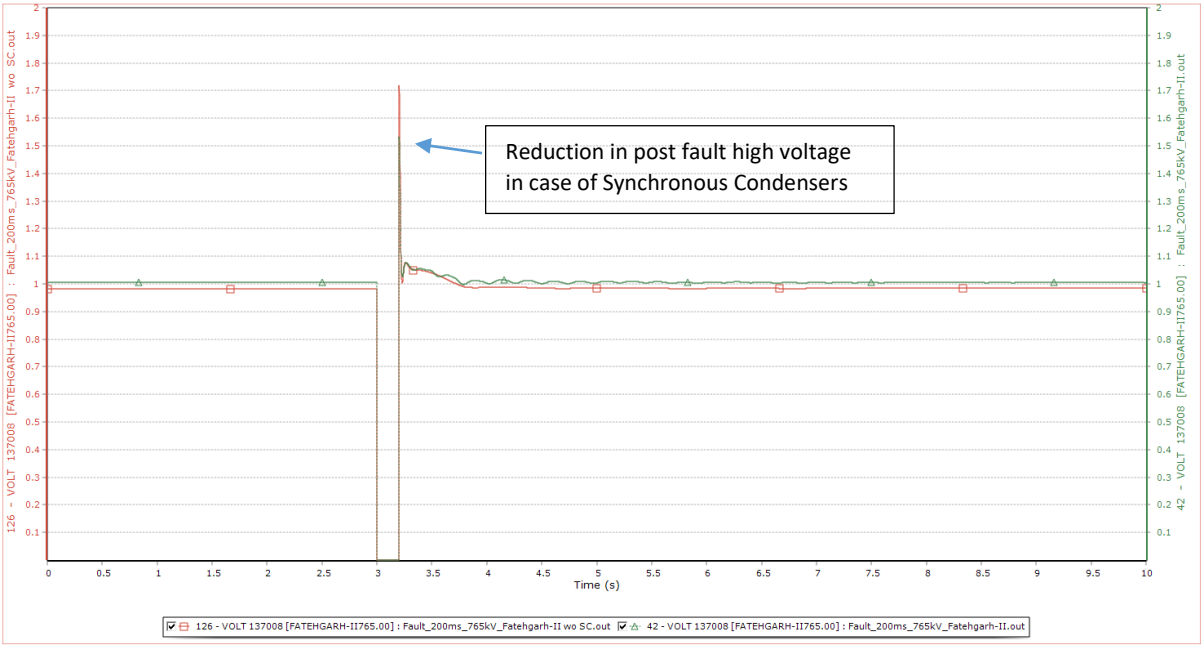


Figure 17: Voltage at 765 kV Fatehgarh-II PG bus (3-ph fault at t=3 sec, 200 ms) without SynCon (Red) and with SynCon (Green)

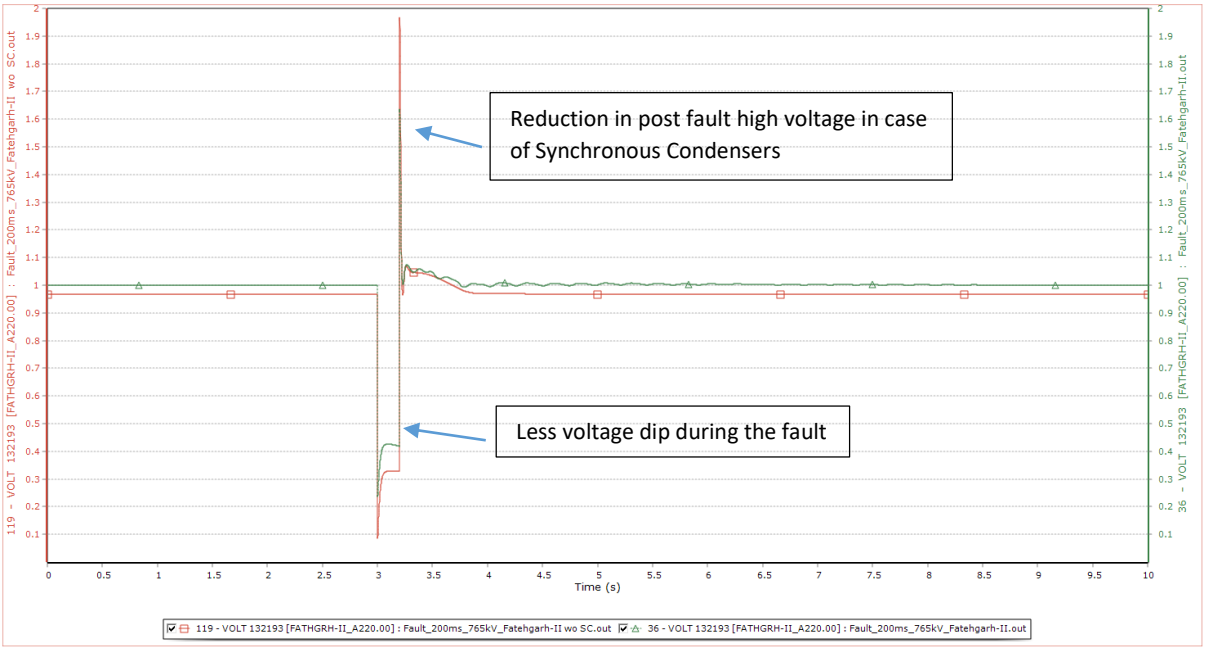


Figure 18: Voltage at 220 kV Fatehgarh-II (Bus-A) without SynCon (Red) and with SynCon (Green)

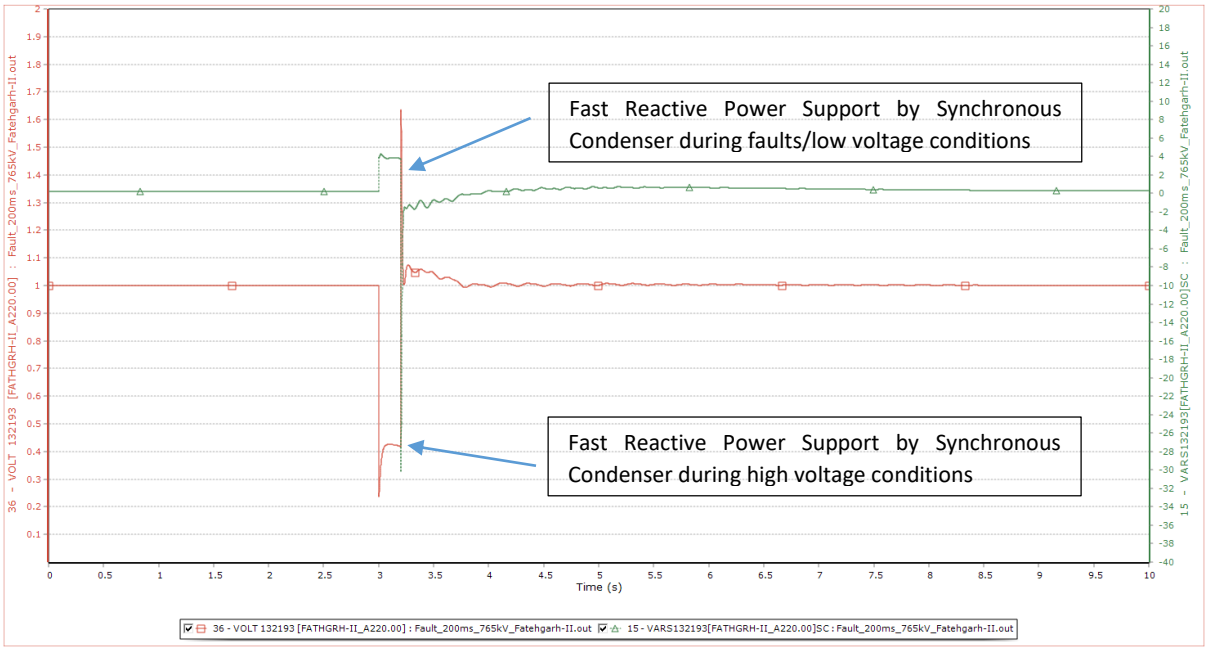


Figure 19: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

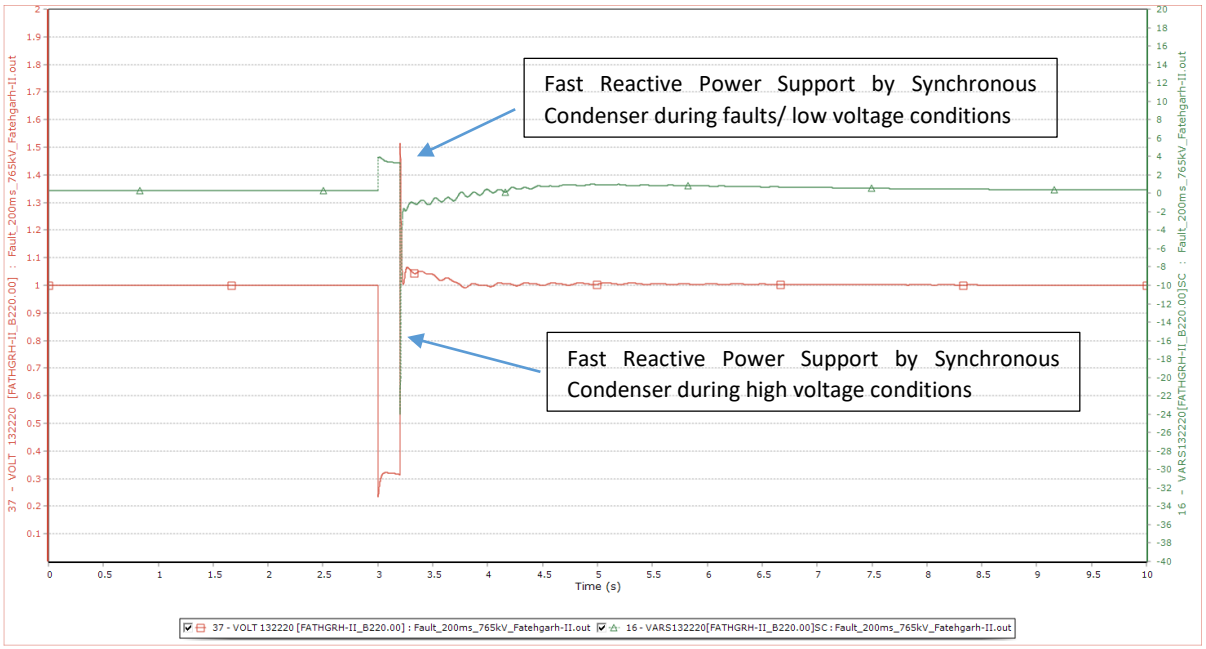


Figure 20: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green. in p.u. – 100 MVA base) from SynCon-B

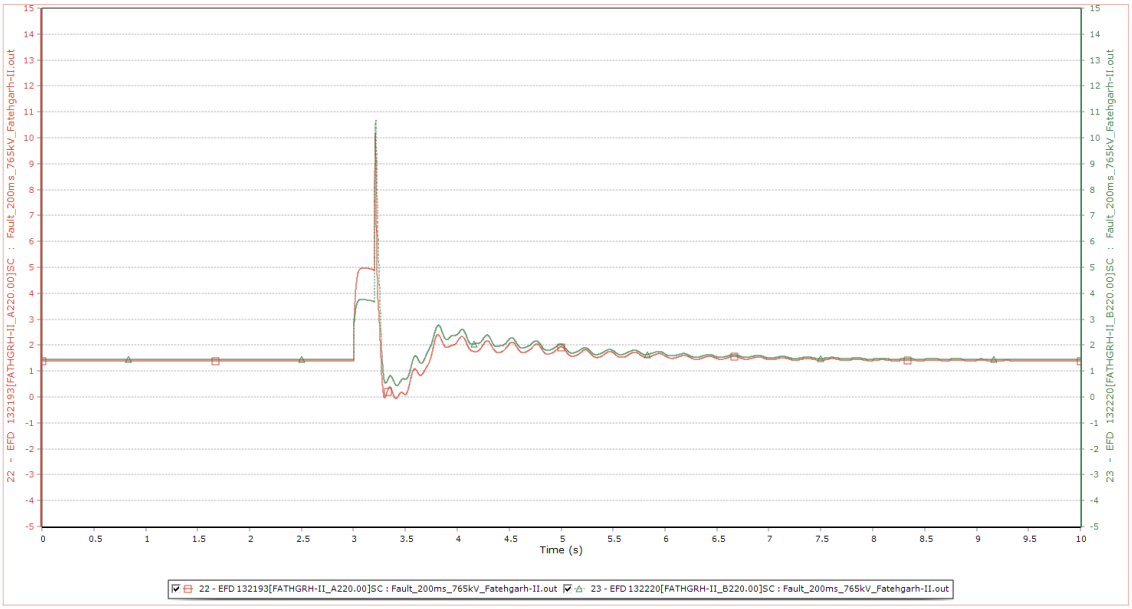


Figure 21: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) High voltage post fault clearance is observed in the system as the nearby RE plants are kept in "Q" priority mode. However, the high voltage is less in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 765 kV Fatehgarh-II PG	T = 3.1 sec	0 p.u. (Bolted Fault)	0 p.u. (Bolted Fault)
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.1 sec	0.33 p.u.	0.43 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.1 sec	0.21 p.u.	0.32 p.u.
4.	Voltage at 765 kV Fatehgarh-II PG	T = 3.2 sec	1.72 p.u.	1.53 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.2 sec	1.97 p.u.	1.64 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.2 sec	1.85 p.u.	1.51 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.1 sec	x	A – 2.10 p.u. B – 3.00 p.u.
8.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.2 sec	x	A – (-) 5.18 p.u. B – (-) 4.49 p.u.
9.	Response time of SynCons		x	Within one cycle

3.2.2.5 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 100 ms

Fault Reactance: -2e+04

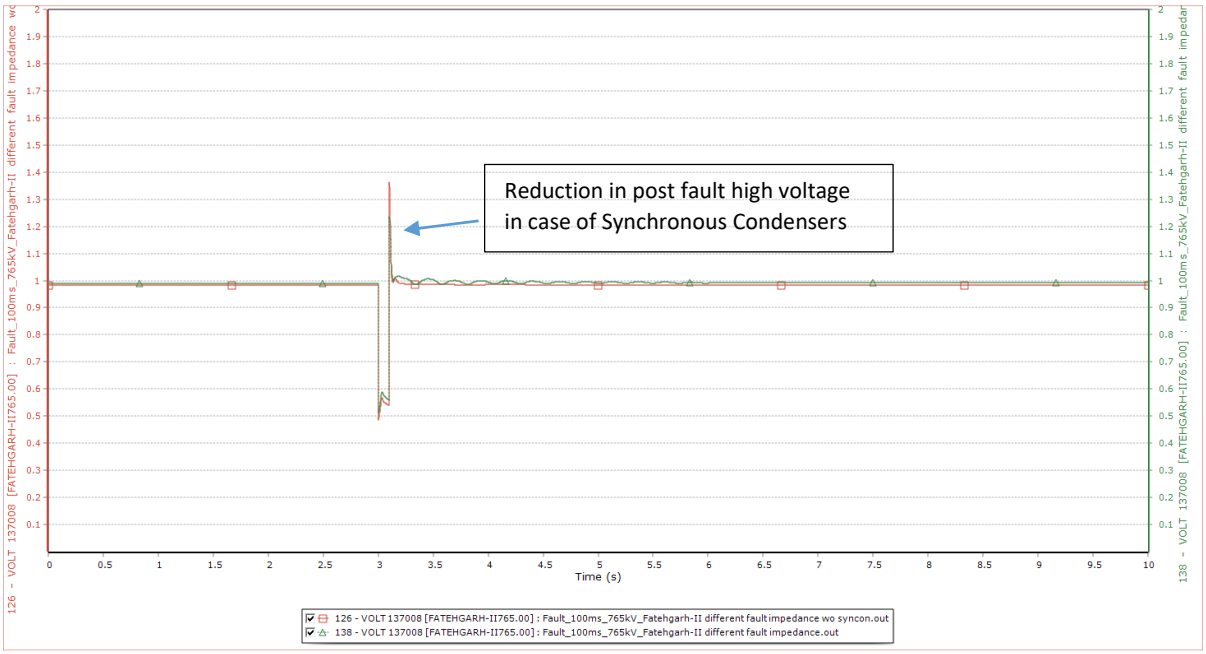


Figure 22: Voltage at 765 kV Fatehgarh-II PG bus (3-ph fault at t=3 sec) without SynCon (Red) and with SynCon (Green)

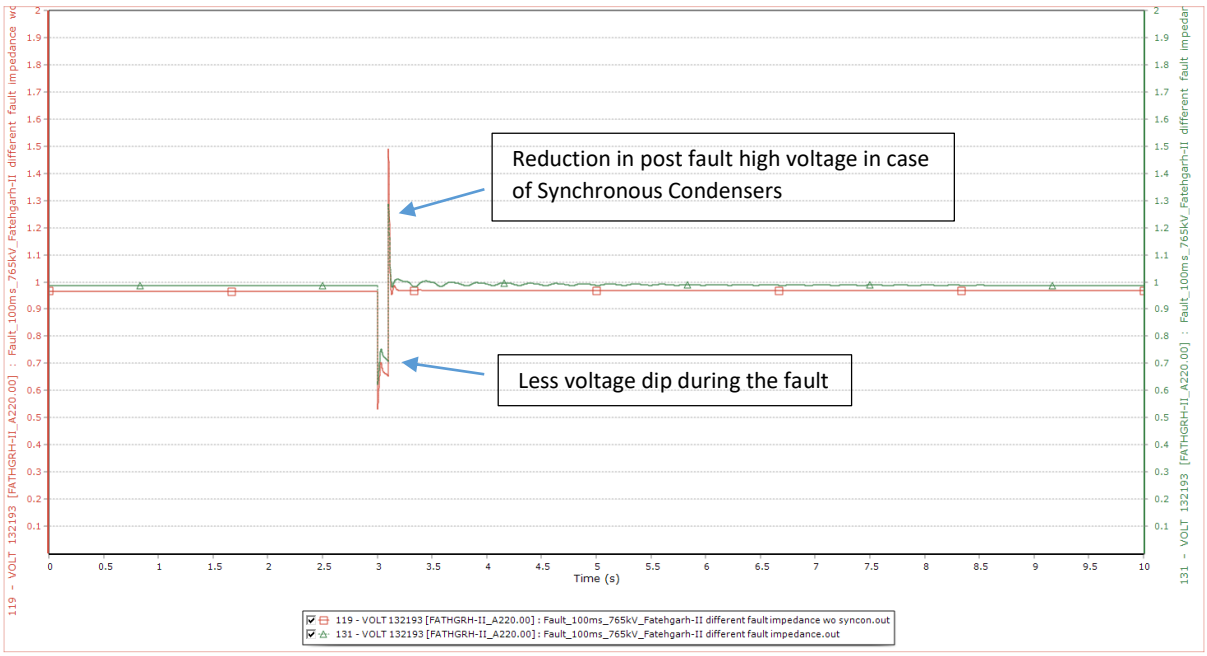


Figure 23: Voltage at 220 kV Fatehgarh-II (Bus-A) without SynCon (Red) and with SynCon (Green)

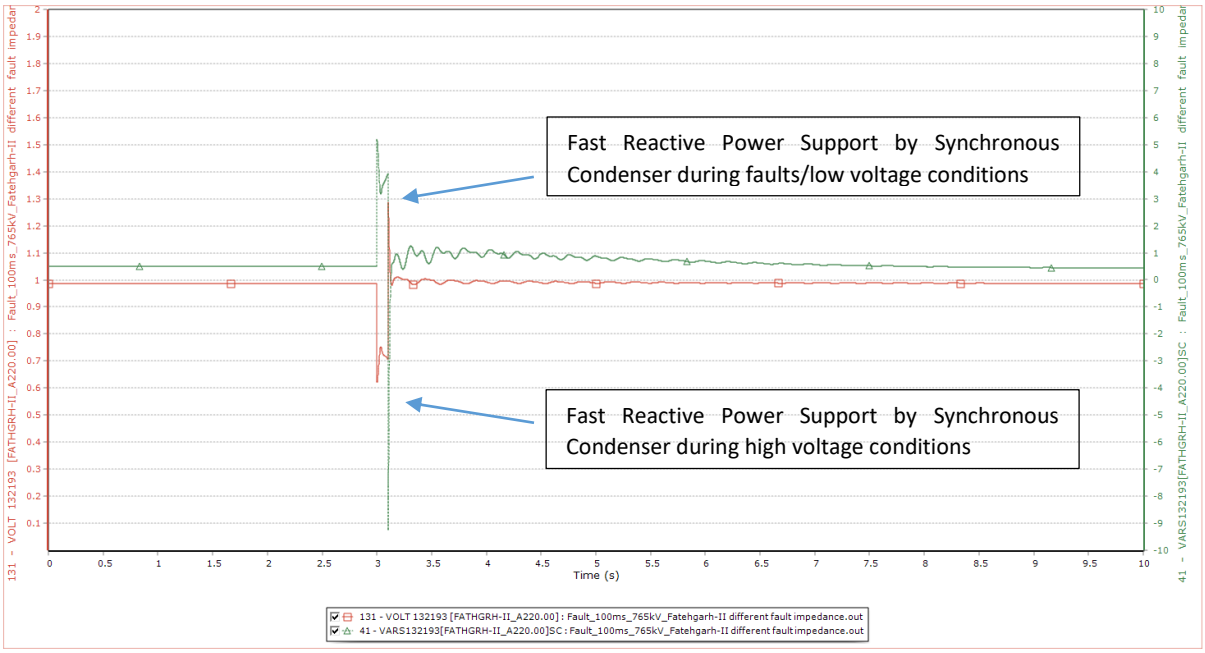


Figure 24: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

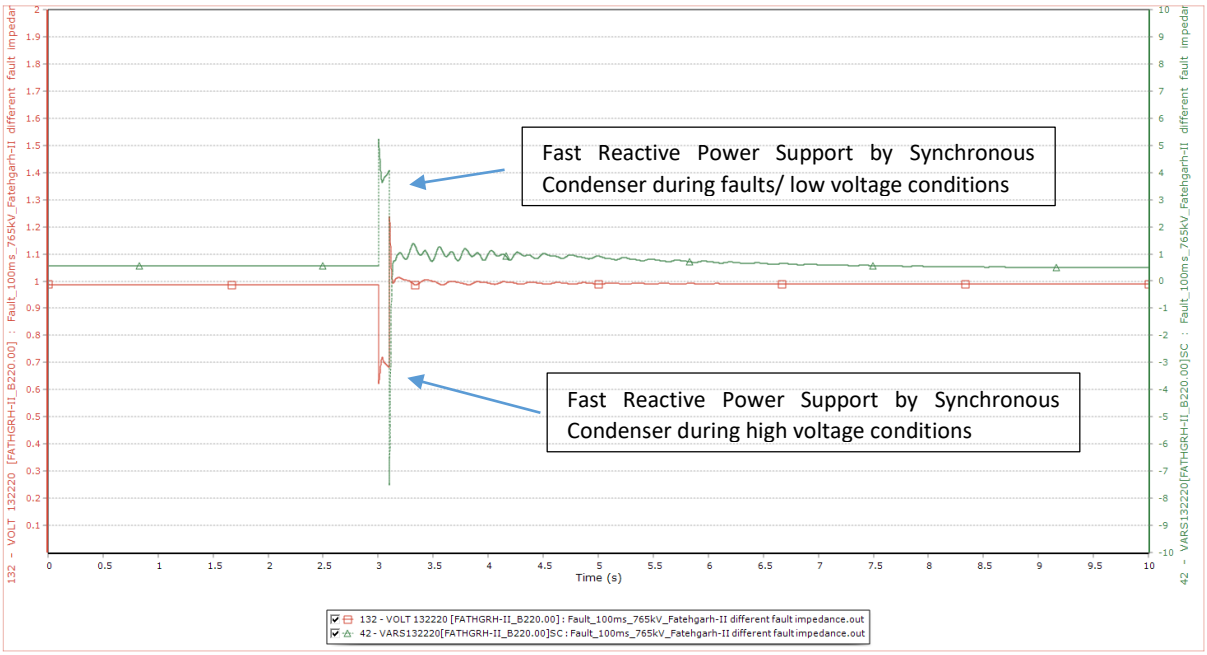


Figure 25: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green. in p.u. – 100 MVA base) from SynCon-B

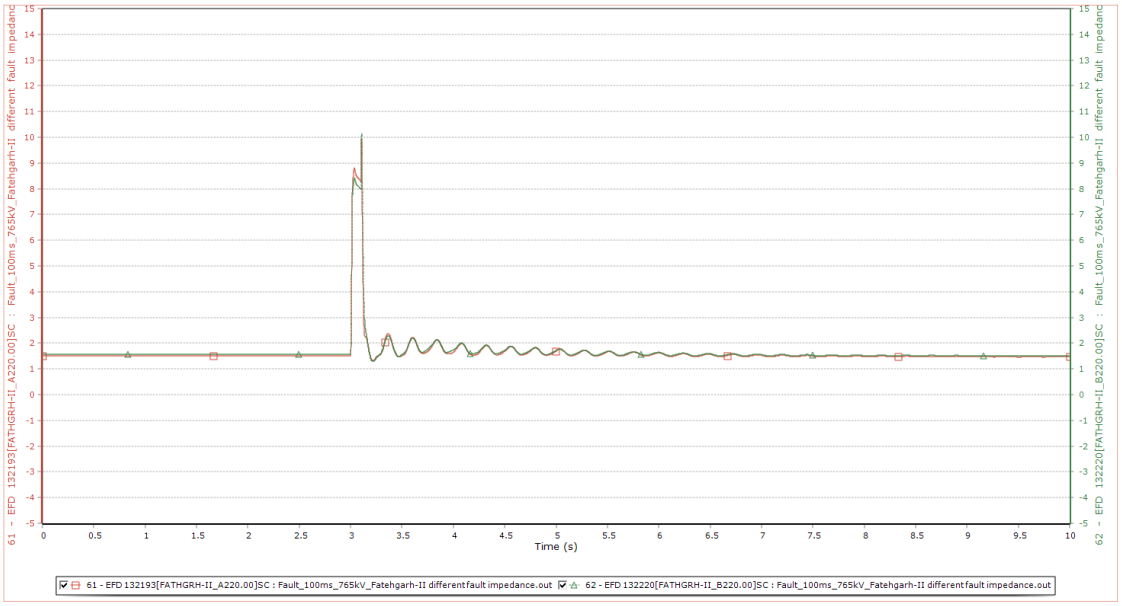


Figure 26: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) High voltage post fault clearance is observed in the system as the nearby RE plants are kept in "Q" priority mode. However, the high voltage is less in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 765 kV Fatehgarh-II PG	T = 3.05 sec	0.55 p.u.	0.58 p.u.
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.69 p.u.	0.73 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.64 p.u.	0.70 p.u.
4.	Voltage at 765 kV Fatehgarh-II PG	T = 3.10 sec	1.36 p.u.	1.23 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	1.49 p.u.	1.29 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	1.48 p.u.	1.24 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	x	A – 1.37 p.u. B – 1.52 p.u.
8.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.10 sec	x	A – (-) 2.06 p.u. B – (-) 1.71 p.u.
9.	Response time of SynCons		x	Within one cycle

3.2.2.6 3-ph fault at 400 kV Fatehgarh-II PG with fault clearing in 100 ms

Fault Reactance: -2e+04

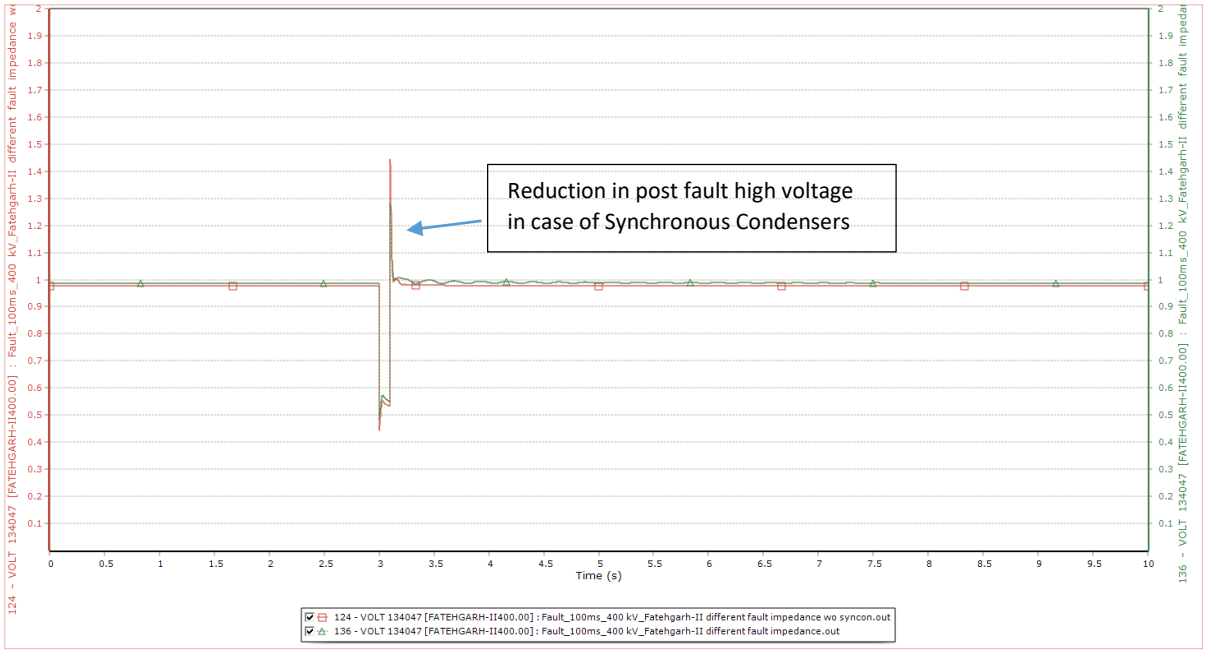


Figure 27: Voltage at 400 kV Fatehgarh-II PG bus (3-ph fault at t=3 sec) without SynCon (Red) and with SynCon (Green)

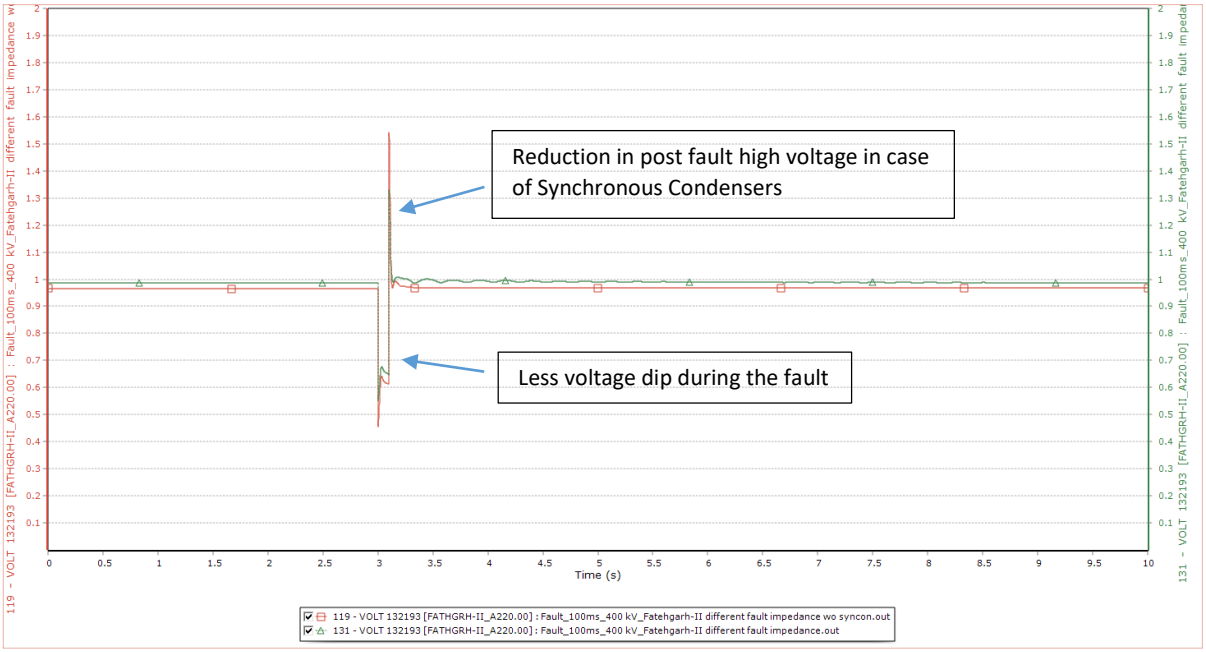


Figure 28: Voltage at 220 kV Fatehgarh-II (Bus-A) without SynCon (Red) and with SynCon (Green)

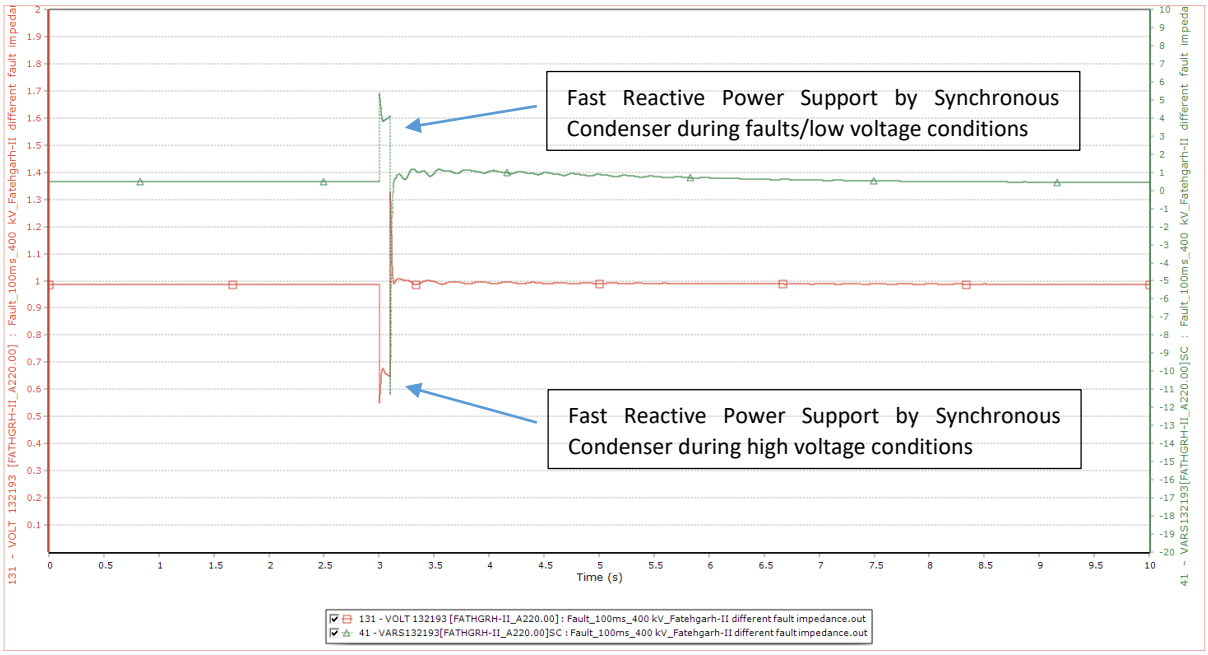


Figure 29: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

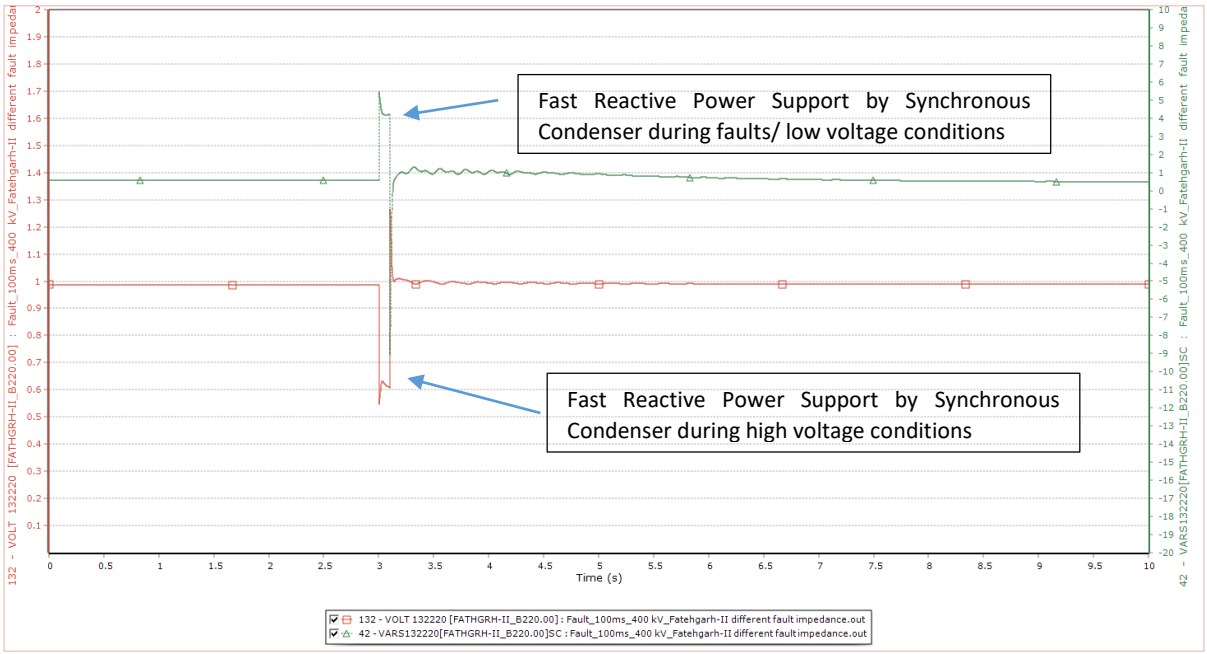


Figure 30: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green. in p.u. – 100 MVA base) from SynCon-B

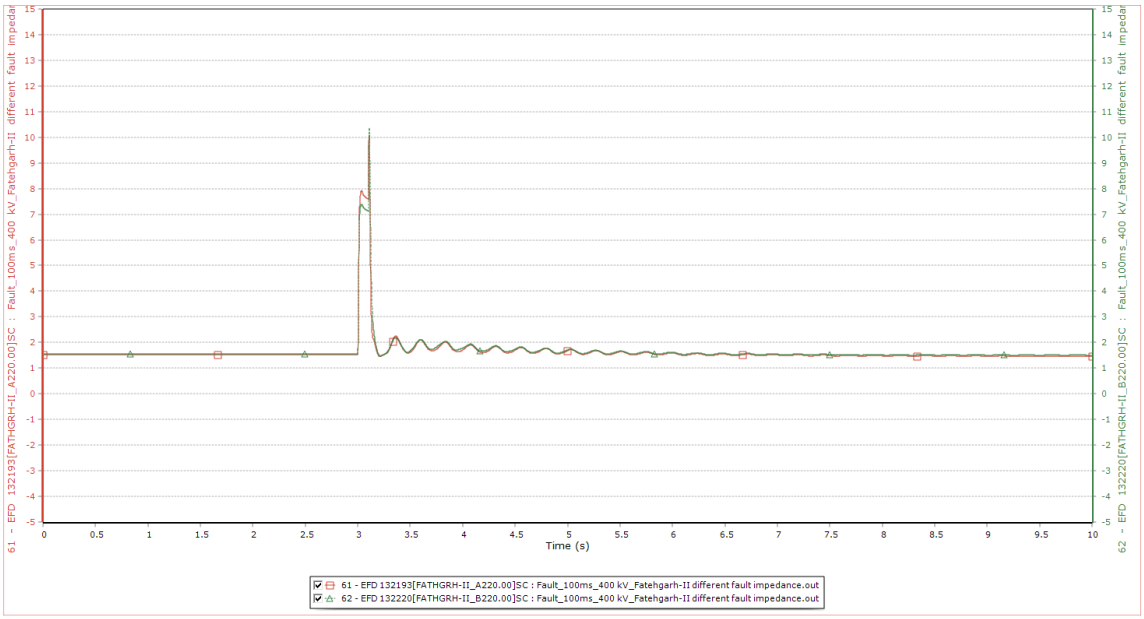


Figure 31: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) High voltage post fault clearance is observed in the system as the nearby RE plants are kept in "Q" priority mode. However, the high voltage is less in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 400 kV Fatehgarh-II PG	T = 3.05 sec	0.56 p.u.	0.54 p.u.
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.66 p.u.	0.62 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.62 p.u.	0.57 p.u.
4.	Voltage at 400 kV Fatehgarh-II PG	T = 3.10 sec	1.44 p.u.	1.28 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	1.54 p.u.	1.33 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	1.47 p.u.	1.26 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	x	A – 1.77 p.u. B – 2.08 p.u.
8.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.10 sec	x	A – (-) 2.39 p.u. B – (-) 2.03 p.u.
9.	Response time of SynCons		x	Within one cycle

3.2.2 RE plants in 'P' priority mode

3.2.2.1 3-ph fault at 400 kV Fatehgarh-II PG with fault clearing in 100 ms

Fault Reactance: -2e+09

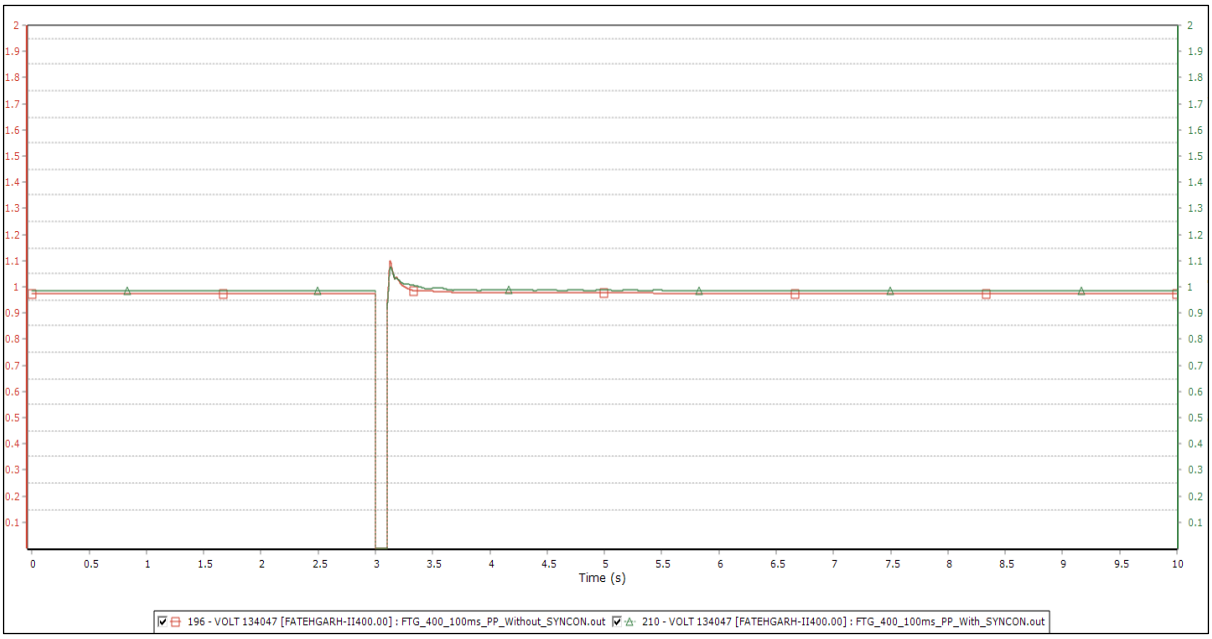


Figure 32: Voltage at 400 kV Fatehgarh-II PG bus (3-ph fault at t=3 sec) without SynCon (Red) and with SynCon (Green)

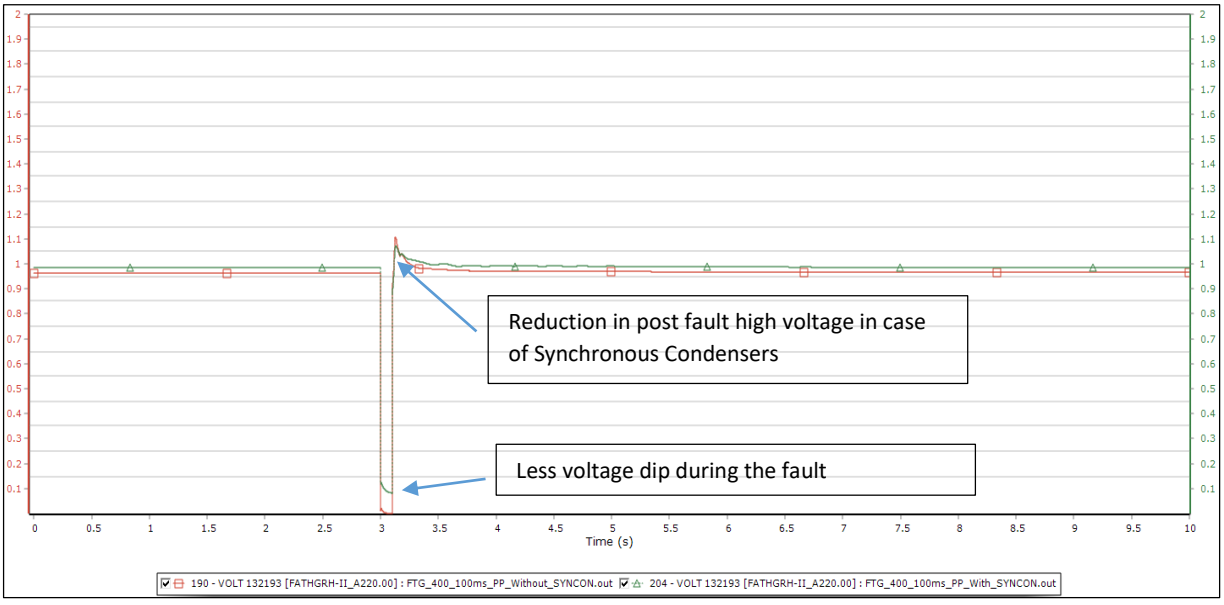


Figure 33: Voltage at 220 kV Fatehgarh-II (Bus-A) without SynCon (Red) and with SynCon (Green)

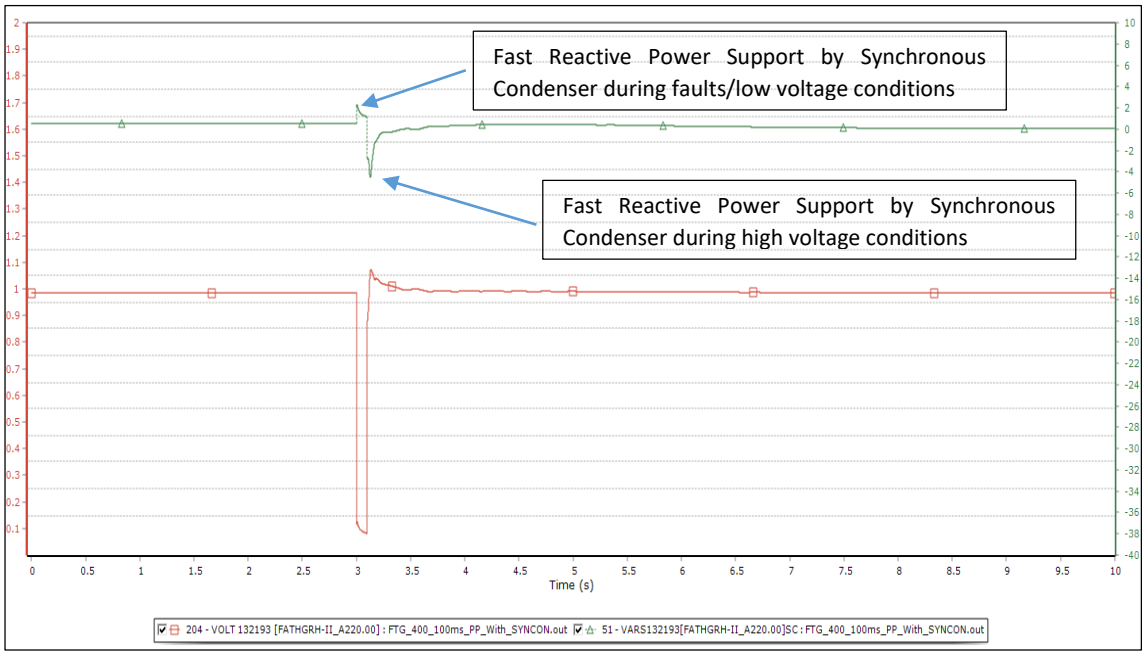


Figure 34: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

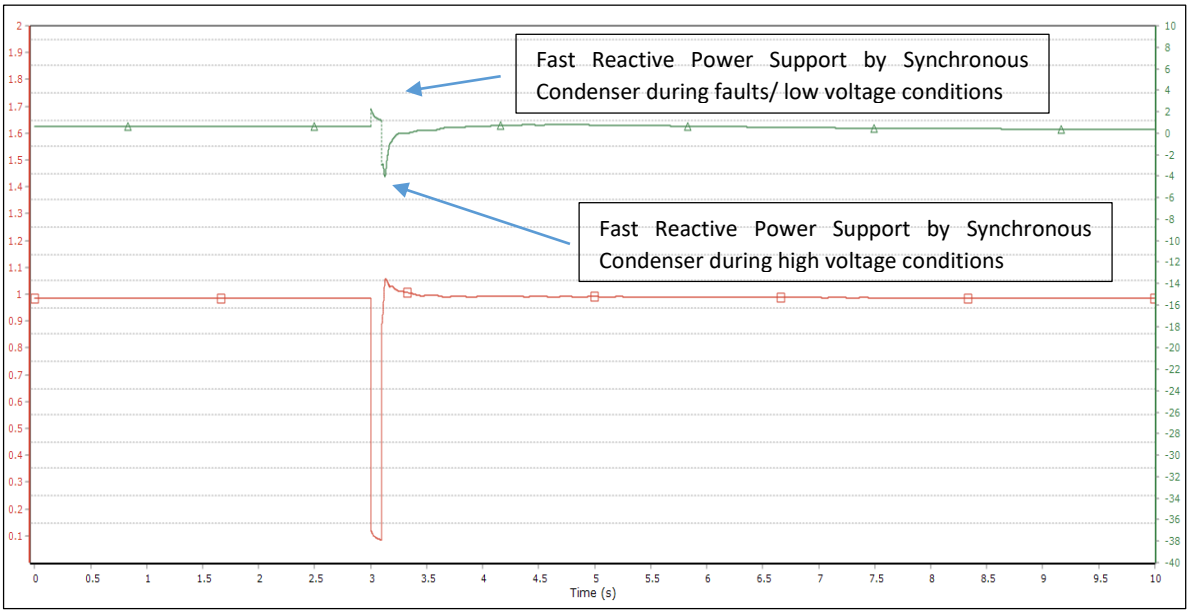


Figure 35: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green. in p.u. – 100 MVA base) from SynCon-B

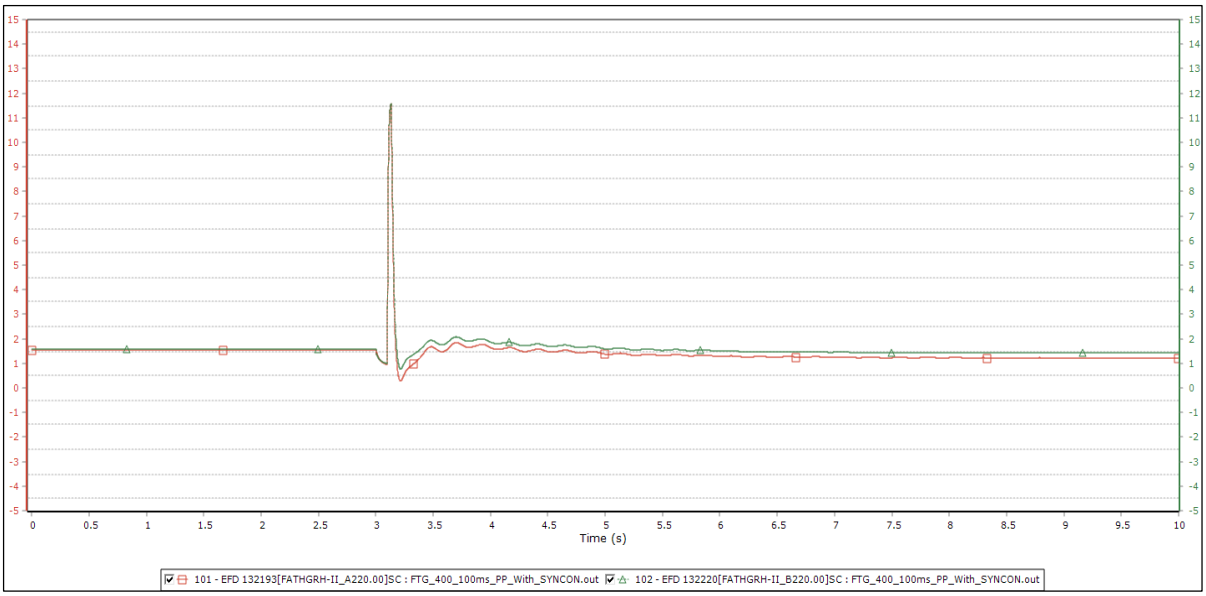


Figure 36: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) Post fault clearance, voltage rise is not observed in the system as the nearby RE plants are kept in "P" priority mode. However, this voltage is further reduced in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 400 kV Fatehgarh-II PG	T = 3.05 sec	0 p.u. (Bolted Fault)	0 p.u. (Bolted Fault)
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0 p.u.	0.091 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0 p.u.	0.093 p.u.
4.	Voltage at 400 kV Fatehgarh-II PG	T = 3.10 sec	0.94 p.u.	0.92 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	0.90 p.u.	0.88 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	0.93 p.u.	0.89 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	x	A – 4.32 p.u. B – 4.31 p.u.
8.	Reactive Power Support by SynCon-A and B	T = 3.10 sec	x	A – 0.90 p.u. B – 0.90 p.u.
9.	Response time of SynCons		x	Within one cycle

3.2.2.2 3-ph fault at 765 kV Fatehgarh-II PG with fault clearing in 100 ms

Fault Reactance: -2e+09

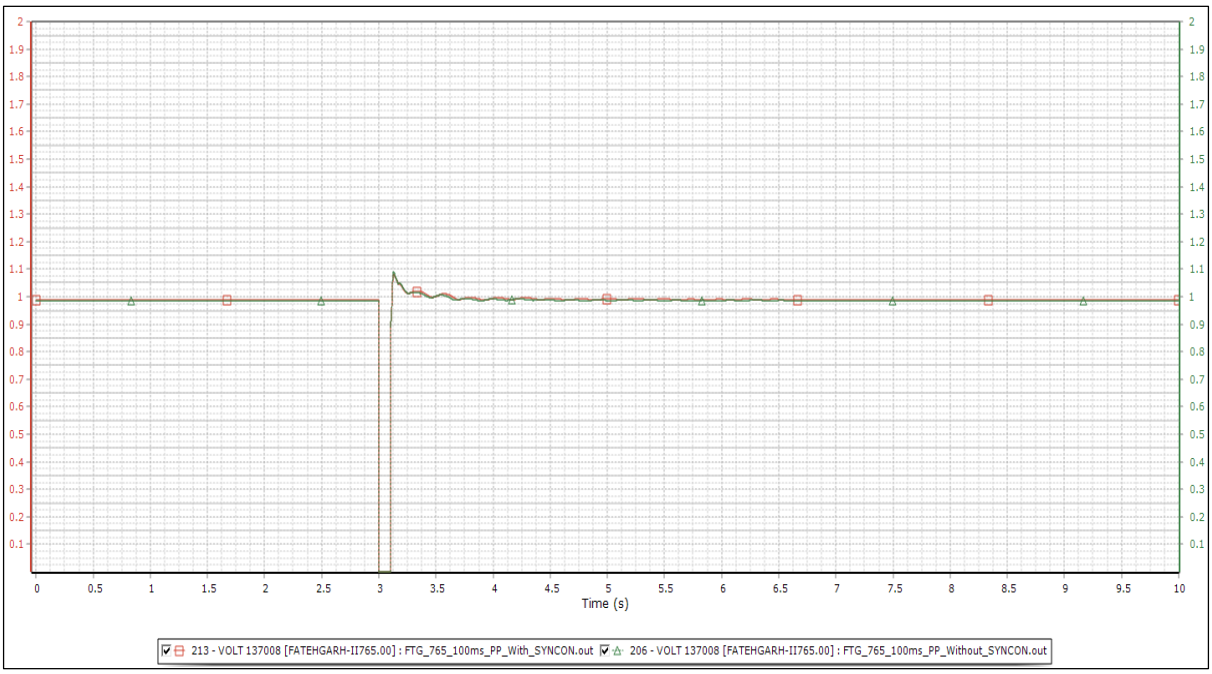


Figure 37: Voltage at 765 kV Fatehgarh-II PG bus (3-ph fault at t=3 sec) without SynCon (Red) and with SynCon (Green)

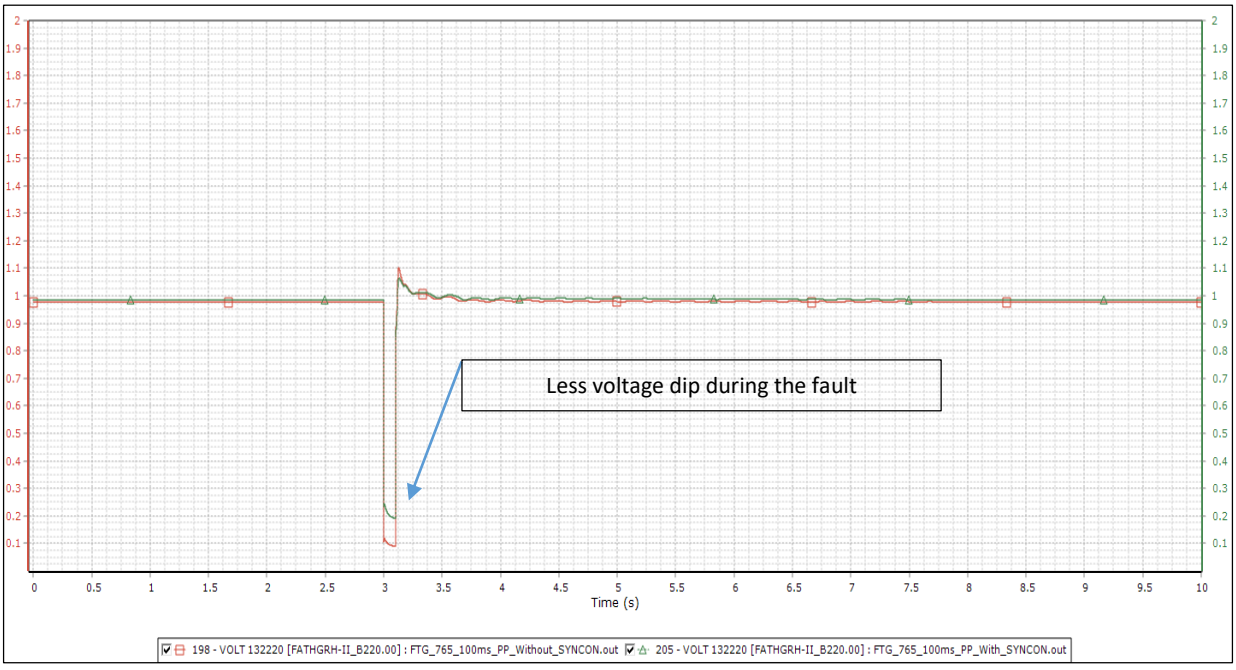


Figure 38: Voltage at 220 kV Fatehgarh-II (Bus-B) without SynCon (Red) and with SynCon (Green)

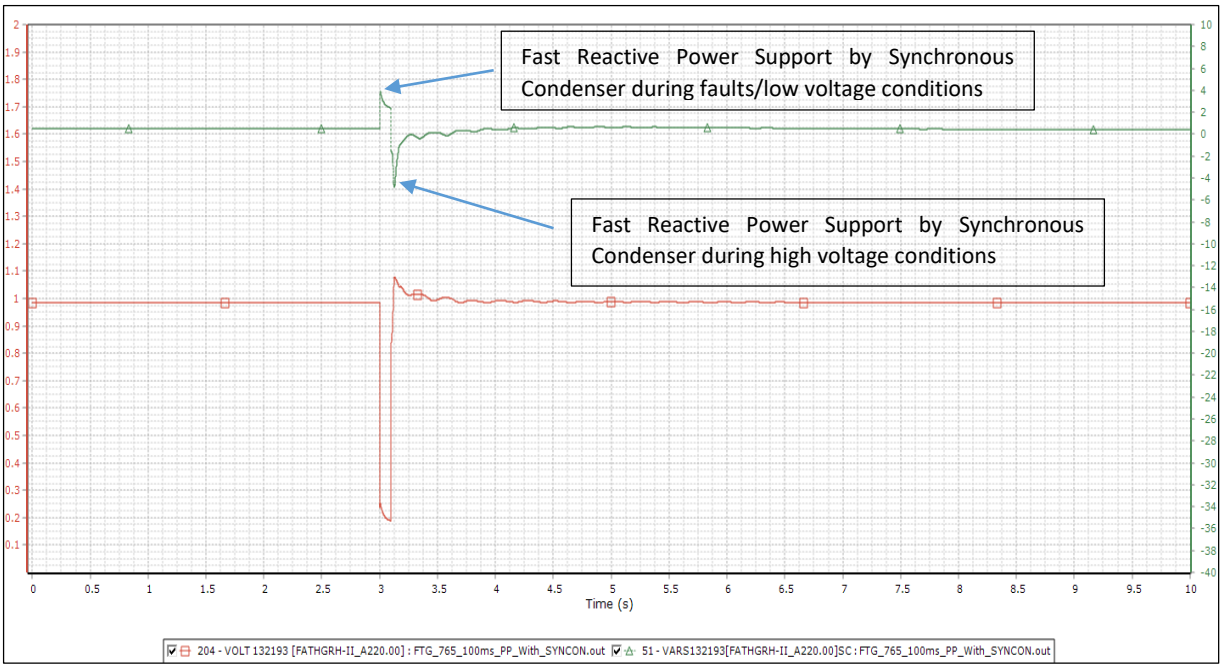


Figure 39: Voltage (Red) at 220 kV Fatehgarh-II (A) PG bus and Reactive Support (green, in p.u. – 100 MVA base) from SynCon-A

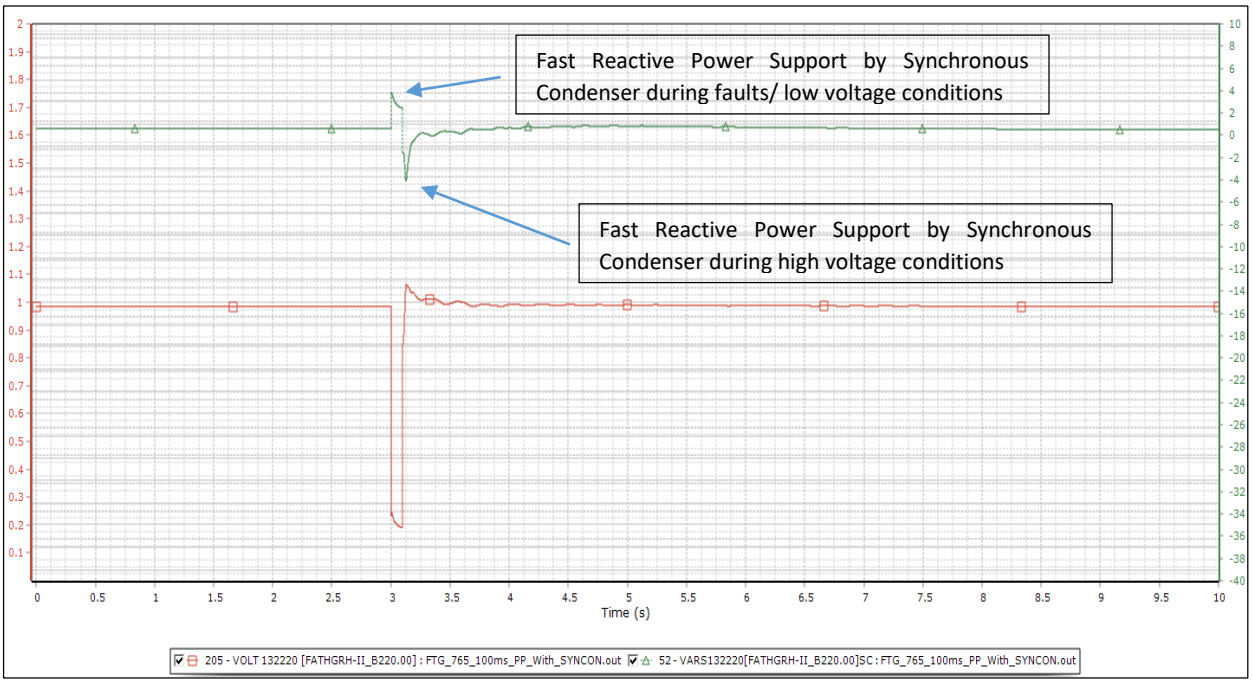


Figure 40: Voltage (Red) at 220 kV Fatehgarh-II (B) PG bus and Reactive Support (green. in p.u. – 100 MVA base) from SynCon-B

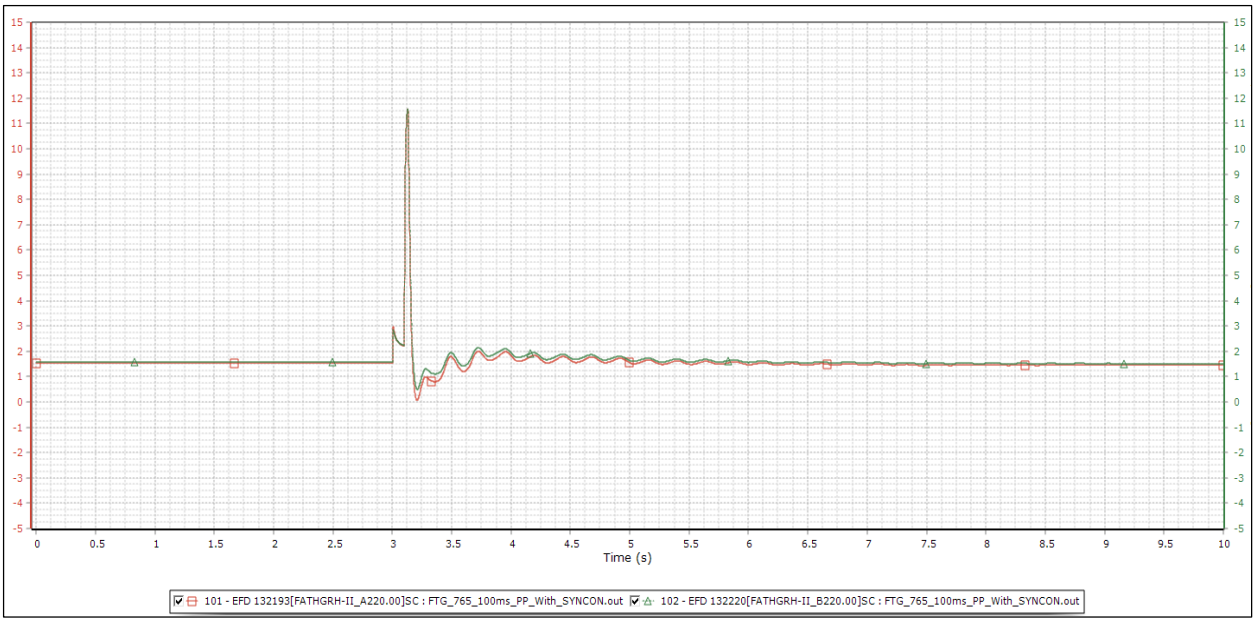


Figure 41: EFD (Field Voltage) of SynCon-A and SynCon-B

Observations:

a) During the fault, voltage dip seen is less in case of deployment of synchronous condensers. This is due to the fast reactive power support by the SynCons during the sub-transient period.

b) Post fault clearance, voltage rise is not observed in the system as the nearby RE plants are kept in "P" priority mode. However, this voltage is further reduced less in case of synchronous condensers due to the fast reactive absorption support.

Comparative table is provided below:

S. No.	Description	Time	Without SynCons at 220 kV Fatehgarh-II A and B	With SynCons at 220 kV Fatehgarh-II A and B
1.	Voltage at 765 kV Fatehgarh-II PG	T = 3.05 sec	0 p.u. (Bolted Fault)	0 p.u. (Bolted Fault)
2.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.18 p.u.	0.20 p.u.
3.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.10 p.u.	0.21 p.u.
4.	Voltage at 765 kV Fatehgarh-II PG	T = 3.10 sec	0.88 p.u.	0.88 p.u.
5.	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	0.85 p.u.	0.84 p.u.
6.	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	0.86 p.u.	0.85 p.u.
7.	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	x	A – 3.81 p.u. B – 3.69 p.u.
8.	Reactive Power Support by SynCon-A and B	T = 3.10 sec	x	A – 0.49 pu B – 0.50 p.u.
9.	Response time of SynCons		x	Within one cycle

3.3 Impact on System Inertia and Rate of Change of Frequency (ROCOF)

3.3.1 Tripping of a Synchronous Generator (Suratgarh TPS)

The impact of synchronous condensers on system inertia[1] has been studied through tripping of unit of Suratgarh SCTPP (Pgen = 458 MW) with and without proposed synchronous condensers at Fatehgarh-II.

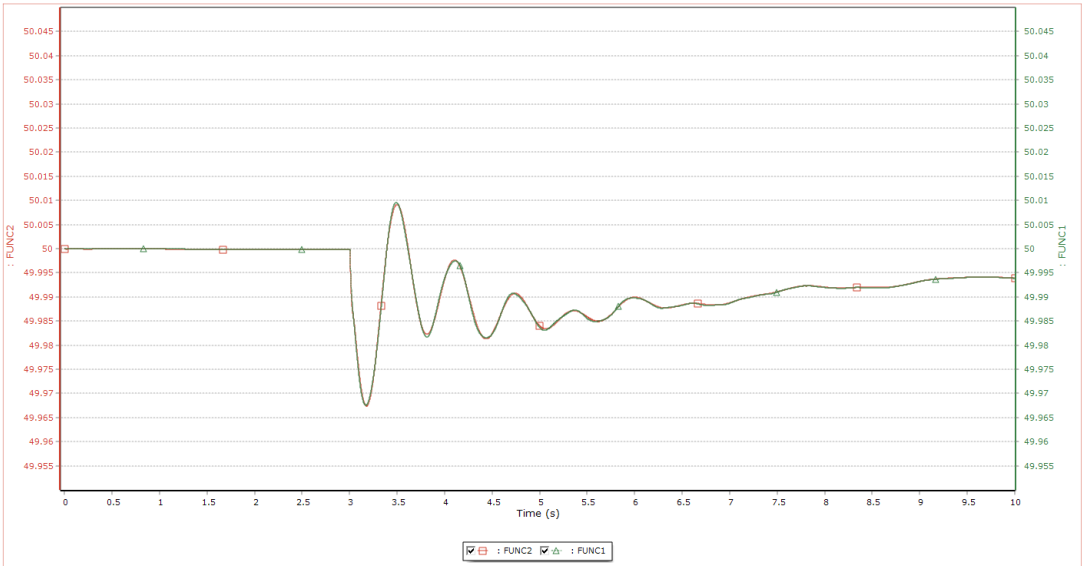


Figure 42: System Frequency (Red without SynCon and Green with SynCon) after tripping of Suratgarh SCTPP Unit at t =3 sec

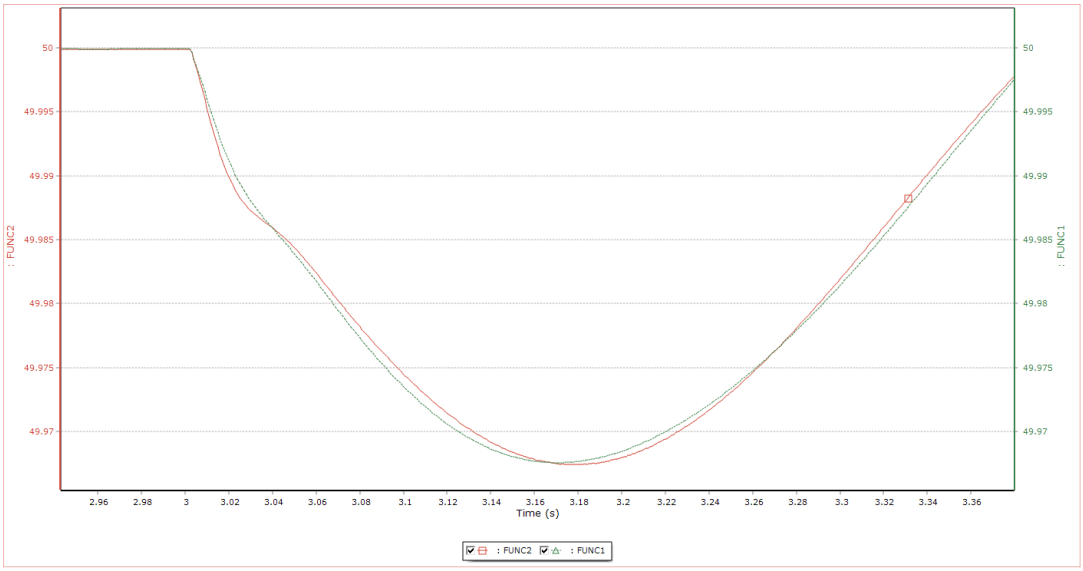


Figure 43: Zoomed version - System Frequency (Red without SynCon and Green with SynCon) after tripping of Suratgarh SCTPP Unit at t =3 sec

Improvement of 0.065 Hz/sec is seen in RoCoF for the same event after deployment of synchronous condensers.

[1] *As some of the governor models are not available, study has been done only to analyze the relative improvement in rate of change of frequency*

3.3.2 Large RE Generation Event in Rajasthan RE Complex

a) Simulation study has also been conducted to simulate the loss of a large quantum of RE generation **(~1800 MW)** in Rajasthan RE complex and observe the frequency and RoCoF at different nodes.

b) The frequency response in case of the simulation studies is observed to be ideal with very high Power Number (~30,000 MW/Hz). The same differs from the practical observations where the Power Number varies between 10,000 – 15,000 MW/Hz.

c) The Rate of Change of Frequency (RoCoF) has been calculated in this case using first principle of derivative method. The same is observed to be higher for buses near to Rajasthan RE complex such as Alwar, Suratgarh, Chhabra etc. as compared to far away buses in other regions.

d) It may also be noted that the calculated RoCoF in this case may not be the same as observed by df/dt relays as there are multiple processing units, filters and robust logics for calculating the RoCoF at any point. The maximum RoCoF values plotted below are indication of the inertial strength of the concerned nodes.

e) The RoCoF calculated from actual PMU data using first principle also suggests similar observations.

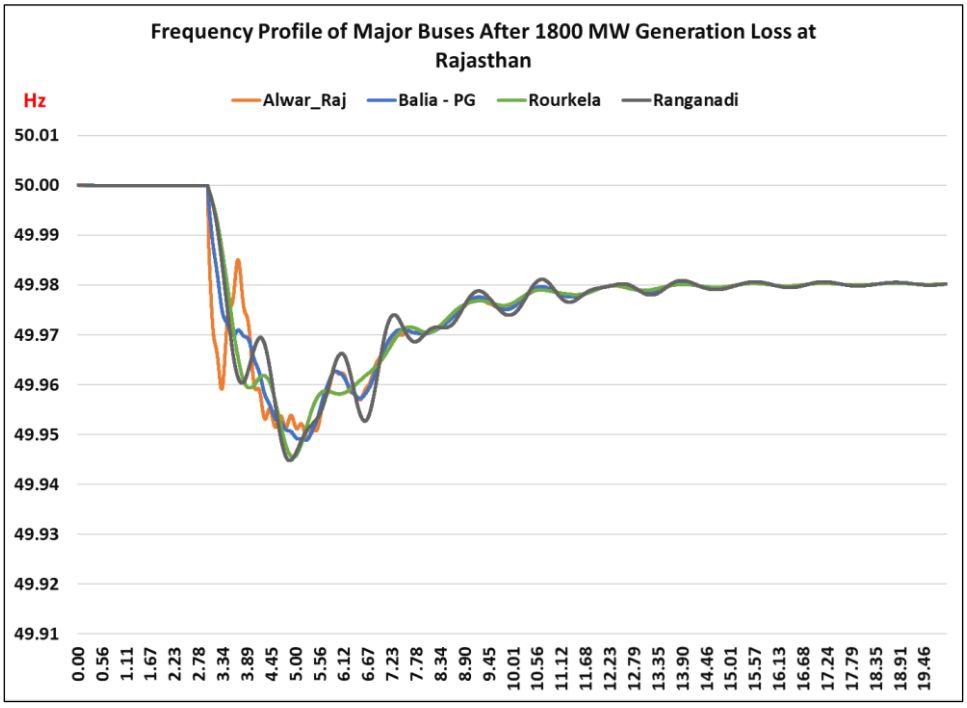


Figure 44: Simulated Frequency at Various Nodes after ~1800 MW Generation Loss in Rajasthan RE Complex with SYNCON – A & B at Fatehgarh - II

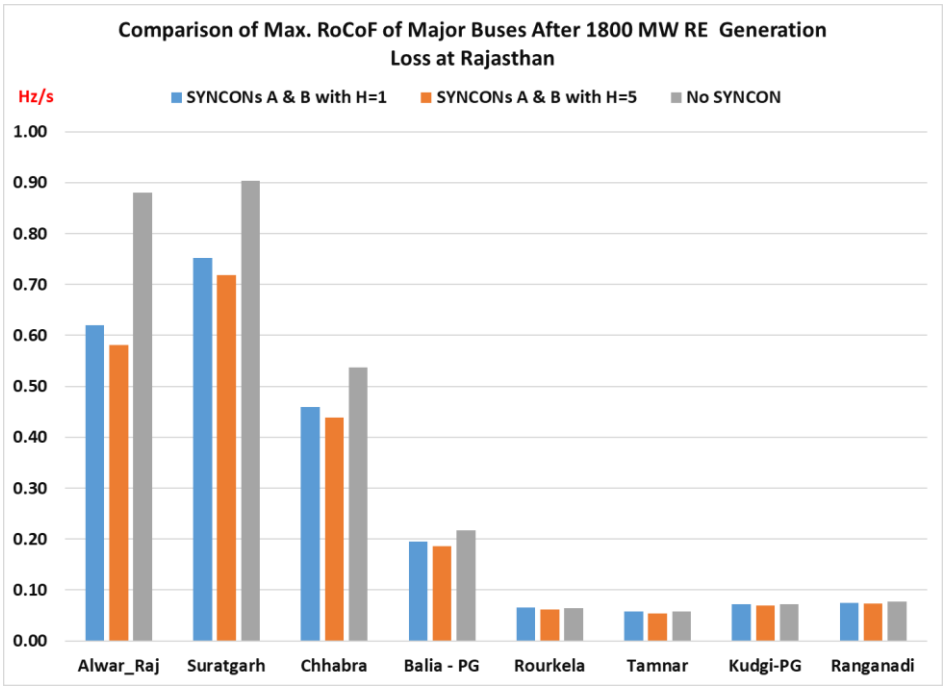


Figure 45: Maximum RoCoF Calculated at Various Nodes after ~1800 MW Generation Loss in Rajasthan RE Complex

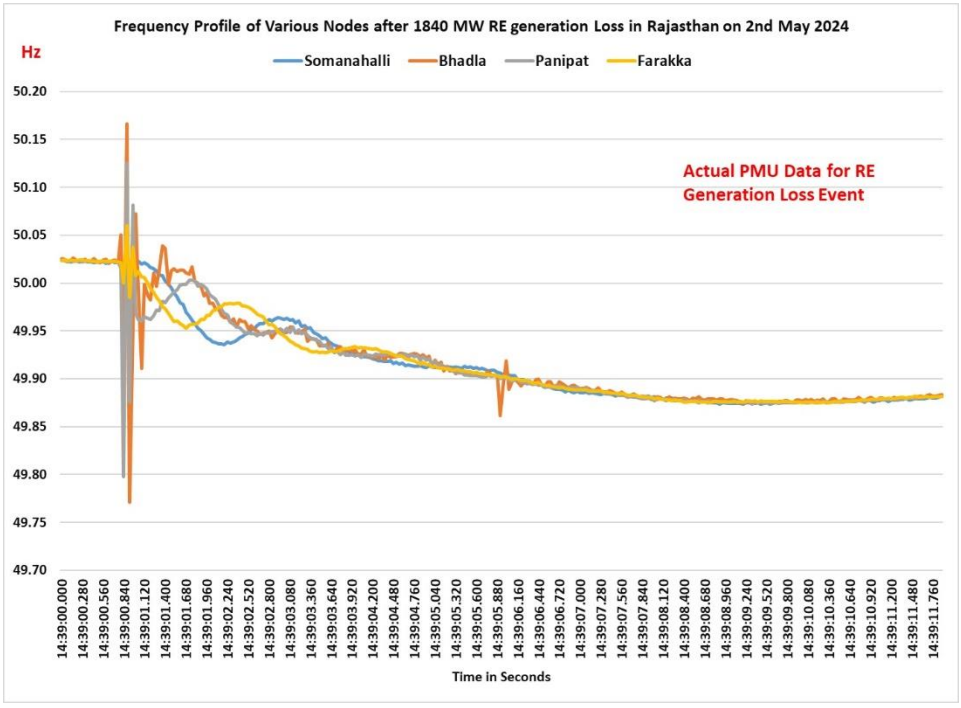


Figure 46: Measured Frequency (PMU) for ~1800 MW RE generation loss in Rajasthan (Zoomed Plot)

3.4 Impact on Damping of Oscillations

For this analysis, past oscillation data (source: PMU) has been played back to analyse the response of synchronous condensers during oscillations. As the response of RE plants and other elements is already captured in the PMU data, the analysis has been carried out on SMIB model.

3.4.1 Very low frequency oscillations (~0.04Hz)

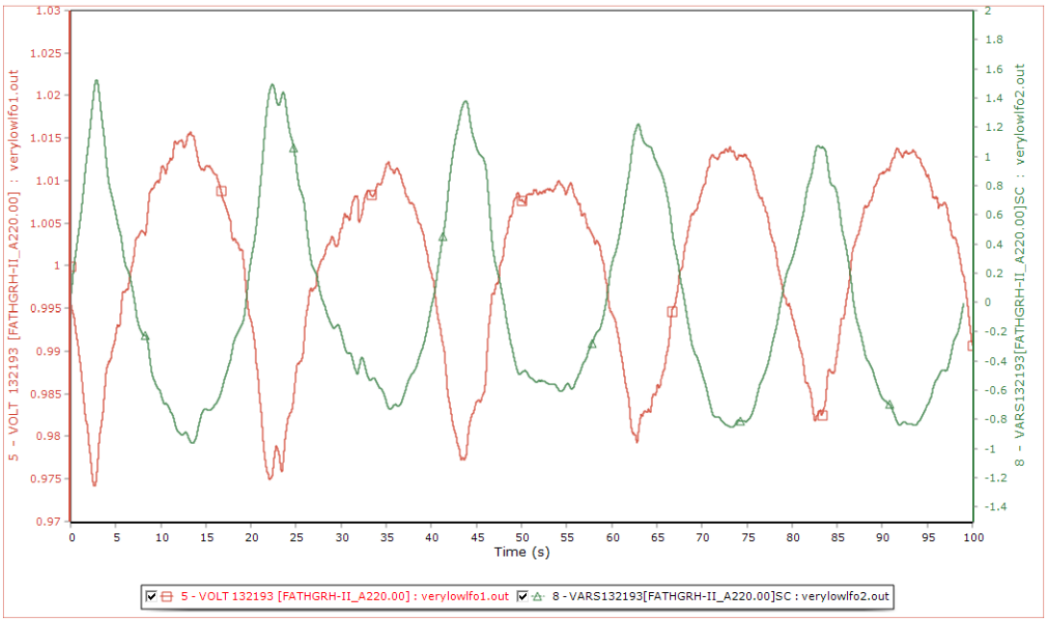


Figure 47: Bus Voltage (Red) and SynCon-A response (green, in p.u. – 100 MVA base)

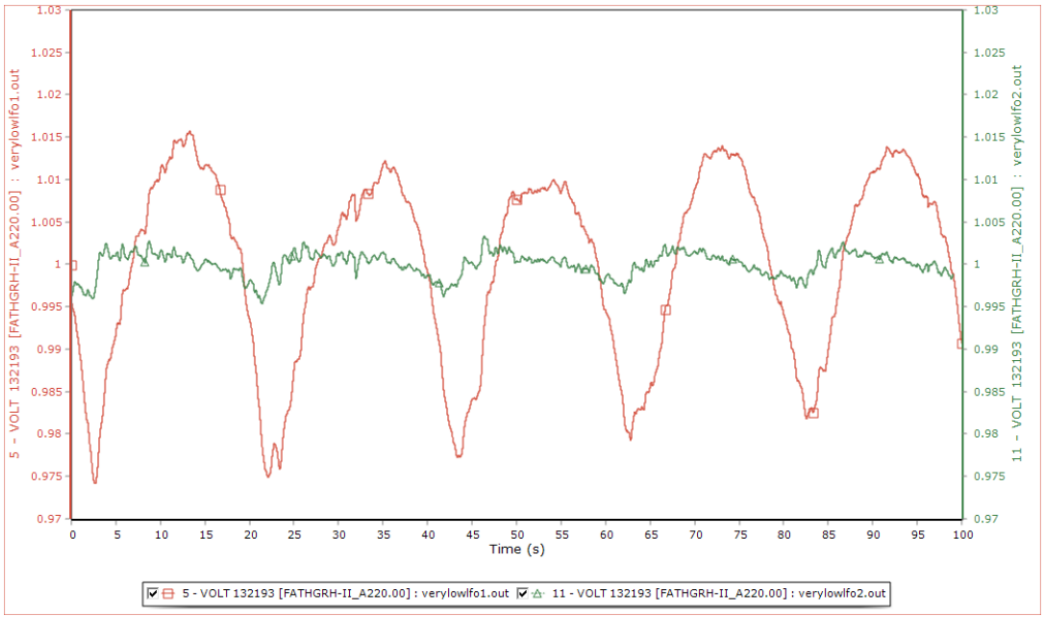


Figure 48: Bus Voltage without (red) and with (green) synchronous condensers

3.4.2 Low frequency oscillations (~2.8 Hz)

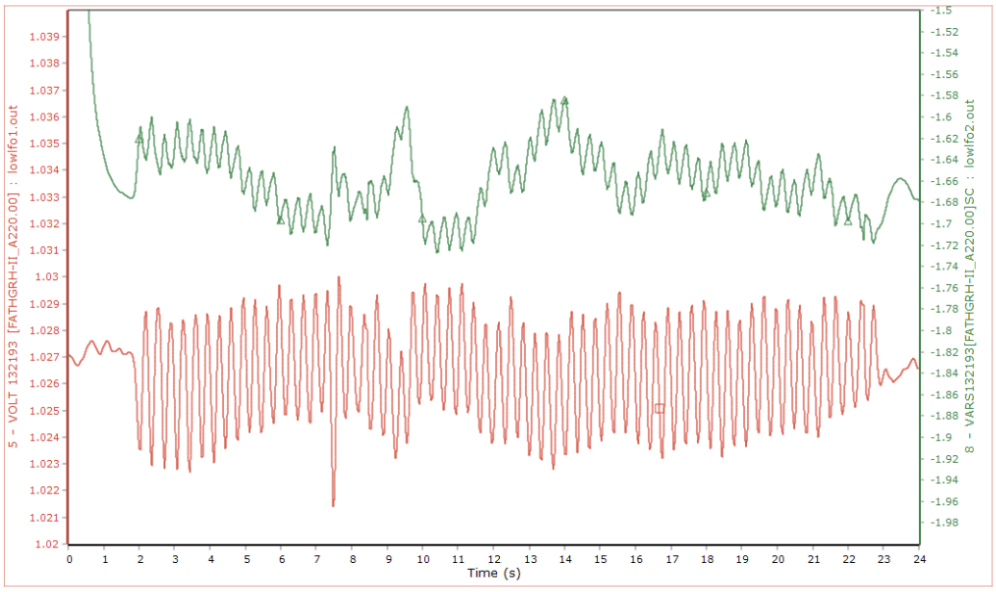


Figure 49: Bus Voltage (Red) and SynCon-A response SynCon-A response (green, in p.u. – 100 MVA base)

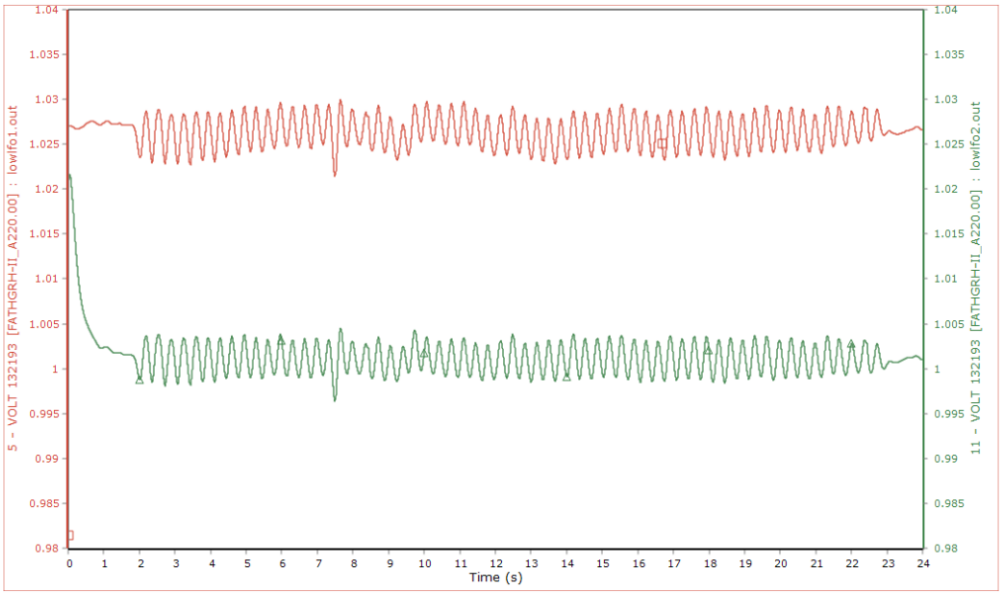


Figure 50: Bus Voltage without (red) and with (green) synchronous condensers

3.4.3 High Voltage Dips

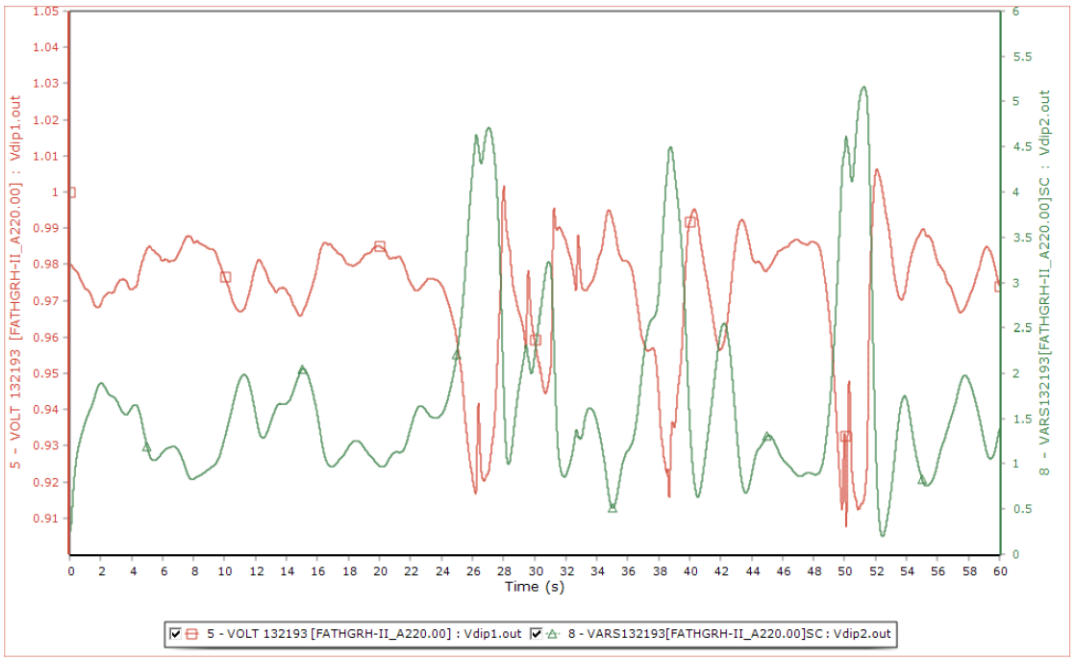


Figure 51: Bus Voltage (Red) and SynCon-A response (green, in p.u. – 100 MVA base)

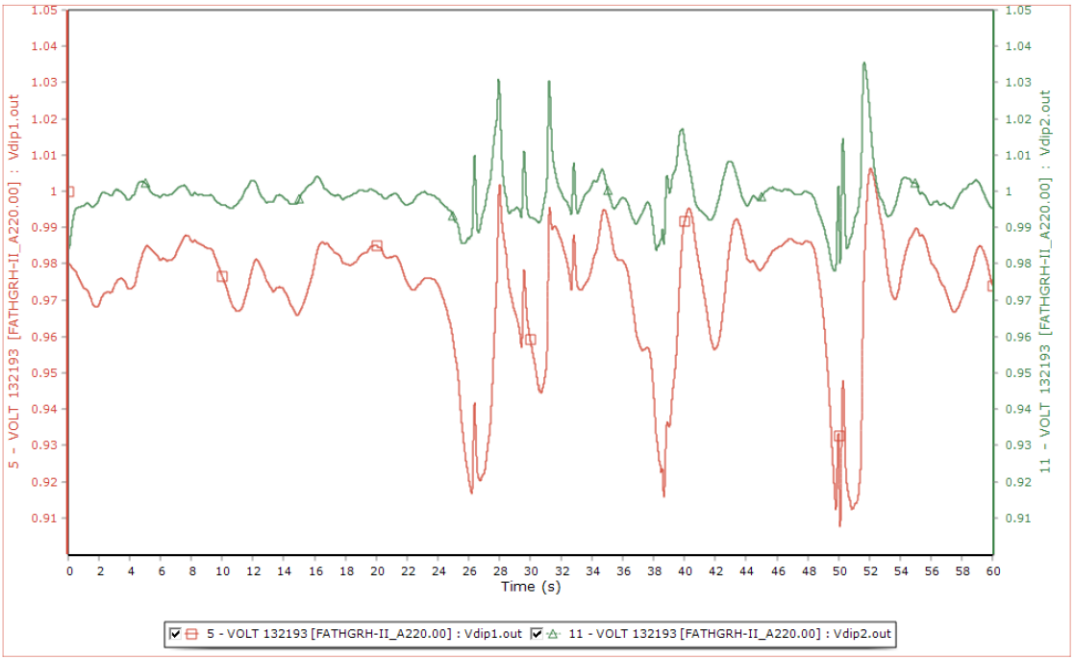


Figure 52: Bus Voltage without (red) and with (green) synchronous condensers

With fast AVR-Exciter gain, the synchronous condensers are observed to damp the oscillations in all 03 cases. However, in case of slow AVR response, the damping effect may not be significant and the SynCon response may also be opposite of the desired one.

3.5 Impact on Steady-state voltage control through dynamic reactive power support

Dynamic reactive power support from synchronous condensers has been analysed by applying step changes in voltages as shown below. The response time of SynCons has been observed to be ~1 sec.

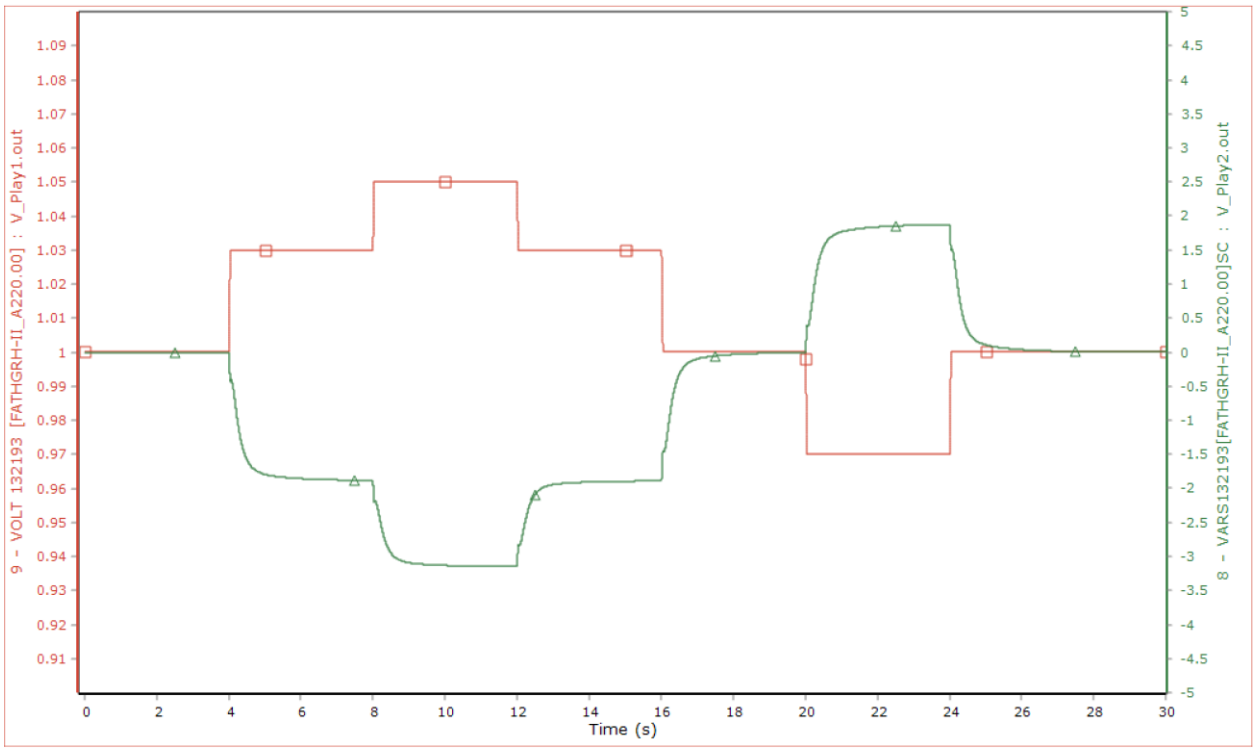


Figure 53: Bus Voltage (red) and Synchronous Condenser Response (green, in p.u. – 100 MVA base)

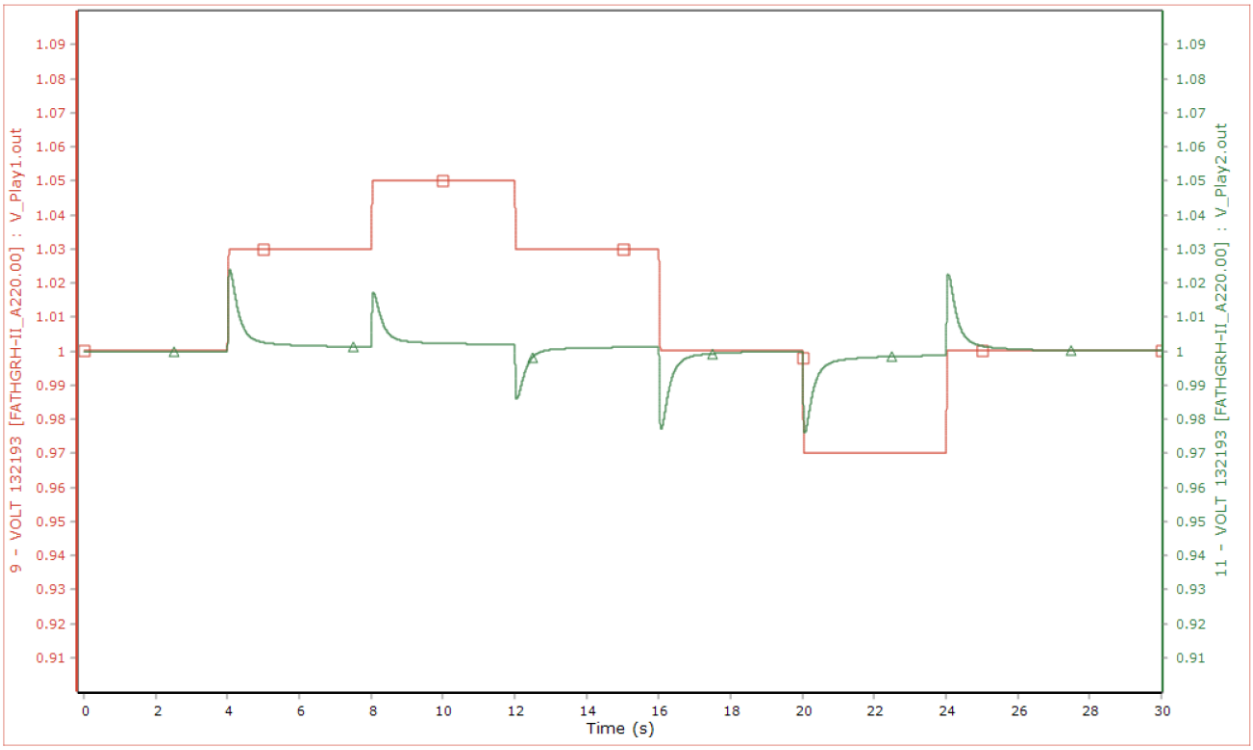


Figure 54: Bus Voltage without (red) and with (green) synchronous condensers

4. Important features of Synchronous Condensers

S. No.	Feature	Value
1.	Reactive Power Capability	+1.0 / -0.6 p.u. (inductive capability is ~60% of capacitive)
2.	Overload Capability	Yes
3.	Response Time - Sudden Voltage Changes	Immediately (within one cycle)
4.	Response Time to control actions	~1 sec (will depend on exciter-AVR gain)
5.	Contribution to System inertia	Yes (Increased impact with addition of flywheel)
6.	Contribution to short-circuit power	Yes, ~4-5 p.u.
7.	Reactive power support at very low/high voltage (LVRT/HVRT Capability)	Yes

5. Conclusion

Following are the observations of the study on analysing the impact of installing synchronous condenser in present scenario at Fatehgarh-II:

a) Enhanced System Strength / Short Circuit Ratio (SCR)

The simulation study demonstrates that the deployment of Synchronous Condensers (SYNCON) improves the Short Circuit Ratio (SCR) of the RE pooling buses in Rajasthan. This can be attributed to the high fault current contribution capability of SYNCONs (around 4-5 pu) unlike the power electronic controller based devices where contribution is limited to 1-1.1 pu.

As the SynCons are considered at 220 kV Fatehgarh-II (A and B), increase in SCR/fault level is prominent at these buses. SCR of 220 kV Fatehgarh-II (A and B) is seen to increase from 4 and 11.4 to 4.8 and 14.4 respectively. (refer section 3.1)

b) Fast Reactive Power Support during Faults/Transients

Synchronous condensers can play a critical role during faults and high voltage events in power systems due to their ability to provide substantial fault current, typically in the range of 4-5 per unit (p.u.). This high fault current capability is primarily due to the low sub-transient reactance, which allows the machine to respond rapidly to changes in system conditions.

Significant reactive power support has been observed in the simulation study from the proposed SynCons during faults as well as during post fault high voltage conditions. The short circuit current response of the order of > 5 p.u. (normalized at 1 p.u. voltage) has also been observed depending on the severity of voltage dip/rise in the study case (refer section 3.2). The support received from SynCons has arrested the voltage dip/rise during transients and improved the system stability.

c) Increased Inertia and Frequency Response

Rate of change of frequency (RoCoF) experienced by the system for a given contingency varies across the system depending on the location of the contingency and availability of synchronous machines in the vicinity. This phenomenon is also being observed in Indian power system with increasing penetration of renewable generation.

In RE rick pockets, inadequate inertial response could result in very high rate of decline in frequency post generation loss and the frequency may dip to a level where automatic load shedding (last line of defence) gets triggered. The addition of the SYNCONs in RE rich pockets can improve the system's inertia and thereby the ability to resist fast changes in frequency.

The simulation results also show the improvement in nadir frequency and the RoCoF after deployment of SynCons in the Rajasthan RE complex. (refer section 3.3)

d) Damping of Low Frequency Oscillations

The Rajasthan renewable complex has been experiencing Low Frequency Oscillations (LFOs) and the same has been a matter of concern for system reliability. It has been seen in the simulation study that deployment of synchronous condensers (with proper tuning of excitation system + AVR) can significantly help in damping of the oscillations. (refer section 3.4)

e) Steady-state Reactive Power Support

The Excitation system and Automatic Voltage Regulator (AVR) of SynCon helps in maintaining the bus voltage at a desired level and contribute to local voltage control by providing dynamically varying reactive power support as per the machine limits. The simulation study results also demonstrate the improvement in voltage profile (refer section 3.5) after deployment of SYNCONs.

References

1. CIGRE JWG A1/C4 TB 885: Guide on the Assessment, Specification and Design of Synchronous Condenser for Power System with Predominance of Low or Zero Inertia Generators

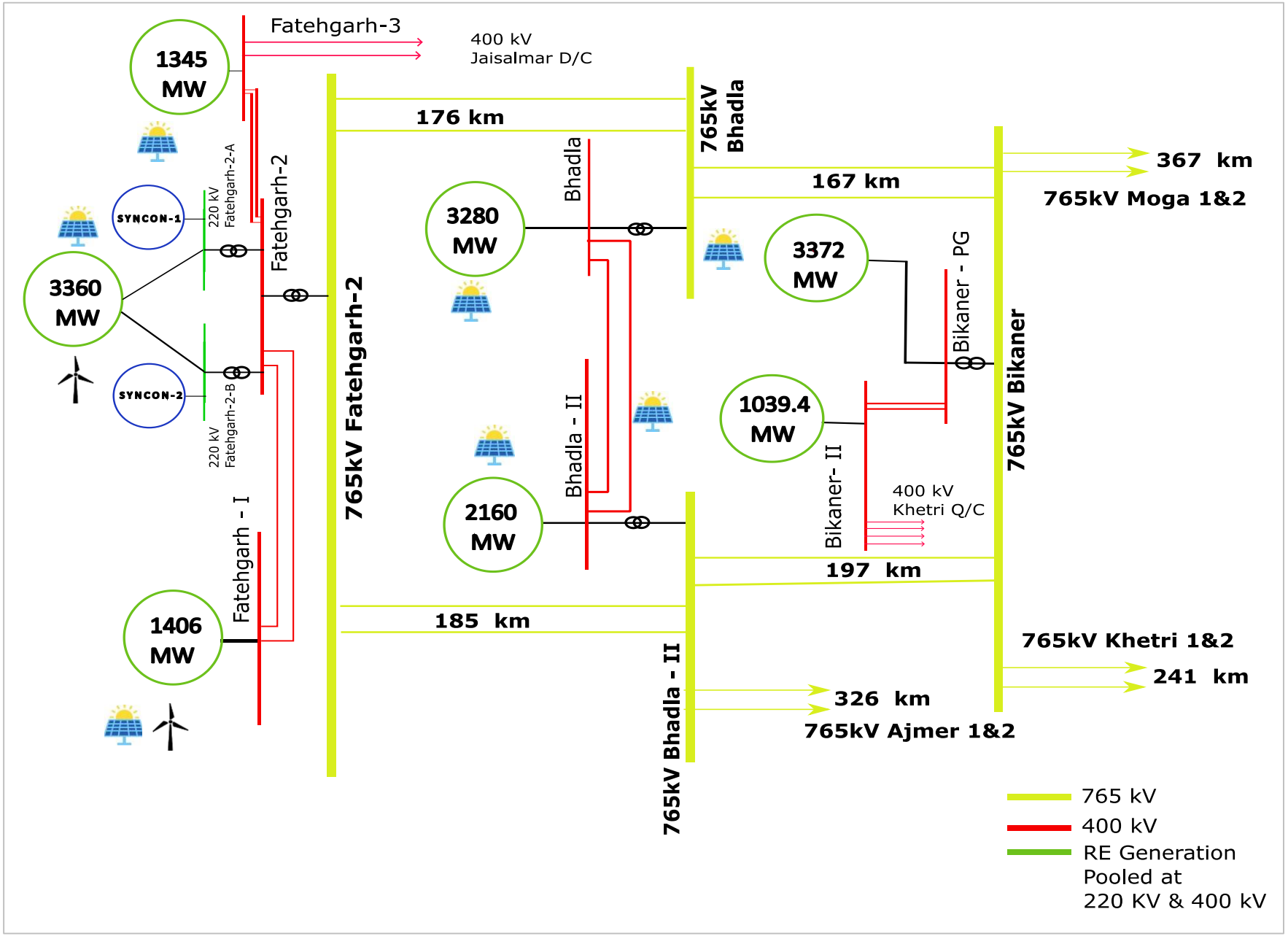
   https://www.e-cigre.org/publications/detail/885-guide-on-the-assessment-specification-and-design-of-synchronous-condenser-for-power-system-with-predominance-of-low-or-zero-inertia-generators.html

2. Dynamic Model Library – PSS/E (Siemens PTI)

3. S. Kynev, G. Pilz and H. Schmitt, "Comparison of modern STATCOM and synchronous condenser for power transmission systems," 2016 IEEE Electrical Power and Energy Conference (EPEC), Ottawa, ON, Canada, 2016 - https://ieeexplore.ieee.org/document/7771769

4. Y. Liu, S. Yang, S. Zhang and F. Z. Peng, "Comparison of synchronous condenser and STATCOM for inertial response support," 2014 IEEE Energy Conversion Congress and Exposition (ECCE), Pittsburgh, PA, USA, 2014, pp. 2684-2690

5. L. Bao, L. Fan and Z. Miao, "Comparison of Synchronous Condenser and STATCOM for Wind Farms in Weak Grids," 2020 52nd North American Power Symposium (NAPS), Tempe, AZ, USA, 2021, pp. 1-6, doi: 10.1109/NAPS50074.2021.9449775.


Fatehgarh-3
400 kV
Jaisalmar D/C
1345
MW
176 km
765kV
Bhadla
367 km
765kV Moga 1&2
167 km
Bhadla
3280
MW
3372
MW
Bikaner - PG
765kV Bikaner
SYNCON-1
220 kV
Fatehgarh-2-A
Fatehgarh-2
3360
MW
SYNCON-2
220 kV
Fatehgarh-2-B
765kV Fatehgarh-2
Bhadla - II
1039.4
MW
Bikaner- II
400 kV
Khetri Q/C
2160
MW
197 km
Fatehgarh - I
1406
MW
185 km
765kV Khetri 1&2
241 km
765kV Bhadla - II
326 km
765kV Ajmer 1&2
765 kV
400 kV
RE Generation
Pooled at
220 KV & 400 kV

SCR Study Under Three Cases,

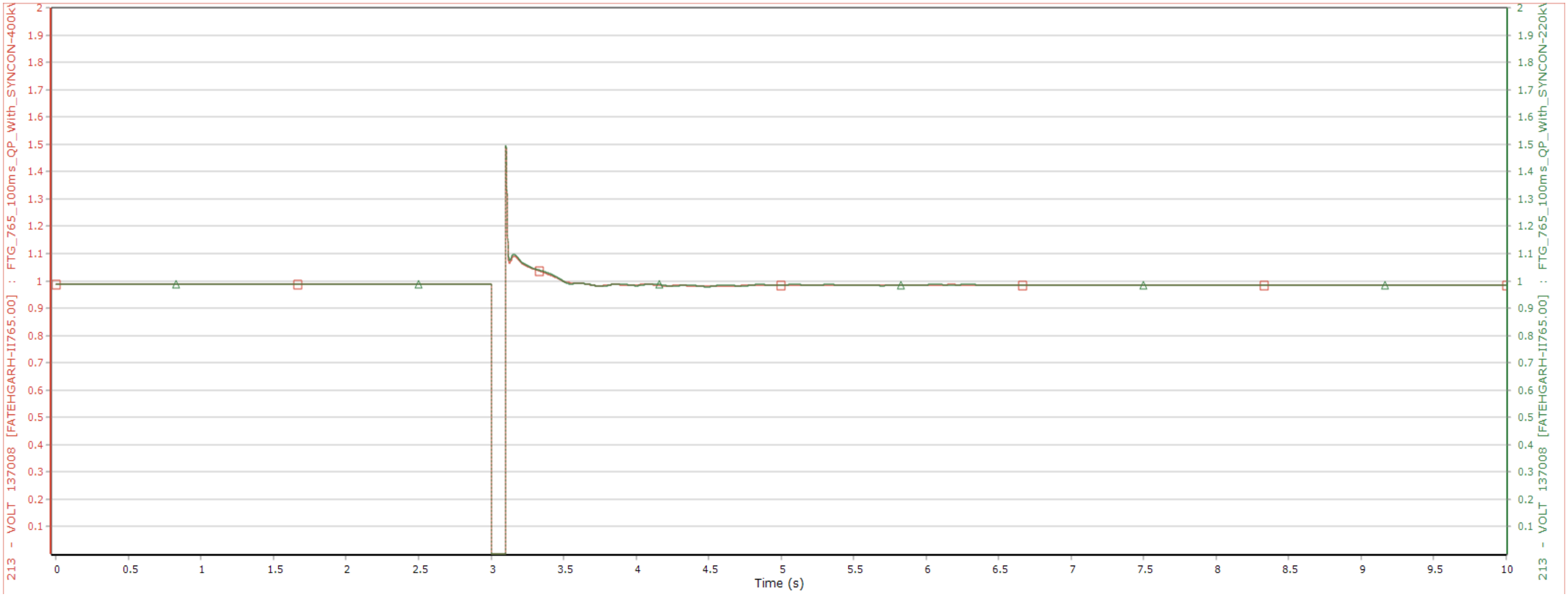
1. 2 x 354 MVA SYNCON Connected at 220 kV Fatehgarh - II Bus – 1 & 2
2. 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh - II Bus,
3. 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh - 1 Bus

S. No.	Pooling Station	Installed Capacity	Base case		With 2x354 MVA SynCons at 220 kV Fatehgarh - II		With 2x354 MVA SynCons at 400 kV Fatehgarh - II		With 2x354 MVA SynCons at 400 kV Fatehgarh - I	
		(MW)	Fault MVA	SCR	Fault MVA	SCR	Fault MVA	SCR	Fault MVA	SCR
1.	220 kV Fatehgarh-II (Sec-A)	2490	9950	4.00	12429	4.99	10687.00	4.29	10562	4.24
2.	220 kV Fatehgarh-II (Sec-B)	855	10198	11.93	12692	14.84	10916.00	12.77	10794	12.62
3.	400 kV Fatehgarh-I	996	13219	13.27	14300	14.36	14464.00	14.52	17524	17.59
4.	220 kV Fatehgarh-III	1345	8736	6.50	9002	6.69	9040.00	6.72	8990	6.68
5.	220 kV Bhadla PG	3130	14038	4.48	14341	4.58	14384.00	4.60	14328	4.58

Comparison of Dynamic Performance

1. Fault at 765 kV Fatehgarh – II Bus

Fault at 765 kV Fatehgarh – II Bus

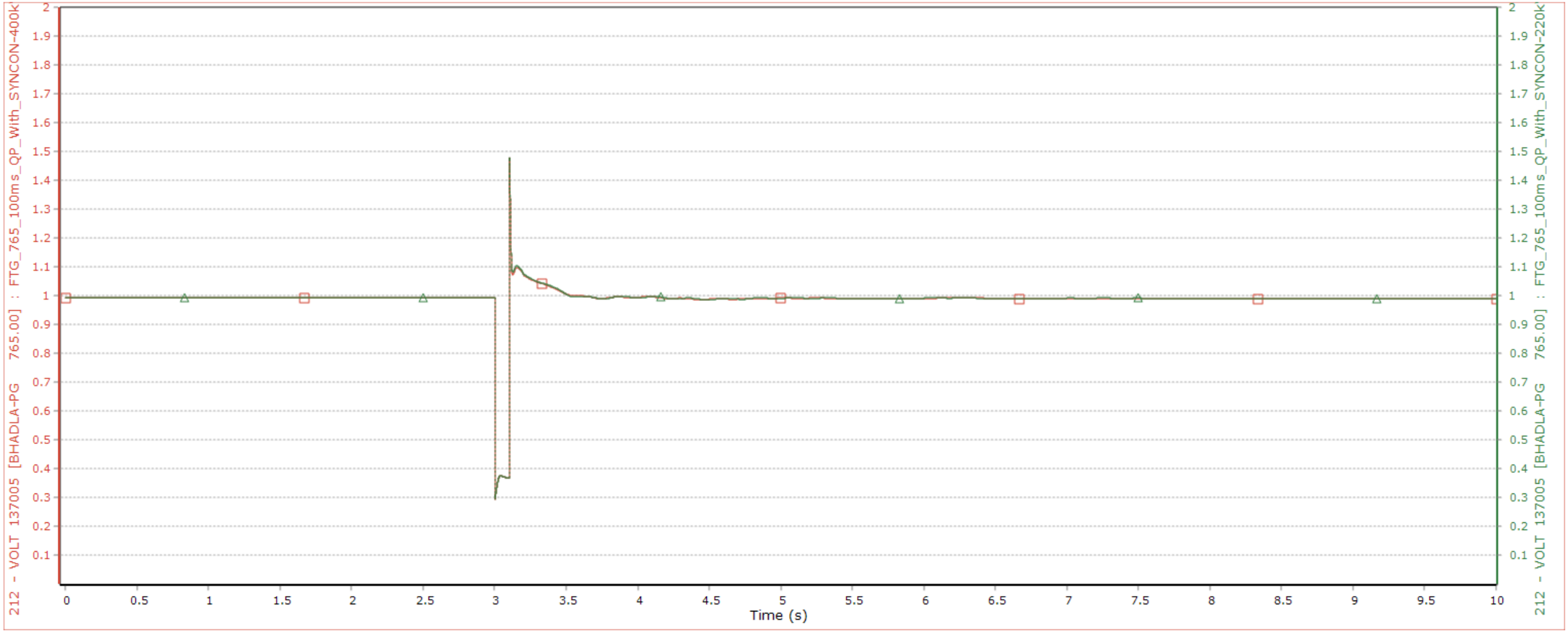


Bus Voltage (in p.u.) of 765 kV Fatehgarh - II – PG Bus

(Red – 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh - II Bus,

Green - 2 x 354 MVA SYNCON Connected at 220 kV Fatehgarh – II Bus – 1 & 2)

Fault at 765 kV Fatehgarh – II Bus

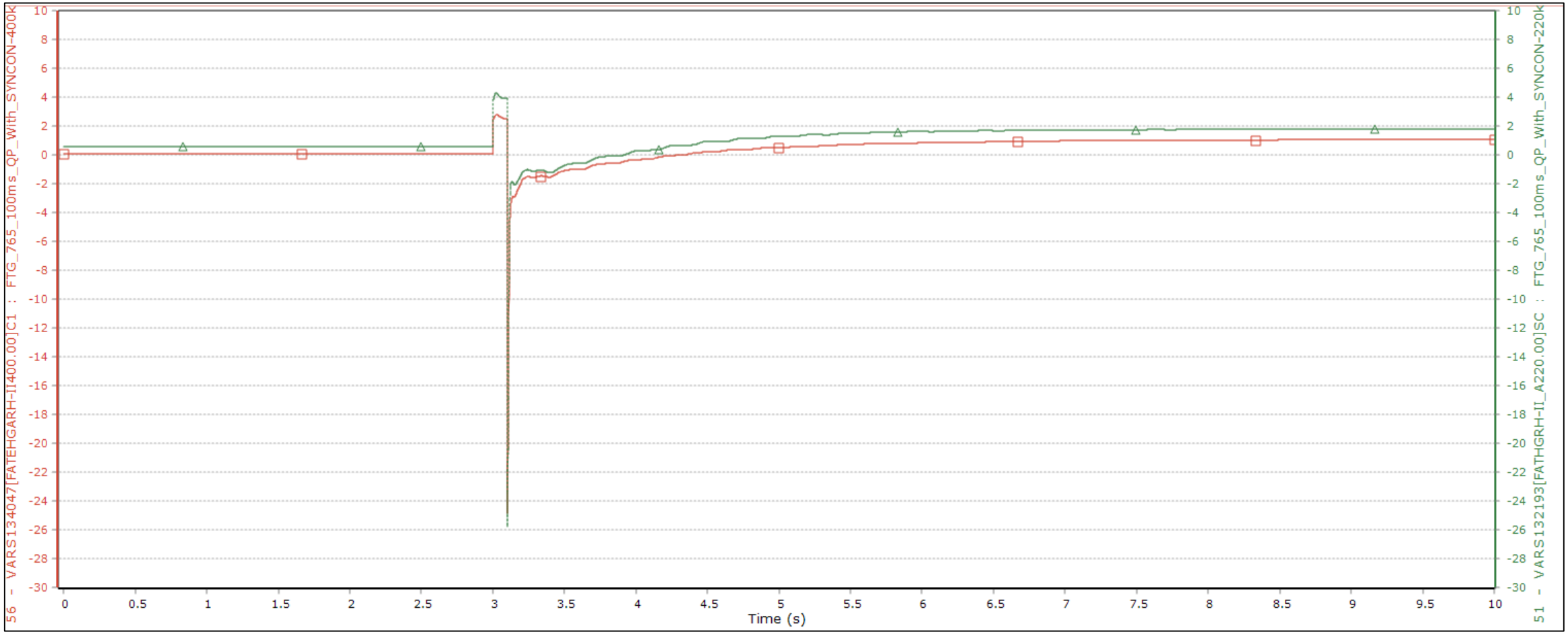


Bus Voltage (in p.u.) of 765 kV Bhadla – PG Bus

(Red – 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh – II Bus,

Green - 2 x 354 MVA SYNCON Connected at 220 kV Fatehgarh – II Bus – 1 & 2)

Fault at 765 kV Fatehgarh – II Bus



Reactive Support in p.u. – 100 MVA base from a SynCon

(Red – 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh - II Bus,

Green - 2 x 354 MVA SYNCON Connected at 220 kV Fatehgarh – II Bus – 1 & 2)

Fault at 765 kV Fatehgarh – II Bus

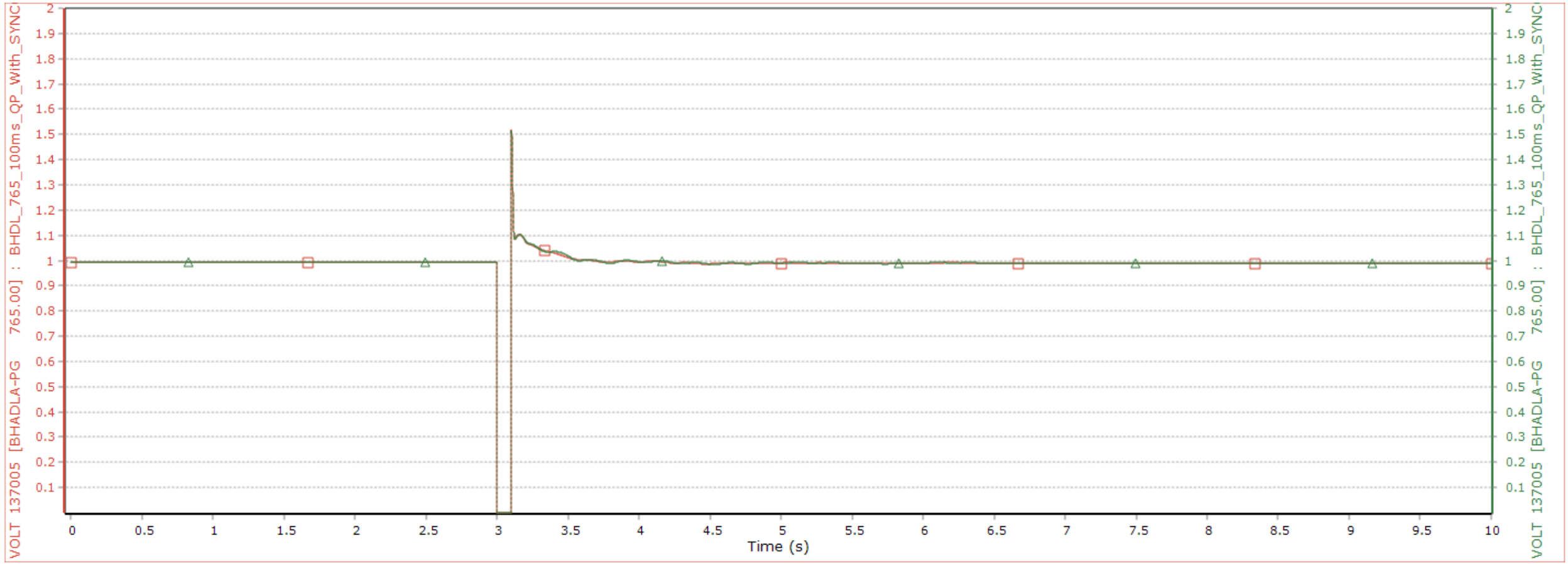
Comparison of SYNCON Performance

S. No.	Description	Time	With SynCons at 400 kV Fatehgarh-II Bus	With SynCons at 220 kV Fatehgarh-II A and B
1	Voltage at 765 kV Fatehgarh-II PG	T = 3.05 sec	0 p.u. (Bolted Fault)	0 p.u. (Bolted Fault)
2	Voltage at 400 kV Fatehgarh-II PG	T = 3.05 sec	0.214 p.u.	0.206 p.u.
3	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.363 p.u	0.41 p.u.
4	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.256 p.u	0.32 p.u.
5	Voltage at 765 kV Fatehgarh-II PG	T = 3.10 sec	1.492 p.u.	1.494 p.u.
6	Voltage at 400 kV Fatehgarh-II PG	T = 3.10 sec	1.521 p.u.	1.519 p.u.
7	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	1.69 p.u.	1.602 p.u.
8	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	1.56 p.u.	1.486 p.u.
9	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	A – 3.5 p.u. B – 3.5 p.u.	A - 2.78 p.u. B – 3.21 p.u.
10	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.10 sec	A – (-) 4.616 p.u. B – (-) 4.616 p.u.	A – (-) 4.30 p.u. B – (-) 4.40 p.u.
11	Response time of SynCons	x	Within one cycle	Within one cycle

Comparison of Dynamic Performance

2. Fault at 765 kV Bhadla Bus

Fault at 765 kV Bhadla Bus

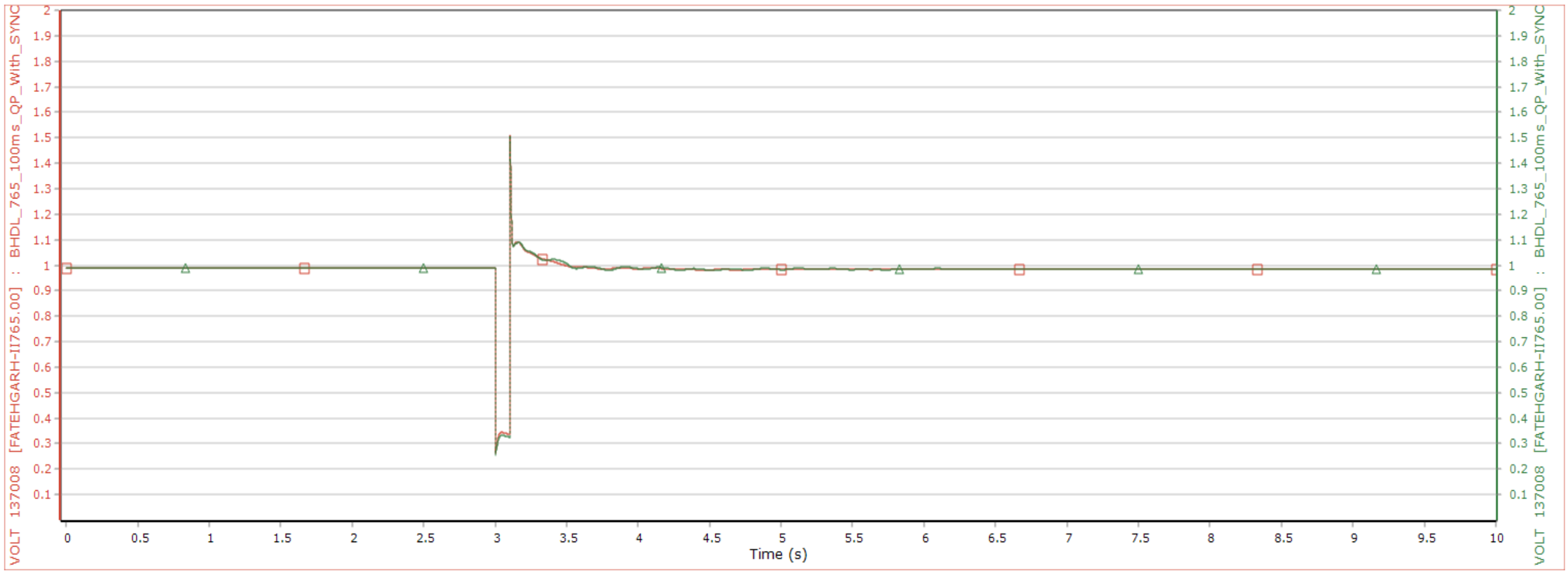


Bus Voltage (in p.u.) of 765 kV Bhadla – PG Bus

(Red – 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh – II Bus,

Green - 2 x 354 MVA SYNCON Connected at 220 kV Fatehgarh – II Bus – 1 & 2)

Fault at 765 kV Bhadla Bus

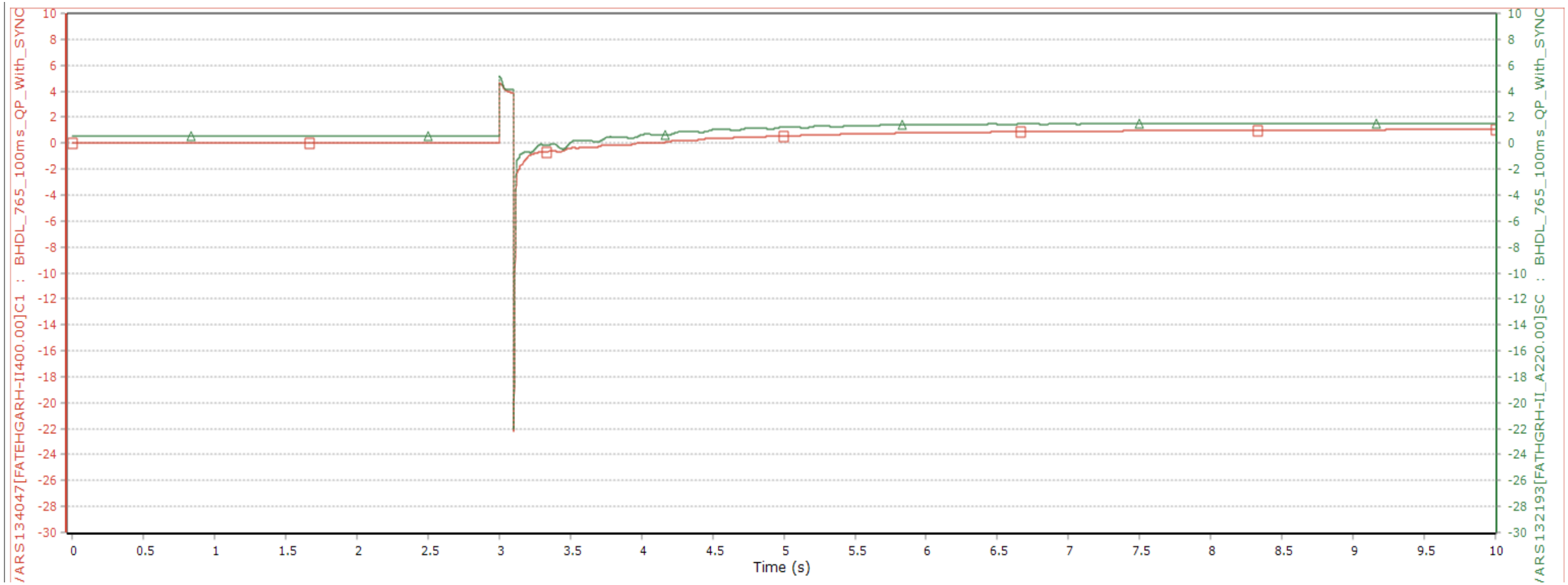


Bus Voltage (in p.u.) of 765 kV Fatehgarh – II - PG Bus

(Red – 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh – II Bus,

Green - 2 x 354 MVA SYNCON Connected at 220 kV Fatehgarh – II Bus – 1 & 2)

Fault at 765 kV Bhadla Bus



Reactive Support in p.u. – 100 MVA base from a SynCon

(Red – 2 x 354 MVA SYNCON Connected at 400 kV Fatehgarh – II Bus,

Green - 2 x 354 MVA SYNCON Connected at 220 kV Fatehgarh – II Bus – 1 & 2)

Fault at 765 kV Bhadla Bus

Comparison of SYNCON Performance

S. No.	Description	Time	With SynCons at 400 kV Fatehgarh-II Bus	With SynCons at 220 kV Fatehgarh-II A and B
1	Voltage at 765 kV Fatehgarh-II PG	T = 3.05 sec	0.344 p.u	0.332 p.u.
2	Voltage at 400 kV Fatehgarh-II PG	T = 3.05 sec	0.472 p.u.	0.453 p.u.
3	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.05 sec	0.572 p.u	0.584 p.u.
4	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.05 sec	0.502 p.u.	0.528 p.u.
5	Voltage at 765 kV Fatehgarh-II PG	T = 3.10 sec	1.512 p.u.	1.506 p.u.
6	Voltage at 400 kV Fatehgarh-II PG	T = 3.10 sec	1.525 p.u.	1.518 p.u.
7	Voltage at 220 kV Fatehgarh-II PG (Bus-A)	T = 3.10 sec	1.643 p.u.	1.546 p.u.
8	Voltage at 220 kV Fatehgarh-II PG (Bus-B)	T = 3.10 sec	1.556 p.u.	1.475 p.u.
9	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.05 sec	A – 2.424 p.u. B – 2.424p.u.	A - 2.01 p.u. B – 2.32 p.u.
10	Reactive Power/Current Support by SynCon-A and B (in p.u. at unity voltage)	T = 3.10 sec	A – (-) 4.109 p.u. B – (-) 4.109p.u.	A – (-) 4.02 p.u. B – (-) 3.54 p.u.
11	Response time of SynCons	x	Within one cycle	Within one cycle

Annexure-IV

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

विषय: Minutes of 3rd Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 07.06.2024 through Video Conference

महोदय/ महोदया,

3rd Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region was held on 07.06.2024 through Video Conferencing. Minutes of the meeting is attached at **Annexure-I** for kind information and necessary action.

This issues with the approval of MS, NRPC.

Signed by Anzum Parwej
Date: 01-07-2024 17:11:18

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

Annexure-I

Minutes of 3rd Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 07.06.2024 through Video Conferencing

At the outset, Member Secretary NRPC welcomed committee members and other participants in the meeting and directed EE, NRPC to proceed with agenda points. EE, NRPC briefed that as per the discussion in previous meeting of committee, CTU has arranged presentation on Synchronous Condensers from M/s Siemens. MS, NRPC requested M/s Siemens to proceed with their presentation. Salient points of the presentation are as under:

a. M/s Siemens use subset of their Generator portfolio for Synchronous Condensers. The ratings may vary as from 25 MVA to 560 MVA as per market need.
b. Bigger the machine, bigger is the capacity to serve short circuit power, Reactive power or inertia requirement for frequency control.
c. Modern trends are growth in renewable generation which is mostly non-synchronous connected via power electronic converters displacing existing conventional generation and HVDC connections are also growing in the power system.
d. Renewables and HVDC require a certain level of short circuit power. Low short circuit power may lead to voltage instability, cause of malfunction of protection system, deteriorated power quality- harmonics, flicker and voltage imbalance. SynCon strengthen the local grid by providing short circuit power.
e. Synchronous Condenser is an AC synchronous machine without a turbine which can generate or absorb reactive power; which can contribute to system inertia and also provide local short circuit power.
f. Under excited region is ~60% of the nominal rating in comparison to overexcited region in the reactive power capability curve of the SynCon due to limitation in reducing excitation current.
g. Synchronous condenser provides, balanced and clean AC voltage source and immediately opposes any voltage fluctuations. It can contribute short circuit power at HV bus 3-5 times of generator rated power.
h. Inertia in the system is provided by spinning mass of directly synchronized electrical machines. Systems with less inertia will be more unstable to a sudden power imbalance.
i. Synchronous condenser contributes to system inertia and immediately opposes any frequency fluctuations. Flywheel can be attached for higher inertia.

2. After the presentation of M/s Siemens, forum was open to questions. NLDC representative asked how much increase in inertia can be realised by use of flywheel. M/s Siemens replied that it depends on rotor dynamics how big flywheel can be coupled with generator.
3. NLDC representative also asked that capability on the inductive side is around 60% of the rated capacity, is there any way to increase the capability on the inductive side. M/s Siemens replied that it is a physical limitation of the machine as the excitation current cannot be decreased beyond a limit as there will be risk of machine losing synchronism.
4. NRLDC representative asked about cooling requirements of synchronous condensers as there are areas where water availability can be an issue or will the hydrogen cooling will be sufficient. M/s Siemens replied that Hydrogen cooling is not preferred but air cooling is preferred for synchronous condensers application. Cooling technology is totally enclosed water to air cooling and closed loop system. Ambient temperatures of 50 degrees Celsius

may not be a problem as higher the temperature, we do not need to trip the machine but it can be derated for the particular time.

5. NRLDC representative asked, in future there may be 6000 MW HVDC system in Rajasthan RE pocket, if that system goes out, then there will be huge voltage fluctuation, then how does SynCon will help in the situation. M/s Siemens replied that if this happens frequency may also be concern, whereas for voltage fluctuation, STATCOM may give faster response than SynCon.
6. NRLDC representative asked that most of the RE generators in Rajasthan are grid following and facing difficulties in riding through the fault and not able to meet compliance some of the time. With the increasing RE penetration, short circuit level will fall and also lot of harmonic injection will happen. As there is no conventional generator nearby and with synchronous condenser, it is possible that it will damp out some of the harmonics and will maintain sine wave and as a result of synchronous condenser support voltage waveform during the fault and after fault, it will be easier for inverter-based generator to ride through the fault. M/s Siemens replied that once the SynCon with high inertia is in the system, the impact of the fault on the grid will decrease although fault ride through is an inbuilt feature of the inverter-based generators. Severity for the FRT goes down with SynCon as during the fault SynCon may inject short circuit current and may help inverter to ride through the fault.
7. CEA representative said that E-STATCOM (STATCOM with energy storage) is also an emerging technology and what is cost comparison with SynCon. M/s Siemens replied that it may not be easy to compare both technologies and may depend on specifications based on actual requirements.
8. NTPC representative asked about compensation mechanism / tariff model for global SynCon installations. M/s Siemens replied that generally Siemens is not involved in tariff models and that is a question for developers however in UK market tariff bidding is based on additional MW-s (inertia).

MS NRPC thanked M/s Siemens and CTU for the Presentations and all other participants in the meeting. MS NRPC informed the committee that a conference on Synchronous Condenser is being organised by M/s Andritz Hydro on 11.06.2024 in NRPC conference room and committee members are invited to join the same. MS NRPC said that with the help of inputs from committee members & OEMs, a draft report will be prepared & circulated among committee members and next meeting may be held in physical mode in July 2024 for further deliberations. The meeting ended with vote of thanks to the Chair.

List of Participants

NRPC

1. Sh. V K Singh, Member Secretary ---- **In Chair**
2. Sh. Anzum Parwej, SE
3. Sh. Ravi Kant, EE

CEA

4. Sh. Kanhaiya Singh Kushwaha, Asst. Director

CTU

5. Sh. V. Thiagarajan, Sr. GM
6. Sh. Kashish Bhambhani, GM

NLDC

7. Sh. Vivek Pandey, Sr. GM
8. Sh. Priyam Jain, Chief Manager
9. Sh. Aman Gautam, Manager

NRLDC

10. Sh. Bikash Kumar Jha, DGM
11. Sh. Gaurav Singh, Chief Manager
12. Sh. Gaurav Malviya, Manager

PSTCL

13. Sh. Nitin Kumar, Sr. XEN/Planning-1
14. Ms. Ranjana, AE/Planning-1

RVPNL

15. Sh. V. A. Kale, SE (P&P)
16. Dr. Om Prakash Mahela, EE (PP&D)

UPPTCL

17. Sh. Sanjeev Kumar Bahsker, SE

NTPC

18. Sh. Pankaj Kumar Gupta, GM
19. Sh. B S Jena, AGM
20. Sh. Suneet Mehta, DGM
21. SH. V R Bitra, DGM

BHEL

22. Sh. Manoj Kumar, AGM,
23. Ms. Asha Gupta, AGM
24. Sh. Vishal Naidu, DGM
25. Sh. Ranajit Dey, Sr. Manager
26. Sh. Dhanunjayudu Nasika

Siemens

27. Sh. Amor Elkamel
28. Sh. Deepak Varma
29. Sh. Nileshwar
30. Sh. Ankit Pandey

Annexure-V

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

विषय: Minutes of 4th Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 30.08.2024 through Video Conference

महोदय/ महोदया,

4th Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region was held on 30.08.2024 through Video Conferencing. Minutes of the meeting is attached at **Annexure-I** for kind information and necessary action.

This issues with the approval of MS, NRPC.

Signed by Anzum Parwej
Date: 17-09-2024 16:28:17

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

Annexure-I

Minutes of 4th Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 30.08.2024 through Video Conference

At the outset, Member Secretary NRPC welcomed committee members and other participants in the meeting and directed EE, NRPC to proceed with agenda points.

2. EE, NRPC briefed that previously three meeting of the committee has been conducted. First meeting of the committee was held on 22.04.2024. In the first meeting, NRLDC and BHEL gave the presentation on SynCon. CTUIL and CEA were requested to carry out system study for requirement of synchronous condenser. Grid India was also requested to study the impact of installing synchronous condenser in present scenario at Fatehgarh-II which has the least SCR in Western Rajasthan RE complex. RRVPNL was requested to explore possibility of utilising Giral TPS and Dholpur TPS for synchronous condenser mode of operation. Second meeting of the committee was held on 31.05.2024. In the second meeting, M/s Hitachi gave the presentation on other technological solutions such as Enhanced- STATCOM & Hybrid SynCon. Grid India presented its study on impact of installing synchronous condenser in present scenario at Fatehgarh-II which has the least SCR in Western Rajasthan RE complex. Third meeting of the committee was held on 07.06.2024. In the third meeting, M/s Siemens gave the presentation on SynCon. In the third meeting of the committee, it was decided to make a draft report and circulate among committee members for their inputs & suggestions. Committee members were asked to provide general as well as specific inputs for the report however certain inputs have been received from NRLDC, NTPC & CTU only. OEM were also asked to provide estimated cost for installation as well as installation time of SynCon and other technological solutions.
3. EE NRPC briefed that CTUIL based on their study provided a list of proposed locations for Synchronous Condenser in Rajasthan and asked CTUIL representative to brief the committee members on the same. CTUIL representative said that suitable location for installation of SynCons in Rajasthan ISTS system which includes low SCR (<5) as well as with no installation of dynamic compensation [to avoid interaction in between STATCOM and SynCons] are considered. Criteria for area selection for installation of SynCon as given by NLDC was also considered. Adequate space should also be available in the identified substation for installations of SynCons. Based on the connectivity grant, SCR, real time grid issues, following tentative locations have been identified for placement of SynCons subject to availability of space at respective station:

S.No.	Pooling Station	Voltage level	Proposed Synchronous condenser rating*	SCR(by 2027) without SynCon	Reason for requirement of SynCon
1	Fatehgarh-I (wind and solar)	400kV	660MVA 2x[+]300/ (-)150MVAr H (natural) =4 s	9.9	Sustained Oscillations on real time basis as observed by Grid-India and radialized connection
2	Fatehgarh-IV PS (Sec-2)	220kV	660MVA 2x[+]300/	4.6(220kV)	Relatively Low SCR

			(-)150MVAr H (natural) = 4 s	6(400kV)	
3	Ramgarh PS	400kV	660MVA 2x[+]300/ (-)150MVAr H (natural) = 4 s	4.9(220kV) 3.4 (400kV)	Low SCR (with STATCOM), however requires extensive evaluation due to control interaction between STATCOM and Syncon
4	Bhadla-III	400kV	660MVA 2x[+]300/ (-)150MVAr H (natural) = 4 s	3.5(220kV) 3.2 (400kV)	Low SCR

Additional requirement of flywheel (with natural inertia of 1000-3000MWs) shall be identified at time of finalization of proposal.

Location of SynCons as close to the generation [220kV] may appear to increase the SCR. However, at the same time at 400kV level its efficacy in supporting the grid will be more. Therefore, a prudent decision for SynCon placement at 220kV or 400kV needs to be taken on case-to-case basis.

4. MS NRPC said that in the first meeting all members agree that there is a need of installation of SynCon in the country and it was thought that initially SynCon may be setup in at a particular location in Rajasthan based on study of CTUIL and CEA. Thereafter, as per requirement of SynCon in the timeline of years 2026, 2028 and 2030 shall be included in the report. If requirement of SynCon is decided by end of 2024, even then the whole process of tendering, awarding, installation and commissioning may take 2 to 3 years. However, CTUIL have given tentative requirement of SynCon by 2027. Therefore, if Committee members agree, Committee shall include requirement of SynCon from 2027, 2028, 2029 & 2030 corresponding to 500 GW non-fossil fuel-based energy capacity. Other technologies like E-STATCOM and Hybrid SynCon are also evolving but as per the mandate of this committee, we will only recommend SynCon of appropriate capacity at existing locations based on study by CTUIL and CEA based on system requirements, since for future/projects under planning stage, required reactive support with appropriate technology is already being considered at the approval/award stage itself.
5. CTUIL representative said that mainly criteria for selection of location for SynCon are substations in which more issues are being faced in real-time and low SCR in future substations. First location Fatehgarh-I is an existing substation and is radially connected to Fatehgarh-II at 400 kV level. Lot of oscillation are observed at Fatehgarh-I and Fatehgarh-II by Grid India. NRLDC did study on Fatehgarh-II but Fatehgarh-II is already having a STATCOM of 600 MVAR and SCR is also improving slowly at Fatehgarh-II. After upcoming connectivity, SCR at Fatehgarh-II may go beyond 5. SynCon at Fatehgarh-I will also help at Fatehgarh-II and it is therefore Fatehgarh-I is chosen over Fatehgarh-II. SynCon at Fatehgarh-I will also help at Fatehgarh-II. CTUIL also requested to do study on Fatehgarh-I to check the response of SynCon to different transients on real-time basis. Other 3 locations Fatehgarh-IV PS (sec-2), Bhadla-III PS and Ramgarh PS are under implementation which will come progressively in

year 2026 timeframe. CTUIL rep. said that full generation is considered based on the connectivity granted by CTUIL. While Fatehgarh-IV (sec-2) may have low SCR at 220 kV level, Ramgarh PS & Bhadla-III PS may have low SCR at both 220kV & 400kV level. Also, Ramgarh PS & Bhadla-III are connected with HVDC system in the radial manner. With the SynCon at this location, it will improve SCR, dynamic compensation as well as help the HVDC system to operate in a reliable manner. These four locations have been presently identified. CTU representative also said that convergence issues are being faced for future timeframe dynamics files for which discussion are being carried out with OEMs/Siemens (PSS/E) & IIT Mumbai. Therefore, a methodology has been adopted to identify optimal location for installation of SynCons in the interim.

6. MS NRPC said that this committee is setup for study and recommendation for setup for SynCon up to 2030. For system requirements, other technologies like STATCOM, E-STATCOM, SVC and Hybrid SynCon are evolving. All technologies have their pros and cons. This committee will only recommend location and capacity of SynCon up to 2030 based on study by CTUIL and CEA based on system requirements.
7. CE PSPA-I (CEA) said that wherever oscillations are observed in the system and SCR is low, committee should recommend SynCon there. In new system transmission system, which is being planned with huge RE zones in Rajasthan and no thermal capacity is in the vicinity, we should recommend new transmission system with STATCOM/SynCon so that STATCOM/SynCon can be made integral part of the system which is bid out. Wherever we are recommending SynCon in existing station, land requirement issue may come up as provisions may have not been kept for future. So whatever new substation we are planning, we can make STATCOM/SynCon as integral part of the transmission system. MS NRPC said that while planning for new transmission system during the approval at NCT level along with transmission line and substation either SynCon or STATCOM or any other technology may also be included at the time of approval of complete transmission system. CE PSPA-I said that STATCOM is already deliberated and approved at the NCT level and in a similar way SynCon can also be taken up.
8. MS NRPC asked BHEL for tentative requirement of Land for 300 MVAR system in Fatehgarh-I. BHEL stated that land requirement was already communicated to CTU and PowerGrid. MS NRPC asked BHEL representative to provide the land requirement of 300 MVAR SynCon to the Committee. BHEL representative confirmed for same. BHEL representative said that this committee should also deliberate how the project will be executed. First installation of SynCon may come only by 2027. Whether it will go as TBCB project or it will go as a pilot project.
9. CTU representative suggested that Pilot project can be taken up at Fatehgarh-I because it is an existing station and rest of the 3 sub-stations are under implementation in which Bhadla-III PS and Ramgarh PS will come first and Fatehgarh-IV PS (sec-2) will come after six months (approx.) after Bhadla-III PS and Ramgarh PS.
10. MS NRPC said if this committee agree for Fatehgarh-I as Pilot project then how the project will be funded or tariff will be recovered. MS NRPC asked view of committee members.
11. Andritz Hydro representative said that in the past, Transmission lines have been bid out as RTM or TBCB mechanism and now we are talking of first SynCon coming in existing substation that we have to see these as standalone elements in the existing system; therefore, we would see bidding process as separate package of SynCon along with auxiliaries. There are two ways for implementation. First is to order SynCon as investment, another way is as we see in Australian market, where there are service providers, and these service providers are the ones who set up the asset, they make all the investment and then

they charge on the basis of per MVAR per month. And in the both scenarios whether there is upfront payment during the construction of the project or both could be rationalised or socialised over the billing charges in that region. So, either full tender may be floated or SynCon as services can be implemented.

12. MS NRPC asked NRLDC whether it can be accommodated in our accounting system. One particular company is awarded L1, that company will be service provider and have to recover the amount in 20 or 25 years. NRLDC said that it is possible through bidding and NLDC has prepared some note which they can elaborate.
13. MS NRPC asked other committee members for suggestions. CE PSPA-I, CEA said that recently a scheme was under bidding and two STATCOMs are bid out under TBCB mechanism. Whatever is being followed for STATCOM, same can be followed for SynCon.
14. Hitachi rep. said instead specifying the machine size, specify by grid requirement at particular node (Short Circuit MVA and Inertia Requirement), to fulfil this OEM will give performance guarantee. Machine design and equipment selection may be left with OEM. NRLDC rep. said whether land requirement should also be mentioned. Hitachi rep. said footprint can be mentioned.
15. NLDC rep. presented a draft note [*subject to approval from NLDC*, attached at Annexure-II] on compensation mechanism for SynCon facilities. Whether the bidding would be combined bidding specifying system requirements like Reactive power, SCR or Inertial requirement or whether it would be a separate bidding for SynCon and STATCOMs because our understanding is that planning committee would decide whether SynCon at any location would be planned or whether STATCOM or any other reactive power compensation device would be planned and accordingly these devices would be bid out. Currently STATCOM at many locations have been planned. Previously, SVCs were also planned in similar manner. We are of understanding that SynCons would also be finalised in planning committee meeting itself instead of specifying generic system strength and inertial requirement and going for technology agnostic bid. In the initial stages, device would be finalised first by planning committee and accordingly bidding for particular device would be carried out. **MS NRPC said that for new transmission system, requirement of SynCon or STATCOM or any other device is already dealt during the planning of the new system. Mandate of this committee is only to see requirement of the SynCon in existing system.**
16. NLDC said regarding compensation for SynCon there can be two methodologies. Either we can consider SynCon as generating asset and then there is two-part tariff like Fixed Charge and Variable Charge. Another method is we can treat SynCon as transmission asset and compensation can be through monthly transmission charges. If we treat as generating asset, then SynCon will work as a reactive power compensation device and that reactive power exchange would depend on the voltage at the node at which it is connected and other settings suggested by the system operator in real-time and if voltages are within limits, then there might be many instances that no substantive reactive power exchanges with the grid would take place and therefore this methodology may need further deliberation. Therefore, we should go for second methodology and treat SynCon as transmission asset. There are suitable provisions in the relevant regulation for the same. The methodology is fairly simple similar to STATCOM, we can treat it as dynamic reactive power compensation device. The bidding can be done in similar manner as STATCOM. The planning requirements would be decided and based on that bidding could be carried out. The compensation mechanism can be kept fairly simple, based on monthly transmission charges that would be computed. As per Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 it is mentioned *"Yearly Transmission Charges for static*

compensators (STATCOMs), static VAR compensators (SVCs), bus reactors, spare transformers, spare reactors and any other transmission element(s) located in the concerned region and identified by the Central Transmission Utility as being critical for providing stability, reliability and resilience in the grid." Based on this clause, SynCon could be considered as transmission asset and compensation would be considered under the regional component and Northern Regional entities would bear the cost for the same and as far as the active power consumption and losses in SynCon are considered, we can refer to IEGC 2023 regulations in which it is mentioned (the clause is currently for IBR) *"…(c) All the Inverter Based Resources (IBRs) covering wind, solar and energy storage shall ensure that they have the necessary capability, as per CEA Connectivity Standards, all the time including non-operating hours and night hours for solar. The active power consumed by these devices for purpose of providing reactive power support, when operating under synchronous condenser/night-mode, shall not be charged under deviations and shall be treated as transmission losses in the ISTS."* ***If we consider both the regulations, the SynCon can be considered as transmission asset and that would make compensation mechanism fairly simple.*** Going forward we can explore other methodologies based on experience from operating these devices. MS NRPC said that as we can see there are provisions regarding tariff recovery and also for compensation losses so this could be one option.

17. NTPC rep. asked, does the developer require a transmission license in case we are treating as SynCon as transmission element. NRLDC rep. said that it will be treated same as STATCOM. STATCOM developers are there in the market. Transmission licensees are owning that STATCOM. In similar way, transmission licensee will be owner of the SynCon and they will recover the cost through yearly tariff mechanism.
18. CE PSPA-I, CEA said that ownership would be decided by which mechanism the SynCon is bid out. If it is bid out through RTM to any utility then that utility will be the owner and if we go through TBCB bidding then whomsoever wins the bid, that utility (TSPs) will be owner. TSPs may further tie up with the developers/OEMs for the project. Andritz Hydro rep. asked who will do the tendering for SynCon. CE PSPA-I told that if the TBCB method is adopted and then tendering process would be carried out by Bid Process Coordinator (BPC). We have two BPC in the country as PFCCL and RECTPCL. MS NRPC said that after finalizing the report, this committee will send the report to CEA as per the mandate of committee with certain recommendations. After submission of report, CEA will examine and may put up for approval at appropriate level, may be at NCT level. After approval of NCT for certain capacity requirement at certain location through TBCB, then it will go for bidding by BPC. If this award goes to any TSP, then the TSP will be the owner. After that TSP will go for tendering. During the tendering process, all the OEMs would be bidding and the award for installation of SynCon may go to L1. MS NRPC asked CTUIL if any further studies required at CTU level for finalising locations as provided by CTUIL.
19. CTUIL rep. said if NRLDC can study at Fatehgarh-I like they have done for Fatehgarh-II then it will be clear if Fatehgarh -I is better choice than Fatehgarh-II or not. For future substation, we took criteria of low SCR as well as vulnerability of HVDC and no STATCOM installation is taken into consideration. But for pilot project, we can take a call for Fatehgarh-I vs Fatehgarh-II. NRLDC rep. said that Fatehgarh-I & Fatehgarh-II are radially connected and line length is also not very long. But carrying out complete studies for Fatehgarh-I will take a lot of time either we can go forward with the current study also and install SynCon at Fatehgarh-II or Fatehgarh-I also as study results will not change significantly as Fatehgarh-I & Fatehgarh-II are closely located. Whatever at Fatehgarh-II is going to affect at Fatehgarh-I whether it is fault level or inertia. So Fatehgarh-II would be better candidate for SynCon

installation. MS NRPC said that study may be carried out for both Fatehgarh-I and Fatehgarh-II and a clear recommendation may be given for first installation. MS NRPC said that NRLDC, NLDC, CTU & CEA may refine the proposal for SynCon installation. Initially, 3 or 4 locations may be recommended. This will be further examined at appropriate level in CEA/CTU. CTUIL may also confirm if land is available at probable locations. BHEL may give land requirement to committee and CTUIL. CTUIL may give refined proposal within fortnight.

20. Siemens rep. said as this will be first SynCon installation we should plan sufficient time as the requirement of SynCon is developed for the first time and there would be lot of issues for which clarifications may be needed. After installation of pilot project, we will be in a better position to see how much we can speed up. Second point is that as Siemens is onboarded in the committee from the fourth meeting, the proceeding of previous three meeting if can be shared, Siemens may provide input accordingly. NRLDC rep. said that minutes of previous meetings can be shared, however w.r.t. regarding tendering process and how much time will take and what methodology will be adopted. These issues may be decided by CEA and at that time OEM can give their comments. This committee can recommend only placement and requirement of SynCon based on CTU/NRLDC/NLDC/CEA study. MS NRPC said that this committee will recommend setup of SynCon in Northern region but requirement of SynCon may be on Pan-India basis. Based on experience in northern region, requirement of SynCon in other locations in the country may be assessed by CEA/CTUIL.
21. NRLDC said that they have taken modelling data based on the available literature and requested that BHEL and other OEM can provide modelling data so that results may be more accurate. CE PSPA-I, CEA asked OEMs if they are ready to provide the modelling data to NRLDC. BHEL said we can sign NDA but we would also be part of complete studies. CE PSPA-I, CEA said that NRLDC have also signed NDA and the studies file cannot be shared although results can be shared and any comments or feedback can be taken to finetune the results. CE PSPA-I, CEA said that if the modelling data is not provided, then we may go ahead with general data with which NRLDC/NLDC have made studies. Hitachi rep. said they have already provided PSSC files to CTU and PowerGrid for their studies and they are ready to help if any need arises.
22. Following points have emerged from the discussion of committee members:
    a. Committee shall recommend a pilot project of appropriate capacity in Rajasthan to be commission in year 2027 based on study of CTUIL, GRID INDIA & CEA.
    b. Committee shall also recommend future locations in the timeframe of Year 2028, 2029 & 2030.
    c. BHEL shall provide land requirement for capacity of 300 MVAR SynCon to Committee and CTU/NRLDC.
    d. OEMs shall provide modelling data to CTUIL/Grid India for study, if they agree.
    e. CTU, NRLDC, NLDC & CEA rep. shall discuss internally and may arrive on consensus on location and capacity of SynCons installation. CTUIL shall send fresh recommendations regarding capacity and location for SynCon for pilot project as well as for future timeframe based on the study by CTUIL/ GRID INDIA along with reasons to committee.
    f. Draft report after incorporation of inputs of CTU as well as other utilities shall be circulated among committee members and OEMs for their feedback.
    g. Report shall be finalised in the next meeting of committee.

MS NRPC said that after the incorporation of recommendation by CTU/NRLDC/NLDC in report, we may once again circulate the report among committee members and OEMs for inputs/suggestions.

MS NRPC thanked committee members and all other participants in the meeting. The meeting ended with vote of thanks to the Chair.

List of Participants

NRPC

1. Sh. V K Singh, Member Secretary ---- **In Chair**
2. Sh. Anzum Parwej, SE
3. Sh. Ravi Kant, EE

CEA

4. Sh. Ishan Sharan, CE
5. Sh. Kanhaiya Singh Kushwaha, Asst. Director

CTU

6. Sh. V. Thiagarajan, Sr. GM
7. Sh. Sandeep Kumawat

NLDC

8. Sh. Vivek Pandey, Sr. GM
9. Sh. Priyam Jain, Chief Manager
10. Sh. Aman Gautam, Manager

NRLDC

11. Sh. Bikash Kumar Jha, DGM
12. Sh. Gaurav Singh, Chief Manager
13. Sh. Gaurav Malviya, Manager

PSTCL

14. Sh. Nitin Kumar, Sr. XEN/Planning-1
15. Ms. Ranjana, AE/Planning-1

RVPNL

16. Sh. V. A. Kale, SE (P&P)
17. Dr. Om Prakash Mahela, EE (PP&D)

UPPTCL

18. Sh. Sanjeev Kumar Bahsker, SE

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19. Sh. Pankaj Kumar Gupta, GM
20. Sh. B S Jena, AGM
21. Sh. Suneet Mehta, DGM
22. SH. V R Bitra, DGM

BHEL

23. Sh. Manoj Kumar, AGM,
24. Ms. Asha Gupta, AGM
25. Sh. Vishal Naidu, DGM
26. Sh. Ranajit Dey, Sr. Manager
27. Sh. Dhanunjayudu Nasika

Special Invitee

Siemens

28. Sh. Ankit Pandey

Andritz Hydro

29. Sh. Avinash Thakur

Hitachi

30. Sh. P. Giridharan

Proposed Compensation Mechanism for Synchronous Condenser Facilities

Synchronous condensers are rotating dynamic reactive power compensation devices, primarily engaged in reactive power exchange with the grid. The exchange of active power by these devices is minimal, limited to covering active power losses.

Accordingly, the following compensation mechanisms for a synchronous condenser facility can be considered:

a) **Classification as an active power generating unit:** Implementing a two-part tariff (Fixed and Variable charges). Variable charges could be based on the reactive power exchanged with the grid.
b) **Classification as a transmission asset:** Compensating through monthly transmission charges.

The reactive power exchange of a synchronous condenser is dependent on the grid voltage. If the voltage remains within permissible limits, there might be extended periods of no reactive exchange of the SynCon with the grid. Therefore, the first compensation mechanism which is based on reactive power exchange may not be suitable at this stage and shall be explored in future after gaining sufficient experience of operation of these devices in the grid.

Given these considerations, synchronous condensers could be classified as transmission assets, with cost recovery through monthly transmission charges (regional component). The following clause from the CERC ISTS Transmission Charges regulation also supports this compensation mechanism:

Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020

Components and sharing of Regional Component (RC), Clause 6, 1 (b)

"Yearly Transmission Charges for static compensators (STATCOMs), static VAR compensators (SVCs), bus reactors, spare transformers, spare reactors and ***any other transmission element(s)*** *located in the concerned region and* ***identified by the Central Transmission Utility as being critical for providing stability, reliability and resilience in the grid****.*

Provided that where separate Yearly Transmission Charges are not available in respect of specific transmission elements, the Yearly Transmission Charges for such transmission elements shall be worked out and provided by the Central Transmission Utility, apportioning Yearly Transmission Charges approved by the Commission for the integrated project, based on indicative capital cost."

Additionally, it is proposed that the active power consumed by a Synchronous Condenser be treated as transmission losses within the ISTS and not be charged under deviations. The following clause in the CERC Indian Electricity Grid Code, 2023 regulation supports this proposal:

Reactive Power Management

39 (11) Any commercial settlement for reactive power shall be governed as per the regulatory framework specified in ***Annexure–4*** *until the same is separately notified as part of the CERC Ancillary Services Regulations.*

where Annexure-4 specifies that:

Proposed Compensation Mechanism for Synchronous Condenser Facilities

> *"…(c) All the Inverter Based Resources (IBRs) covering wind, solar and energy storage shall ensure that they have the necessary capability, as per CEA Connectivity Standards, all the time including non-operating hours and night hours for solar.* ***The active power consumed by these devices for purpose of providing reactive power support, when operating under synchronous condenser/night-mode, shall not be charged under deviations and shall be treated as transmission losses in the ISTS****."*

Classifying synchronous condensers as transmission assets would also align their bidding and compensation methodology with other similar technologies, such as STATCOMs and SVCs, thereby ensuring uniformity across different technologies.

It is also suggested that the availability computation of SynCon shall be on similar lines as specified for STATCOM in relevant regulations notified by respective commissions from time to time. The weightage factor shall be considered on pro-rata basis i.e. ratio of maximum available capacity / rated capacity of SynCon.

In future, the compensation mechanism for dynamic reactive power compensation devices shall also factor in their performance in real-time.

Annexure-VI

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

विषय: Minutes of 5th and final meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 10.12.2024 through Video Conference- reg.

महोदय/ महोदया,

5th and final meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region was held on 10.12.2024 through Video Conference. Minutes of the meeting is attached for kind information and necessary action.

This issues with the approval of MS, NRPC.

Signed by Anzum Parwej
Date: 17-12-2024 12:34:37

(अंजुम परवेज)
अधीक्षण अभियंता (प्रणाली अध्ययन)

To:

All Committee Members (Through Email)

OEMs (Through Email)

Copy for information to:

1. PSO to Member Secretary, NRPC

Minutes of 5th Meeting of the Committee to do futuristic analysis for requirement of Synchronous Condensers based on inertia considerations for Northern Region held on 10.12.2024 through Video Conference

At the outset, Member Secretary (MS) NRPC welcomed committee members and OEMs present in the meeting. List of participants attached at Annexure-I.

MS, NRPC stated that in the previous meeting, it was discussed that a draft report will be circulated between the committee members for their final comments and inputs and the report of committee shall be finalised in next meeting of committee. Comments from NRLDC, NLDC, M/s Andritz Hydro & M/s Hitachi have been received. MS, NRPC further stated that the report will be discussed chapter wise and if committee members have any further comments in the meeting, committee can discuss and appropriately incorporate in the report. MS NRPC directed EE, NRPC to proceed and show committee report chapter by chapter.

2. EE, NRPC presented the report chapter by chapter in the meeting. CTUIL representative made an observation that in the executive summary of report there should be brief conclusion of the report also. Committee members agreed to include a brief conclusion of report in executive summary. Comments by NRLDC/NLDC & M/s Andritz Hydro were generally agreed in principle by committee members barring few comments for which inputs were sought from committee members within 2-3 days. M/s Hitachi comments on the report were discussed however most of comments were mainly focusing on E-STATCOM.
3. RVPNL representative also said that state prospective should also be included in the report. MS NRPC requested to provide the input from RVPNL on state prospective within 2-3 days so that it can be appropriately included in report.

MS NRPC said that on receipt of such inputs, committee report shall be finalised and presented in the upcoming NRPC meeting and thereafter shall be submitted to CEA. MS NRPC thanked committee members and all other participants in the meeting.

The meeting ended with vote of thanks to the Chair.

*****

Annexure-I

List of Participants

NRPC

1. Sh. V K Singh, Member Secretary ---- **In Chair**
2. Sh. Anzum Parwej, SE
3. Sh. Ravi Kant, EE

CEA

4. Sh. Ishan Sharan
5. Sh. Kanhaiya Singh Kushwaha, Asst. Director

CTUIL

6. Sh. V. Thiagarajan, Sr. GM
7. Sh. Kashish Bhambhani, GM
8. Sh. Sandeep Kumawat, DGM

NLDC

9. Sh. Priyam Jain, Chief Manager

NRLDC

10. Sh. Bikash Kumar Jha, DGM
11. Sh. Gaurav Singh, Chief Manager
12. Sh. Gaurav Malviya, Manager

PSTCL

13. Sh. Nitin Kumar, Sr. XEN/Planning-1
14. Ms. Ranjana, AE/Planning-1

RVPNL

15. Sh. V. A. Kale, SE (P&P)
16. Dr. Om Prakash Mahela, EE (PP&D)

NTPC

17. Sh. Suneet Mehta, DGM
18. SH. V R Bitra, DGM

BHEL

19. Sh. Manoj Kumar, AGM,
20. Ms. Asha Gupta, AGM
21. Sh. Vishal Naidu, DGM
22. Sh. Ranajit Dey, Sr. Manager
23. Sh. Dhanunjayudu Nasika

Special Invitee

Siemens

24. Sh. Ankit Pandey

Andritz Hydro

25. Sh. Avinash Thakur

Hitachi

26. Sh. P. Giridharan

Annexure-VII

सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
तापीय परियोजना नवीनीकरण एवं आधुनिकीकरण प्रभाग
Thermal Project Renovation & Modernization Division

No.: CEA-TH-14-24/5/2022-TRM Division/235-335 Dated 20.01.2023

विषय: Renovation and Modernisation (R&M) of aged coal-fired Thermal Power Stations (TPS) - reg.

The Govt. of India is striving to provide affordable electricity on 24x7 basis to common citizen. However, the country is witnessing huge energy demand post pandemic which is projected to surge at all-time high in coming summer of 2023 and beyond. Therefore, the role of thermal fleets including old thermal units becomes crucial in order to support renewable integration.

Hon'ble minister in the meeting held on 06.12.2022 (**copy enclosed**) advised not to retire any thermal units and urged for carrying out R&M for life extension and improve the flexibility and reliability of thermal units considering the expected demand scenario and availability of capacity in future. It may be noted that about 15-16 GW of new thermal capacity is expected by December 2023. Accordingly, R&M for life extension is to be considered after December 2023. However, RLA and other pre-R&M/LE related preparatory works may be taken up in the meantime.

Therefore, it is advised to all power utilities not to retire any thermal units till 2030 and ensure the availability of units after carrying out R&M activities, if required.

बी मलिक 20/01/2022

(B C Mallick) / (बी सी मलिक)
CE (TPRM) / सीई (टीपीआरएम)

To:

As per the list.

Copy for information:

1. Secretary (Power), MoP
2. Chairperson, CEA
3. Member (Thermal), CEA

To:

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3. The Chairman & Managing Director, PSPCL, The Mall, Patiala-147001 (FAX – 0175-2213199, Email: cmd.pspcl@gmail.com
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90. CMD/MD, NTPC SAIL Power Company Ltd. (NSPCL), NBCC Tower, 15, 4th Floor, Bhikaji Cama Place, New Delhi
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सत्यमेव जयते

No. 11/3/2022-Th-I
Government of India
Ministry of Power

Shram Shakti Bhawan, Rafi Marg,
New Delhi, dated 23th December, 2022

OFFICE MEMORANDUM

Sub: Minutes of the Meeting held under the Chairmanship of Hon'ble Minister of Power & NRE on 06.12.2022 at 03:30 PM to discuss Life Extension (LE) and Renovation and Modernization (R&M) of Coal Based Thermal Power Plants - Reg.

The undersigned is directed to forward herewith a copy of Minutes of the Meeting held under the Chairmanship of Hon'ble Minister of Power & NRE on **06.12.2022 at 03:30** PM at 2nd Floor, Shram Shakti Bhawan, Rafi Marg, New Delhi to discuss Life Extension (LE) and Renovation and Modernization (R&M) of Coal Based Thermal Power Plants.

Encl: As above

(Sunil Kumar Sah)
Under Secretary to the Government of India
Telefax: 23719710

To:

1. Chairman, CEA
2. CMD, NTPC Ltd.

Copy for information to:

PS to Hon'ble Miniser of Power & NRE /PS to Hon'ble MoS (Power & HI)/Sr. PPS to Secretary (P)/PPS to JS (Th)/ PS to Dir (Th), Ministry of Power

(Sunil Kumar Sah)
Under Secretary to the Government of India

Minutes of the meeting held under the Chairmanship of Hon'ble Minister of Power & NRE on 06.12.2022 to discuss Life Extension (LE) and Renovation and Modernization (R&M) of Coal Based Thermal Power Plants

List of Participants is given at **Annexure**.

2. At the outset, Secretary (Power) welcomed all the participants and apprised the agenda of the meeting. It was informed that Renovation & Modernization (R&M) is an important but neglected area. Various states are going for retirement and subsequent repurposing of their plants instead of opting for R&M in more efficient manner.

3. CMD, NTPC briefed about the R&M experience of GSECL's Wanakbori Thermal Power Station and NTPC's Ramagundam TPS.

4. Considering the expected demand scenario and availability of the capacity, Hon'ble Minister instructed not to retire any thermal Unit and urged to carry out R&M for life extension and improve the flexibility and reliability of the Units.

5. CEA made a presentation explaining objectives and guiding principles of R&M emphasizing that priority should be given to R&M and LE. It was agreed that CEA will take up with States and other Utilities for revisiting their plans for retirement/ re-purposing of thermal Units, if any.

6. Secretary (Power) asked CEA to prepare a scheme for LE and R&M and a phasing plan for the R&M of Units.

7. It was discussed that 15-16 GW of new thermal capacity is expected by December 2023. Accordingly, R&M for life extension is to be considered after December 2023. However, RLA and other pre-R&M / LE-related preparatory works are to be taken up.

8. Hon'ble Minister asked CEA to review the off-bar capacity Utility wise and take measures for bringing them on-bar.

The meeting ended with a vote of thanks to all the participants.

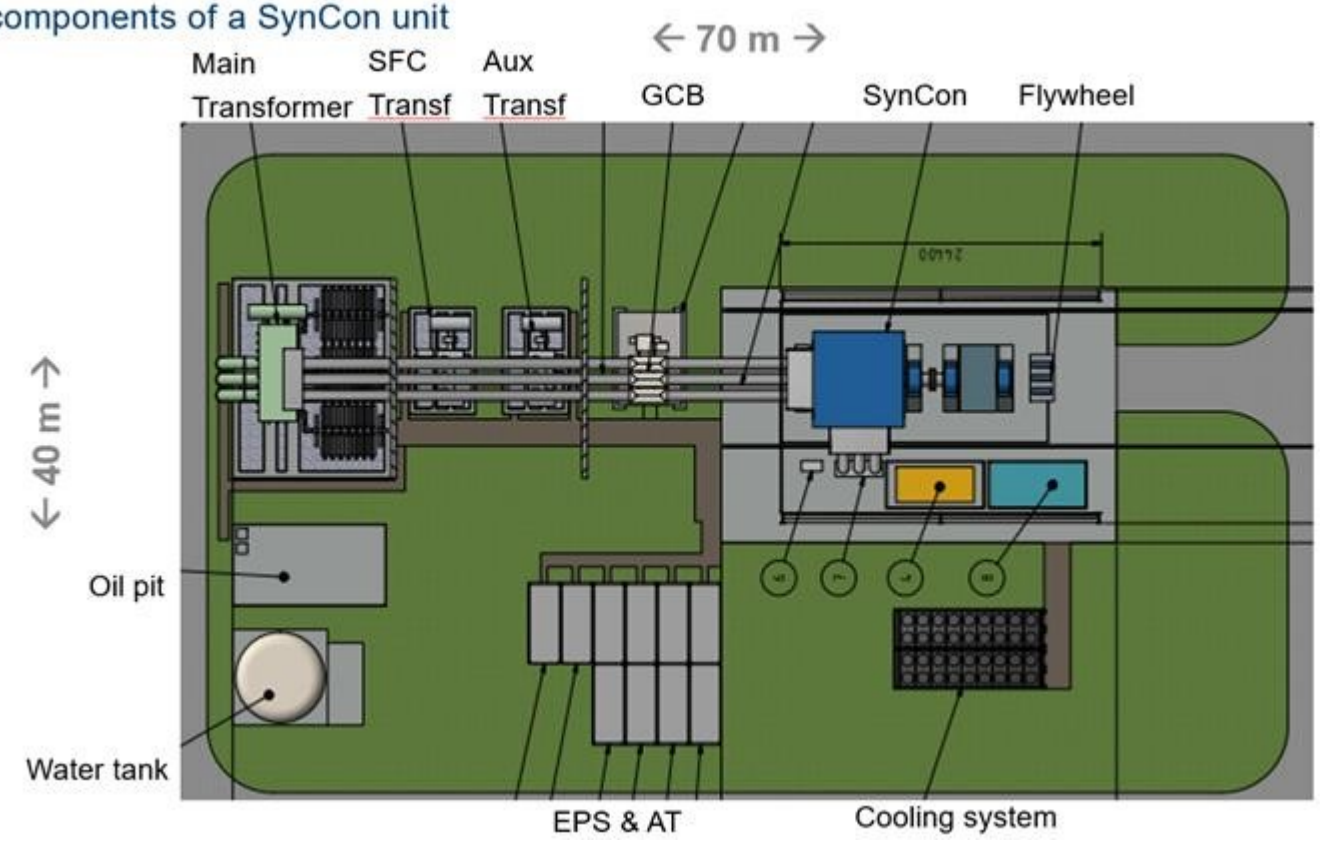
***

Annexure

List of Participants in the Meeting held under the Chairmanship of Hon'ble Minister of Power & NRE on 06.12.2022 to discuss Life Extension (LE) and Renovation and Modernization (R&M) of Coal Based Thermal Power Plants.

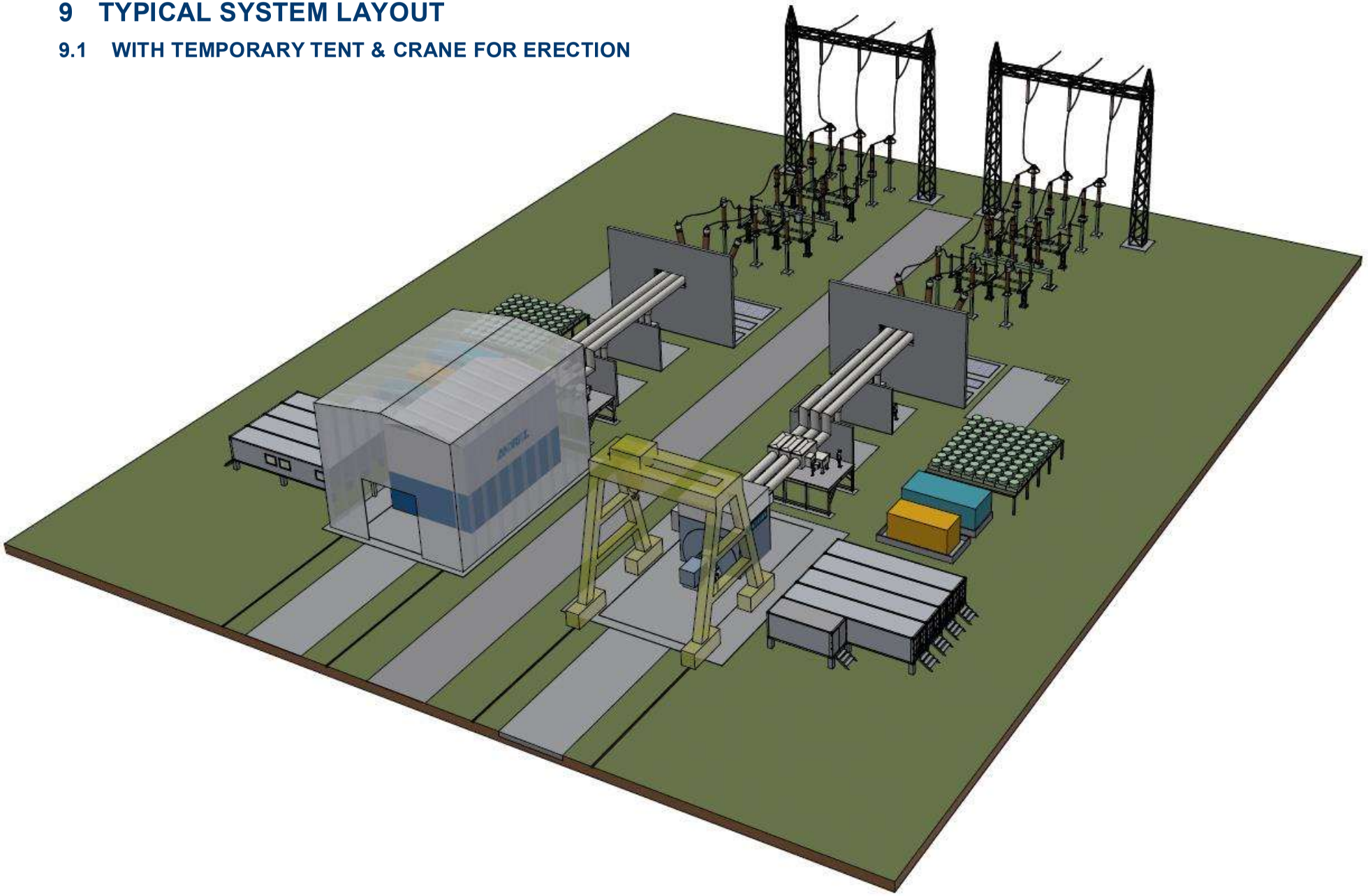
S. No	Name	Designation
Ministry of Power		
1	Shri Alok Kumar	Secretary
2	Shri Piyush Singh	Joint Secretary (Thermal)
3	Shri Satish Kumar	Director (Thermal)
4	Shri Sunil Kumar Sah	Under Secretary (Thermal)
CEA		
5	Shri Praveen Gupta	Member (Thermal)
6	Shri B C Mallick	Chief Engineer, TPR&M
7	Shri Pravir Kumar	Director, TPR&M
8	Shri Surender Kumar	Dy. Director, TPR&M
NTPC Ltd		
9	Shri Gurdeep Singh	CMD
10	Shri U K Bhattacharya	Director (Projects)
11	Shri Ramesh Babu	Director (Operations)
12	Shri M K Shrivastava	Executive Director (Engineering)
13	Shri A P Samal	General Manager
14	Shri Soumyajit Mukherjee	Addl General Manager
15	Shri Santosh Kumar V	Deputy General Manager

Main components of a SynCon unit

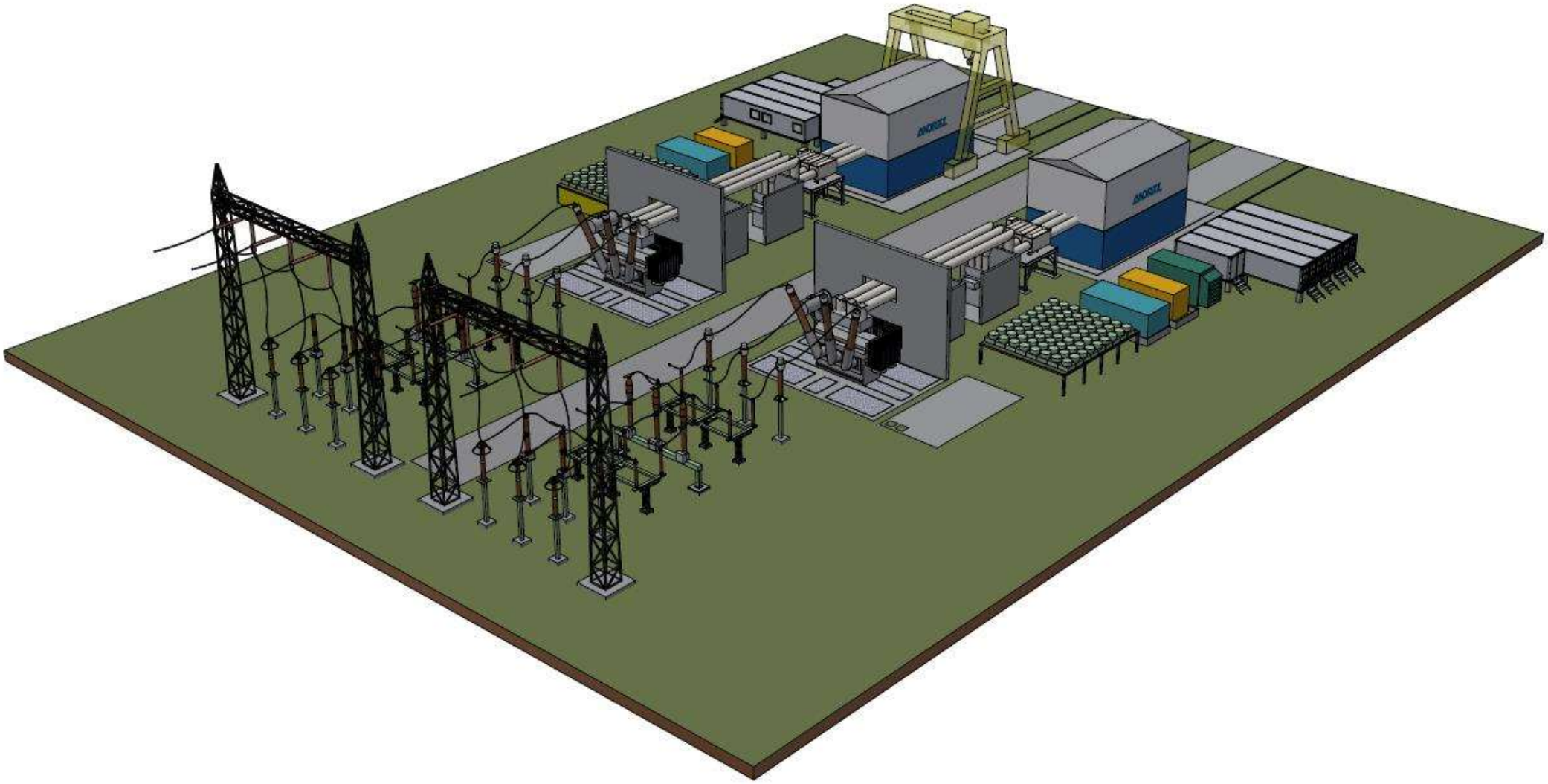


9 TYPICAL SYSTEM LAYOUT

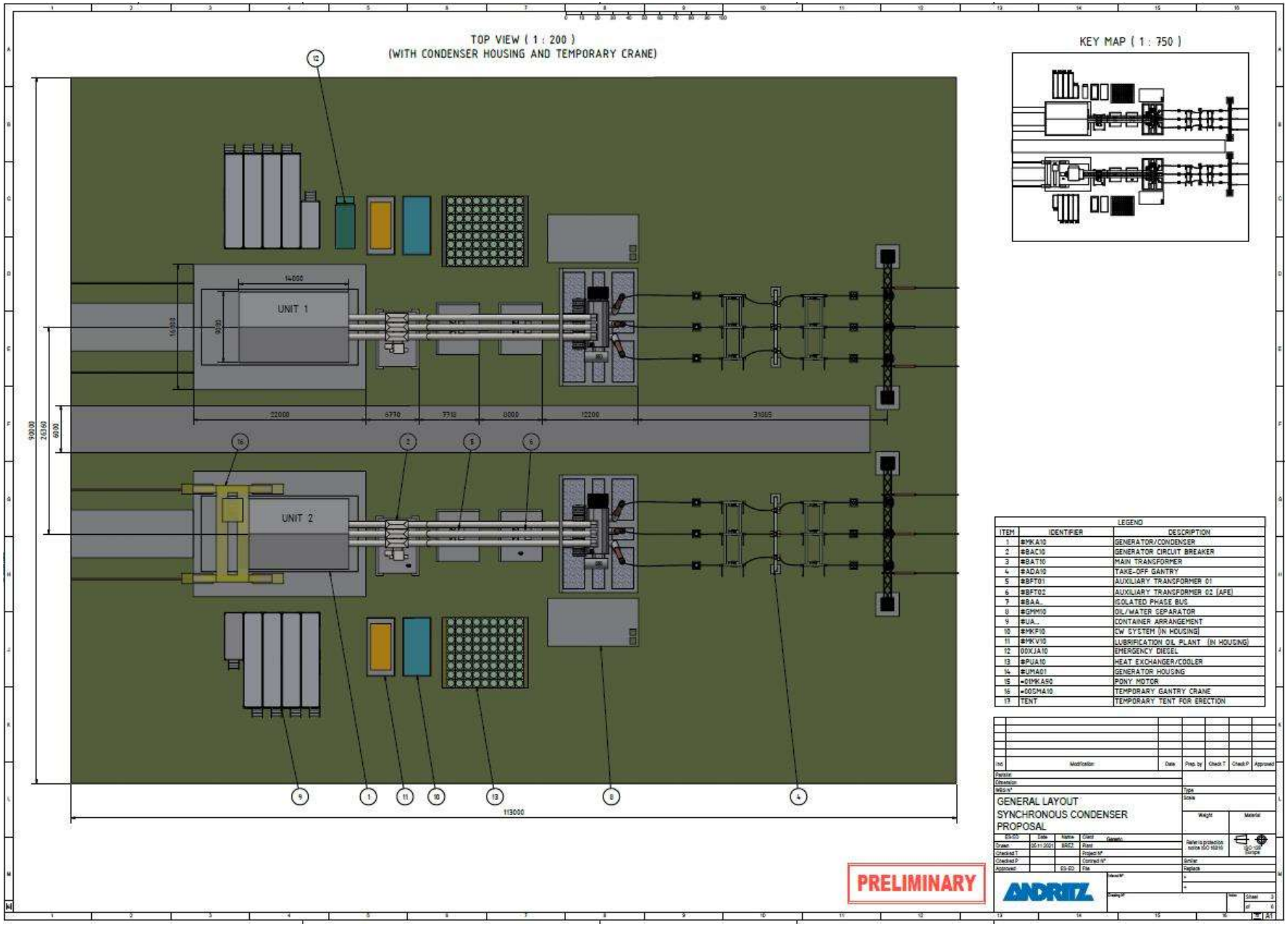
9.1 WITH TEMPORARY TENT & CRANE FOR ERECTION



9.2 WITH SYNCON HOUSING AND TEMPORARY CRANE



9.3 TOP VIEW


TOP VIEW (1 : 200)
(WITH CONDENSER HOUSING AND TEMPORARY CRANE)
KEY MAP (1 : 750)
UNIT 1
UNIT 2
14000
22000
6730
7318
8000
12200
31065
113000
LEGEND
ITEM | IDENTIFIER | DESCRIPTION
1 | #MKA10 | GENERATOR/CONDENSER
2 | #BAC10 | GENERATOR CIRCUIT BREAKER
3 | #BAT10 | MAIN TRANSFORMER
4 | #ADA10 | TAKE-OFF GANTRY
5 | #BFT01 | AUXILIARY TRANSFORMER 01
6 | #BFT02 | AUXILIARY TRANSFORMER 02 (AFE)
7 | #BAA.. | ISOLATED PHASE BUS
8 | #GMM10 | OIL/WATER SEPARATOR
9 | #UA.. | CONTAINER ARRANGEMENT
10 | #MKF10 | CW SYSTEM (IN HOUSING)
11 | #MKV10 | LUBRIFICATION OIL PLANT (IN HOUSING)
12 | 00KJA10 | EMERGENCY DIESEL
13 | #PUA10 | HEAT EXCHANGER/COOLER
14 | #UMA01 | GENERATOR HOUSING
15 | =00MKA90 | PONY MOTOR
16 | =00SMA10 | TEMPORARY GANTRY CRANE
17 | TENT | TEMPORARY TENT FOR ERECTION
GENERAL LAYOUT
SYNCHRONOUS CONDENSER
PROPOSAL
PRELIMINARY
ANDRITZ

Annexure-V

Final Standard Operating Procedure (SoP) for Communication System Outage Planning

1. As per the following CEA and CERC Regulations, the Communication Outage for the Region shall be carried out by RPC Secretariat:
   a) Regulation 7.3 of Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017 stipulates as below:

   Quote:

   7.3 Role of National Power Committee (NPC) and Regional Power Committee (RPC):

   ……

   (iv) The RPC Secretariat shall be responsible for outage planning for communication system in its region. RPC Secretariat shall process outage planning such that uninterrupted communication system is ensured.

   ……

   Unquote

   b) Regulation 10 Central Electricity Authority (Technical Standards for Communication System in Power System Operations) Regulations, 2020 notified on 27.02.2020 envisages as below:

   Quote:

   Your text here 1

   10. Outage Planning: Monthly outage shall be planned and got approved by the owner of communication equipment in the concerned regional power committee, as per detailed procedure finalized by the respective regional power committee.

   Unquote

2. A Communication System Outage Planning Sub-Group/ TeST Sub Committee shall be formed in each region constituting the members from all the entities connected to ISTS including all CGS, ISGS, REGs/SPPDs/SPDs, STUs, SLDCs etc., of the respective Region, RLDC/Grid-India, PGCIL, CTUIL, Private Transmission licensees in respective region & RPC secretariat. The sub-group/ Sub Committee may co-opt any other member from any organization for facilitating the activities of the sub-group/ Sub Committee.

3. Communication System Outage Planning will be limited to the following systems:
   (i) ISTS Communication System including ISGS
   (ii) Intra-state Communication System being utilized for ISTS Communication
   (iii) ICCP links between Main & Backup RLDCs, Main & Backup SLDCs & Main & Backup NLDCs.
   (iv) Inter-regional AGC links.

(v) Any other system agreed by the sub-group.

4. Communication Equipment/link within the scope of the Procedure would include :

   (i) Optic Fibre links
   (ii) Any other link being used for ISTS communication
   (iii) ICCP links between Main & Backup RLDCs, Main & Backup SLDCs & Main & Backup NLDC
   (iv) VC links between LDCs
   (v) Inter-regional AGC links
   (vi) SPS Links
   (vii) Tele-Protection
   (viii) AMR
   (ix) PMU
   (x) SDH & PDH
   (xi) DCPC
   (xii) RTU & its CMU cards
   (xiii) DTPCs
   (xiv) Battery Banks and Charging Equipment
   (xv) EPABX
   (xvi) Any other equipment/link agreed by the sub-group

5. A Web Portal named as "Communication System Outage Planning Portal" shall be developed by respective RLDCs. Log-in credentials shall be provided to all the ISTS connected entities/concerned entities.

6. Entities/Users/Owners shall add their communication links and the equipment to the Web Portal as soon as they are commissioned. The same has to be furnished to RPC Secretariat /RLDCs.

7. Entities/Users/Owners of the communication equipment shall upload the outage proposals of communication links and the equipment (in the prescribed format only) to be availed during subsequent month by 7th/8th of every month in the Web Portal.

8. RPC Secretariat consolidates the list of outage proposals received from various Entities/Users/Owners of the communication links and equipment by downloading from the Web portal and circulate the same among all the respective region entities by 15th of every month. Communication outages affecting other regions would be coordinated by respective RLDC through NLDC.

9. Communication System Outage Planning (CSOP) meeting shall be conducted during the third week of every month normally (preferably through VC) to discuss and approve the proposed outages of communication links and equipment.

10. The approved outages of Communication links and equipment in the CSOP meeting shall be published in the RPC website and respective RPCs Communication Outage Portal within 3 days from the date of CSOP meeting.

11. Outage of the approved communication links and equipment shall be availed by the respective owner /entities after confirming the same with RLDC on D-3 basis.
12. In case of any emergency outage requirement of communication links and equipment, Entities/Users/Owners may directly apply to respective RLDC with intimation to respective RPCs on D-2 basis. Confirmation of approval/rejection will be provided on D-1 basis by RLDCs in consultation with respective RPCs considering 24hrs processing window.
13. Entities/Users/Owners shall take the code from the respective RLDC before availing the planned outage of the communication links & equipment and before restoration of the same.
14. Entities/Users/Owners of the communication links and equipment shall submit the deviation report for the approved outages (approved dates & approved period) availed during the previous month and the report on planned / forced / other outage of communication links / equipment by 10th of the month to RPC Secretariat as per the format at **Annexure-I** .
15. In the monthly CSOP meetings, communication links and equipment whose outage duration (Planned / Forced / Others) more than 48 hours for the last 12 months of rolling period shall be deliberated for the measures to be taken in future for the better outage management. The date deviations and non-availing the outages that were approved in the previous CSOP meetings shall also be deliberated in the CSOP meetings.

Note: The manual for implementation of Communication System Outage Planning through web portal received from SRPC is attached at **Annexure-II** for ready reference.

***

Annexure: DCOA-I

Outage Deviation Report : List of outages of Communication Links, availed / deviated during the month of June, 2021

Dated :

A Details of Communication Links (Point to Point) availed :

SL	Name of Requesting Agency	Description of Link	Source	Destination	Channel Routing	Ownership	Reason for availing outage with the details of equipment attended	Approved Start Date : Time [dd-mm-yy<>hh:mm]	Approved End Date : Time [dd-mm-yy<>hh:mm]	Approved Outage Hours	Outage availed Start Date : Time [dd-mm-yy<>hh:mm]	Outage availed End Date : Time [dd-mm-yy<>hh:mm]	Total hours of outage availed now	Deviation ? (Y/N)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	**Example**	Back up Control Center (BCC) : Data	KAYATHAR 230 kV SS	MADURAI LDC	Data will be availble throu	TANTRANSCO	Shifting of FODB panel at Kayathar 230 KV SS	10-Mar-2021 09:00	10-Mar-2021 18:00	**09:00**	10-Mar-2021 14:07	10-Mar-2021 17:30	**03:23**	**N**

Annexure: DCOA-II

Outage Deviation Report : List of outages of Communication Equipment availed / deviated during the month of June, 2021

Dated : **00:00**

B Details of Communication Equipment availed :

SL	Name of Requesting Agency	Name of the communication equipment	Location of the Equipment / Name of Station	Name of the Link/Channel/Path / directions affected	Alternate Channel/Path available ? (Furnish details)	Ownership	Reason for availing outage with the details of faults	Approved Start Date : Time [dd-mm-yy<>hh:mm]	Approved End Date : Time [dd-mm-yy<>hh:mm]	Approved Outage Hours	Outage availed Start Date : Time [dd-mm-yy<>hh:mm]	Outage availed End Date : Time[dd-mm-yy<>hh:mm]	Total hours of outage availed now	Deviation ? (Y/N)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	**Example**	DC Charger -2, Amararaja, 48v	Edamon	Nil	Nil	KSEBL	Monthly maintenance. No interruption as alternate chargers available	16-Mar-21, 11:00	16-Mar-21, 16:00	**05:00**	16-Mar-21, 10:30	16-Mar-21, 16:00	**05:30**	**Y**

COMSR

MANUAL-2023

ग्रिड-इंडिया
GRID-INDIA

PREPARED BY

SRLDC, GRID-INDIA

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1. Need for Communication Outage Portal?

In line with the requirements for outage planning of communication equipment as per CERC Communication System for Inter State Transmission of Electricity Regulations 2017, SRPC has devised a procedure for Outage planning for Communication system in Southern Region available at the website of Southern Regional Power Committee (SRPC) (https://www.srpc.kar.nic.in/website/2020/communication/com_outg_proc.pdf) and attached as **Annex-I**. As per the "Procedure on Outage Planning for Communication System -SR", monthly meetings are being conducted with participation of Nodal Officers from users, SLDCs, SRLDC, SRPC & CTU. These meetings are conducted to discuss and approve/reschedule / dispose of the proposed list of outages pertaining to communication links / equipment scheduled for the next month. In order to provide a seamless experience for applying and availing communication outages and monitoring availed outage timelines, SRLDC has developed a web portal which is used to register communication equipment/links, configure outage proposals for already registered equipment/links, view deviations between approved outage timelines and actual outage timelines .The web portal facilitates entering observations/remarks by RLDC/RPC on any outage proposal with the facility to concur/deny the proposal by SRPC.

2. COMSR (Communication Equipment Outage Coordination Meeting - SR) Outage Portal:

The web portal is accessible through the following URL: https://srcom.srldc.in/login

2.1. Login Page:

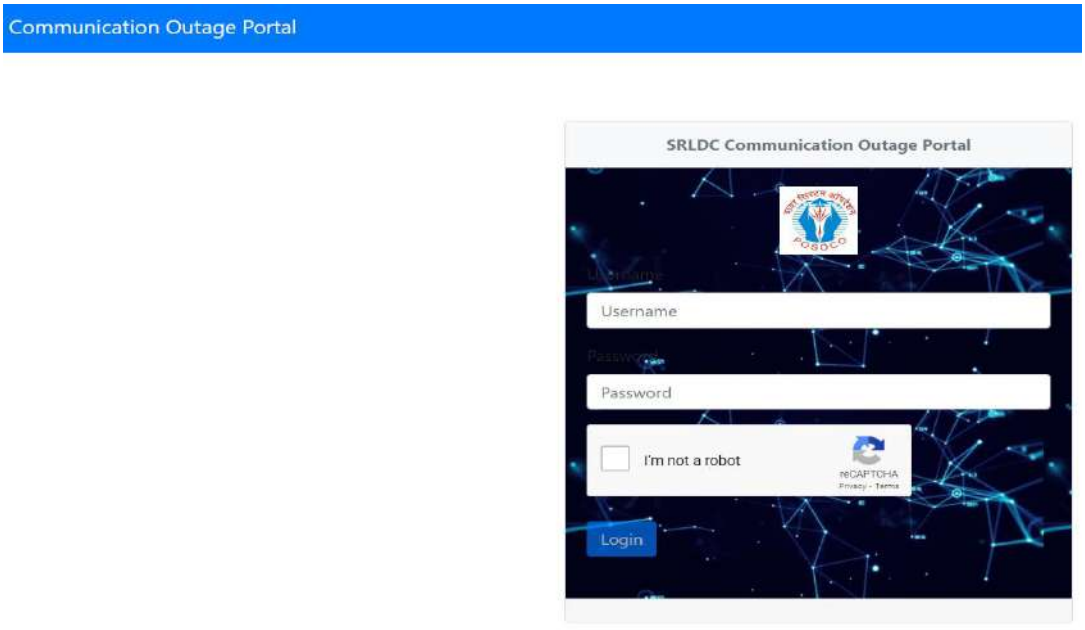


Figure 1 COMSR Portal Login Page

- User name & initial password are created and shared by web admin (SRLDC).
- Note: Password Change can be enforced after first time login.

2.2. Roles defined in the Communication outage portal

1. **Administrator (RPC)**
2. **Supervisor (RLDC)**
3. **User**
4. **Operator**

The administrator role is assigned to the respective RPC. Supervisor Role is assigned to the respective RLDC. User Role is assigned to each entity/utility, who can apply for outages. Operator Role is assigned to real time shift operators at RLDC.

- Only Administrator can approve/deny the proposed outages. Supervisor can provide remarks against each proposed outage and do necessary configuration and maintenance of web-portal front end and Db for smooth functioning of the entire process.
- Operator can view the portal for list of approved outages and issue codes for availing outages
- User can apply for the outages proposed for the next month and once the outage is approved, the respective user can view the approval details under their account login . User can also apply for emergency outages. User can also update the actual time duration (Start time, End time) of each outage availed.

2.3. Main Tabs in COMSR Portal:

- **Meetings**
- **Links**
- **Equipment**
- **COA1(Link) -** Communication Outage Approval for Communication Links
- **COD1(Link) -** Communication Outage Deviation for Communication Links
- **COA2(Equipment)-** Communication Outage Approval for Communication Equipment
- **COD2(Equipment) -** Communication Outage Deviation for Communication Equipment
- **Rolling Report- 12 Months Outage Time > 48hours**
    - **COD3- Communication Outage Rolling 12 Months Deviation – Links**
    - **COD4-Communication Outage Rolling 12 Months Deviation - Equipment**

Note:
1. Formats for COA1, COA2, COD1, COD2, COD3 & COD4 have been finalized by SRPC.
2. All Reports can be downloaded from the web portal in Excel Format

2.4. Meetings Tab

Figure 2 below shows the Meeting summary Page, where details for upcoming monthly meeting can be configured with a unique meeting number for each meeting. The details configured include opening and closing dates for receipt of applications for

communication links/equipment outages proposed for next month (M+1month outages proposed in timelines defined in Mth month).

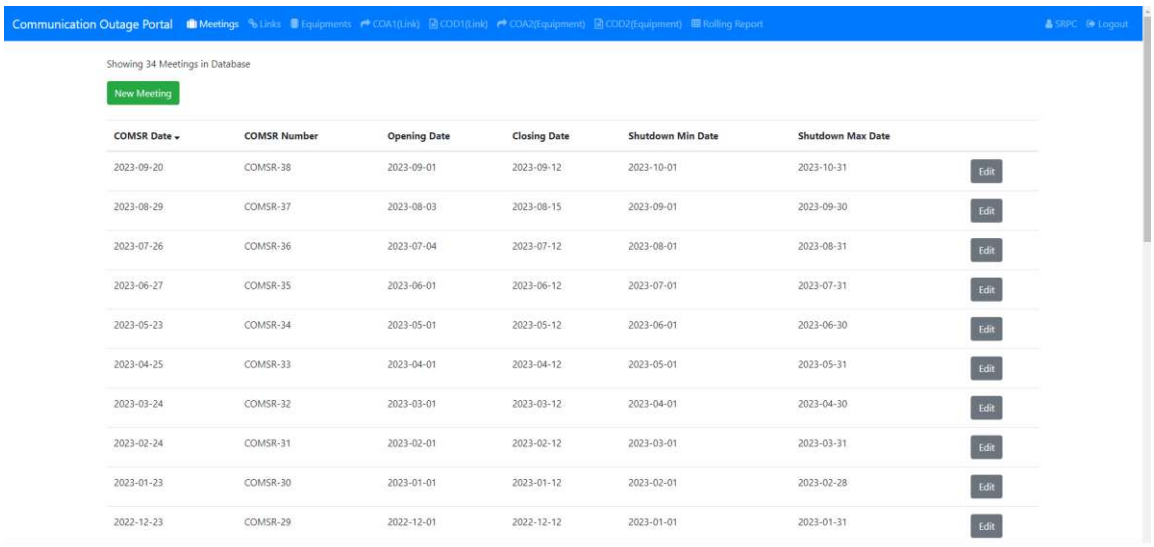


Figure 2 Meeting summary Page

A sample meeting creation page screen in shown in Figure 3 below:

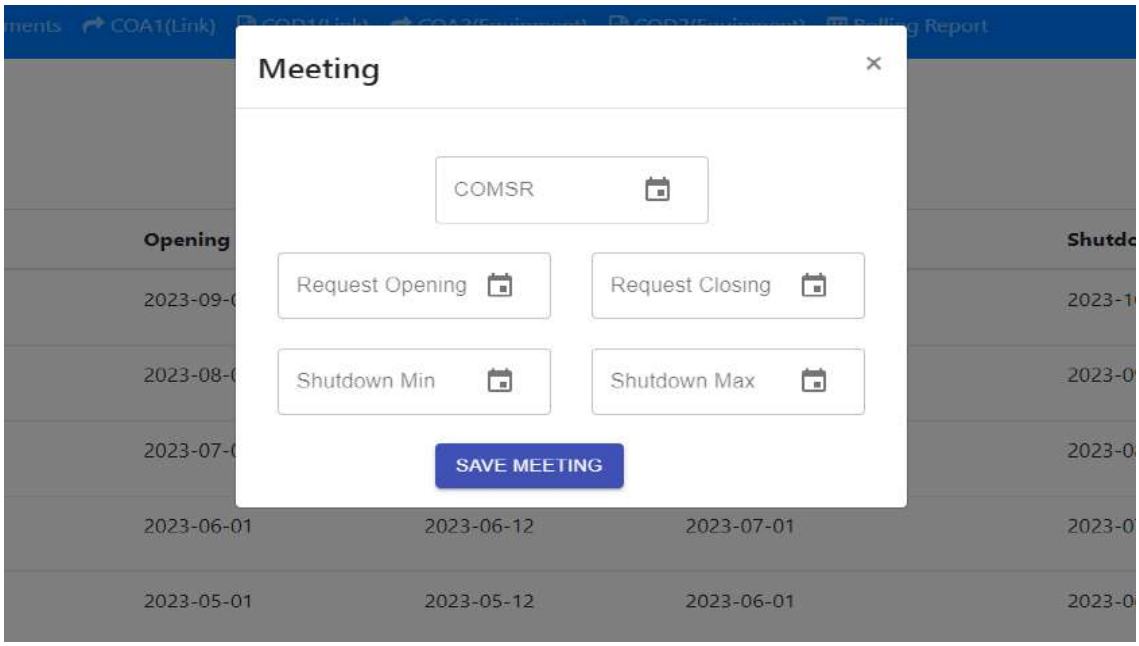


Figure 3 New Meeting Creation Page

All options available on this webpage are customisable and presently the meeting creation option is automated with default Opening and Closing dates for proposed outages as 1st and 12th of the current month.

2.5. Work Flow for availing communication outages:

RPC (Administrator Login) configures the upcoming COMSR Meeting details in the web portal through manual/automated mode and intimation for the next meeting is sent to all stakeholders through e-mail.

2.5.1. Planned Outages:

- User can apply planned outages for the M+1 month by furnishing various details during current month (M) window (planned outages to be submitted between defined timelines---*opening and closing date* as shown in Figure 3 above) and the applied outage details intimation are sent automatically through mail to RLDC and RPC by the portal itself.
- User can edit their applied outages till end of c*losing date* of requests for M+1 Month.
- RLDC can provide observations for the proposed outages.
- RPC consolidates the list of outage proposals received from various Users/Owners and releases the list around mid of the M^{th} month for outages proposed for M +1 month.
- On the meeting date, the proposed outages are deliberated, and RPC approves, revises or rejects the applied outages as per the outcome of discussions.
- Facility has been provided in the portal for RPC to change/defer (approval/rejection) of approved requests till D-1 day (D being the day of availing outage).
- User need to intimate RLDC about availing approved outages(confirmation) before D-3 through email (D being the date of availing outage).
- A consolidated view of day-wise approved outages is available under Operator Login. The facility has been made available to enable Grid Operators to issue unique codes to the concerned user seeking equipment/link outage on the day of outage.

Detailed flowcharts covering activities involved in creating a meeting instance on web portal, entering of planned outages by Users, provision for entering review/observations by RLDC/RPCs, discussions on proposed outages in monthly meeting, approval/denial of proposed outages, availing of outages on the proposed dates, computing deviations between actual outage timeline with proposed timeline and preparation of Rolling Window for outages for last 12 months are depicted in figures 4 and 5 below.

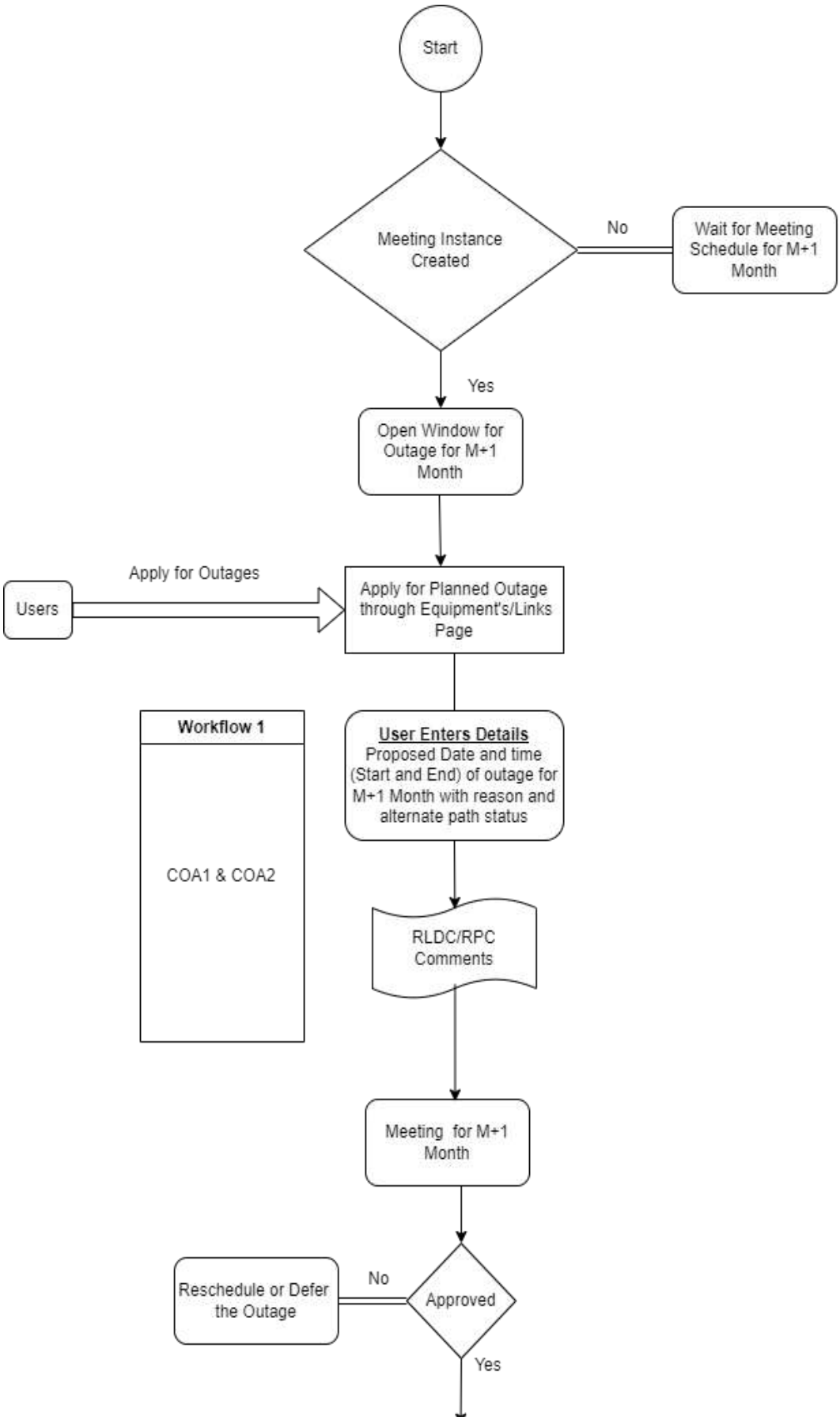


Figure 4 Flowchart for Planned Outage processing through web portal

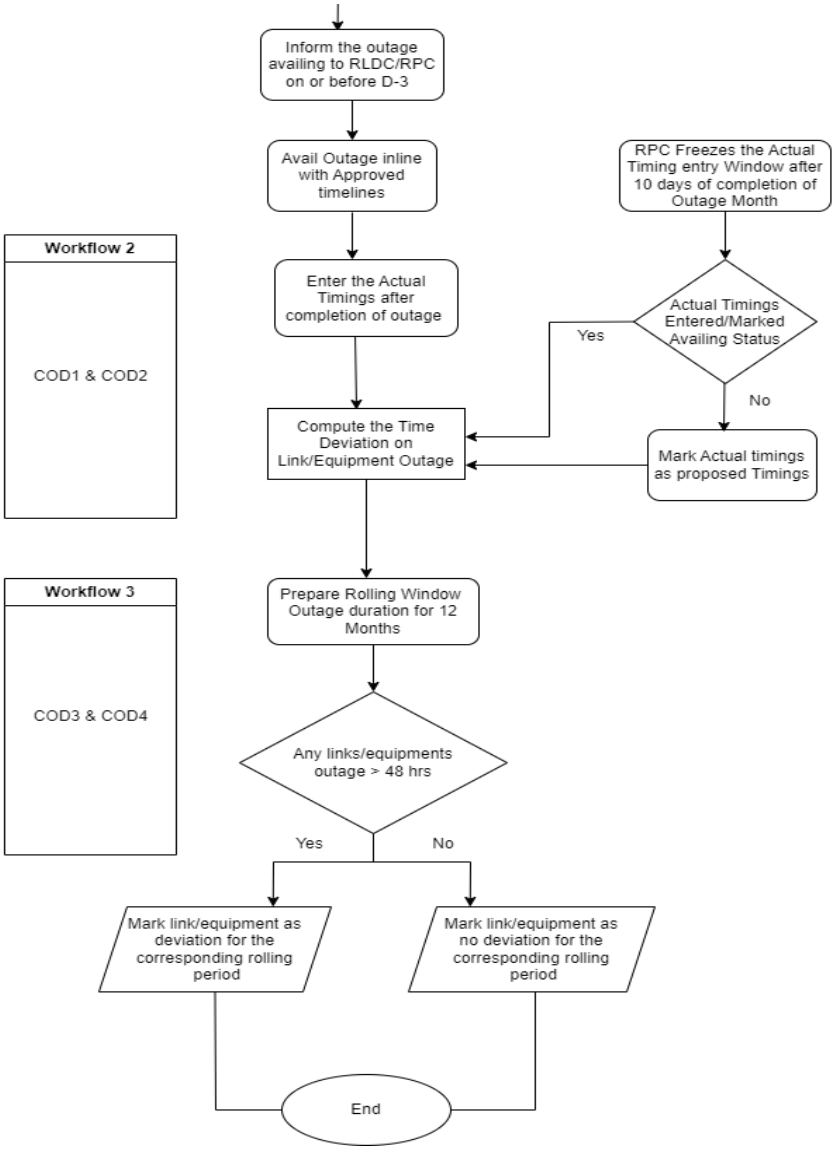


Figure 5 Flowchart for availing approved outages and entering deviations between approved/actual outage timelines through web portal

2.5.2. Emergency & Forced Outages:

- User can apply Emergency outages for D Day on D-1 Day i.e1 Day before the proposed outage. The details of applied Emergency Outage will be sent to registered email ids of RLDC and RPC for concurrence.
- User can submit details for Forced outages availed for links/equipment in previous Month (M-1) till 12th of the current Month(M). The details of reported Forced Outages will be sent to registered email ids of RLDC and RPC.

Flowchart covering various activities involved in application and approval of emergency outages is depicted in Figure 6 below.

Flowchart covering various activities involved in reporting of forced outages and its inclusion in 12 months rolling report is depicted in Figure 7 below.

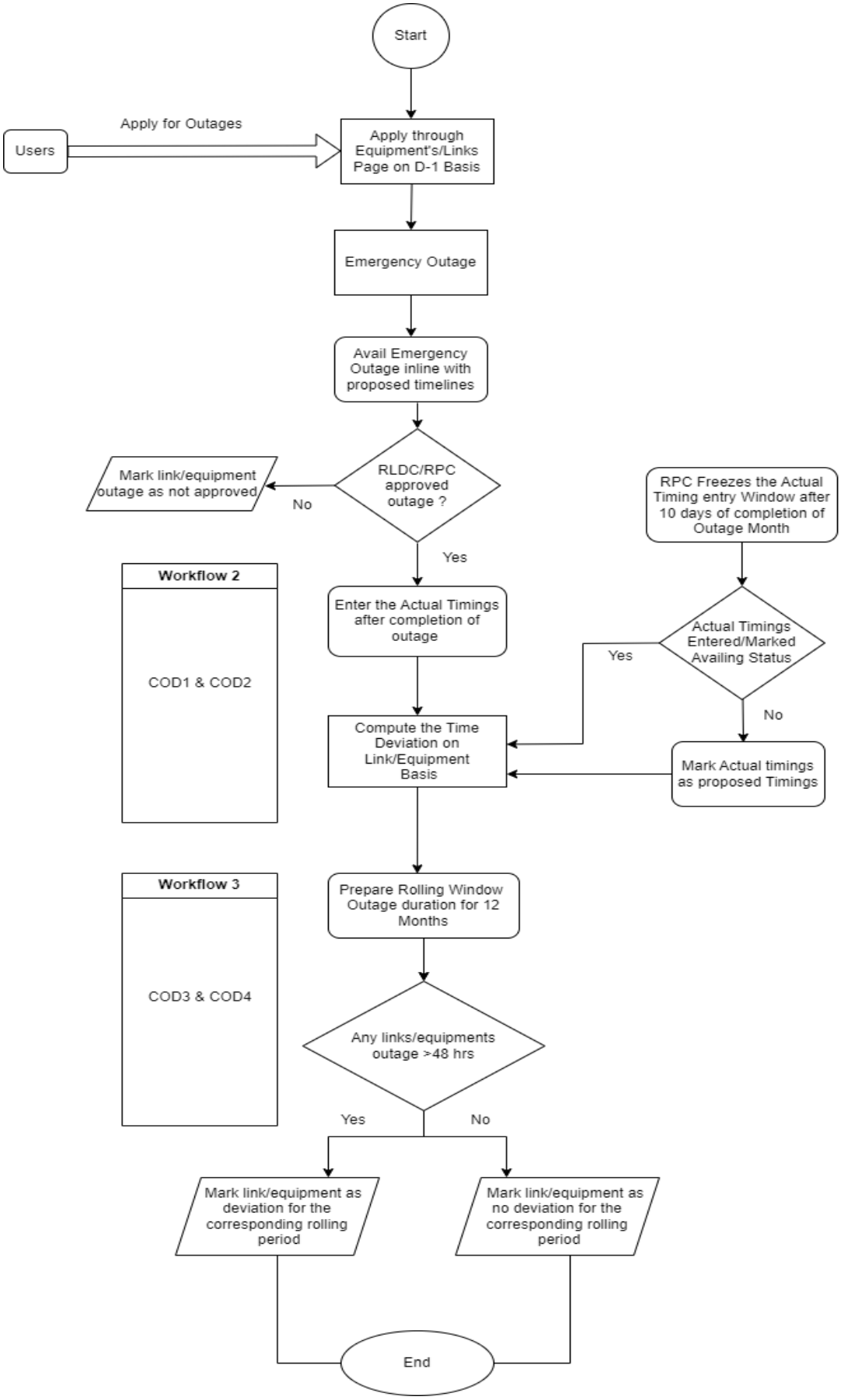


Figure 6 Emergency Outage Workflow

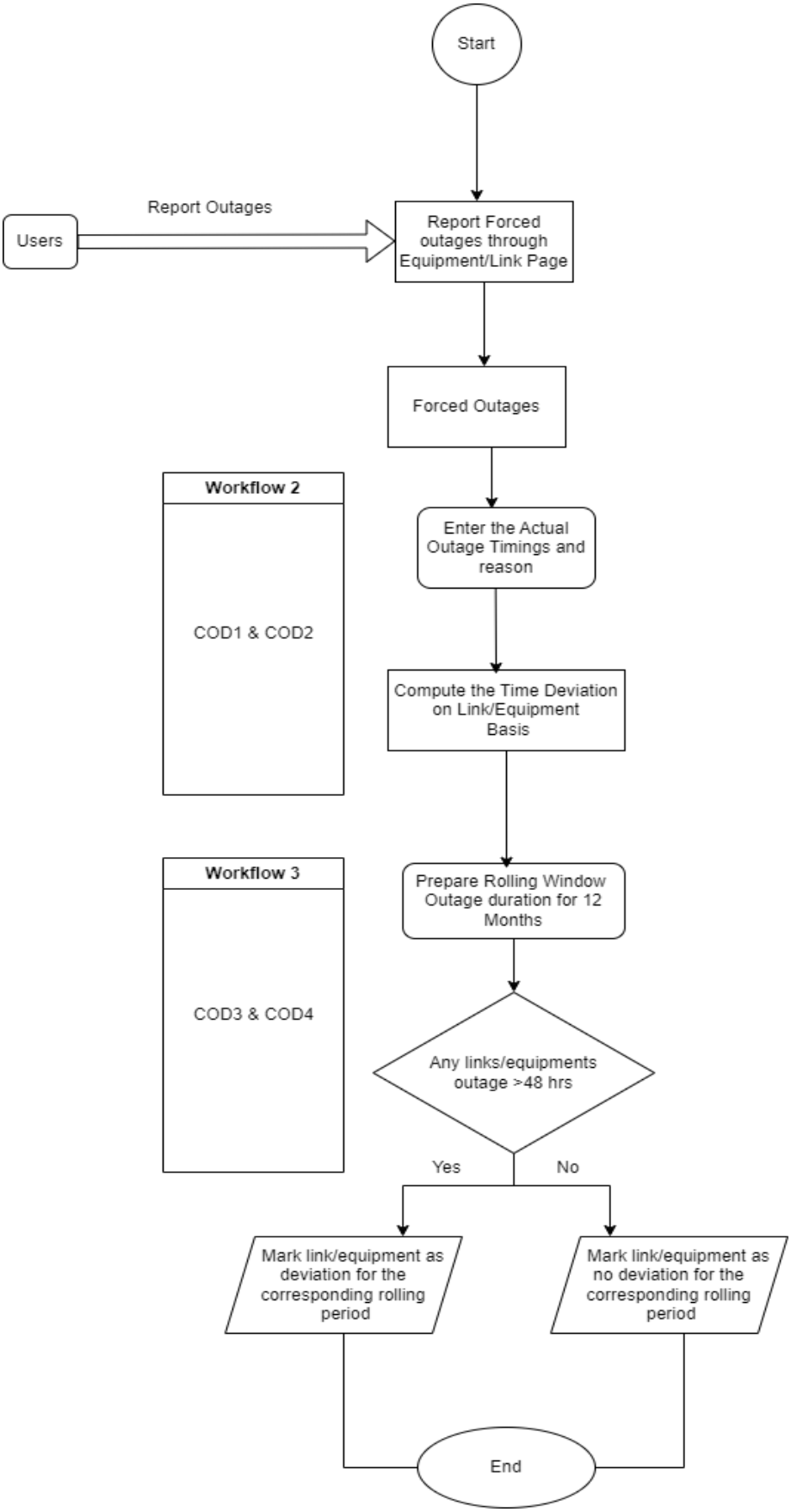


Figure 7 Forced Outage Workflow

2.6. Adding new/modified Equipment/Link to the portal database:

- Under the **Equipment** Tab, provision is there for User to add new/modified equipment details and request RPC/RLDC for addition/updating of the equipment in COMSR Database through "Request to Add new Equipment to Database option". Screenshot of the "Create New Equipment" widget is shown in Figure 8 below.

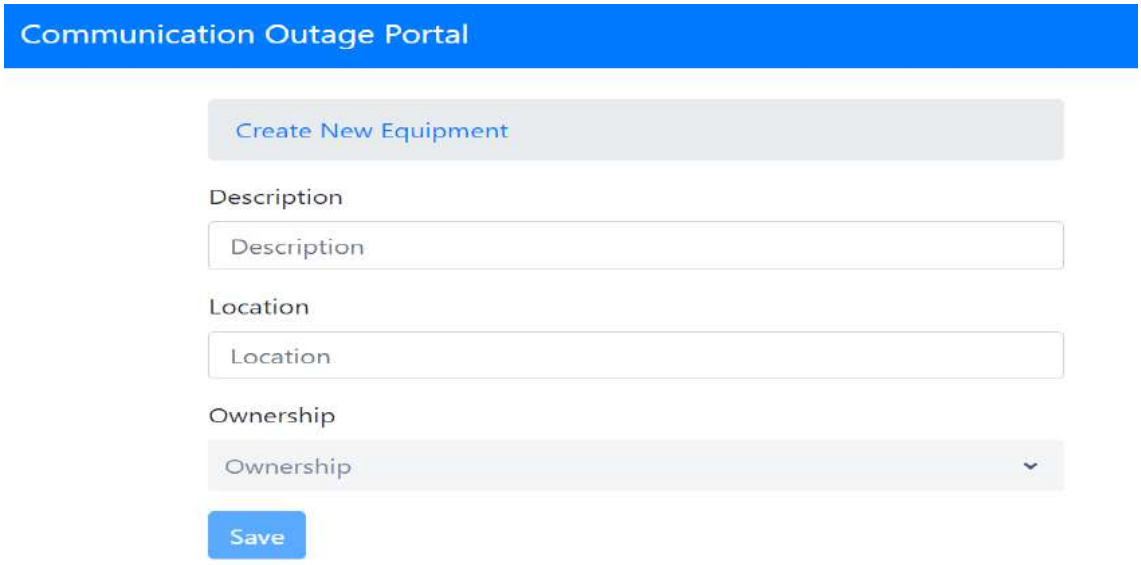


Figure 8 Create new Equipment Request screen

Similarly, any new/modified Communication Channel (links) can be added through the **Links** Tab by User and User can further request RPC/RLDC for approval of addition of the same in Communication outage portal database, Screenshot of the "Create New Link" widget is shown in Figure 9 below.

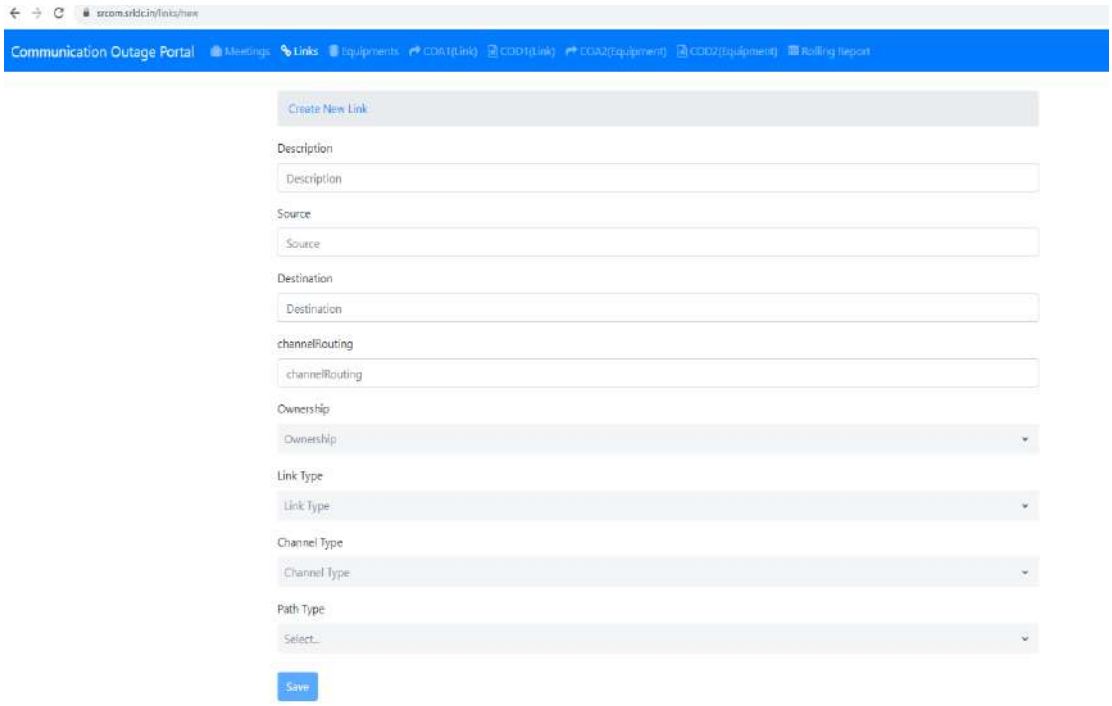


Figure 9 Create the communication Channel screen

Workflow depicting activities involved in adding new/modified Equipment/Link to the portal database is depicted below (Figure 10).

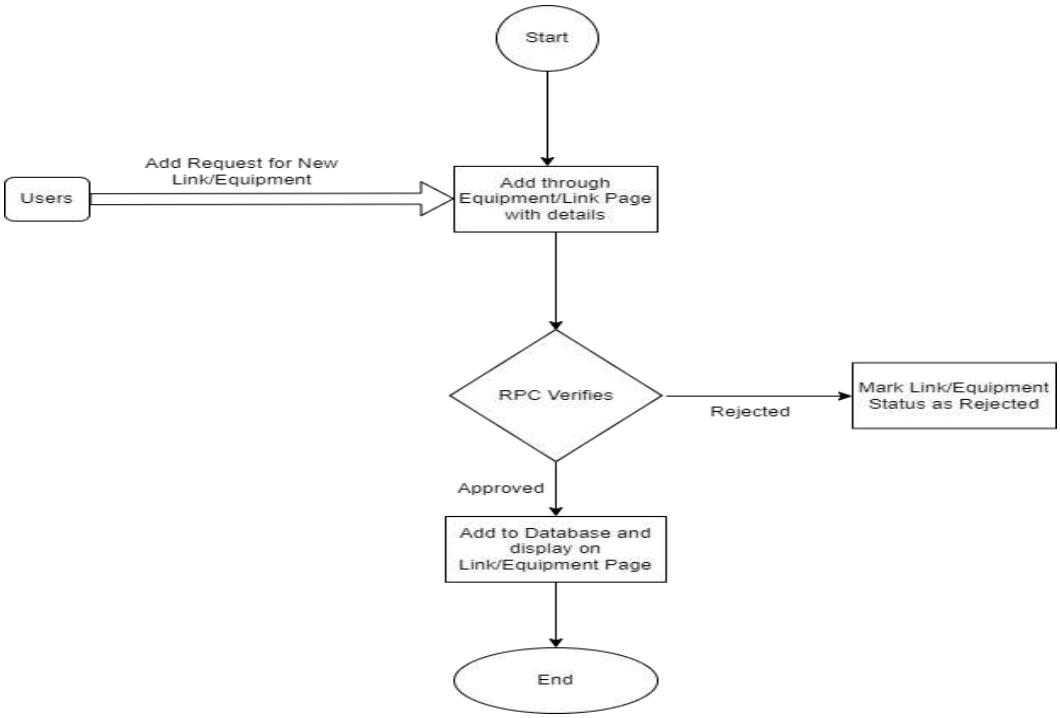


Figure 10 Adding New Links/Equipment's Workflow

Once a user requests for the addition/modification of the communication equipment or links, the request is forwarded to RPC for approval. Screenshot of widget showing the pending equipment/link approval of respective RPC/RLDC sample view is shown in Figure 11 below.

Figure 11 Pending Approval Widget for equipment's

- RPC/RLDC can add/update the Communication outage portal database with equipment/links proposed by users through **Equipment** tab on the web portal which contains a widget for **Pending Equipment to be added to Database** or through **Links** tab on the web portal with a widget for **Pending Links to be added to Database.**

2.7. Links Tab

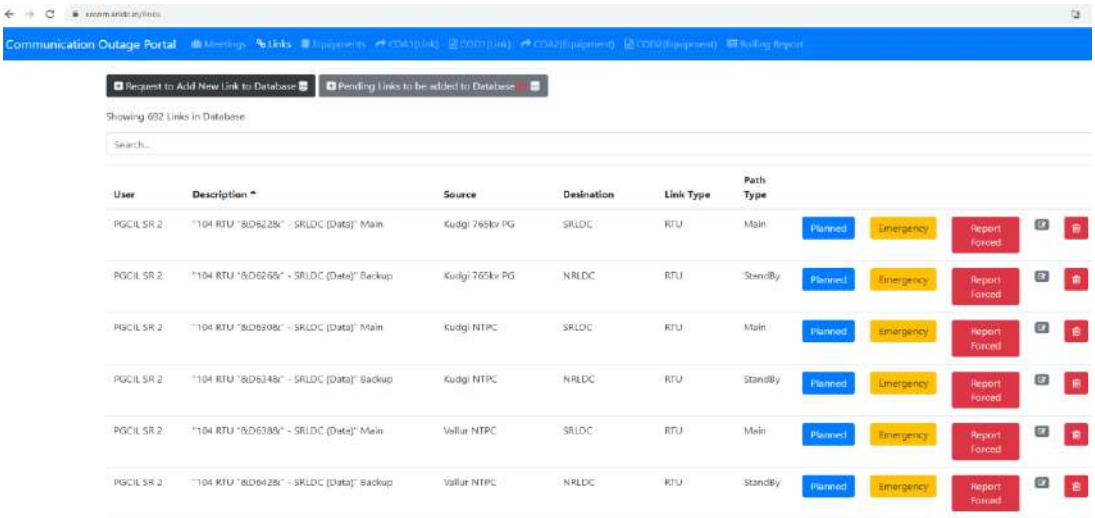


Figure 12 Links Tab sample screen

From **Links** tab, user can apply for proposed outages in communication links in either planned or emergency category and can also report the forced outages availed.

Sample View page screens for entering planned, emergency or forced outage details for communication equipment by the User are shown below in Figures 13,14 and 15 respectively.

2.7.1. Planned Outage Application for Links:

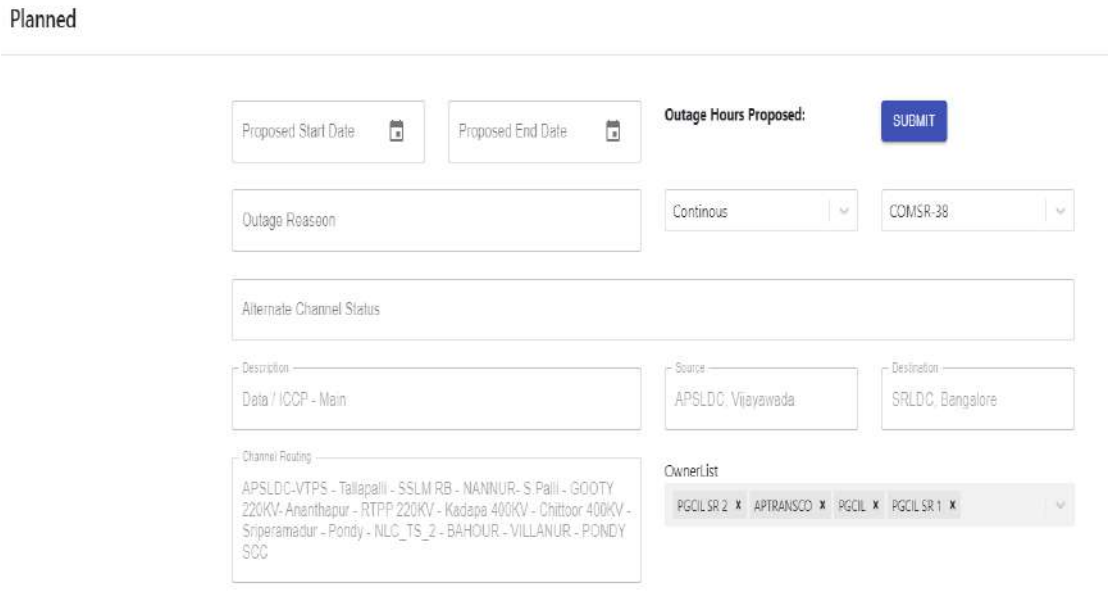


Figure 13 Planned Outage Application Screen for Links

2.7.2. Emergency Outage Application for Links:

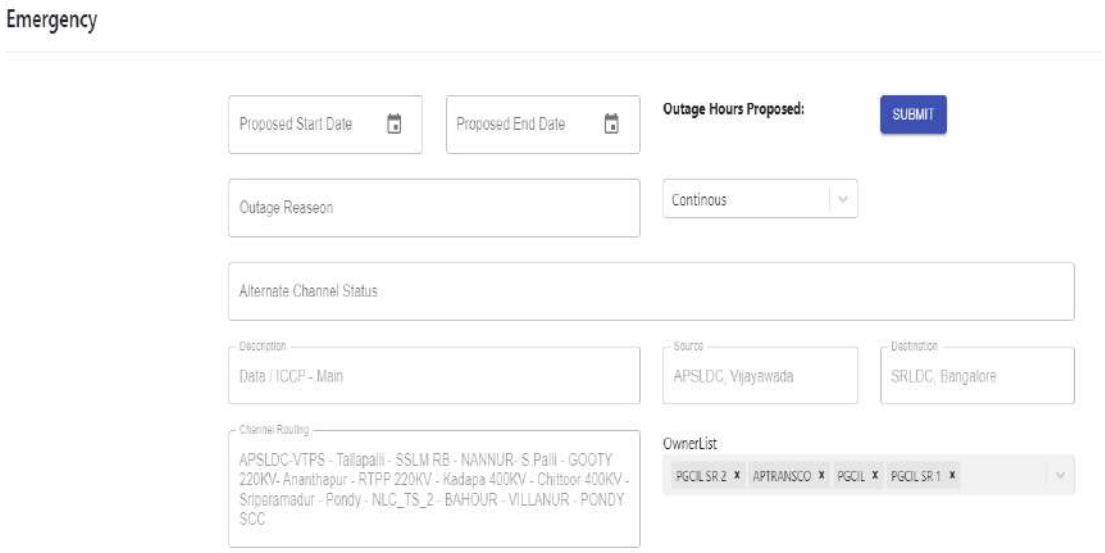


Figure 14 Emergency Outage Application Screen for Links

2.7.3. Forced Outage Reporting for Links:

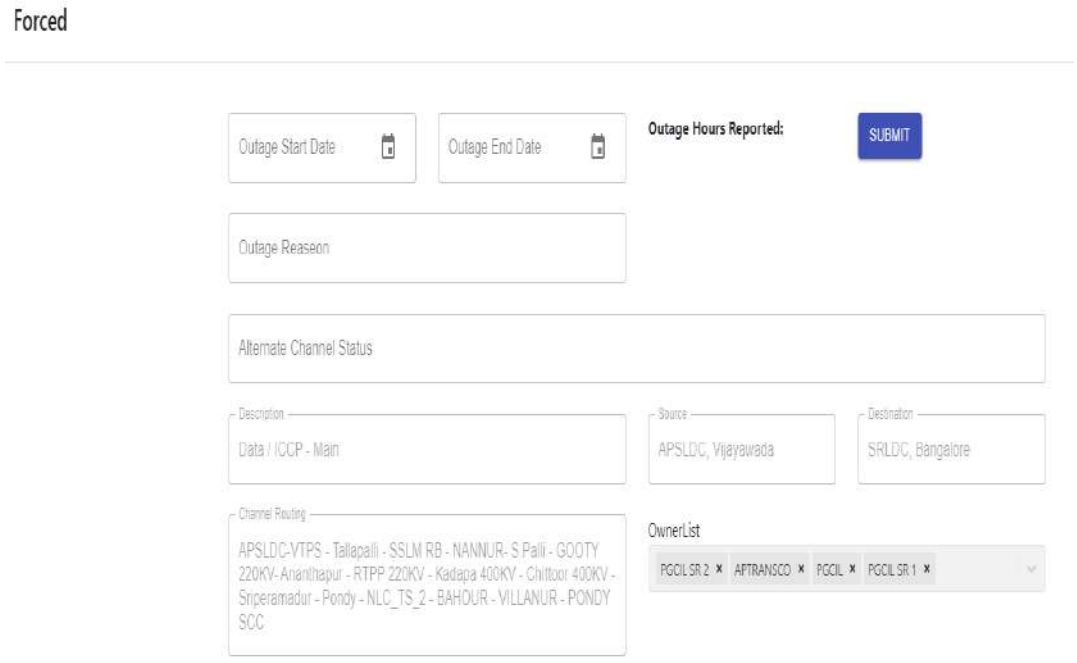


Figure 15 *Forced Outage Reporting Screen for Links*

2.8. Equipment Tab

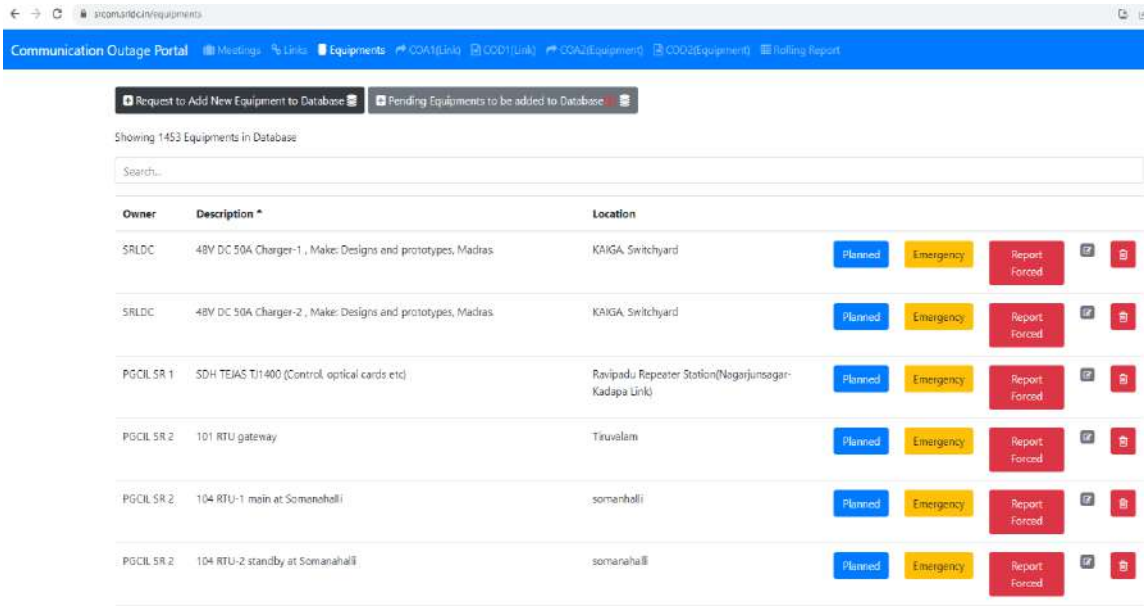


Figure 16 Equipment Tab sample screen

From **Equipment** tab (Figure 16 above), user can apply for proposed outages in communication equipment in either planned or emergency category and can report the forced outage availed. Sample View page screens for entering planned, emergency or forced outage details for communication equipment by the User are shown below in Figures 17,18 and 19 respectively.

2.8.1. Planned Outage Application for Equipment:

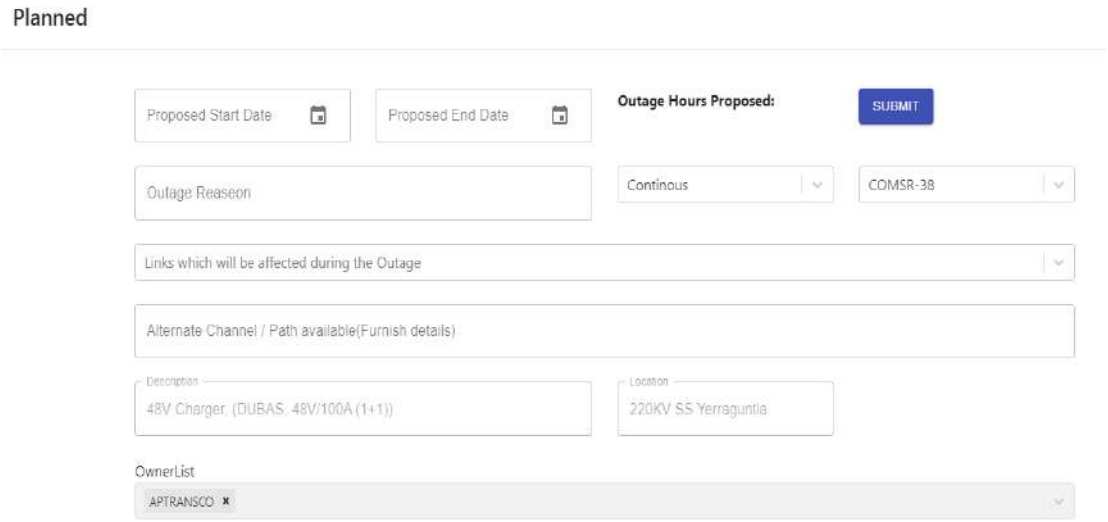


Figure 17 Planned Outage Application Screen for Equipment

2.8.2. Emergency Outage Application for Equipment:

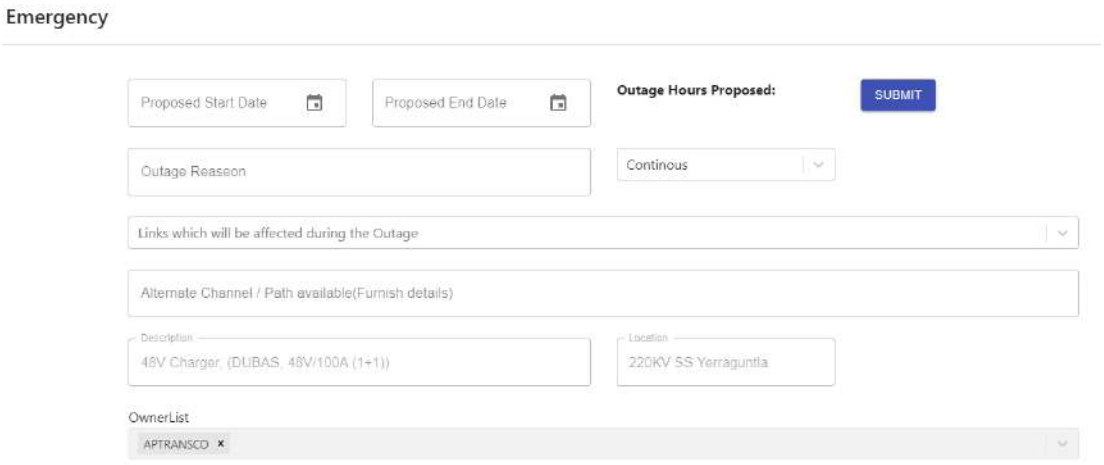


Figure 18 Emergency Outage Application Screen for Equipment

2.8.3. Forced Outage Reporting for Equipment:

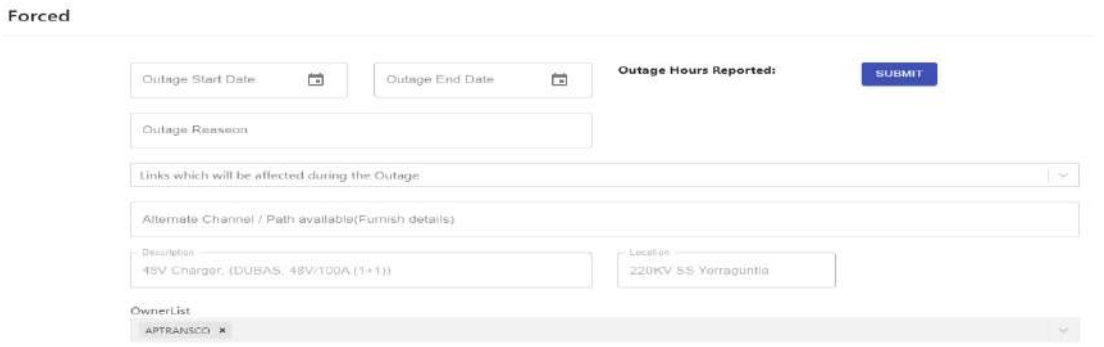


Figure 19 Forced Outage Reporting screen for Equipment

2.9. COA1(Link) - Communication Outage Approval Links

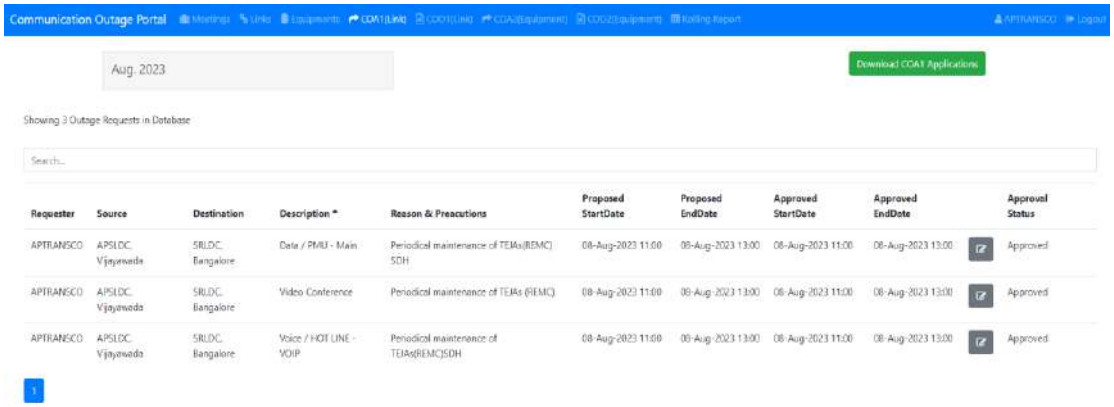


Figure 20 Communication Outage Application links (COA1) details for selected month

Through COA1 tab (Figure 20 above), Users can view the consolidated list of outage requests (for communication channels) submitted by them along with the current status of each outage request i.e., whether approved/rejected/revised (along with approved

timelines). Through this tab, users can edit their outage requests within the scheduled timeline window for submission of proposed outages.

Under Admin/Supervisor logins (RPC/RLDC) COA1 tab provides a consolidated list of all outage requests (for communication channels) from all users with proposed start and end date / time along with approved start and end date/ time for each outage.

2.10. COD1(Link) - Communication Outage Deviation - Links

Once communication link outage is approved in COMSR meeting, the final approved list for outage of communication links is communicated by RPC to all stakeholders and also updated on COMSR web portal. After availing the approved outage, concerned users have to enter the actual outage times (including start and end date, time) through COD1(Links) Tab (Figure 21 below) for communication channels

Note: In case of Emergency outage, approved start and end date times shall be null.

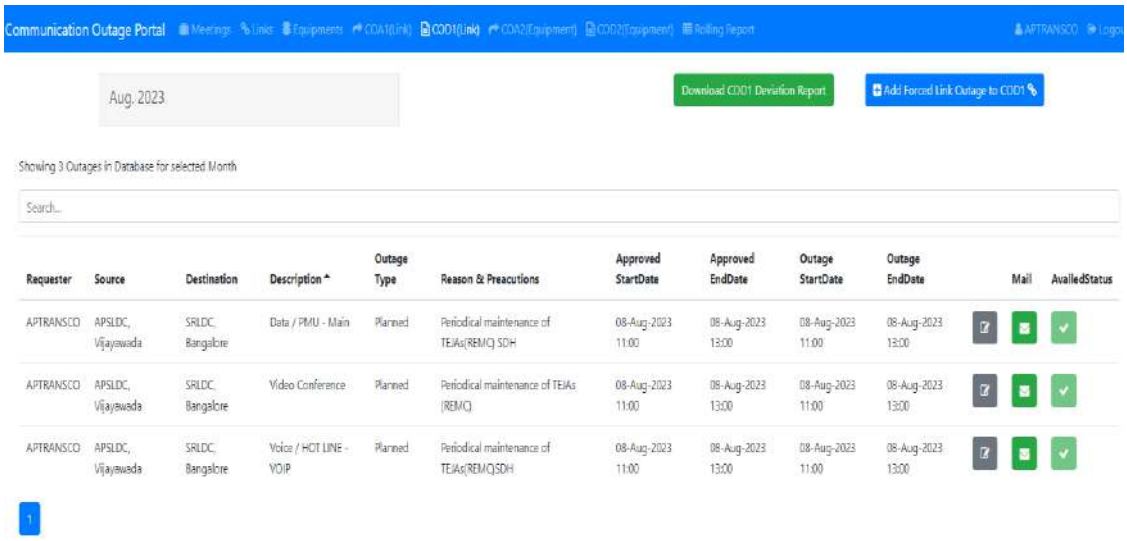


Figure 21 Communication Outage Deviation entry page for communication links (COD1)

Once the User enters the timings for actual outage duration for each approved outage, any deviation between the actual outage timing from the approved outage timing is computed and displayed in the COD1 tab. Sample screen for entry options available for Users against each approved outage under COD1 tab is shown in Figure 22 below. In case the user didn't avail the approved outage, user can select the "*Not availed*" option and submit the same in Communication Outage web portal. Similar Procedure is to be followed by Users for entering details of Emergency Category outages also.

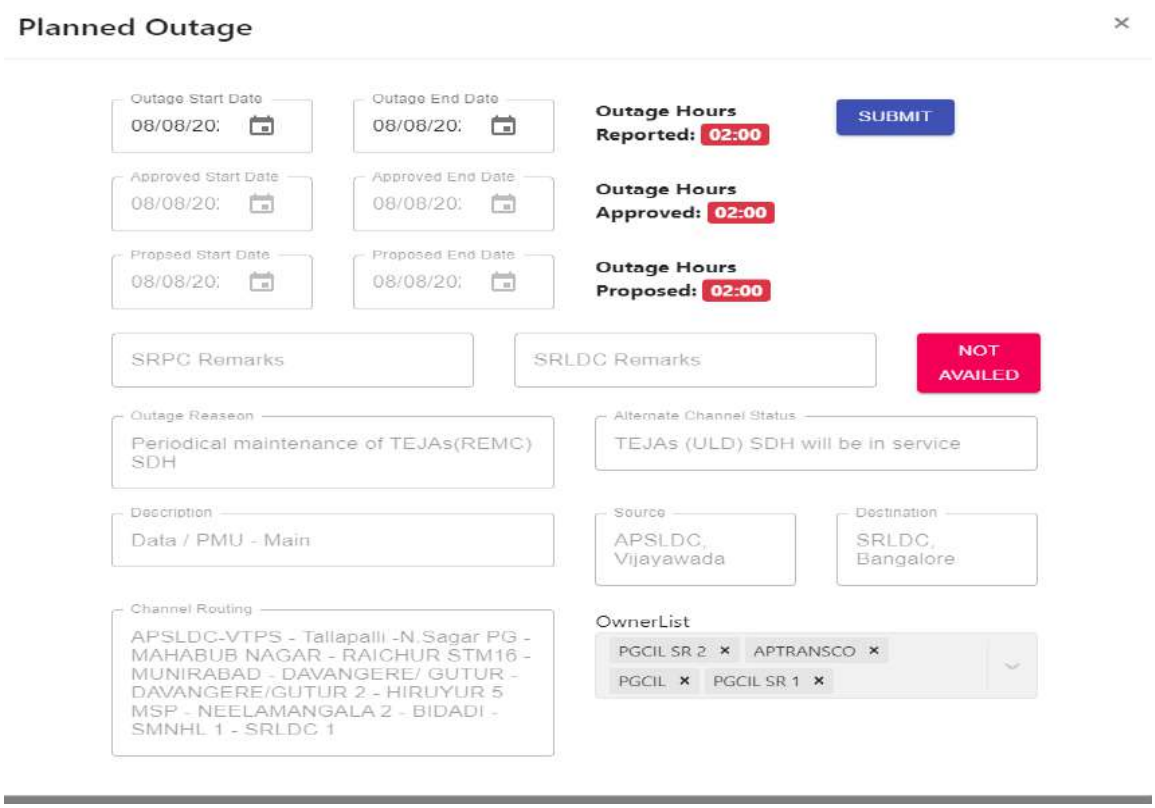


Figure 22 Planned Outage - actual time reporting entry screen

For reporting forced outages of communication links, user can use the "Add Forced Link Outage to COD1" Button which is located in the right corner of COD1(Links) Page (Fig. 22 above). On clicking this button, it shall navigate to Links Page where user can submit the details for the outage by selecting the respective links Sample screen for Forced Outage reporting widget is shown in Figure 23.

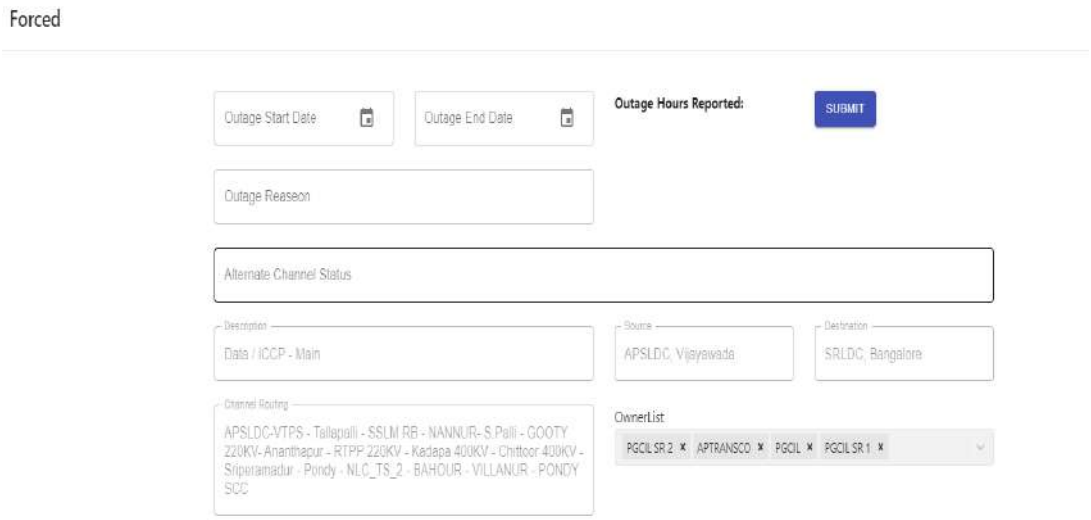


Figure 23 Forced Outage Reporting with actual outage times screen

2.11. COA2 (Equipment)- Communication Outage Approval for Equipment

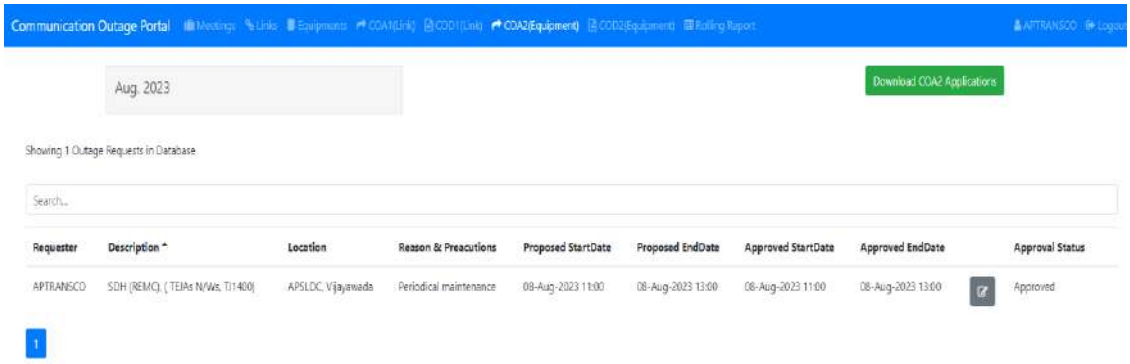


Figure 24 Communication Outage Application links (COA2) details for selected month

Through COA2 tab (Figure 24 above), Users can view the consolidated list of outage requests (for communication equipment) submitted by them along with the current status of each outage request i.e., whether approved/rejected/revised (along with approved durations). Through this tab, users can edit their outage requests within the scheduled timeline window for submission of proposed outages.

Through COA2 tab, RPC/RLDC can view consolidated list of all outage requests (for communication equipment) from all users with proposed start and end date / time along with approved start and end date/ time for each outage.

2.12. COD2(Equipment) - Communication Outage Deviation for Equipment

Once communication equipment outage is approved in COMSR meeting, the final approved list for outage of communication equipment is communicated by RPC to all stakeholders and also updated on COMSR web portal. After availing the approved outage, concerned users have to enter the actual outage times (including start and end date, time) through COD2(Equipment) Tab (Figure 25 below) for communication equipment.

Note: In case of Emergency outage, approved start and end date times shall be null.

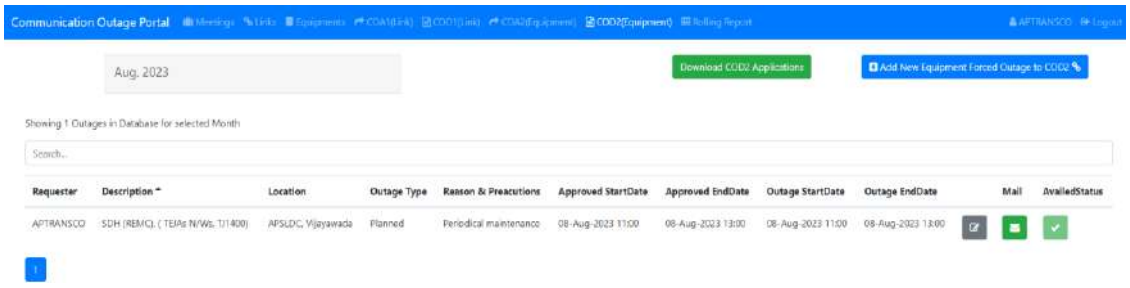


Figure 25 Communication Outage Deviation entry page for communication Equipment (COD2)

Once the User enters the timings for actual outage duration for each approved outage, any deviation between the actual outage timing from the approved outage timing is computed and displayed in the COD2 tab. The sample screen for entry options available for Users against each approved outage under COD2 tab is shown in Figure 26 below.

In case the user didn't avail the approved outage, the user can select the "Not Availed option" and submit the same in COMSR web portal. Similar Procedure is to be followed by Users for entering details of Emergency Category outages also.

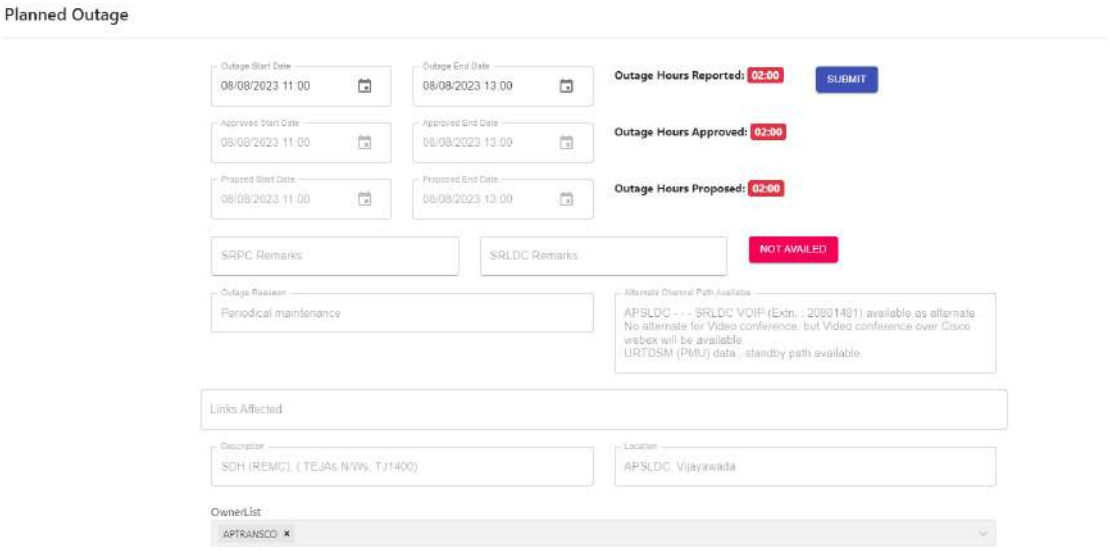


Figure 26 Planned Outage (Equipment) - actual time reporting entry screen

For reporting forced outages of communication equipment, user can use the "Add Forced Link Outage to COD2" Button located in the right corner of COD2(Equipment's) Page (Fig. 27 below). On clicking this button, it shall navigate to Equipment Page where user can submit the details for the respective Forced Outage.

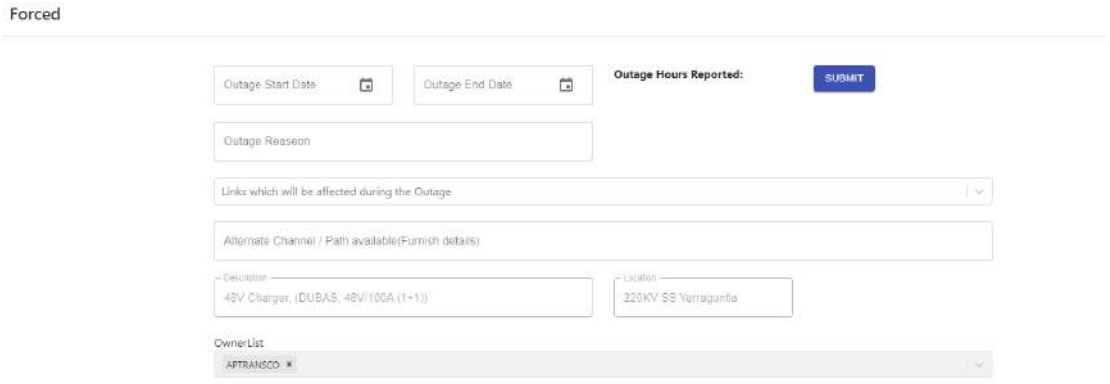


Figure 27 Forced Outage (Equipment's) Reporting with actual outage times screen

As per the approved Outage Procedure, all users/owners of communication equipment's/links need to submit the deviation report for outages availed by them in the M-1 month (considering M as current month) by 10th of the Mth Month. This requirement has been facilitated through the COD1(Links) & COD2(Equipment) tabs in the Communication Outage web portal.

Once this COD1 (links) & COD2 (equipment) is filled by respective Users/owners, RPC freezes the COD1& COD 2-page entry option after 10th of Mth month for outages availed in M-1 Month using "Freeze COD Application button" (Figure 28 and 29 below), available under Admin role login. In cases wherein the user has not entered the actual outage

timelines of approved outages, the portal automatically takes the approved outage timelines as actual outage timelines for planned outages. In case of emergency outages, if the user doesn't enter the actual outage timelines for the outage availed, the portal automatically takes proposed outage timings as actual outage timings. In all such cases, wherein User doesn't enter the actual outage timelines, the outage is deemed to be availed by respective entity.

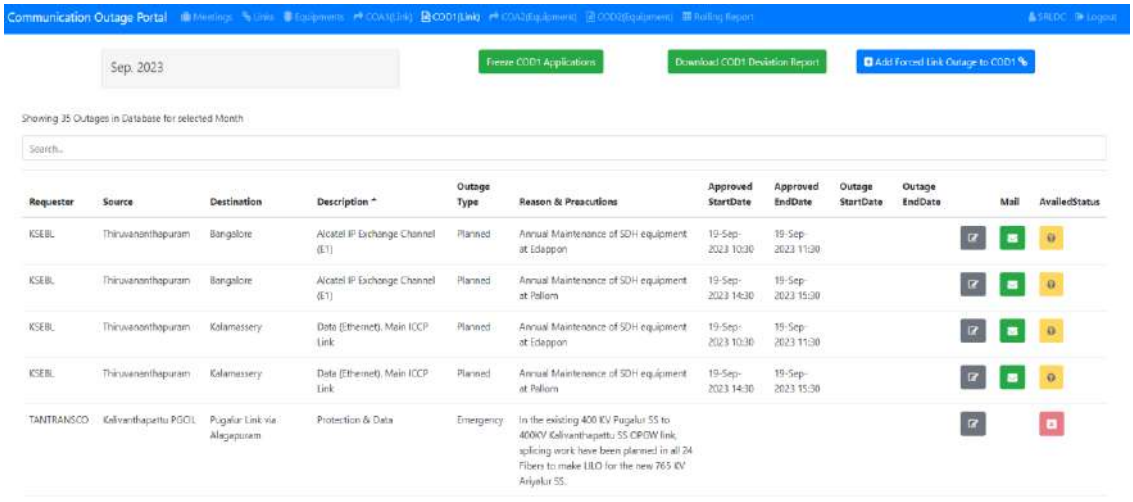


Figure 28 RPC view for Freezing COD1 Application.

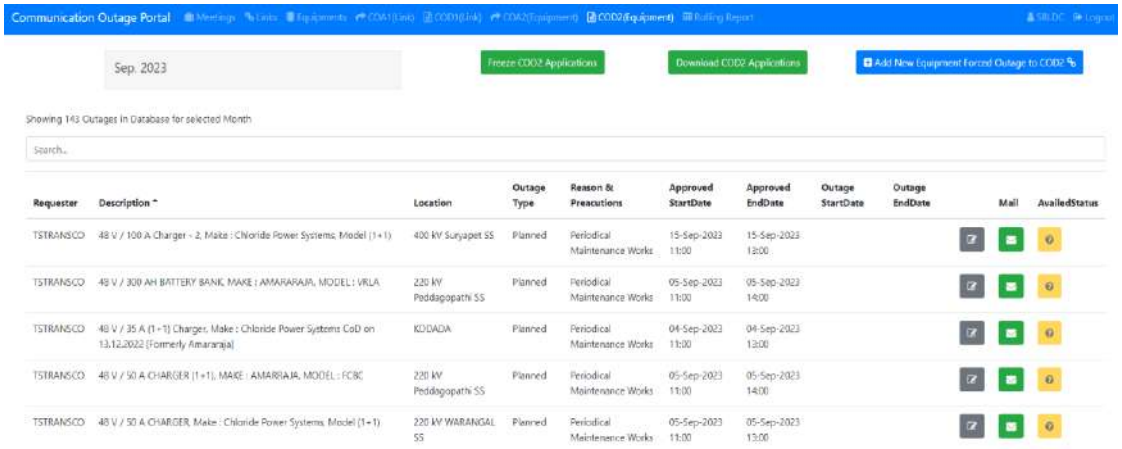


Figure 29 RPC view for Freezing COD2 Application

2.13. Rolling Report-- 12 Months Outage Time > 48hours

In order to monitor and highlight excessive outages of any of the communication link/equipment registered in the COMSR Db, Rolling Outage Reports for last twelve (12) months are provided which cumulatively adds the outage duration of communication links/equipment as per COD1/COD2 reports of last 12 months and summarizes the same in COD3 report (for communication links) and COD4 report (for Equipment). COD3 and COD4 reports are available for downloading in excel from the web portal. Sample screen showing download option is shown in Figure 30 and sample report format for COD3 (links) and COD4 (equipment) are shown in Figure 31 and Figure 32 below.

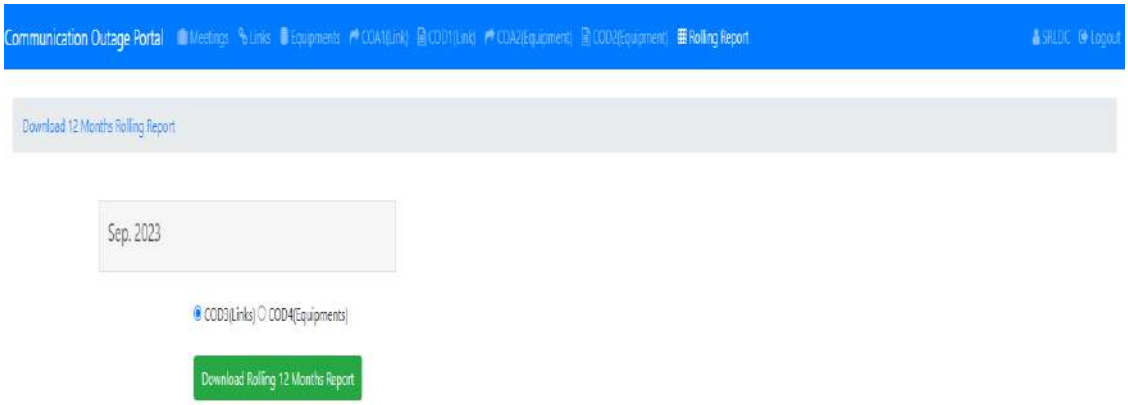
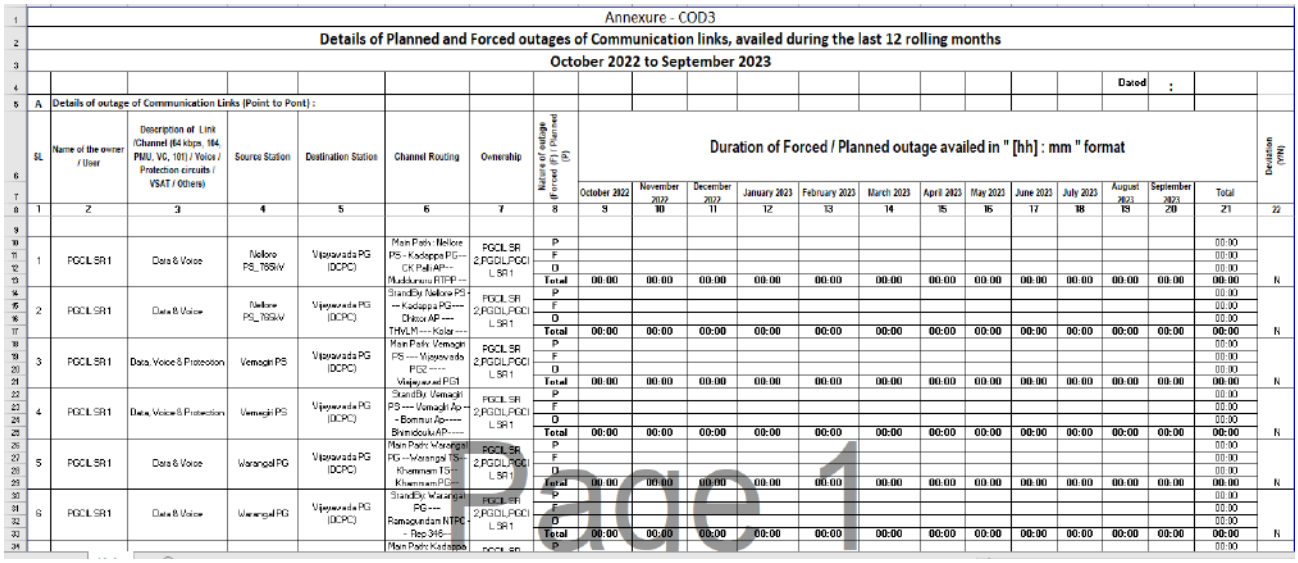


Figure 30 Rolling Report - 12 Months Outage Time download option



Annexure - COD3

Details of Planned and Forced outages of Communication links, availed during the last 12 rolling months

October 2022 to September 2023

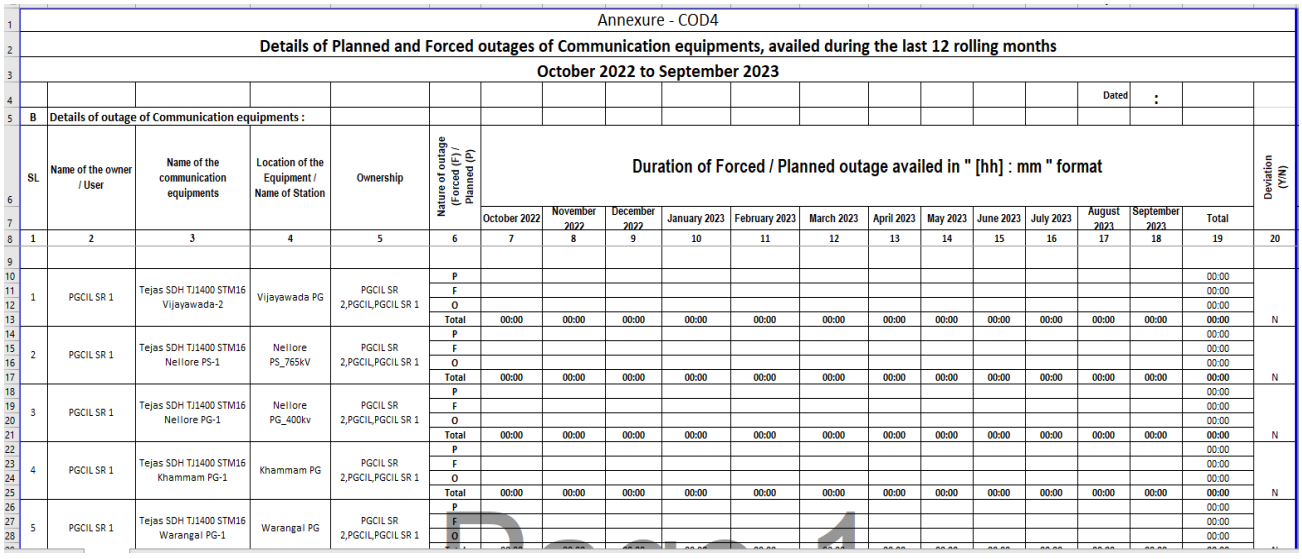
Dated :

A Details of outage of Communication Links (Point to Pont) :

SL	Name of the owner / User	Description of Link /Channel (64 kbps, 164, PMU, VC, 101) / Voice / Protection circuits / VSAT / Others)	Source Station	Destination Station	Channel Routing	Ownership	Nature of outage (Forced (F) / Planned (P))	Duration of Forced / Planned outage availed in " [hh] : mm " format												Deviation (Y/N)
								October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	PGCIL SR1	Data & Voice	Nellore PS_765kV	Vijayawada PG (DCPC)	Main Path: Nellore PS - Kadappa PG--- CK Palli AP--- Muddunuru PGP ---	PGCIL SR 2,PGCIL,PGCI L SR1	P													00:00	
							F													00:00	
							O													00:00	
							Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
2	PGCIL SR1	Data & Voice	Nellore PS_765kV	Vijayawada PG (DCPC)	StandBy Nellore PS --- Kadappa PG---- Chittor AP ---- THVLM ---- Kolar ----	PGCIL SR 2,PGCIL,PGCI L SR1	P													00:00	
							F													00:00	
							O													00:00	
							Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
3	PGCIL SR1	Data, Voice & Protection	Vemagiri PS	Vijayawada PG (DCPC)	Main Path: Vemagiri PS ---- Vijayawada PG2 ---- Vijayawada PG1	PGCIL SR 2,PGCIL,PGCI L SR1	P													00:00	
							F													00:00	
							O													00:00	
							Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
4	PGCIL SR1	Data, Voice & Protection	Vemagiri PS	Vijayawada PG (DCPC)	StandBy Vemagiri PS --- Vemagiri Ap --- Bommur Ap----- Bhimavaram AP ----	PGCIL SR 2,PGCIL,PGCI L SR1	P													00:00	
							F													00:00	
							O													00:00	
							Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
5	PGCIL SR1	Data & Voice	Warangal PG	Vijayawada PG (DCPC)	Main Path: Warangal PG --Warangal TS-- Khammam TS-- Khammam PG---	PGCIL SR 2,PGCIL,PGCI L SR1	P													00:00	
							F													00:00	
							O													00:00	
							Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
6	PGCIL SR1	Data & Voice	Warangal PG	Vijayawada PG (DCPC)	StandBy Warangal PG --- Ramagundam NTPC - Rec 346---	PGCIL SR 2,PGCIL,PGCI L SR1	P													00:00	
							F													00:00	
							O													00:00	
							Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
					Main Path: Kadappa	PGCIL SR	P													00:00	

Page 1

Figure 31 Sample COD3 Links Generated Report



Annexure - COD4

Details of Planned and Forced outages of Communication equipments, availed during the last 12 rolling months

October 2022 to September 2023

Dated :

B Details of outage of Communication equipments :

SL	Name of the owner / User	Name of the communication equipments	Location of the Equipment / Name of Station	Ownership	Nature of outage (Forced (F) / Planned (P))	Duration of Forced / Planned outage availed in " [hh] : mm " format												Deviation (Y/N)
						October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	PGCIL SR 1	Tejas SDH TJ1400 STM16 Vijayawada-2	Vijayawada PG	PGCIL SR 2,PGCIL,PGCIL SR 1	P													00:00	
					F													00:00	
					O													00:00	
					Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
2	PGCIL SR 1	Tejas SDH TJ1400 STM16 Nellore PS-1	Nellore PS_765kV	PGCIL SR 2,PGCIL,PGCIL SR 1	P													00:00	
					F													00:00	
					O													00:00	
					Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
3	PGCIL SR 1	Tejas SDH TJ1400 STM16 Nellore PG-1	Nellore PG_400kv	PGCIL SR 2,PGCIL,PGCIL SR 1	P													00:00	
					F													00:00	
					O													00:00	
					Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
4	PGCIL SR 1	Tejas SDH TJ1400 STM16 Khammam PG-1	Khammam PG	PGCIL SR 2,PGCIL,PGCIL SR 1	P													00:00	
					F													00:00	
					O													00:00	
					Total	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	N
5	PGCIL SR 1	Tejas SDH TJ1400 STM16 Warangal PG-1	Warangal PG	PGCIL SR 2,PGCIL,PGCIL SR 1	P													00:00	
					F													00:00	
					O													00:00	

Page 1

Figure 32 Sample COD4 Links Generated Report

Resource Adequacy Study Analysis for NR States

April to June 2026

Resource Adequacy Study using PRAS- Key assumptions

- The Probabilistic Resource Adequacy Study (PRAS) for the summer period from April to June 2026 has been carried out to assess the adequacy of available generation resources to reliably meet the projected state demand under a range of uncertainty scenarios. The assessment has been conducted using a probabilistic framework comprising 1000 Monte Carlo scenarios, with median outcomes presented to represent the expected system behaviour under typical operating conditions.

- To evaluate the net load to be met by dispatchable thermal generation, the forecasted hourly demand for the summer period (April-June 2026) was first estimated based on historical demand pattern and growth. From this projected demand, the expected contribution from non-thermal generation sources, namely solar, wind, hydro, and nuclear, was deducted.

- The contribution from non-thermal resources has been estimated using historical summer generation profiles, with solar and hydro generation scaled for capacity additions while retaining observed variability, intermittency, and seasonal operational characteristics.

- In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled.

Resource Adequacy Study using PRAS- Key assumptions

- To assess the availability of dispatchable generation resources, detailed modelling of thermal and gas-based generating units has been undertaken with the following assumptions:

  - ✓ **Planned Outages:** Planned outages has been considered NIL.

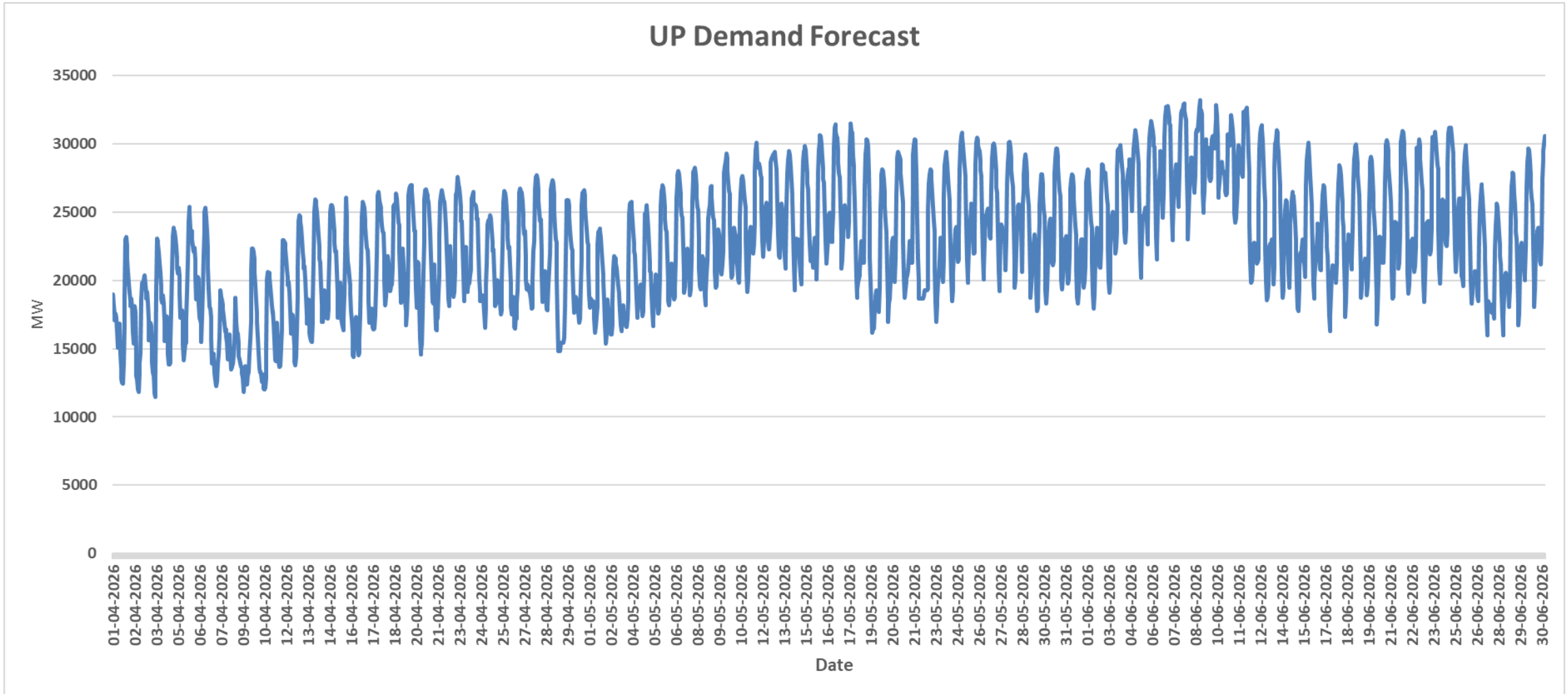
  - ✓ **Forced Outages:**
    Forced outages of thermal generating units have been modelled using a Monte Carlo simulation approach. Historical unit-specific outage and restoration rates have been used to probabilistically simulate unplanned outages.

This stochastic modelling enables realistic representation of operational uncertainties and enhances the robustness of the resource adequacy assessment.

The probabilistic framework enables estimation of reliability metrics such as:

- ✓ **Loss of Load Expectation (LOLE)**
- ✓ **Expected Unserved Energy (EUE)**

Uttar Pradesh


UP Demand Forecast
35000
30000
25000
20000
15000
10000
5000
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
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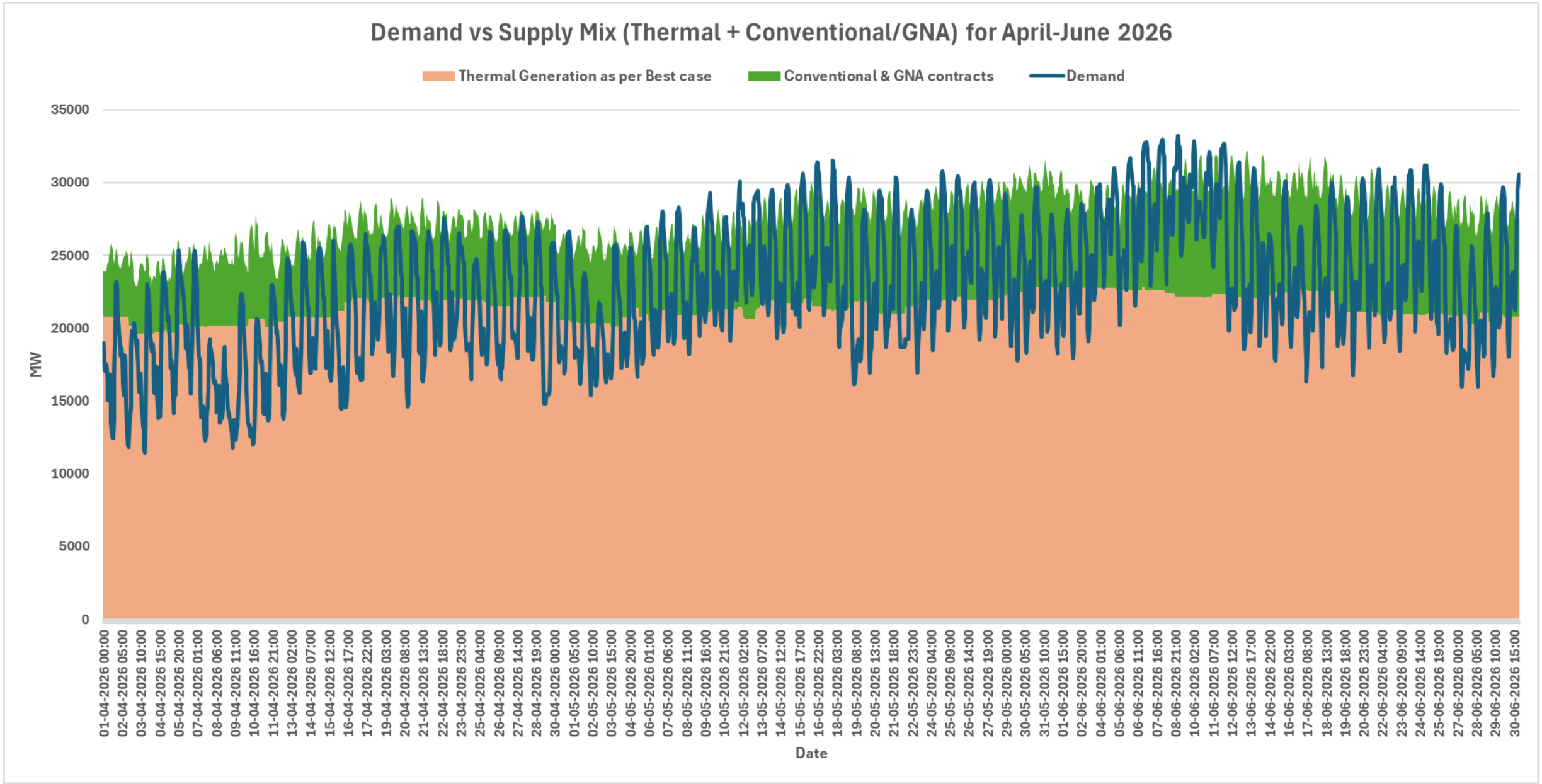
30-06-2026
Date


Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
35000
30000
25000
20000
15000
10000
5000
0
MW
01-04-2026 00:00
02-04-2026 05:00
03-04-2026 10:00
04-04-2026 15:00
05-04-2026 20:00
07-04-2026 01:00
08-04-2026 06:00
09-04-2026 11:00
10-04-2026 16:00
11-04-2026 21:00
13-04-2026 02:00
14-04-2026 07:00
15-04-2026 12:00
16-04-2026 17:00
17-04-2026 22:00
19-04-2026 03:00
20-04-2026 08:00
21-04-2026 13:00
22-04-2026 18:00
23-04-2026 23:00
25-04-2026 04:00
26-04-2026 09:00
27-04-2026 14:00
28-04-2026 19:00
30-04-2026 00:00
01-05-2026 05:00
02-05-2026 10:00
03-05-2026 15:00
04-05-2026 20:00
06-05-2026 01:00
07-05-2026 06:00
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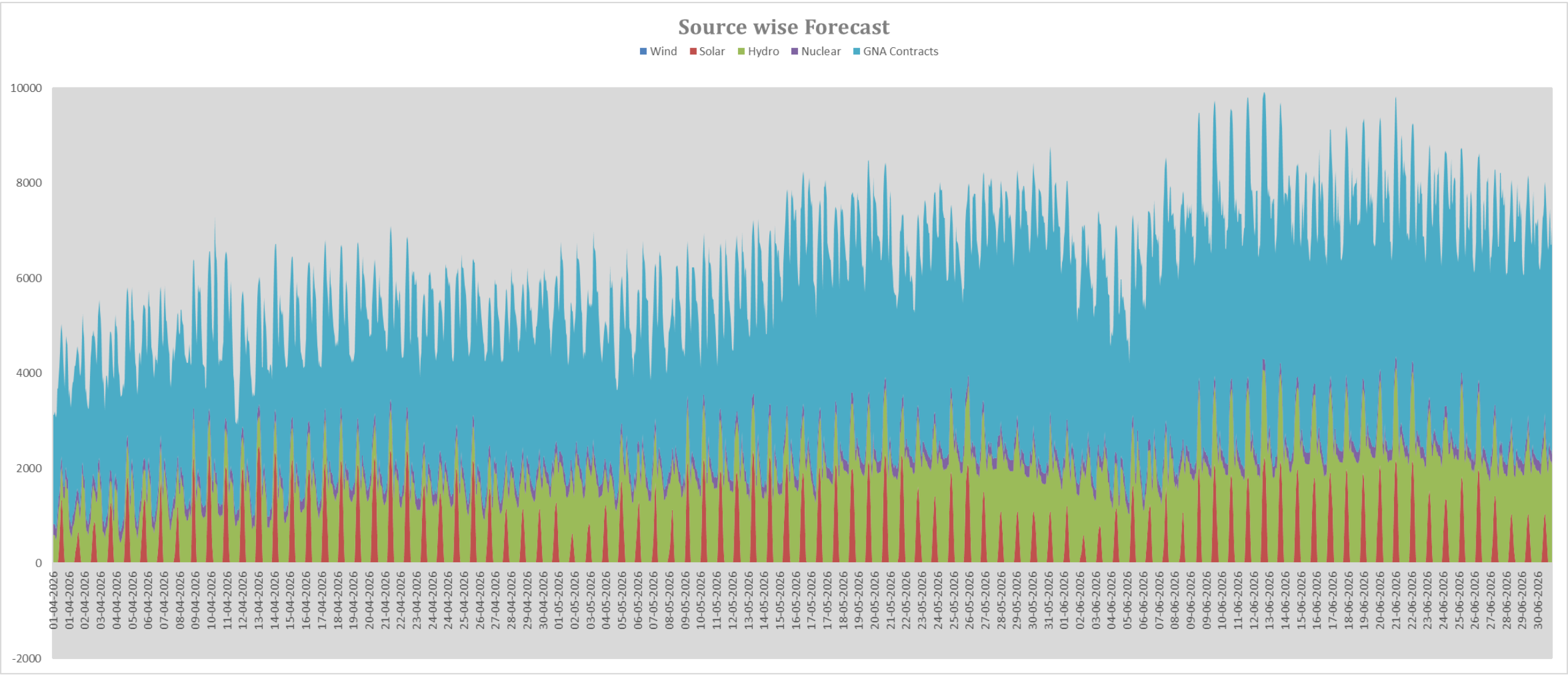
28-06-2026 05:00
29-06-2026 10:00
30-06-2026 15:00
Date


Source wise Forecast
Wind
Solar
Hydro
Nuclear
GNA Contracts
10000
8000
6000
4000
2000
0
-2000
01-04-2026
01-04-2026
02-04-2026
03-04-2026
04-04-2026
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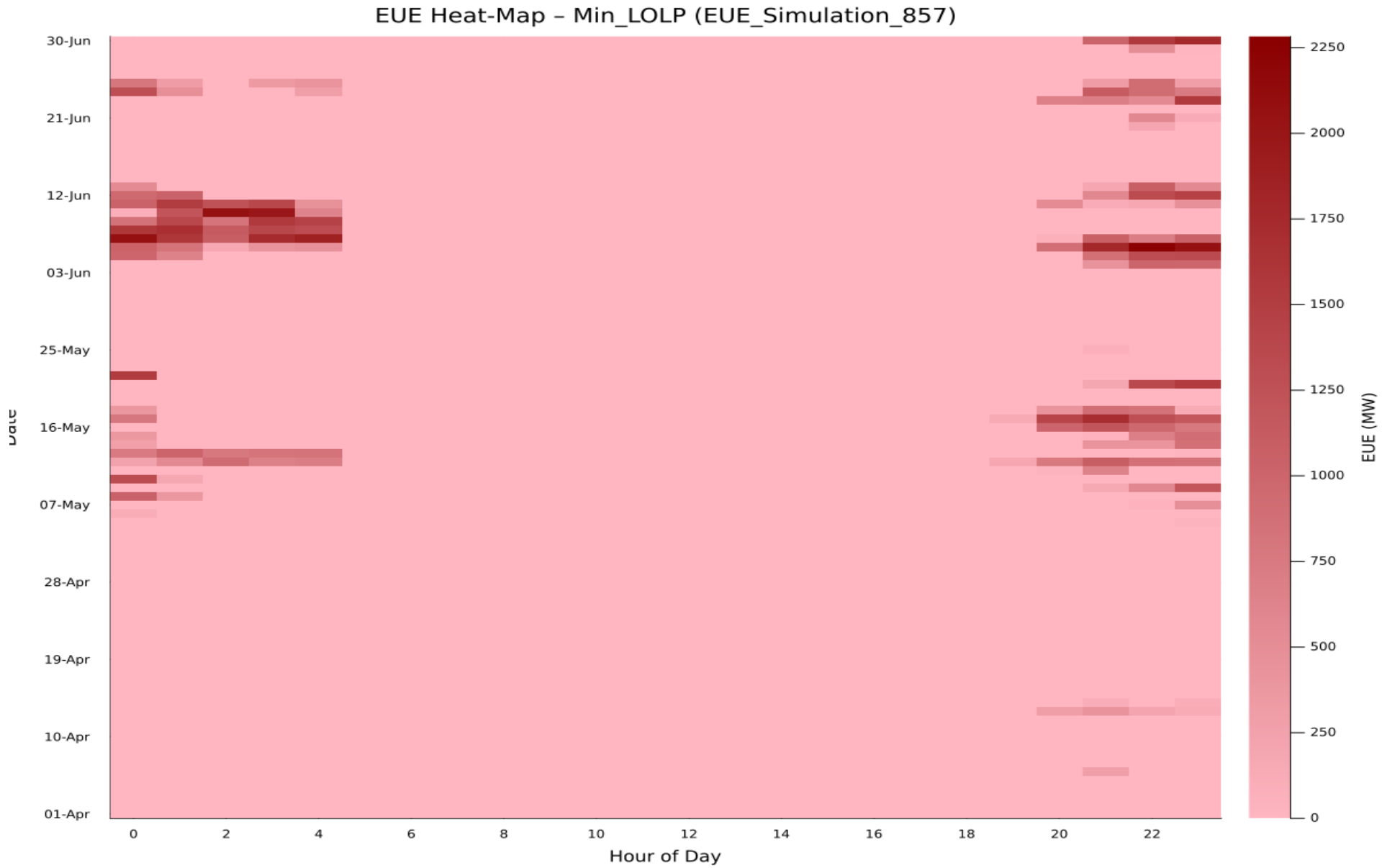
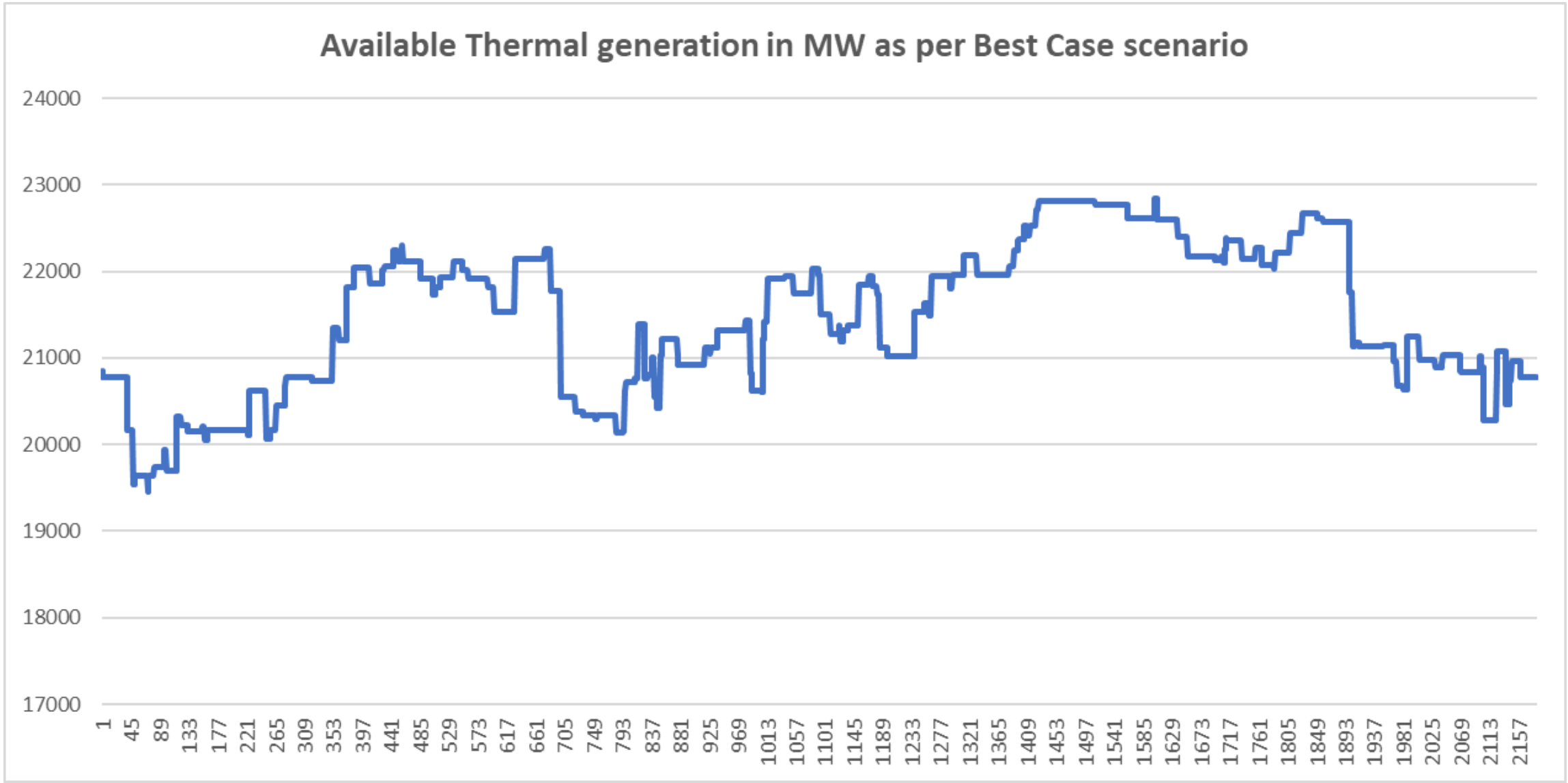
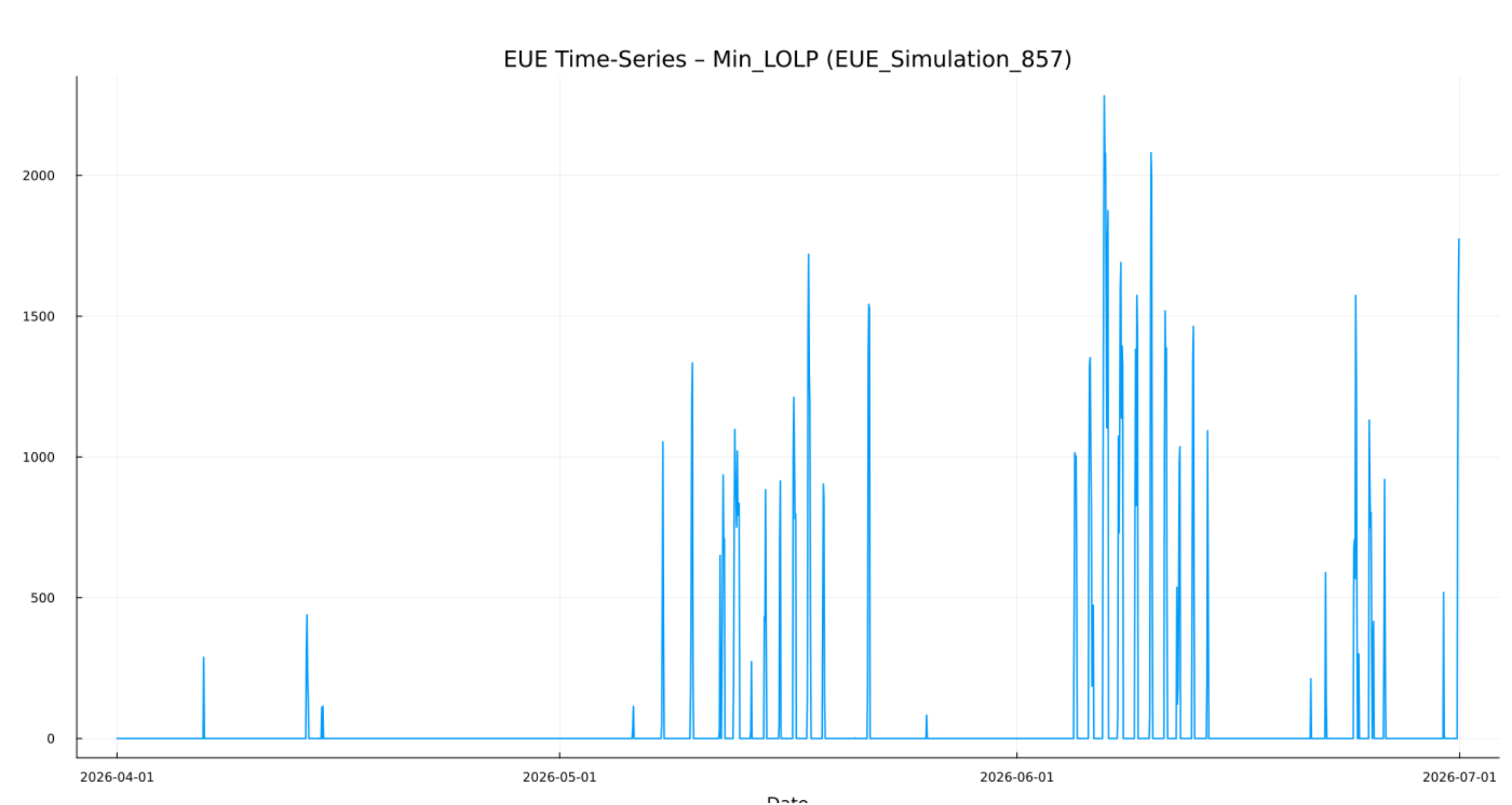
30-06-2026

Best case: Load Unserved in MW- Heat Map

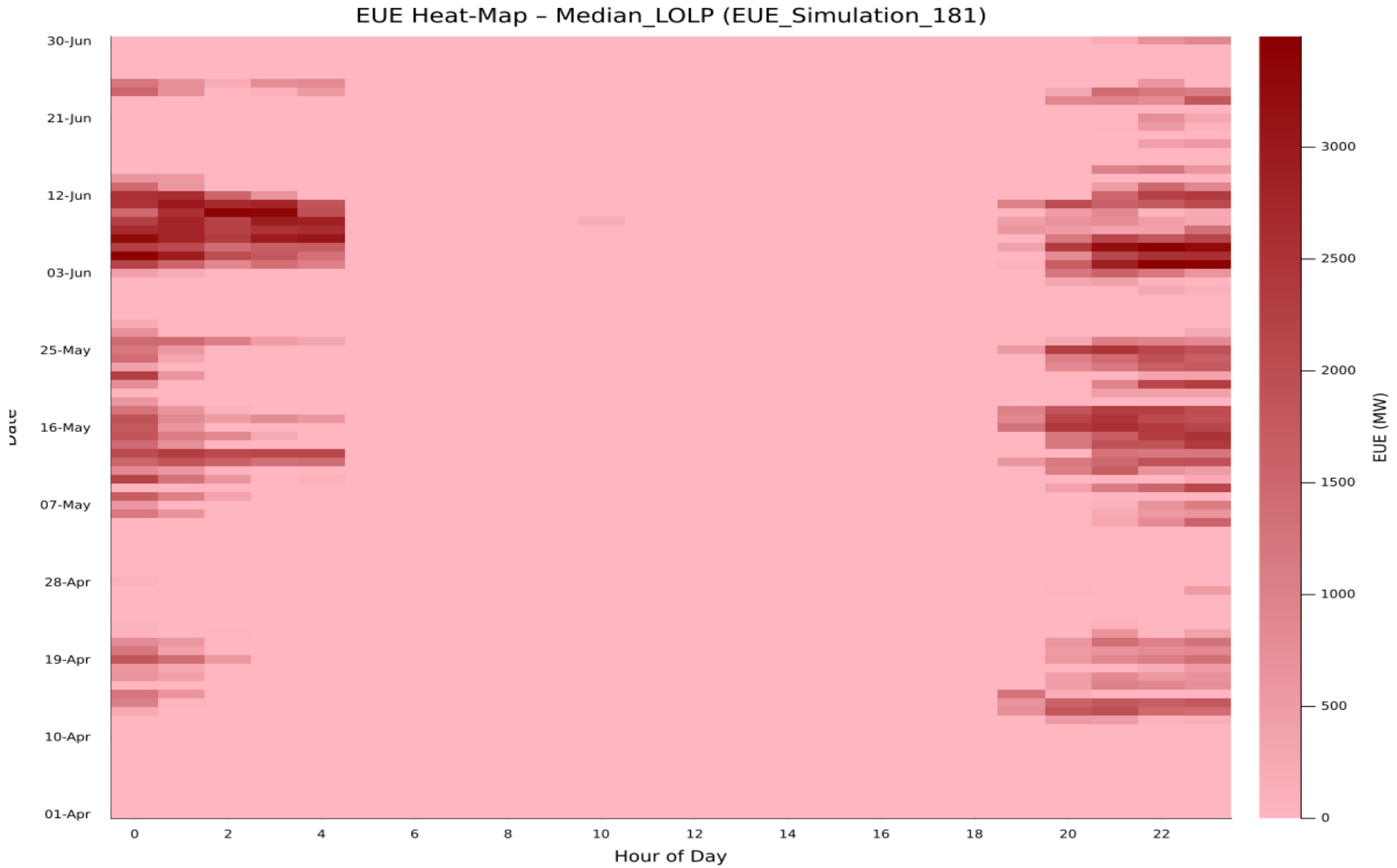


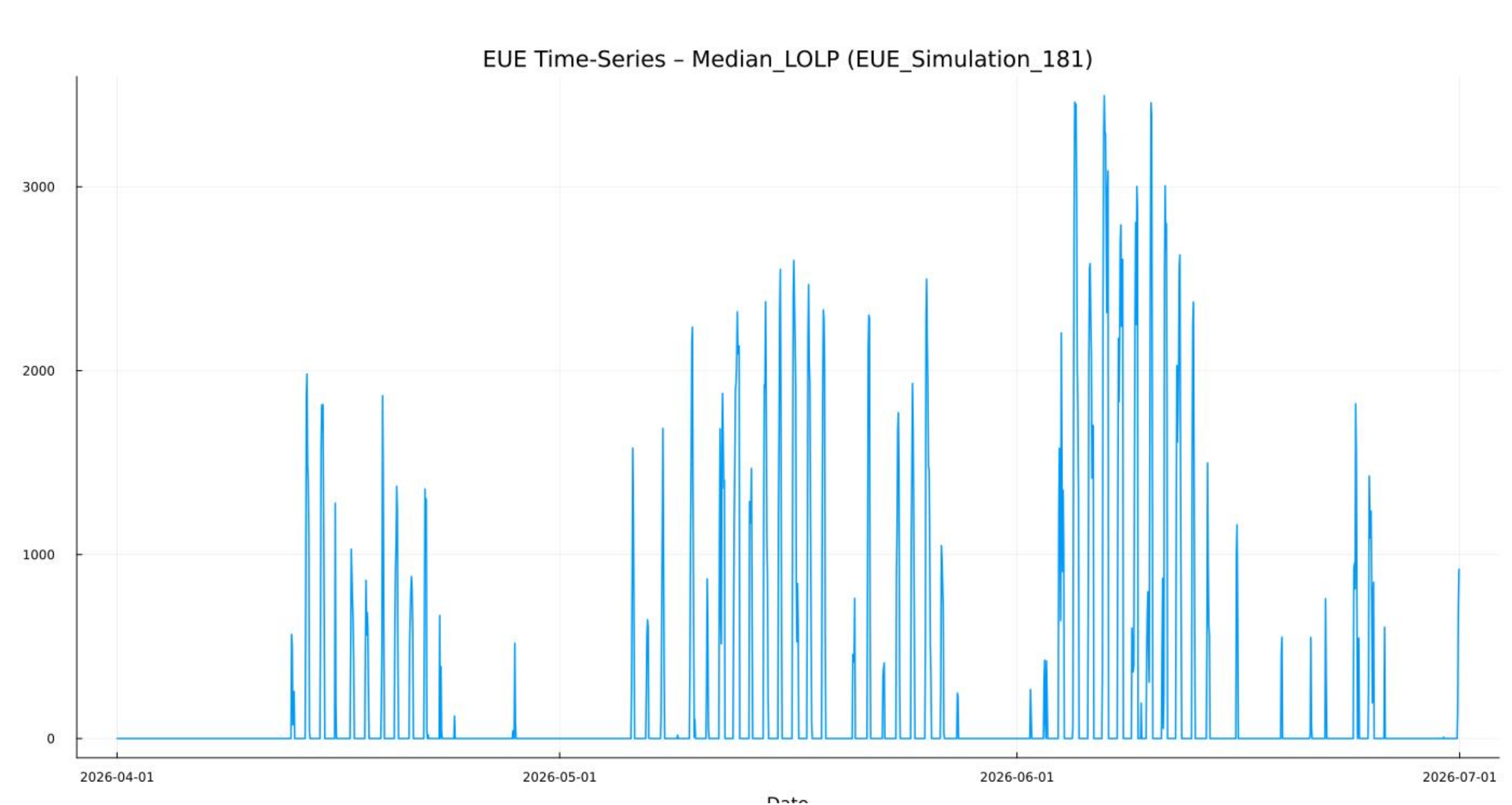

Available Thermal generation in MW as per Best Case scenario
24000
23000
22000
21000
20000
19000
18000
17000
1
45
89
133
177
221
265
309
353
397
441
485
529
573
617
661
705
749
793
837
881
925
969
1013
1057
1101
1145
1189
1233
1277
1321
1365
1409
1453
1497
1541
1585
1629
1673
1717
1761
1805
1849
1893
1937
1981
2025
2069
2113
2157


EUE Time-Series – Min_LOLP (EUE_Simulation_857)
2000
1500
1000
500
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

Probability of Shortage per Hour across 1000 Scenarios
2026-06-30
2026-06-21
2026-06-12
2026-06-03
2026-05-25
2026-05-16
2026-05-07
2026-04-28
2026-04-19
2026-04-10
2026-04-01
0
2
4
6
8
10
12
14
16
18
20
22
Hour of Day
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Probability of Shortage

Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_181)
3000
2000
1000
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

PRAS Outcomes – Key Observations & Way Forward (Summer: April–June 2026)

Observations

PRAS results indicate elevated adequacy risk during summer peak conditions, particularly during early morning and evening hours, when demand remains high and solar generation is unavailable.

The analysis highlights intermittent but significant unserved energy events, with higher frequency and magnitude observed during May–June, coinciding with extreme demand days.

While mid-day hours benefit from solar generation, peak-hour adequacy remains sensitive to demand variability and generation availability.

Way Forward

In view of the above, States are advised to strengthen advance resource planning for the summer period, including:

- Early finalization of firm GNA / bilateral contracts to adequately cover peak and shoulder-hour demand.
- Limiting reliance on short-term market mechanisms (DAM/RTM) for meeting peak summer requirements and treating market purchases as supplementary.

States are requested to review the PRAS outcomes at their end and undertake further state-level analysis, considering local demand conditions, resource availability, and contingency scenarios.

To enable revision of the PRAS assessment, States may kindly share updated inputs, including:

- Any new or revised GNA / bilateral contracts not captured in the current study.
- Updates on generation availability, renewable capacity additions, and demand outlook.

Disclaimer: PRAS results are indicative and intended to support advance planning under uncertainty.

Resource Adequacy Study Analysis for NR States

April to June 2026

Resource Adequacy Study using PRAS- Key assumptions

- The Probabilistic Resource Adequacy Study (PRAS) for the summer period from April to June 2026 has been carried out to assess the adequacy of available generation resources to reliably meet the projected state demand under a range of uncertainty scenarios. The assessment has been conducted using a probabilistic framework comprising 1000 Monte Carlo scenarios, with median outcomes presented to represent the expected system behaviour under typical operating conditions.

- To evaluate the net load to be met by dispatchable thermal generation, the forecasted hourly demand for the summer period (April-June 2026) was first estimated based on historical demand pattern and growth. From this projected demand, the expected contribution from non-thermal generation sources, namely solar, wind, hydro, and nuclear, was deducted.

- The contribution from non-thermal resources has been estimated using historical summer generation profiles, with solar and hydro generation scaled for capacity additions while retaining observed variability, intermittency, and seasonal operational characteristics.

- In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled.

Resource Adequacy Study using PRAS- Key assumptions

- To assess the availability of dispatchable generation resources, detailed modelling of thermal and gas-based generating units has been undertaken with the following assumptions:

  - ✓ **Planned Outages:** Planned outages has been considered NIL.

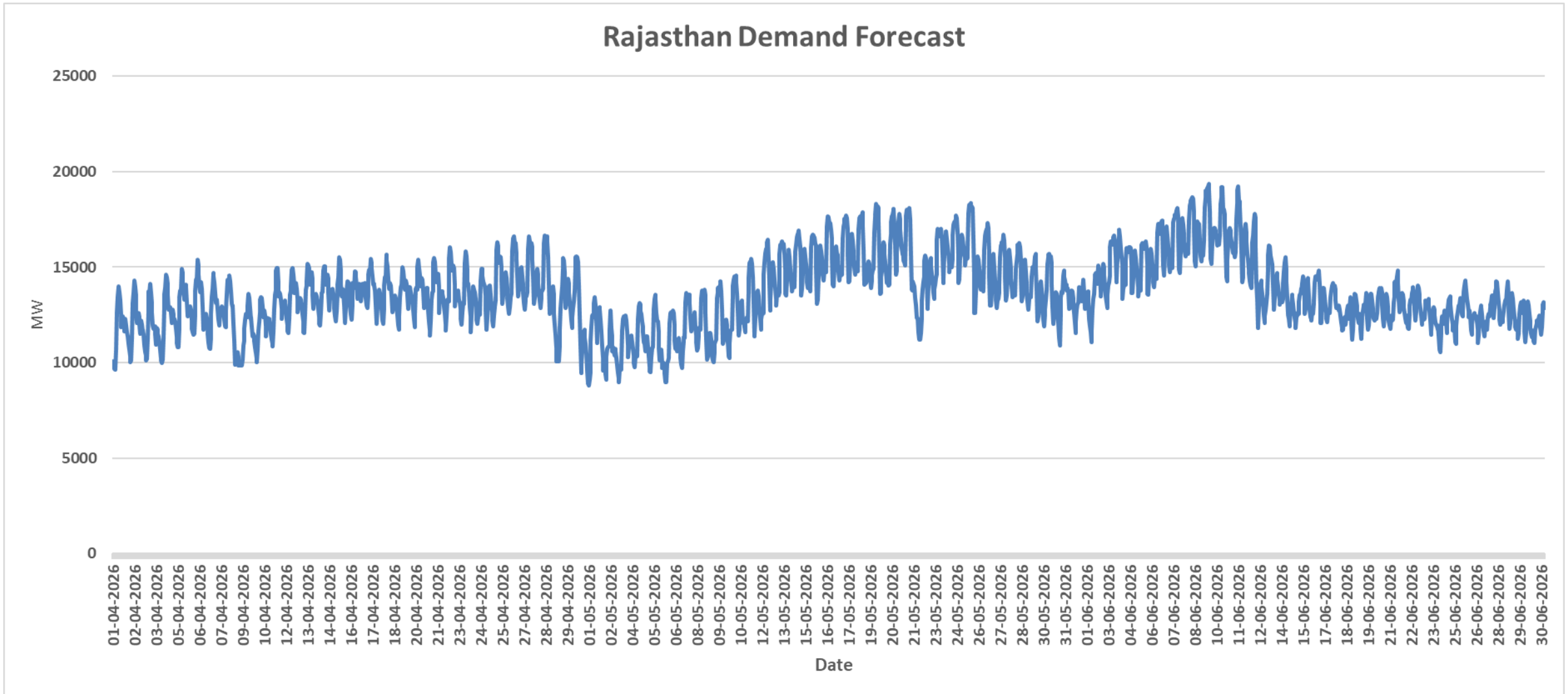
  - ✓ **Forced Outages:**
    Forced outages of thermal generating units have been modelled using a Monte Carlo simulation approach. Historical unit-specific outage and restoration rates have been used to probabilistically simulate unplanned outages.

This stochastic modelling enables realistic representation of operational uncertainties and enhances the robustness of the resource adequacy assessment.

The probabilistic framework enables estimation of reliability metrics such as:

- ✓ **Loss of Load Expectation (LOLE)**
- ✓ **Expected Unserved Energy (EUE)**

Rajasthan


Rajasthan Demand Forecast
25000
20000
15000
10000
5000
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
13-04-2026
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16-04-2026
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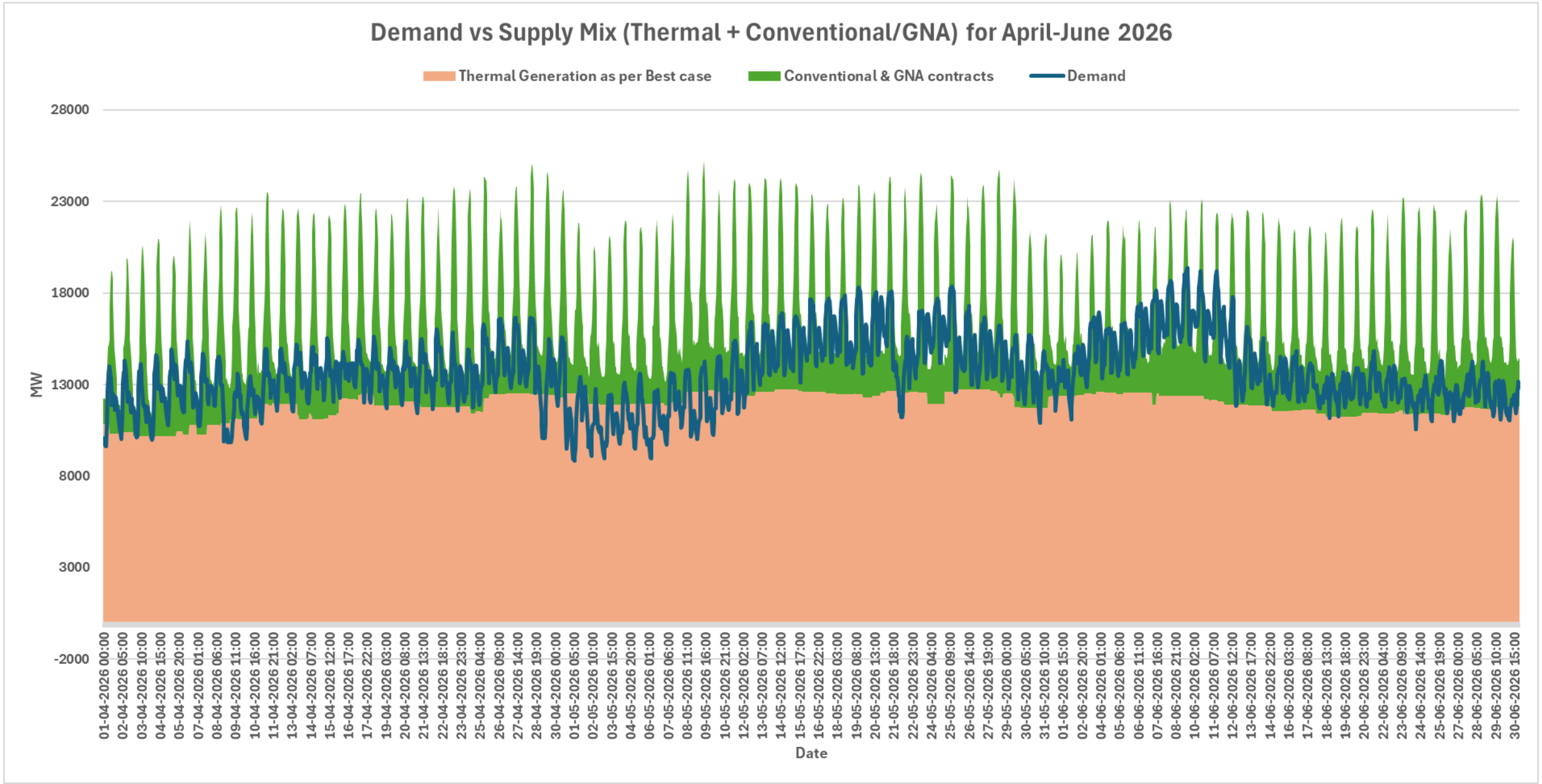
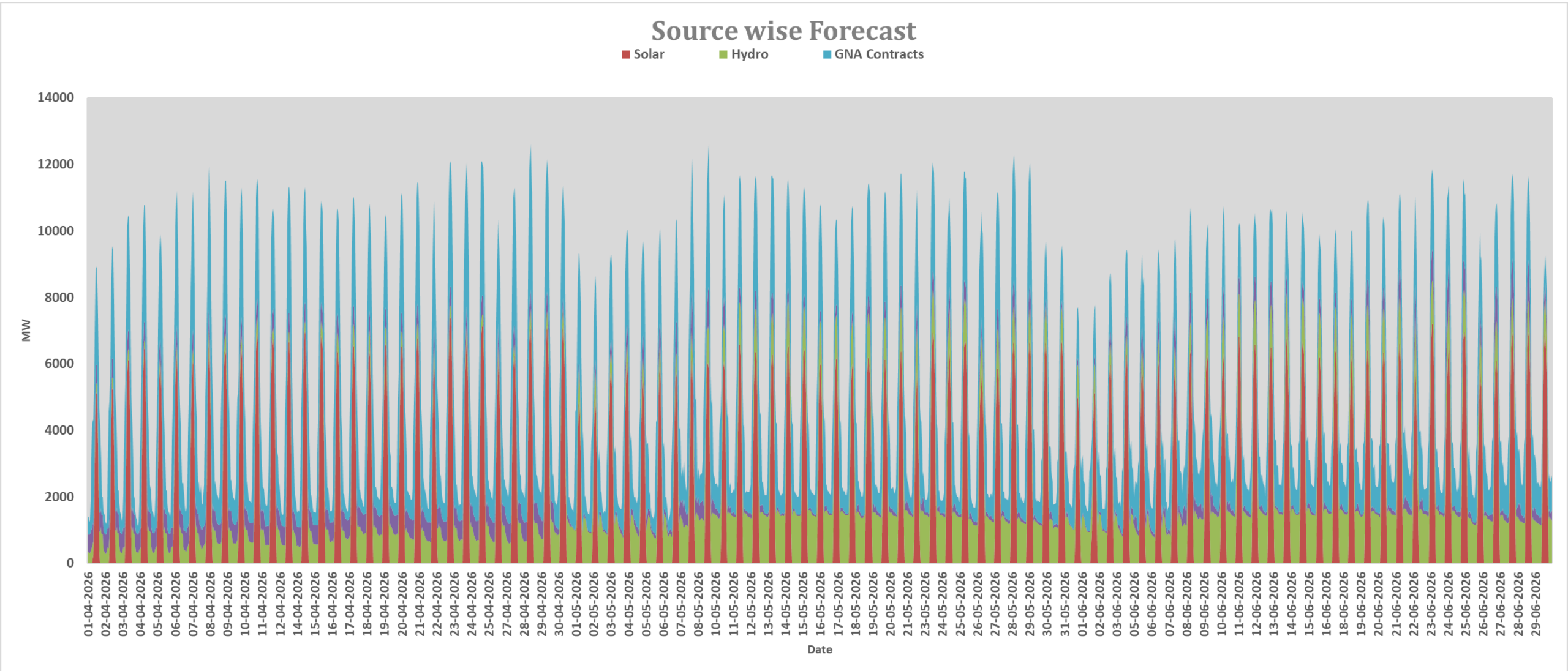
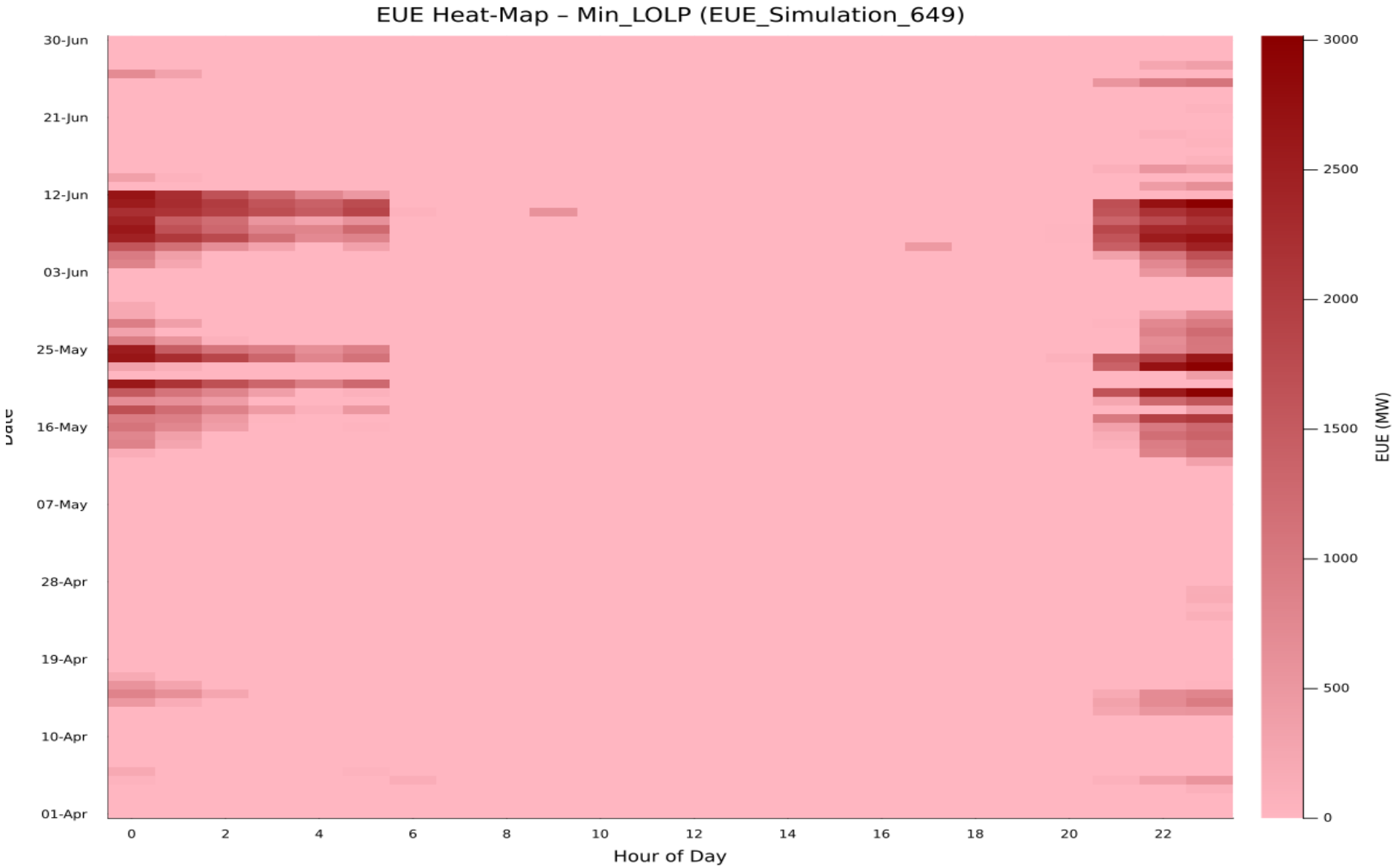
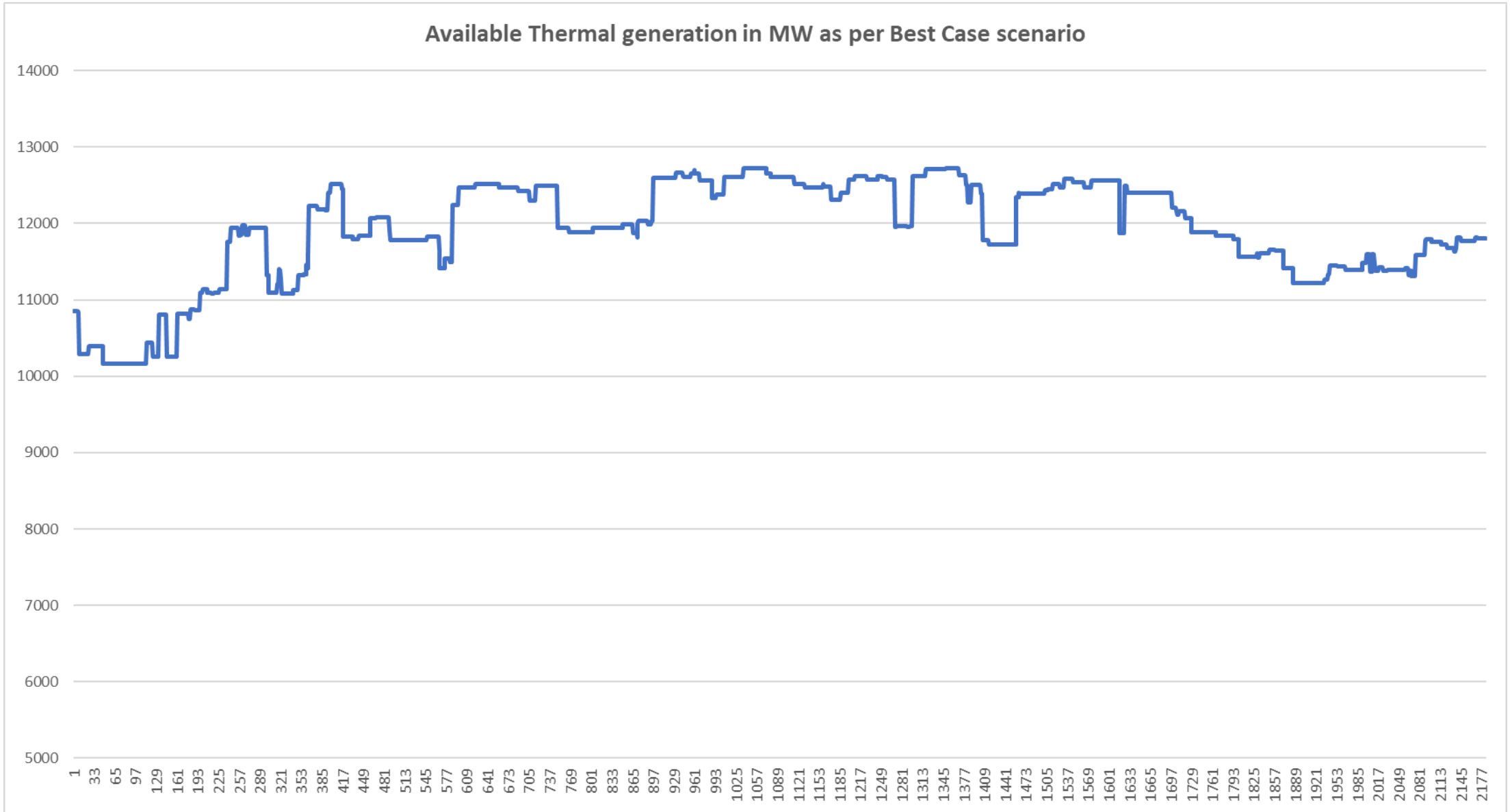
30-06-2026
Date

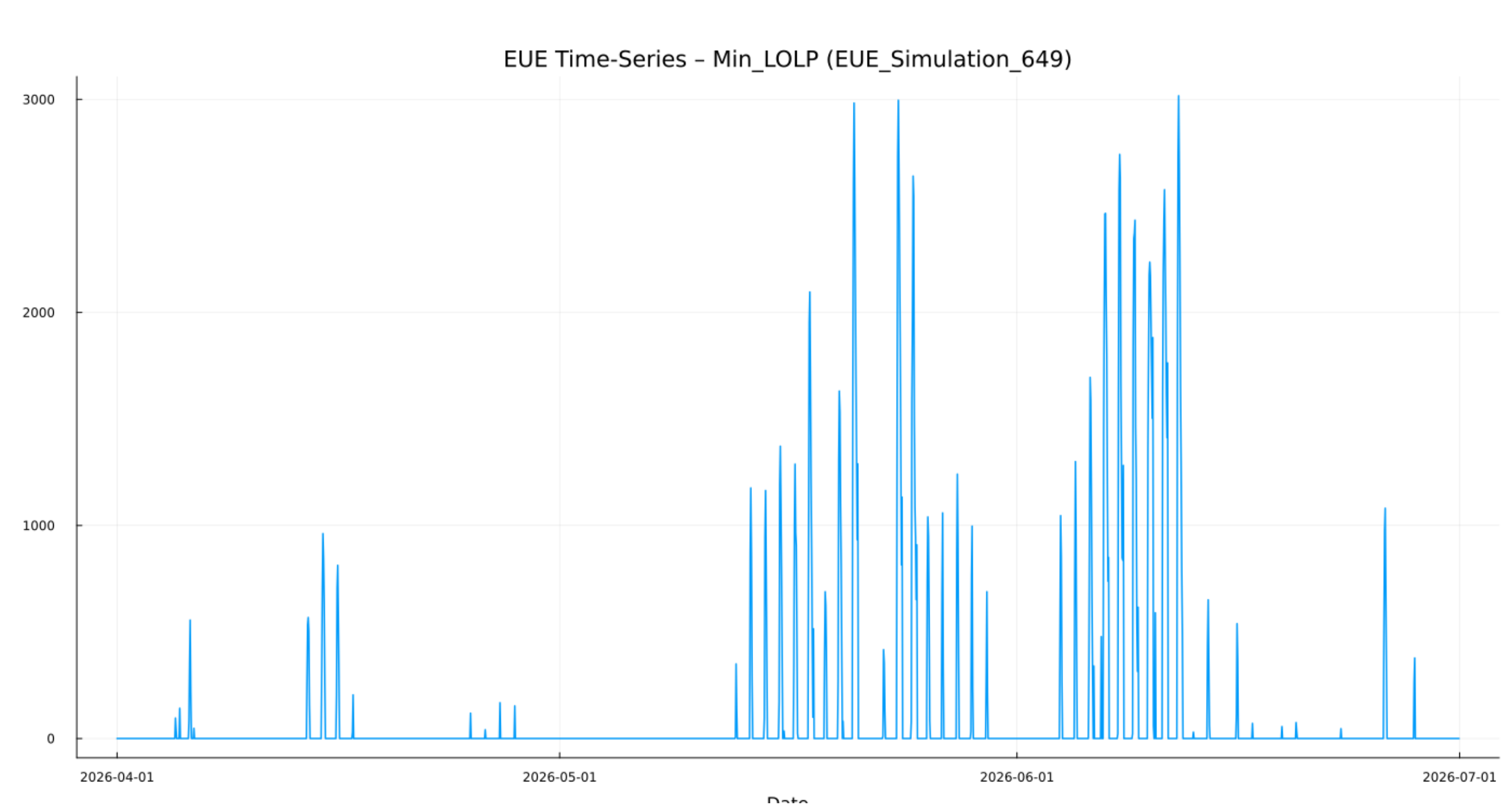

Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
28000
23000
18000
13000
8000
3000
-2000
MW
Date

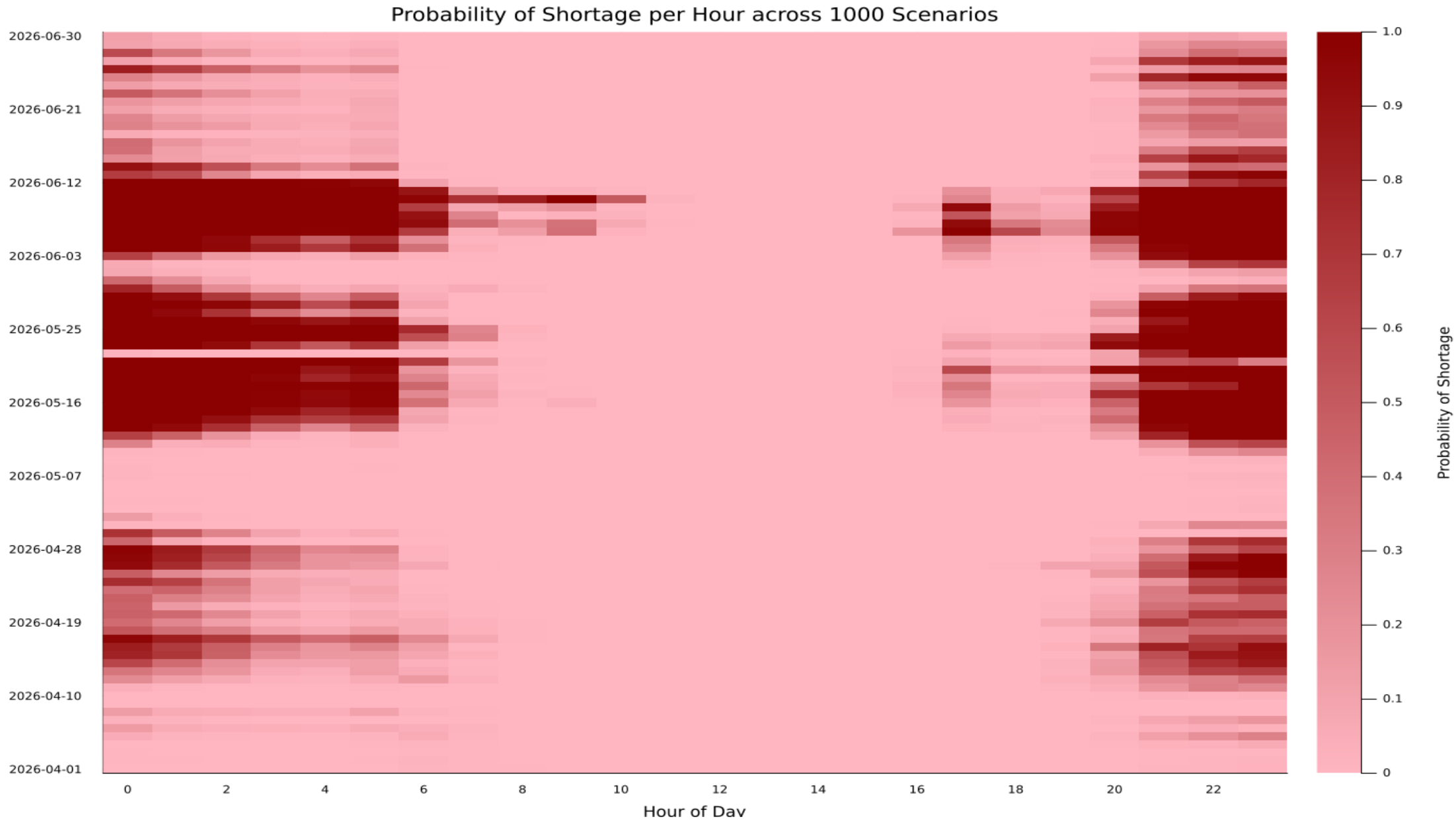

Source wise Forecast
Solar
Hydro
GNA Contracts
MW
14000
12000
10000
8000
6000
4000
2000
0
Date

Best case: Load Unserved in MW- Heat Map

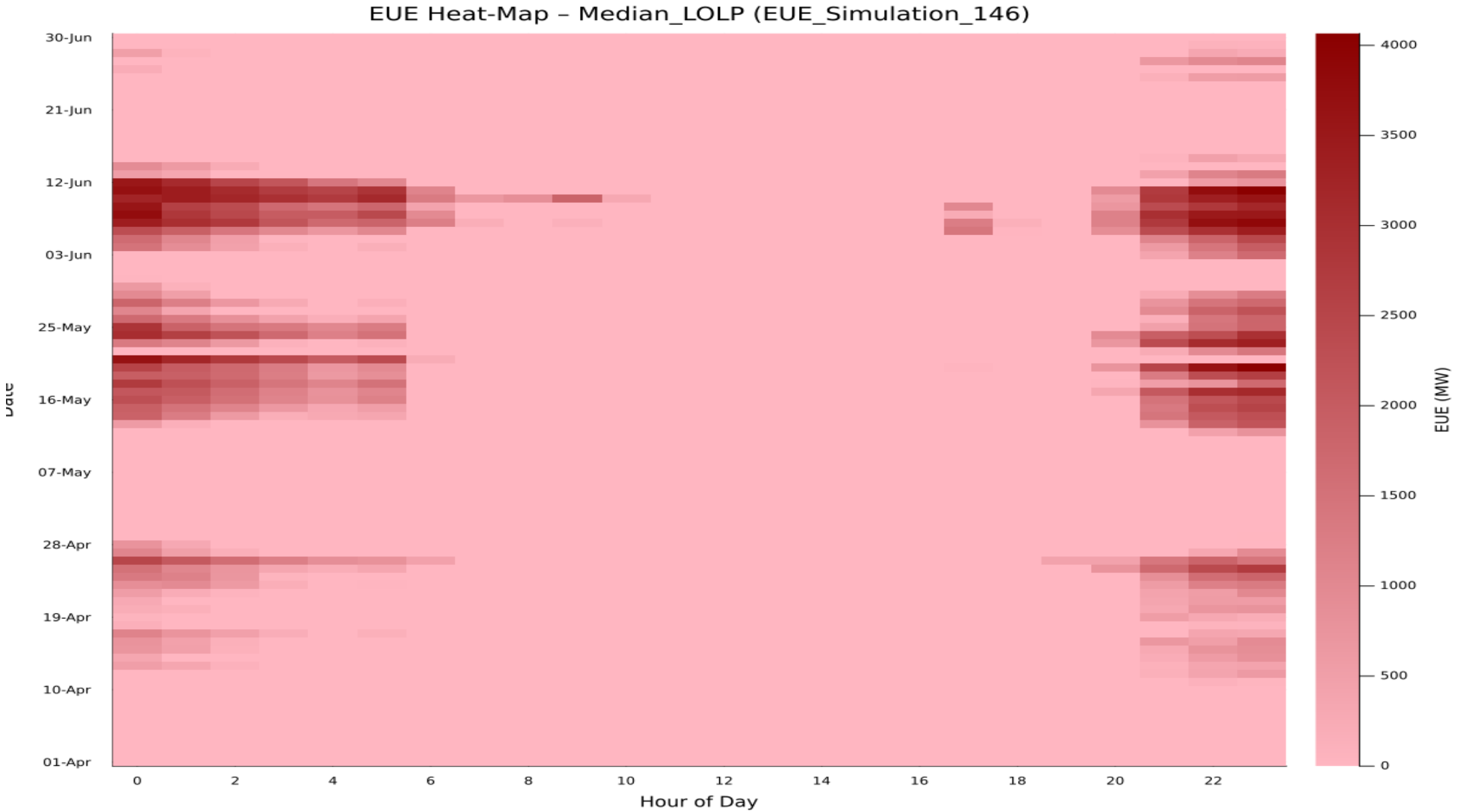


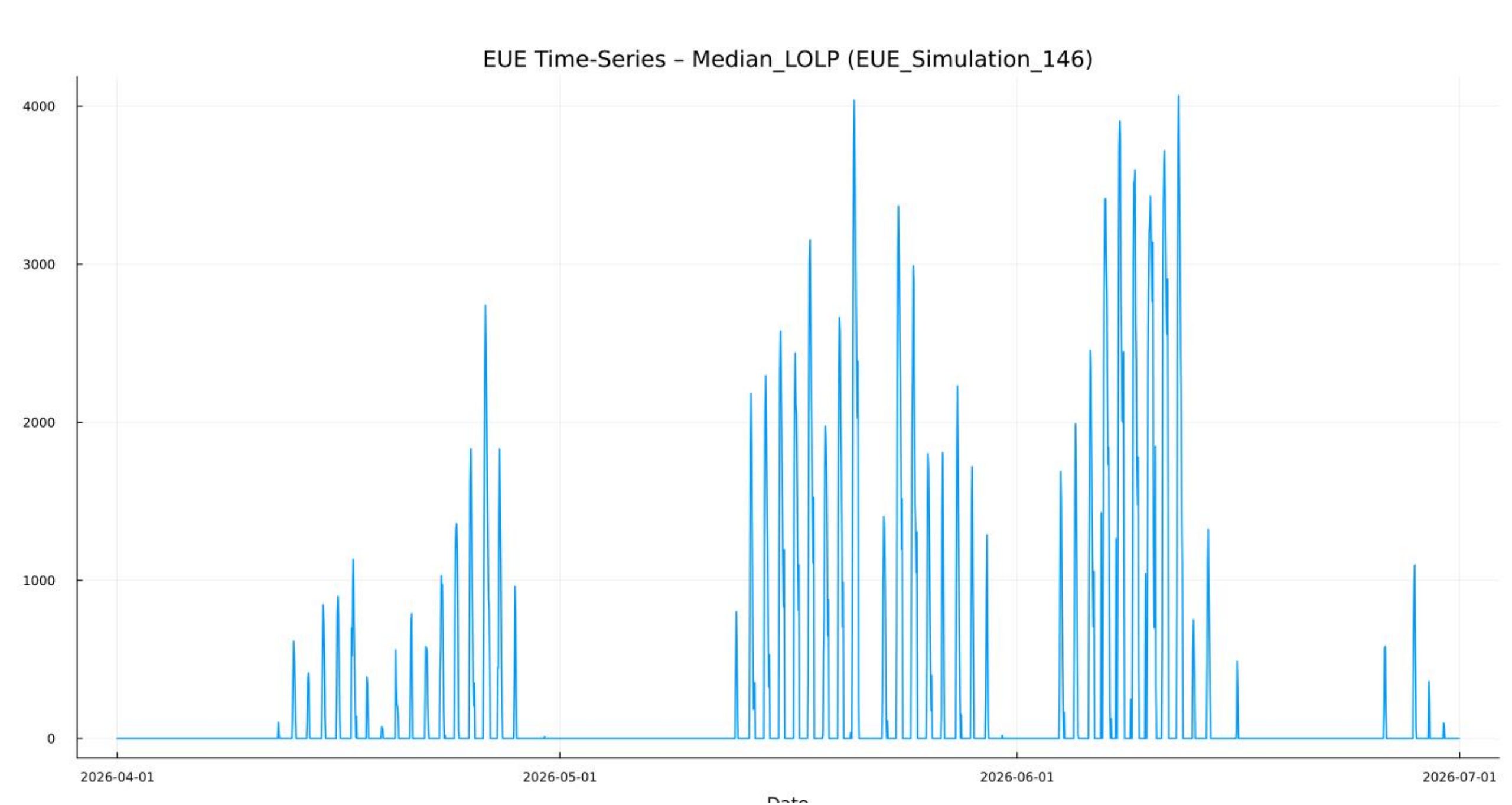

Available Thermal generation in MW as per Best Case scenario
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
1
33
65
97
129
161
193
225
257
289
321
353
385
417
449
481
513
545
577
609
641
673
705
737
769
801
833
865
897
929
961
993
1025
1057
1089
1121
1153
1185
1217
1249
1281
1313
1345
1377
1409
1441
1473
1505
1537
1569
1601
1633
1665
1697
1729
1761
1793
1825
1857
1889
1921
1953
1985
2017
2049
2081
2113
2145
2177


EUE Time-Series – Min_LOLP (EUE_Simulation_649)
3000
2000
1000
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date


Probability of Shortage per Hour across 1000 Scenarios
2026-06-30
2026-06-21
2026-06-12
2026-06-03
2026-05-25
2026-05-16
2026-05-07
2026-04-28
2026-04-19
2026-04-10
2026-04-01
0
2
4
6
8
10
12
14
16
18
20
22
Hour of Day
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Probability of Shortage

Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_146)
4000
3000
2000
1000
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

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April to June 2026

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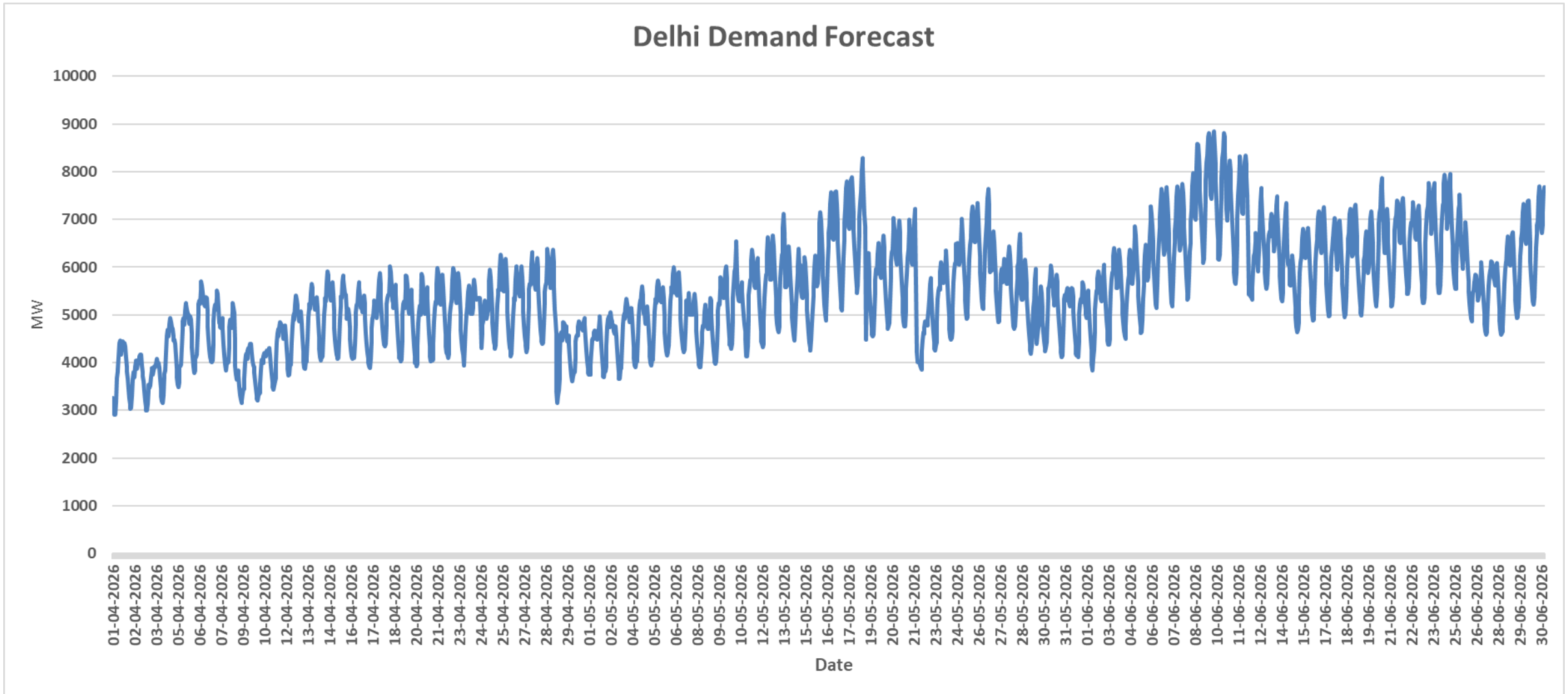
Delhi


Delhi Demand Forecast
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
13-04-2026
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16-04-2026
17-04-2026
18-04-2026
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27-04-2026
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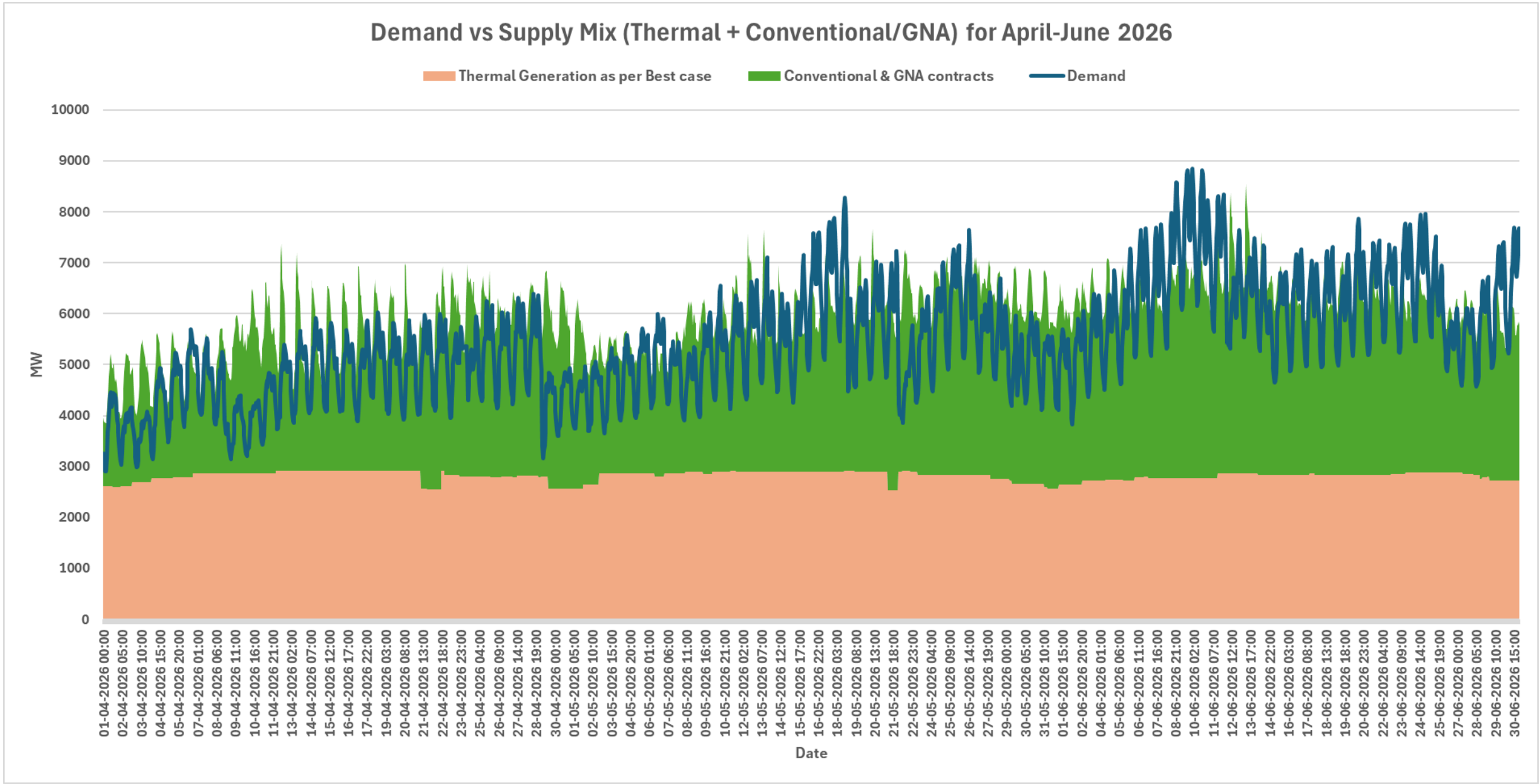
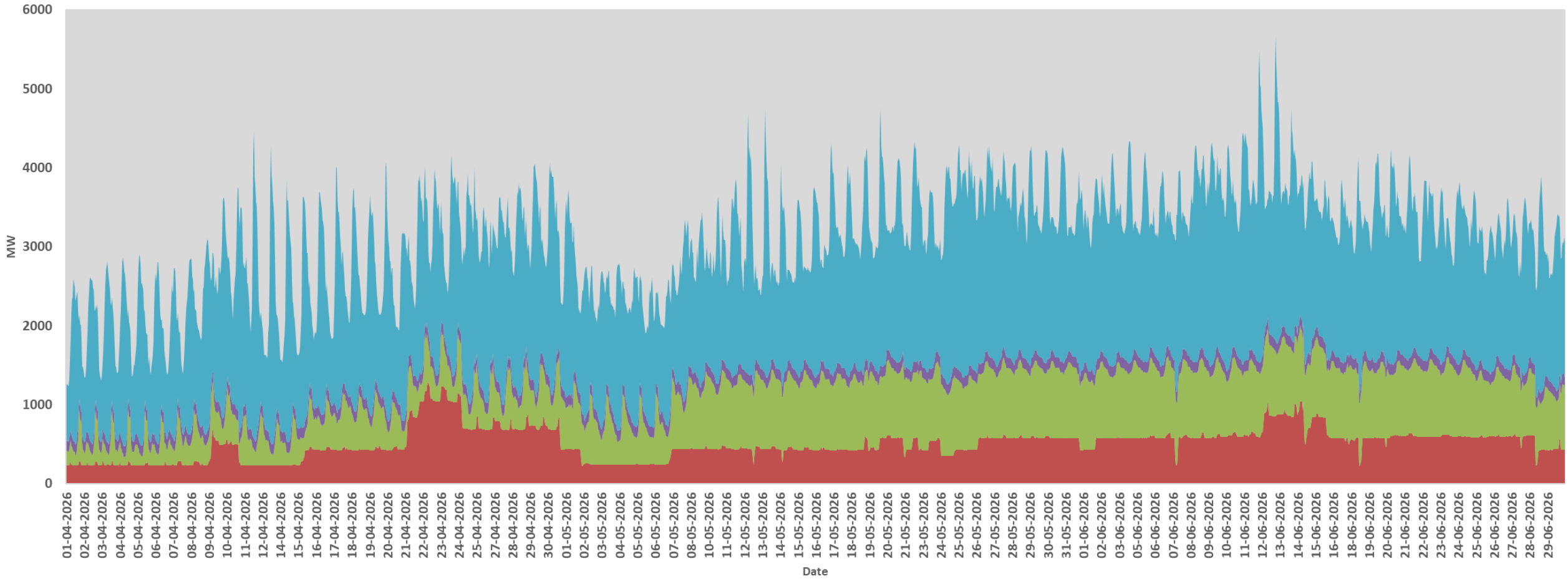
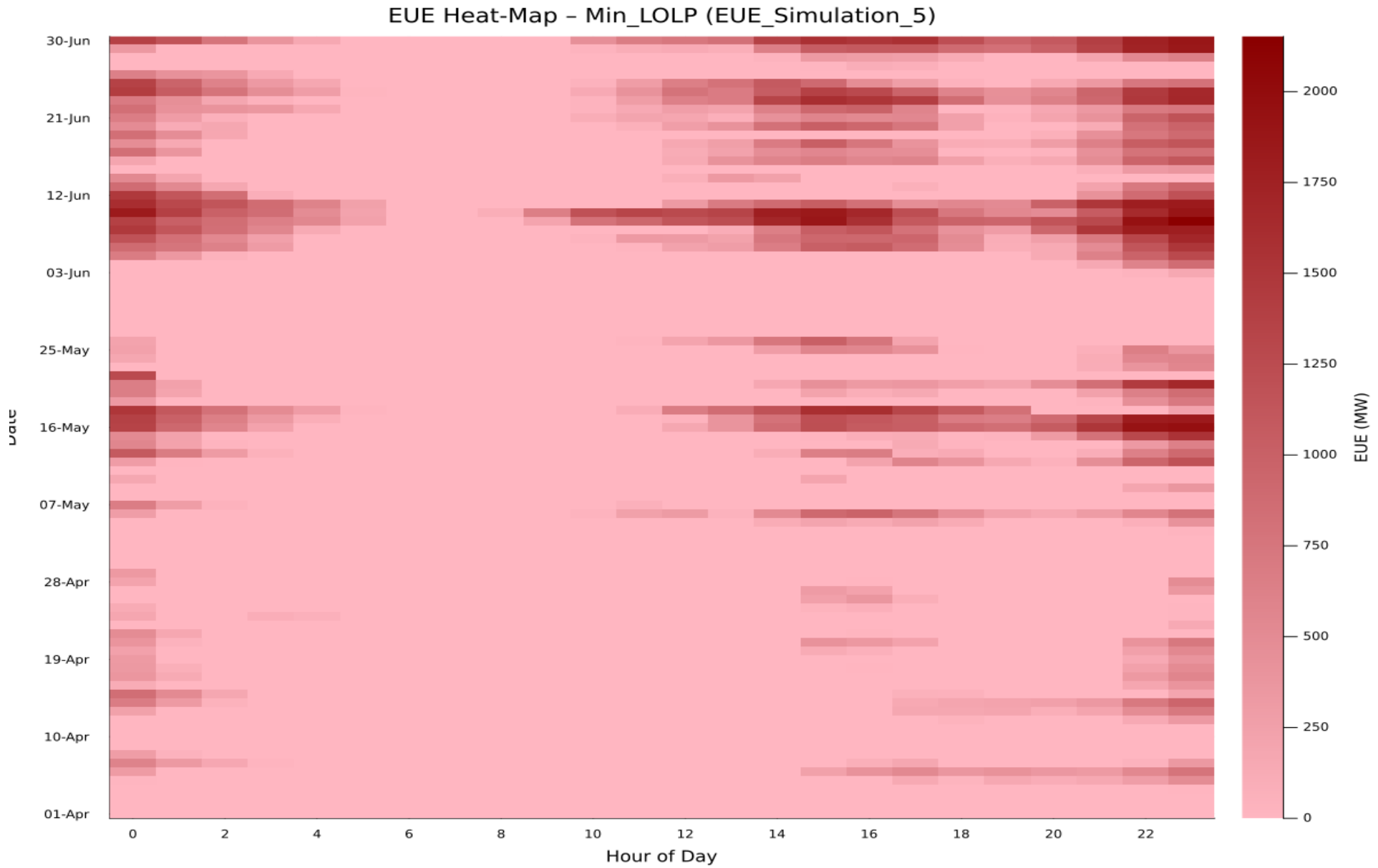
30-06-2026
Date

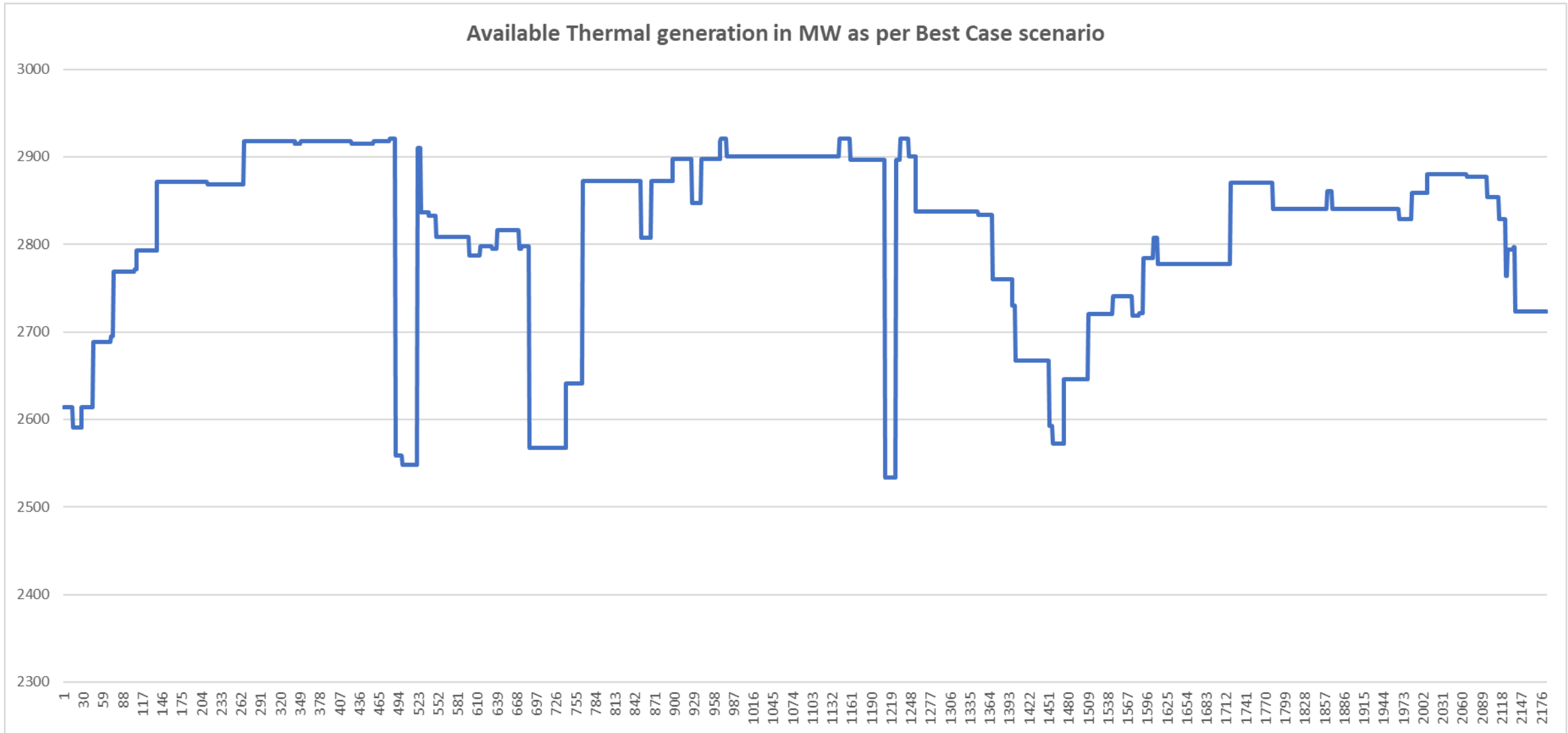

Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
MW
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Date

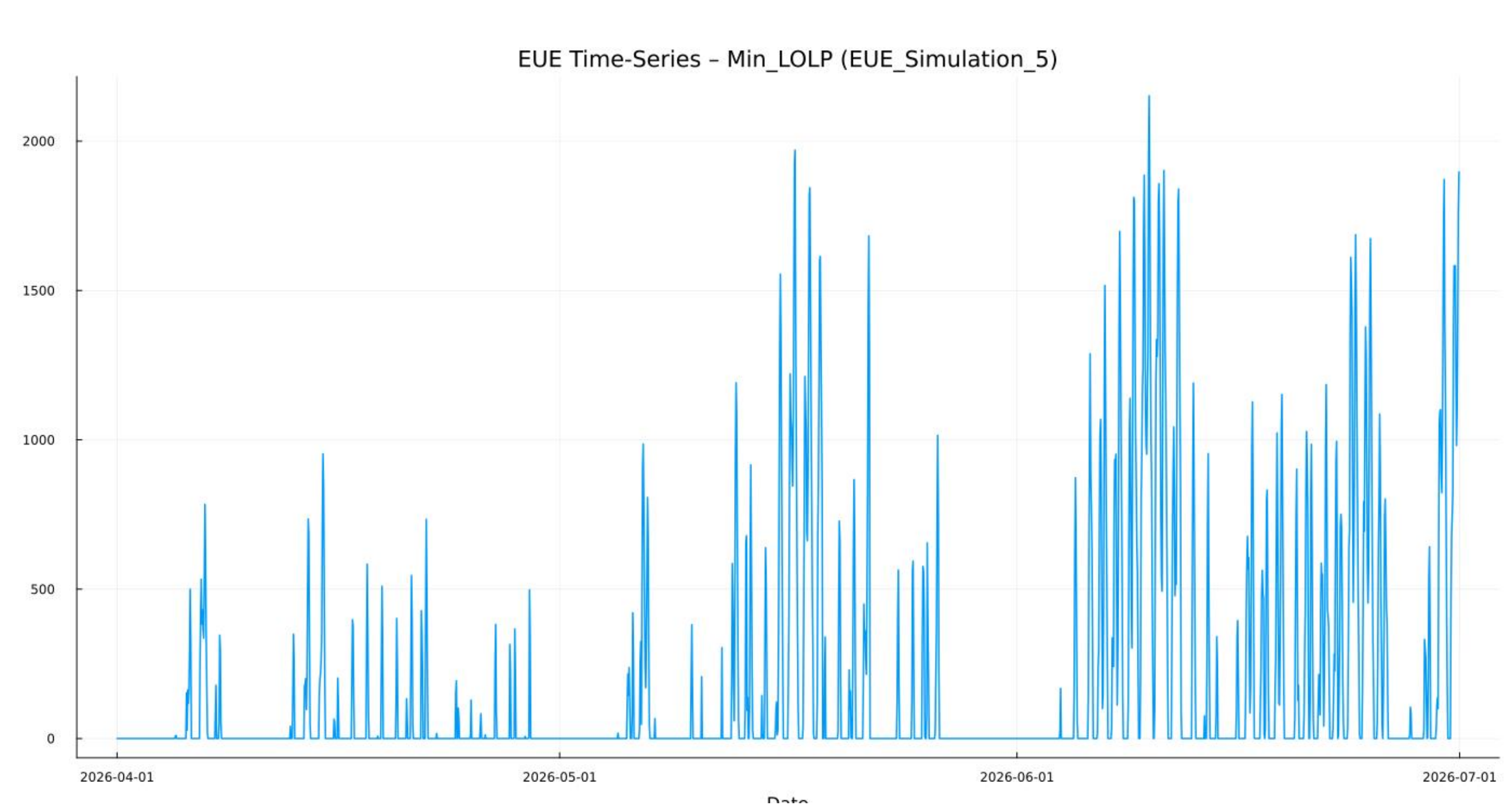
Source wise Forecast

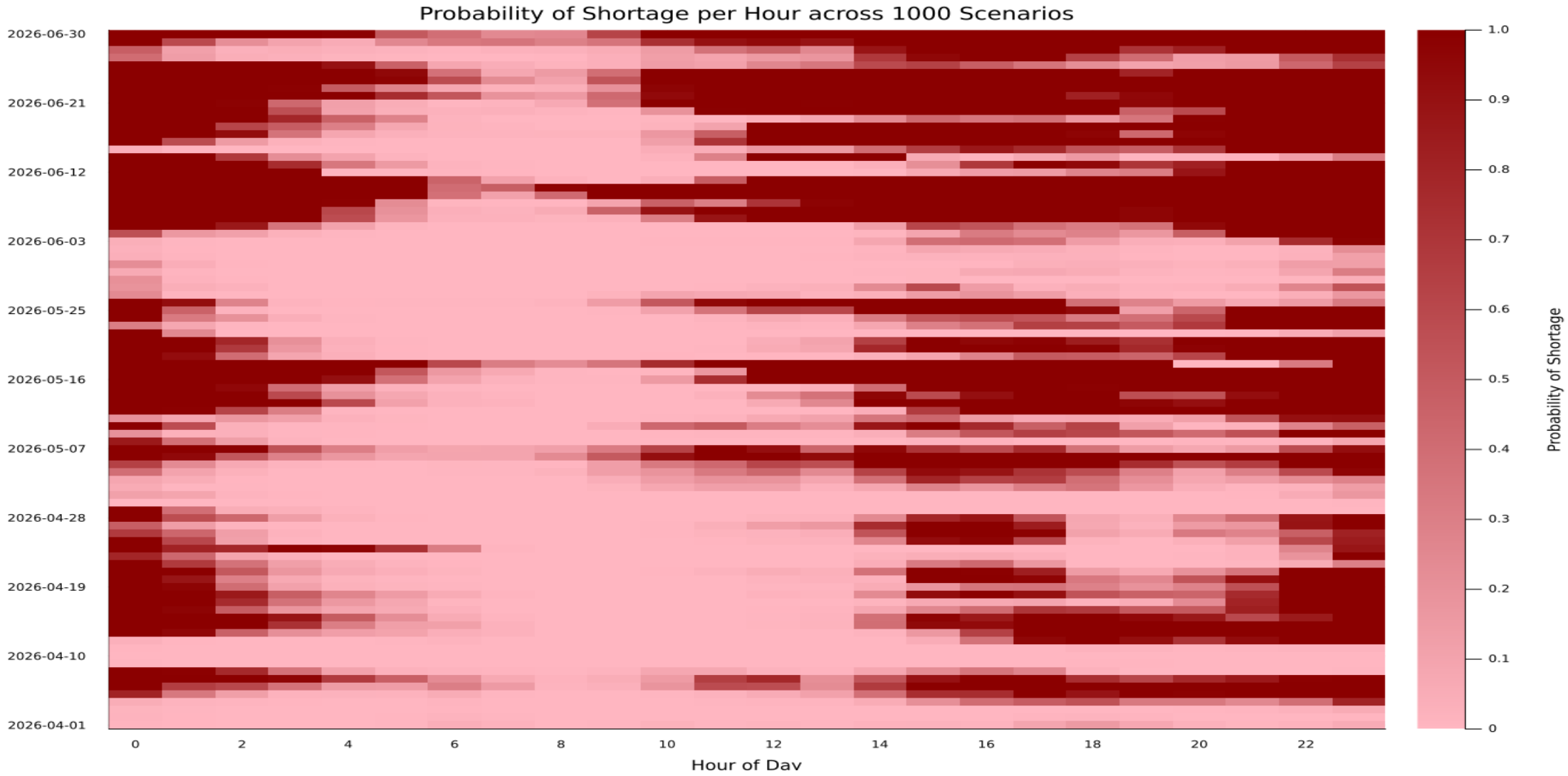


Best case: Load Unserved in MW- Heat Map



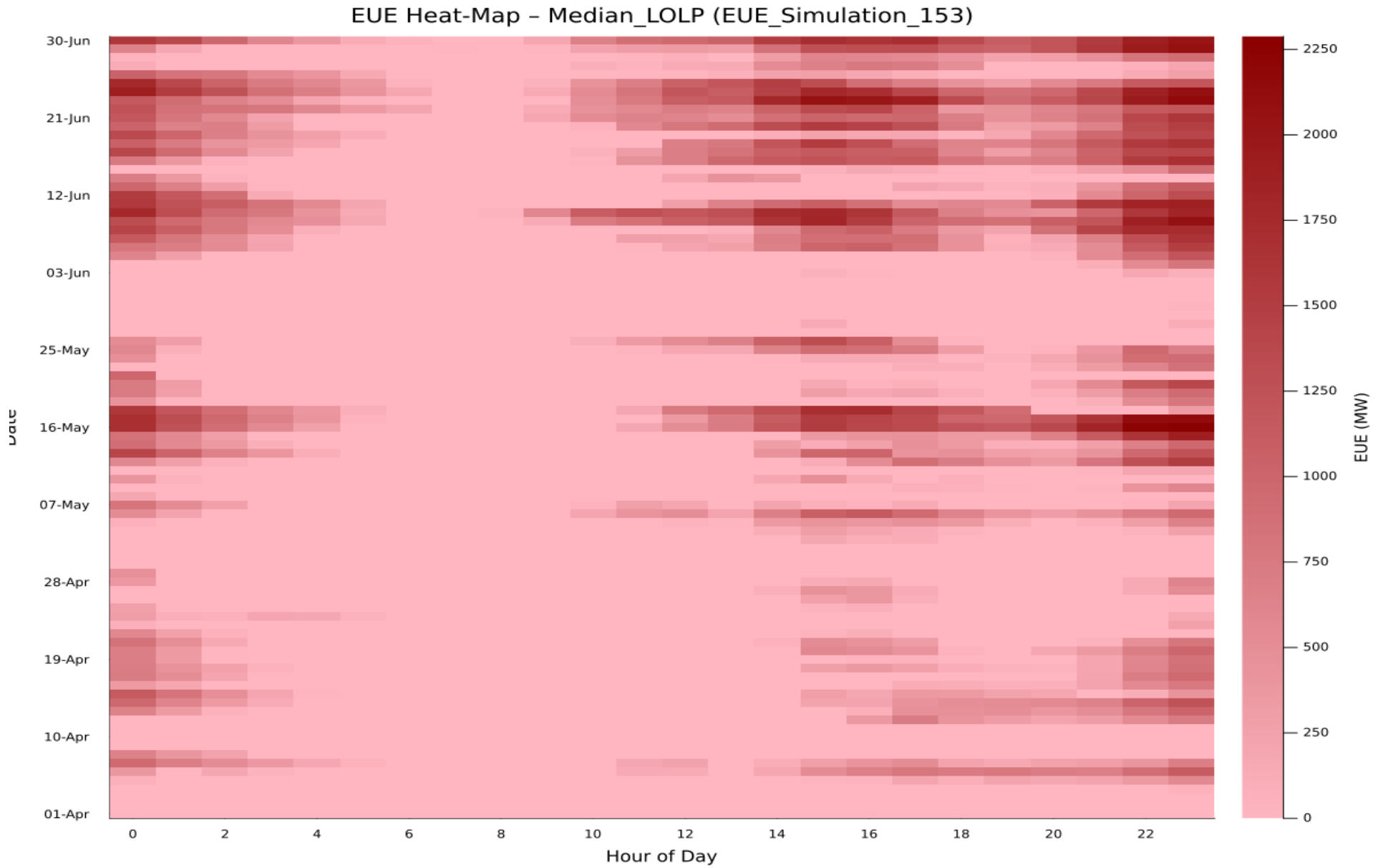

Available Thermal generation in MW as per Best Case scenario
3000
2900
2800
2700
2600
2500
2400
2300
1
30
59
88
117
146
175
204
233
262
291
320
349
378
407
436
465
494
523
552
581
610
639
668
697
726
755
784
813
842
871
900
929
958
987
1016
1045
1074
1103
1132
1161
1190
1219
1248
1277
1306
1335
1364
1393
1422
1451
1480
1509
1538
1567
1596
1625
1654
1683
1712
1741
1770
1799
1828
1857
1886
1915
1944
1973
2002
2031
2060
2089
2118
2147
2176

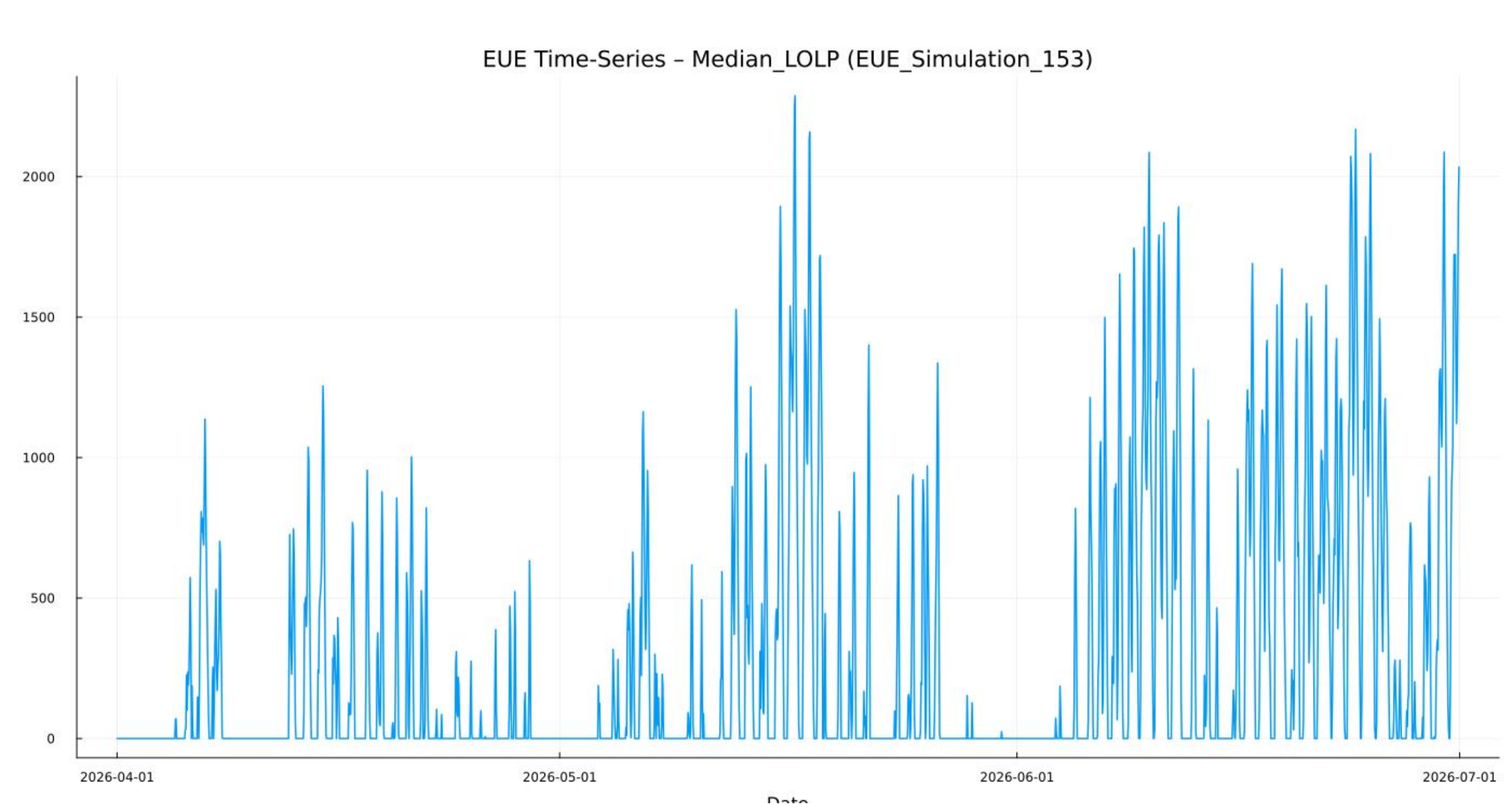

EUE Time-Series – Min_LOLP (EUE_Simulation_5)
2000
1500
1000
500
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date



In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled. The results indicate relatively higher shortage probability for Delhi, which reflects its operational dependence on Bilateral and DAM/RTM purchases observed during the previous summer.

Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_153)
2000
1500
1000
500
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

PRAS Outcomes – Key Observations & Way Forward (Summer: April–June 2026)

Observations

PRAS results indicate elevated adequacy risk during summer peak conditions, particularly during early morning and evening hours, when demand remains high and solar generation is unavailable.

The analysis highlights intermittent but significant unserved energy events, with higher frequency and magnitude observed during May–June, coinciding with extreme demand days.

While mid-day hours benefit from solar generation, peak-hour adequacy remains sensitive to demand variability and generation availability.

Way Forward

In view of the above, States are advised to strengthen advance resource planning for the summer period, including:

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Resource Adequacy Study Analysis for NR States

April to June 2026

Resource Adequacy Study using PRAS- Key assumptions

- The Probabilistic Resource Adequacy Study (PRAS) for the summer period from April to June 2026 has been carried out to assess the adequacy of available generation resources to reliably meet the projected state demand under a range of uncertainty scenarios. The assessment has been conducted using a probabilistic framework comprising 1000 Monte Carlo scenarios, with median outcomes presented to represent the expected system behaviour under typical operating conditions.

- To evaluate the net load to be met by dispatchable thermal generation, the forecasted hourly demand for the summer period (April-June 2026) was first estimated based on historical demand pattern and growth. From this projected demand, the expected contribution from non-thermal generation sources, namely solar, wind, hydro, and nuclear, was deducted.

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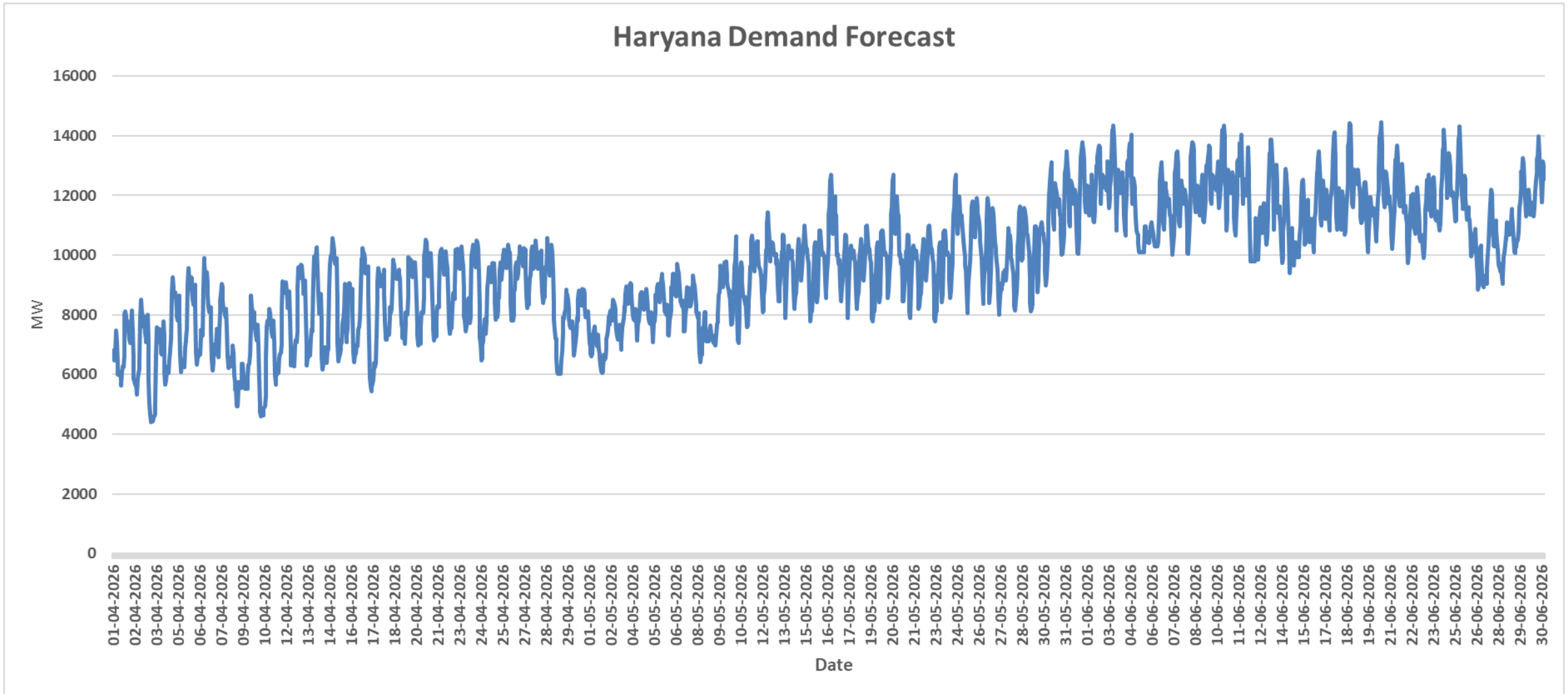
This stochastic modelling enables realistic representation of operational uncertainties and enhances the robustness of the resource adequacy assessment.

The probabilistic framework enables estimation of reliability metrics such as:

- ✓ **Loss of Load Expectation (LOLE)**
- ✓ **Expected Unserved Energy (EUE)**

Haryana


Haryana Demand Forecast
16000
14000
12000
10000
8000
6000
4000
2000
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
13-04-2026
14-04-2026
16-04-2026
17-04-2026
18-04-2026
20-04-2026
21-04-2026
23-04-2026
24-04-2026
25-04-2026
27-04-2026
28-04-2026
29-04-2026
01-05-2026
02-05-2026
04-05-2026
05-05-2026
06-05-2026
08-05-2026
09-05-2026
10-05-2026
12-05-2026
13-05-2026
15-05-2026
16-05-2026
17-05-2026
19-05-2026
20-05-2026
21-05-2026
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28-05-2026
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31-05-2026
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07-06-2026
08-06-2026
10-06-2026
11-06-2026
12-06-2026
14-06-2026
15-06-2026
17-06-2026
18-06-2026
19-06-2026
21-06-2026
22-06-2026
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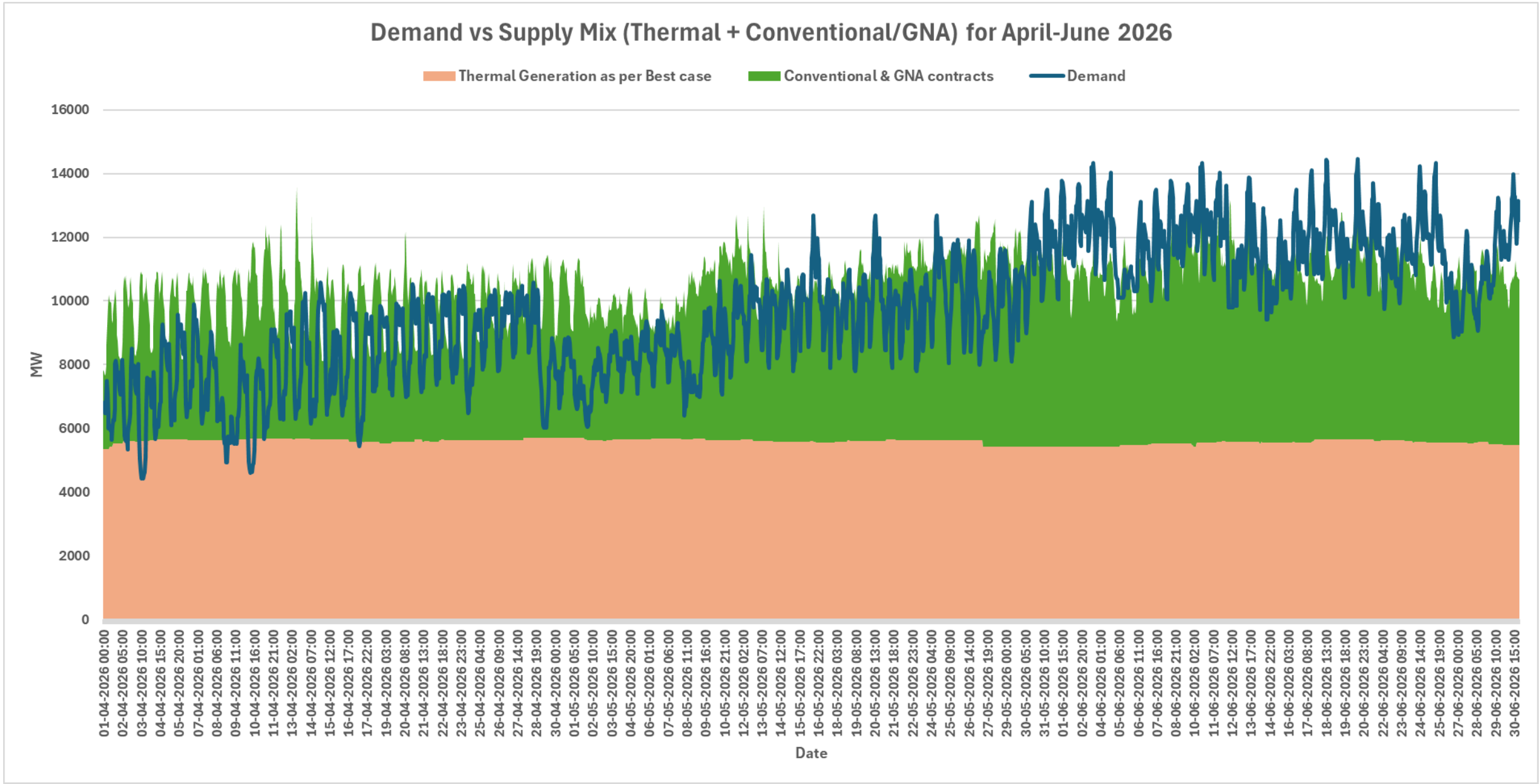
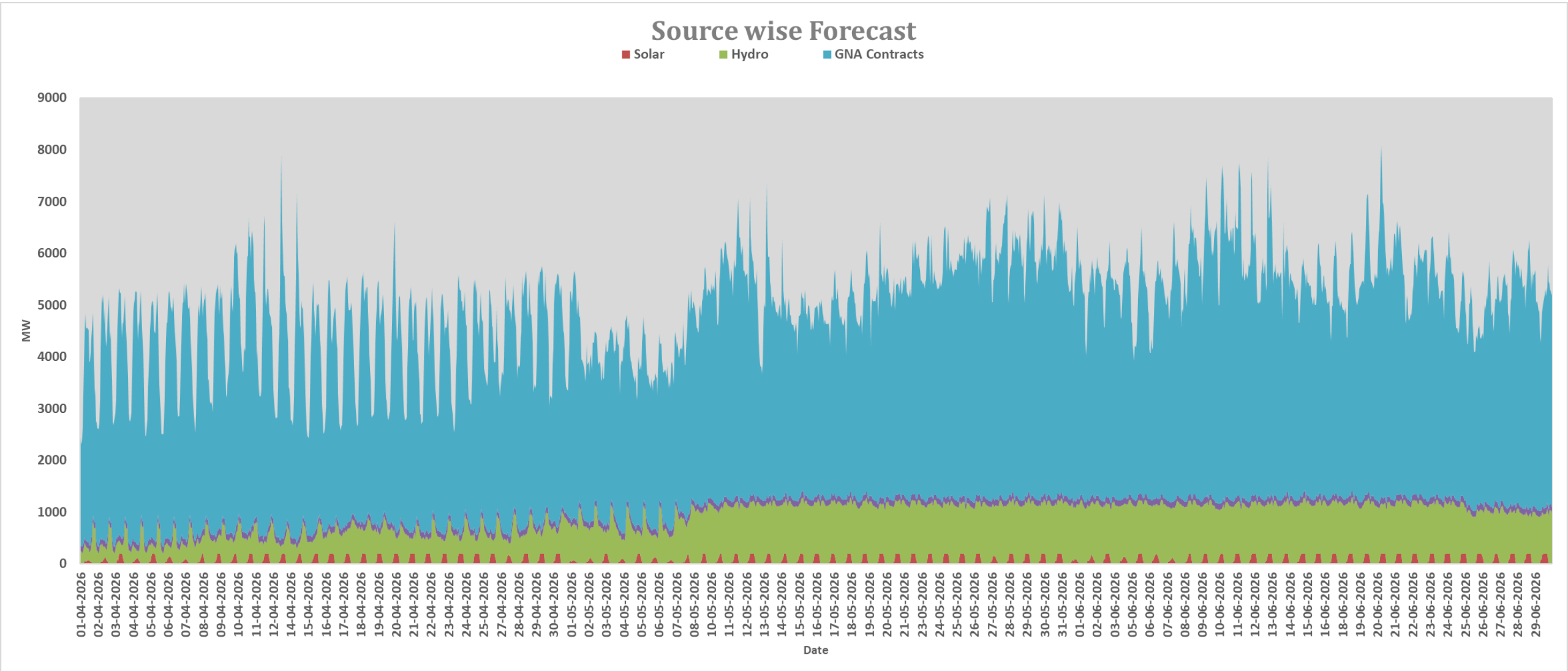
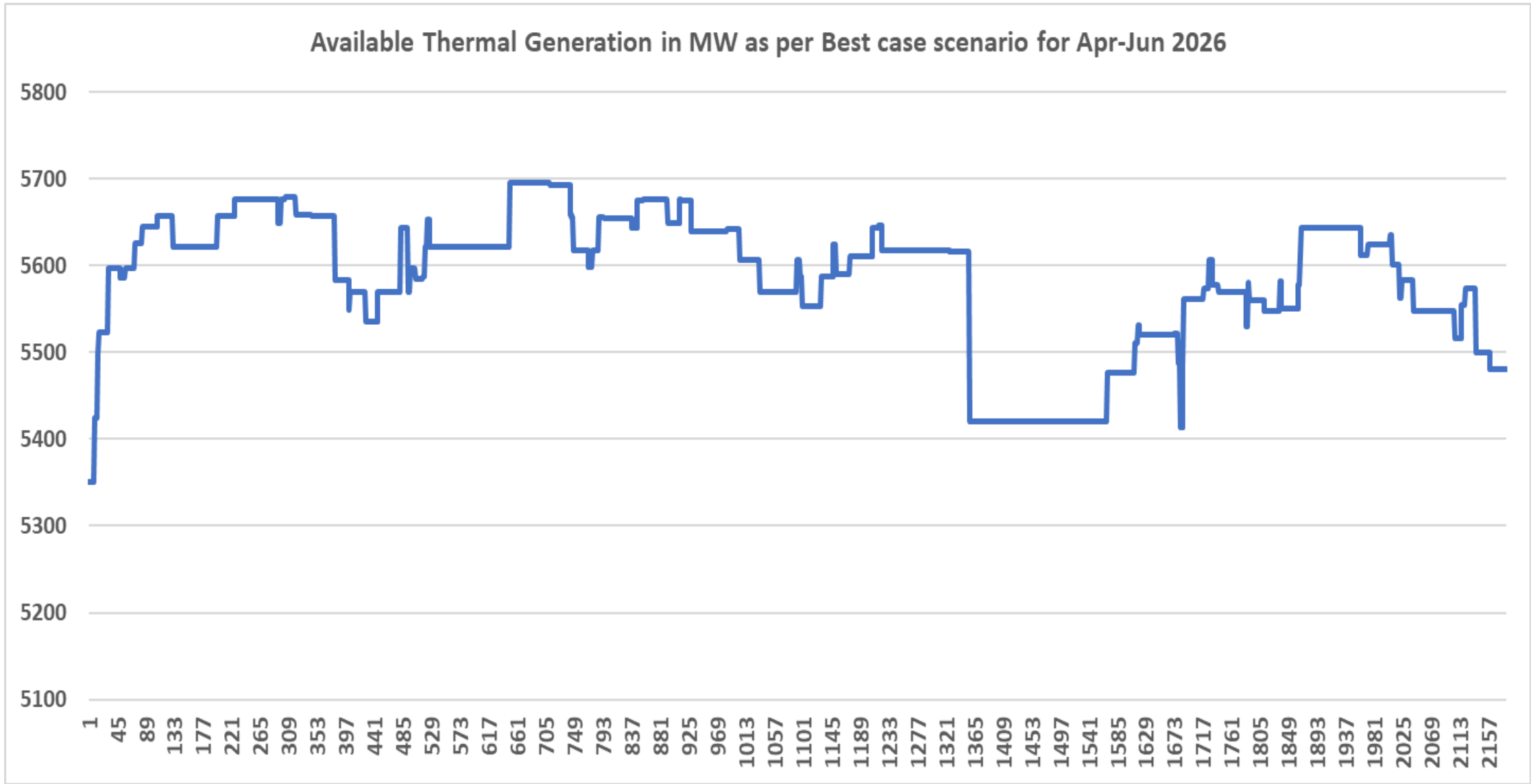
29-06-2026
30-06-2026
Date


Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
MW
16000
14000
12000
10000
8000
6000
4000
2000
0
Date


Source wise Forecast
Solar
Hydro
GNA Contracts
MW
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Date

Best case: Load Unserved in MW- Heat Map


Available Thermal Generation in MW as per Best case scenario for Apr-Jun 2026
5800
5700
5600
5500
5400
5300
5200
5100
1
45
89
133
177
221
265
309
353
397
441
485
529
573
617
661
705
749
793
837
881
925
969
1013
1057
1101
1145
1189
1233
1277
1321
1365
1409
1453
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1541
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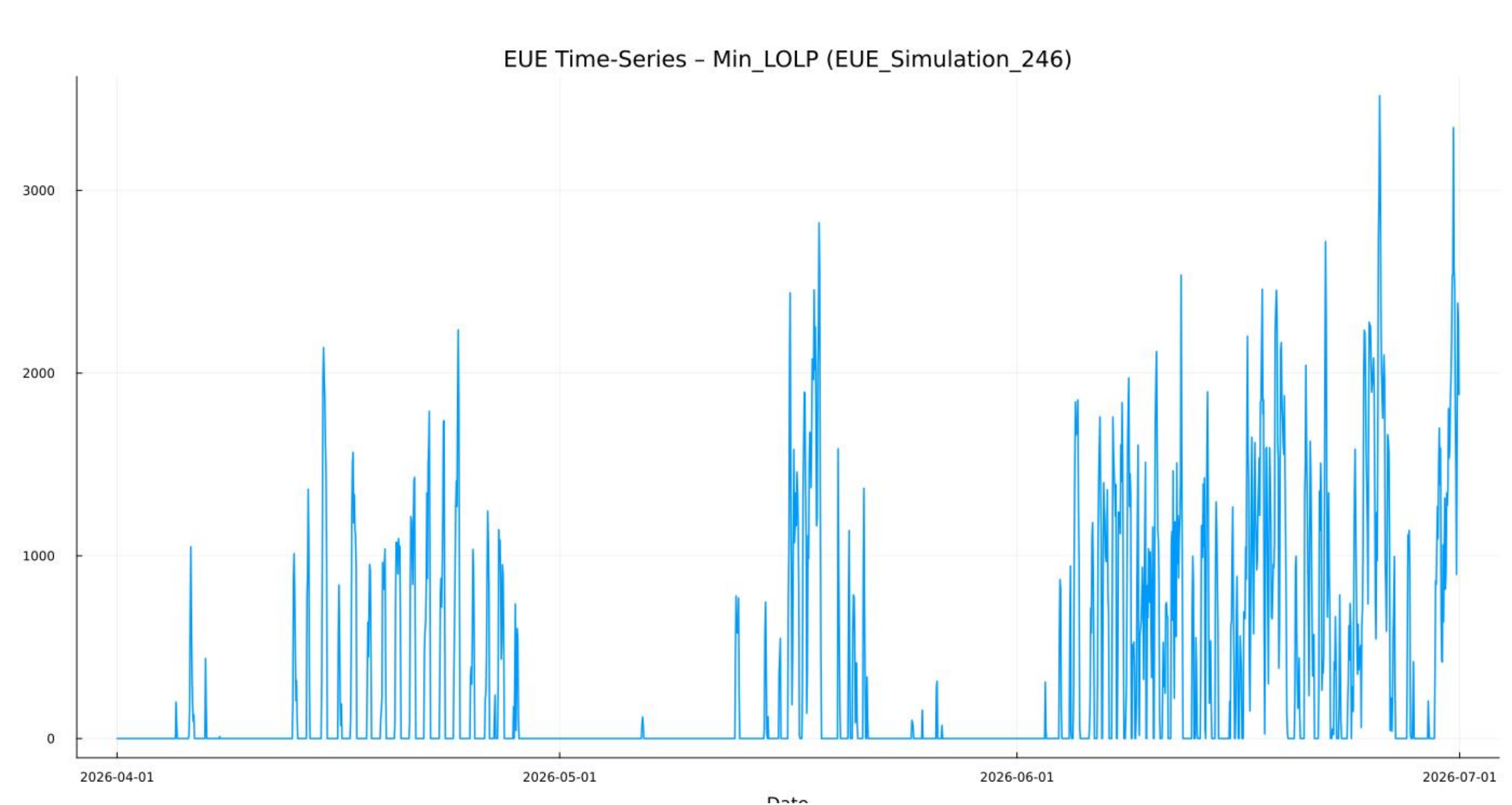
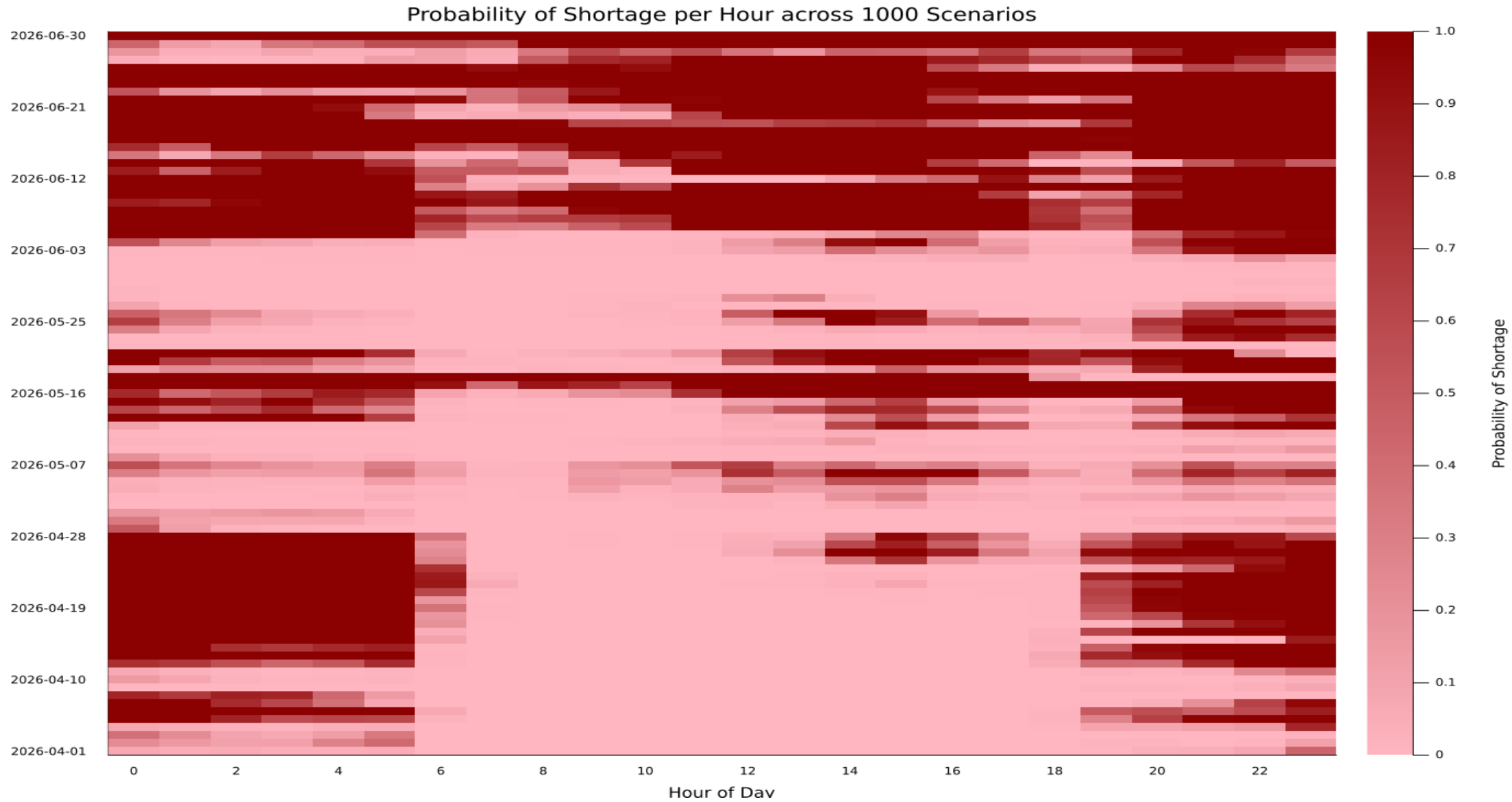
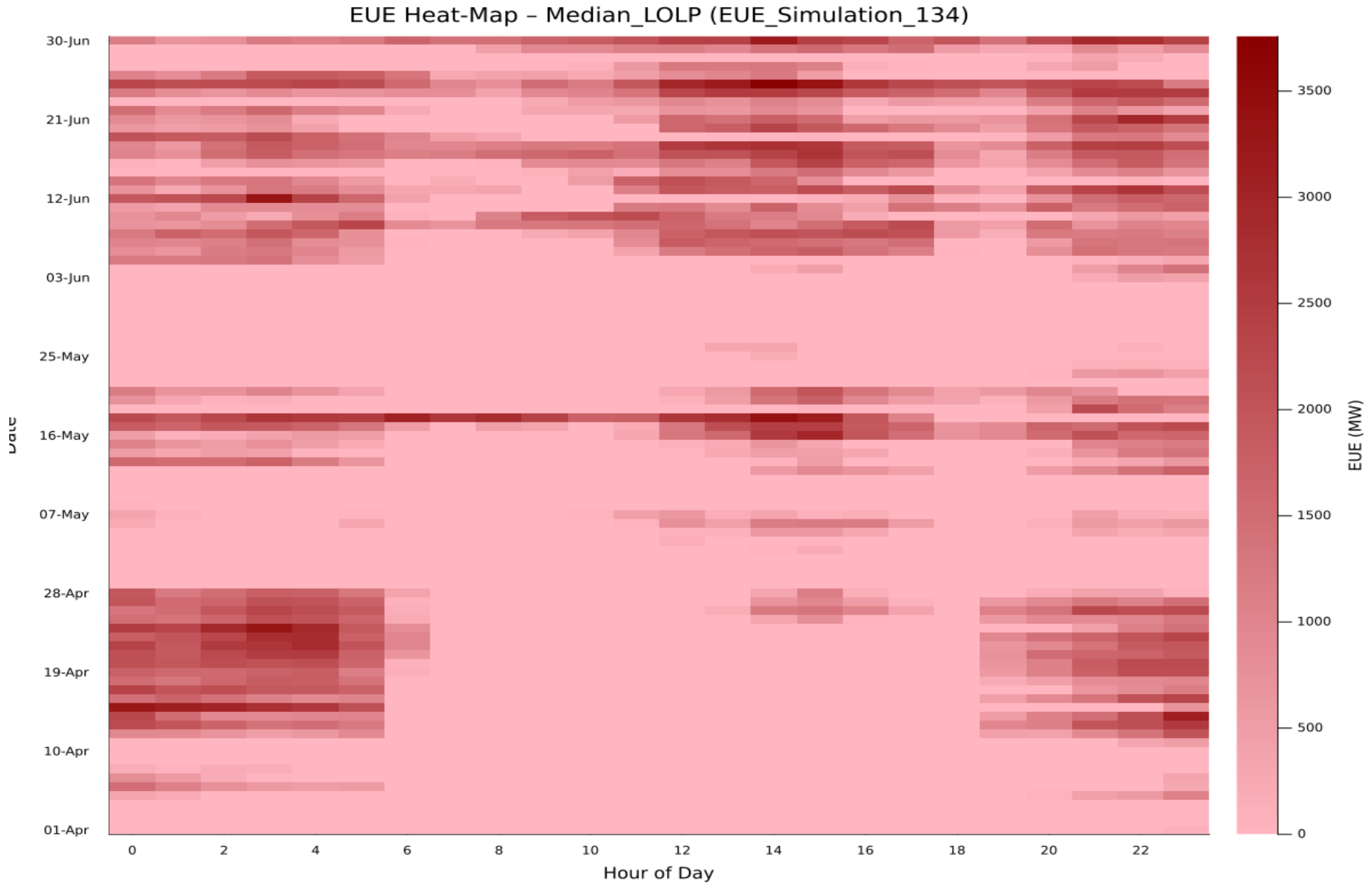
1673
1717
1761
1805
1849
1893
1937
1981
2025
2069
2113
2157

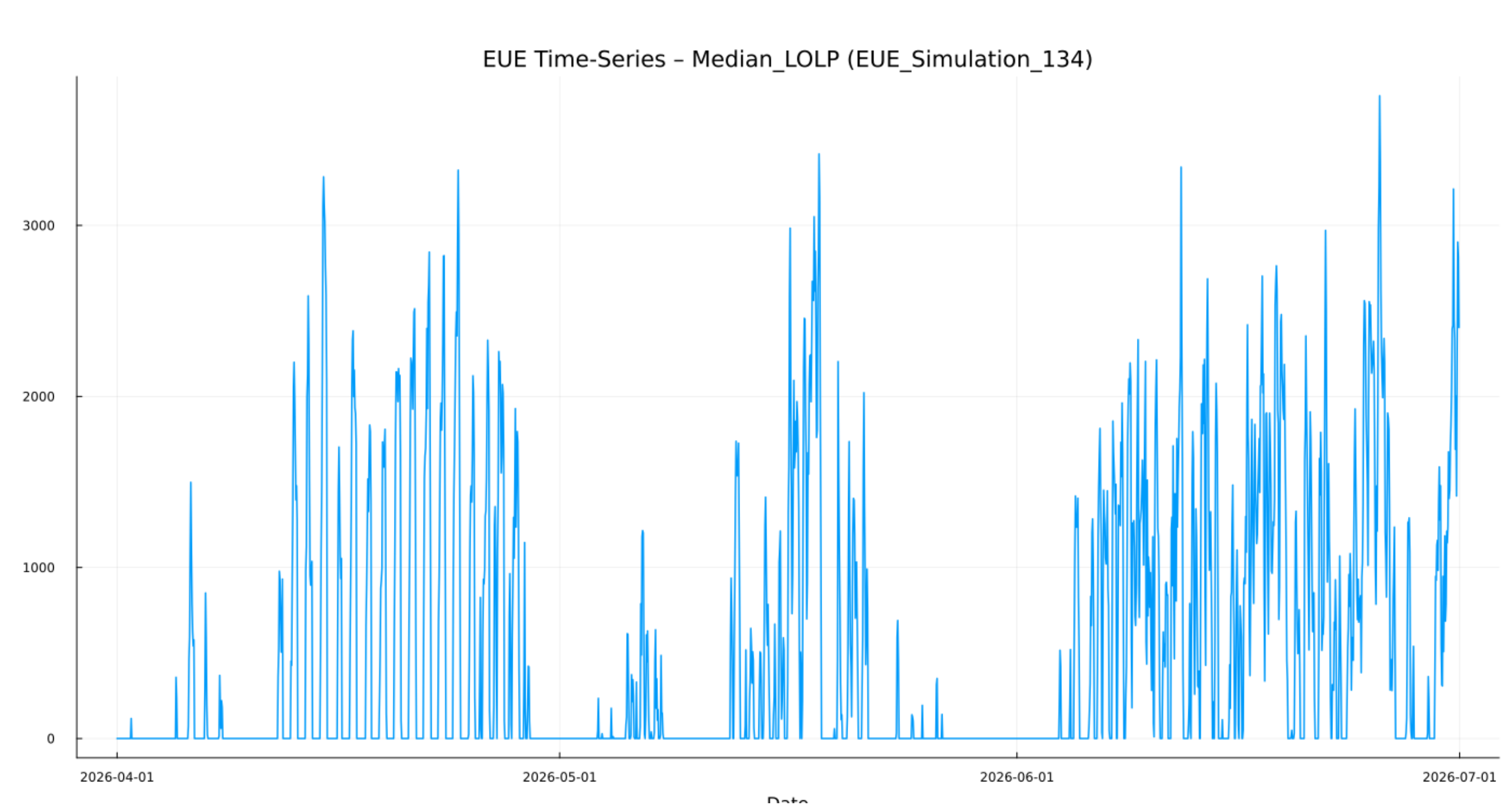

EUE Time-Series – Min_LOLP (EUE_Simulation_246)
3000
2000
1000
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date



In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled. The results indicate relatively higher shortage probability for Haryana, which reflects its operational dependence on Bilateral and DAM/RTM purchases observed during the previous summer.

Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_134)
3000
2000
1000
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

PRAS Outcomes – Key Observations & Way Forward (Summer: April–June 2026)

Observations

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Resource Adequacy Study Analysis for NR States

April to June 2026

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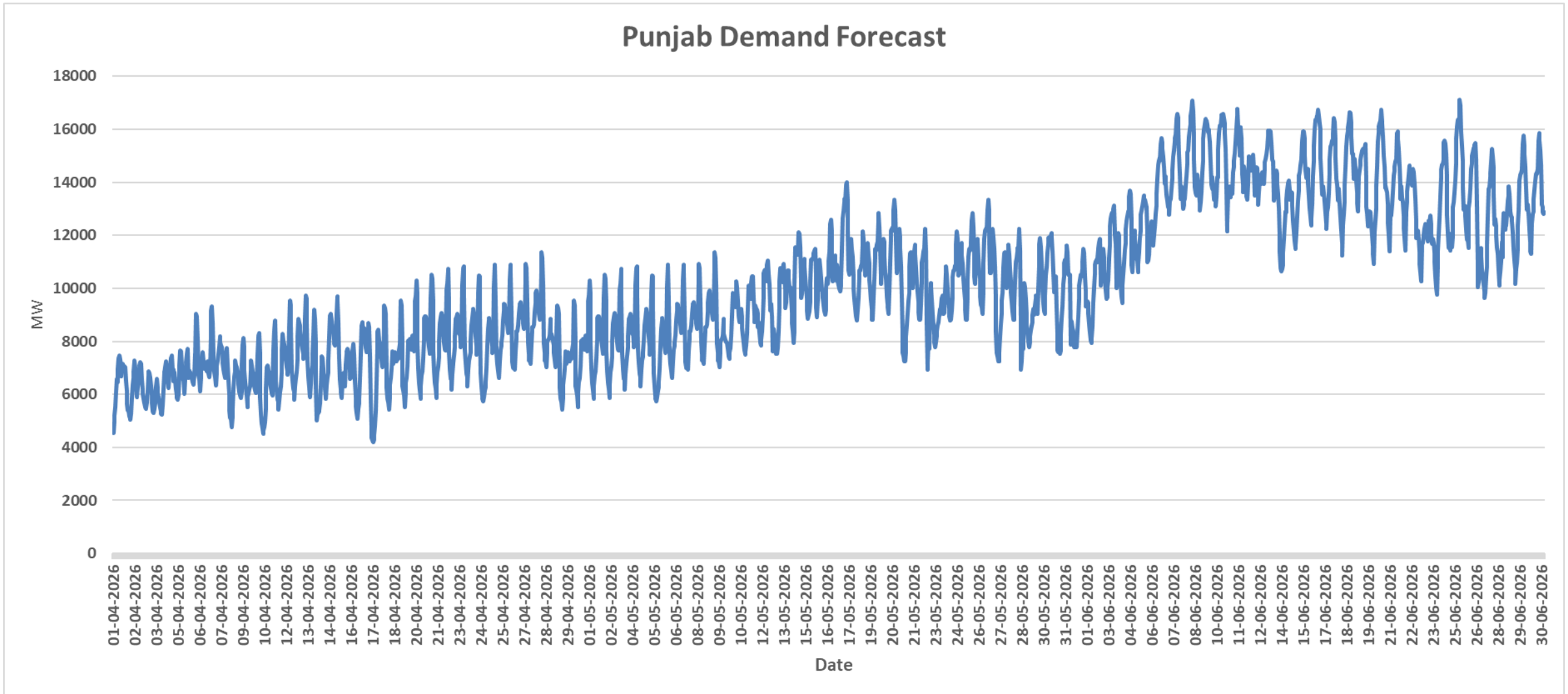
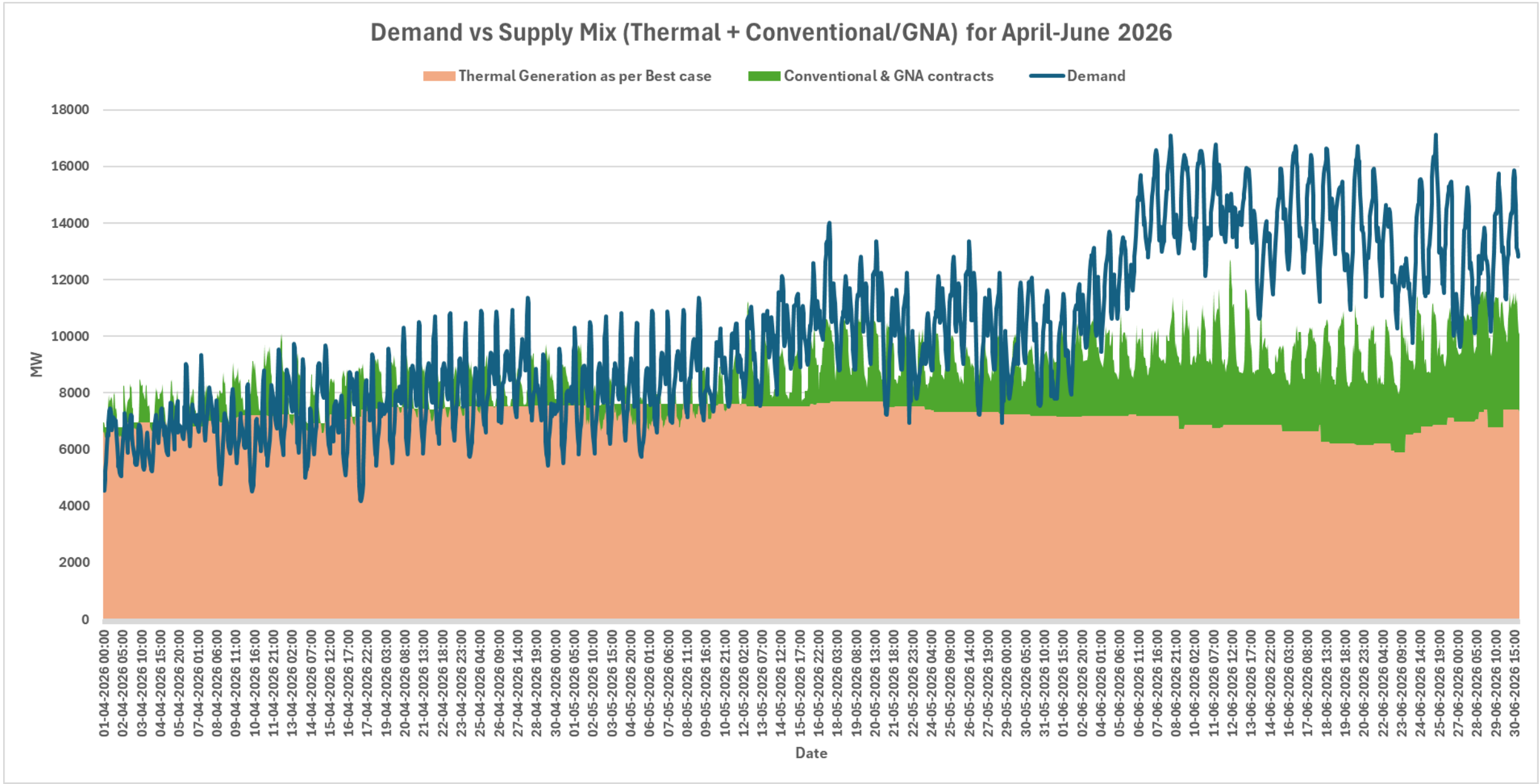
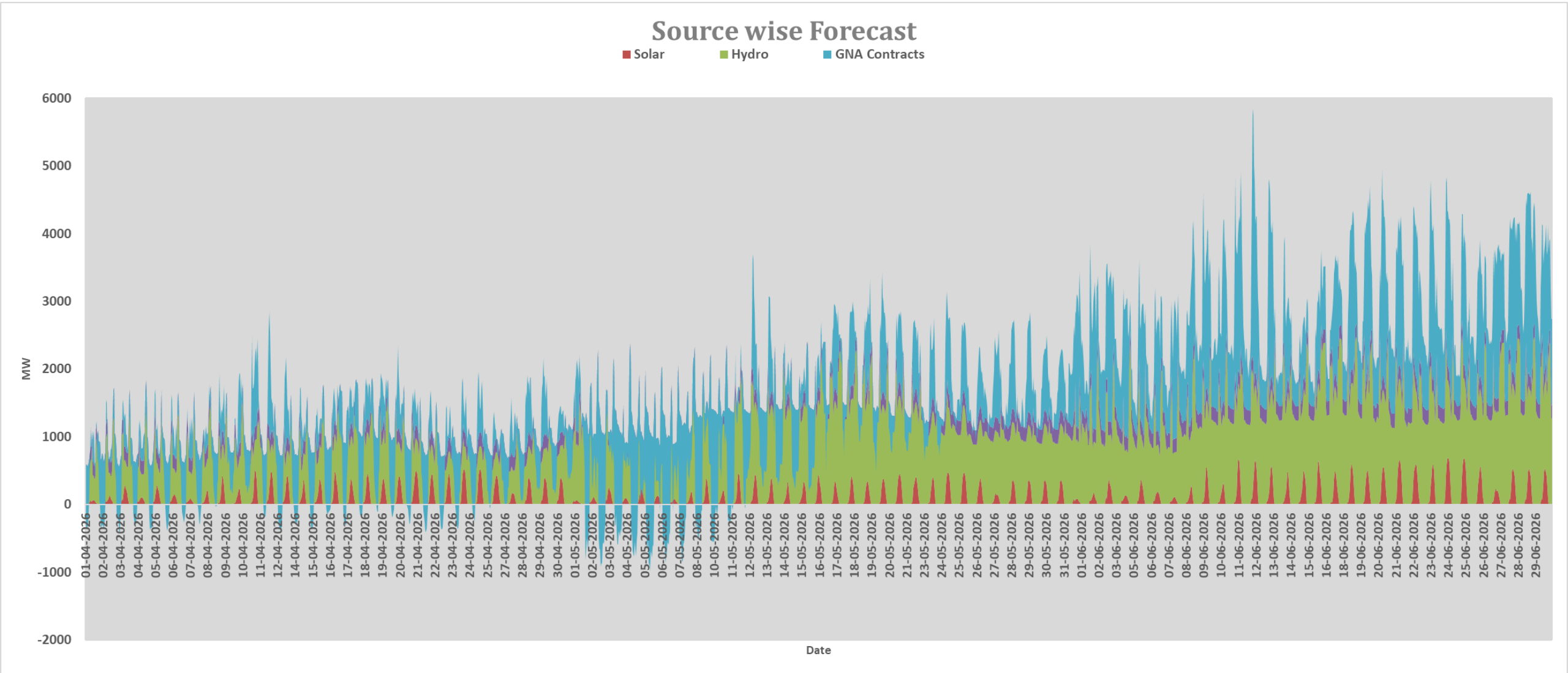
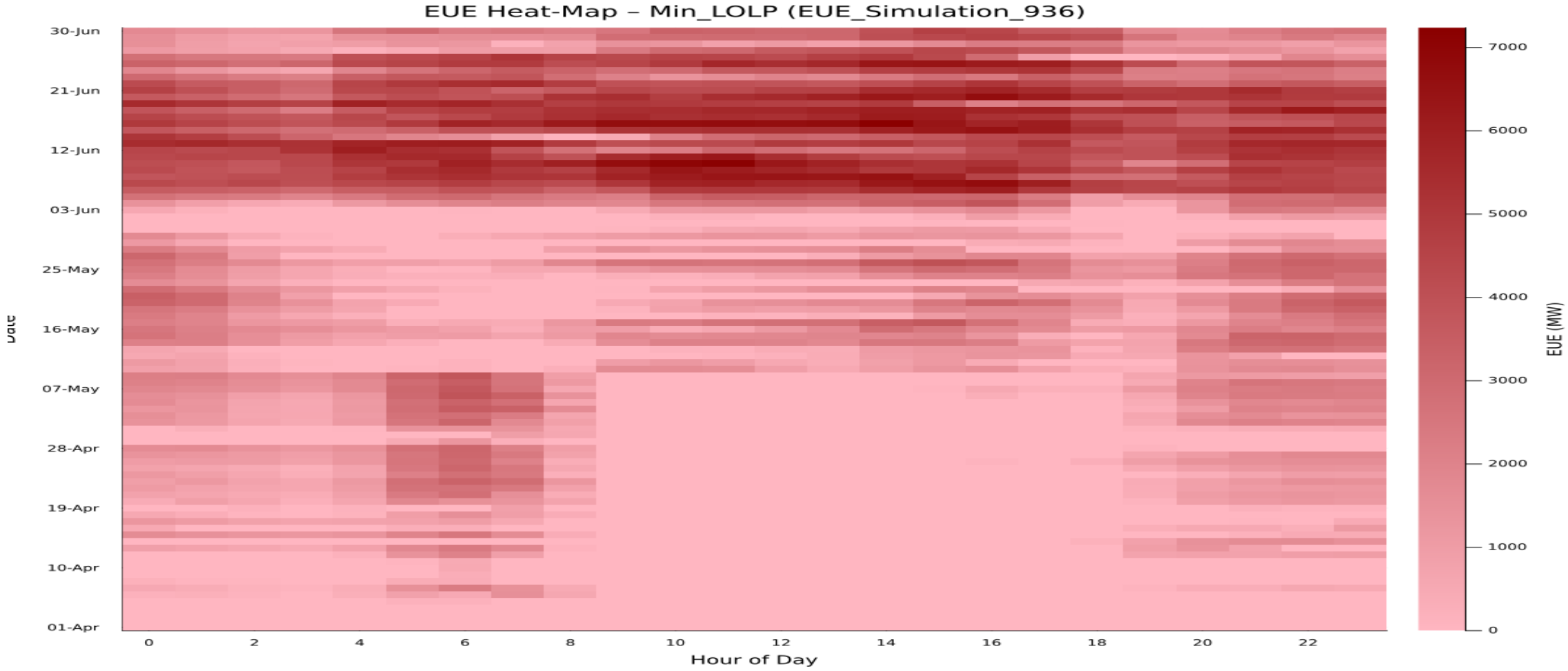
Punjab


Punjab Demand Forecast
MW
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
Date

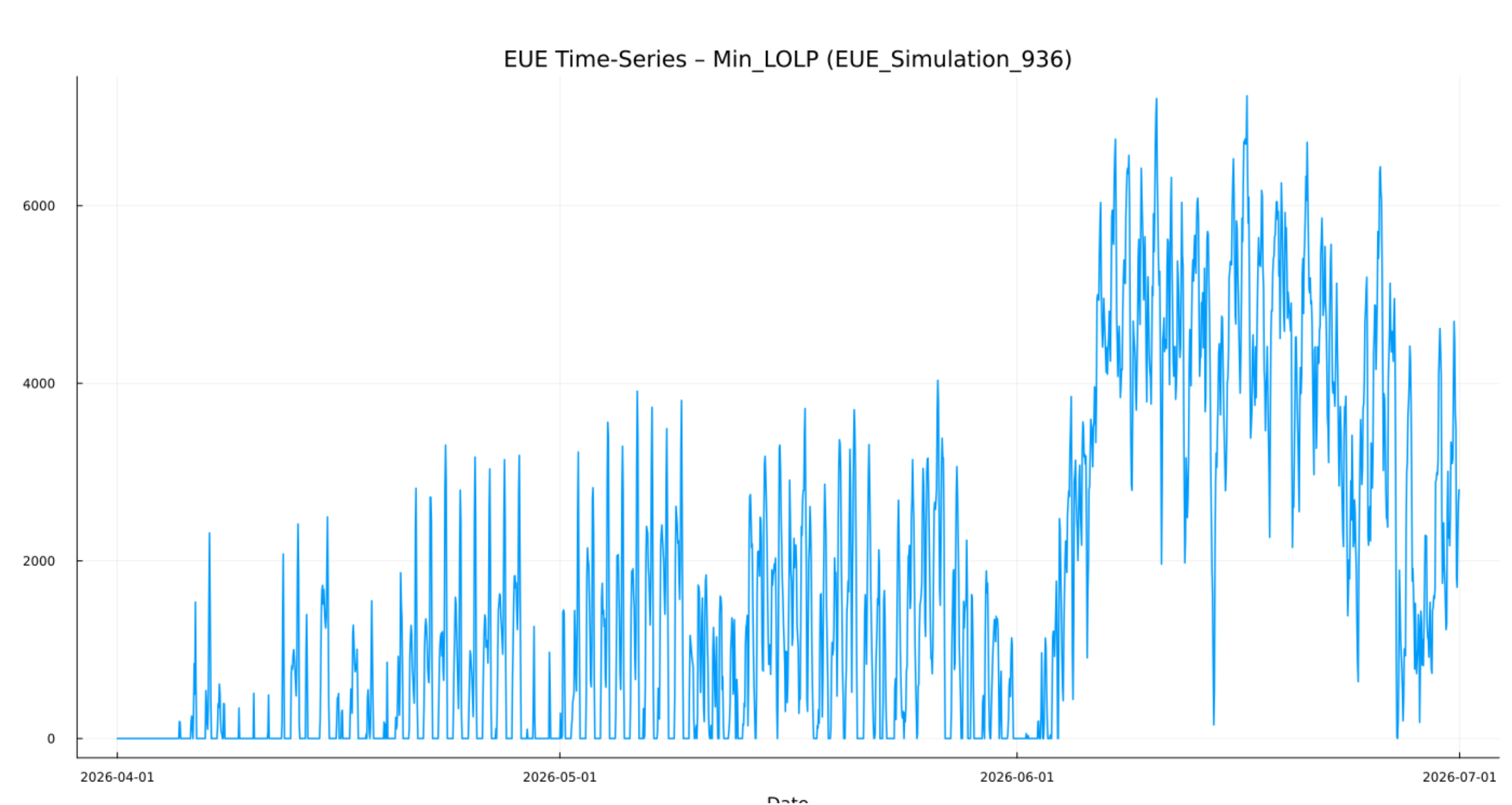

Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
MW
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
Date

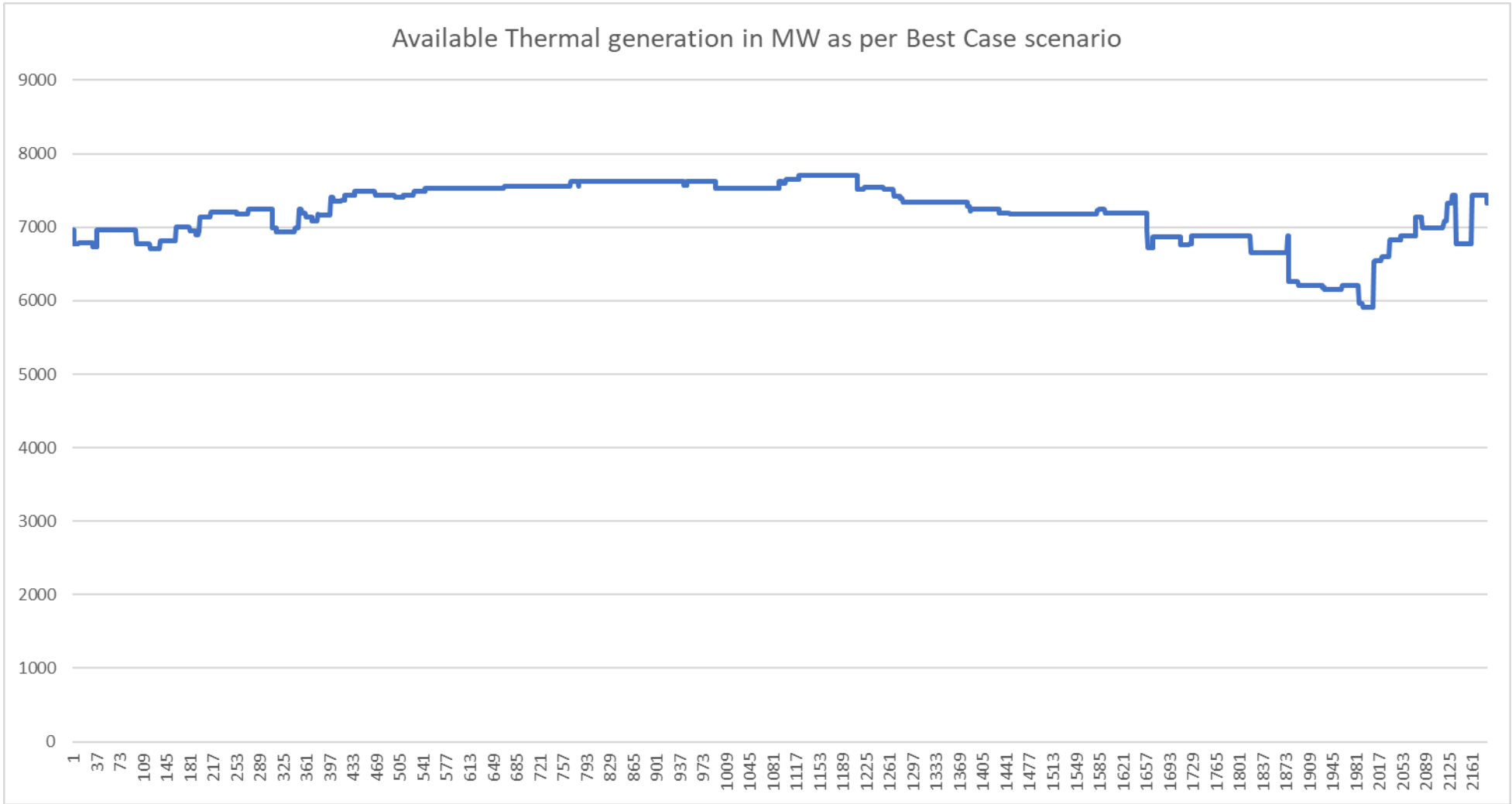

Source wise Forecast
Solar
Hydro
GNA Contracts
6000
5000
4000
3000
2000
1000
0
-1000
-2000
MW
Date

Best case: Load Unserved in MW- Heat Map



In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled. The results indicate relatively higher shortage probability for Punjab, which reflects its operational dependence on DAM/RTM purchases observed during the previous summer.


EUE Time-Series – Min_LOLP (EUE_Simulation_936)
6000
4000
2000
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date


Available Thermal generation in MW as per Best Case scenario
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
1
37
73
109
145
181
217
253
289
325
361
397
433
469
505
541
577
613
649
685
721
757
793
829
865
901
937
973
1009
1045
1081
1117
1153
1189
1225
1261
1297
1333
1369
1405
1441
1477
1513
1549
1585
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1657
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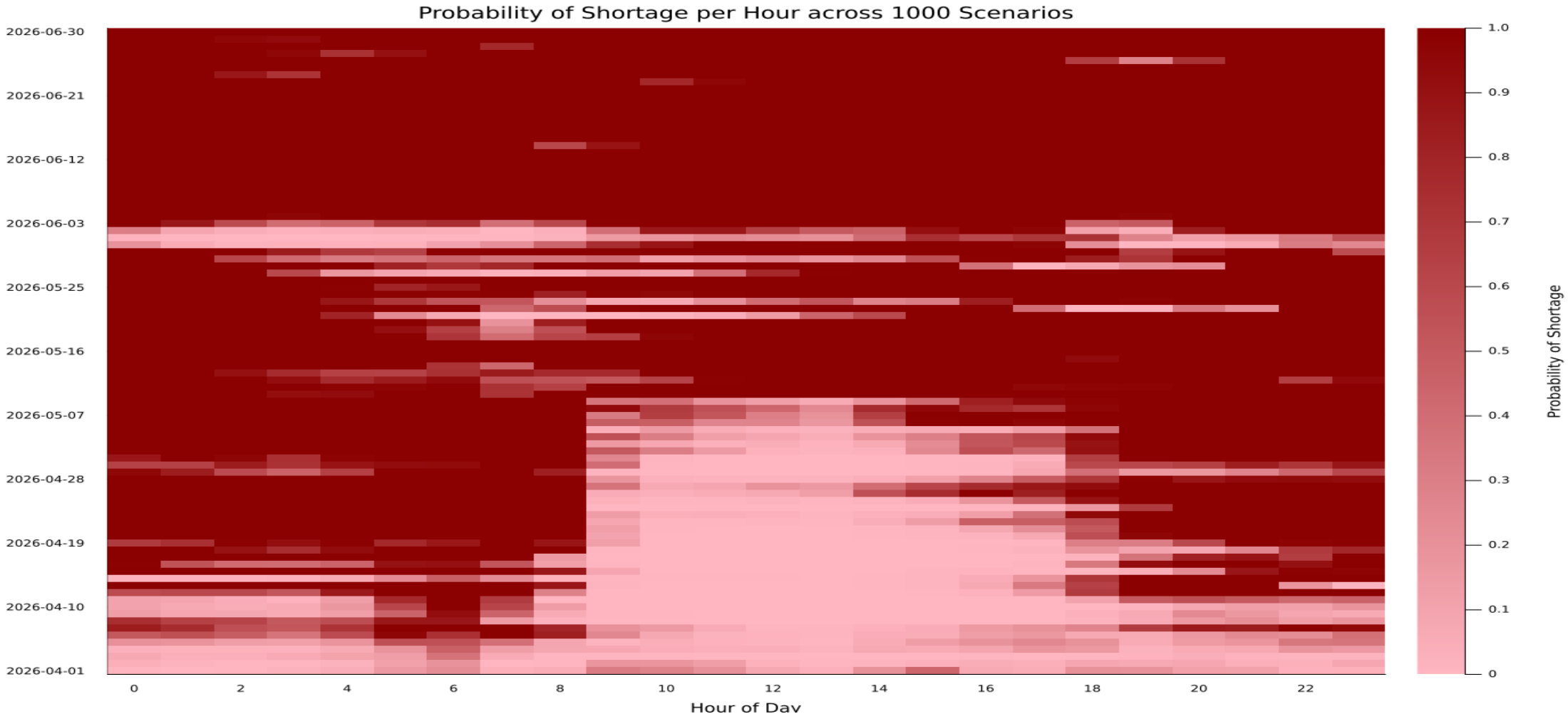
1729
1765
1801
1837
1873
1909
1945
1981
2017
2053
2089
2125
2161



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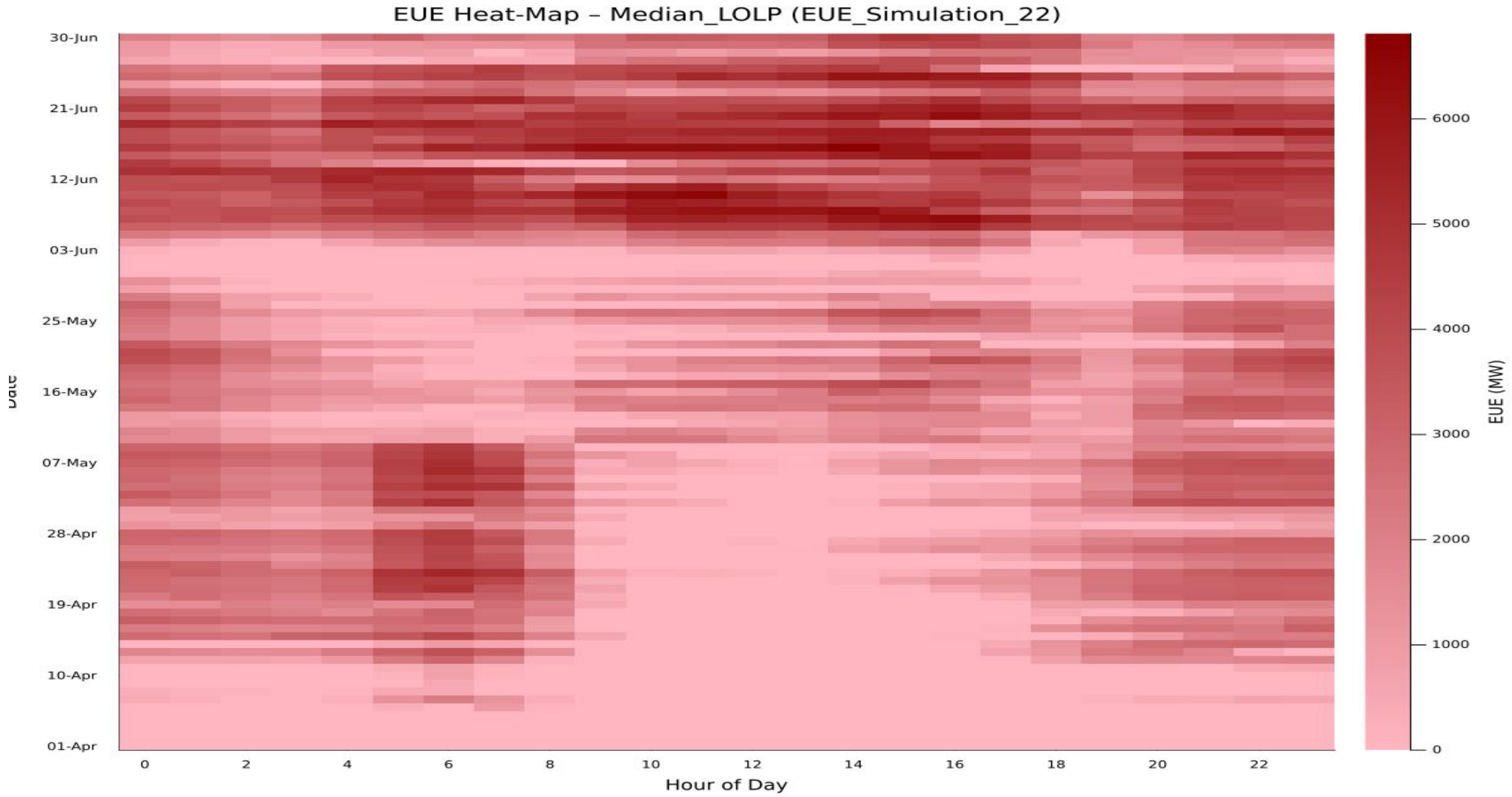
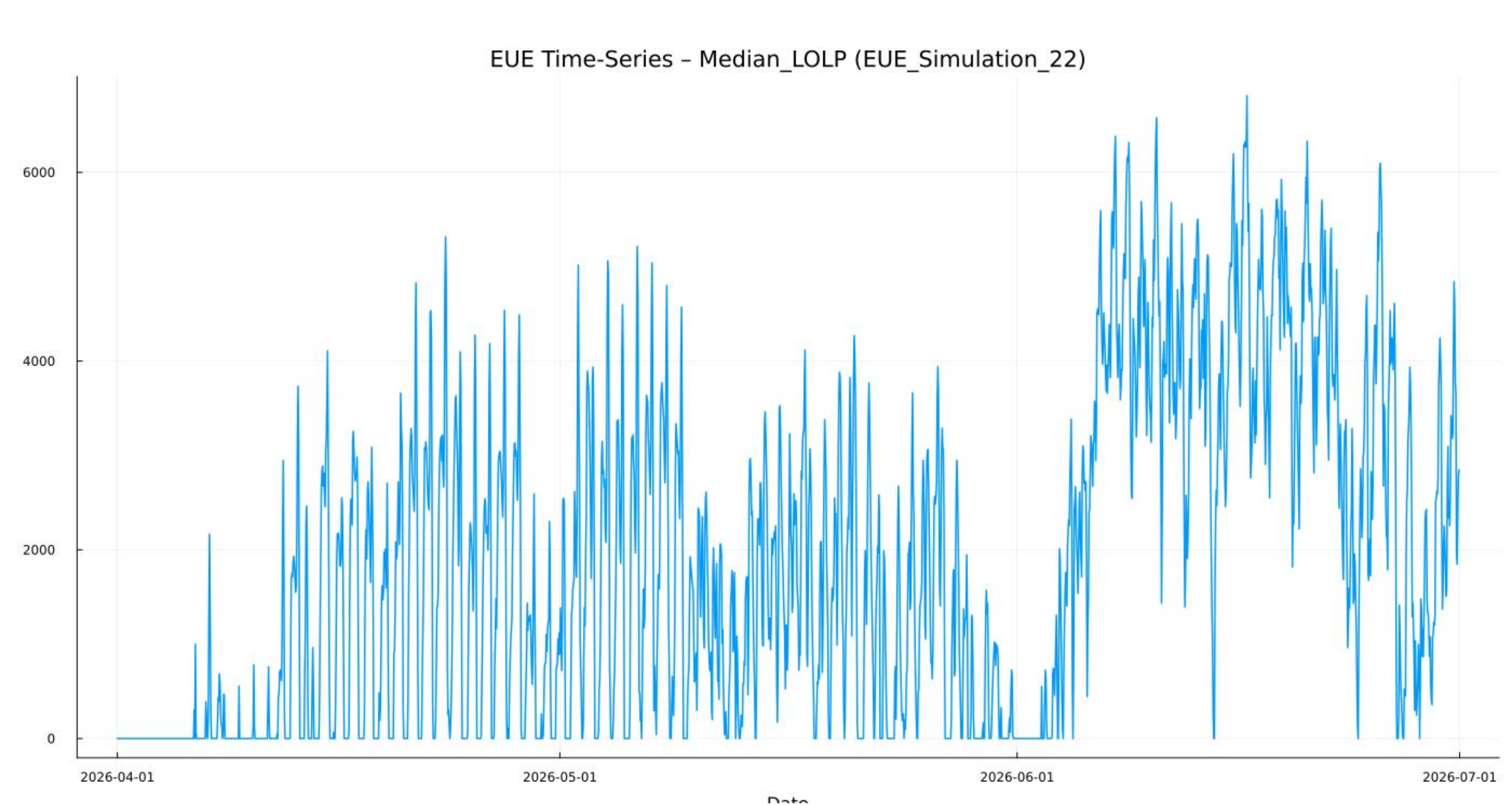
Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_22)
6000
4000
2000
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

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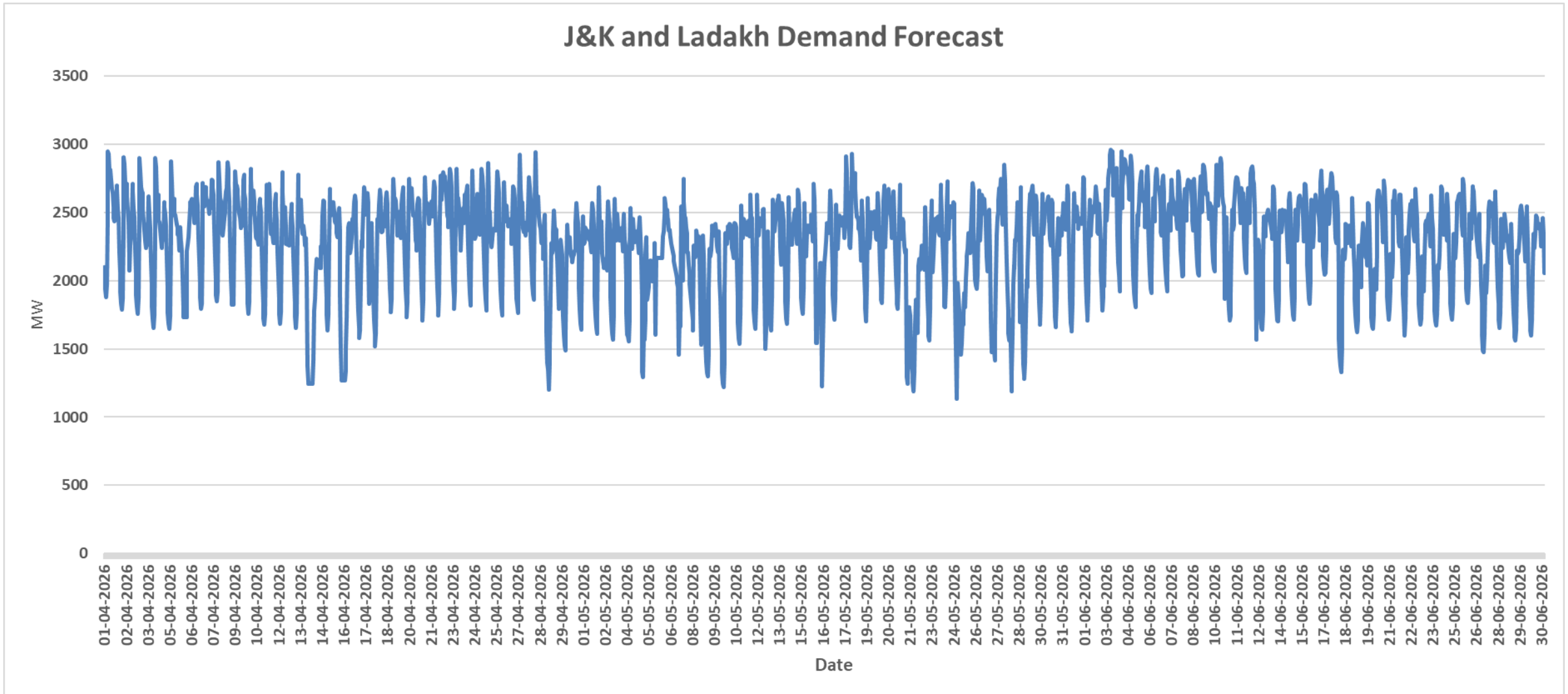
- ✓ **Expected Unserved Energy (EUE)**

Jammu & Kashmir and Ladakh


J&K and Ladakh Demand Forecast
3500
3000
2500
2000
1500
1000
500
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
13-04-2026
14-04-2026
16-04-2026
17-04-2026
18-04-2026
20-04-2026
21-04-2026
23-04-2026
24-04-2026
25-04-2026
27-04-2026
28-04-2026
29-04-2026
01-05-2026
02-05-2026
04-05-2026
05-05-2026
06-05-2026
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09-05-2026
10-05-2026
12-05-2026
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01-06-2026
03-06-2026
04-06-2026
06-06-2026
07-06-2026
08-06-2026
10-06-2026
11-06-2026
12-06-2026
14-06-2026
15-06-2026
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21-06-2026
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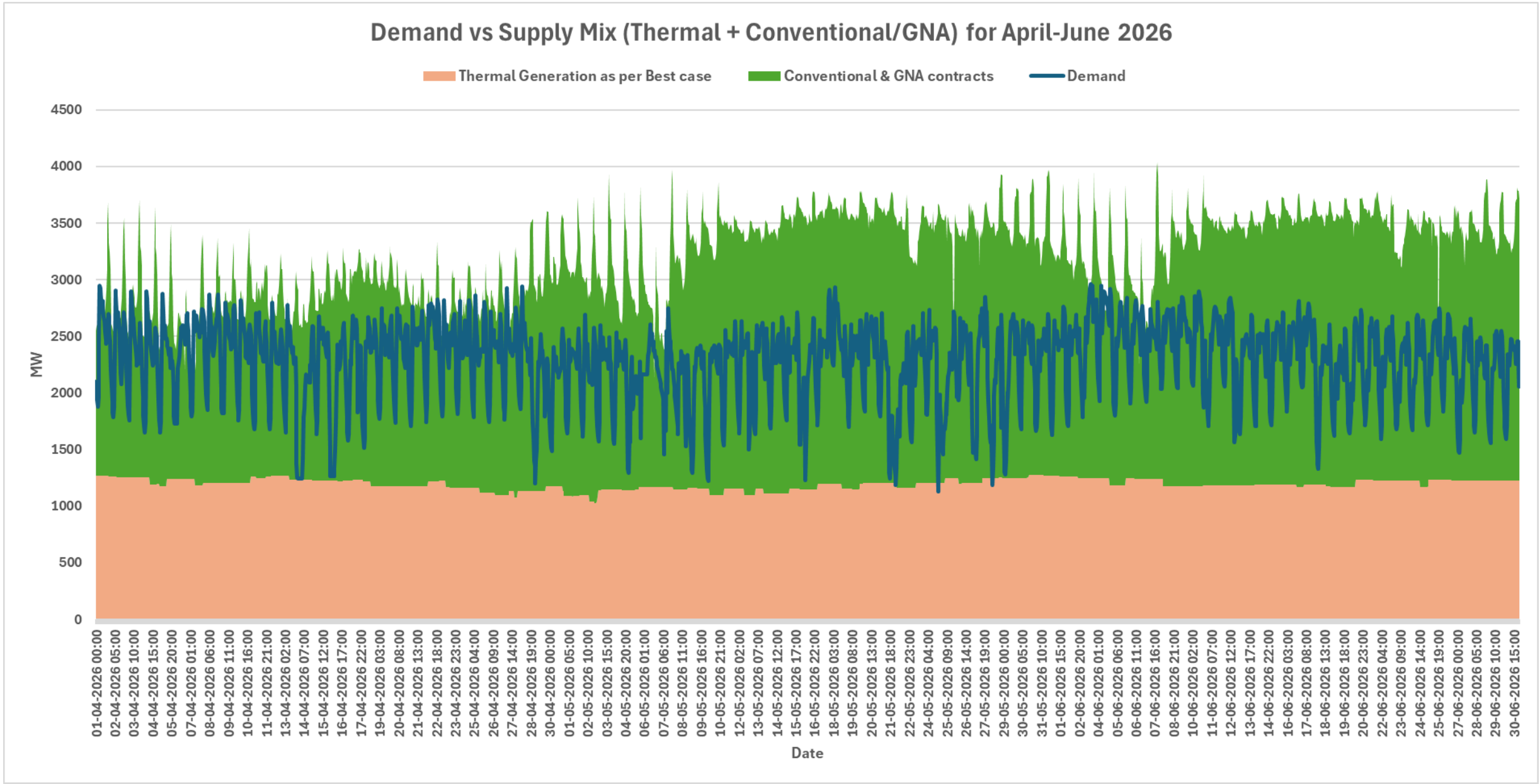
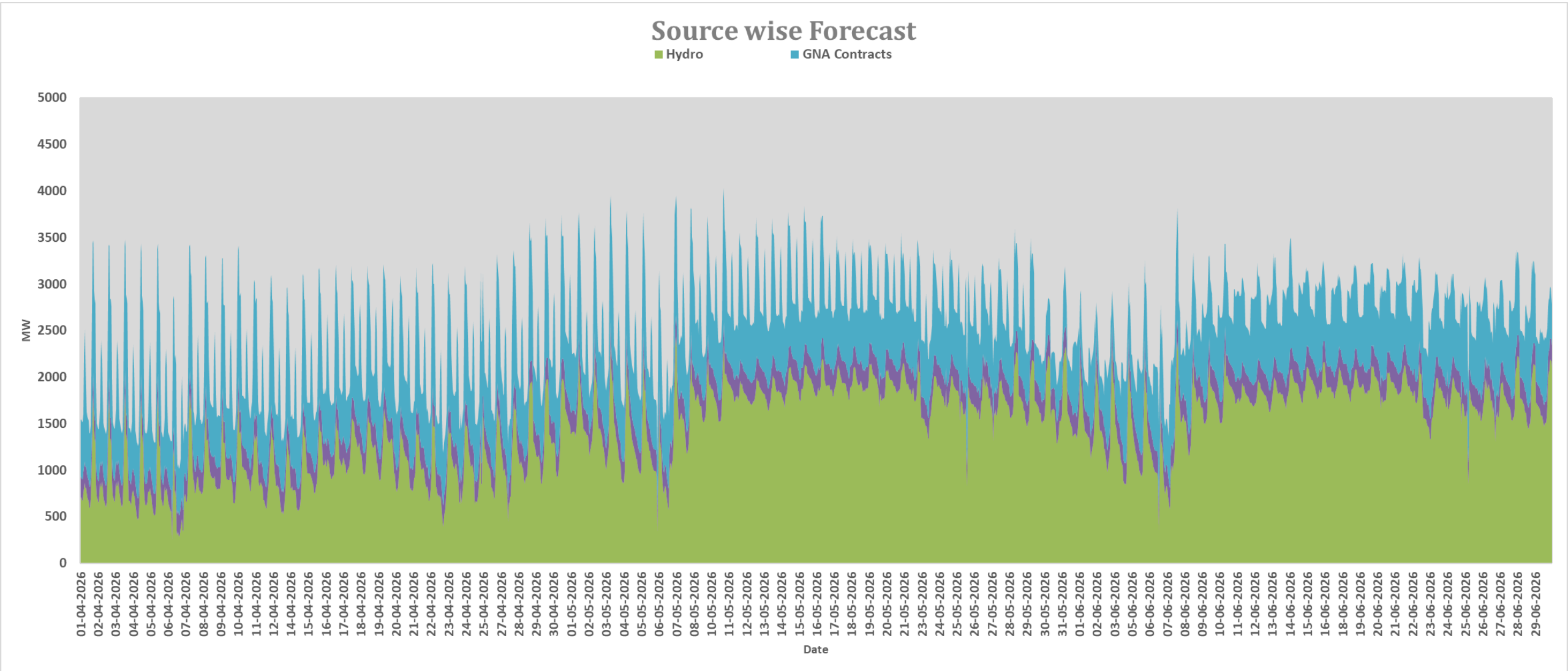
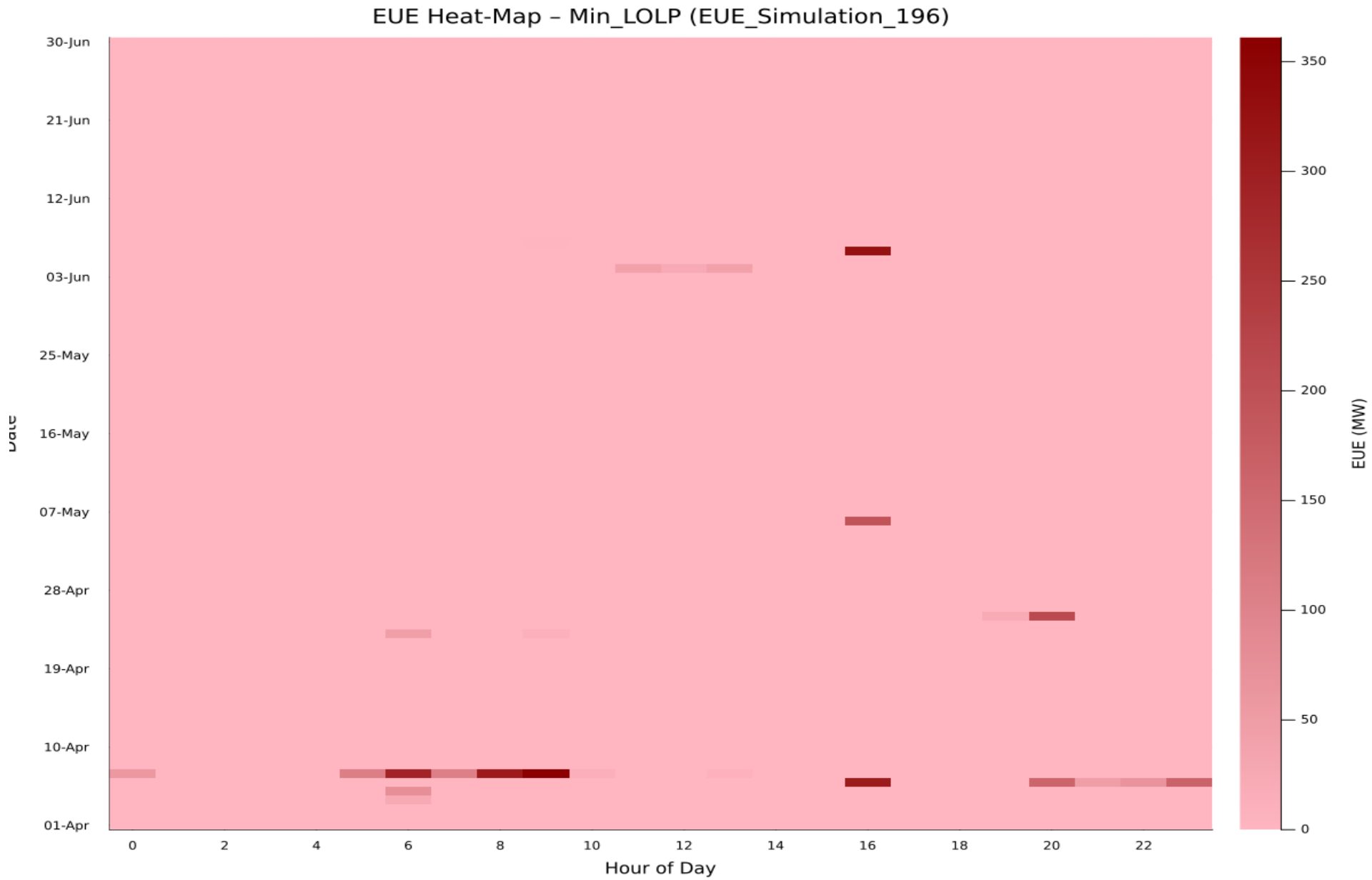
29-06-2026
30-06-2026
Date

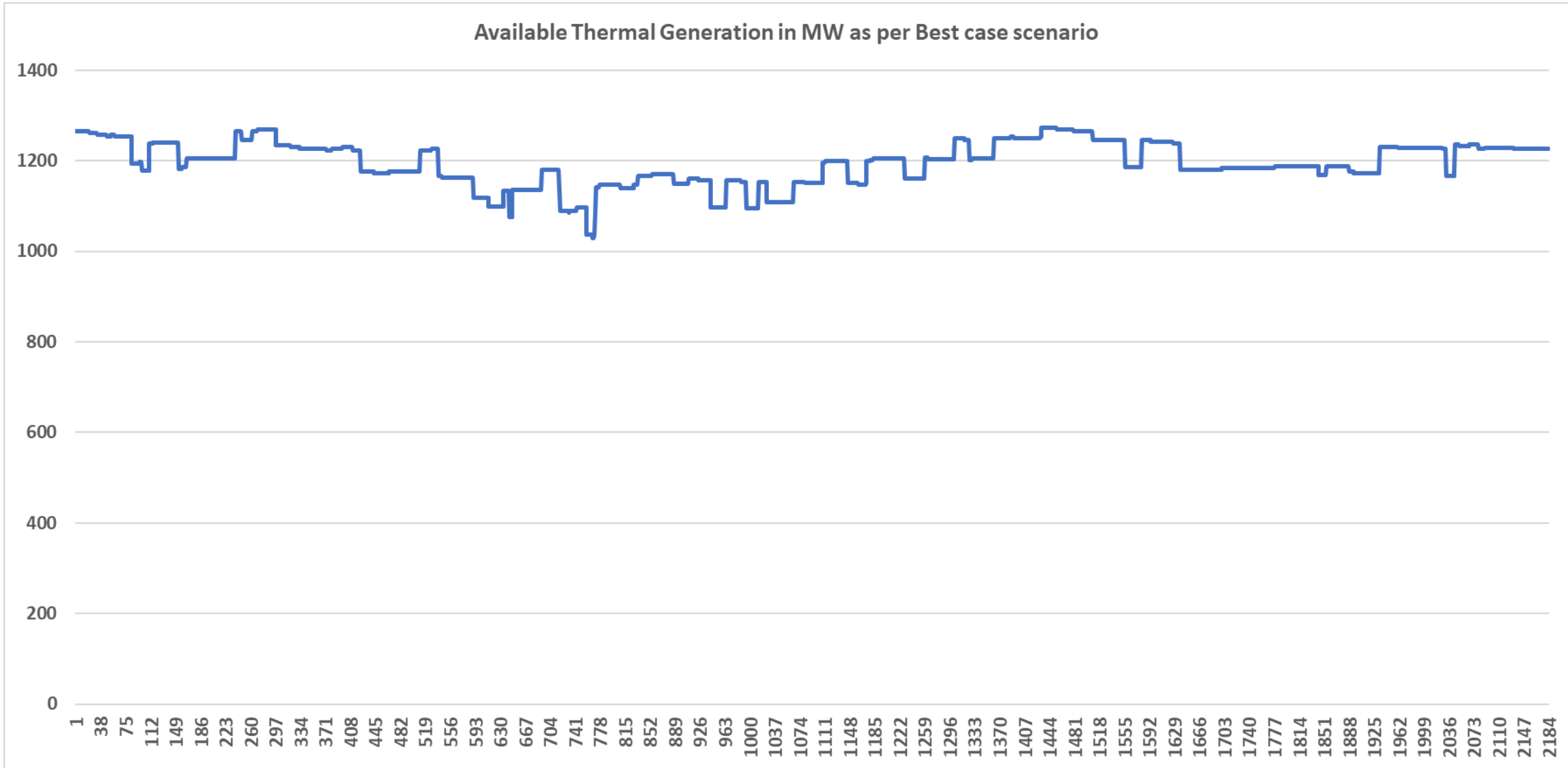

Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
MW
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Date

Source wise Forecast



Best case: Load Unserved in MW- Heat Map




Available Thermal Generation in MW as per Best case scenario
1400
1200
1000
800
600
400
200
0
1
38
75
112
149
186
223
260
297
334
371
408
445
482
519
556
593
630
667
704
741
778
815
852
889
926
963
1000
1037
1074
1111
1148
1185
1222
1259
1296
1333
1370
1407
1444
1481
1518
1555
1592
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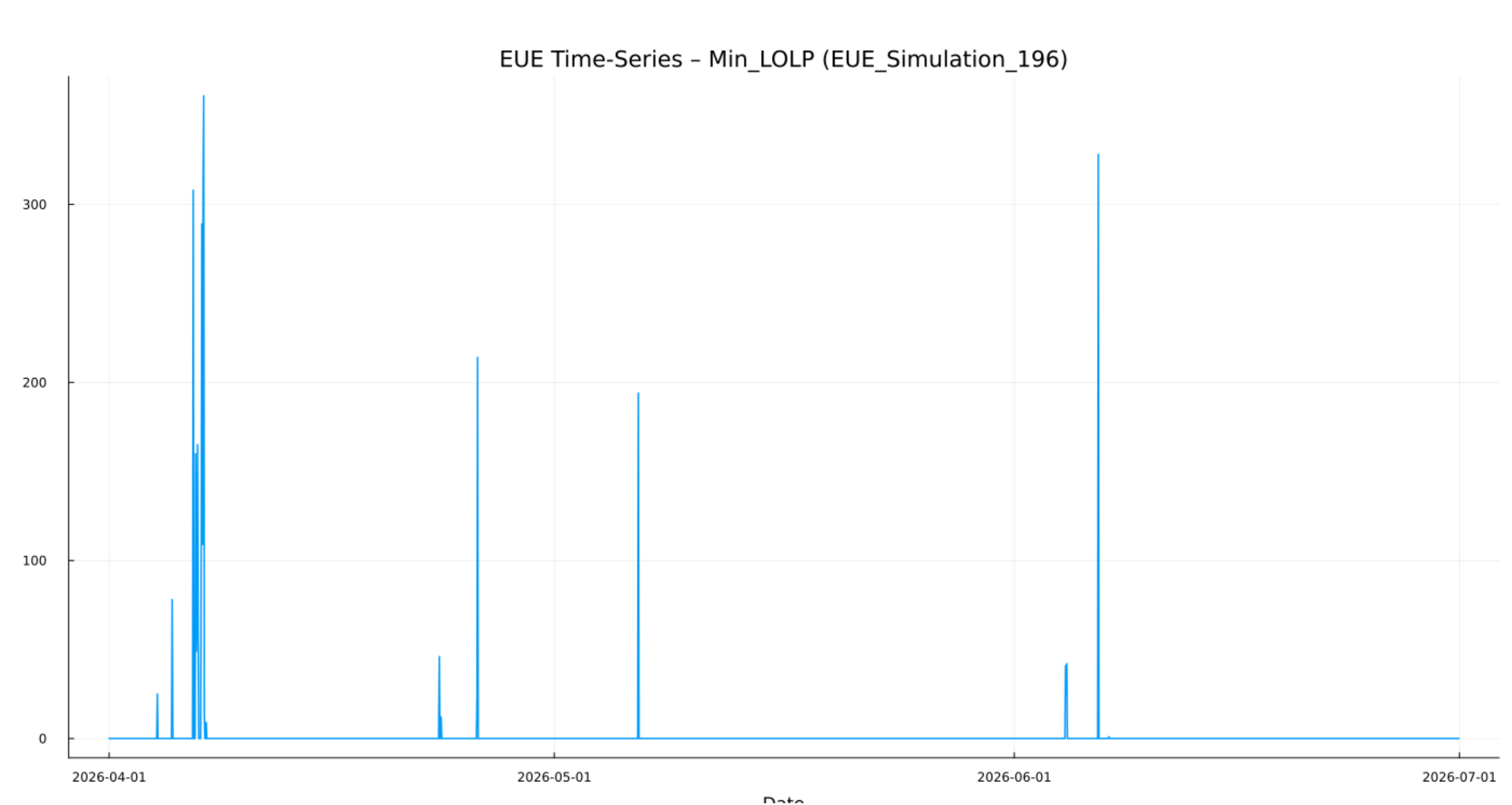
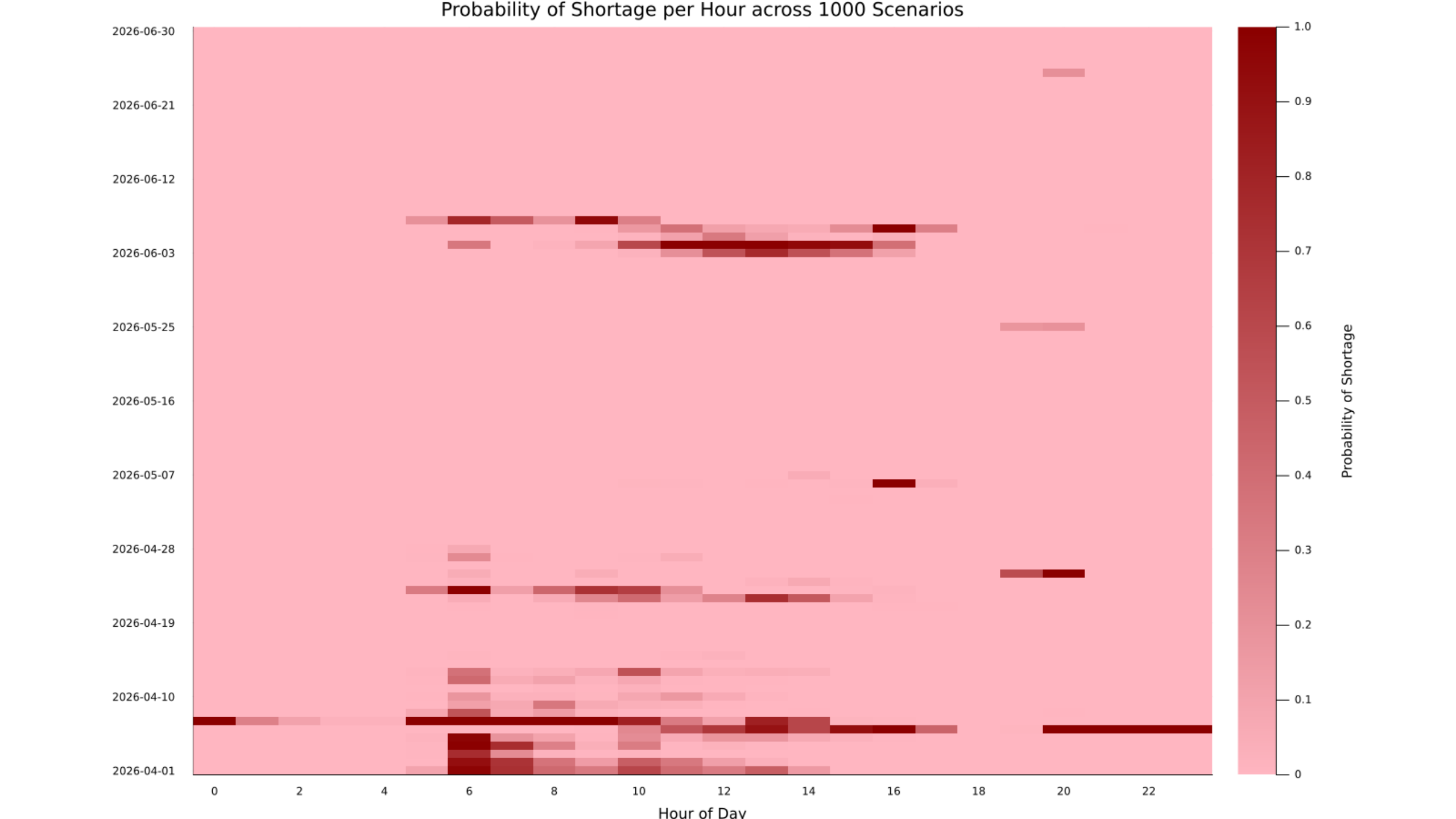
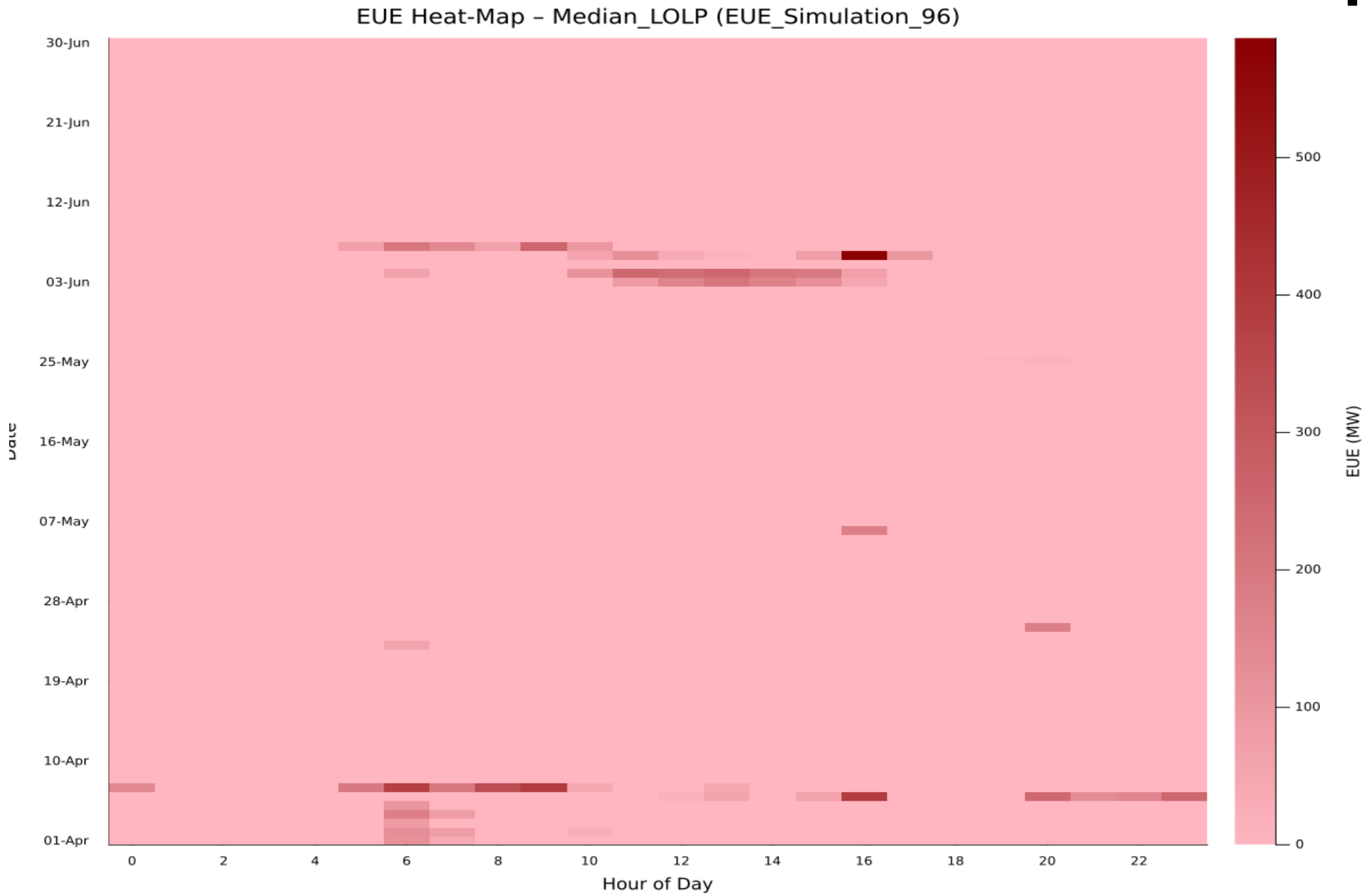
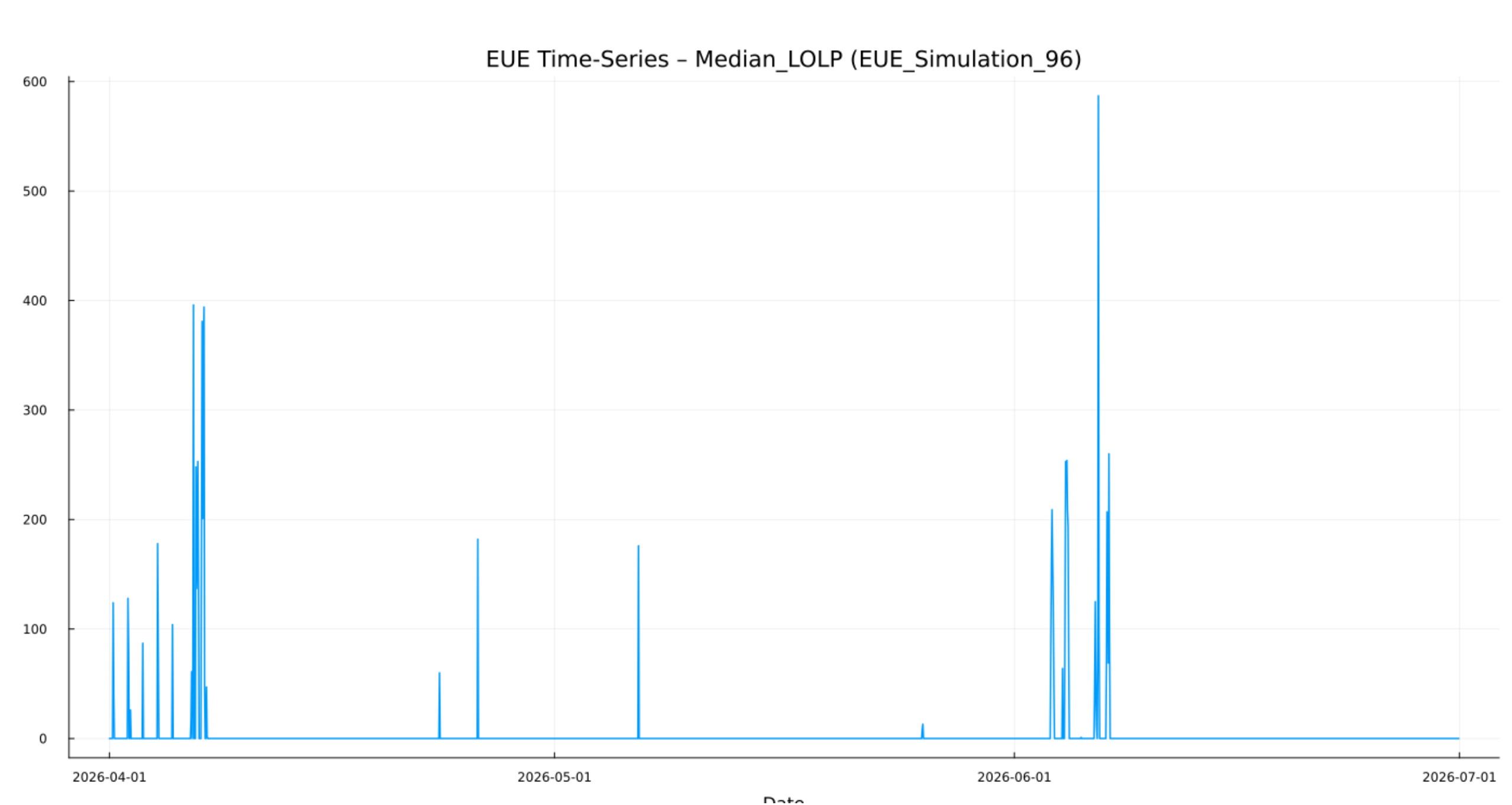
2073
2110
2147
2184


EUE Time-Series – Min_LOLP (EUE_Simulation_196)
300
200
100
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date


Probability of Shortage per Hour across 1000 Scenarios
2026-06-30
2026-06-21
2026-06-12
2026-06-03
2026-05-25
2026-05-16
2026-05-07
2026-04-28
2026-04-19
2026-04-10
2026-04-01
0
2
4
6
8
10
12
14
16
18
20
22
Hour of Day
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Probability of Shortage

Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_96)
600
500
400
300
200
100
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

PRAS Outcomes – Key Observations & Way Forward (Summer: April–June 2026)

Observations

PRAS results indicate elevated adequacy risk during summer peak conditions, particularly during early morning and evening hours, when demand remains high and solar generation is unavailable.

The analysis highlights intermittent but significant unserved energy events, with higher frequency and magnitude observed during May–June, coinciding with extreme demand days.

While mid-day hours benefit from solar generation, peak-hour adequacy remains sensitive to demand variability and generation availability.

Way Forward

In view of the above, States are advised to strengthen advance resource planning for the summer period, including:

- Early finalization of firm GNA / bilateral contracts to adequately cover peak and shoulder-hour demand.
- Limiting reliance on short-term market mechanisms (DAM/RTM) for meeting peak summer requirements and treating market purchases as supplementary.

States are requested to review the PRAS outcomes at their end and undertake further state-level analysis, considering local demand conditions, resource availability, and contingency scenarios.

To enable revision of the PRAS assessment, States may kindly share updated inputs, including:

- Any new or revised GNA / bilateral contracts not captured in the current study.
- Updates on generation availability, renewable capacity additions, and demand outlook.

Disclaimer: PRAS results are indicative and intended to support advance planning under uncertainty.

Resource Adequacy Study Analysis for NR States

April to June 2026

Resource Adequacy Study using PRAS- Key assumptions

- The Probabilistic Resource Adequacy Study (PRAS) for the summer period from April to June 2026 has been carried out to assess the adequacy of available generation resources to reliably meet the projected state demand under a range of uncertainty scenarios. The assessment has been conducted using a probabilistic framework comprising 1000 Monte Carlo scenarios, with median outcomes presented to represent the expected system behaviour under typical operating conditions.

- To evaluate the net load to be met by dispatchable thermal generation, the forecasted hourly demand for the summer period (April-June 2026) was first estimated based on historical demand pattern and growth. From this projected demand, the expected contribution from non-thermal generation sources, namely solar, wind, hydro, and nuclear, was deducted.

- The contribution from non-thermal resources has been estimated using historical summer generation profiles, with solar and hydro generation scaled for capacity additions while retaining observed variability, intermittency, and seasonal operational characteristics.

- In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled.

Resource Adequacy Study using PRAS- Key assumptions

- To assess the availability of dispatchable generation resources, detailed modelling of thermal and gas-based generating units has been undertaken with the following assumptions:

  - ✓ **Planned Outages:** Planned outages has been considered NIL.

  - ✓ **Forced Outages:**
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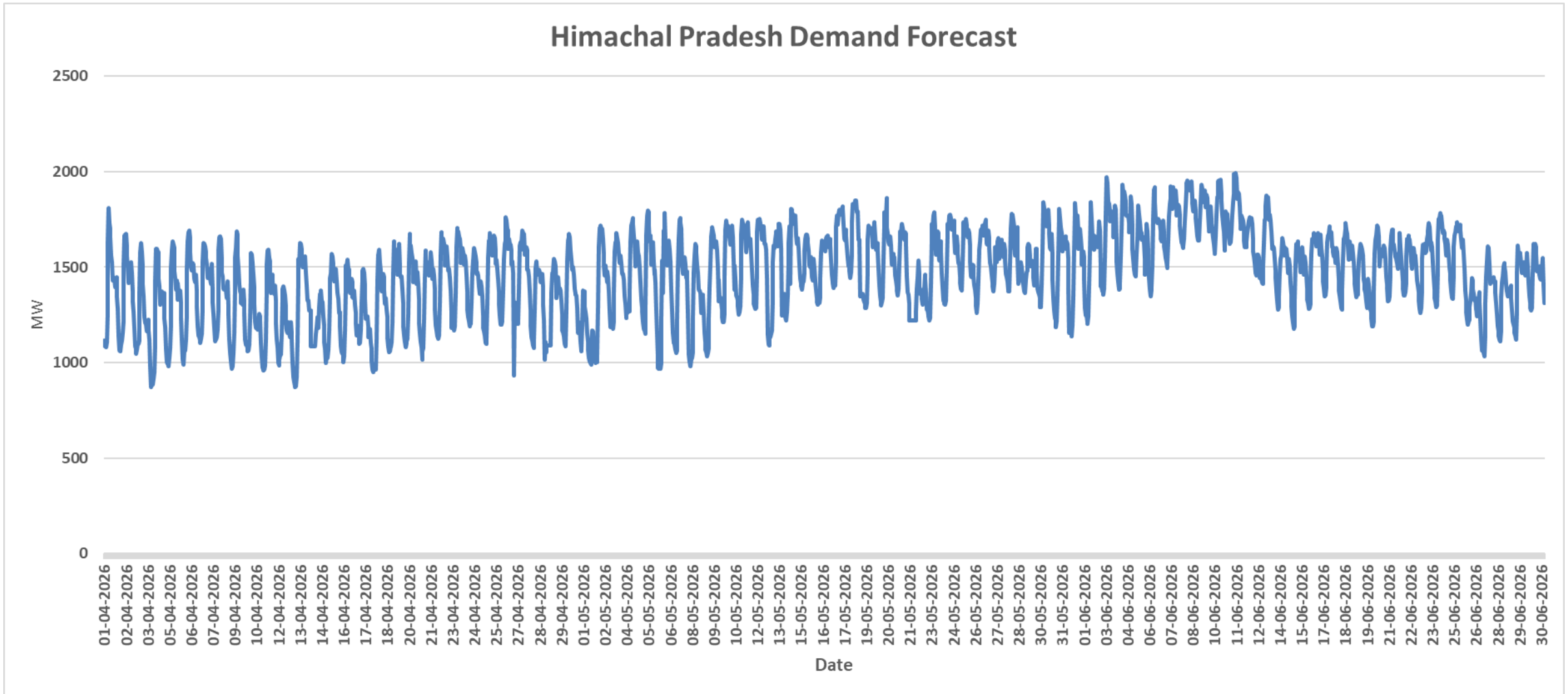
This stochastic modelling enables realistic representation of operational uncertainties and enhances the robustness of the resource adequacy assessment.

The probabilistic framework enables estimation of reliability metrics such as:

- ✓ **Loss of Load Expectation (LOLE)**
- ✓ **Expected Unserved Energy (EUE)**

Himachal Pradesh


Himachal Pradesh Demand Forecast
2500
2000
1500
1000
500
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
13-04-2026
14-04-2026
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07-06-2026
08-06-2026
10-06-2026
11-06-2026
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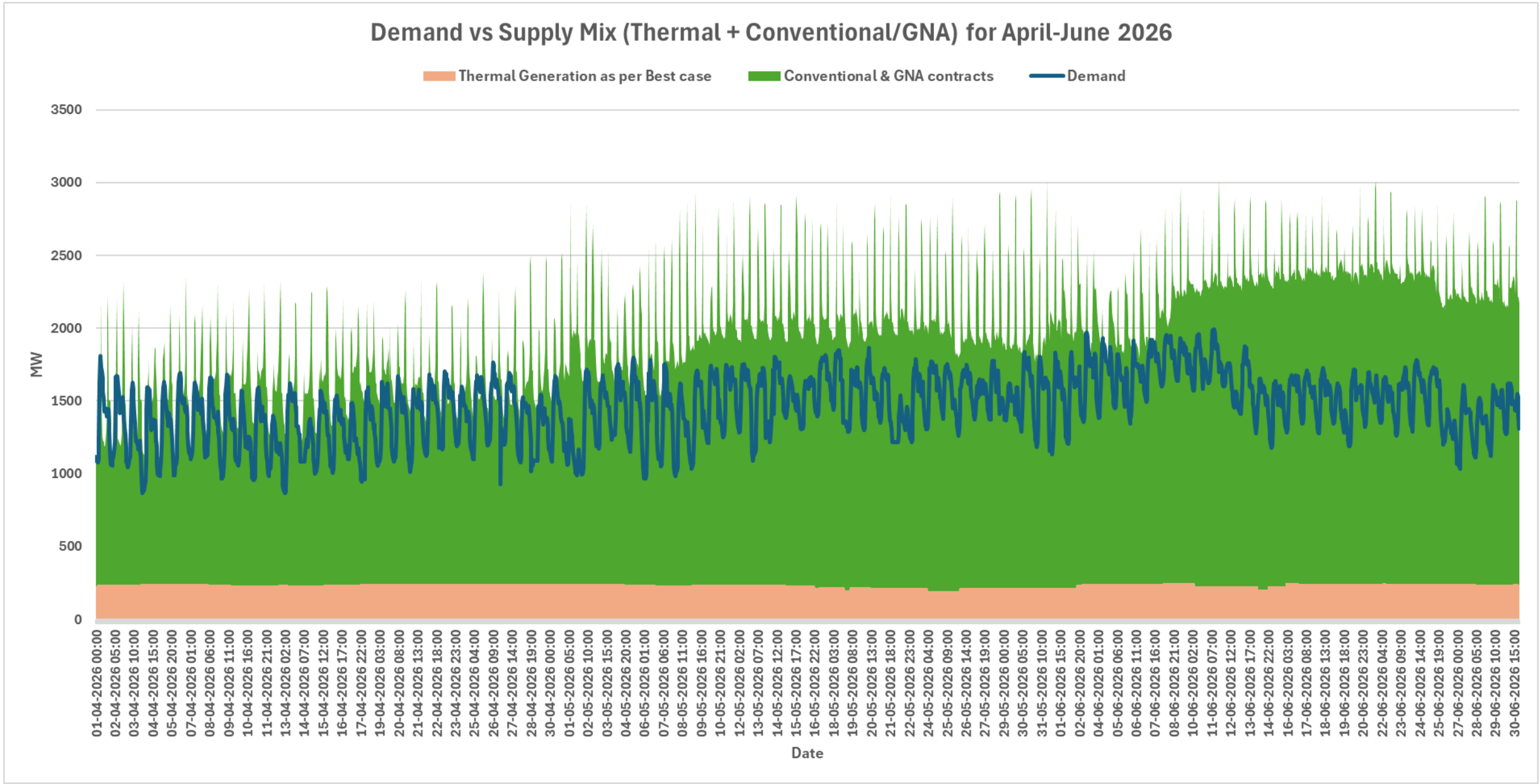
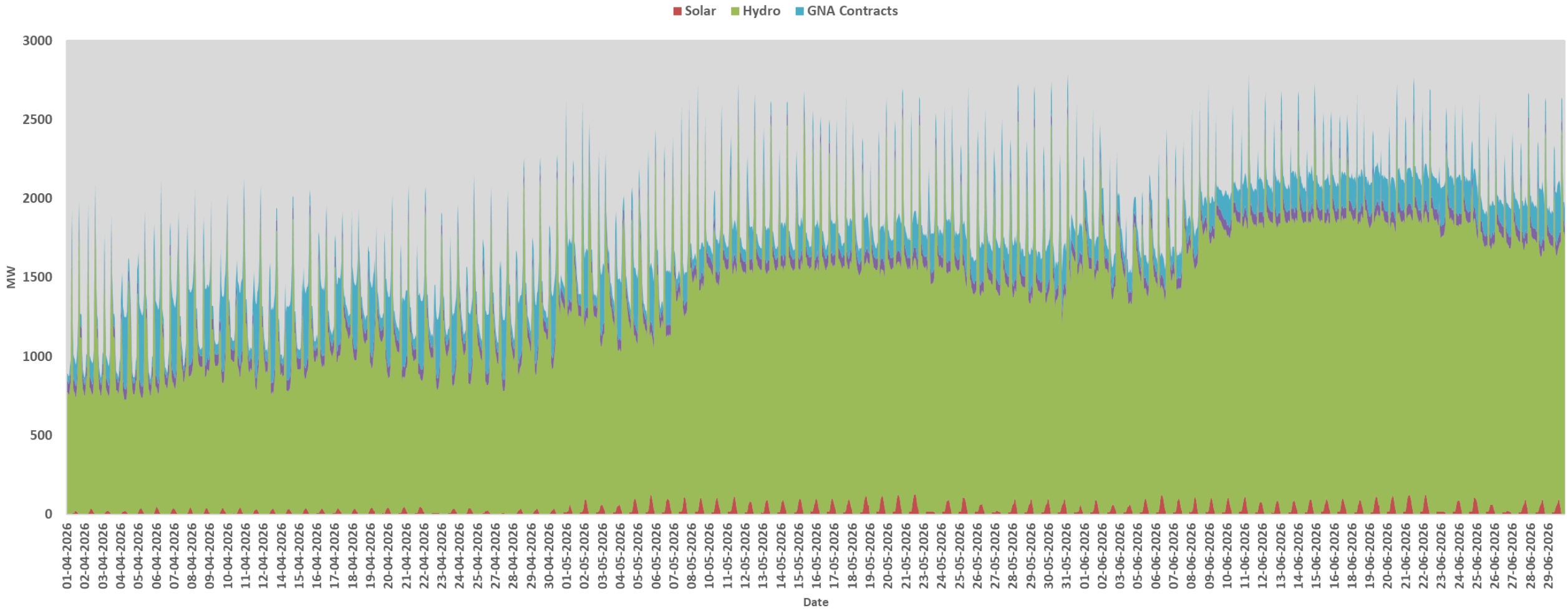
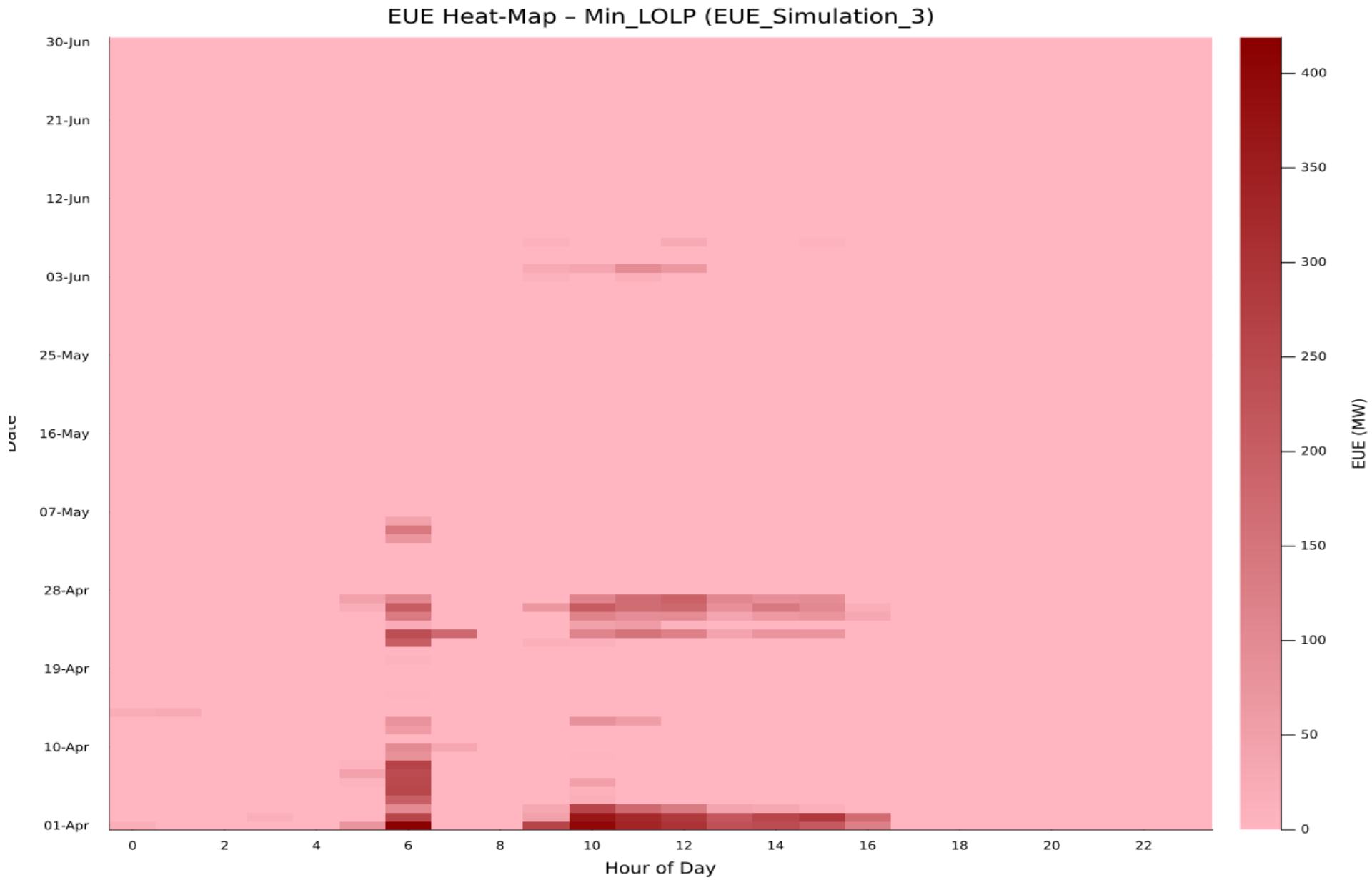
29-06-2026
30-06-2026
Date

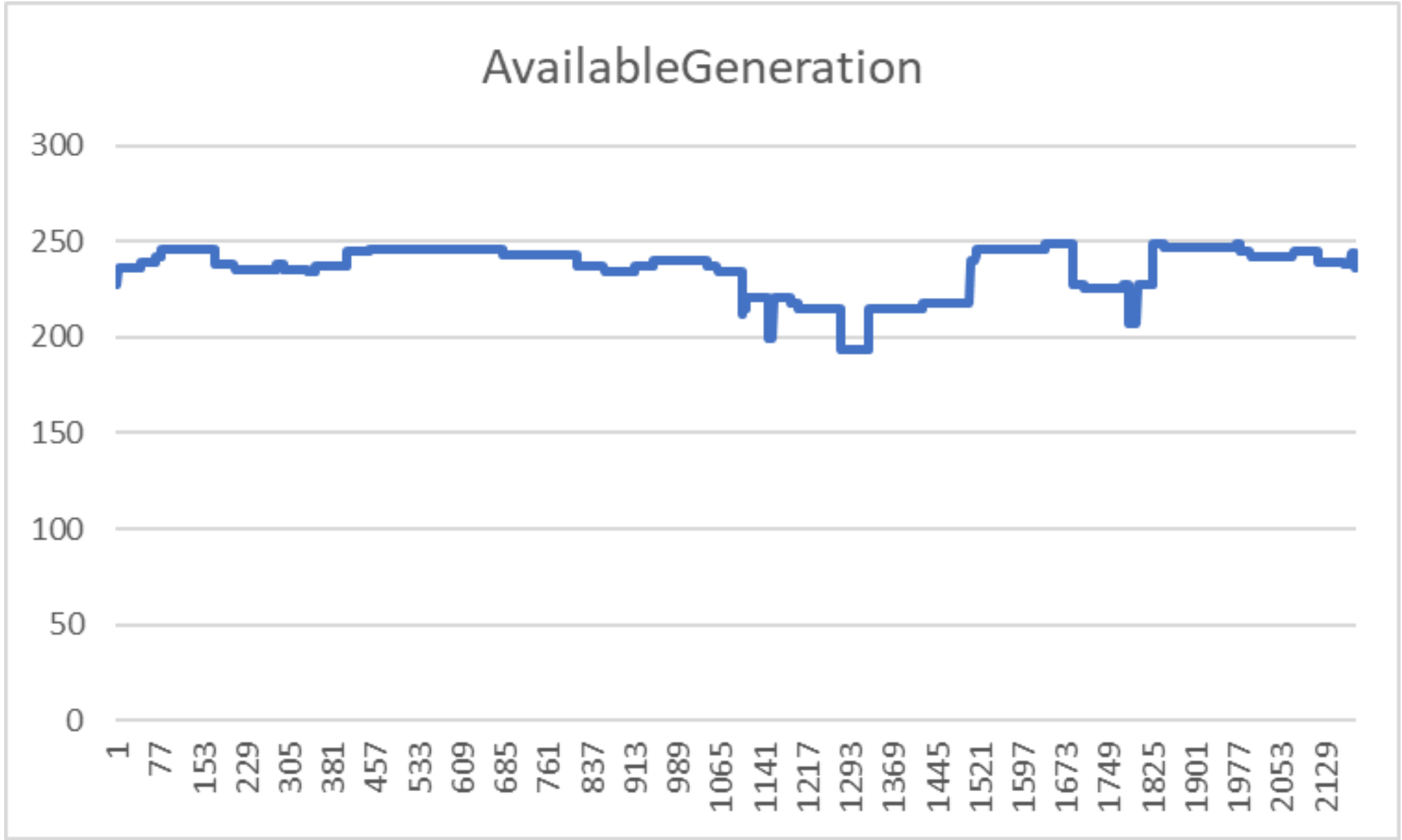

Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
MW
3500
3000
2500
2000
1500
1000
500
0
Date

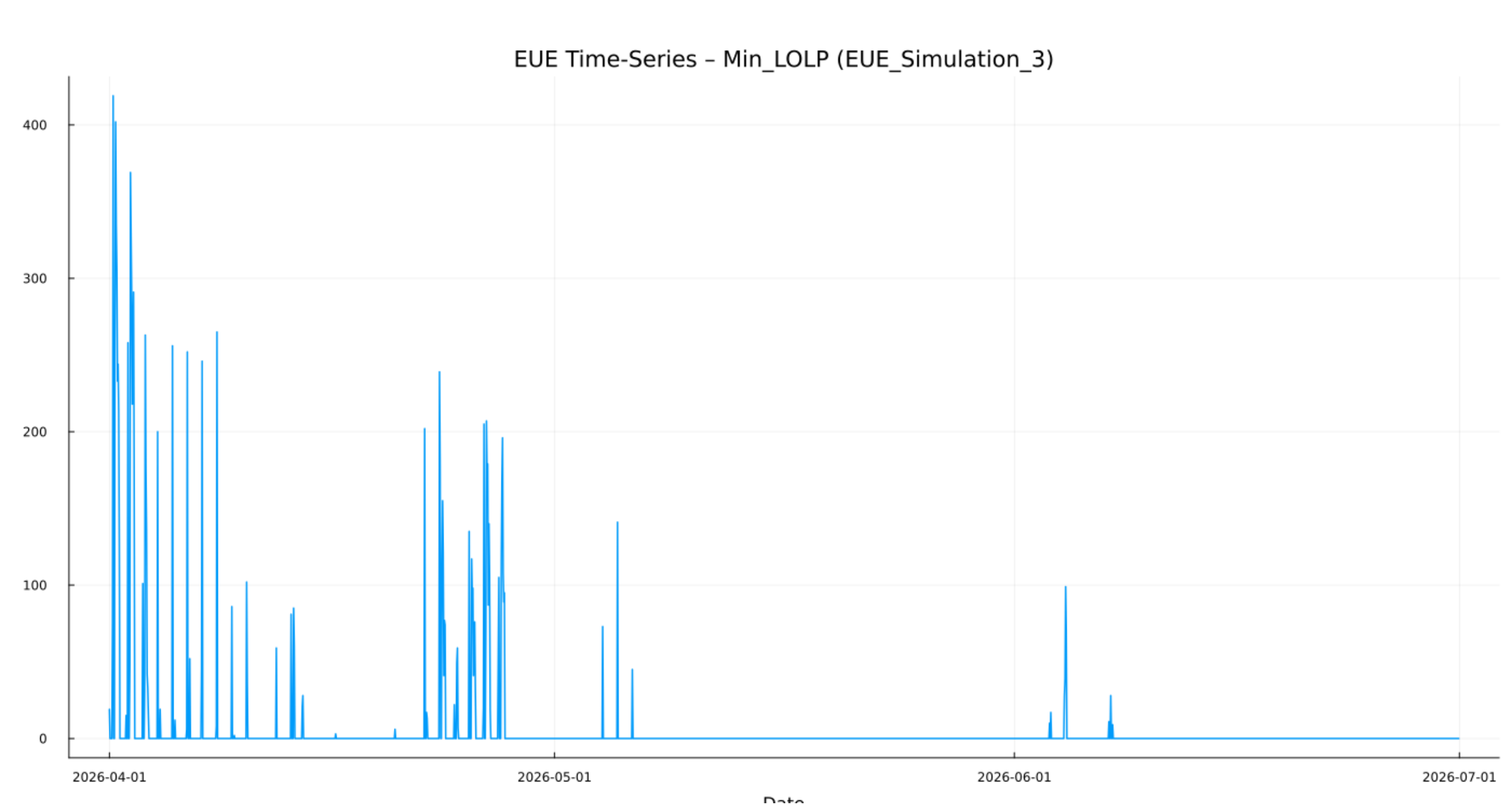
Source wise Forecast

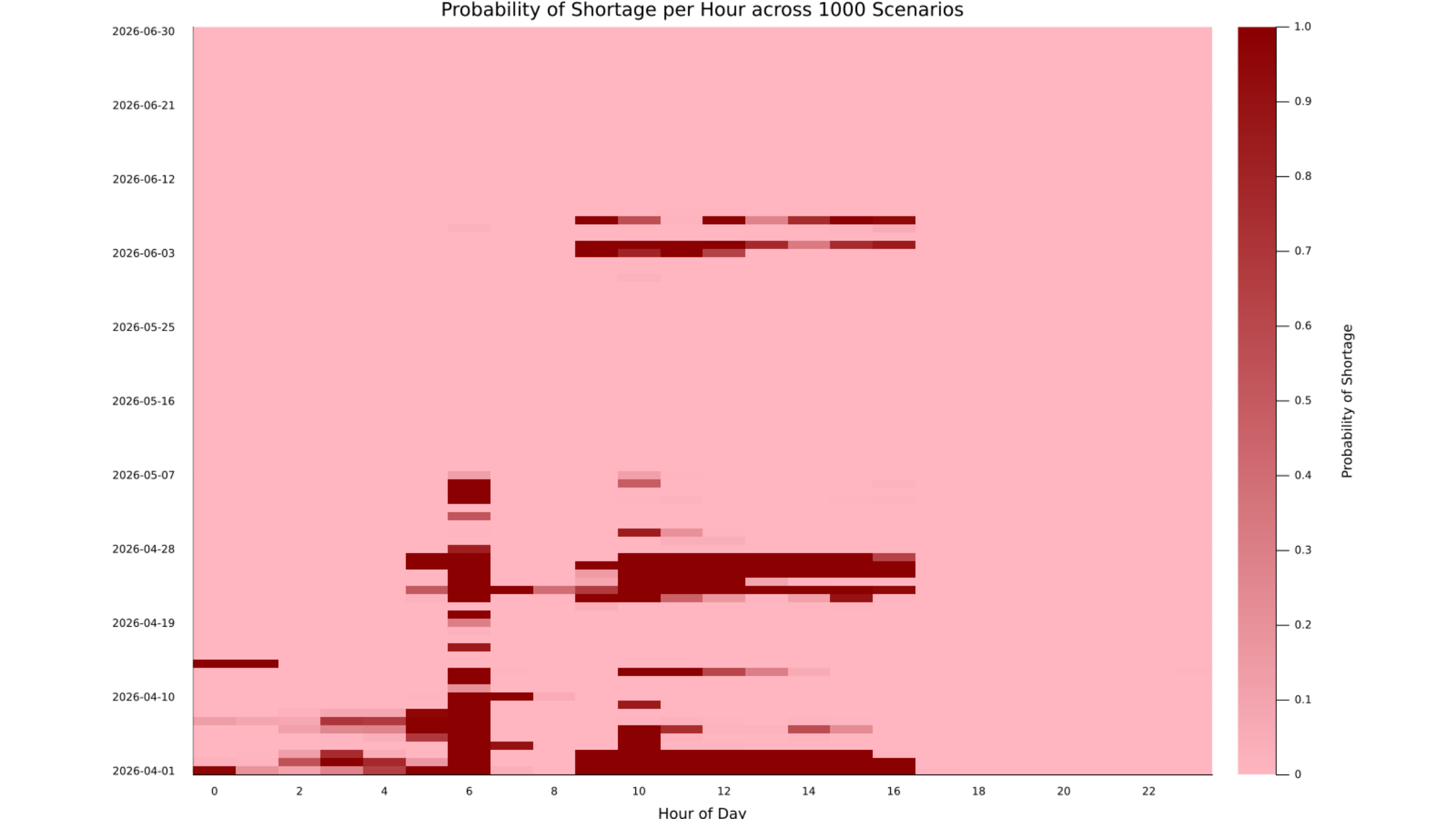


Best case: Load Unserved in MW- Heat Map




AvailableGeneration
300
250
200
150
100
50
0
1
77
153
229
305
381
457
533
609
685
761
837
913
989
1065
1141
1217
1293
1369
1445
1521
1597
1673
1749
1825
1901
1977
2053
2129


EUE Time-Series – Min_LOLP (EUE_Simulation_3)
400
300
200
100
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date


Probability of Shortage per Hour across 1000 Scenarios
2026-06-30
2026-06-21
2026-06-12
2026-06-03
2026-05-25
2026-05-16
2026-05-07
2026-04-28
2026-04-19
2026-04-10
2026-04-01
0
2
4
6
8
10
12
14
16
18
20
22
Hour of Day
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Probability of Shortage

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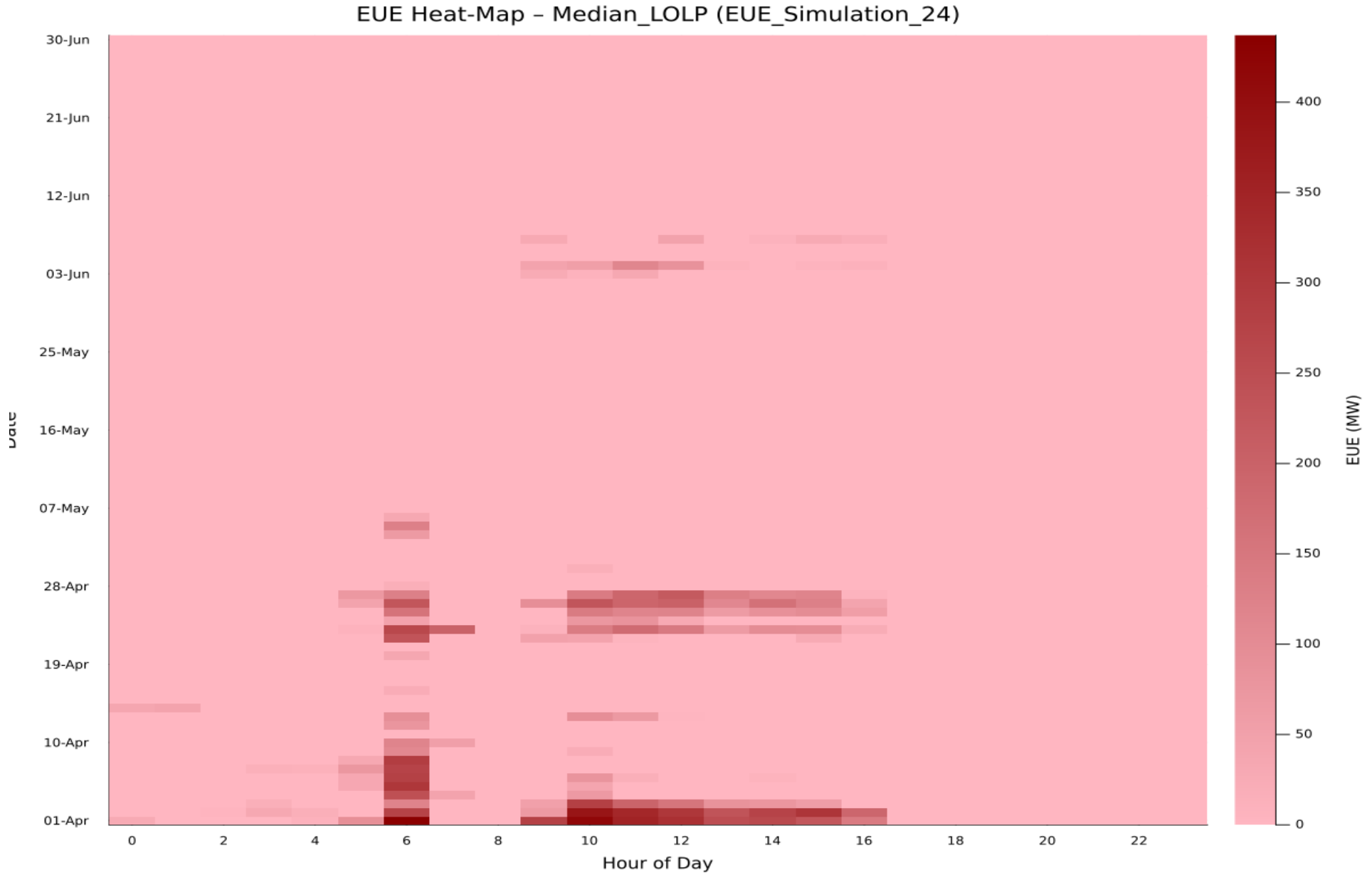

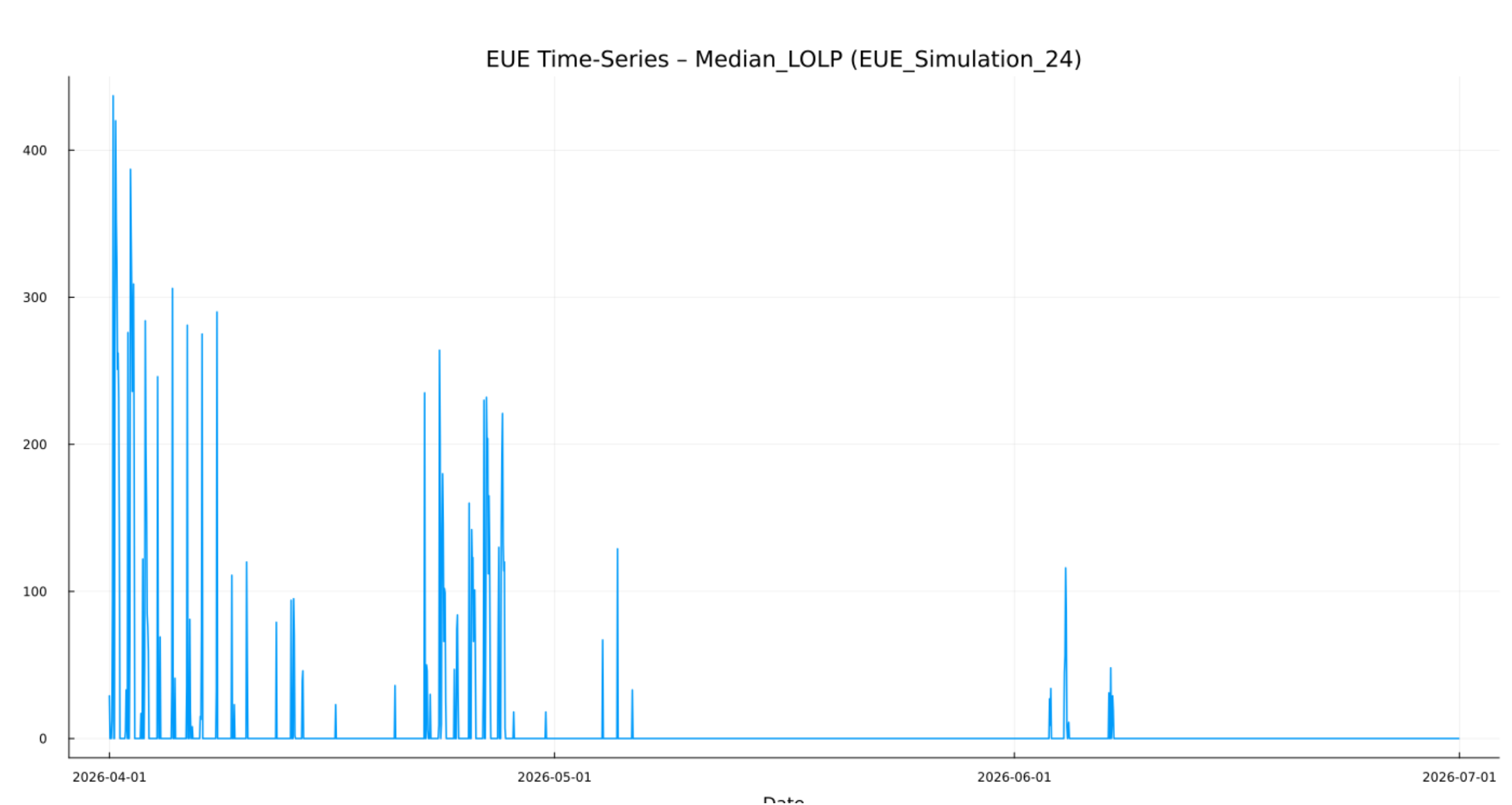
EUE Time-Series – Median_LOLP (EUE_Simulation_24)
400
300
200
100
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

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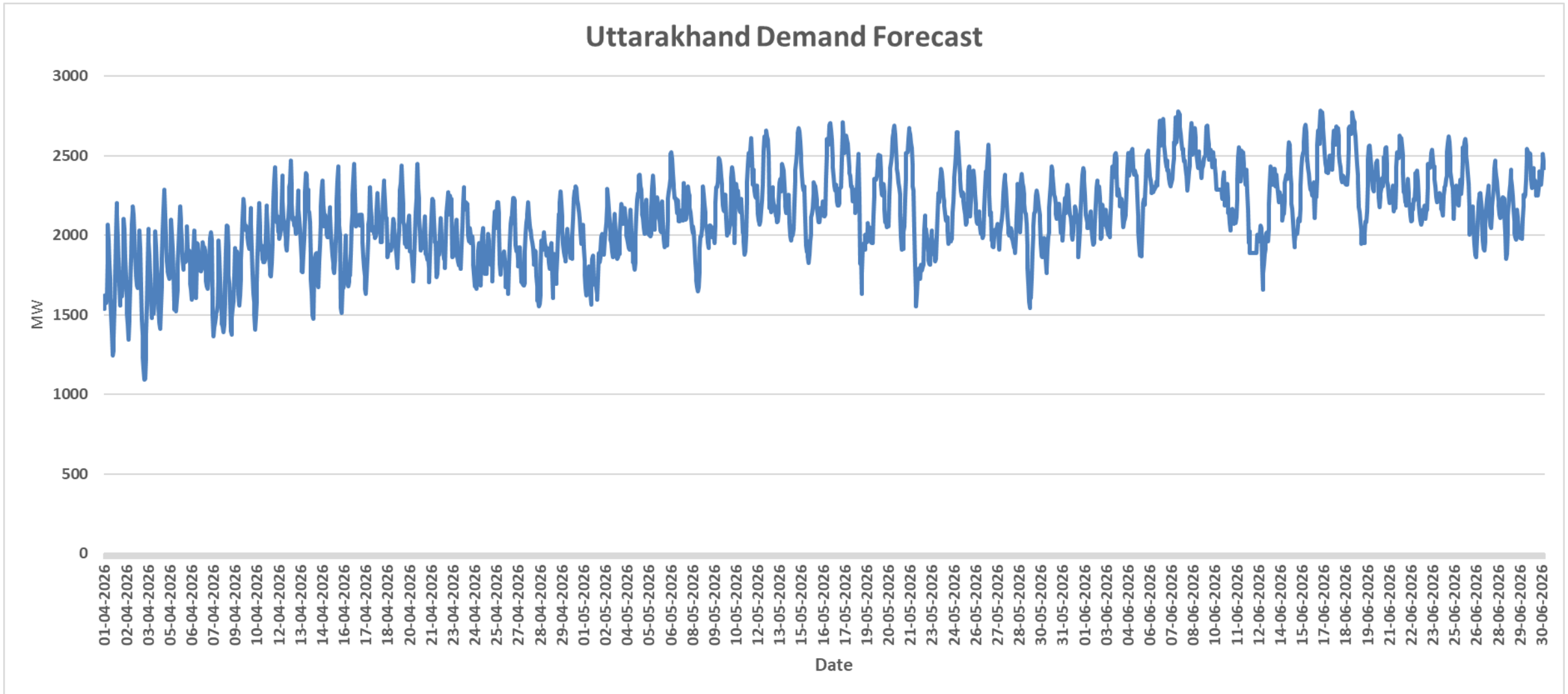
Uttarakhand


Uttarakhand Demand Forecast
3000
2500
2000
1500
1000
500
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
13-04-2026
14-04-2026
16-04-2026
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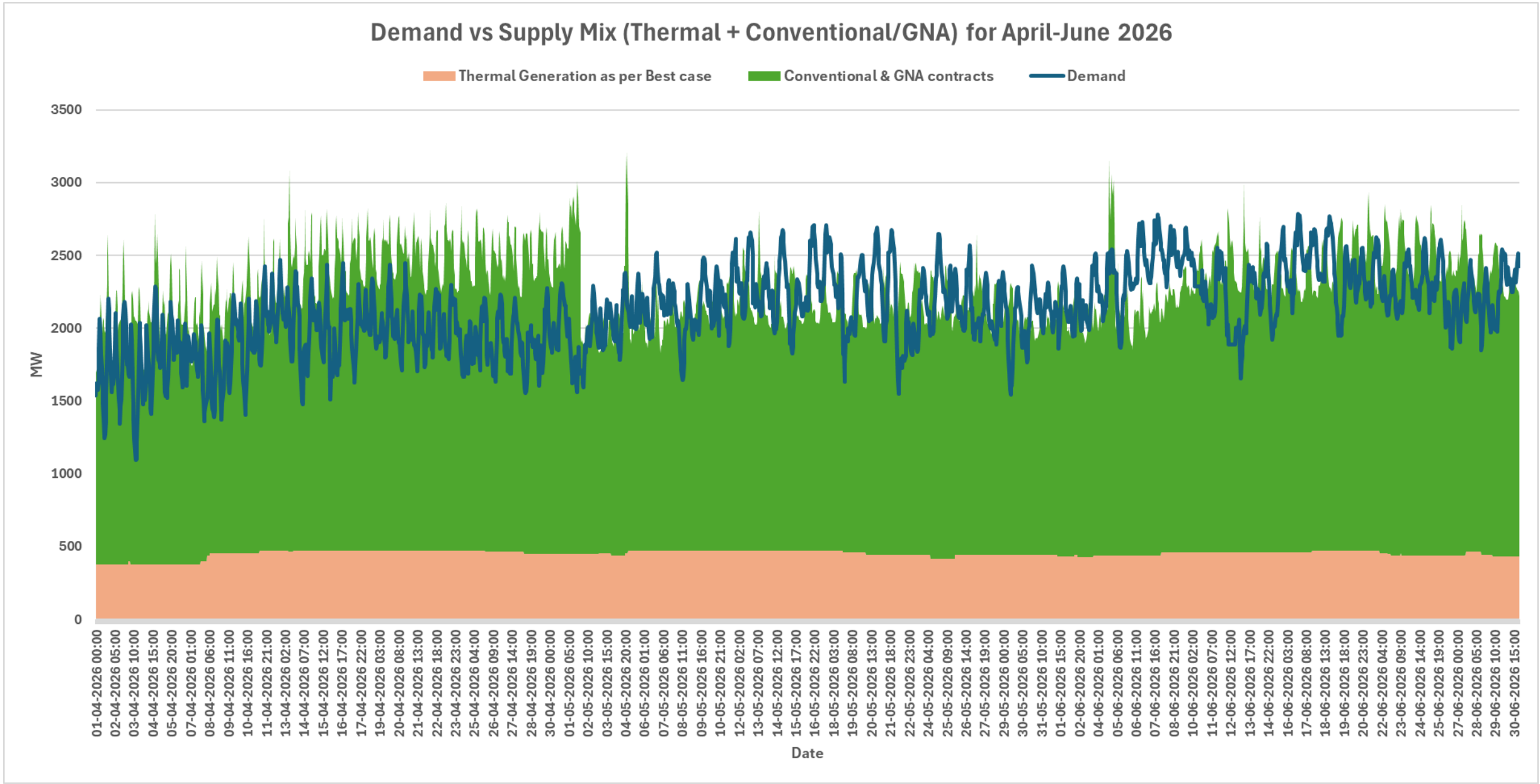
30-06-2026
Date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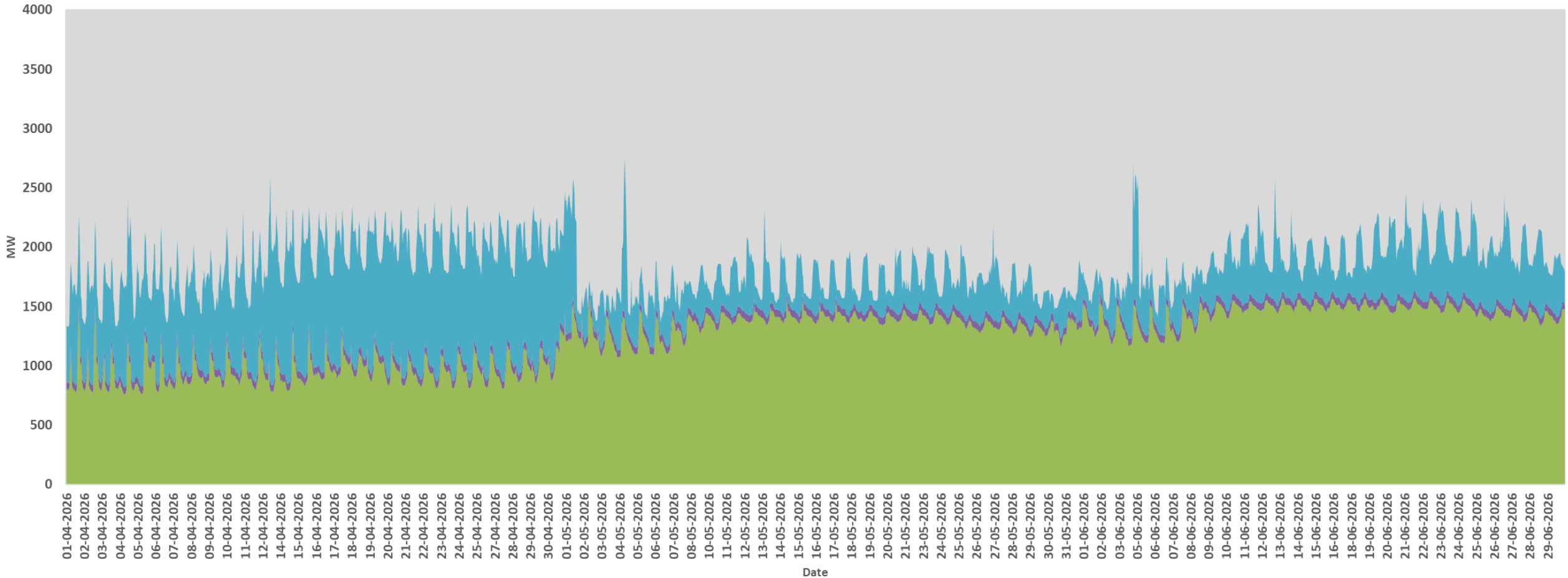
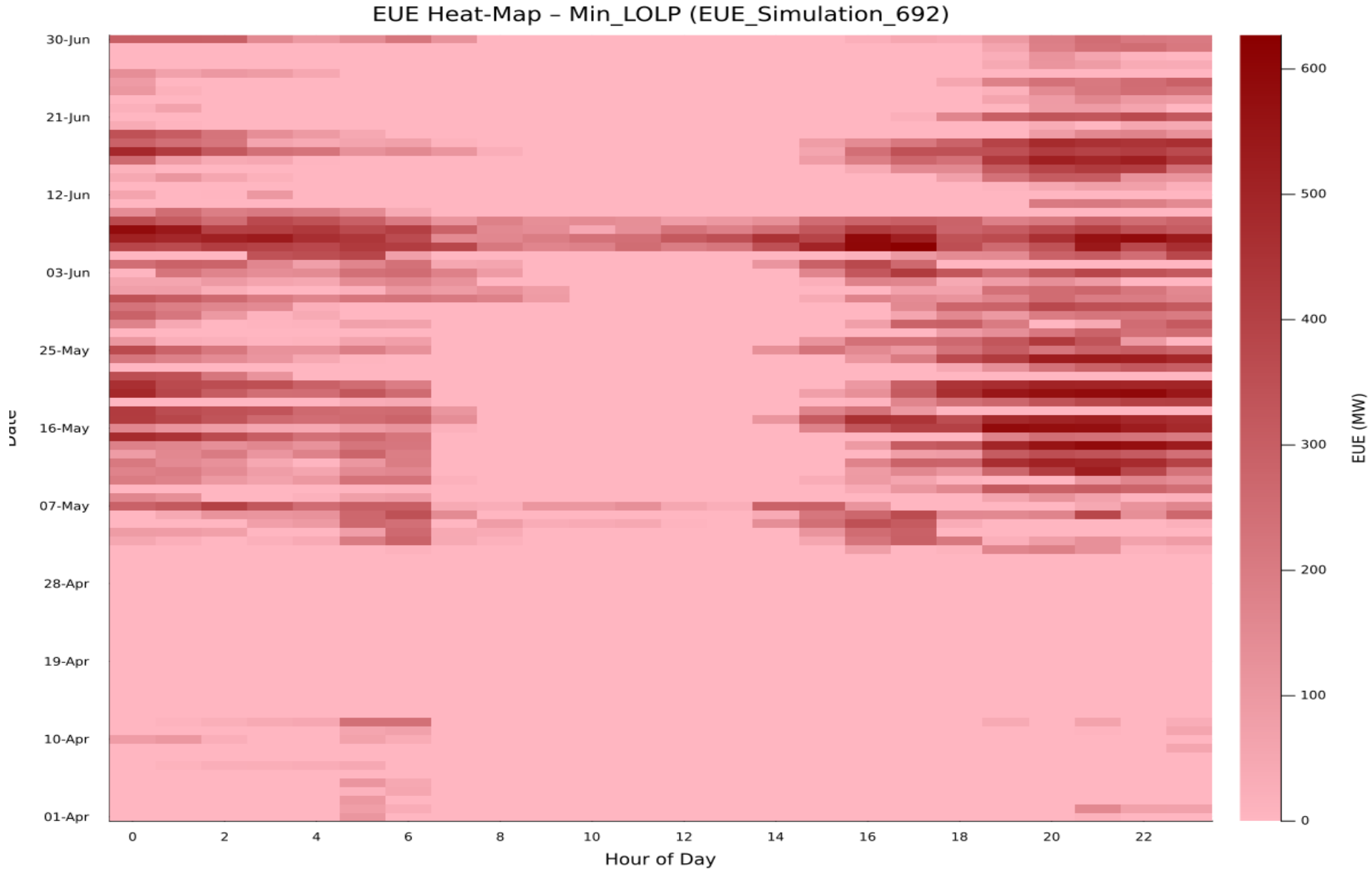
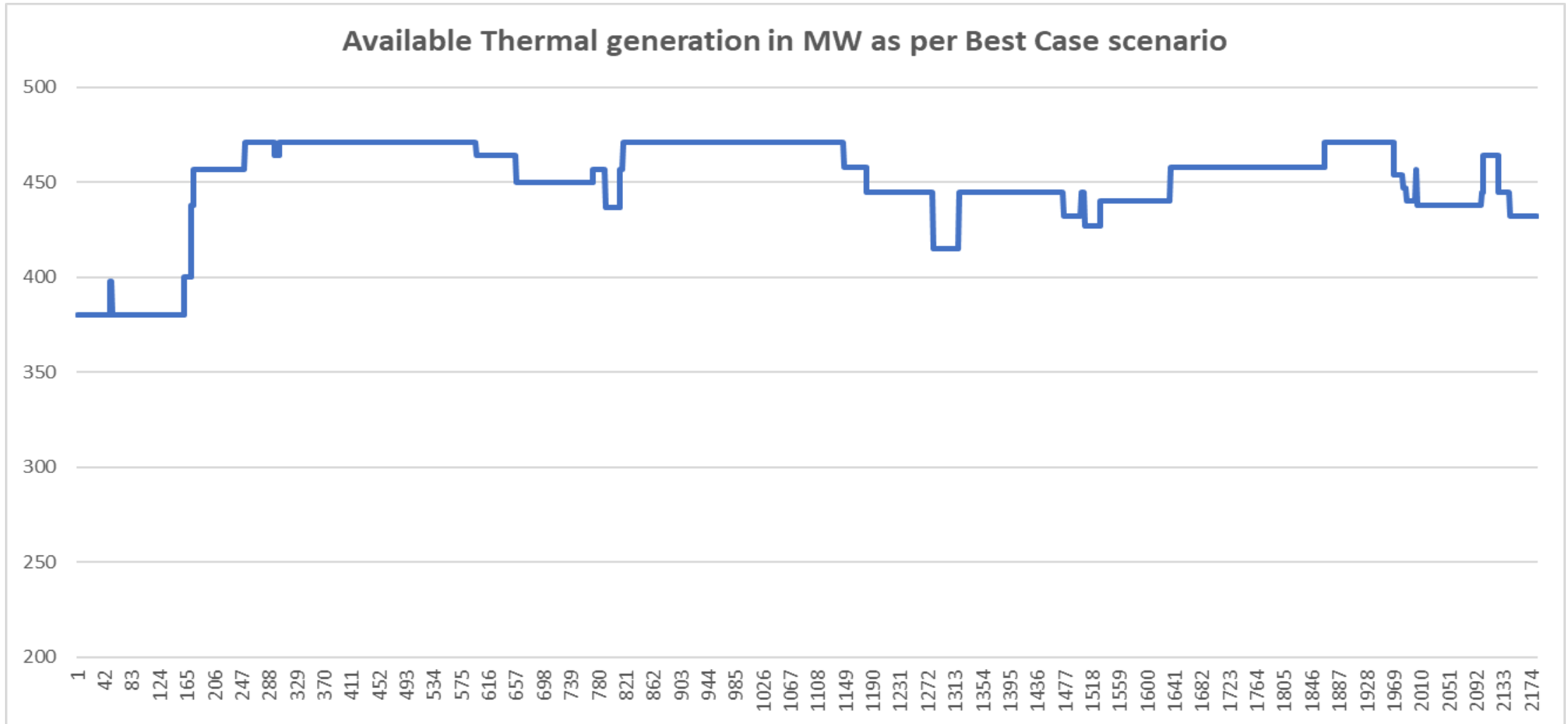
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
MW
3500
3000
2500
2000
1500
1000
500
0
Date

Source wise Forecast



Best case: Load Unserved in MW- Heat Map




Available Thermal generation in MW as per Best Case scenario
500
450
400
350
300
250
200
1
42
83
124
165
206
247
288
329
370
411
452
493
534
575
616
657
698
739
780
821
862
903
944
985
1026
1067
1108
1149
1190
1231
1272
1313
1354
1395
1436
1477
1518
1559
1600
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1805
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1928
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2010
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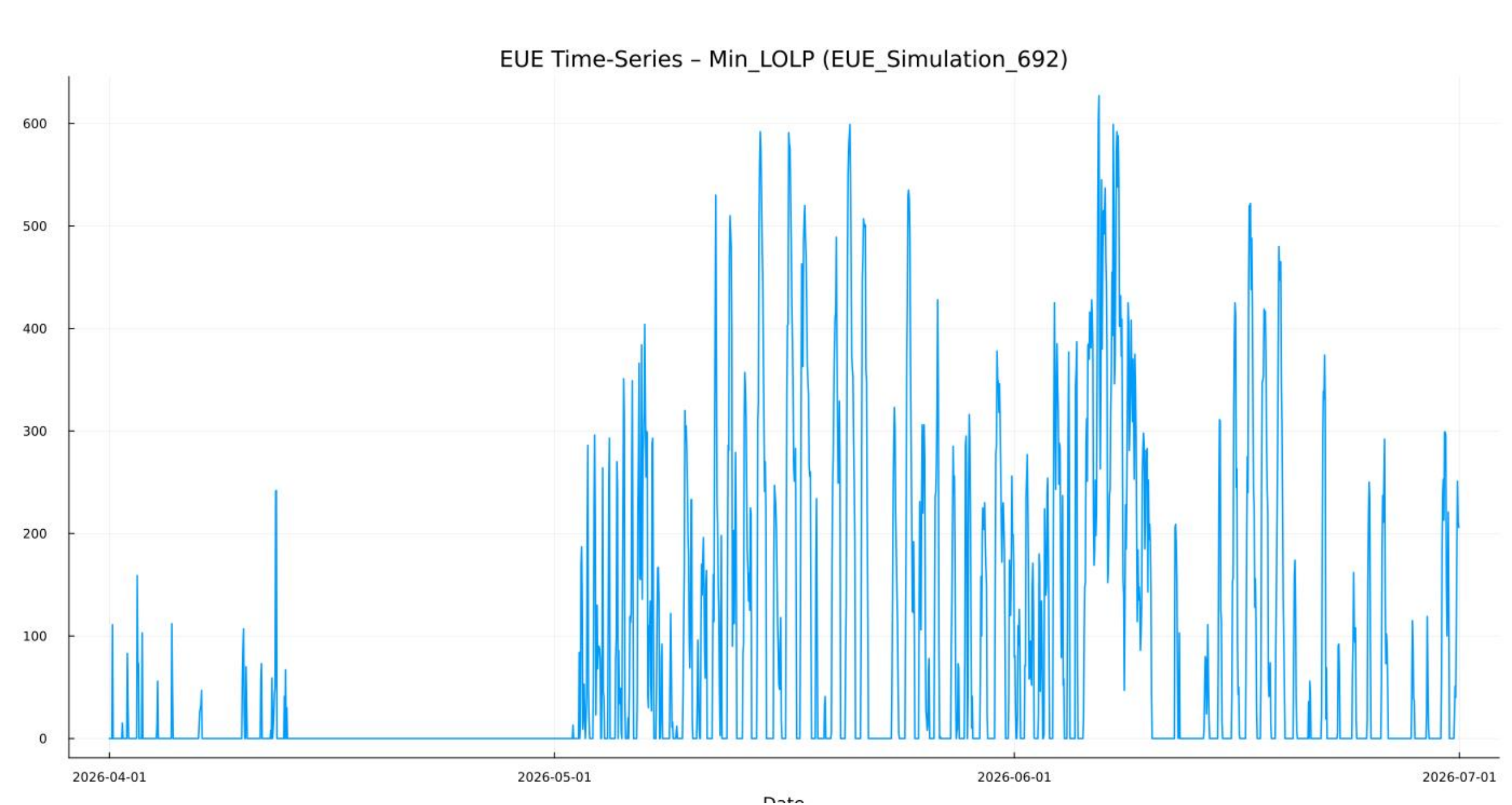
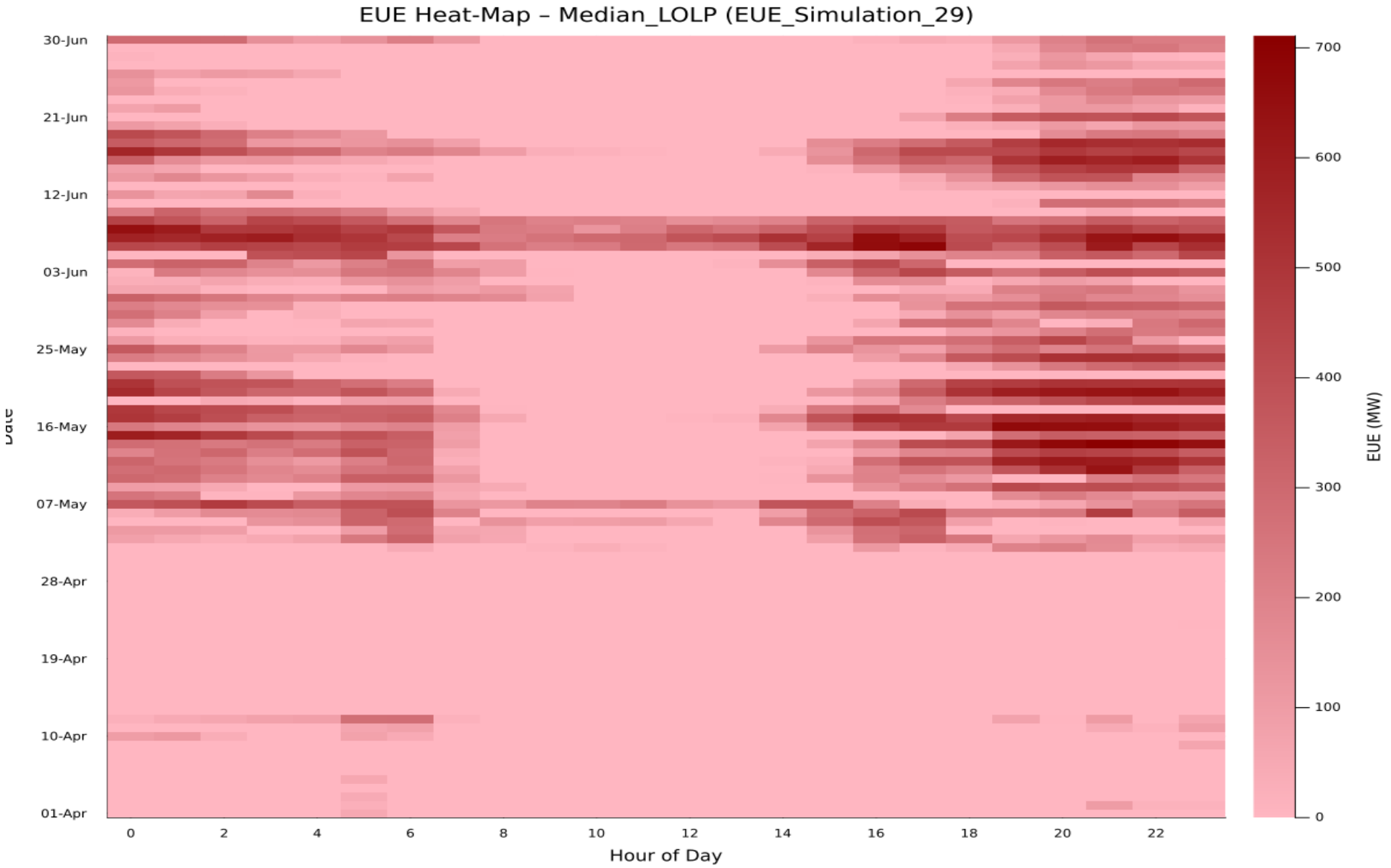
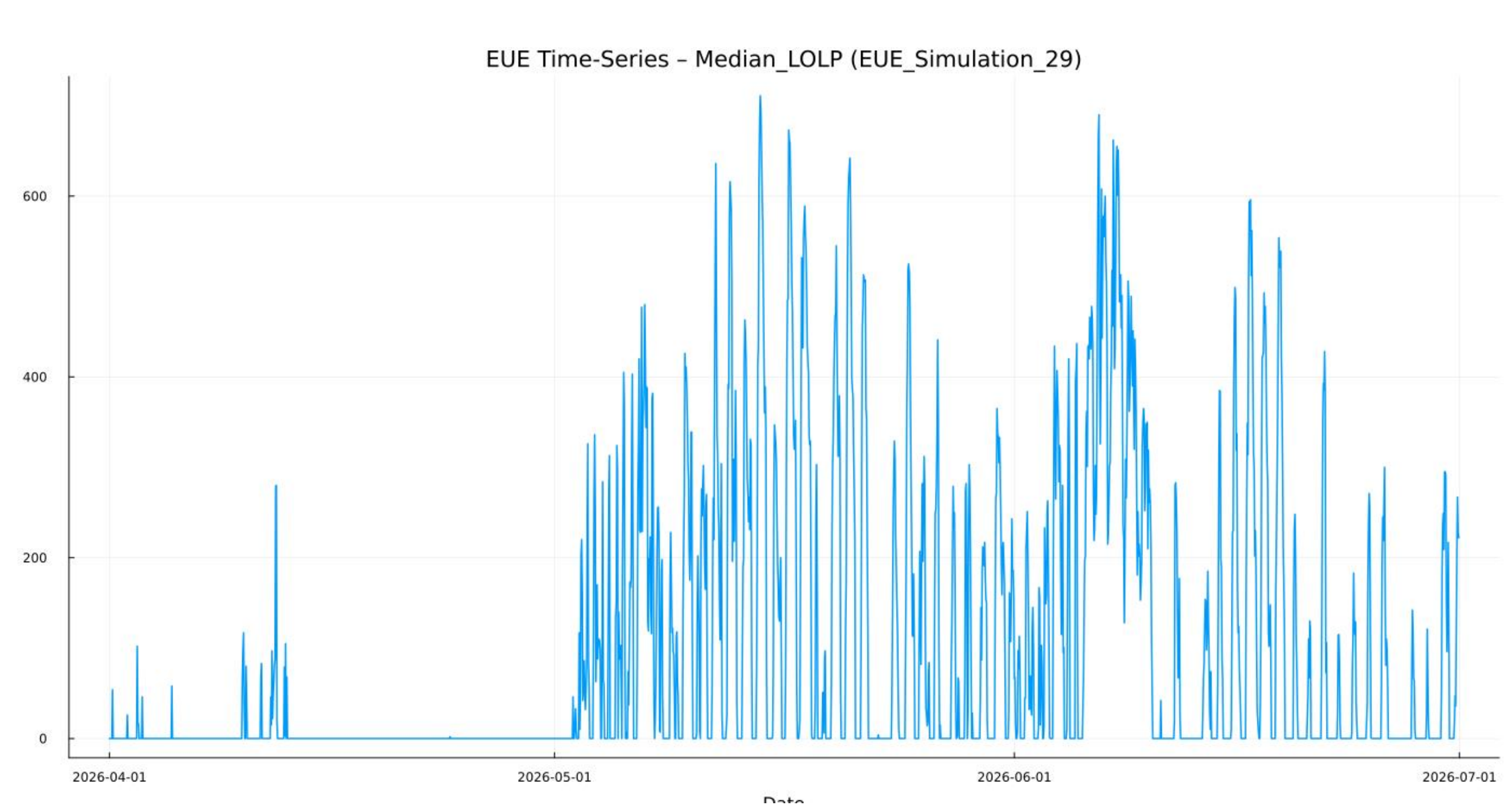
2092
2133
2174


EUE Time-Series – Min_LOLP (EUE_Simulation_692)
600
500
400
300
200
100
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled. The results indicate relatively higher shortage probability for Uttarakhand, which reflects its operational dependence on Bilateral purchases observed during the previous summer.

Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_29)
600
400
200
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

PRAS Outcomes – Key Observations & Way Forward (Summer: April–June 2026)

Observations

PRAS results indicate elevated adequacy risk during summer peak conditions, particularly during early morning and evening hours, when demand remains high and solar generation is unavailable.

The analysis highlights intermittent but significant unserved energy events, with higher frequency and magnitude observed during May–June, coinciding with extreme demand days.

While mid-day hours benefit from solar generation, peak-hour adequacy remains sensitive to demand variability and generation availability.

Way Forward

In view of the above, States are advised to strengthen advance resource planning for the summer period, including:

- Early finalization of firm GNA / bilateral contracts to adequately cover peak and shoulder-hour demand.
- Limiting reliance on short-term market mechanisms (DAM/RTM) for meeting peak summer requirements and treating market purchases as supplementary.

States are requested to review the PRAS outcomes at their end and undertake further state-level analysis, considering local demand conditions, resource availability, and contingency scenarios.

To enable revision of the PRAS assessment, States may kindly share updated inputs, including:

- Any new or revised GNA / bilateral contracts not captured in the current study.
- Updates on generation availability, renewable capacity additions, and demand outlook.

Disclaimer: PRAS results are indicative and intended to support advance planning under uncertainty.

Resource Adequacy Study Analysis for NR States

April to June 2026

Resource Adequacy Study using PRAS- Key assumptions

- The Probabilistic Resource Adequacy Study (PRAS) for the summer period from April to June 2026 has been carried out to assess the adequacy of available generation resources to reliably meet the projected state demand under a range of uncertainty scenarios. The assessment has been conducted using a probabilistic framework comprising 1000 Monte Carlo scenarios, with median outcomes presented to represent the expected system behaviour under typical operating conditions.

- To evaluate the net load to be met by dispatchable thermal generation, the forecasted hourly demand for the summer period (April-June 2026) was first estimated based on historical demand pattern and growth. From this projected demand, the expected contribution from non-thermal generation sources, namely solar, wind, hydro, and nuclear, was deducted.

- The contribution from non-thermal resources has been estimated using historical summer generation profiles, with solar and hydro generation scaled for capacity additions while retaining observed variability, intermittency, and seasonal operational characteristics.

- In the RA assessment, GNA contracts of the corresponding months from the previous year have been considered, duly scaled to account for demand growth. Short term Bilateral and market transactions have not been explicitly modelled.

Resource Adequacy Study using PRAS- Key assumptions

- To assess the availability of dispatchable generation resources, detailed modelling of thermal and gas-based generating units has been undertaken with the following assumptions:

  - ✓ **Planned Outages:** Planned outages has been considered NIL.

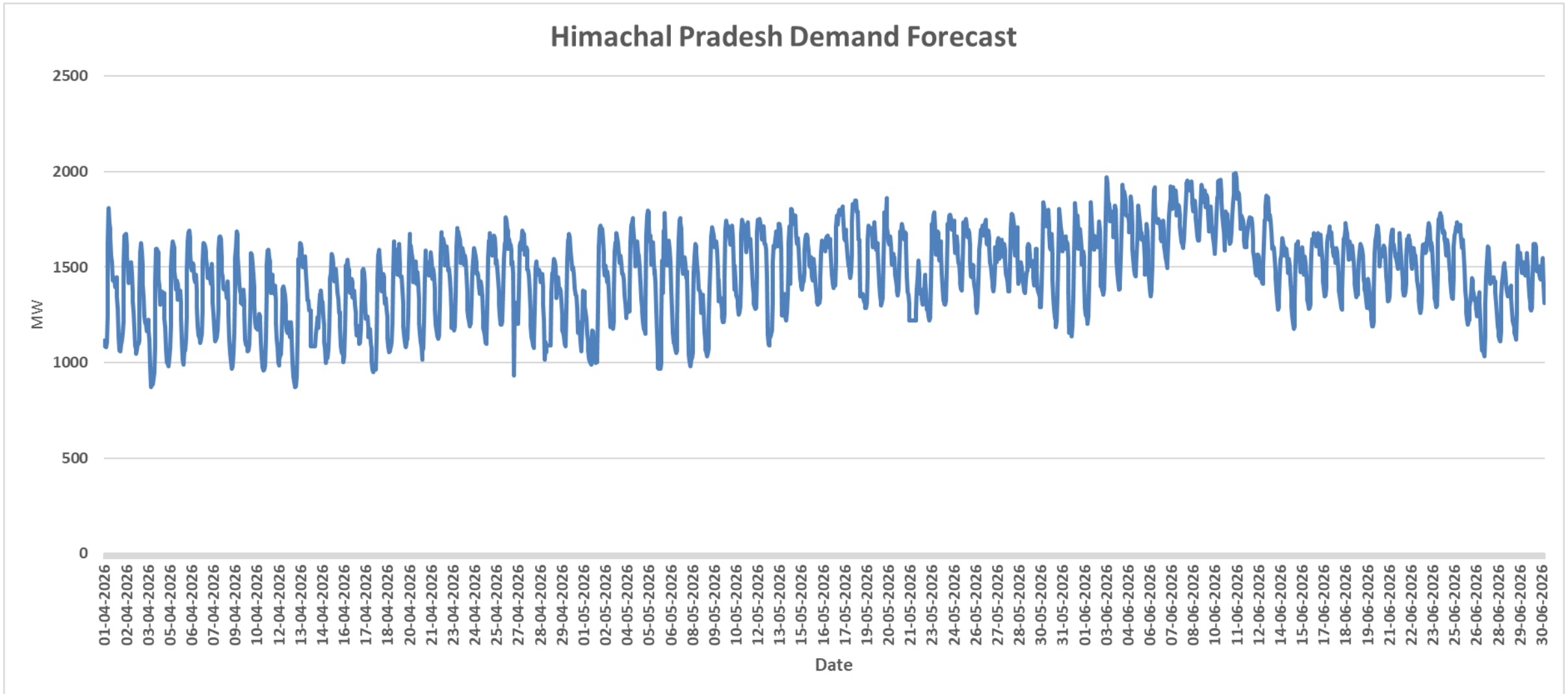
  - ✓ **Forced Outages:**
    Forced outages of thermal generating units have been modelled using a Monte Carlo simulation approach. Historical unit-specific outage and restoration rates have been used to probabilistically simulate unplanned outages.

This stochastic modelling enables realistic representation of operational uncertainties and enhances the robustness of the resource adequacy assessment.

The probabilistic framework enables estimation of reliability metrics such as:

- ✓ **Loss of Load Expectation (LOLE)**
- ✓ **Expected Unserved Energy (EUE)**

Chandigarh


Himachal Pradesh Demand Forecast
2500
2000
1500
1000
500
0
MW
01-04-2026
02-04-2026
03-04-2026
05-04-2026
06-04-2026
07-04-2026
09-04-2026
10-04-2026
12-04-2026
13-04-2026
14-04-2026
16-04-2026
17-04-2026
18-04-2026
20-04-2026
21-04-2026
23-04-2026
24-04-2026
25-04-2026
27-04-2026
28-04-2026
29-04-2026
01-05-2026
02-05-2026
04-05-2026
05-05-2026
06-05-2026
08-05-2026
09-05-2026
10-05-2026
12-05-2026
13-05-2026
15-05-2026
16-05-2026
17-05-2026
19-05-2026
20-05-2026
21-05-2026
23-05-2026
24-05-2026
26-05-2026
27-05-2026
28-05-2026
30-05-2026
31-05-2026
01-06-2026
03-06-2026
04-06-2026
06-06-2026
07-06-2026
08-06-2026
10-06-2026
11-06-2026
12-06-2026
14-06-2026
15-06-2026
17-06-2026
18-06-2026
19-06-2026
21-06-2026
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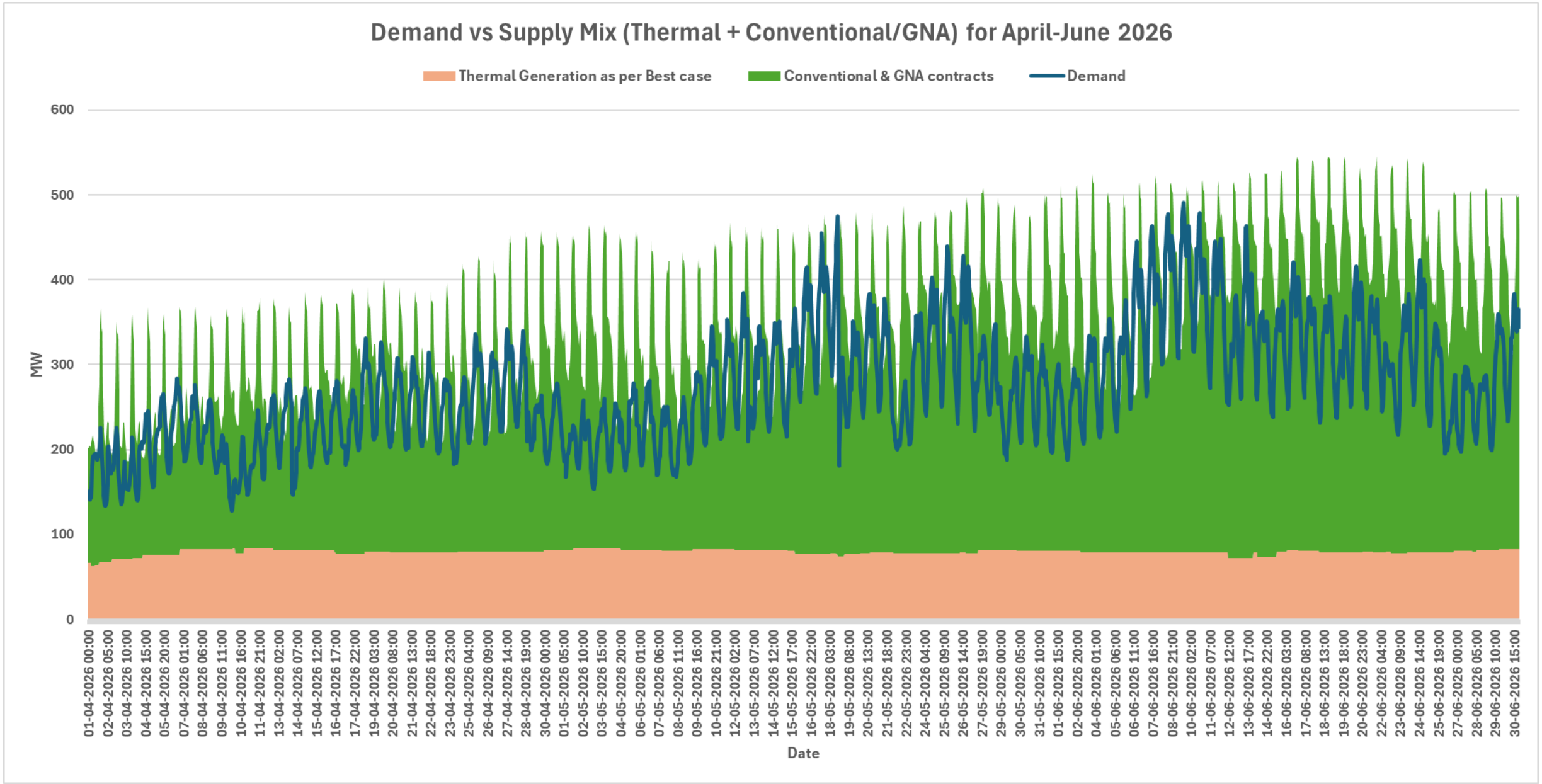
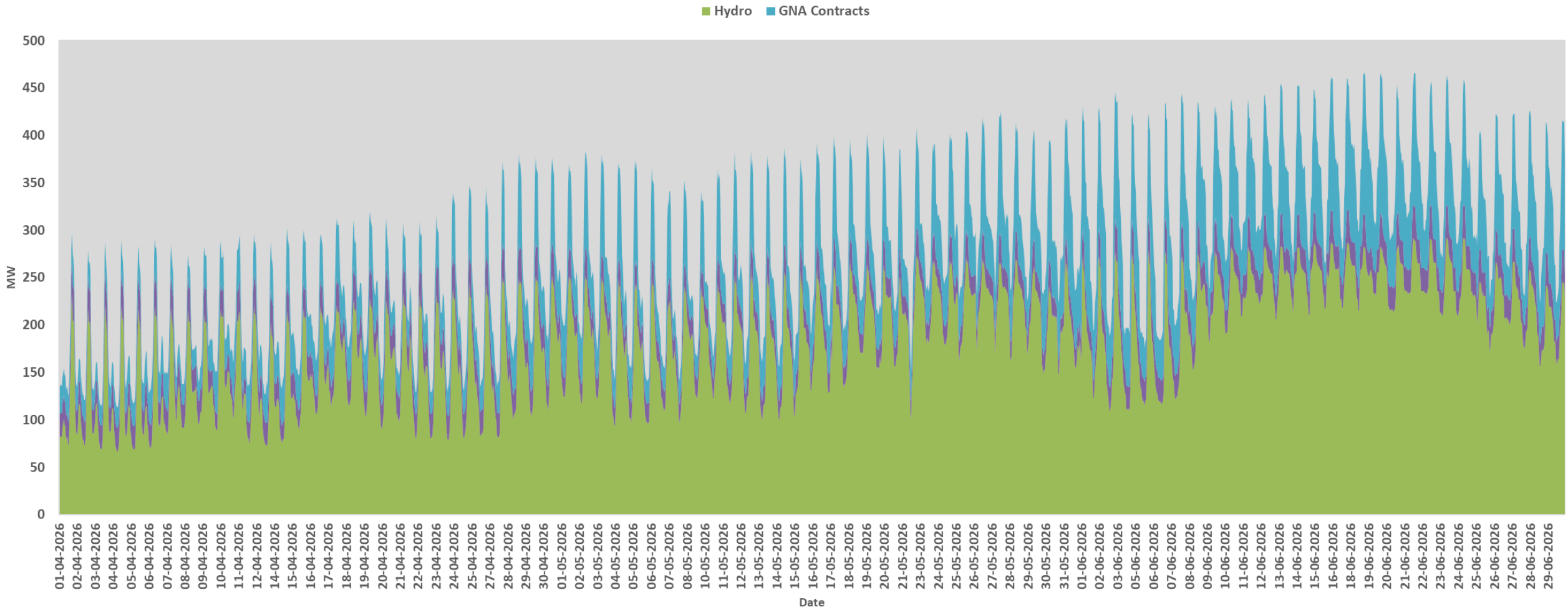
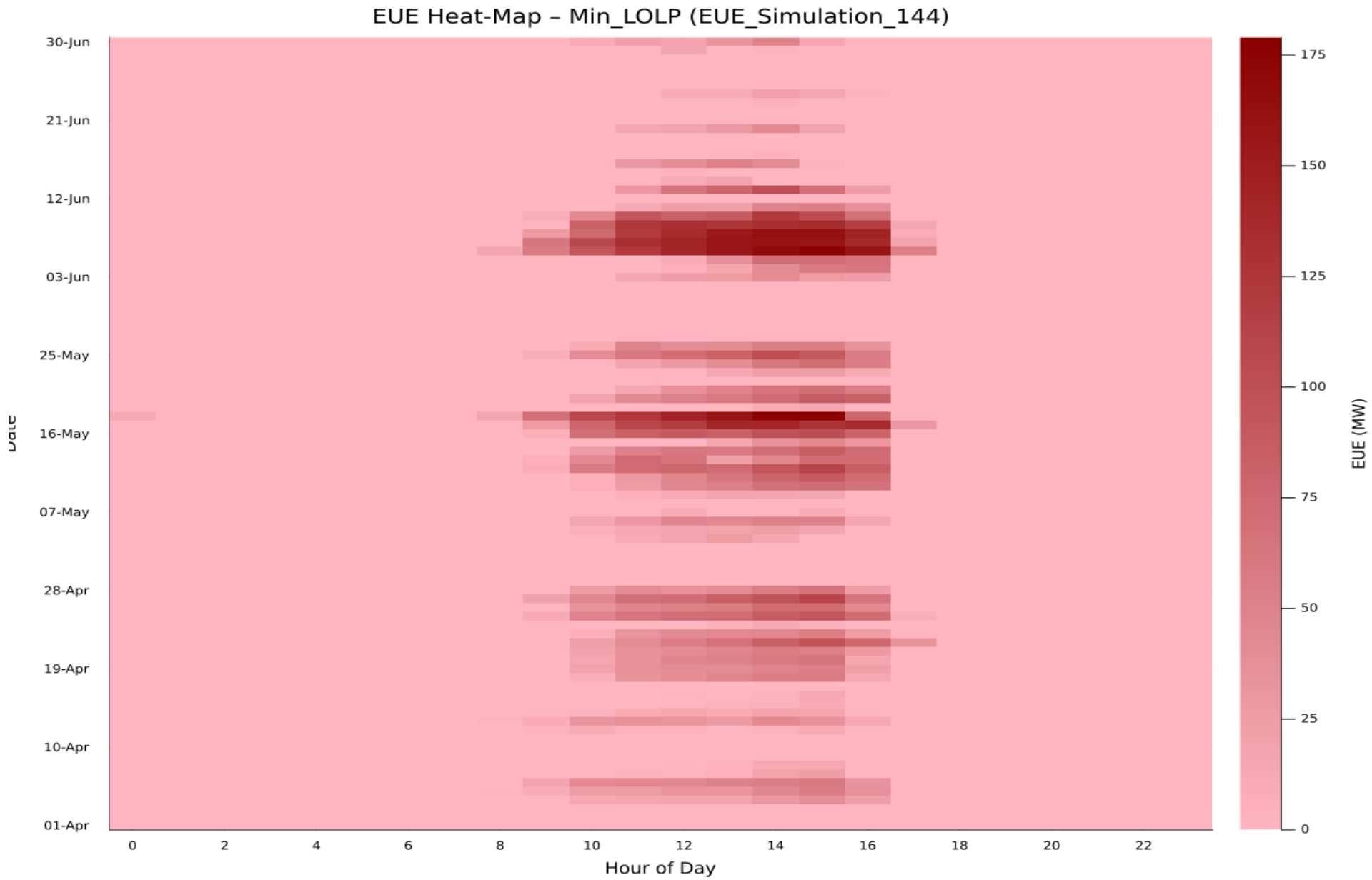
28-06-2026
29-06-2026
30-06-2026
Date

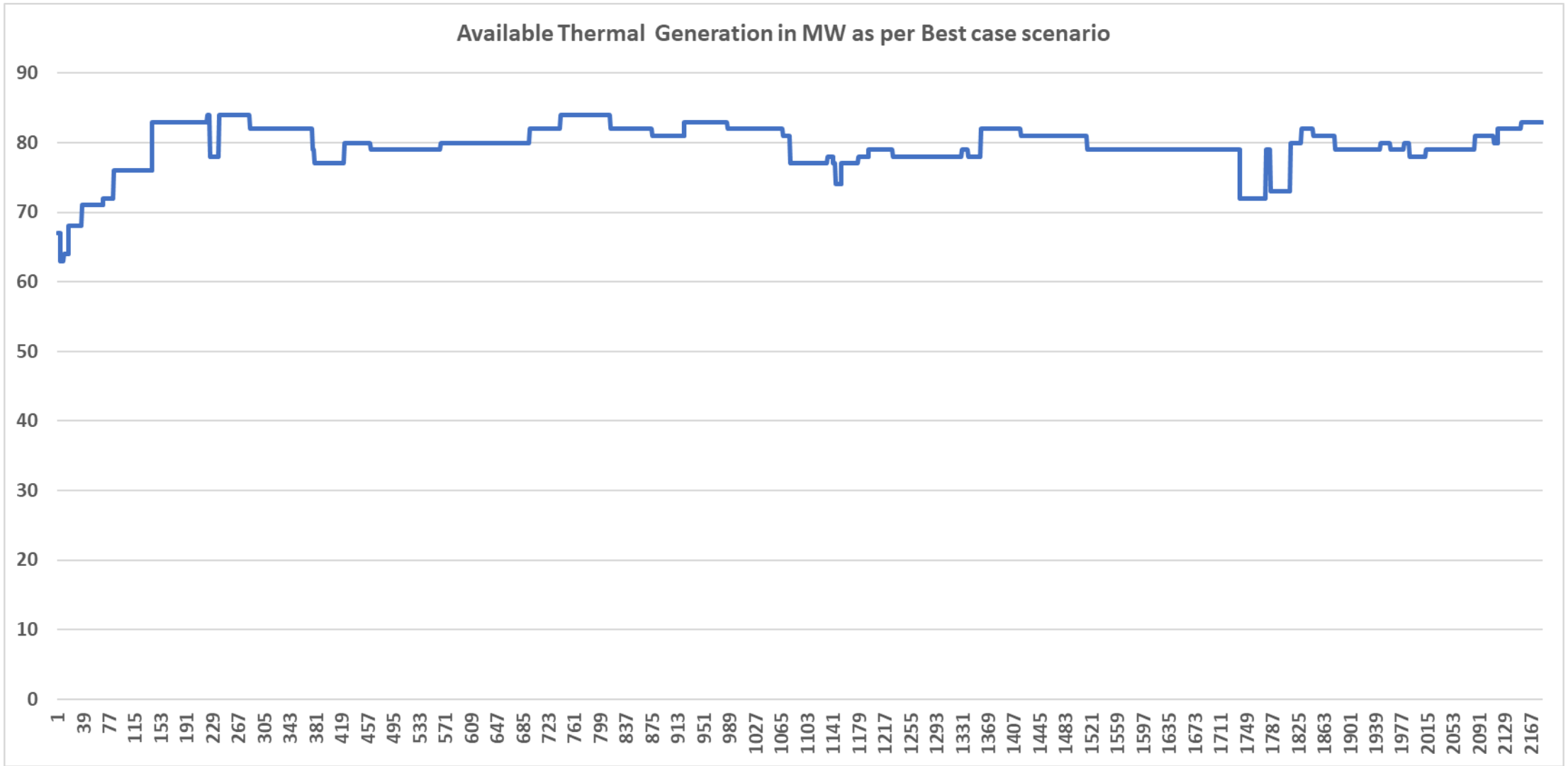

Demand vs Supply Mix (Thermal + Conventional/GNA) for April-June 2026
Thermal Generation as per Best case
Conventional & GNA contracts
Demand
600
500
400
300
200
100
0
MW
01-04-2026 00:00
02-04-2026 05:00
03-04-2026 10:00
04-04-2026 15:00
05-04-2026 20:00
07-04-2026 01:00
08-04-2026 06:00
09-04-2026 11:00
10-04-2026 16:00
11-04-2026 21:00
13-04-2026 02:00
14-04-2026 07:00
15-04-2026 12:00
16-04-2026 17:00
17-04-2026 22:00
19-04-2026 03:00
20-04-2026 08:00
21-04-2026 13:00
22-04-2026 18:00
23-04-2026 23:00
25-04-2026 04:00
26-04-2026 09:00
27-04-2026 14:00
28-04-2026 19:00
30-04-2026 00:00
01-05-2026 05:00
02-05-2026 10:00
03-05-2026 15:00
04-05-2026 20:00
06-05-2026 01:00
07-05-2026 06:00
08-05-2026 11:00
09-05-2026 16:00
10-05-2026 21:00
12-05-2026 02:00
13-05-2026 07:00
14-05-2026 12:00
15-05-2026 17:00
16-05-2026 22:00
18-05-2026 03:00
19-05-2026 08:00
20-05-2026 13:00
21-05-2026 18:00
22-05-2026 23:00
24-05-2026 04:00
25-05-2026 09:00
26-05-2026 14:00
27-05-2026 19:00
29-05-2026 00:00
30-05-2026 05:00
31-05-2026 10:00
01-06-2026 15:00
02-06-2026 20:00
04-06-2026 01:00
05-06-2026 06:00
06-06-2026 11:00
07-06-2026 16:00
08-06-2026 21:00
10-06-2026 02:00
11-06-2026 07:00
12-06-2026 12:00
13-06-2026 17:00
14-06-2026 22:00
16-06-2026 03:00
17-06-2026 08:00
18-06-2026 13:00
19-06-2026 18:00
20-06-2026 23:00
22-06-2026 04:00
23-06-2026 09:00
24-06-2026 14:00
25-06-2026 19:00
27-06-2026 00:00
28-06-2026 05:00
29-06-2026 10:00
30-06-2026 15:00
Date

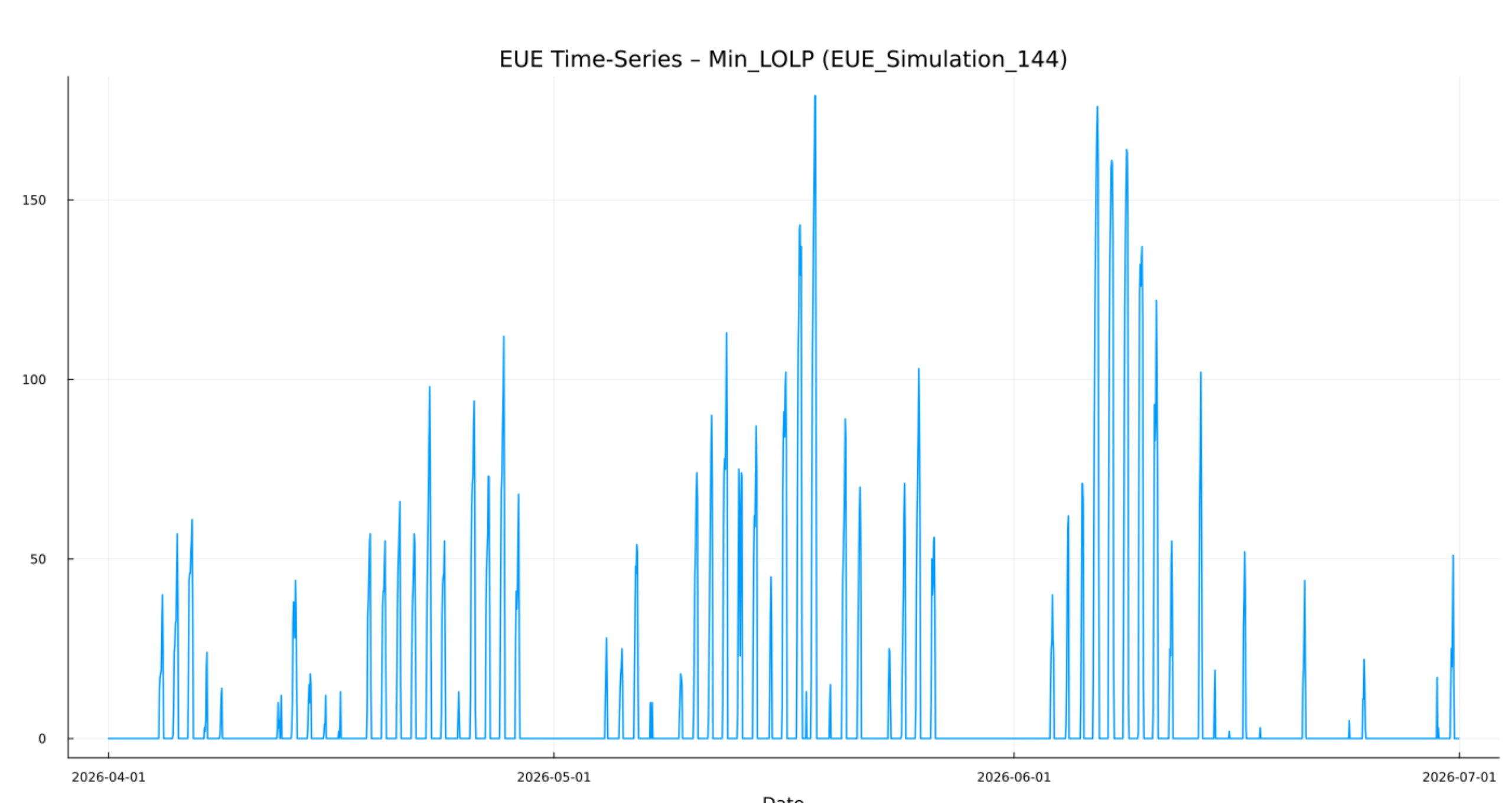
Source wise Forecast

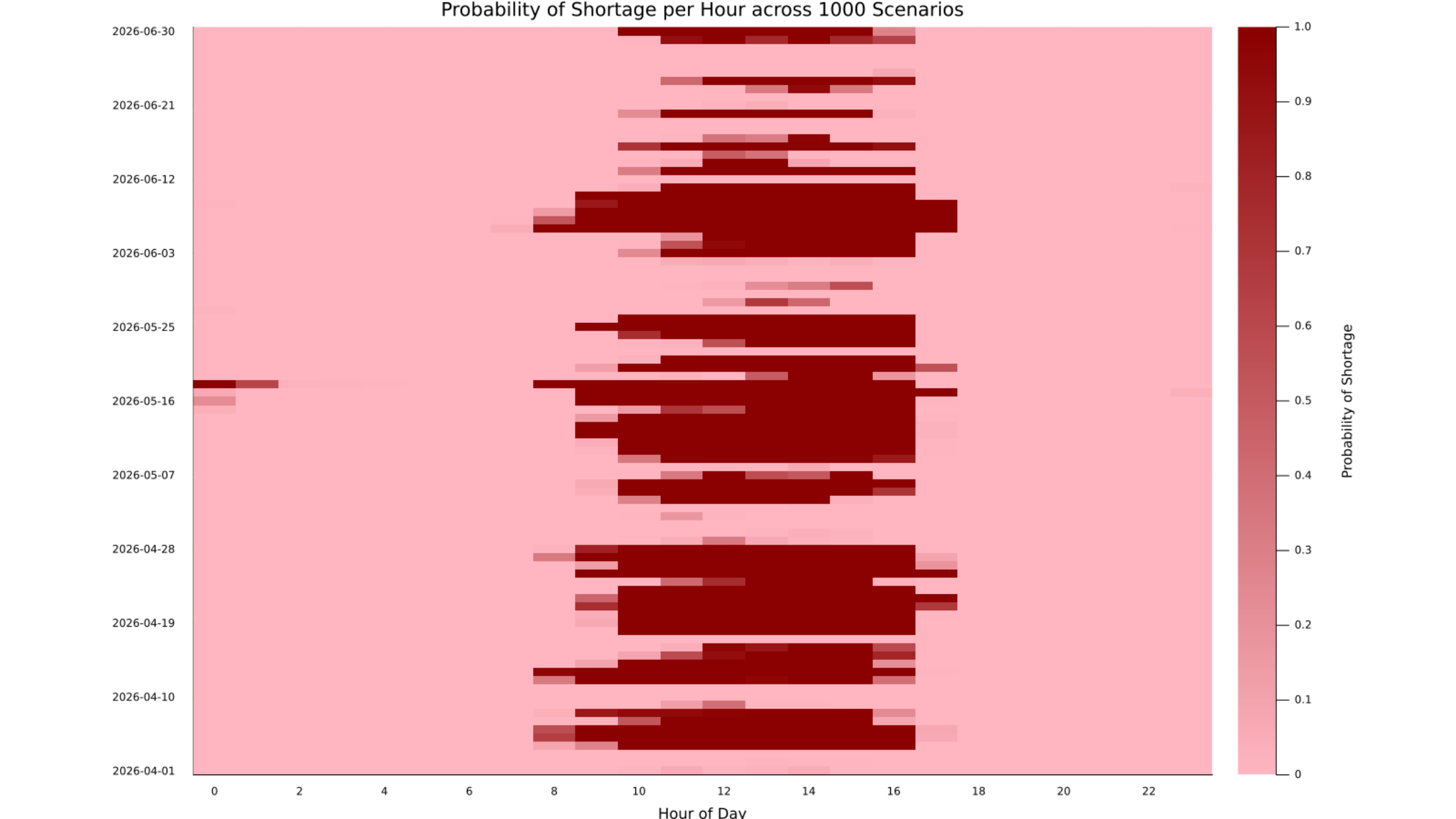


Best case: Load Unserved in MW- Heat Map

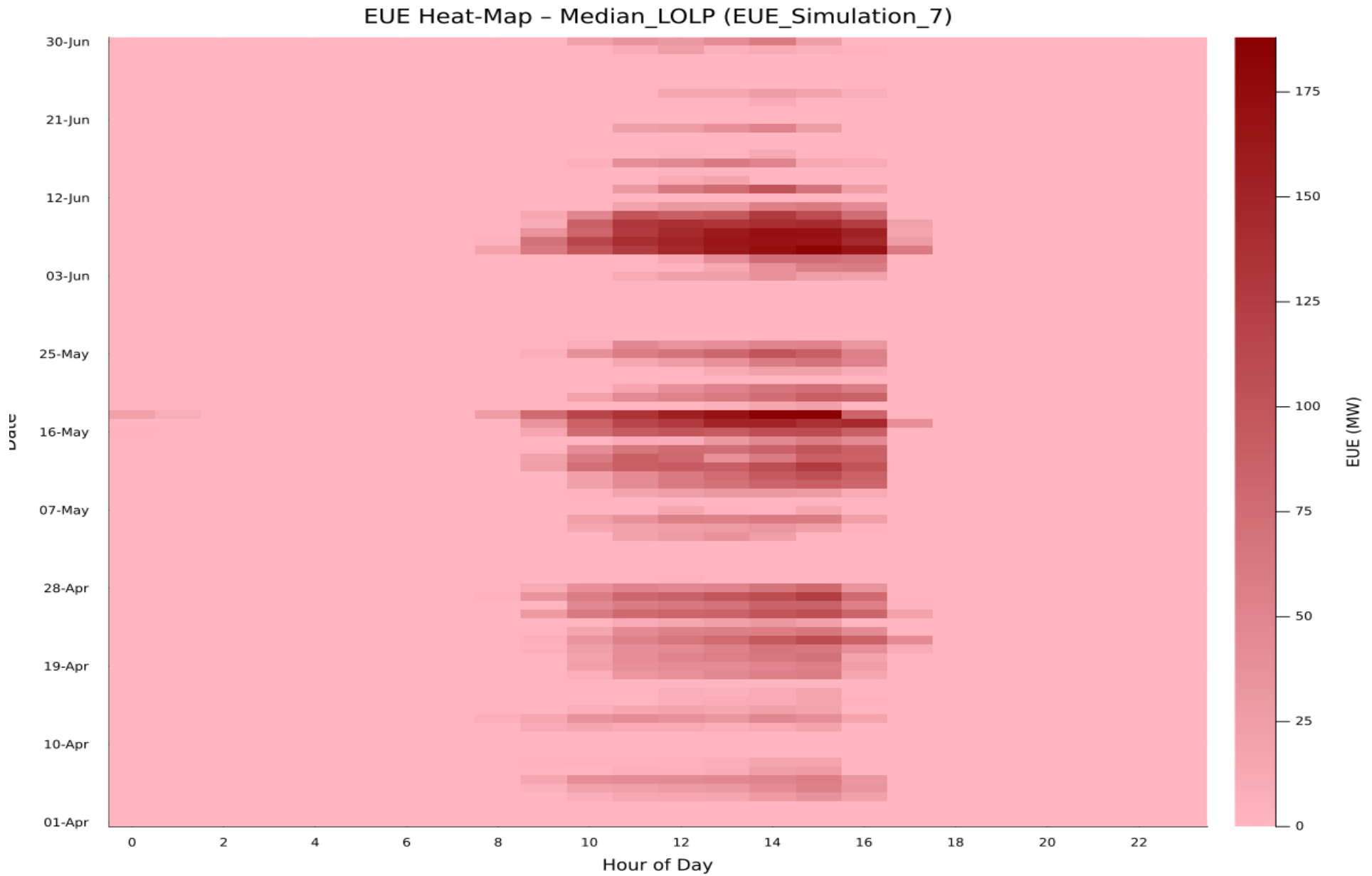


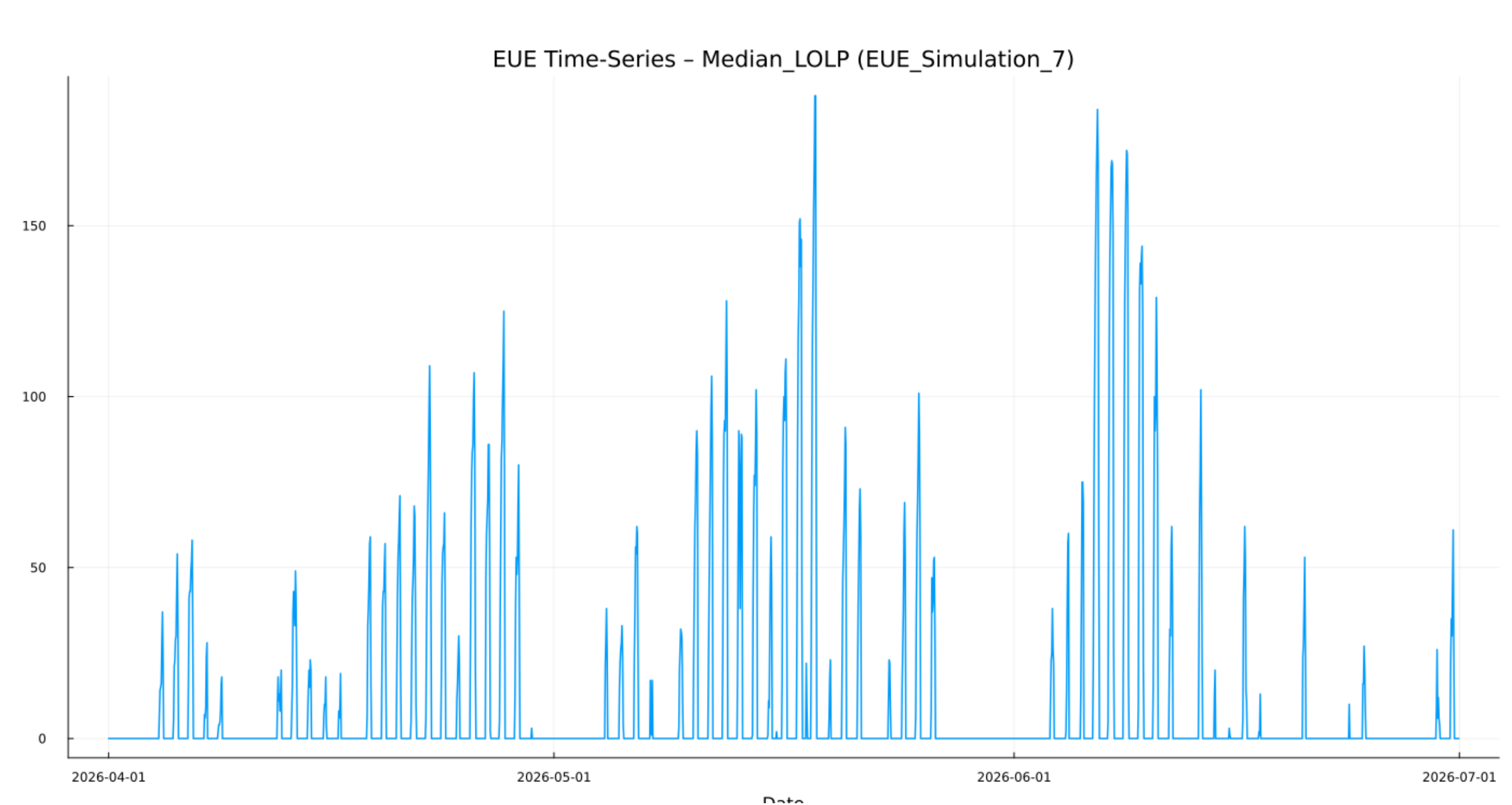

Available Thermal Generation in MW as per Best case scenario
90
80
70
60
50
40
30
20
10
0
1
39
77
115
153
191
229
267
305
343
381
419
457
495
533
571
609
647
685
723
761
799
837
875
913
951
989
1027
1065
1103
1141
1179
1217
1255
1293
1331
1369
1407
1445
1483
1521
1559
1597
1635
1673
1711
1749
1787
1825
1863
1901
1939
1977
2015
2053
2091
2129
2167


EUE Time-Series – Min_LOLP (EUE_Simulation_144)
150
100
50
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date


Probability of Shortage per Hour across 1000 Scenarios
2026-06-30
2026-06-21
2026-06-12
2026-06-03
2026-05-25
2026-05-16
2026-05-07
2026-04-28
2026-04-19
2026-04-10
2026-04-01
0
2
4
6
8
10
12
14
16
18
20
22
Hour of Day
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Probability of Shortage

Median case: Load Unserved in MW- Heat Map




EUE Time-Series – Median_LOLP (EUE_Simulation_7)
150
100
50
0
2026-04-01
2026-05-01
2026-06-01
2026-07-01
Date

PRAS Outcomes – Key Observations & Way Forward (Summer: April–June 2026)

Observations

PRAS results indicate elevated adequacy risk during summer peak conditions, particularly during early morning and evening hours, when demand remains high and solar generation is unavailable.

The analysis highlights intermittent but significant unserved energy events, with higher frequency and magnitude observed during May–June, coinciding with extreme demand days.

While mid-day hours benefit from solar generation, peak-hour adequacy remains sensitive to demand variability and generation availability.

Way Forward

In view of the above, States are advised to strengthen advance resource planning for the summer period, including:

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- Limiting reliance on short-term market mechanisms (DAM/RTM) for meeting peak summer requirements and treating market purchases as supplementary.

States are requested to review the PRAS outcomes at their end and undertake further state-level analysis, considering local demand conditions, resource availability, and contingency scenarios.

To enable revision of the PRAS assessment, States may kindly share updated inputs, including:

- Any new or revised GNA / bilateral contracts not captured in the current study.
- Updates on generation availability, renewable capacity additions, and demand outlook.

Disclaimer: PRAS results are indicative and intended to support advance planning under uncertainty.

Chapter 10: Recommendations

The following remedial measures are recommended to avoid recurrence of such grid events:

10.1 Reactive Power Management (Dynamic/Static):

In order to maintain voltage stability, reactive power support is desired from all grid connected utilities without leaning over each other so as to ensure minimum reactive exchange at different voltage levels.

a. Generators

- The generating units including those near load centre stations shall keep their PSS/AVR in service for dynamic reactive power support and stability during contingencies.
- The generating stations, both conventional as well as renewable, shall provide their P-Q capability curve for 0.95 per unit and 1.05 per unit voltage along with the curve based on 1 (one) p.u. terminal voltage. The voltage-dependent reactive support shall be assessed based on the submitted voltage-dependent capability curves.

b. Transmission

- The transmission system shall be planned and commissioned to ensure reactive power balance at all voltage levels in the grid. For this, different operating scenarios shall be studied to identify the reactive power requirement. Any deficit so identified shall be followed by augmenting the dynamic/static reactive power sources by transmission system planners (CEA/CTU/STUs).
- The placement and sizing of STATCOM/SVC shall be planned in such a way that the dynamic reactive support from STATCOM/SVC are not utilized in steady-state. It will ensure that in case of grid contingencies, full dynamic range is available for the grid support.
- Also, the design philosophy of future STATCOMs may be adopted so as to ensure the availability of dynamic reactive reserve for any contingency.
- State-wise reactive power compensation requirement (Dynamic & Static) may be studied in a holistic manner so that states do not lean over the ISTS system for reactive power support.

c. Load Centres

- Adequate static/dynamic reactive devices may be planned at the distribution level near loads so that there is minimum drawl from reactive sources at the transmission (STU) level. States may explore the deployment of capacitor banks at lower voltage levels for meeting the reactive support required by loads having poor power factor.
- The dynamic reactive power sources shall be commissioned near load centre stations based on the composition and quantum of individual load type.
- System studies for appropriate locations and suitable size of switchable capacitor banks, STATCOM/SVG etc. may be carried out. Early action on deployment and installation is needed.
- As shown in the study results, the behaviour of the system is entirely different with different load models viz. composite and ZIP load model. Hence, accurate load modelling is very important to properly capture the right behaviour of the system in the operational planning phase. Same may be considered in the planning stage studies as well as while assessing the TTC/ATC of control areas.
- It is recommended that a suitable SPS scheme may be planned which shall operate after outage of HVDC Champa – Kurukshetra Bipole to obtain relief in the voltage.

- The load centres (non-pit head locations) usually experience low voltage-related issues during peak demand periods. The presence of thermal generators near the load centres may significantly improve the voltage profile and can provide dynamic reactive power support in case of contingencies improving the stability.

10.2 Reliable operation of HVDC Champa - Kurukshetra:

a. Between January to June 2024, there have been more than 30 instances of tripping of HVDC Champa-Kurukshetra poles (list enclosed as **Annexure – 13**). Detailed fault analysis of the 800 kV HVDC Champa-Kurukshetra link and other affected components is essential to understand the root cause of the event. Implementing remedial measures based on this analysis can prevent recurrence and enhance the reliability of this critical interregional link.

b. All trippings have been analyzed by POWERGRID in consultation with OEM and it has been concluded that trippings have occurred mainly due to mal-operation of DCCT, T-zone protection mal-operation, 5005/5008 card failure, system failure issue and de-paralleling failure issue. Based on the identification of issues, necessary modification of software and hardware is already in process and under trial. POWERGRID to expedite the implementation of measures at the earliest.

c. HVDC Champa-Kurukshetra tripping took place due to a transmission line fault at location 1805 (falling under Village - Chamarra, Block -Panwari, Distt- Mahoba, Uttar Pradesh) caused by flashover between jumper conductor and tower body under localised storm/heavy wind condition. Even though this is the only line fault that took place during the last one year in this line and no record of fault at this location since commissioning, it is very important that further improvements in O&M of the transmission line may be done in view of the criticality of HVDC line. In order to control the jumper swing use of additional pilot insulators, addition of counterweight and insulation sleeve on the jumper conductor and DMR wherever required may also be deployed. Increased line patrolling during summer and at vulnerable locations need to be ensured to check infringements and foreign materials.

d. As per existing configuration, both DMR-1 & DMR-2 is connected together electrically at both terminals of HVDC through disconnectors. Online isolation of DMR during power flow or fault condition is not possible. To improve the reliability of system under DMR fault condition auto-isolation of DMRs and NBGS after discussion with OEM of HVDC may be explored in consultation with HVDC OEMs.

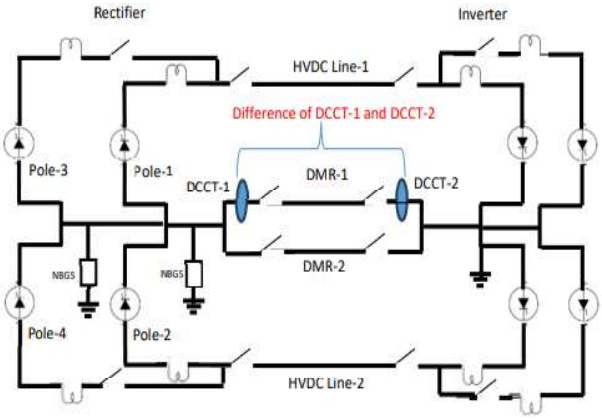

Figure 94:DMR current differential protection

e. As DMR-1 was available, an assessment is needed to determine if Pole-1 & 3 could have remained operational with DMR-1, given the power order was not excessively high (~1100 MW total). The periodic review of healthiness of DMR is important to assess the healthiness

of HVDC lines. Protocol for periodic healthiness checking of DMR may be formulated by the utility.

f. Standard DMR line fault protection philosophy may be incorporated in RfP Document for future HVDC projects in consultation with OEM i.e. The closing of NBGS may be reviewed (in consultation with OEMs) for DMR line protection sequence during Bipolar operation for future HVDC projects.
g. HVDC systems have huge number of filter banks which provides MVAR support in addition to serve the basic purpose of harmonics filtration. It may be beneficial to get benefit of filter banks for MVAR support during low voltage condition subject to technical feasibility without compromising the safety of HVDC system as such.
h. A SPS scheme can be explored where filter banks of HVDC are tripped in succession after blocking of HVDC poles, this would help in limiting the dip in voltage after blocking of HVDC poles.
i. However, the immediate protective removal of filters is highly required in existing LCC HVDC during blocking of bipoles to avoid sudden voltage overshoot at connected AC BUS. In order to mitigate abrupt voltage rise/fall during filter switching, the filter switching scheme of HVDC in case of protective pole tripping should be based on antecedent AC bus voltage. If the voltage is lower/higher than a set value, the switching of filter bank/ part of filter bank may be avoided until the voltage recovers to that level.

10.3 Implementation of Overvoltage protection setting:

It was also observed that better over-voltage protection settings are required specially when there is sharp rise in voltage. In such cases voltage based time grading need to be carried out on different lines based on various factors. A review of overvoltage stage-1 protection settings on all 765KV lines emanating from northern region substations was carried out. Based on the deliberations, following is recommended for implementing overvoltage Stage-I protection settings:

a. Pick up voltage & time delay setting of Antitheft lines to be kept low with sufficient time gap from other lines at S/s
b. Parallel lines grading to be done such that one line should trip early by setting at low voltage and other line should trip last by keeping setting at high voltage.
c. Highly loaded lines should be given last priority in tripping.
d. Net MVAr relief (based on line charging MVAr & MVAr compensation in line) based on the simulation to be considered for arriving at the priority of line tripping. Lines providing high net MVAr relief to be tripped early.
e. Grading to be done in such a manner that one major incoming and outgoing line shall remain connected after tripping of lines at any node.
f. Protection setting of remote end station of a line need to be coordinated so as to avoid tripping of line from other end.
g. Drop-off to pick-up ratio of Relays implemented for overvoltage protection shall be more than 99.5%.

10.4 Frequency Response by Generating Units

a. The performance of primary response by generating units in this event underscores significant concerns regarding the inadequate governor response being provided by generators.

b. It is recommended that the performance of generating units where inadequate primary response was observed shall be discussed at RPC level. The remedial measures shall be explored including carrying out of onsite primary response testing.

10.5 Compliance of CEA Standards by Renewable Generating Plants:

a. Protection settings of inverters/WTG shall be coordinated in such a way that it accounts for the voltage rise/drop between inverter/WTG terminal & Point of interconnection (POI). Overvoltage /undervoltage trip settings should be configured accordingly.
b. The reactive power controller settings (droop, deadband, power factor, operating modes) in inverters/WTGs should be configurable and shall be set in consultation with the respective load dispatch centre.
c. The protection settings of elements in collector system viz. transformers, cables etc. shall such that it allows RE plants to ensure the compliance of CEA standards at POI.
d. RE plants shall ensure that the event records shall be shared with SLDC/RLDC within the stipulated time for event analysis. All such data shall be retained in a retrievable format in a suitable archival system.

10.6 Compliance of Standards by Load Serving Machines

a. The motors serving load shall be compliant with IS/IEC, this shall ensure following:
    i. Limiting MVAR drawl during low voltage period.
    ii. Avoiding unwanted tripping due to voltage fluctuations.
    iii. Improved power factor
b. It is suggested that the protection settings of 1-ph AC compressors, 3-ph HVAC compressors in large commercial complexes, mall etc., agricultural motors etc. may be reviewed and suitable standard for the same may be notified.

10.7 Amendments in Existing Regulations

With the envisaged large-scale addition of different emerging types of loads i.e. electrolyzers, data centres and other power electronic interfaced loads, it is important that the suitable provisions for ensuring reliable operation may be added in the existing CEA standards.

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Annexure-A.VIII

Under TBCB Phase-III:

1. **Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part-A1"**

SPV Name: Fatehgarh IV Transmission Ltd. (Apraava Energy Pvt. Ltd.), **SPV Transfer Date: 02.08.2023**
SCOD as per TSA: 01.02.2025, **Commissioning Date: 19.01.2026 (DOCO)**

<table>
<tr><th>Sl. No</th><th>Scope of the Transmission Scheme</th><th>Status & Progress of Construction as per 35th JCC</th><th>Status & Progress of Construction as per 36th JCC</th></tr>
<tr><td>1.</td><td>Establishment of 5x500 MVA, 400/220 kV pooling station at Fatehgarh-4 along with 2x125 MVAr Bus Reactor</td><td>¬ Engineering: 100% completed
¬ Supplies received at site: 99%
¬ Construction:
➢ 400 KV Switchyard completed
➢ 220 KV to be completed by 1st Week of October 2025.</td><td>¬ Construction:
¬ 400 KV Switchyard commissioned
¬ 220 KV to be completed by 1st Week of October 2025.

400/220 kV, 5x500 MVA ICTs
<table><tr><td>ICT No.</td><td>Commissioned date</td></tr><tr><td>ICT-1</td><td>07.12.2025</td></tr><tr><td>ICT-2</td><td>07.12.2025</td></tr><tr><td>ICT-3</td><td>07.12.2025</td></tr><tr><td>ICT-4</td><td>07.12.2025</td></tr><tr><td>ICT-5</td><td>07.12.2025</td></tr></table>¬</td></tr>
<tr><td>2.</td><td>Fatehgarh-4 - Fatehgarh-3 400 kV D/C length — 50 km twin HLTS* line</td><td>¬ Foundation completed: 61/61 Nos.
¬ Tower erected: 61/61 Nos.
¬ Stringing completed: 21.062/21.348 km.
¬ Forest (1.6054 Ha):
Stage I/ In-Principle received on 20.06.25
Stage II/ Final received on 10.09.25
Final Diversion Order issued 11.09.25</td><td>Commissioned on 7th December 2025</td></tr>
</table>

3.	2 no. of 400 kV line bays at Fatehgarh-3 400 kV line bays - nos. 3	¬ Engineering: 100% completed ¬ Supplies received at site: 95% completed ¬ Construction: Civil Work – 45% completed ¬ Bus extension from POWERGRID is needed (by Oct'25)	Commissioned on 7th December 2025

2. Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part-A3"

SPV Name: M/s Fatehgarh III Transmission Ltd. (a subsidiary of Apraava Energy Pvt. Ltd.), **SPV Transfer Date: 02.08.2023**
SCOD as per TSA: 01.02.2025, **Expected Commissioning Date: 30th June 2026**

Sl. No	Scope of the Transmission Scheme	Status & Progress of Construction as per 35th JCC	Status & Progress of Construction as per 36th JCC
1	Fatehgarh 3 - Bhadla-3 400kV D/c line(Quad) along with 50 MVAr Switchable line reactor for each circuit at both ends of Fatehgarh 3-Bhadla-3 400kV D/c line.	• Foundation completed: 456/584* Nos.11 gangs • Tower erected: 319/584* Nos. 17 gangs • Stringing completed: 37.517/ 228Kms. 4 gangs • Frequent route diversion due to upcoming solar and wind projects • Fatehgarh-III: Engineering: 100% completed | Civil Work: 78% completed • **Severe RoW (84 loc.):** Barmer (03), Jaisalmer (43), Phalodi (38), in Rajasthan State • **Forest (22.2778 Ha)**: 18 Nos. of Tower affected, Proposal submitted on 30.09.2024 and accepted on 43rd PSC dated: 24.02.2025. Proposal recommended in Part IV (State Secretary Level) and currently pending at REC. Requesting intervention to expediate the process of FC for getting Stage I/ In-Principle approval. • **Fatehgarh-III:** Engineering: 99% completed Supply: 85% completed Civil Work: 60% completed	• Foundation completed: 491/584* Nos.11 gangs • Tower erected: 403/584* Nos. 17 gangs • Stringing completed: 60.331/228Kms. 4 gangs • **Severe RoW (72 loc.):** Barmer (03), Jaisalmer (34), Phalodi (35), in Rajasthan State • **Forest (22.2778 Ha)**: Oran Land issue affected 18 Locations due to pending FC clearance (stage-I). TSP need support in resolution of the Oran land issue. • **Fatehgarh-III:** • Engineering: 99% completed • Supply: 95% completed • Civil Work: 98% completed • Erection 90% Completed • **Bhadla-III:** • Engineering: 99% completed • Supply: 95% completed • Civil: 88% Completed

		Erection yet to start • **Bhadla-III:** Engineering: 75% completed Supply: 40% completed Civil: 30% Completed	• Erection 50% Completed

3. Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part-B1"

SPV Name: M/s Bhadla III Transmission Ltd. (a subsidiary of POWERGRID), acquired on 27.09.2023
SCOD as per TSA: 27.03.2025, Anticipated commissioning: 28.02.2026

<table>
<tr><th>Sl. No</th><th>Scope of the Transmission Scheme</th><th>Status & Progress of Construction as per 35th JCC</th><th>Status & Progress of Construction as per 36th JCC</th></tr>
<tr><td>1</td><td>Establishment of 2x1500 MVA, 765/400kV & 3x500 MVA, 400/220kV pooling station at Bhadla-3 along with 2x330 MVAr (765kV) Bus Reactor & 2x125 MVAr (420kV) Bus Reactor.</td><td>All PKG has been awarded.
¬ Expected completion 31.12.2025</td><td>All PKG has been awarded.
Expected completion 31.12.2025

765/400 kV, 2x1500 MVA ICTs<table><tr><td>ICT No.</td><td>Anticipated Schedule</td></tr><tr><td>ICT-1:</td><td>Ready for charging</td></tr><tr><td>ICT-2:</td><td>15.01.26</td></tr></table>400/220 kV, 3x500 MVA ICTs<table><tr><td>ICT No.</td><td>Anticipated Schedule</td></tr><tr><td>ICT-1</td><td>31.01.26</td></tr><tr><td>ICT-2</td><td>31.01.26</td></tr><tr><td>ICT-3</td><td>31.01.26</td></tr></table>BR-1&2: 15.01.26
400kV BR-1&2: 30.01.26</td></tr>
<tr><td>2</td><td>Bhadla-3 PS – Sikar-II 765 kV D/c line along with 330 MVAr Switchable line reactor for each circuit at each end of Bhadla-3 – Sikar-II 765 kV D/c line.</td><td>• Length: 648 ckm.
• Locations: 847 Nos.
• Foundation completed: 837 Nos.
• Tower erected: 686 Nos
• Stringing: 218 ckm
• Expected completion 31.12.2025</td><td>• Length: 648 ckm.
• Locations: 847 Nos.
• Foundation completed: 847 Nos.
• Tower erected: 846 Nos
• Stringing: 478 ckm
• Expected completion 31.01.26,</td></tr>
<tr><td>3</td><td>2 nos. of 765 kV line bays at Sikar-II</td><td>- Matching with Line</td><td>- Ready</td></tr>
</table>

4. Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part-C1"

SPV Name: M/s Ramgarh II Transmission Ltd. (a subsidiary of POWERGRID), acquired on 26.10.2023
SCOD as per TSA: 26.04.2025 with STATCOM SCoD: 26.10.2025

<table>
<tr><th>Sl. No</th><th>Scope of the Transmission Scheme</th><th>Status & Progress of Construction as per 35th JCC</th><th>Status & Progress of Construction as per 36th JCC</th></tr>
<tr><td>1</td><td>Establishment of 2x1500 MVA, 765/400kV & 2x500 MVA, 400/220 kV pooling station at Ramgarh along with 2x240 MVAr (765kV) Bus Reactor & 2x125 MVAr (420kV) Bus reactor, ±2x300MVAr STATCOM along with MSC+MSR</td><td>• Aniticipated CoD: 30.09.2025 (Substation)
• STATCOM: 31.03.2026</td><td>• Aniticipated CoD: Jan'26 (Substation)
• STATCOM: 31.03.2026

765/400 kV, 2x1500 MVA ICTs<table><tr><td>ICT No.</td><td>Anticipated Schedule</td></tr><tr><td>ICT-1</td><td>Ready</td></tr><tr><td>ICT-2</td><td>Ready</td></tr></table>400/220 kV, 2x500 MVA ICTs<table><tr><td>ICT No.</td><td>Anticipated Schedule</td></tr><tr><td>ICT-1</td><td>Ready</td></tr><tr><td>ICT-2</td><td>Ready</td></tr></table>• STATCOM: 31.03.2026</td></tr>
<tr><td>2</td><td>Ramgarh — Bhadla-3 765 kV D/c line(180km) along with 240 MVAr switchable line reactor at each circuit at Ramgarh end of Ramgarh — Bhadla- 3 765kV D/c line.</td><td>• Length: 372 ckm.
• Locations: 467 Nos.
• Foundation completed 467 Nos.
• Erection completed 467 nos.
• Stringing 372 ckm
• Aniticipated CoD: 30.09.2025</td><td>• Line Ready for Charging</td></tr>
<tr><td>3</td><td>2 nos. of 765kV line bays at Bhadla-3</td><td>• Aniticipated CoD: 31.12.2025</td><td>Line Bays at Bhadla-III Ready for charging</td></tr>
</table>

5. Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part-D phase-I"

SPV Name: M/s Sikar Khetri Transmission Ltd. (a subsidiary of POWERGRID), acquired on 09.02.2025
Implementation Schedule as per TSA: 09.08.2025 with SCoD: 09.08.2025

Anticipated COD: 31.07.2026

Sl. No	Scope of the Transmission Scheme	Status & Progress of Construction as per 35th JCC	Status & Progress of Construction as per 36th JCC
1	Sikar-II – Khetri 765 kV D/c line	• Length: 144ckm. • Locations: 198 Nos. • Foundation completed 169 No • Erection 124 nos. • Stringing 24 ckm Aniticipated CoD: 30.06.2026	• Length: 144ckm. • Locations: 198 Nos. • Foundation completed 173 No • Erection 157 nos. • Stringing 36 ckm • Aniticipated CoD: 30.07.2026
2	Sikar-II – Narela 765 kV D/c line 240MVAr Reactor -4Nos.	• Length: 473 ckm. • Locations: 630 Nos. • Foundation completed 455 Nos • Erection: 302 Nos. • Stringing: 52 ckm Aniticipated CoD: 30.06.2026	• Length: 473 ckm. • Locations: 630 Nos. • Foundation completed 495 Nos • Erection: 432 Nos. • Stringing: 106 ckm • Aniticipated CoD: 30.07.2026 • GRAP-IV Issue
3	2 nos. of 765kV line bays both at Khetri & Narela	• Aniticipated CoD: Matching With Line	• Aniticipated CoD: Matching With Line

6. Additional Transmission system for evacuation of power from Bhadla-III PS as part of Rajasthan REZ Phase-III scheme (20 GW)

SPV Name: Bhadla-III Power Transmission Ltd. (Subsidiary of POWERGRID), acquired on 28.08.2024
SCOD as per TSA: 28.02.2026, Anticipated commissioning: 30.06.2026

Sl. No	Scope of the Transmission Scheme	Status & Progress of Construction as per 35th JCC	Status & Progress of Construction as per 36th JCC
1	Augmentation of 2x500 MVA (4th & 5th), 400/220 kV ICTs at Bhadla-III PS	Engg. Under progress Anticipated commissioning: 30.06.2026	Engg. Under progress Anticipated commissioning: 30.06.2026 ICT: 4th ICT: — Anticipated Schedule: 30.06.26 ICT: 5th ICT: — Anticipated Schedule: 30.06.26

2	Augmentation of 1x1500 MVA, 765/400 kV (3rd) ICTs at Bhadla-III PS	Anticipated commissioning: 31.03.2026	Anticipated commissioning: 31.03.2026
3	220 kV bus sectionalizer (1 set) along with 220kV BC (1 no.) bay and 220kV TBC (1 no.) bay at Bhadla-III PS	Anticipated commissioning: 30.06.2026	Anticipated commissioning: 30.06.2026
4	Augmentation of 1x1500 MVA, 765/400kV (4th) ICTs at Bhadla-III PS	Anticipated commissioning: 30.06.2026	Anticipated commissioning: 30.06.2026

7. Transmission System Strengthening for Interconnections of Bhadla-III and Bikaner-III Complex

SPV Name: Bhadla-III & Bikaner-III Transmission Ltd. (Subsidiary of POWERGRID), acquired on 30.08.2024
SCOD as per TSA: 30.08.2026; **Anticipated CoD:** 31.12.2026

Sl. No	Scope of the Transmission Scheme	Status & Progress of Construction as per 35th JCC	Status & Progress of Construction as per 36th JCC
1	Bhadla-III – Bikaner-III 765 kV D/c line along with 240 MVAr switchable line reactor for each circuit at Bhadla-III end	Foundation: 63/328 nos. Erection:0/328 nos. Stringing: 0/254 ckm Row issues	Foundation: 140/326 nos. Erection:21/326 nos. Stringing: 0/254 ckm Row issues
2	Associated 765 kV line bays at Bhadla-III and Bikaner-III end	Engg Under progress	Engg Under progress

8. Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part H"

SPV Name: M/s Beawar Dausa Transmission Ltd. (a subsidiary of POWERGRID), acquired on 30.10.2023
SCOD as per TSA: 30.04.2025, Anticipated commissioning: 31.03.2026

Sl. No	Scope of the Transmission Scheme	Status & Progress of Construction as per 35th JCC	Status & Progress of Construction as per 36th JCC
1	Establishment of 2x1500 MVA 765/400kV substation at suitable location near Dausa along with 2x330 MVAr, 765	• Civil work progress: 98% 400kV System Charged on 13.07.2025 1x1500MVA ICT 2 charged on 01.08.2025 from 400kV Side only.	• Anticipated COD: 28.02.2026 • Civil work progress: 100% • 400kV System Charged on 13.07.2025

	kV Bus Reactor & 2x125 MVAr, 420 kV bus Reactor	Anticipated COD: 30.10.2025	**765/400 kV, 2x1500 MVA ICTs** ICT No. | Anticipated Schedule ICT-1 | 18.10.25 charged ICT-2 | 01.08.25 charged
2	LILO of both circuits of Jaipur (Phagi)- Gwalior 765 kV D/c at Dausa along with 240 MVAr Switchable line reactor for each circuit at Dausa end of Dausa –Gwalior 765 kV D/c line	• Length: 132 ckm. • Locations: 173 Nos. • Foundation completed: 173 Nos. • Erection- 139 nos. • Stringing 28 ckm • Anticipated COD: 31.12.2025	• Length: 132 ckm. • Locations: 173 Nos. • Foundation completed: 173 Nos. • Erection- 170 nos. • Stringing 60 ckm • Anticipated COD: 31.01.26 • Ckt-1 is ready for LILO outage constraint •
3	LILO of both circuits of Agra – Jaipur(south) 400kV D/c at Dausa along with 50 MVAr Switchable line reactor for each circuit at Dausa end of Dausa –Agra 400kV D/c line	Line charged on 13.07.2025	Line charged on 13.07.2025
4	Beawar – Dausa 765 kV D/c line (240 km) along with 240 MVAr Switchable line reactor for each circuit at each end	• Length: 474 ckm. • Locations : 634 Nos. • Foundation: 621 Nos. • Tower erected: 501 Nos • Stringing : 202 ckm • Anticipated COD: 31.01.2026	• Length: 474 ckm. • Locations : 634 Nos. • Foundation: 629 Nos. • Tower erected: 594 Nos • Stringing : 234 ckm • Anticipated COD: 31.03.2026 •
5	2 nos. of 765kV line bays at Beawar for Beawar – Dausa 765 kV D/c line	• Delays due to Land handover at Beawar, work under progress • Matching with Line.	• Delayed due to Land handover at Beawar, work under progress expected to charge by 28.02.26.

9. Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part F"

SPV Name: M/s Beawar Transmission Ltd. (a subsidiary of Sterlite Grid 27 Ltd.), acquired on 20.09.2023

SCOD as per TSA: 19.03.2025 (S.No.1-4) & 19.09.2025 (S.No.5), Anticipated commissioning: Mar'26

<table>
<tr><th>Sl. No</th><th>Scope of the Transmission Scheme</th><th>Status & Progress of Construction as per 35th JCC</th><th>Status & Progress of Construction as per 36th JCC</th></tr>
<tr><td>1</td><td>Establishment of 2x1500MVA, 765/400kV Substation at suitable location near Beawar along with 2x330 MVAr 765kV Bus Reactor & 2x125 MVAr 420kV Bus Reactor</td><td>• Total Land (58.28 Ha)
• Govt. Land (12.32 Ha). Posession Done.
• Civil Work: 93.35%
• Procurement: 100%
• Erection: 88.29%

• Anticipated CoD: Jan’26 (best effort)</td><td>• Total Land (58.28 Ha)
• Govt. Land (12.32 Ha). Posession Done.
• Civil Work: 98%
• Procurement: 100%
• Erection: 93%

• Anticipated CoD: Feb’26 (best effort)
765/400 kV, 2x1500 MVA ICTs<table><tr><td>ICT No.</td><td>Anticipated Schedule</td></tr><tr><td>ICT-1</td><td></td></tr><tr><td>ICT-2</td><td></td></tr></table></td></tr>
<tr><td>2</td><td>LILO of both circuit of Ajmer-Chittorgarh 765 kV D/c at Beawar</td><td>• Length: - 136.4 ckm.
• Locations: - 178 nos.
• Foundation completed: - 172 nos.
• Tower erected: -152 nos.
• Stringing done: 32.24 ckm.
• Aniticipated CoD: Mar’26

Constraint:
1. PLC Approval pending with M/s Shree Cement since last 18 months.
2. PTCC proposal pending at DET PTCC, BSNL Delhi since last 3 Month</td><td>• Length: - 136.4 ckm.
• Locations: - 178 nos.
• Foundation completed: - 173 nos.
• Tower erected: -168 nos.
• Stringing done: 56 ckm.
• Aniticipated CoD: Mar’26 (Feb’26: best Effort)

Constraint:
• PLC Approval pending with M/s Shree Cement.</td></tr>
<tr><td>3</td><td>LILO of 400kV Kota -Merta line at Beawar</td><td>• Length: - 65.4 ckm.
• Locations: - 90 Nos.
• Foundation completed: - 82 nos.
• Tower erected: -73 nos.
• Stringing done: - 20.64 ckm.
• Aniticipated CoD: Mar’26

Constraint:
1. Delay in replacement of existing earth wire with OPGW in Kota -Merta TL by PGCIL.
2. PLC Approval pending with M/s Shree Cement since last 18 months.</td><td>• Length: - 65.4 ckm.
• Locations: - 90 Nos.
• Foundation completed: - 89 nos.
• Tower erected: -84 nos.
• Stringing done: - 45 ckm.
• Aniticipated CoD: Mar’26

Constraint:
1. Delay in replacement of existing earth wire with OPGW in Kota -Merta TL by PGCIL.
• PLC Approval pending with M/s Shree Cement.</td></tr>
</table>

		3. PTCC proposal pending at DET PTCC, BSNL Delhi since last 3 Month	
4	Fatehgarh-3- Beawar 765 kV D/c along with 330 MVAr Switchable line reactor for each circuit at each end of Fatehgarh-3- Beawar 765 kV D/c line	• Length: 635.4 ckm. • Locations: 806 nos. • Foundation completed: 791 nos. • Tower erected: 656 nos. • Stringing done: 218 ckm • **Aniticipated CoD: Mar'26** **Constraints:** 1. Severe RoW issue in 13 locs in Rajasthan on account of demand for higher RoW compensation or route diversion by the landowners. District wise no. of RoW locations: • Barmer: 12 • Jodhpur: 1 3. PTCC proposal pending at DET PTCC, BSNL Delhi since last 3 Month	• Length: 635.4 ckm. • Locations: 806 nos. • Foundation completed: 802 nos. • Tower erected: 755 nos. • Stringing done: 262 ckm • CEA inspection done • **Aniticipated CoD: Mar'26** **Constraints:** 1. Severe RoW issue in 14 locs in Rajasthan on account of demand for higher RoW compensation or route diversion by the landowners. District wise no. of RoW locations: • Barmer: 07 (Foundation-03 & Erection-04) • Balotra: 07 (Erection Work)
5	STATCOM at Fatehgarh3 PS	• CW: 95% • ER: 99.16% • EE: 33.56% • **Anticipated CoD: Mar'26** (awarded to Hitachi)	• CW: 96% • ER: 100% • EE: 92% • **Anticipated CoD: Mar'26** (awarded to Hitachi)

10. Transmission System for " Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part-G"

SPV Name: M/s Fatehgarh III Beawar Transmission Ltd. (a subsidiary of Sterlite Grid 19 Ltd.), acquired on 01.08.2023

SCOD as per TSA: 01.02.2025, (Revised SCOD by CERC 20.03.2025), Anticipated commissioning**: 31.03.2026**

Sl. No	**Scope of the Transmission Scheme**	**Status & Progress of Construction as per 35th JCC**	**Status & Progress of Construction as per 36th JCC**

1.	Fatehgarh III - Beawar 765kV D/c line	Length : 634.7 ckm. Locations : 817 nos. Foundation completed : 804 nos. Tower erected : 759 nos. Stringing completed : 360 ckm Anticipated COD : **Mar'26** **Status:** **1. Severe RoW issues at** 8 locations on account of demand for higher RoW compensation or route diversion by the landowners. District wise no. of RoW locations: • Barmer: 8 2. PTCC proposal pending at DET PTCC, BSNL Delhi since last 3 Month	Length : 634.7 ckm. Locations : 817 nos. Foundation completed : 816 nos. Tower erected : 810 nos. Stringing completed : 484 ckm Anticipated COD : **Feb'26 (Best Effort: Jan'26)** **Status:** **1. Severe RoW issues at 3** locations in Barmer district on account of demand for higher RoW compensation or route diversion by the landowners.
2.	2 Nos. of 765 kV Line Bays at each Beawar and Fatehgarh III Substation	• CW: 98.15% • ER: 100% • EE: 87%	• CW: 99 % • ER: 100% • EE: 96%

D. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan under phase-IV

Under TBCB Phase-IV (PART-1):

1. **Transmission System for Transmission System for Evacuation of Power from Rajasthan REZ PH-IV (PART-1) (BIKANER COMPLEX): Part-A**

   SPV Name: Bikaner III Neemrana Transmission Ltd (Subsidiary of POWERGRID), acquired on 27.12.2023
   SCOD as per TSA: 27.12.2025, Anticipated commissioning: 30.06.2026

ग्रिड-इंडिया GRID-INDIA
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
भारत सरकार का उद्यम
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर क्षेत्रीय भार प्रेषण केन्द्र / Northern Regional Load Despatch Centre
कार्यालय : 18-ए, शहीद जीत सिंह सनसनवाल मार्ग, कटवारिया सराय, नई दिल्ली-110016
Office : 18-A, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi-110016
CIN : U40105DL2009GOI188682, Website : www.nrldc.in, E-mail : nrldc@grid-india.in, Tel.: 011 26519406, 26523869, Fax: 011 26852747

संदर्भ सं°: उ0क्षे0भा0प्रे0कें0/प्र0सं0/151/107 दिनांक : 19.03.2026

सेवा मे,
मुख्य अभियंता,
राज्य भार प्रेषण केंद्र
राजस्थान राज्य विद्युत् प्रसारण निगम लिमिटेड
अजमेर रोड, हीरापुरा, जयपुर, राजस्थान -302024

विषय : राजस्थान के अंतर-राज्यीय नवीकरणीय ऊर्जा (RE) संयंत्रों में उच्च RE पैठ को ध्यान में रखते हुए बेहतर दृश्यता और उच्च-रिज़ॉल्यूशन डेटा के उपयोग द्वारा डेटा विश्लेषण के लिए **PMU** की स्थापना के संबंध में।

संदर्भ/Ref:

1: Meeting taken by CEA Chairperson dated 11.03.2026 regarding review of Rajasthan's tie-up capacity along with status of Power projects till 2029-30.

2: NRLDC Letter संदर्भ सं.: उ0क्षे0भा0प्रे0कें0/प्र0सं0/151/ dated 11.02.2026 regarding urgent requirement of installation of PMUs at all the intra state RE plants in Rajasthan.

Subject: Regarding installation of PMUs in their intra-state RE plants in Rajasthan for proper visibility and data analysis using the high-resolution data in view of high RE penetration.

महोदय / महोदया,

उपरोक्त संदर्भित पत्र के माध्यम से **NRLDC** ने **SLDC** राजस्थान से अनुरोध किया था कि वे अपने अंतर-राज्यीय नवीकरणीय ऊर्जा (**RE**) संयंत्रों में **PMU** स्थापित करें, ताकि **RE** कॉम्प्लेक्स में देखी गई ट्रिपिंग एवं दोलनों (**Oscillations**) के परिप्रेक्ष्य में बेहतर दृश्यता तथा मूल कारण विश्लेषण (**Root Cause Analysis**) किया जा सके। उक्त पत्र के साथ **NRLDC** के पास उपलब्ध जानकारी के अनुसार राजस्थान के अंतर-राज्यीय सौर एवं पवन संयंत्रों की सूची भी संलग्न की गई थी।

NRLDC vide letter referred above had requested SLDC Rajasthan to install PMUs in their intra-state RE plants for proper visibility and root cause analysis as well in view of tripping and Oscillations observed in the RE complex. The list of Solar and Wind plants in intra-state Rajasthan as per information available at NRLDC was also enclosed with the said letter.

साथ ही, दिनांक **11.03.2026** को **Central Electricity Authority (CEA)** के अध्यक्ष द्वारा आयोजित बैठक में, जिसमें वर्ष **2029-30** तक राजस्थान की टाई-अप क्षमता तथा विद्युत परियोजनाओं की स्थिति की समीक्षा की गई, यह सलाह दी गई कि **NRLDC, Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL)** को पत्र लिखकर अंतर-राज्यीय नवीकरणीय ऊर्जा (**RE**) संयंत्र स्तर पर **PMU** स्थापित करने का सुझाव दे, ताकि दोष (**fault**) तथा दोलन (**oscillation**) की घटनाओं के दौरान प्रदर्शन की निगरानी की जा सके।

Also, as discussed in the meeting taken by CEA Chairperson dated 11.03.2026 regarding the review of Rajasthan's tie-up capacity along with status of Power projects till 2029-30, it was advised that NRLDC may write to RRVPNL suggesting the installation of PMUs in intrastate RE plants level for monitoring of performance during faults as well as oscillations events.

परिशिष्ट-I में संलग्न सूची के अनुसार, **132 kV** एवं उससे अधिक वोल्टेज स्तर की कुल **78 RE** निकासी (**evacuating**) लाइनों की पहचान की गई है। विशेष रूप से, अंतःराज्यीय स्तर पर **48** सौर एवं **30** पवन संयंत्र हैं, जिनमें ग्रिड घटनाओं के विश्लेषण हेतु उच्च-रिज़ॉल्यूशन डेटा प्राप्त करने के लिए **PMUs** स्थापित किए जाने आवश्यक हैं।

As per the list attached at Annexure-I, there are 78 no. of RE evacuating lines of 132 KV and higher voltage levels. Specifically, there are 48 Solar and 30 Wind plants at intra-state level in which PMUs need to be installed for getting high resolution data for analyzing the grid events.

इससे **CEA** मानकों तथा वर्तमान प्रचलित विनियमों का पालन न करने वाले **RE** संयंत्रों की पहचान करने में सुविधा होगी। साथ ही, दोष (**fault**) एवं दोलन (**oscillation**) के दौरान जिन **RE** संयंत्रों में **MW, MVAR** आदि में अधिक उतार-चढ़ाव होता है, उन्हें ग्रिड सुरक्षा के दृष्टिकोण से मूल कारण विश्लेषण (**RCA**) प्रस्तुत करने तथा आवश्यक सुधारात्मक कार्रवाई करने के लिए कहा जा सकेगा।

The same would facilitate in identifying the RE plants non-complying with the CEA standards and the extant regulations. Also, the RE plants with high fluctuations in there MW, MVAR etc. during fault and oscillations can then be asked to submit Root Cause Analysis (RCA) and take corrective actions in view of grid security.

उपरोक्त के संदर्भ में, विश्वसनीय एवं सुरक्षित ग्रिड संचालन के हित में अंतर-राज्यीय नवीकरणीय ऊर्जा (**RE**) संयंत्रों में **PMU** की स्थापना को शीघ्रता से पूरा करने का अनुरोध किया जाता है।

In view of the above it is requested to expedite the installation of PMUs at intra-state RE plants in the interest of reliable and secure grid operation.

सादर धन्यवाद

भवदीय

अशोक कुमार
मुख्य महाप्रबंधक (प्रणाली संचालन)
उत्तरी क्षेत्र भार प्रेषण केंद्र, नई दिल्ली

विनम्र सूचनार्थ :

1. कार्यपालक निदेशक, उत्तरी क्षेत्र भार प्रेषण केंद्र, नई दिल्ली
2. कार्यपालक निदेशक, राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली
3. सदस्य सचिव, उत्तरी क्षेत्र विद्युत् समिति, नई दिल्ली

ANNEXURE-I

SOLAR GENERATION DETAILS				
Sr.No.	**Sub-Station**	**POOLING STATION**		**TOTAL CAPACITY(MW)**
1	**400 KV BHADLA**	1	220 KV RSDCL Line-1 (From	**170**
		2	220 KV RSDCL Line-2 (From	**170**
		3	220 KV RSDCL Line-1 (From	**170**
		4	220 KV RSDCL Line-2 (From	**170**
		5	220 KV ADANI Line -1	**125**
		6	220 KV ADANI Line -2	**125**
		7	400 KV NTPC Renewable Energy	**425**
2	**400 KV Jaisalmer-2 (BHESDA)**	1	400 KV RENEW HANS URJA	**600**
		2	PHOTOVOLTAIC	**375**
		3	220 KV SPRNG SOLAR	**250**
		4	220 KV RENEW SOLAR	**110**
		5	ENERGY	**250**
		6	220 KV ACME POWER	**250**
		7	220 KV NTPC RENEWWABLE	**320**
		8	220 KV SEMCORP GREEN	**400**
		9	220 KV SEMCORP GREEN	
		10	220 KV CGEII HYBRID INOX	**99**
3	**400 KV Barmer**	1	220 KV SPRNG NATURAL	**150**
4	**220 KV GSS BAP**	1	132 KV MAHINDRA	**55**
		2	132 KV GIRIRAJ	**33**
		3	132 KV TRUERE	**38**
5	**220 KV Badnu**	1	220 KV Avaada Solar	**200**
6	**220 KV BARSINGHSAR**	1	220 KV NLC Solar-1	**300**
		2	220 KV NLC Solar-2	
7	**220 KV Bhopalgarh**	1	220 KV Solarcraft	**150**
8	**220 KV Jalore**	1	220 KV Sun free energy	**200**
9	**220 KV GSS BHAWAD**	1	AZURE GREEN TECH 132 KV	**60**
		2	AZURE CLEAN ENERGY (132 KV)	**40**
		3	MRS Green (132 KV)	**50**
10	**220 KV GSS GAJNER**	1	132 KV Mahindra susten	**60**
		2	220 kv Mahindra Susten Pvt.	**200**
		3	132 KV RAYS SOLAR PARK	**64.05**
11	**220 KV GSS BHADLA**	1	SAURYA URJA LINE-1	**200**
		2	SAURYA URJA LINE-2	**300**
12	**220 KV GSS KANASAR**	1	SP PHOTO VOLTAIC PVT. LTD.	**50**
13	**220 KV CHHATARGARH**	1	132 KV Martial SOLREN	**170**
		2	132 KV NTPC SOLAR	**150**
14	**220 KV GSS DECHU**	1	Dhanu-I 220 KV	**40**
		2	Dhanu-II(RSETPL) 220 KV	**100**
15	**132 KV GSS Napasar**	1	Revent Metalcast Ltd. (132 KV)	**16**
16	**132 KV GSS POKARAN**	1	132 KV Askandra	**35**
		2	132 KV Today Green	**50**
17	**132 KV GSS JAYAL**	1	Azure Solar (132 KV)	**40**
18	**132 KV GSS PS-2**	1	GODAWARI GREEN (132 KV)	**50**
19	**132 KV GSS PS-3**	1	WALWHAN SOLAR AP LTD. (132	**50**
20	**132 KV GSS SRIVIJAYNAGAR**	1	JETSAR SOLAR(NTPC)	**80**
21	**132 KV GSS RAISINGH NAGAR**	1	JETSAR SOLAR(NTPC)	**80**
22	**132 KV CHAMU**	1	132 KV LNB RENEWABLE	**39.6**

WIND GENERATION DETAILS

S.NO	NAME OF RECEIVING STATION	NAME OF COMPANY		NAME OF POOLING STATION	LINE S/C OR D/C	WIND CAPACITY IN MW
1	400 KV GSS AKAL	1	Suzlon (220 KV)	MADA	S/C	224.5
		2	INOX-1 (220 KV)	DANGIRI - I	D/C	448
		3	INOX-2 (220 KV)	DANGIRI - II		
		4	Sujloan-1 (220 KV)	AKAL -I	D/C	277.1
		5	Suzlon-2 (220 KV)	AKAL -II		
		6	Enercon -1 (220 KV)	RAJGARH	S/C	76.8
		7	Enercon-2 (220 KV)	JAJIA	S/C	231.2
		8	Enercon-1 (220 KV)	BHU-I	D/C	456
		9	Enercon-2 (220 KV)	BHU-II		
		10	Sujlon (220 KV)	MOOLANA	S/C	102.9
		11	Suzlon (220 KV)	BHENSDNA	S/C	201.6
		12	Gamesha(220 KV)	DEVIKOT/ LALA	S/C	74
2	400 KV JAISALMER-2	1	220 kv Inox Wind	INOX	S/C	120
3	220 KV Amarsagar	1	Suzlon (220 KV)	Mada	S/C	*224.5*
		2	Tejwa-1(220 KV)	Mokla	D/C	*380.25*
		3	Tejwa-2(220 KV)	Mokla		
		4	Enercon-1(132KV)	TEMDARI	D/C	*138.81*
		5	Enercon-2 (132KV)	TEMDARI		
		6	Gamesha (132KV)	LUDARWA-II ,	S/C	*76.5*
		7	suzlon (132KV)	KALADUNGAR I.	S/C	*113.4*
4	220 KV Tinwari	1	Suzlon (220 kv)	Tinwari	S/C	*141.9*
5	220 kv Ramgarh	1	NIDHI	Habur, Jaisalmer	S/C	90
		2	suzlon	Tejwa	S/C	201.6
		3	Greenko	Nawar	S/C	120
6	220 KV PRATAPGARH	1	WELLSPUN (132 KV)	Damodar	S/C	*106.2*
		2	REGEN-1 (132 KV)	Devgarh	D/C	*51*
		3	REGEN-2 (132 KV)	Devgarh		*51*
7	132 KV DALOT	1	Regen-1 LTD. (132 KV)	kaqngarh, pratapgarh	S/C	49.5
		2	Regen-2 LTD. (132 KV)		S/C	60
8	132 KV BAORI	1	Suzlon (132 KV)	Danwara	S/C	59.4
9	132 KV PS-8	1	Wind warn India Ltd. (132	Falodi,Jodhpur	S/C	98.4

ग्रिड-इंडिया
GRID-INDIA
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
भारत सरकार का उद्यम
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर क्षेत्रीय भार प्रेषण केन्द्र / Northern Regional Load Despatch Centre
कार्यालय : 18-ए, शहीद जीत सिंह सनसनवाल मार्ग, कटवारिया सराय, नई दिल्ली-110016
Office : 18-A, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi-110016
CIN : U40105DL2009GOI188682, Website : www.nrldc.in, E-mail : nrldc@grid-india.in, Tel.: 011 26519406, 26523869, Fax: 011 26852747

संदर्भ सं°: उ0क्षे0भा0प्रे0कें0/प्र0सं0/151/ 67 दिनांक : 11.02.2026

सेवा मे,
मुख्य अभियंता,
राज्य भार प्रेषण केंद्र
राजस्थान राज्य विद्युत् प्रसारण निगम लिमिटेड
अजमेर रोड, हीरापुरा, जयपुर, राजस्थान -302024

विषय : नवीकरणीय ऊर्जा (RE) के अधिक समावेशन को ध्यान में रखते हुए PMU की स्थापना तथा उच्च-रिज़ॉल्यूशन डेटा का उपयोग करके डेटा का विश्लेषण।

Subject: Urgent requirement of installation of PMUs at all the intra state RE plants in Rajasthan and data analysis using the high-resolution data in view of high RE penetration.

महोदय / महोदया,

जैसा कि आप भली-भांति अवगत हैं, पश्चिमी राजस्थान **RE** कॉम्प्लेक्स में वोल्टेज एवं आवृत्ति में दोलन **(Oscillations)** तथा नवीकरणीय ऊर्जा **(RE)** उत्पादन के ट्रिपिंग की अनेक घटनाएँ देखी गई हैं। हाल की कुछ घटनाओं की सूची **परिशिष्ट-I** के रूप में संलग्न है। इन दोलन/ट्रिपिंग संबंधी घटनाओं का उपलब्ध **PMU** डेटा के आधार पर विश्लेषण किया गया तथा विभिन्न **NRPC** मंचों पर इस पर विचार-विमर्श किया गया। हाल ही में दिनांक **06.02.2026** को **NRPC** की **RE** उप-समिति की बैठक आयोजित की गई, जिसमें दिनांक **04.02.2026** को हुई अंतर-क्षेत्रीय **(Inter-area) Oscillations** की घटना पर भी विस्तार से चर्चा की गई। इस दौरान यह बल दिया गया कि देखी जा रही ट्रिपिंग एवं दोलन घटनाओं के समुचित अवलोकन एवं विश्लेषण हेतु प्रत्येक **RE** संयंत्र में **PMU** स्थापित किया जाना आवश्यक है। **PMU** डेटा की अनुपलब्धता के कारण सीमित दृश्यता ग्रिड सुरक्षा के लिए एक गंभीर जोखिम है।

As you may kindly aware that multiples events of oscillations in voltage & frequency as well as Renewable Energy (RE) generation trippings have been observed in the Western Rajasthan RE complex. List of last few events are attached as **Annexure-I**. These oscillation/ tripping related events were analyzed using available PMU data and deliberated in various NRPC forums. Recently, RE Sub-committee of NRPC was held on 06.02.2026 wherein the inter-area oscillations occurred on 04.02.2026 was also discussed in details and it was emphasized that there is need to install PMUs at every RE plant for proper visualization and analysis of the trippings and oscillation events being observed. The limited visibility due to non-availability of PMU data is a threat to grid security.

ISTS पूलिंग स्टेशनों से जुड़े **RE** संयंत्रों का **PMU** डेटा **NRLDC** स्तर पर पहले से उपलब्ध है तथा उसका विश्लेषण किया जा रहा है। उक्त डेटा **RE** संयंत्रों/विकासकर्ताओं के साथ साझा किया जा रहा है, ताकि **RE** उत्पादन ट्रिपिंग एवं दोलन की घटनाओं के मामलों में वे अपने स्तर पर मूल कारण विश्लेषण **(Root Cause Analysis - RCA)** कर सकें। इसी प्रकार, राजस्थान के अंतःराज्य **(Intra-state)** नेटवर्क से जुड़े सभी **RE** संयंत्रों में भी विश्वसनीय एवं सुरक्षित ग्रिड संचालन सुनिश्चित करने हेतु **PMU** स्थापित किए जाने चाहिए।

PMU data of RE plants connected to ISTS pooling stations is already available and analyzed at NRLDC end. The same is being shared with RE plants/developers with request to carry out Root Cause Analysis (RCA) at their end in case of RE generation tripping and oscillation events. In the same fashion PMUs should be installed at all the at RE plants connected to intra-state network of Rajasthan for reliable and secure grid operation.

इसके अतिरिक्त, राजस्थान के अंतःराज्य नेटवर्क में नवीकरणीय ऊर्जा क्षमता में उल्लेखनीय वृद्धि हो रही है, जिसकी स्थापित क्षमता लगभग **12,000** मेगावाट तक पहुँच चुकी है। भविष्य में राज्य नियंत्रण क्षेत्र में क्षमता वृद्धि एवं **RE** पैठ में तीव्र विस्तार की परिकल्पना की गई है। अतः उच्च-रिज़ॉल्यूशन डेटा की उपलब्धता अत्यंत महत्वपूर्ण है। राजस्थान के अंतःराज्य नेटवर्क से जुड़े सौर एवं पवन संयंत्रों की सूची **परिशिष्ट-II** के रूप में संलग्न है।

Also, Rajasthan is witnessing a large growth in intra-state with installed renewable energy capacity already reaching around 12,000 MW. Further, capacity addition and RE penetration at a rapid pace is envisaged in the future in the state control area. The availability of high-resolution data is thus of utmost importance. The list of Solar and Wind Plants in Rajasthan intra-state network is attached as **Annexure-II**.

उपरोक्त के आलोक में अनुरोध है कि राजस्थान के अंतःराज्य स्टेशनों पर पूल किए जा रहे सभी **RE** संयंत्रों में, जहाँ अभी तक **PMU** स्थापित नहीं किए गए हैं, वहाँ शीघ्रातिशीघ्र **PMU** स्थापित कराने की कृपा करें। साथ ही, जहाँ **PMU** पहले से स्थापित हैं, वहाँ उपलब्ध डेटा का विश्लेषण किया जाए तथा **RE** उत्पादन ट्रिपिंग एवं दोलन की घटनाओं के संबंध में मूल कारण विश्लेषण (**RCA**) प्रस्तुत किया जाए। **PMU** के माध्यम से प्राप्त डेटा एवं **SLDC** स्तर पर किए गए विश्लेषण को **NRLDC/NRPC** के साथ भी साझा किया जाए।

In light of the above, it is requested to kindly get the PMUs installed at all the RE plants which are being pooled at the Rajasthan intra-state stations wherever they are yet to be installed. Further, wherever the PMUs are already installed, the data needs to be analyzed and Root Cause Analysis is to be submitted in case of RE generation trippings and oscillation events in the RE Complex. The data extracted through PMUs and analysis done at SLDC end should also be shared with NRLDC/NRPC.

सादर धन्यवाद

भवदीय

अशोक कुमार
मुख्य महाप्रबंधक(प्रणाली संचालन)
उत्तरी क्षेत्र भार प्रेषण केंद्र, नई दिल्ली

विनम्र सूचनार्थ :

1. कार्यपालक निदेशक, उत्तरी क्षेत्र भार प्रेषण केंद्र, नई दिल्ली
2. कार्यपालक निदेशक, राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली
3. सदस्य सचिव, उत्तरी क्षेत्र विद्युत् समिति, नई दिल्ली

Annexure-I

14 No. of Oscillation Events have occurred between Aug 2025 to January 2026 as follows :		
Sl. No.	**Date**	**Time**
1	05.08.2025	14:47-14:55
2	26.09.2025	10:05-10:11
3	24.10.2025	11:44-11:48
4	18.11.2025	10:52-10:59
5	21.11.2025	11:12-11:18
6	09.12.2025	11:17-11:22
7	15.12.2025	11:23–11:30
8	17.12.2025	10:51-11:02
9	21.12.2025	11:35-11:42
10	26.12.2025	11:18-11:25
11	28.12.2025	10:36-10:51
12	03.01.2026	13:20-13:39
13	04.01.2026	11:11-11:18
14	07.01.2026	14:16-14:21

Summary of RE Generation loss in NR (14th Jan 2026)				
S. No.	**Date & Time**	**Fault event**	**Drop in RE generation**	**Frequency Dip (Hz)**
1	14.01.2026, 13:38Hrs	R-Y ph-ph fault on 400kV Bassi-Phagi line-1 at 13:38 hrs	1680 MW	0.14
2	14.01.2026, 14:05Hrs	R-Y B three phase fault on 765kV Aligarh-Sikar2 line-I at 14:05 hrs	3787 MW	0.225

ANNEXURE-II

SOLAR GENERATION DETAILS				
Sr.No.	**Sub-Station**	**POOLING STATION**		**TOTAL CAPACITY(MW)**
1	400 KV BHADLA	1	220 KV RSDCL Line-1 (From RSDCL-GSS-1)	170
		2	220 KV RSDCL Line-2 (From RSDCL-GSS-1)	170
		3	220 KV RSDCL Line-1 (From RSDCL-GSS-2)	170
		4	220 KV RSDCL Line-2 (From RSDCL-GSS-2)	170
		5	220 KV ADANI Line -1	125
		6	220 KV ADANI Line -2	125
		7	400 KV NTPC Renewable Energy Limited	425
			TOTAL	**1355**
2	400 KV jaisalmer-2 (BHESDA)	1	400 KV RENEW HANS URJA	600
		2	400 KV RENEW PHOTOVOLTAIC	375
		3	220 KV SPRNG SOLAR	250
		4	220 KV RENEW SOLAR	110
		5	220 KV CLEAN SOLAR ENERGY	250
		6	220 KV ACME POWER	250
		7	220 KV NTPC RENEWWABLE	320
		8	220 KV SEMCORP GREEN	400
		9	220 KV SEMCORP GREEN	
		10	220 KV CGEII HYBRID INOX	99
			TOTAL	**2654**
3	400 KV Barmer	1	220 KV SPRNG NATURAL	150
			TOTAL	150
4	220 KV GSS BAP	1	132 KV MAHINDRA Suryaprakash(kiran solar)	55
		2	132 KV GIRIRAJ	33
		3	132 KV TRUERE	38
		4	GREEN INFRA-II 33 KV	5
		5	GREEN INFRA-I 33 KV	20
		6	WALWHAN SOLAR RAJ. LTD. viraj 5mw and northwest solar 5mw	10
		7	IOCL 33 KV	5
		8	POKRAN SOLAIRE33 KV	5
		9	PUNJlLLGED (Punjlloyd solar power ltd) 33 KV	5
		10	KANORIA CHEMICALS & INDUSTRIES LTD, 33 KV	5
		11	PARSOLAR 33 KV	3
		12	LEPL 33 KV	10
		13	SUNBORN 33 KV	5
		14	OPG 33 KV	5
		15	SUN EDISON 33 KV	5
			TOTAL	209
5	220 KV Badnu	1	220 KV Avaada Solar	200
			TOTAL	200
6	220 KV BARSINGHSAR	1	220 KV NLC Solar-1	300
		2	220 KV NLC Solar-2	
			TOTAL	300
7	220 KV Bhopalgarh	1	220 KV Solarcraft	150
			TOTAL	150
8	220 KV Jalore	1	220 KV Sun free energy	200
			TOTAL	200

9	220 KV GSS BADISID	1	ACME-I (132 KV)	50
		2	ACME-II(132 KV)	50
		3	SUN EDISON I (132 KV)	30
		4	SECI(33 KV)	10
		5	Abha Solar	10
		6	Alok Solar	10
		7	Vishnu Vivek (33 KV)	3.4
		8	33KV Hi-Tech Solar	3.25
			TOTAL	166.65
10	220 KV GSS BHAWAD	1	AZURE GREEN TECH 132 KV	60
		2	AZURE CLEAN ENERGY (132 KV)	40
		3	MRS Green (132 KV)	50
		4	SNCA tithal naveen (33 KV)	6
			TOTAL	156
11	220 KV GSS GAJNER	1	132 KV Mahindra susten (60MW)	60
		2	220 kv Mahindra Susten Pvt. Ltd	200
		3	132 KV RAYS SOLAR PARK	64.05
		4	33 kV RAYS Line-II (23.6MW)	23.6
		5	33 kV FONROCHE 05 MW (	5
		6	33 kV FONROCHE (Hinduja Renwables)-15 MW	15
		7	33 kV BMD (05 MW)	5
		8	33 kV RAYS Line-I (24MW)	24
		9	33 kV RAJ PATRIKA (11MW)	11
		10	33 KV RISHABH(10MW)	10
		11	33 kV RAYS Line-III (23.98MW)	23.98
			TOTAL	441.63
12	220 KV GSS BHADLA	1	SAURYA URJA LINE-1	200
		2	SAURYA URJA LINE-2	300
		3	ESSEL MINING &INDUSTRY LTD (ABG) (33 KV)	20
		4	STAR SOLAR (33KV)	5
		5	SUN GOLD (33 KV)	5
		6	ROHA SOLAR (33 KV)	25
		7	SIDDHIDATA SOLAR URJA LTD. (33 KV)	5
		8	ARJUN GREEN POWER PRIVATE LTD.	5
			TOTAL	565
13	220 KV GSS KANASAR	1	SP PHOTO VOLTAIC PVT. LTD. (132 KV)	50
		2	Prayatna Developers-1	10
		3	Prayatna Developers-2	10
		4	Heramba Renewables Ltd -1	10
		5	Heramba Renewables Ltd -2	10
		6	SITARA SOLAR ENERGY P ltd. (132 KV)	100
			TOTAL	190
14	220 KV CHHATARGARH	1	132 KV Martial SOLREN	170
		2	132 KV NTPC SOLAR	150
			TOTAL	320

15	220 KV GSS DECHU	1	Dhanu-I 220 KV	40
		2	Dhanu-II(RSETPL) 220 KV	100
			TOTAL	140
16	220 KV GSS BALOTRA	1	REFEX ENERGY PVT. LTD.	5
			TOTAL	5
17	220 KV GSS TINWARI	1	SWISS PARK SOLAR - 33 KV	5
		2	SINDICATUM SOLAR ENERGY- 33 KV (Terralight solar energy tinwari pvt.Ltd)	5
		3	HALIOS SOLAR PVT. LTD.- 33 KV	5
			TOTAL	15
18	220 KV GSS RAMGARH	1	OIL INDIA LTD. (33 KV)	14
	132 KV GSS RAMGARH (RVUN-GTPL)	1	GAIL	5
		2	Azure Power Mars	5
			TOTAL	24
19	132 KV GSS OSIAN	1	Astonfield Solar (33 KV)	5
		2	Comet Power pvt.Ltd. (33 KV)	5
			TOTAL	10
20	132 KV GSS SANWREEJ	1	Sun edison energy india ltd. (33 KV)	20
		2	Janardan_ I (plant charge on 27.03.2017)	10
		3	Janardan_ II(plant charge on (14.04.2017)	10
			TOTAL	40
21	132 KV GSS KOLAYAT	1	Green Tech (33 KV)	5
		2	Rays Power 1(33 KV)	12.35
		3	NVR (33 KV)	10
		4	Sai Maithali (33 KV)	10
		5	Sanjeev Prakashan (33 KV)	2
		6	Chandram (33 KV)	4.75
		7	Rays Power 2 (33 KV)	18.3
		8	Oswal (33 KV)	5
		9	Topaz (33 KV)/Godawat Reality Pvt. Ltd.	7
		10	Wellspun/WALWHAN SOLAR RJ LTD. (33 KV)	5
		11	Rays power export (Vaibhav)	3.97
		12	Saraf (feeder no 21)33 KV	6
			TOTAL	89.37
22	132 KV GSS NOKHA DHAIYA	1	Future Grow Spectrum Radition Pvt.ltd.(Amplus Solar) (33 KV)	5
		2	U P Ceremic (33 KV)	2
		3	Trimex (33 KV)	9
			TOTAL	16
23	132 KV GSS Napasar	1	Revent Metalcast Ltd. (132 KV)	16
		2	Nishak (33 KV)	
		3	**TOTAL**	16
24	132 KV GSS AAU	1	Oswal Woolen Mills Ltd., Jatisara (33 KV)	5
			TOTAL	5
25	132 KV GSS POKARAN	1	132 KV Askandra	35
		2	132 KV Today Green	50
		3	MSL (33 KV)	5
		4	Palimarwar (33 KV)	10

			TOTAL	100
26	132 KV GSS RANI	1	RAJASHTAN GUM PVT. LTD. (33 KV)	19
		2	RAJASHTAN GUM PVT. LTD. (33 KV)	15
			TOTAL	34

27	132 KV GSS JAYAL	1	Azure Solar (132 KV)	40
			TOTAL	40
28	132 KV GSS SHAHPURA (BHILWARA)	1	RDA (33 KV)	10
			TOTAL	10
29	132 KV GSS PS-2	1	GODAWARI GREEN (132 KV)	50
		2	PRECESION (33 KV)	5
			TOTAL	55
30	132 KV GSS PS-3	1	WALWHAN SOLAR AP LTD. (132 KV)	50
		2	AMAN & VINAY (33 KV)	2
		3	CEPCO (33 KV)	5
		4	J.K LAXMI (33 KV)	6
		5	JACKSON-I (33 KV)	10
		6	JACKSON-II (33 KV)	10
		7	SYMPONY (33 KV)	10
		8	LEXICON (33 KV)	10
		9	D.J Malpani	16.9
			TOTAL	119.9
31	132 KV GSS PS-4	1	Agarwal solar	15
			TOTAL	15
32	132 KV GSS KHETUSAR	1	Maharshtra solar- I (33 KV)	20
		2	Maharshtra solar- II (33 KV)	10
		3	shreyash- I (33 KV)	10
		4	shreyash- II (33 KV)	10
		5	SURYA UDYA SOLAR PRAKASH LTD. (33 KV)	10
		6	NORTHEN SOLAR PRAKASH PVT. LTD (33 KV)	10
			TOTAL	70
33	132 KV GSS SRIVIJAYNAGAR	1	JETSAR SOLAR(NTPC)	80
			TOTAL	80
34	132 KV GSS RAISINGH NAGAR	1	JETSAR SOLAR(NTPC)	80
			TOTAL	80
35	132 KV GSS SHEO	1	PALIMARWAR-1	20
		2	PALIMARWAR-2	20
		3	33 KV JSW ENERGY	5.4
			TOTAL	45.4
36	132 KV JHINJHINYALI	1	I B VOGT	14.86
			Total	14.86
37	220 KV GSS BALI	1	M/S LAXMI DIAMOND (33 KV)	10
			TOTAL	10
38	220 KV GSS GULABPURA	1	FORTUM AMRIT (33 KV)	5
			TOTAL	5
39	132 KV GSS GANGAPUR (BHILWARA)	1	Ghodawat Textile (33 KV)	1
			TOTAL	1
40	220 KV GSS NEEMRANA	1	TATA POWER (33 KV)	5
			TOTAL	5
41	220 KV GSS KHINSWAR	1	RELIANCE SOLAR (33 KV)	5

41	220 KV GSS KHINSWAR		**TOTAL**	5
42	132 KV CHAMU	1	132 KV LNB RENEWABLE	39.6
			TOTAL	39.6
43	132 KV Panchu	1	33 KV Rays 1	6.37
		2	33 KV Rays 2	
			TOTAL	6.37
44	132 KV Sangarh	1	132 KV I B VOGT	8.25
			TOTAL	8.25
			Grand Total	8162.03

WIND GENERATION DETAILS				
S.NO	**NAME OF RECEIVING STATION**	NAME OF COMPANY	NAME OF POOLING STATION	**LINE S/C OR D/C**
1	400 KV GSS AKAL	Suzlon (220 KV)	MADA	
		INOX-1 (220 KV)	DANGIRI - I	448
		INOX-2 (220 KV)	DANGIRI - II	
		Sujloan-1 (220 KV)	AKAL -I	277.1
		Suzlon-2 (220 KV)	AKAL -II	
		Enercon -1 (220 KV)	RAJGARH	76.8
		Enercon-2 (220 KV)	JAJIA	231.2
		Enercon-1 (220 KV)	BHU-I	456
		Enercon-2 (220 KV)	BHU-II	
		Sujlon (220 KV)	MOOLANA	102.9
		Suzlon (220 KV)	BHENSDNA	201.6
		Gamesha(220 KV)	DEVIKOT/ LALA	74
			TOTAL	**1867.6**
2				
	400 KV JAISALMER-2 (BHAISRA)	220 kv Inox Wind	INOX	120
			TOTAL	**120**
3	220 KV Amarsagar	suzlon (220 KV)	Mada	*224.5*
		Tejwa-1(220 KV)	Mokla	*380.25*
		Tejwa-2(220 KV)	Mokla	
		Enercon-1(132KV)	TEMDARI	*138.81*
		Enercon-2 (132KV)	TEMDARI	
		Gamesha (132KV)	LUDARWA-II , LUDARWA-I	*76.5*
		suzlon (132KV)	KALADUNGAR I	*113.4*
		RRB-1 Energy Ltd. (33 KV)	BARAMSAR	*36*
		RRB-2 Energy Ltd.(33 KV)	POHRA	
		RRB-3 Energy Ltd. (33 KV)	KAHALA	
		VISHAL (33 KV)	dharmsagar	*45.25*
		CAPTIVE (33 KV)	Tahra	
		PCI (33 KV)	Phalodi	
		RSMM-III (33 KV)	Tahra	
		RSMM-IV (33 KV)	Tahra	
		RSMM-I & II (33 KV)	Amarsagar	
		SEL 16 (33 KV)	Bada bagh darmsar	*44.75*
		SEL 26 (33 KV)	Bada bagh darmsar	
		SEL 39 (33 KV)	Bada bagh darmsar	
		RREC (PLANT DISMENTAL)	JAISALMER	
			TOTAL	***1059.46***
4				
	220 KV Tinwari	Suzlon (220 kv)	Tinwari	***141.9***
			TOTAL	***141.9***
5	220 kv Ramgarh	NIDHI	Habur, Jaisalmer	90
		suzlon	Tejwa	201.6
		Greenko	Nawar	120

			TOTAL	**411.6**
6	220 KV Bhopalgarh	Suzlon 33 KV-1	Debari, Jodhpur	***27.5***
		Suzlon 33 KV-2		***25.2***
		total	**Total**	**52.7**
7	220 KV PRATAPGARH	WELLSPUN (132 KV)	Damodar	*106.2*
		REGEN-1 (132 KV)	Devgarh	*51*
		REGEN-2 (132 KV)	Devgarh	*51*
		DEVGARH(WIND) 33 KV	RREC	*2.25*
		WELLSPUN (33 KV)	Dalmu	*19.8*
			TOTAL	***230.25***
8	**132 KV DALOT**	Regen-1 LTD. (132 KV)	kaqngarh, pratapgarh	49.5
		Regen-2 LTD. (132 KV)		60
		Regen power Tech. (33 KV)	Dalot, pratapgarh	15
			TOTAL	**124.5**
9	**132 KV SHEO**	Suzlon (33 KV)	Rawat ka gaon & Jaseka ka Gaon, Barmer	9.6
		Gamesa-1 (33 KV)	Jaseka Ka Gaon, Sheo, Gunga	20
		Gamesa-2 (33 KV)		20
				49.6
10	**132 KV BAORI**	Suzlon (132 KV)	Danwara (Jodhpur)	59.4
			TOTAL	**59.4**
11	**132 KV OSIAN**	Suzlon (33 KV)	Dundhara ,jodhpur	15
		Suzlon (33 KV)	Bathbasia ,jodhpur	15
			total	**30**
12	**132 KV PS-8**	Wind warn India Ltd. (132 KV)	Falodi,Jodhpur	98.4
			total	**98.4**
13	**132 KV CHAMU**	Suzlon (33 KV)	Deria ,jodhpur	19.5
		Suzlon (33 KV)		12
			Total	31.5
14	**132 KV PS-5**	Suzlon (33 KV)	Falodi, Jodhpur	2.1
			Total	**2.1**
15	**132 KV JAISALMER**	Viesta (33 KV)	Amarsagar	2.76
		RRB (33 KV)	Akal	10.2
		Suzlon-1 (33 KV)	Sariya	16.2
		Suzlon-2 (33 KV)		12
			Total	**41.16**
16	132 KV KHOOD	Wind world Ltd.	Harshapahadi	**7.2**
			Total	**4327.37**

AGARWAL U R S & CO.
CHARTERED ACCOUNTANTS
Head Office :- A - 77, 2nd Floor, Sector 4, Noida, 201301, India
Gurugram office:- Plot No. 816, Sector 15, Part 2, Gurugram, 122001, India
E mail:- sachinn@agarwalurs.com, Mob:- + 91 9193 11 3753

Annexure-B.I

INDEPENDENT AUDITOR'S REPORT

To the Member Secretary of
Secretariat of Northern Regional Power Committee

Report on the Consolidated Receipt and Payment Account

We have audited the accompanying consolidated receipt and payment account of Northern Regional Power Committee for the year ended 31st March 2025, which is prepared under the responsibility of the management. Our responsibility is to express an opinion on this consolidated receipt and payment account based on our audit.

Management's Responsibility for the Consolidated Receipt and Payment Account

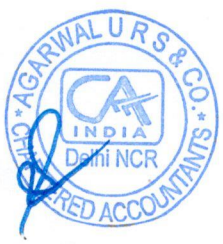
The management is responsible for the preparation and fair presentation of this consolidated receipt and payment account in accordance with the applicable financial reporting framework. This includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the consolidated receipt and payment account, ensuring that it is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the consolidated receipt and payment account based on our audit. We conducted our audit in accordance with auditing standards generally accepted in India and applicable auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated receipt and payment account is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated receipt and payment account. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated receipt and payment account, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation of the consolidated receipt and payment account in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated receipt and payment account.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

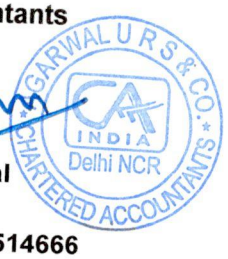


Opinion

In our opinion, the consolidated receipt and payment account of Northern Regional Power Committee for the year ended 31st March 2025 is prepared, in all material respects, in accordance with the applicable financial reporting framework and reflects a true and fair view of the receipts and payments of the organization during the year.

1. Cash System of accounting is followed by the management.
2. The accounting transactions are maintained through accounting software; however, the edit log or audit trail of changes made in the system is not maintained.
3. We noted that tax deducted at source (TDS) on interest income has been recorded at gross value in the books. However, since the Company is not eligible to claim refund or credit of such TDS, the deducted amount represents a cost to the Company. Accordingly, the same should be recognized as an expense.

For Agarwal U R S & CO.
Chartered Accountants
(FRN: 013910C)



Sachinn K Agarwal
Partner
Membership No.: 514666
UDIN: 25514666BMINUA6064
Place: Noida
Date:30-09-2025

Northern Regional Power Committee
Receipts and Payments
For the Period 1-Apr-24 to 31-Mar-25

Receipts	Amount	Payments	Amount
Opening Balance			
Bank Accounts	29371464.80		
		Bank Charges	722.00
		Audit Fees	22000.00
Interest Received	3197836.00	Digital Equipments	1269899.00
Repayment From CPWD	1648474.00	Domestic Travel Epenses	1581251.00
Contribution FY 20204-25	62036000.00	FURNITURE AND FIXTURE	2840311.00
GRID CONTROLLER of India BSES Joint Meter Amount R	26944844.00	ICT (IT AND COMPUTERS)	326068.00
GRID CONTROLLER OF INDIA DJB Joint MeterAmt Rec	2094221.00	Machinery and Equipment	3411082.00
License Fees	208870.00	Medical	1140005.00
		Minor Civil Works (Civil & Elect. CPWD)	6608156.00
		Office Expenses	5250149.00
		Utility Bills	32042118.00
		Professtional Services and Upkeephouse keep	6206471.00
		Other Revenue Expenditure	385371.00
		Reimbursement FY 2023-24	4373128.00
		Rent Rates and Taxes	170534.00
		Training Expenses	694596.00
		TDS Expense	632106.00
		Closing Balance	
		Bank Accounts	58547742.80
Total	**125501710**	**Total**	**125501710**

For Agarwal U R S & CO.
Chartered Accountants
(FRN: 013910C)

Sachinn K Agarwal
Partner
Membership No.: 514666
Place: Noida
Date: 30-09-2025

Internal Audit of NRPC Fund for FY 2024-25 was conducted. The consolidated receipt and payment account for the period from .01.04.2024 to 31.03.2025 is as below:

Northern Regional Power Committee

18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi, 110016

Consolidated Receipt & Payment Account for the Period 01.04.2024 to 31.03.2025

Payment Received	Amount (In Rs.)	Expenditure	Amount (In Rs.)
Opening Balance	29371465	Expenditure incurred by NRPC	4373128
Contribution for the Year 2024-25	62036000	Medical Treatment	1140005
Interest	3197836	Office Expenses	5250149
Grid Controller of India Limited BSES	26944844	Utility Bills	32042118
Grid Controller of India Limited DJB	2094221	Professional Services & Upkeep Housekeeping	6206471
License Fees	208870	Audit Fees	22000
Repayment from CPWD	1648474	ICT (Information computer, Telecommunication Equipment's)	326068
		Other Revenue Expenditure	385371
		Domestic Travel Expenses	1581251
		Rent Rates & Taxes for Land & Building	170534
		Minor civil and electrical works	6608156
		Digital Equipment	1269899
		Training	694596
		TDS Expenses	632106
		Machinery and Equipment	3411082
		Furniture and Fixture	2840311
		Bank Charges	722
		Closing Balance	58547743
Total	**125501710**	**Total**	**125501710**

D. K. Meena
Superintending Engineer, NRPC

Omkishor
Executive Enginner, NRPC

Akash Jain
Assistant, Engineer, NRPC

Mona Kamwal
Dy Manager, NRLDC

FNA-
AS, NRPC

MS, NRPC

Following are the observations from the internal audit of the NRPC Fund for FY 2024-25:

1. It is observed that Member Secretary, NRPC has been delegated financial powers to approve recurring expenditures up to ₹10 lakh per case. However, the monthly electricity bills of NRPC which comprises of electricity consumption for both NRPC and NRLDC premises frequently exceed the delegated financial limit. It is recommended to take up the matter with CEA for appropriate amendments to the SOP for enhancement of delegated financial powers for recurring expenses.

2. It has been observed that for FY 2024–25, the UT of Chandigarh and Talwandi Sabo Power Ltd., paid their contribution towards the NRPC fund after the due date. Consequently, interest penalty of Rs. 12,000 and Rs. 24,000 was levied on UT of Chandigarh and Talwandi Sabo Power Ltd., respectively. However, penalty amount is yet to be paid by UT of Chandigarh and Talwandi Sabo Power Ltd. Timely payment of contribution is essential to ensure smooth functioning and execution of activities by NRPC Secretariat. It is recommended to ensure timely receipt of funds from NRPC constituents.

D. K. Meena
Superintending Engineer, NRPC

Omkishor
Executive Enginner, NRPC

Akash Jain
Assistant, Engineer, NRPC

Mona Kamwal
Dy Manager, NRLDC

NRPC Member Organization for FY 2026-27		
S. No.	**Member Organisation**	**Category**
1	Chairperson, NRPC	Chairperson, NRPC
2	CEA	Central Electricity Authority (CEA)
3	NLDC	National Load Despatch Centre
4	NRLDC	Regional Load Despatch Centre
5	CTUIL	Central Transmission Utility
6	PGCIL	Central Government owned Transmission Company
7	NTPC	Central Generating Company
8	BBMB	
9	THDC	
10	SJVN	
11	NHPC	
12	NPCIL	
13	Delhi SLDC	State Load Despatch Centre
14	Haryana SLDC	
15	Rajasthan SLDC	
16	Uttar Pradesh SLDC	
17	Uttarakhand SLDC	
18	Punjab SLDC	
19	Himachal Pradesh SLDC	
20	DTL	State Transmission Utility
21	HVPNL	
22	RRVPNL	
23	UPPTCL	
24	PTCUL	
25	PSTCL	
26	HPPTCL	
27	IPGCL	State Generating Company
28	HPGCL	
29	RRVUNL	
30	UPRVUNL	
31	UJVNL	
32	HPPCL	
33	PSPCL	State Generating Company & State owned Distribution Company
34	UHBVN	State owned Distribution Company (alphabetical rotational basis/nominated by state govt.)
35	Jaipur Vidyut Vitran Nigam Ltd.	
36	Dakshinanchal Vidyut Vitaran Nigam Ltd.	
37	UPCL	
38	HPSEB	

NRPC Member Organization for FY 2026-27		
S. No.	**Member Organisation**	**Category**
39	Adani Power Rajasthan Limited	IPP having more than 1000 MW installed capacity
40	Apraava Energy Private Limited	
41	Aravali Power Company Pvt. Ltd	
42	JSW Hydro Energy Limited	
43	Lalitpur Power Generation Company Ltd	
44	MEIL Anpara Energy Ltd	
45	MEJA Urja Nigam Ltd.	
46	Nabha Power Limited	
47	Neyveli Uttar Pradesh Power Limited (NUPPL) Ghatampur	
48	Prayagraj Power Generation Co. Ltd.	
49	Rosa Power Supply Company Ltd	
50	Talwandi Sabo Power Ltd.	
51	XL Xergi Power Pvt. Ltd.	IPP having less than 1000 MW installed capacity (alphabetical rotational basis)
52	UT of J&K	From each of the Union Territories in the region, a representative nominated by the administration of the Union Territory concerned out of the entities engaged in generation/ transmission/ distribution of electricity in the Union Territory.
53	UT of Ladakh	
54	UT of Chandigarh	
55	NVVN	Nodal Agency appointed by the Government of India for coordinating cross-border power transactions
56	BRPL	Private Distribution Company in region (alphabetical rotational basis)
57	NRSS-XXIX Transmission Ltd	Private transmission licensee (nominated by central govt.)
58	Shree Cement Limited	Electricity Trader (nominated by central govt.)
59	Adani Green Energy Limited	RE Generating Company having more than 1000 MW installed capacity
60	Avaada Energy Private Limited	
61	Azure Power India Pvt. Limited	
62	NTPC Green Energy Limited	
63	ReNew Power Private Limited	
64	SJVN Green Energy	

NRPC Deliberation

A.27.13 In line with discussion held in the TCC meeting, Forum approved the submission of DPR by MS, NRPC

Decision of Forum

Forum accorded approval for submission of DPR by MS, NRPC to PSDF Secretariat for grant. Possibility of extending the software to willing SLDCs on incremental basis may be explored and added in scope after discussion with vendors. Considering useful life of IT systems defined in CERC Tariff Regulations 2024, upgradation work may be planned right after completion of 1+4 years C-AMC.

A.28 Capacity Building/ Study Tour Programme for Northern Regional Constituents through PSDF Fund (Agenda by NRPC Secretariat)

A.28.1 EE (P), NRPC apprised that in 45th NRPC meeting held on 08.06.2019, NRPC Secretariat proposed a capacity building programme for studying the power exchange of Nordic countries, role of TSO (Transmission System Operator), Renewable Energy in power trading, EV integration with grid etc. to be carried out for Northern Region Constituents.

A.28.2 In 44th TCC & 47th NRPC Meetings (held on 10th and 11th December, 2019), POWERGRID presented the detailed report and commercial implication of the program. However, due to COVID pandemic, the program could not be completed.

A.28.3 In 48th TCC & 70th NRPC Meeting (held on 17-18 Nov 2023), the proposal was discussed again and it was decided to review the study program to include topics related to RE integration.

A.28.4 In 71st NRPC meeting held on 29.01.2024, DPR was approved for PSDF grant. However, due to revision of cost by POWERGRID, revised DPR was approved in 49th TCC/ 72nd NRPC meeting (held on 29-30 March, 2024).

A.28.5 DPR was submitted to PSDF Secretariat vide letter dated 13.05.2024. However, PSDF Secretariat vide mail dated 20.05.2024 informed that during the 22nd Monitoring Committee meeting, a decision has been taken to withhold the sanction of New Projects. Accordingly, the program could not be completed.

A.28.6 Now, PSDF Secretariat vide letter dated 04.12.2024 has informed that in the 23rd Monitoring Committee meeting, it was decided to accept new projects including

deemed returned and requested to submit fresh proposal alongwith latest cost estimates.

A.28.7 Accordingly, this project has been once again taken up as CAG has also mentioned during audit of NRPC for completion of capacity building program.

A.28.8 A meeting was held on 05.12.2024 with ASCI team and POWERGRID to explore capacity building program on latest technology and latest cost estimates.

A.28.9 Accordingly, a capacity building/ study tour has been prepared by POWERGRID in consultation with Administrative Staff College of India (ASCI) attached as **Annexure-XXIV.**

A.28.10 Programme Design:

The 7-day international study tour will provide a detailed understanding of:

(i) Energy Transition Frameworks: Policies and strategies for renewable energy integration and decarbonization.

(ii) Energy Markets: The functioning of the electricity market in Europe, including the roles of TSOs and DSOs.

(iii) Hydrogen Economy: The development of green hydrogen and its integration into national energy systems.

(iv) Renewable Energy Penetration: The European experience of achieving high penetration of wind, solar, and hydropower into the grid.

(v) The tour will include site visits, workshops, and discussions with energy policymakers, experts, utilities, and industry leaders in each country to deepen participants' understanding of these issues.

A.28.11 Details of Activities for Study Tour:

(i) The programme will be implemented in four batches of 15 officers each over the period of 04 months (Apr-July 2025).

(ii) A batch of 15 participants will participate for each 7-day program from member utilities of NRPC including Central Transmission Utility (CTU), State Transmission Utilities (STUs), Distribution Companies (DISCOMs), State Load Despatch Centres (SLDCs), Generators (including ISGS), ISTS Transmission Licensees in Northern Region, Grid Controller of India Limited and Northern Regional Power Committee (NRPC) Secretariat, Central Electricity Authority (CEA), and Ministry of Power, GoI.

A.28.12 Programme Fee:

(i) Rs 6,24,000 plus GST per participant for international component of 7 days, for a minimum of 15 participants in a batch, and

(ii) Rs 1,50,000 plus GST per batch for Indian component at Manesar of 2 days, for a minimum of 15 participants per batch.

(iii) Total Cost shall be tentatively INR. 4,48,87,200/- (including GST@18% for 60 officials).

(iv) Above fee is exclusive of flight tickets, medical insurance, per diem amount, local transport, and accommodation etc. Cost estimate for these shall be shared by POWERGRID separately.

A.28.13 As per rules of PSDF grant, only government beneficiary has been considered for this study tour. Accordingly, the tentative break-up of batches is as below:

Serial No.	State/Organization	1st Batch	2nd Batch	3rd Batch	4th Batch	Remarks*
1	**MoP/CEA**	1	1	1	1	
1	**Delhi**	1	1	0	1	Among TRANSCO/STU, GENCOs, SLDC
2	**Haryana**	1	1	1	1	Among TRANSCO/STU, GENCOs, DISCOMs, SLDC
3	**Rajasthan**	1	1	1	1	Among TRANSCO/STU, GENCOs, DISCOMs, SLDC
4	**Uttar Pradesh**	1	1	1	1	Among TRANSCO/STU, GENCOs, DISCOMs, SLDC
5	**Uttarakhand**	1	1	1	1	Among TRANSCO/STU, GENCOs, DISCOMs, SLDC
6	**Punjab**	1	1	1	1	Among TRANSCO/STU, GENCOs, DISCOMs, SLDC
7	**Himachal Pradesh**	1	1	1	1	Among TRANSCO/STU, GENCOs, DISCOMs, SLDC
8	**UT of J&K**	1	0	0	0	
9	**UT of Ladakh**	1	0	0	0	
10	**UT of Chandigarh**	1	0	0	0	
11	**NRPC**	1	2	2	2	
13	**NRLDC**	1			1	
14	**NLDC**	1			1	
15	**PGCIL**	1			1	
16	**CTUIL**		1			
17	**NTPC**		1		1	

18	**BBMB**		1			
19	**THDC**		1			
20	**SJVN**		1			
21	**NHPC**			1	1	
22	**NPCIL**			1		
23	**APCPL**			1		
24	**MEJA Urja Nigam Ltd.**			1		
25	**NVVN**			1		
26	**NTPC Green Energy Ltd**			1		
Total		**15**	**15**	**15**	**15**	

A.28.14 Further, it was conveyed that such capacity building program has already been conducted in ERPC, and SRPC.

A.28.15 MS, NRPC informed that earlier the study tour was planned in Nordic countries. Now, it has proposed to do study tour in the European country.

A.28.16 MS, NERPC also informed that NERPC has also got approved the agenda and fresh DPR is to be obtained. After that the same will be put up for PSDF grant.

A.28.17 EE (P), NRPC highlighted that the DISCOMs who are NRPC members for the current FY 24-25 shall be considered for this study tour. After getting PSDF grant, the nominations will be sought from the utilities accordingly.

NRPC Deliberation

A.28.18 MS, NRPC mentioned that ASCI has suggested to have study tour of 1st batch in April, 2025.

A.28.19 Members approved the proposals and recommended to proceed further for approval of PSDF grant accordingly.

Decision of Forum

After deliberation followings was decided as below-

i. Forum approved the above study tour under PSDF grant.

ii. Forum authorized MS, NRPC for negotiation of final cost with ASCI/POWERGRID.

iii. Forum authorized MS, NRPC for submission of DPR for PSDF grant.

iv. Forum authorized MS, NRPC to finalize the course contents in consultation with ASCI/POWERGRID.

iv. Forum authorized MS, NRPC for signatory for opening and operating of bank account to handle the above fund

v. Forum authorized MS, NRPC to finalize and enter into an agreement with ASCI/POWERGRID for above study tour.

A.29 Centralized Database for Protection Settings in Northern Region to be implemented under PSDF (agenda by NRPC Secretariat)

A.29.1 EE (P), NRPC apprised that in 48th TCC & 70th NRPC Meeting (held on 17-18 Nov 2023), NRPC Committee has approved for development of a portal through PSDF for Centralized database containing details of relay settings for grid elements connected to 220 kV and above. The scope was already approved in the above meeting.

A.29.2 Further, a meeting was held on 08.01.2024 with POWERGRID to deliberate on tendering, wherein POWERGRID desired number of sub-stations and elements for which relay details shall be modelled in Centralized Database for preparation of estimate of work for implementation of the portal.

A.29.3 In view of above, it was requested vide letter dtd. 23.01.2024 to NRLDC/NLDC and SLDCs of Northern region to furnish the details of all elements connected at 220 kV and above, in respective control area latest by 30.01.2024. A reminder mail dtd. 06.02.2024 was also sent for the same.

A.29.4 Based on the received data, compiled status was presented in the 50th PSC meeting held on 29.04.2024. Subsequently, Utilities were requested to send pending data for no. of relays and substations within a week. It was also decided to consider tentative/ average data if details are not submitted by utilities within a week.

A.29.5 Compilation of numbers for sub-station, relay and licensee for calculation tool has been done. After considering assumption, the numbers were proposed in the 55th Protection Sub Committee meeting as below:

S.N.	Number of substations (220 kV and above in Northern Region)	Number of relays	Number of licenses of protection calculation tool

Annexure-B.V

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

Dated: 28.05.2025

सेवा में,

Chief General Manager (PSDF)
NLDC-Grid India
New Delhi, 110016
psdf@grid-india.in; nldc.psdf2020@gmail.com

विषय: Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituent members of Northern Regional Power Committee (Proposal No.- 480)

Ref:

1. Letter from POWERGRID bearing reference CC/HRD/NRPC/2024-25/Overseas dated 21.05.2025 and 22.05.2025 (enclosed)
2. Letter from NRPC Secretariat to POWERGRID dated 29.04.2025 (enclosed)
3. Letter from NLDC, PSDF Nodal Agency, bearing reference NLDC-PSDF/88th TESG/2025-26/ dated 16.04.2025 (enclosed)

महोदय/महोदया,

This has the reference to the Capacity Building Programme on International Best Practices in Energy Transition for Constituent members of NRPC. The DPR for 100% PSDF grant for the above program was submitted to PSDF Secretariat vide NRPC Sectt. letter dated 28.01.2025.

Further, in reference to your letter dated 16.04.2025, NRPC Secretariat vide letter dated 29.04.2025, requested POWERGRID to comply all observations made by the TESG members in the 88th meeting of TESG (held on 07.03.2025).

In this regard, POWERGRID vide letter dated 21.05.2025 has replied on queries raised by TESG members and vide their letter dated 22.05.2025 has submitted the revised proposal with latest cost estimate along with BOQ details of per participants.

In view of above, it is requested to consider the same and grant the PSDF for implementation of Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituent members of Northern Regional Power Committee.

Encl: As above

Signed by Vijay Kumar Singh
Date: 28-05-2025 10:59:52
(V K Singh)
Member Secretary

पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Reference: CC/HRD/NRPC/2024-25/Overseas **Date:** 21.05.2025

To,

The Executive Engineer (Protection),
Northern Regional Power Committee Secretariat,
Ministry of Power, Government of India
New Delhi.

Kind Attention: Sh. Reeturaj Pandey

Sub: Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituent members of Northern Regional Power Committee.

Reference: Letter dated 22 April 2025

Dear Sir,

The following is submitted in response to your inquiries.

INQUIRY 1: Tendering is to be followed for selection of vendor and payment terms in the tender document must be aligned with PSDF fund disbursement pattern

RESPONSE:
POWERGRID has approved agencies, institutes, and experts on the specific areas of expertise and training programs are being conducted through the said agencies, institutes, and experts. ASCI is one of the approved institutes of POWERGRID, which offers overseas training programs and POWERGRID has carried out international training programs through ASCI for its employees.

In the domain of learning and development, POWERGRID does not follow a tendering process per se for finalizing agencies, as this being an intellectual property and specialized knowledge.

However, in the instant case, due diligence has been done in engagement of ASCI by rate negotiations through a committee comprising three officials of Finance, BDD and HRD departments from POWERGRID. Supporting documents of committee proceedings may be shared if so desired.

The payment terms of the PSDF fund disbursement pattern may be agreed upon by POWERGRID.

INQUIRY 2: Dearness Allowances (DA) to be excluded from the BoQ.

RESPONSE: Dearness Allowance (DA) has been excluded from the Bill of Quantities (BoQ), and the revised offer is enclosed as Annex-1.

INQUIRY 3: Module-wise break-up of BoQ is required to be submitted including cost breakup details for each participant.

RESPONSE: A module-wise breakdown of the BoQ, including detailed cost per participant is annexed at Annex-2.

Further, this is to mention that the training program is being conducted on a no-profit basis, with special approval obtained from the management.

Thanking You,

Yours faithfully,

21/05/25

Bipin Kishor Mundu
Executive Director (HRD)

Annex-1

Reference: CC/HRD/NRPC/2024-25/Overseas/revised **Date**: 22.05.2025

To,

The Executive Engineer (Protection),
Northern Regional Power Committee Secretariat,
Ministry of Power, Government of India
New Delhi.

Kind Attention: Sh. Reeturaj Pandey

Sub: Overseas Program on **"International Best Practices in Energy Transition (With study tour to Europe)"** for NRPC constituents.

Dear Sir,

- In reference to your request for the subject mentioned program, please find below our offer. The details may be seen below.

  I. **Name of Program**: International Best Practices in Energy Transition with Study tour to Europe (With study tour to Netherlands, Germany, & Switzerland)
  II. **Venue**: PAL Manesar (Domestic portion), Netherlands, Germany, & Switzerland (Overseas portion)
  III. **Duration**: Domestic Portion:
    i. One day domestic at PAL, Manesar
    ii. Overseas portion: Seven days.
  IV. **Dates**: will be finalized after mutual discussion.

- The **scope of services** will be as mentioned below:

  I. Tuition fees,
  II. Boarding & Lodging,
  III. Airport transfers,
  IV. Training kit including trolley bags & Blazer,
  V. Visa charges,
  VI. Air fare economy class (Delhi to Europe to Delhi),
  VII. Medical cum travel insurance,
  VIII. Tickets (if any) to official engagements (entry tickets to sight-seeing, conferences etc.) and
  IX. Membership to ASCI alumni network

- **Fee** (including GST):

i. Fee for one batch up to 15 participants:	INR 1,72,11,037.50
ii. Per Participant fee for additional participants above 15:	INR 11,47,402.50
iii. Fee for four batches of 15 participants each with total 60 participants:	INR 6,88,44,150.00

- **Payment Terms:**

I. Minimum Billing will be done for a batch of 15 participants.
II. Payment terms of PSDF fund disbursement pattern

- **Cancellation:**

I. If due to some unforeseen circumstances any participant not attending the program, NRPC will intimate for cancellation in writing, for which there will be cancellation charges as applicable, shall be reimbursable to POWERGRID against the documentary proof submitted by POWERGRID.
II. For cancellation of any batch, NRPC will reimburse actual expenses against the documentary proof provided by POWEGIRD.

- **Validity:** This offer will be valid for till 30.09.2025

Kindly acknowledge the offer and convey your acceptance.

Yours faithfully,
For and on behalf of
Power Grid Corporation of India Limited

22/05/2025

Arun Kumar Goel
General Manager(HRD)

अरूण कुमार गोयल / ARUN KUMAR GOEL
महाप्रबंधक (मा.सं.वि.) / General Manger (HRD)
पावरग्रिड नेतृत्व अकादमी
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
गाँव-ग्वालियर, पोस्ट-पंचगाँव, ताऊरु रोड़, मानेसर,
गुरुग्राम - 122413 (हरियाणा)

Annex-2

Bill of Quantity		
S.N.	**Particulars**	**Amount**
1	ASCI Overseas Fees • Tuition fees, • Boarding & Lodging and other land arrangements including airport transfers at overseas, • Training kit including trolley bags & Blazer, • Visa charges, • Tickets (if any) to official engagements (entry tickets to sight-seeing, conferences etc.) and • Membership to ASCI alumni network	736320
2	Domestic training Fees • Tuition fees, • Boarding & Lodging, • Airport Pick-up & drop	14750
3	Economy class air fare (Delhi Europe Delhi) and Medical cum travel insurance	165000
4	Miscellanious & Contingency	10000
5	Overheads	46305
	Per particinat rate Exclusive of GST	972375
	GST @18%	175027.5
	Per particinat rate Inclusive of GST	**1147402.5**

अरूण कुमार गोयल / ARUN KUMAR GOEL
महाप्रबंधक (मा.सं.वि.) / General Manger (HRD)
पावरग्रिड नेतृत्व अकादमी
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
गाँव-ग्वालियर, पोस्ट-पंचगाँव, ताऊरु रोड़, मानेसर,
गुरुग्राम - 122413 (हरियाणा)

Annexure-B.V

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

Dated: 29.04.2025

सेवा में,

ED, HRD
POWERGRID Academy of Leadership (PAL)
Pachgaon, Manesar, Gurgoan-122413 (Haryana)

विषय: Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituent members of Northern Regional Power Committee

Ref:

1. Letter from NLDC, PSDF Nodal Agency, bearing reference NLDC-PSDF/88th TESG/2025-26/ dated 16.04.2025 (enclosed)
2. Letter from POWERGRID bearing reference CC/HRD/NRPC/2024-25/Overseas dated 27.01.2025 (enclosed)

महोदय/महोदया,

This has reference to the Capacity Building Programme on International Best Practices in Energy Transition for Constituents members of NRPC. The DPR for 100% PSDF grant for the above program was submitted to PSDF Secretariat vide letter dated 28.01.2025.

The DPR of above proposal was discussed in the 88th meeting of TESG (held on 07.03.2025) wherein TESG observed some issues in the submitted DPR where the actions are required on part of POWERGRID on the following points as below-

1. Tendering is to be followed for selection of vendor and payment terms in the tender document must be aligned with PSDF fund disbursement pattern.
2. Dearness Allowances (DA) to be excluded from the BoQ.
3. Module-wise break-up of BoQ is required to be submitted including cost breakup details for each participant.

4. Total 3 Budgetary offers (BO) are required to be provided in order to decide the minimum cost of programme accordingly.

In view of above, it is requested to submit following to NRPC Secretariat at the earliest:

1. Revised estimates based on minimum out of total 3 Budgetary offers (BO).
2. Module-wise break-up of BoQ including cost for each participant.

This issues with approval of MS, NRPC.

Signed by Reeturaj Pandey
Date: 29-04-2025 15:17:27

Encl: As above

(ऋतुराज पाण्डेय)
उप-निदेशक (संरक्षण)

18-ए, शहीद जीत सिंह मार्ग, कटवारिया सराय, नई दिल्ली- 110016 फोन:011-26511211 फेक्स: 011-26865206 ई-मेल: ms-nrpc@nic.in वेबसाईट: www.nrpc.gov.in
18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016 Phone: 011-26511211 Fax: 011-26865206 e- mail: ms-nrpc@nic.in Website: www.nrpc.gov.in

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
पूर्व में
पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड (पोसोको)
(भारत सरकार का उद्यम)
CIN: U40105DL2009GOI188682
राष्ट्रीय भार प्रेषण केंद्र

कार्यालय का पता : B-9, 1st Floor, Qutub Institutional Area, Katwaria Sarai, New Delhi - 110016
फ़ैक्स : 011-26524525, 26536901
वैबसाइट : https://psdfindia.in , ई-मेल: psdf@grid-india.in ; nldc.psdf2020@gmail.com

संदर्भ: NLDC-PSDF/88th TESG/2025-26/ दिनाँक:16 अप्रैल 2025

सेवा में,

Member Secretary
Northern Region Power Committee
18-A, Shaheed Jeet Singh Marg, Katwaria Sarai
New Delhi-110016
Email: ms-nrpc@nic.in

विषय/Subject: Examination of the following proposal during the 88th meeting of TESG held on 7th March 2025.

प्रस्ताव का नाम / Proposal Name: NRPC: Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (Proposal No.- 480)

महोदय,

The subject proposal of NRPC and the DPR furnished by them were discussed in the 88th TESG meeting held on 07.03.2025. The relevant extracts of deliberations and observations recorded during the meeting are as per the attached **Annexure-I.**

This is for your information please.

सादर धन्यवाद,

भवदीय

S.C Dambhare
Convener of Techno Economic Subgroup
Chief General Manager (PSDF)
NLDC-Grid India

प्रति :

1. CE(NPC), CEA
2. ED, NLDC-Grid India

Annexure- 1

NRPC: Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (480)

Summary of the project:

a) Estimated cost of project is **₹7.08 Crores (with GST).** The program is likely to be held between **01.04.2025 to 31.07.2025.**
b) Training program is proposed to be conducted for **4 batches each of 15 participants** from various utilities of Northern region including CTU, SLDCs, STUs, Generators, ISTS Licensees, DISCOM, Grid-India (NLDC/NRLDC), NRPC Sectt, CEA and Ministry of Power. Each batch will have one-day domestic training at PAL Manesar, 7 days training in Europe (Netherland, Germany and Switzerland) and 2 days for travel.
c) Program is being executed by Power-Grid in association with Administrative Staff College of India (ASCI).
d) The study tour program offers several merits, below are the key merits:
    1. Exposure to international Best Practices
    2. Knowledge Transfer on Renewable Energy Integration
    3. Understanding of Energy Market Structures
    4. Insights into Hydrogen Economy
    5. Technical Knowledge on Grid Management
    6. Capacity Building for Future Energy Challenges

Evaluation of DPR:

A. Summary of project:	
i. Cost of Project	**₹ 7.08 Crores**
ii. Name of the requesting Organization / Utility	NRPC
iii. Authorized Person For this Project / Scheme / Activity	Provided
iv. Short Summary of Project / Scheme / Activity	Provided
v. Name of the Project / Scheme / Activity	Provided
vi. Objective of the Project / Scheme / Activity	Provided
vii. Identified Beneficiaries	Provided
viii. Copy of the appraisal report	**Provided**
ix. Format A5	**Provided**
x. Format A6	**Not Provided properly**
xi. Board Approval	**Not Provided**
B. Executing agency : Give the details of the executing agency including their performance record, justification behind the recommendation of the particular executing agency for implementing this project/ scheme/ activity.	Power-Grid through Administrative Staff College of India.
C. Funding: The project is to be funded partly through self-contribution and partly through grant from PSDF as per categorization of the project. Both internal and external sources of funding may be specified along with respective quantum of funding.	Entity requested for 100% funding.
D. Time line for Implementation of Project / Scheme / Activity	**FY 2025-26**
E. Technical details:	**Not Required**
F. Implementation schedule / milestones	
i) target for physical milestones	Provided
ii) targets for financial milestone	Provided

Observations/ Requirements:

TESG Member	**Inputs required/ comments of Members**

NLDC	1. Copy of MoM of the 52nd TCC & 77th NRPC meeting provided. 2. Justification for selection of the implementing agency. 3. Proposed payment terms in the DPR are not aligned with PSDF disbursement guidelines. 4. Detailed BoQ in excel sheet may be provided.
NPC	5. Estimated cost of project is **₹7.08 Crores** inclusive of GST. The duration of project from **01.04.2025 to 31.07.2025** and requested for 100% funding as per clause 5.1(f) of PSDF guideline-2024. **6.** Entity has provided relevant minutes of 52nd TCC meeting of NRPC and 77th NRPC meeting in which proposal was approved. **TESG may decide further Board Approval required or not.** 7. Entity has to be provided Format A6 of PSDF guideline-2024 on non-judicial stamp paper of Rs. 50. 8. Time duration of project is 4 months. Entity is requested **to provide realistic time duration** and also include time for financial closing of this. **9.** Entity has already chosen the executive agency which is POWERGRID**. Whether tender for this proposal, will be floated by the entity or not. Please explain.** 10. Cost estimates are based on only one Budgetary offer (BO) from POWERGRID. Entity is requested to provide 2 more BOs and take minimum cost of 3 BOs. 11. Entity informed that 7.08 crores needed for 4 batches of 15 officers each i.e. 1.77 crore for each batch and 11.80 lakh for each participants. However, entity has not provided the BOQ in detailed. **Entity is requested to provide detailed BOQ i.e. detailed cost break up of each and every module and every expense component.** 12. Entity need to ensure that guidelines of **GFR and CVC** are not violated.
PSETD	No Comments
PGCIL Cost Eng.	No Comments
CTU Eng.	No Comments
CTU Plng.	The topics are relevant to the region and may be concurred.

Deliberations in the 88th TESG Meeting:

a) Entity briefed about their project and intimated that this project has already got approval in the 77th NRPC meeting. TESG agreed for considering the minutes of NRPC meetings as **Board approval** for this project.

b) TESG observed that the entity has chosen POWERGRID as the vendor without placing any tenders. **TESG informed the entity that entity has to follow the Tendering process as per PSDF guidelines.** TESG also advised that payment terms in the tender document must be aligned with PSDF fund disbursement pattern. However, if entity opts for any other fund disbursement pattern then the desired fund disbursement pattern may be submitted to NLDC for approval of the Monitoring Committee.

c) TESG requested entity **to exclude the charges for Dearness Allowances (DA) (i.e. $ 50)** considered in the BoQ, as Dearness Allowances are usually given to the participants by their respective organisations.

d) TESG also informed the entity that a detailed **Module-wise break-up of BoQ,** may be submitted by the entity. TESG also informed entity to prepare cost breakup details for each participant so that if any person doesn't attend the training, the amount unspent against him, may be calculated accordingly.

e) As this Capacity Building/Study Programme will take place in four batches and project milestones includes various activities such as tendering, execution, physical completion, financial closure etc., hence, TESG advised entity to consider **realistic timelines (instead of 4 months) for completion of this project.** Accordingly, details about Physical/Financial Milestones may be submitted by the entity.

f) **TESG requested entity to submit signed copy of point-wise replies to all the above observations/deliberations made by the TESG members along with the supporting documents**.

Reference: CC/HRD/NRPC/2024-25/Overseas **Date:** 27.01.2025

To,

The Executive Engineer (Protection),
Northern Regional Power Committee Secretariat,
Ministry of Power, Government of India
New Delhi.

Kind Attention: Sh. Reeturaj Pandey

Sub: Overseas Program on **"International Best Practices in Energy Transition (With study tour to Europe)"** for NRPC constituents.

Dear Sir,

In reference to your request for the subject mentioned program, please find below our offer. The details may be seen below.

I. **Name of Program:** International Best Practices in Energy Transition with Study tour to Europe (With study tour to Netherlands, Germany, & Switzerland)
II. **Venue:** PAL Manesar (Domestic portion), Netherlands, Germany, & Switzerland (Overseas portion)
III. **Duration:**
    i. Domestic Portion: One day domestic at PAL, Manesar
    ii. Overseas portion: Seven days.
IV. **Dates:** April to July 2025 (All four batches) will be finalized after mutual discussion.

- The **scope of services** will be as mentioned below:

I. Tuition fees,
II. Boarding & Lodging,
III. Airport transfers,
IV. Training kit including trolley bags & Blazer,
V. Visa charges,
VI. Air fare economy class (Delhi to Europe to Delhi),
VII. Medical cum travel insurance,
VIII. Disbursal of per-diem (@ $50 per day for 07 days per participant),
IX. Tickets (if any) to official engagements (entry tickets to sight-seeing, conferences etc.) and
X. Membership to ASCI alumni network

- **Fee** (including GST):

i. Fee for one batch up to 15 participants:	INR 1,77,00,000.00
ii. Per Participant fee for additional participants above 15:	INR 11,80,000.00
iii. Fee for four batches of 15 participants each with total 60 participants:	INR 7,08,00,000.00

- **Payment Terms:**

I. Minimum Billing will be done for a batch of 15 participants.
II. 70% payment before the start of each batch based on proforma invoice submitted by POWERGRID to NRPC.
III. 30% after the successful conduct of each batch and submission of GST invoice by POWERGRID to NRPC.

- **Cancellation:**

I. If due to some unforeseen circumstances any participant not attending the program, NRPC will intimate for cancellation in writing, for which there will be cancellation charges as applicable, shall be reimbursable to POWERGRID against the documentary proof submitted by POWERGRID.
II. For cancellation of any batch, NRPC will reimburse actual expenses against the documentary proof provided by POWEGIRD.

- **Validity:** This offer will be valid for till 30.06.2025

Kindly acknowledge the offer and convey your acceptance.

Yours faithfully,
For and on behalf of
Power Grid Corporation of India Limited

27/01/2025
Arun Kumar Goel
General Manager(HRD)
अरूण कुमार गोयल / ARUN KUMAR GOEL
महाप्रबंधक (मा.सं.वि.) / General Manger (HRD)
पावरग्रिड नेतृत्व अकादमी
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
गाँव-ग्वालियर, पोस्ट-पंचगाँव, ताऊरु रोड़, मानेसर,
गुरुग्राम – 122413 (हरियाणा)

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
पूर्व में
पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड (पोसोको)
(भारत सरकार का उद्यम)
CIN: U40105DL2009GOI188682
राष्ट्रीय भार प्रेषण केंद्र

कार्यालय का पता : B-9, 1st Floor, Qutub Institutional Area, Katwaria Sarai, New Delhi - 110016
फ़ैक्स : 011-26524525, 26536901
वैबसाइट : https://psdfindia.in , ई-मेल: psdf@grid-india.in ; nldc.psdf2020@gmail.com

संदर्भ: NLDC-PSDF/88th TESG/2025-26/ दिनाँक:16 अप्रैल 2025

सेवा में,

Member Secretary
Northern Region Power Committee
18-A, Shaheed Jeet Singh Marg, Katwaria Sarai
New Delhi-110016
Email: ms-nrpc@nic.in

विषय/Subject: Examination of the following proposal during the 88th meeting of TESG held on 7th March 2025.

प्रस्ताव का नाम / Proposal Name: NRPC: Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (Proposal No.- 480)

महोदय,

The subject proposal of NRPC and the DPR furnished by them were discussed in the 88th TESG meeting held on 07.03.2025. The relevant extracts of deliberations and observations recorded during the meeting are as per the attached **Annexure-I.**

This is for your information please.

सादर धन्यवाद,

भवदीय

S.C Dambhare
Convener of Techno Economic Subgroup
Chief General Manager (PSDF)
NLDC-Grid India

प्रति :

1. CE(NPC), CEA
2. ED, NLDC-Grid India

Annexure- 1

NRPC: Capacity Building /Study Programme on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (480)

Summary of the project:

a) Estimated cost of project is **₹7.08 Crores (with GST).** The program is likely to be held between **01.04.2025 to 31.07.2025.**
b) Training program is proposed to be conducted for **4 batches each of 15 participants** from various utilities of Northern region including CTU, SLDCs, STUs, Generators, ISTS Licensees, DISCOM, Grid-India (NLDC/NRLDC), NRPC Sectt, CEA and Ministry of Power. Each batch will have one-day domestic training at PAL Manesar, 7 days training in Europe (Netherland, Germany and Switzerland) and 2 days for travel.
c) Program is being executed by Power-Grid in association with Administrative Staff College of India (ASCI).
d) The study tour program offers several merits, below are the key merits:
    1. Exposure to international Best Practices
    2. Knowledge Transfer on Renewable Energy Integration
    3. Understanding of Energy Market Structures
    4. Insights into Hydrogen Economy
    5. Technical Knowledge on Grid Management
    6. Capacity Building for Future Energy Challenges

Evaluation of DPR:

A. Summary of project:	
i. Cost of Project	**₹ 7.08 Crores**
ii. Name of the requesting Organization / Utility	NRPC
iii. Authorized Person For this Project / Scheme / Activity	Provided
iv. Short Summary of Project / Scheme / Activity	Provided
v. Name of the Project / Scheme / Activity	Provided
vi. Objective of the Project / Scheme / Activity	Provided
vii. Identified Beneficiaries	Provided
viii. Copy of the appraisal report	**Provided**
ix. Format A5	**Provided**
x. Format A6	**Not Provided properly**
xi. Board Approval	**Not Provided**
B. Executing agency : Give the details of the executing agency including their performance record, justification behind the recommendation of the particular executing agency for implementing this project/ scheme/ activity.	Power-Grid through Administrative Staff College of India.
C. Funding: The project is to be funded partly through self-contribution and partly through grant from PSDF as per categorization of the project. Both internal and external sources of funding may be specified along with respective quantum of funding.	Entity requested for 100% funding.
D. Time line for Implementation of Project / Scheme / Activity	**FY 2025-26**
E. Technical details:	**Not Required**
F. Implementation schedule / milestones	
i) target for physical milestones	Provided
ii) targets for financial milestone	Provided

Observations/ Requirements:

TESG Member	**Inputs required/ comments of Members**

NLDC	1. Copy of MoM of the 52nd TCC & 77th NRPC meeting provided. 2. Justification for selection of the implementing agency. 3. Proposed payment terms in the DPR are not aligned with PSDF disbursement guidelines. 4. Detailed BoQ in excel sheet may be provided.
NPC	5. Estimated cost of project is **₹7.08 Crores** inclusive of GST. The duration of project from **01.04.2025 to 31.07.2025** and requested for 100% funding as per clause 5.1(f) of PSDF guideline-2024. **6.** Entity has provided relevant minutes of 52nd TCC meeting of NRPC and 77th NRPC meeting in which proposal was approved. **TESG may decide further Board Approval required or not.** 7. Entity has to be provided Format A6 of PSDF guideline-2024 on non-judicial stamp paper of Rs. 50. 8. Time duration of project is 4 months. Entity is requested **to provide realistic time duration** and also include time for financial closing of this. **9.** Entity has already chosen the executive agency which is POWERGRID**. Whether tender for this proposal, will be floated by the entity or not. Please explain.** 10. Cost estimates are based on only one Budgetary offer (BO) from POWERGRID. Entity is requested to provide 2 more BOs and take minimum cost of 3 BOs. 11. Entity informed that 7.08 crores needed for 4 batches of 15 officers each i.e. 1.77 crore for each batch and 11.80 lakh for each participants. However, entity has not provided the BOQ in detailed. **Entity is requested to provide detailed BOQ i.e. detailed cost break up of each and every module and every expense component.** 12. Entity need to ensure that guidelines of **GFR and CVC** are not violated.
PSETD	No Comments
PGCIL Cost Eng.	No Comments
CTU Eng.	No Comments
CTU Plng.	The topics are relevant to the region and may be concurred.

Deliberations in the 88th TESG Meeting:

a) Entity briefed about their project and intimated that this project has already got approval in the 77th NRPC meeting. TESG agreed for considering the minutes of NRPC meetings as **Board approval** for this project.

b) TESG observed that the entity has chosen POWERGRID as the vendor without placing any tenders. **TESG informed the entity that entity has to follow the Tendering process as per PSDF guidelines.** TESG also advised that payment terms in the tender document must be aligned with PSDF fund disbursement pattern. However, if entity opts for any other fund disbursement pattern then the desired fund disbursement pattern may be submitted to NLDC for approval of the Monitoring Committee.

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d) TESG also informed the entity that a detailed **Module-wise break-up of BoQ,** may be submitted by the entity. TESG also informed entity to prepare cost breakup details for each participant so that if any person doesn't attend the training, the amount unspent against him, may be calculated accordingly.

e) As this Capacity Building/Study Programme will take place in four batches and project milestones includes various activities such as tendering, execution, physical completion, financial closure etc., hence, TESG advised entity to consider **realistic timelines (instead of 4 months) for completion of this project.** Accordingly, details about Physical/Financial Milestones may be submitted by the entity.

f) **TESG requested entity to submit signed copy of point-wise replies to all the above observations/deliberations made by the TESG members along with the supporting documents**.

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
राष्ट्रीय भार प्रेषण केंद्र - पावर सिस्टम डेव्लपमेंट फ़ंड सचिवालय

कार्यालय का पता : B-9, 1st Floor, Qutub Institutional Area, Katwaria Sarai, New Delhi - 110016
वैबसाइट : https://psdfindia.in , ई-मेल: psdf@grid-india.in

संदर्भ: NLDC-PSDF/95th TESG/2025-26/ दिनाँक: 13th Feb, 2026

सेवा में,

Member Secretary
Northern Regional Power Committee.
18-A, Shaheed Jeet Singh Marg, Katwaria Sarai,
New Delhi-110016
Email: ms-nrpc@nic.in

विषय/**Sub**: Examination of the following proposal during the 95th meeting of TESG held on 6th January 2026.

प्रस्ताव का नाम / **Proposal Name: Capacity Building /Study Programmes on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (Proposal No: 480)**

महोदय,

The subject proposal of **NRPC** and the DPR furnished by them were discussed in the 95th TESG meeting held on 6th January 2026. The relevant extracts of deliberations and observations recorded during the meeting are as per the attached **Annexure-I.**

This is for your information and necessary action please.

सादर धन्यवाद,

भवदीय

13/02/2026

T. Bheemesh
Chief Manager (PSDF)
NLDC-Grid India

प्रति :

1. CE(NPC), CEA
2. ED, NLDC-Grid India
3. CGM (SO/PSDF), NLDC-Grid India- Convener of Techno Economic Subgroup

Annexure- 1

NRPC: Capacity Building /Study Programmes on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (Proposal No: 480)

- Estimated cost of project : ₹6.88 Cr
- Accepted Estimated Cost of DPR : ₹6.02 Cr
- Recommended Grant (100%) : ₹6.02 Cr

This proposal was examined and cleared by TESG in its 92nd meeting and the same put up for approval of Appraisal Committee in its 39th meeting, wherein this proposal was not recommended by Appraisal Committee & considered as business as usual. However, during the 26th Monitoring Committee meeting of PSDF, it was decided to accept Capacity Building project for PSDF funding. Therefore, this project was again being put up in TESG for further deliberation.

Deliberations in the 95th meeting of TESG:

a. TESG informed the entity that during the 26th Monitoring Committee meeting of PSDF, it was decided to accept Capacity Building project for PSDF funding of 70% and rest 30% cost to be borne by entity from its own sources. In this regard, TESG requested entity to submit its consent on 70% funding from PSDF for this project and 30% cost to be borne by entity from its own internal sources.

b. **TESG evaluated this proposal and found that the reply submitted by the entity is generally in order and hence, recommended the proposal of NRPC on "Capacity Building /Study Programmes on International Best Practices in Energy Transition for Constituents of Northern Regional Power Committee (Proposal No: 480)" at total estimated cost of ₹6.02 crores with GST, and with eligible 70% grant (as decided by the 26th Monitoring Committee) under the clause 5.1(f) of PSDF guidelines i.e. ₹4.214 crores (including GST) to Appraisal Committee of PSDF, subject to submission of the consent letter for acceptance of 70% funding from PSDF.**

NORTHERN REGIONAL POWER COMMITTEE
KATWARIA SARAI, NEW DELHI

CONDUCT OF BUSINESS
Rules, 2026

April 2026

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CHAPTER-I: GENERAL

1. Short title and commencement

1.1 Government of India, under the provision of Section 2, Subsection 55 of the Electricity Act 2003 vide resolution F.No. 23/21/2021-R&R dated 3rd December 2021 (copy enclosed) published in the Gazette of India has established the Northern Regional Power Committee herein after referred to as NRPC comprising of states of Delhi, Haryana, Himachal Pradesh, Punjab, Rajasthan, Uttaranchal and Uttar Pradesh and the Union Territories of Chandigarh, Jammu & Kashmir and Ladakh.

1.2 As per the clause-9 of the aforesaid resolution dated 3rd December 2021, the NRPC hereby makes the following rules which may be called "The Northern Regional Power Committee (Conduct of Business) Rules, 2026".

1.3 These rules shall come into force from the date of its approval by the NRPC and shall remain in force unless otherwise modified.

2. Definitions

2.1. In these Rules unless the context otherwise requires:

(a) 'Act' means the Electricity Act, 2003.

(b) 'Agenda' means the list of business proposed to be transacted at a meeting of the Committee or Sub-Committee.

(c) 'Authority' means Central Electricity Authority.

(d) 'Commercial Sub-Committee (CSC)' means a sub-committee constituted by the Committee to consider commercial related issues.

(e) 'Commission' means Central Electricity Regulatory Commission.

(f) 'Committee' means the Northern Regional Power Committee constituted by the Central Government under Sub-Section (55) of Section 2 of the Electricity Act, 2003.

(g) 'Government Resolution' means resolution No. 23/21/2021-R&R dated 3rd December 2021, notified by Government of India and amendment(s) thereon.

(h) 'IEGC' means the Indian Electricity Grid Code, specified by Central Electricity Regulatory Commission.

(i) LGBR Sub-Committee means a sub-committee constituted by the committee to -

i. finalise annual outage plan of generating stations

ii. prepare anticipated power supply position for next fiscal and

iii. for periodic review of (i) & (ii).

(j) 'Meeting' means a meeting of the committee / sub-committee convened by the Member Secretary, NRPC Secretariat or any member authorized to convene a meeting in the absence of the head of Secretariat.

(k) 'Member' means the member of the as per Resolution of the Government of India on establishment of NRPC dated 3rd December 2021 and as amended from time to time.

(l) 'NLDC' means National Load Despatch Centre.

(m) 'NRLDC' means Northern Regional Load Despatch Centre

(n) 'Operational Coordination Sub-Committee (OCC)' means a sub-committee constituted by the NRPC to consider all issues related to operation of the regional grid.

(o) 'Protection Sub-Committee (PSC)' means a sub-committee constituted by the Committee to consider all power system protection related issues.

(p) 'Renewable Energy Sub-Committee (REC)' means a sub-committee constituted by the Committee to consider all Renewable Energy related issues.

(q) 'Rule' means Northern Regional Power Committee (Conduct of Business) Rules as amended.

(r) 'SLDC' means State Load Despatch Centre.

(s) 'Sub-Committee' means the Sub-Committees constituted by NRPC to guide and assist it in conducting the functions assigned to it.

(t) 'System study Sub-Committee' means a sub-committee constituted by NRPC to carry out the Power System studies.

(u) 'Technical Coordination Sub-Committee (TCC)' means a sub-committee constituted by the NRPC to assist the NRPC on all technical, commercial and other matters.

(v) 'TeST Sub-Committee' means a sub-committee constituted by the NRPC to assist the NRPC on all Telecommunication, SCADA & Telemetry related issues.

(w) 'Year' means Financial Year.

2.2. The words and expressions used and not defined in these Rules shall be construed as having the same meaning as defined in the Act.

2.3. Reference to any Acts, Rules and Regulations shall include amendments or consolidation or re-enactment thereof.

3. Functions of NRPC

3.1. As per Clause-6 of the MoP Resolution dated 3rd December 2021 NRPC shall carry out following functions:

3.1.1 To undertake Regional Level operation analysis for improving grid performance.

3.1.2 To facilitate inter-state/inter-regional transfer of power.

3.1.3 To facilitate all functions of planning relating to inter-state/ intra-state transmission system with CTU/STU.

3.1.4 To provide views on the inter-state transmission system planned by CTU within 45 days of receipt of the proposal by the concerned NRPC. The views of NRPC will be considered by National Committee on Transmission for sending their recommendation to Ministry of Power for approval of new inter-state transmission system.

3.1.5 To coordinate planning & maintenance of generating machines of various generating companies of the region including those of inter-state generating companies supplying electricity to the Region on an annual basis and also to undertake review of maintenance programme on a monthly basis.

3.1.6 To undertake planning of outage of transmission system on a monthly basis.

3.1.7 To undertake operational planning studies including protection studies for stable operation of the grid.

3.1.8 To undertake planning for maintaining proper voltages through review of reactive compensation requirement through system study committee and monitoring of installed capacitors.

3.1.9 To evolve consensus on all issues relating to economy and efficiency in the operation of power system in the region.

4. Secretariat of NRPC

4.1. Clause-8 of MoP Resolution dated 3rd December 2021 specifies that "The Committee shall have a Secretariat of its own which will be headed by the Member Secretary of the Committee. The Member Secretary as well as other staff for the Secretariat shall be provided by the Central Electricity Authority in the manner as was being provided to the erstwhile Northern Regional Electricity Board."

4.2. Secretariat, NRPC shall perform the following duties namely;

4.2.1. Keep custody of records of proceedings of the Committee, sub-committees, task force and working groups of the NRPC.

4.2.2. Prepare agenda for the Committee and Sub-Committee meetings.

4.2.3. Prepare minutes of Committee and Sub-Committee meetings.

4.2.4. Take follow-up action on the decision taken in the Committee & Sub-Committee meetings.

4.2.5. Maintain archive of data and information pertaining to commercial accounts, operating parameters, protection system and communication system of the regional power system.

4.2.6. Collect from constituent members or other offices, companies, firms or any other party as may be considered useful for the efficient discharge of functions of NRPC under the Resolution and place the information before the Committee and its sub-committees.

4.2.7. Certification of open cycle generation carried out by central sector gas-based stations.

4.3. The duties and responsibility envisaged under Indian Electricity Grid Code (IEGC) Regulations made by CERC, NRPC Resolution and NRPC from time to time shall be carried out by the NRPC Secretariat.

4.4. In line with the provisions of IEGC the details of functions are given below:

4.4.1. The Member Secretary, NRPC shall investigate and endeavour to resolve the grievance regarding unfair practices, delays, discrimination, lack of information, supply of wrong information or any other matter related to open access in inter-state transmission system.

4.4.2. The Member Secretary, NRPC shall, for the purpose of payment of transmission charges/ capacity charges and incentives, certify:

(i) Availability of Regional AC system and outage hours of HVDC transmission system.

(ii) Availability and Plant Load Factor for ISGS.

4.4.3. Member Secretary, NRPC, shall verify and take up the matter regarding persistent non-compliance of IEGC with the defaulting agency for expeditious termination of the non-compliance. NRPC Secretariat shall maintain appropriate records of such violation.

4.4.4. NRPC Secretariat is to carry out periodic inspection of Under Frequency Relays installed by the constituents and investigate cases of non-operation of such relays at set frequency in actual system operation.

4.4.5. The NRPC Secretariat shall review on monthly basis the Annual outage plan prepared by CEA in consultation with all parties concerned.

4.4.6. The NRPC Secretariat shall be responsible for analyzing the outage schedule given by all Regional Constituents, preparing a draft annual outage schedule and finalization of the annual outage plan for the following financial year by 31st December of each year.

4.4.7. Any other responsibilities assigned by CERC/ CEA Regulations/ NRPC Resolution shall also be carried out by secretariat.

4.5. **Human Resources**

4.5.1. As per MoP Resolution 3rd December 2021, CEA shall provide the officers and staff to man the Secretariat as was being provided to the erstwhile Northern Regional Electricity Board. However, as and when CEA is unable to depute the requisite number of Group “A” or Group “B” Officers, the vacant posts other than Member Secretary, shall be got filled up by drawing

officers from constituents (only from Central/State utilities) on loan/ diversion basis until CEA provides the Officers.

4.5.2. As and when CEA is unable to provide requisite number of Group “C” or “D” officials, the vacant posts shall be got outsourced through competitive bidding route for a period up to two (2) years or until CEA provides the manpower. Their remuneration shall be within the ambit of “Minimum Wages Act, 1948”.

4.5.3. Member Secretary is also empowered to appoint personnel in case of shortage of staff at other levels on secondment basis.

4.5.4. For discharging the functions other than those assigned by the Resolution, NRPC may hire adequate number of persons, experts or consultants.

4.5.5. For the purpose of handling NRPC fund, Member Secretary shall appoint one nodal officer from the constituents of NRPC on secondment basis. In the absence of nodal officer from NRPC constituent, MS, NRPC can temporarily appoint one officer of NRPC Secretariat to handle NRPC fund.

4.6. Contribution towards NRPC Fund

4.6.1. NRPC fund shall be maintained from contributions from members of NRPC for a particular year. A nodal officer shall be appointed as per clause 4.5.5. for the purpose of handling this fund.

4.6.2. The constituents shall deposit their contributions towards NRPC fund, based on the figures approved in the first NRPC meeting held in that financial year. The fund shall be utilized for reimbursement of budgetary allocation from Government of India, expenditure for conducting various meetings/training programs, expenditure for maintenance of NRPC Secretariat, hiring of additional staff/consultants, or any other expenditure as approved by the NRPC forum. Any surplus/ deficits of a particular year shall be adjusted in the subsequent financial year.

4.6.3. All the member constituents of NRPC except CEA, NLDC, NRLDC and CTUIL shall equally share the expenditure of NRPC Secretariat.

4.6.4. Audit shall be done as per SOP issued by Central Electricity Authority and reports for the same shall be placed before NRPC forum.

5. Furnishing of data / information to Secretariat of RPC

5.1. NRLDC and the constituents of the region shall make available all data / information required by the Secretariat to discharge its functions or to carry out any other responsibility / function assigned to it by the Authority / Commission / Committee. It shall also be responsibility of the constituents to ensure that any data though not specifically asked for by the Secretariat, but which may be required for the specific responsibility / function assigned to the Secretariat is also made available to the secretariat.

5.2. NRLDC shall provide to Member Secretary, NRPC a computer terminal to have a view of all the parameters in real time frame of Northern Regional grid system.

6. Chairperson of NRPC

The Chairperson of NRPC would be appointed as per 'Government Resolution' F.No: 23/21/2021-R&R dated 3rd December 2021, as amended from time to time.

7. Website of NRPC

The NRPC shall have its own website which shall be maintained by NRPC Secretariat.

CHAPTER-II: PROCEDURE FOR CONDUCTING NRPC MEETINGS

8. Place and date of NRPC Meeting

8.1. The place and date of the meeting will be decided by Member Secretary, NRPC in consultation with Chairperson, NRPC.

8.2. Meeting will be hosted by the member organizations as per the roster prepared by Member Secretary, NRPC in consultation with the members of the NRPC.

8.3. In case the situations are not conducive for physical meetings, the meetings will be conducted through Video Conferencing.

9. Periodicity of meetings

9.1. The Committee members shall meet at least once in a month, as per para-11 of "Resolution". However, the Committee may meet to discuss any issue as and when required in consultation with Chairperson, RPC.

10. Notice for the Committee meetings and Agenda

10.1. Notice for the Committee meetings shall be issued by Member Secretary, NRPC at least 3 weeks in advance in consultation with Chairperson, NRPC. In case of exigency or meeting through video conferencing, meetings required to be conducted to carry out urgent business, notice of one week is to be given.

10.2. The agenda points for the meeting shall be sent to the Member Secretary by the members at least 2 weeks in advance of the meeting. The member Secretary, NRPC shall finalize the agenda and circulate the same to all its members at least 1 week in advance and also be posted on the website.

10.3. Normally, NRPC shall meet to discuss the agenda related to transmission planning submitted by CTU on monthly basis. Discussions other than those related to transmission planning shall generally be put up after discussions in Technical Co-ordination Sub-Committee (TCC) which will be held as and when required.

10.4. Member Secretary, NRPC may also put any agenda involving urgent matters / policy issue directly before NRPC in consultation with Chairperson, NRPC.

10.5. Member Secretary, NRPC may convene a meeting on short notice on any urgent matter in consultation with Chairperson of the committee.

10.6. On receipt of specific request from a member too, Member Secretary, NRPC may convene a meeting in accordance with clause 10.5 above.

11. Effect of Non-receipt of Notice of Meeting by a Member

11.1. The non-receipt of notice by any member of NRPC or sub-committee shall not invalidate the proceeding of the meeting or any decision taken in the meeting.

12. Cancellation / re-scheduling of Meeting

12.1. If a meeting is required to be cancelled or rescheduled the same shall be intimated to the members at the earliest by e-mail and also posted in NRPC website immediately.

13. Quorum of NRPC Meeting

13.1. The Quorum of the meeting shall be at least 50% of its members. The Member Organization may nominate their representatives to represent NRPC meetings through official communication and the representative would be considered as quorum.

13.2. All decision in the NRPC shall be taken by consensus.

13.3. The decisions / ratifications made by the Committee during the meeting with the above quorum shall be treated as final.

13.4. The decision of the NRPC arrived at for Operation of the Regional Grid and Scheduling and dispatch of electricity shall be followed by Northern Regional Load Despatch Centre (NRLDC) subject to the directions or regulations of the Commission.

13.5. Only members of NRPC and not more than two representatives of his organization shall participate in the Committee meeting. Other persons may attend the meeting by invitation / permission only. However, voting rights will be available only to the Members of NRPC.

14. Presiding Authority

14.1. The Chairperson, NRPC shall preside over the meeting of NRPC and conduct business. The Member Secretary, NRPC shall assist the Chairperson of NRPC in conducting the meeting. If the Chairperson is unable to be present at the meeting for any reason, the senior member of NRPC from the State utilities present in the meeting shall be requested by Member Secretary to preside over the meeting.

14.2. In the absence of Member Secretary, NRPC the next senior most officer of the NRPC Secretariat shall convene the meeting.

15. Recording of the minutes

15.1 The minutes of the meeting shall be finalized and circulated to all its members by the Member Secretary, NRPC within 15 working days from the date of the Committee Meeting. The minutes shall also be posted on the website of NRPC.

15.2 The discussions during the meeting shall be Audio recorded and the record shall be kept at the secretariat of NRPC till the confirmation of the minutes. The member organization hosting the meeting shall extend all facilities for audio recording of the proceedings of the meeting.

16. Confirmation of the Minutes

16.1 Minutes of the NRPC meeting shall be placed in the next meeting for confirmation. However, in case of urgency the minutes may be confirmed by circulation.

CHAPTER-III: SUB-COMMITTEES OF NRPC

17. Constitution of Sub-Committees of NRPC

17.1. Following Sub-Committees will be constituted by NRPC to guide and assist it in conducting the functions assigned to it:

(a) Technical Co-Ordination Sub-Committee (TCC)

(b) Operation Co-Ordination Sub-Committee (OCC)

(c) Commercial Sub-Committee (CSC)

(d) Protection Sub-Committee (PSC)

(e) System Study Sub-Committee (SSC)

(f) LGBR Sub-Committee

(g) Telecommunication, SCADA & Telemetry (TeST) Sub-Committee

(h) Renewable Energy Sub-Committee (REC)

17.2. NRPC or Member Secretary, NRPC or any Sub-Committee may constitute task force, core group for specific purpose from among the members and external experts to advice on any specific issue.

18. Technical Co-Ordination Sub-Committee (TCC)

18.1. **Functions**:

18.1.1. Technical Co-ordination Sub-Committee, shall consider all issues referred by the Operation Co-Ordination Sub-Committee, Commercial Sub-Committee, Protection Sub-Committee, System Study Sub-Committee, TeST Sub-Committee and Renewable Energy Sub-Committee concerning operation of regional grid, commercial aspects, inter-state/ inter-regional transfer of power, grid stability etc. leading to economy and efficiency in the operation of power system in the region.

18.1.2. TCC shall implement the decisions of the NRPC and also provide guidance and assist NRPC in discharge of its functions and formulation of policy matters on regional grid operation, grid security, and commercial matters.

18.2. **Composition of Technical Co-ordination Sub-Committee:**

18.2.1. TCC shall be represented by the Technical Members of the NRPC constituents dealing with the Generation / transmission / Distribution and representative from Central Electricity Authority. The representation shall be at the level of Technical Heads in State Utilities, Executive Directors / Chief General Managers or equivalent in PSUs / Technical Heads of Distribution company / Traders / IPPs and Chief Engineer in CEA.

18.2.2. Chairperson, NRPC from their concerned State shall appoint the Chairperson of TCC. Chairperson, TCC shall be rotated every year from among the States in the same order as Chairperson of NRPC.

18.3. **Meetings:**

18.3.1. TCC shall meet before the NRPC meeting and put up its recommendations to the NRPC.

18.3.2. TCC shall meet separately also as and when needed to address urgent issues or specific issues, if any, concerning the operation of regional grid, security of the grid, commercial matters and other issues.

18.3.3. The Chairperson of the TCC shall preside over the meeting. In case Chairperson is unable to be present, Member Secretary, NRPC shall request a person among TCC members to preside over the meeting.

18.3.4. Member Secretary, NRPC shall assist Chairperson, TCC in conducting TCC Meeting.

19. Operation Co-Ordination Sub-Committee (OCC)

19.1. **Functions:**

Operation Co-ordination Committee(OCC) shall discuss all issues related to operation of the regional grid viz. estimating availability of power and energy from each power station and demand of each State for the current and next month; drawing up coordinated maintenance schedule for generating units and major transmission lines; reviewing operational discipline and its norms to be observed by constituents; reviewing the operation of Automatic Under-Frequency Relays; discussing system occurrences, if any, during the previous month and reviewing the status of implementation of the recommendations of the Inquiry Committees; monitoring / reviewing violation of provisions of IEGC related to grid operation; discussing / reviewing measures for ensuring economic grid operation including optimisation of energy transfer with other regions; examining possibility of optimising intra-regional energy exchanges; discussing optimisation of energy transfer with other regions; and any other matter referred by the TCC/NRPC.

19.2. **Composition of Operation Co-Ordination Committee:**

19.2.1. OCC shall be represented by the representatives of the constituent members of NRPC. The nominated representative shall be at the level of Chief Engineers in State Utilities/ General Manager in CPSEs or equivalent level conversant with operational issues.

19.2.2. Member Secretary, NRPC shall be Chairperson of the OCC and preside over the meetings. Superintending Engineer of NRPC Secretariat shall be convener of the OCC.

19.3. **Meetings:**

The meeting will be held every month generally before 20th day of that month.

20. Commercial Sub-Committee (CSC):

20.1. Functions:

Commercial Sub-Committee(CSC) shall discuss all commercial related issues viz. energy accounting, schemes required for inclusion in the Bulk Power Supply Agreements, requirement of power from the new projects, installation of special energy meters and its cost sharing, etc., metering aspects, reviewing of the payments towards Regulatory accounts, issues related to transmission charges, commercial issues in inter-state and inter-regional exchange of power, issues concerning settlement of payments among constituents, if any, etc. and any other matter referred by the TCC/NRPC. Commercial Committee shall audit the Regional Energy Accounts and DSM, Reactive Energy and other Pool Accounts.

20.2. Composition of Commercial Sub-Committee (CSC):

20.2.1. Commercial sub-committee shall be represented by the representatives of the constituent members of RPC.

20.2.2. The nominated representative shall be at the level of Chief Engineers in State Utilities/ General Manager in CPSEs or equivalent level conversant with commercial issues.

20.2.3. Member Secretary, NRPC shall be Chairperson of the CSC and preside over the meetings. Superintending Engineer of NRPC Secretariat shall be convener of the CSC.

20.3. Meetings:

The meeting will be held quarterly or as and when required to address the issues of urgent nature.

21. Protection Sub-Committee (PSC)

21.1. Functions:

Protection Sub-Committee (PSC) shall discuss all power system protection related issues viz. analysis of system disturbances in the region, review of protective relaying schemes, relay co-ordination islanding schemes, automatic under frequency load shedding schemes, review of the implementation of recommendations made by the Inquiry Committee of the grid disturbance in the region concerning the above matters, etc. and any other matter referred by the TCC/NRPC.

21.2. Composition of Protection Sub-Committee:

21.2.1. Protection Sub-Committee shall be represented by constituent members of NRPC.

21.2.2. The nominated representative shall be at the level of Chief Engineers in State Utilities/ General Manager in CPSEs or equivalent level and concerns with power system protection / testing in the region.

21.2.3. Member Secretary, NRPC shall be Chairperson of the PC and preside over the meetings. Superintending Engineer of NRPC Secretariat shall be convener of the PC.

21.3. **Meetings:**

The meeting will be held monthly or as and when required to address the issues of urgent nature.

22. System Study Sub-Committee (SSC):

22.1. **Functions:**

System Study Sub-Committee shall carry out following system studies:

i. Studies for assessment of the quantum of capacitors required in the region taking into account the expected additions in the generation and transmission systems and the low voltage conditions in the system.

ii. Studies for review of reactive compensation requirement.

iii. Operational load flow studies, as and when required, for peak conditions off peak conditions etc.

iv. Short-circuit studies as and when required.

v. Transient stability studies for major events like grid disturbances or other issues periodically or as and when requested by the constituent(s).

vi. System studies related to transmission constraints.

vii. Studies specific to high / low voltage conditions with specific reference to reactors or capacitors operation / requirement.

viii. Identification of requirement of reactors as and when required

ix. Co-relation of protection related issues from Studies as and when required.

x. Any other technical study referred by the NRPC/TCC.

22.2. **Composition Of System Study Sub-Committee:**

22.2.1. System Study Sub-Committee shall be represented by constituent members of NRPC.

22.2.2. The nominated representative shall be at the level of Executive Engineers in State Utilities / Deputy General Manager in CPSEs or equivalent level and conversant with issues related to system studies in the region.

22.2.3. Member Secretary, NRPC shall be Chairperson of the SSC and preside over the meetings Superintending Engineer of NRPC Secretariat shall be convener of this Sub-Committee.

22.3. **Meetings:**

As and when required, as decided by the Member Secretary, NRPC.

23. LGBR Sub-Committee

23.1. **Functions:**

LGBR Sub-Committee shall carry out the following functions in accordance with the provisions of Indian Electricity Grid Code:

i. Finalise annual outage plan of generating stations.

ii. Prepare anticipated power supply position for the next fiscal year.

iii. Periodic review of annual outage plan of generating stations and anticipated power supply position.

23.2. **Composition of LGBR sub-committee:**

23.2.1. LGBR Sub-Committee shall be represented by constituent members of NRPC.

23.2.2. The nominated representative shall be at the level of Chief Engineers in State Utilities/ General Manager in CPSEs or equivalent level and conversant with issues related to system studies in the region.

23.2.3. Member Secretary, NRPC shall be the Chairperson of the LGBR Sub-Committee and preside over the meetings. Superintending Engineer of NRPC Secretariat shall be convener of the LGBR Sub-Committee.

23.3. **Meetings:**

Meetings will be held as and when required to be decided by the Member Secretary, NRPC.

24. Telecommunication, Scada & Telemetry (TeST) Sub-Committee

24.1. **Functions:**

TeST Sub-Committee shall meet to deliberate upon Telecommunication, SCADA and Telemetry schemes of NR and issues thereon in accordance with the provisions of Indian Electricity Grid Code.

24.2. **Composition of TeST Sub-Committee:**

24.2.1. TeST Sub-Committee shall be represented by constituent members of NRPC.

24.2.2. The nominated representative shall be at the level of Chief Engineers of State Utilities/General Manager of CPSEs or equivalent level and conversant with Telecommunication, SCADA & Telemetry in the region.

24.2.3. Member Secretary, NRPC shall be Chairperson of the TeST Sub-Committee and preside over the meetings. Superintending Engineer of NRPC Secretariat shall be convener of the TeST Sub-Committee.

24.3. **Meetings:**

The meeting will be held quarterly or as and when required to address the issues of urgent nature.

25. Renewable Energy Sub-Committee (REC)

25.1 Functions:

RE Sub-Committee shall meet to deliberate upon issues related to Renewable Energy resources, its integration in grid, evacuation and other related issues.

25.2 Composition of RE Sub-Committee:

25.2.1 RE Sub-Committee shall be represented by all ISTS connected RE generators, state RE generators having capacity 250 MW & above, MNRE, SECI, Association of RE Generators, NLDC, NRLDC, CTUIL, Qualified Coordinating Agency (QCA), Powergrid, STU and SLDC of RE rich states where REMC is operated.

25.2.2 The nominated representative shall be at the level of Chief Engineers of State Utilities/General Manager of CPSEs or equivalent level and conversant with Renewable Energy domain in the region.

25.2.3 Member Secretary, NRPC shall be Chairperson of the RE Sub-Committee and preside over the meetings. Superintending Engineer of NRPC Secretariat shall be convener of the RE Sub-Committee.

25.3 Meetings:

25.3.1 The meeting will be held quarterly or as and when required to address the issues of urgent nature.

CHAPTER-IV: PROCEDURE FOR CONDUCTING SUB-COMMITTEE MEETINGS OF NRPC

26. Conducting of Sub-Committee Meetings, issue of Notice, Agenda & its Minutes

26.1 The notice for the above sub-committee meeting shall be issued at least 15 days before the date of meeting and agenda points one week before the meeting by the NRPC Secretariat. However, when the meeting is to be held through video conferencing, this period may be reduced to 10 days and 3 days respectively. The minutes of the meeting shall be finalized by Member Secretary and issued by NRPC Secretariat within 15 working days of the meeting.

26.2 The decision of the Committee arrived at for Operation of the Regional Grid and other above functions shall be implemented by the Constituents. In case the Sub-committee recommends the matter to the TCC / NRPC, for further deliberation or decision, the same shall be referred by NRPC secretariat to TCC/ NRPC.

26.3 The meetings will be conducted at the place and venue preferably located in the Region to be decided by Member Secretary, NRPC. In case the situations are not conducive for physical meetings, the meetings will be conducted through Video Conferencing.

26.4 Meeting may be hosted by the member organizations as decided by Member Secretary, NRPC in consultation with the members of the sub-committee. All the arrangements required for conducting the meeting shall be made by the host member organisation.

CHAPTER-V: Operation of "NRPC-Fund"

27. NAME:

The name of the fund shall be "NRPC-Fund". The fund is accumulated amount of contribution fee collected from constituent members of NRPC.

28. PURPOSE:

i) The fund shall be utilized for meeting the reimbursement of the actual expenditure incurred (from budget provided by Central Electricity Authority) by the office of the NRPC Secretariat to the consolidated fund of Govt. of India/CEA through DDO, NRPC;

ii) The fund shall be utilized for meeting the expenditure in the conduct of NRPC meetings, workshops, seminars etc.;

iii) The fund shall be utilized to meet any other office expenditure considered necessary by Member Secretary, for efficient working of NRPC Sectt., with the approval of Chairman, NRPC;

iv) The fund shall be used for meeting expenditure of NRPC Secretariat as per SOP issued by CEA.

29. CONTRIBUTION:

All the Members and rotational members except the following shall contribute equally on annual basis, which shall be decided every year in NRPC meeting based on review of actual expenditure of the previous year and estimated expenditure in current/next year:

i) NLDC/NRLDC/SLDCs

ii) Member (Go&D), CEA

iii) MS, NRPC

iv) Exempted by MoP

30. OPERATION:

The fund will be maintained with any Nationalized bank in the name of Northern Regional Power Committee (NRPC) and operate jointly by the nodal officer from the Constituent member along with two more signatory to be nominated with the approval of Member Secretary, NRPC on behalf of NRPC Members. The operation of account will be done under the administrative control / supervision of Member Secretary. All transaction from this account shall be through Cheque/NEFT/RTGS only.

31. MAINTENANCE OF ACCOUNTS:

The account of all the expenditure/receipts shall be maintained by the nodal officer (as per para 29 above) on behalf of NRPC Member. Such officer shall also maintain a cash book etc., where in details of all receipts and expenditure shall be recorded.

32. VERIFICATION OF ACCOUNTS:

The “NRPC – Fund” account for each financial year shall be audited as per SOP issued by CEA.

CHAPTER-VI: REPORTS

33. REPORTS BY NRPC

33.1 The following reports shall be prepared and furnished by NRPC secretariat:

S. No.	Name of the report	Periodicity
1	Monthly Progress Report Northern Regional Grid / Operational Data	Monthly
2	Annual Report of NRPC	Annual

CHAPTER-VII: MISCELLANEOUS

34. Saving of inherent Power of the NRPC

34.1 Nothing in these Rules shall bar the NRPC from adopting in conformity with the Act a procedure that is at variance with provisions of these Rules, if the NRPC in view of the special circumstances of a matter or class of matters deem it necessary or expedient to deal with such a matter or class of matters.

34.2 Nothing in these Rules shall expressly or by implication, bar the NRPC to deal with any mater or exercise any power under the Act for which no Rules have been framed and NRPC may deal with such matters, and functions in a manner it thinks fit.

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Procedure for Utilization of NRPC Guest House Charges Fund

1. Objective

To provide a structured mechanism for the utilization of the Guest House Fund for the maintenance, operation, and upgradation of the NRPC Guest House.

2. Sources of the Fund

- **Recurring Income:** 50% of the Receipts from room rent/charges paid by occupants.
- **Interest:** Any interest accrued on the fund balance.

3. Authorized Areas of Expenditure

Funds shall be utilized for the following purposes:

- Maintenance & Upkeep,
- Consumables & Fixed Assets.
- For routine upkeep and day-to-day operational contingencies of the Guest House, *NRPC Guest House Imprest* shall be recouped up to Rs. 10000/- from NRPC Guest House Charges Fund.

However, in case of non-availability of fund in '*NRPC Guest House Charges*', expenses may be incurred from NRPC Fund also.

4. Guest House Committee

- A three member Guest House Committee under SE(Services) along with Guest House-In charge and AS, NRPC to be formed. The committee to review Guest House quarterly or as and when required and recommend Services Circle to take up any Maintenance, or procurement of any major items except consumables. Any maintenance of urgent nature may be carried out by services circle.

4. Financial Procedure & Approval Limits

- **Routine Expenditure:** The Member Secretary, NRPC, shall have powers to sanction expenditure for routine maintenance and procurement within the available fund balance.
- **Major Capital Expenditure:** Proposals for major refurbishment or significant asset purchases above 25 Lakhs shall be put up for approval in the NRPC.

6. Accounting

- Stock Register for Consumables and Fixed Asset to be maintained by Services Circle, NRPC for *NRPC Guest House Charges* Fund.
- Separate ledger account to be maintained by DDO, NRPC for the *NRPC Guest House Charges* Fund.

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