सत्यमेव जयते

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

विषय: उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की **232**वीं बैठक का कार्यवृत |

Subject: Minutes of the **232**nd OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की **232**वीं बैठक दिनांक 17.06.2025 को आयोजित की गयी थी। उक्त बैठक का कार्यवृत्त उत्तर क्षेत्रीय विद्युत समिति की वेबसाइट http://164.100.60.165 पर उपलब्ध है। यदि कार्यवृत पर कोई टिप्पणी हो तो कार्यवृत जारी करने के एक सप्ताह के अन्दर इस कार्यालय को भेजें |

The **232**nd meeting of the Operation Co-ordination Sub-Committee (OCC) of NRPC was held on 17.06.2025. The Minutes of this meeting has been uploaded on the NRPC website http://164.100.60.165. Any comments on the minutes may kindly be submitted within a week of issuance of the minutes.

संलग्नक:यथोपरि।

(डी. के. मीना) 08/07/25
अधीक्षण अभियंता (प्रचालन)

सेवा में,

उ.क्षे.वि.स. के प्रचालन समन्वय उप-समिति के सभी सदस्य

List of addressee (via mail)

OCC Members for FY 2025-26			
S. No.	**OCC Member**	**Category**	**E-mail**
1	NLDC	National Load Despatch Centre	nomination awaited (susha@grid-india.in)
2	NRLDC	Northern Regional Load Despatch Centre	somara.lakra@grid-india.in
3	CTUIL	Central Transmission Utility	sandeepk@powergrid.in
4	PGCIL	Central Government owned Transmission Company	rtamc.nr1@powergrid.in rtamcjammu@powergrid.in cpcc.nr3@powergrid.in
5	NTPC	Central Generating Company	RAMESHSINGH@NTPC.CO.IN
6	BBMB		powerc@bbmb.nic.in
7	THDC		ravindrasrana@thdc.co.in
8	SJVN		sjvn.cso@sjvn.nic.in
9	NHPC		surendramishra@nhpc.nic.in
10	NPCIL		df@npcil.co.in
11	Delhi SLDC	State Load Despatch Centre	gmsldc@delhisldc.org
12	Haryana SLDC		cesocomml@hvpn.org.in
13	Rajasthan SLDC		ce.ld@rvpn.co.in
14	Uttar Pradesh SLDC		cepso@upsldc.org
15	Uttarakhand SLDC		se_sldc@ptcul.org
16	Punjab SLDC		ce-sldc@pstcl.org
17	Himachal Pradesh SLDC		cehpsldc@gmail.com
18	DTL	State Transmission Utility	bl.gujar@dtl.gov.in
19	HVPNL		cetspkl@hvpn.org.in
20	RRVPNL		ce.ppm@rvpn.co.in
21	UPPTCL		smart.saxena@gmail.com
22	PTCUL		ce_oandmk@ptcul.org
23	PSTCL		ce-tl@pstcl.org
24	HPPTCL		gmprojects.tcl@hpmail.in
25	IPGCL	State Generating Company	ncsharma@ipgcl-ppcl.nic.in
26	HPGCL		seom2.rgtpp@hpgcl.org.in
27	RRVUNL		ce.ppmcit@rrvun.com
28	UPRVUNL		cgm.to@uprvunl.org
29	UJVNL		gm_engg_ujvn@yahoo.co.in
30	HPPCL		gm_generation@hppcl.in
31	PSPCL	State Generating Company & State	ce-ppr@pspcl.in

		owned Distribution Company	
32	DHBVN	State owned Distribution Company (alphabetical rotational basis/nominated by state govt.)	(cecommercial@dhbvn.org.in)
33	Ajmer Vidyut Vitran Nigam Ltd.		nomination awaited (md.avvnl@rajasthan.gov.in)
34	Purvanchal Vidyut Vitaran Nigam Ltd.		nomination awaited (mdpurvanchalvvnl@gmail.com)
35	UPCL		cgmupcl@yahoo.com
36	HPSEB		cesysophpsebl@gmail.com
37	Prayagraj Power Generation Co. Ltd.	IPP having more than 1000 MW installed capacity	sanjay.bhargava@tatapower.com
38	Aravali Power Company Pvt. Ltd		amit.hooda01@apcpl.co.in
39	Apraave Energy Ltd.,		rajneesh.setia@apraava.com
40	Talwandi Sabo Power Ltd.		ravinder.thakur@vedanta.co.in
41	Nabha Power Limited		Durvesh.Yadav@larsentoubro.com
42	MEIL Anpara Energy Limited		arun.tholia@meilanparapower.com
43	Rosa Power Supply Company Ltd		Suvendu.Dey@relianceada.com
44	Lalitpur Power Generation Company Ltd		avinashkumar.ltp@lpgcl.com
45	MEJA Urja Nigam Ltd.		rsjuneja@ntpc.co.in
46	Adani Power Rajasthan Limited		manoj.taunk@adani.com
47	JSW Energy Ltd. (KWHEP)		roshan.zipta@jsw.in
48	Transition Cleantech Services Private Limited	IPP having less than 1000 MW installed capacity (alphabetical rotational basis)	nomination awaited (kswamidoss@evrenenergy.com)
49	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	sojpdd@gmail.com
50	UT of Ladakh		cepdladakh@gmail.com
51	UT of Chandigarh		seelo-chd@nic.in

		entities engaged in generation/ transmission/	
52	Tata Power Delhi Distribution Limited	Private Distribution Company in region (alphabetical rotational basis)	nomination awaited (sandeep.k@tatapower-ddl.com)
53	Gurgaon Palwal Transmission Limited	Private transmission licensee (nominated by central govt.)	nomination awaited (samriddhi.gogoi@indigrid.com)
54	PTC India Limited	Electricity Trader (nominated by central govt.)	nomination awaited (bibhuti.prakash@ptcindia.com)

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उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 232 वीं बैठक का कार्यवृत्त

The 232nd OCC meeting of NRPC was held on 17.06.2025 through video conferencing. MS, NRPC welcomed all the participants connected through VC in the meeting from power utilities of Northern Region.

खण्ड-क:उ.क्षे.वि.स. PART-A:NRPC

A.1. Confirmation of Minutes

Minutes of the 231st OCC meeting was issued on 12.06.2025.

IndiGrid has mentioned that for agenda item no. A.17. Table Agenda - Rectification of the breaker and charging of the 220kV Sunam (PS)-Patran (indiGrid) Circuit (Agenda by Punjab SLDC), *following has been recorded in the minutes that the circuit breaker has been procured and will be replaced by IndiGrid. However, it was mentioned during the meeting that a specific power card is to be replaced.*

OCC confirmed the minutes of the meeting with above revision.

A.2. Status of action taken on decisions of 231st OCC meeting of NRPC

A.2.1. MS, NRPC conveyed that the agenda has been taken to track the status of action taken as per decision of last meeting. Accordingly, issues may be resolved at the earliest.

A.2.2. Concerned utilities submitted the status of action taken.

Decision of OCC Forum:

Concerned utilities submitted the status of action taken and the same has been complied as ***Annexure-A.I****.*

A.3. Review of Grid operations of May 2025

Anticipated vis-à-vis Actual Power Supply Position (Provisional) for May 2025

Reasons submitted by States for significant deviation of actual demand from anticipated figures during the month of May 2025 are as under:

- **Delhi**

In May- 2025, Delhi experienced higher than usual rainfall. As a result, both maximum and average temperature remained consistently below normal so peak demand and energy consumption was on lower side than expected.

- **Haryana**

  The actual demand felt is within 5% of the projected demand in MW. Further, there is substantial reduction in Rural Agri load in the month of May-25. In May-24, total rural agricultural consumption was 8852 LUs whereas in May-25, it is 4898 LUs only.

- **Himachal Pradesh**

  The Anticipation in Energy Requirement as well as in peak demand in respect of Himachal Pradesh for the month of May, 2025 came on the lower side due to the bad weather (rainfall) and low temperature conditions.

- **Punjab**

  Actual energy requirement and actual maximum demand are less as compared to anticipated energy requirement and anticipated maximum demand respectively because of rainfall in first and last week in the month of May 2025 in the state of Punjab.

- **Rajasthan**

  The Actual Peak Demand and Energy requirement w.r.t. Anticipated Peak Demand and Energy requirement decreased by 5.3% and 6.3% respectively for May’ 2025 due to intermittent rains observed in Rajasthan state control area during the month.

- **Uttar Pradesh**

  Due to unexpected rains and low atmospheric temperature in May 2025 in comparison to May 2024, energy requirement and energy consumption was less than anticipated.

- **Uttarakhand**

  The reason for significant variation in Energy Requirement (decrease) and Peak Demand (Decrease) for month of May'25 against anticipated figures) was due to unprecedented rainfall/snowfall in this month resulting into normal ambient temperature.

A.4. Maintenance Programme of Generating units and Transmission Lines

The maintenance programme of generating units and transmission lines for the month of July 2025 was deliberated in the meeting on 16.06.2025.

A.5. Anticipated Power Supply Position in Northern Region for July 2025

The updated anticipated Power Supply Position for July 2025 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
CHANDIGARH	Availability	220	430	No Revision submitted
	Requirement	248	465	
	Surplus / Shortfall	-28	-35	
	% Surplus / Shortfall	-11.3%	-7.5%	
DELHI	Availability	5994	8376	16-Jun-25
	Requirement	4600	8200	
	Surplus / Shortfall	1394	176	
	% Surplus / Shortfall	30.3%	2.1%	
HARYANA	Availability	7550	14496	10-Jun-25
	Requirement	8857	15558	
	Surplus / Shortfall	-1307	-1062	
	% Surplus / Shortfall	-14.8%	-6.8%	
HIMACHAL PRADESH	Availability	1256	1688	09-Jun-25
	Requirement	1277	1693	
	Surplus / Shortfall	-21	-5	
	% Surplus / Shortfall	-1.7%	-0.3%	
J&K and LADAKH	Availability	2000	3370	No Revision submitted
	Requirement	1810	2839	
	Surplus / Shortfall	190	531	
	% Surplus / Shortfall	10.5%	18.7%	
PUNJAB	Availability	8910	16950	16-Jun-25
	Requirement	10915	16950	
	Surplus / Shortfall	-2005	0	
	% Surplus / Shortfall	-18.4%	0.0%	
RAJASTHAN	Availability	9960	19410	16-Jun-25

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	Requirement	9920	17500	
	Surplus / Shortfall	40	1910	
	% Surplus / Shortfall	0.4%	10.9%	
UTTAR PRADESH	Availability	17515	32000	16-Jun-25
	Requirement	17360	32000	
	Surplus / Shortfall	155	0	
	% Surplus / Shortfall	0.9%	0.0%	
UTTARAKHAND	Availability	1528	2476	06-Jun-25
	Requirement	1550	2500	
	Surplus / Shortfall	-22	-24	
	% Surplus / Shortfall	-1.4%	-1.0%	
NORTHERN REGION	Availability	54932	89400	
	Requirement	56537	88100	
	Surplus / Shortfall	-1604	1300	
	% Surplus / Shortfall	-2.8%	1.5%	

A.5.1. Representative of Haryana stated that they will manages the shortfall through Power Exchanges.

A.5.2. Representative of Punjab SLDC informed that the shortfall in Punjab would be met through Real time exchanges.

A.5.3. ED, NRLDC stated that states shall not rely on Day Ahead Market and Real-Time Market for meeting demand and should make power tie ups up front so that resource adequacy is ensured. Due to huge uncertainty, at least Real-Time Market should definitely not be considered as tool for power procurement and all arrangements should be done well in advance.

A.6. Follow-up of issues from various OCC Meetings - Status update

A.6.1. The updated status of agenda items is enclosed at ***Annexure-A.II.***

A.6.2. In 232nd OCC, SLDCs were requested again to coordinate with respective Transmission Utilities of states/UTs and submit details about the updated status

of Down Stream network by State Utilities from ISTS Station (enclosed as ***Annexure-A.II.I***) before every OCC meeting.

A.7. NR Islanding scheme

A.7.1. EE, NRPC informed that a meeting taken by MS, NRPC on 10.05.2025 to review the status of existing islanding schemes and availability of ERS in NR. In this meeting Punjab SLDC informed that Pathankot RSD islanding scheme is currently dismantled.

A.7.2. SE(O), NRPC asked Punjab SLDC the reason for dismantling the said islanding scheme to which Punjab SLDC representative replied that it was dismantled during works of control room extension.

A.7.3. NRLDC representative expressed concern on the information shared by Punjab SLDC that RSD-Pathankot islanding scheme has been dismantled for control room extension works. It was requested that tentative timeline be provided by Punjab SLDC for revival of islanding scheme. Punjab SLDC agreed to share latest timeline for revival of islanding implementation with NRLDC/NRPC at the earliest.

A.7.4. SE(O), NRPC expressed serious concerns for dismantling Pathankot-RSD scheme without any approval. He asked Punjab SLDC to restore the said islanding scheme at the earliest.

A.7.5. In the meeting (232nd OCC), UPPTCL representative apprised that Unchahar-Lucknow Islanding scheme has been successfully implemented and same is visible at SCADA of UPSLDC also (except 01 Substation: 132 kV S/s Hussainganj. The data of above 01 substation is not available at UPSLDC due to lack of OPGW. The work of laying OPGW cable is under progress and same shall be completed by end of June end.

A.7.6. With regard to Agra islanding scheme, UPPTCL representative apprised forum they submitted their proposal of procurement of UFRs for the Lalitpur-Agra islanding scheme to the PSDF Secretariat for PSDF funding. A meeting was held on 07.03.2025, during which some queries regarding the scheme were raised and UPPTCL was asked to submit their board approval. UPPTCL was requested to provide board approval for the proposal. The representative of UPPTCL stated that they are currently preparing responses to the PSDF Secretariat's queries and will resubmit the proposal once it has been approved by the UPPTCL board.

A.7.7. RRVPNL representative stated that they have submitted their proposal of Jodhpur-Barmer-Rajwest islanding scheme to PSDF Secretariat on 16.01.2025 for PSDF funding. A meeting was held on 07.03.2025, during which some queries regarding the scheme were raised. RRVPNL representative informed that responses to these queries have been replied on 30.05.2025.

A.7.8. RRVPNL representative mentioned that DPR for implementation of Suratgarh islanding scheme would be submitted after confirmation of status of PSDF funding from PSDF Sectt. for Jodhpur-Barmer-Rajwest islanding scheme.

A.7.9. With regard to Patiala-Nabha Power Rajpura islanding scheme representative from Punjab SLDC informed that they have submitted their proposal to PSDF Secretariat. The PSDF Secretariat had raised some observation regarding the scheme which has been replied by Punjab.

A.7.10. HPSLDC representative apprised that the Monitoring committee of State PSDF has provided approval for State PSDF funding for implementation of proposed UFR scheme for Kullu- Manali islanding scheme and Shimla-Solan Islanding scheme in the meeting held on 22nd April, 2025. He further stated that the procurement of UFRs will be undertaken by HPSEBL. The tentative timeline for the implementation of the schemes will be obtained from HPSEBL and shared with the forum in due course.

A.7.11. Further, with regard to Shimla-Solan Islanding scheme he apprised that HPSEBL has done the testing and requisite frequency settings of their generators for islanding scheme.

A.8. Coal Supply Position of Thermal Plants in Northern Region

A.8.1. In the meeting, NRPC representative apprised forum about the coal stock position of generating stations in northern region during current month (till 10th June 2025).

A.8.2. Average coal stock position of generating stations in northern region, having critical stock, during first ten days of June 2025 is NIL.

Station	Capacity (MW)	PLF % (prev. months)	Normative Stock Reqd. (Days)	Actual Stock (Days)
ANPARA C TPS	1200	0.87	17	13.3
ANPARA TPS	2630	0.78	17	22.8
BARKHERA TPS	90	0.17	26	57.4
DADRI (NCTPP)	1820	0.36	26	21.6
GH TPS (LEH.MOH.)	920	0.60	26	31.8
GOINDWAL SAHIB TPP	540	0.61	26	36.4
HARDUAGANJ TPS	1265	0.61	26	36.4
INDIRA GANDHI STPP	1500	0.46	26	47.0
KAWAI TPS	1320	0.73	26	21.6
KHAMBARKHERA TPS	90	0.28	26	57.7

Station	Capacity (MW)	PLF % (prev. months)	Normative Stock Reqd. (Days)	Actual Stock (Days)
KOTA TPS	1240	0.61	26	20.0
KUNDARKI TPS	90	0.27	26	45.3
LALITPUR TPS	1980	0.70	26	23.2
MAHATMA GANDHI TPS	1320	0.69	26	32.4
MAQSOODPUR TPS	90	0.29	26	57.8
MEJA STPP	1320	0.64	26	24.7
OBRA TPS	1094	0.54	26	18.2
PANIPAT TPS	710	0.22	26	51.1
PARICHHA TPS	1140	0.59	26	20.5
PRAYAGRAJ TPP	1980	0.83	26	26.5
RAJIV GANDHI TPS	1200	0.31	26	41.0
RAJPURA TPP	1400	0.77	26	27.8
RIHAND STPS	3000	0.87	17	24.6
ROPAR TPS	840	0.72	26	42.0
ROSA TPP Ph-I	1200	0.69	26	32.1
SINGRAULI STPS	2000	0.80	17	22.2
SURATGARH TPS	1500	0.24	26	19.9
TALWANDI SABO TPP	1980	0.54	26	18.2
TANDA TPS	1760	0.81	26	30.8
UNCHAHAR TPS	1550	0.80	26	22.5
UTRAULA TPS	90	0.28	26	46.1
YAMUNA NAGAR TPS	600	0.69	26	26.5
CHHABRA-I PH-1 TPP	500	0.74	26	23.4
KALISINDH TPS	1200	0.77	26	18.9
SURATGARH STPS	1320	0.66	26	26.5
CHHABRA-I PH-2 TPP	500	0.76	26	23.6
CHHABRA-II TPP	1320	0.47	26	31.3
JAWAHARPUR STPP	660	0.22	26	24.6

A.9. Periodic testing of generators and FACTS/HVDC Devices (Agenda by NRPC Sectt.)

A.9.1 NRPC representative stated that Regulation 40 (1) of CERC (IEGC) Regulations, 2023 stipulate that there shall be periodic tests, as required under clause (3) of this Regulation, carried out on power system elements for ascertaining the correctness of mathematical models used for simulation studies as well as ensuring desired performance during an event in the system.

A.9.2 The tests shall be performed once every five (5) years or whenever major retrofitting is done. If any adverse performance is observed during any grid event, then the tests shall be carried out even earlier, if advised by SLDC or RLDC or NLDC or RPC, as the case may be.

A.9.3 Further, Regulation 40(1)(b) stipulate that "All equipment owners shall submit a testing plan for the next year to the concerned RPC by 31st October to ensure proper coordination during testing as per the schedule. In case of any change in the schedule, the owners shall inform the concerned RPC in advance."

A.9.4 Extract of IEGC 2023 clause 40,

"40. PERIODIC TESTING

(1) There shall be periodic tests, as required under clause (3) of this Regulation, carried out on power system elements for ascertaining the correctness of mathematical models used for simulation studies as well as ensuring desired performance during an event in the system.

(2) General provisions

(a) The owner of the power system element shall be responsible for carrying out tests as specified in these regulations and for submitting reports to NLDC, RLDCs, CEA and CTU for all elements and to STUs and SLDCs for intra-State elements.

(b) ***All equipment owners shall submit a testing plan for the next year to the concerned RPC by 31st October to ensure proper coordination during testing as per the schedule****. In case of any change in the schedule, the owners shall inform the concerned RPC in advance.*

(c) The tests shall be performed once every five (5) years or whenever major retrofitting is done. If any adverse performance is observed during any grid event, then the tests shall be carried out even earlier, if so advised by SLDC or RLDC or NLDC or RPC, as the case may be.

(d) The owners of the power system elements shall implement the recommendations, if any, suggested in the test reports in consultation with NLDC, RLDC, CEA, RPC and CTU.

(3) Testing requirements

The following tests shall be carried out on the respective power system elements:

TABLE 9 : TESTS REQUIRED FOR POWER SYSTEM ELEMENTS

Power System Elements	Tests	Applicability
Synchronous Generator	(1) Real and Reactive Power Capability assessment. (2) Assessment of Reactive Power Control Capability as per CEA Technical Standards for Connectivity (3) Model Validation and verification test for the complete Generator and Excitation System model including PSS. (4) Model Validation and verification of Turbine/Governor and Load Control or Active Power/ Frequency Control Functions. (5) Testing of Governor performance and Automatic Generation Control.	Individual Unit of rating 100MW and above for Coal/lignite, 50MW and above gas turbine and 25 MW and above for Hydro.
Non synchronous Generator (Solar/Wind)	(1) Real and Reactive Power Capability for Generator (2) Power Plant Controller Function Test (3) Frequency Response Test (4) Active Power Set Point change test. (5) Reactive Power (Voltage / Power Factor / Q) Set Point change test	Applicable as per CEA Technical Standards for Connectivity.
HVDC/FACTS Devices	(1) Reactive Power Controller (RPC) Capability for HVDC/FACTS (2) Filter bank adequacy assessment based on present grid condition, in consultation with NLDC. (3) Validation of response by FACTS devices as per settings.	To all ISTS HVDC as well as Intra-State HVDC/FACTS, as applicable

A.9.5 In accordance with above, Generators and HVDC/FACT owners were supposed to furnish the Testing schedule for 2025-26 by 31st October 2024.

A.9.6 The procedure for testing is available at the NLDC website at https://posoco.in/wpcontent/uploads/2023/09/Final-Procedure-of-Periodic-Testing-for-Power-SystemElements-submitted-to-CERC.pdf. This may be used for testing.

A.9.7 In 73rd NRPC meeting, NRPC forum asked all Generators and HVDC/FACT owners to furnish the Testing schedule for 2024-25 and 2045-26 to NRPC/NRLDC at the earliest.

A.9.8 In view of this, a google sheet was prepared and it was requested that testing plan for 2024-25 and 2025-26 may be updated in the sheet provided at the earliest as per the requirement of IEGC 2023 and decision of 73rd NRPC meeting.

A.9.9 SE(O), NRPC asked Generators and HVDC/FACT owners to furnish Testing schedule for 2025-26 in the format attached at **Annexure-A.III.** to seo-nrpc@nic.in.

Decision of OCC Forum:

OCC forum asked all Generators and HVDC/FACT owners to furnish Testing schedule for 2025-26 in the format attached at Annexure-A.V. to seo-nrpc@nic.in.

A.10. Proposed System Protection Scheme (SPS) at 400kV substation Panki (Agenda by UPSLDC)

A.10.1. NRPC Representative apprised the forum that UPSLDC vide its letter date 11.06.2025 had informed that 1X315MVA+1X500MVA ICTs at 400kV substation Panki are N-1 non-compliant. In order to ensure reliability at 400kV substation Panki, SPS logic is proposed by UPSLDC. The same is attached as **Annexure-A.IV.**

A.10.2. Explaining the logic, UPSLDC representative mentioned that in situation of loading on any of the two 315 MVA ICT's increases to 100-110% of rated current, then within a time delay of 5 sec, a tripping command will initiate and the feeders will cut-off in order of their priority till loading comes within limit.

A.10.3. In case the loading on any of the two 315 MVA ICT's increases above 100-110% of rated current, a tripping command will initiate with a time delay of 1500 millisecond and the feeders will trip in order of their priority till loading comes within limit.

A.10.4. SE(O), NRPC asked regarding the capacity enhancement of 315 MVA ICTs with 500 MVA, to which the UPSLDC representative mentioned that the capacity enhancement of ICT is under process and shall be completed by 15th September, 2025. However, the SPS logic is designed considering the present configurations and the same will be re-formulated after capacity enhancement.

A.10.5. NRLDC representative enquired what will be the time between opening of different feeders in case of SPS operation, i.e. how long after opening of 1st feeder, second feeder will open?.

A.10.6. To this, UP SLDC confirmed that the next feeder will open instantaneously in case loading does not fall below the set value.

A.10.7. NRLDC representative further stated that loading of existing 400/220kV Panki ICTs is beyond the safe N-1 limit during 8-15 June 2025 period recently. Further, NRLDC representative asked UPPTCL to review the overcurrent settings. UPPTCL was also asked to ensure that they take prior approval from CEA PSPA-I regarding new 500MVA ICT so that there are no issues during FTC approval.

A.10.8. NRLDC representative was of view that the overcurrent limit of 100% of full load current may be reviewed in the Protection Sub-committee meeting.

Decision of OCC Forum:

OCC forum found the SPS logic technically in order as per requirement. However, the Over Current settings may be reviewed in upcoming Protection Sub-Committee Meeting of NRPC.

A.11. Constraint in achieving the ramp rate scheduled by UPSLDC (Agenda by Khurja STPP)

A.11.1. Khurja STPP representative apprised the forum that in Khurja Unit's, 1% of the MCR Load is 92.32MW/block, which mean that unit can ramp up or down by 92.32MW in 15 min time block. For this ramp rate the block average load

achievable is 46MW approximately. However, in current Load scheduling with UPSLDC they are getting 92.32MW as average load during ramp-up or down in every block instead of 46MW.

A.11.2. In order to achieve 92.32MW as average load in each block the machine has to increase/decrease load by approximately 140MW which is very high. This high quantum of Load change in a 15-min time block is not desirable for safe and sustainable operation of the unit. The high rate has adverse effect on boiler and turbine due to high thermal stress as well as repeated expansion and contraction which may lead to deterioration of boiler tube life, LP turbine last stage blades.

A.11.3. EE(C), NRPC asked Khurja STPP representative regarding minimum ramp rate requirement as per the UPERC regulation. To this, Khurja STPP representative replied that ramp rate is 1% of MCR in 15-minute time block. If 1% of MCR (92.32 MW in this case) is achieved in 15 minute of a block, the block average shall not be 92.32 MW but approximately around 46 MW.

A.11.4. EE(C), NRPC mentioned that as per IEGC, ramp rate means the rate of change of a generating station output expressed in %MW (Instantaneous Output) per minute.

A.11.5. UP SLDC stated that as per MOD regulations of UPERC, schedule of all intrastate generating units is being ramped up/down by 1%. In the same manner, scheduling is being carried out for ISGS thermal plants in UP such as Meja and Khurja TPS. It was further mentioned that the matter was also discussed in intra-state level power committee meeting of UP. UP SLDC suggested that THDC may once again bring the agenda in state level power committee meeting and their concern would be addressed in joint discussion in state level meeting.

A.11.6. In this OCC meeting, all members agreed that for thermal generators, for first and last time block 7.5% ramp rate can be achieved practically whereas for all in between time blocks ramp rate of 15% per block (1%/min) can be achieved. This is due to the fact that for first and last time block there is limit on maximum (Machine Continuous Rating)/minimum (Technical Minimum Level) output of the machine and average generation also needs to be ensured for complete time block. It was also noted that similar practice is being practiced for scheduling of rest of ISGS thermal generators being scheduled by NRLDC.

Decision of OCC Forum:

OCC Forum noted the concerns raised by Khurja STPP and asked UP SLDC and THDC Khurja to discuss the agenda in state level power committee meeting and resolve the issue

A.12. To expedite the execution of the proposed temporary arrangement and provide the latest status of work progress of 400kV SCSTPS-Babai line (Agenda by RVUNL)

A.13.1. EE(O), NRPC apprised the forum that as informed by RVUNL intimated, 400KV STPS Switchyard gets overloaded due to heavy import of power from 400KV SSTPS-SCSTPS interconnectors 1&2 which in turn imports power from 400kV SCSTPS-Bikaner-1&2 feeders. These Bikaner feeders feed the solar power during Solar hours and thus overloads the 400 KV Buses of STPS switchyard.

A.13.2. 400 KV SCSTPS-Babai lines were proposed to carry out the power evacuation of SCSTPS/solar power. But these lines are under construction since last 6-7 years. Due to non-evacuation of power from Babai lines and low export or import power from Bikaner lines during solar hours the buses of 400KV switchyard of SSTPS becomes heavily loaded. The Al. pipe buses are maintained and strengthened time to time but jumpers and isolator contacts are always prone to develop hotspot on overloading.

A.13.3. He also mentioned that in special meeting held on 19.10.2024 among NRPC, NRLDC and representatives of various power utilities of Rajasthan, it was assured by RVPN that 400KV SCSTPS-Babai lines work is likely to be completed by March 2025. In the meeting, RVPN was requested to update the status and expedite the work to avoid operational and overloading issues. In the same meeting, Rajasthan SLDC had proposed a temporary solution of interconnecting 400 kV SCSTPS-Babai line to 400 KV SSTPS-Ratangarh which would bypass the power from 400KV SSTPS switchyard.

A.13.4. He asked RVPN to intimate the forum regarding the status of completion of 400 KV SCSTPS- Babai lines and progress on the temporary arrangement of interconnecting 400 kV SCSTPS-Babai line to 400 KV SSTPS-Ratangarh.

A.13.5. Rajasthan SLDC intimated that the target date for commissioning of 400 KV SCSTPS- Babai lines is expected to be by 15th Oct, 2025. The temporary arrangement of interconnecting 400 kV SCSTPS-Babai line to 400 KV SSTPS-Ratangarh shall be completed by 15th July, 2025.

A.13.6. SE(O), NRPC asked Rajasthan SLDC to expedite the commissioning of 400 KV SCSTPS- Babai lines and had asked to complete the work of temporary arrangement positively by July,2025.

Decision of OCC Forum:

OCC Forum asked Rajasthan SLDC to expedite the commissioning of 400 KV SCSTPS- Babai lines and had asked to complete the work of temporary arrangement positively by July,2025.

A.13. Table Agenda – Shifting of bays of 220 KV S/S Dhandari Kalan (PS) due to upgradation from Single Bus Bar to Double Bus Bar at 220 KV s/s Dhandari Kalan (PS) (Agenda by PSTCL)

A.13.1. EE(O), NRPC apprised the forum that 220kV Dhandari Kalan Substation of PSTCL is currently being upgraded from a single bus bar to a double bus bar arrangement to enhance system reliability and operational flexibility. As part of this upgrade, the

bays of the following 220kV transmission circuits at Dhandari Kalan are being shifted from the existing single bus bar:

(A) 220kV Dandhari Kalan (PS)-Ludhiana (PG) Circuit No.1

(B) 220kV Dandhari Kalan (PS)-Ludhiana (PG) Circuit No.2

(C) 220kV Dandhari Kalan (PS)-Jamalpur (BB) Circuit.

(D) 220kV Dandhari Kalan(PS)- Sherpur(PS) Circuit.

A.13.2. Out of the above, three (03) circuits--namely. Circuits (A), (B), and (C)-are part of the Inter-State Transmission System (ISTS).

A.13.3. PSTCL representative stated the forum that Format-A for the shifting of the 220kV Dhandari Kalan (PS)- Jamalpur (BB) circuit was submitted to NRLDC (FTC), but it was rejected on the grounds that prior approval from NRPC is required.

A.13.4. SE(O), NRPC asked NRLDC the reason behind rejecting the proposal of PSTCL. To this, NRLDC representative mentioned that the proposal was not discussed on any forum before submission to NRLDC. He also mentioned that there is no objection from NRLDC regarding this proposal submitted by PSTCL.

Decision of OCC Forum:

OCC forum approved the proposal submitted by PSTCL.

A.14. Table Agenda – Replacement of obsolete communication equipments installed in various Substations of Northern Region to rectify and make operational the SPS-NR Scheme for Mundra – Mahendragarh Transmission System (Agenda by ATIL)

A.14.1. EE(O), NRPC apprised the forum that in the 226th OCC meeting (agenda no B.12), it was decided to check the healthiness of SPS of ±500 kV HVDC Mundra Mahendragarh Transmission system and ATIL was asked to coordinate with nodal officers of various Substations to resolve the issues regarding the healthiness of SPS System.

A.14.2. Accordingly, ATIL had placed order to M/S Comtel Networks Private Limited for a detailed survey of the communication system at various locations and identify the issues. Engineers from M/S Comtel along with ATIL team had visited the respective Substations and had identified that most of the communication equipments have reached their End of life and are not revivable due to obsolete (The same had been communicated by ATIL vide email dated 25.03.2025 as well as the status was apprised in the 59th and 60th PSC meeting). Based on survey report, ATIL has asked the commercial offer for the replacement of obsolete equipments, and M/S Comtel has submitted an estimate of Rs 2.0 crore.

A.14.3. He mentioned that since the useful life of the communication system is already over and the system is now obsolete, ATIL is requesting to approve the above replacement of communication equipments for the revival of SPS of ±500 kV HVDC Mundra Mahendragarh Transmission system on Additional Capitalization basis.

A.14.4. ATIL representative mentioned that the communication equipment used in SCADA system had already reached their end of life. As per CERC regulation, the maximum life of communication equipment is 7 years. For the procurement of new communication equipment's, the approximate cost of procurement shall be around 2 Cr.

A.14.5. SE(O), NRPC stated that since the equipments had already reached their end of life, the procurement of same may be done through Additional Capitalization basis as per the provisions of CERC.

A.14.6. EE(O), NRPC asked ATIL to submit this agenda in upcoming TeST meeting with break-up of cost along with the list of communication equipments so that participants could go through it and approve it.

Decision of OCC Forum:

OCC forum asked ATIL to submit this agenda in upcoming TeST meeting with break-up of cost along with the list of communication equipments so that participants could go through it and approve it.

खण्ड-ख: उ.क्षे.भा.प्रे.के. Part-B: NRLDC

B.1 NR Grid Highlights for May 2025 and demand forecasting related

NRLDC representative presented the following grid highlights for month of May'2025:

Demand met details of NR

S.No	Constituents	Max Demand met (in MW)	Date & Time of Max Demand met	Max Consumption (in MUs)	Date of Max Consumption	Average Demand met (in Mus)
1	Chandigarh	431	21.05.25 at 15:00	8.1	20.05.25	6.2
2	Delhi	7748	21.05.25 at 15:29	151.5	20.05.25	123.0
3	Haryana	12526	21.05.25 at 15:30	252.3	20.05.25	200.4
4	H.P.	1866	17.05.25 at 10:00	39.8	17.05.25	36.3

5	J&K	2777	01.05.25 at 06:00	57.2	23.05.25	50.2
6	Punjab	13969	21.05.25 at 15:30	281.0	20.05.25	214.5
7	Rajasthan	17220	28.05.25 at 12:00	365.7	27.05.25	309.3
8	UP	29873	20.05.25 at 21:30	577.8	15.05.25	515.0
9	Uttarakhand	2668	24.05.25 at 22:00	57.0	20.05.25	50.0
***10**	**Northern Region**	**82978**	**20.05.25 at 22:28**	**1784.6**	20.05.25	**1505.0**

***As per SCADA**

- In May'25, the Maximum energy consumption of Northern Region was **1785 MUs** on 20th May'25 and it was 5.18 % lower than May'24 (1882 MU 29th May'24)

- In May'25, the Average energy consumption per day of Northern Region was **1505 MUs** and it was 8.06 % lower than May'24 (1637 MUs/day)

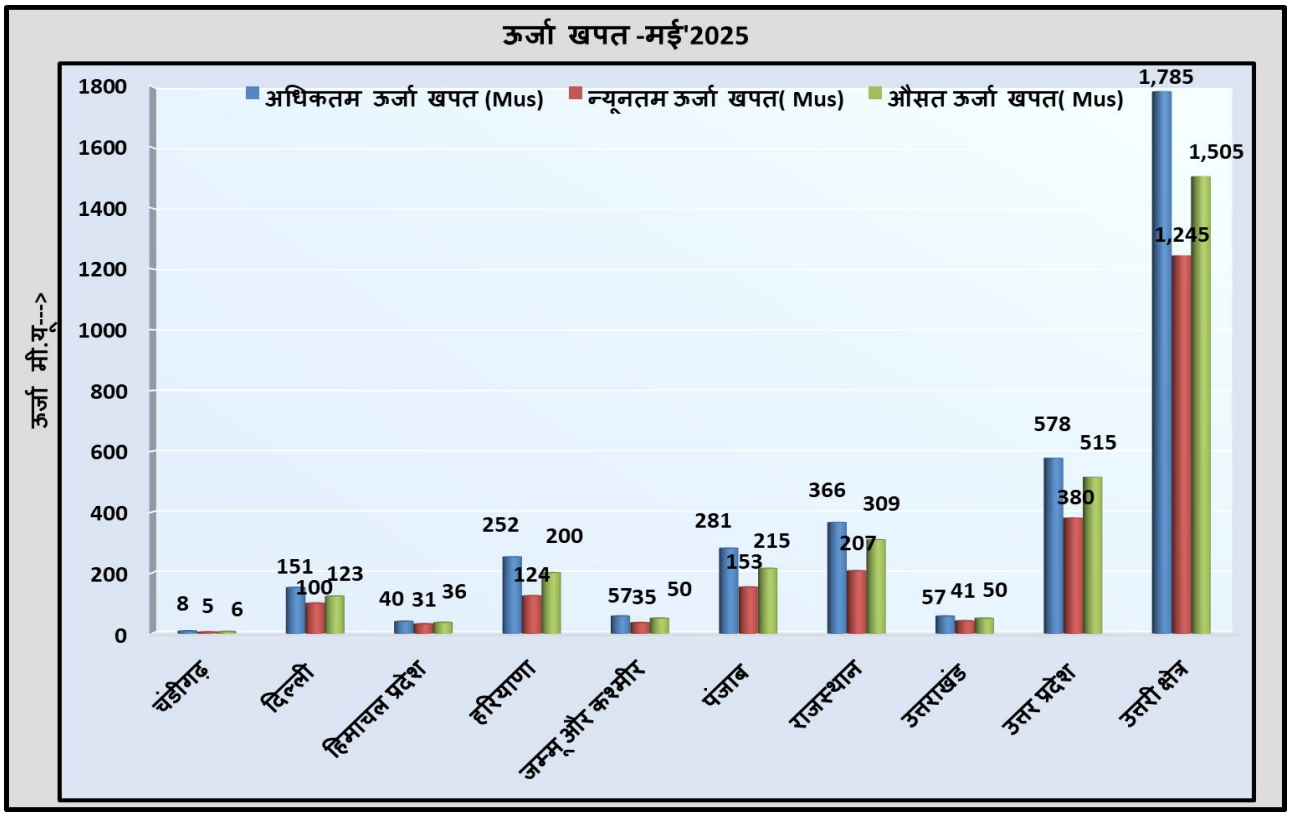
- In May'25, the Maximum Demand met of Northern Region was **82978 MW** on 20th May'25 @22:28 hours (*as per SCADA data)* as compared to 86773 MW on 30th May'24 @14:13hours.

- **Comparison of Average Energy Consumption (MUs/Day) of NR States for the May'24 vs May'25**

क्षेत्र/राज्य	मई- 2024	मई- 2025	% अंतर
चंडीगढ़	6.76	6.2	-8.3%
दिल्ली	135.74	123	-9.4%
हिमाचल प्रदेश	34.61	36.6	5.7%
हरियाणा	220.61	200.4	-9.2%

जम्मू और कश्मीर	52.95	50.2	-5.2%
पंजाब	233.5	214.5	-8.1%
राजस्थान	331.61	309.3	-6.7%
उत्तराखंड	53.81	50	-7.1%
उत्तर प्रदेश	563.11	515	-8.5%
उत्तरी क्षेत्र	**1636.96**	**1505**	**-8.1%**

Energy Consumptions

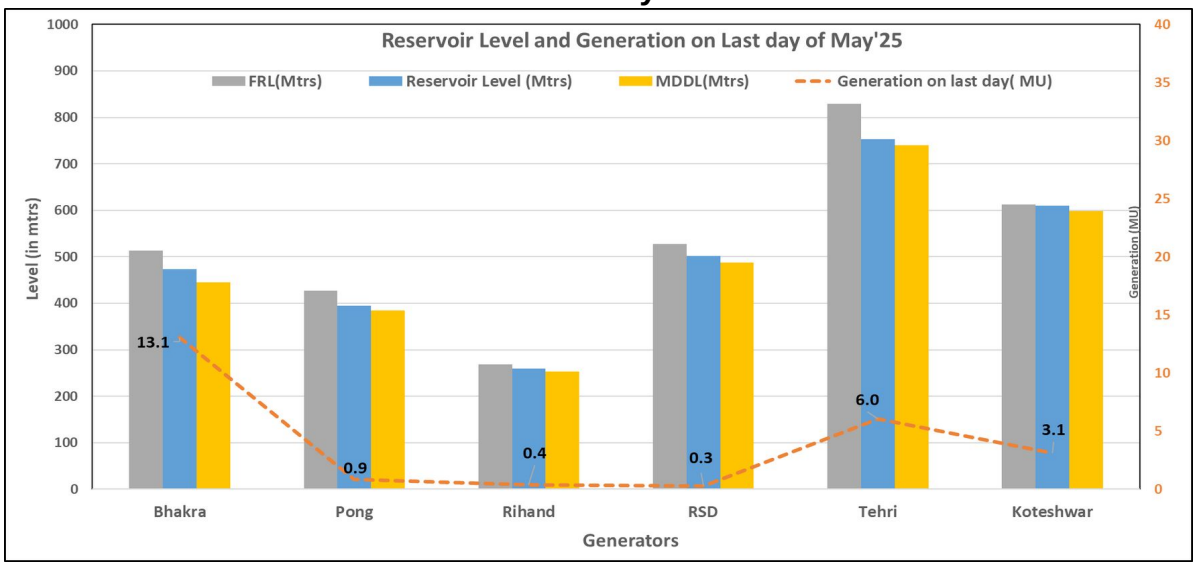


Frequency profile

Month	Avg. Freq. (Hz)	Max. Freq. (Hz)	Min. Freq. (Hz)	<49.90 (% time)	49.90 – 50.05 (% time)	>50.05 (% time)
May'25	50.015	50.493 (22.05.25 at 07:58:30 hrs)	49.594 (22.05.25 at 19:38:40 hrs)	3.60	73.30	23.10
May'24	50.01	50.50 (07.05.24 at 18:02:40	49.72 (11.05.24 at 00:02:40	2.49	80.04	17.47

		hrs)	hrs)			

Reservoir Level and Generation on Last Day of Month



(Low: - ve) (High: +ve)

Reservoir Level on last day of May month

Year	Bhakra	Pong	Rihand HPS	RSD	Tehri	Koteshwar
2025	474	394	259	502	754	610
2024	481	402	260	507	748	602
Diff (in m)	**-7.5**	**-7.4**	**-0.9**	**-4.6**	**5.6**	**8.3**

Detailed presentation on grid highlights of May'2025 as shared by NRLDC in 232 OCC meeting is attached as Annexure-B.I. NRLDC presentation also included highlights regarding the portal being developed at NRLDC end for forecast file data sharing by NR states.

OCC forum appreciated the efforts made from NRLDC side.

B.2 State-wise transmission constraints in summer 2025

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.

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

NRLDC representative presented the records that were broken in first fortnight of June 2025:

- Maximum demand met:
  - Punjab: 16,835MW on 11.06.2025
  - UP: 31,381MW on 11.06.2025

- Energy consumption:
  - Rajasthan: 387MUs on 12.06.2025
  - HP: 41.5MUs on 12.06.2025
  - Chandigarh: 9MUs on 12.06.2025
  - Northern region: 2023MUs on 12.06.2025

State-wise issues and measures required thereof as discussed in the meeting are listed below.

Punjab:

NRLDC representative stated that 400/220kV Dhanansu ICT-2 was charged on 15.06.2025 and accordingly ATC/TTC of Punjab state was enhanced by 300MW from 17.06.2025 @ 0000hrs

NRLDC representative added that the loading of 400/220kV ICTs supplying power to Punjab state is within the N-1 limits when import is close to the ATC limits and suggested that Punjab SLDC further reviews the ATC/TTC assessment for paddy 2025 for any enhancement also considering other constraints at 220kV level.

NRLDC representative requested Punjab SLDC to share measures taken for minimising outages of Talwandi Saboo thermal generating units. It was also mentioned that Unit-1 was under outage from 14.06.2025 to 16.06.2025 due to abnormal boiler sound.

Punjab SLDC representative stated that PSPCL has been taking up the matter with TSPL generating station. Punjab SLDC and PSPCL will further take up the matter with TSPL.

Haryana:

NRLDC representative requested HVPN regarding:

- Action plan for N-1 non-compliance being observed in real-time at 765/400kV Bhiwani, 400/220kV Panipat (BBMB), Kabulpur, Hisar ICTs by Haryana SLDC.
- SPS implementation till ICT capacity augmentation.
- Measures required for minimising MVAR drawl from ISTS to avoid low voltages.

It was mentioned that schedule as well as actual drawl by HVPNL is crossing the ATC/TTC limits during several time blocks.

NRLDC representative added that there was separate meeting on 16.06.2025 between Haryana SLDC and NRLDC to review ATC/TTC of Haryana. Simulation studies were carried out keeping power order of Champa-Kurukshetra as 4500MW, Mundra-Mahendragarh HVDC as 2000MW and considering LILO of 220kV Samalkha-Mohana D/C at Sonepat(PG). Internal generation of Haryana state was considered around 3200MW.

With the present status of transmission lines, (forced outage of 400kV Mahendragarh-Bhiwani D/C and 400kV Bhiwani-Babai lines D/C lines), following are present ATC/TTC limits:

- 9200/9500MW

After revival of Champa-Kurukshetra Pole-2, 400kV Mahendragarh-Bhiwani D/C and 400kV Bhiwani-Babai D/C lines, following would be tentative ATC/TTC limits:

- 10200/10500MW

After implementation of SPS at 765/400kV Bhiwani(PG) and 400/220kV Hissar(PG), following would be tentative ATC/TTC limits:

- 10600/10900MW

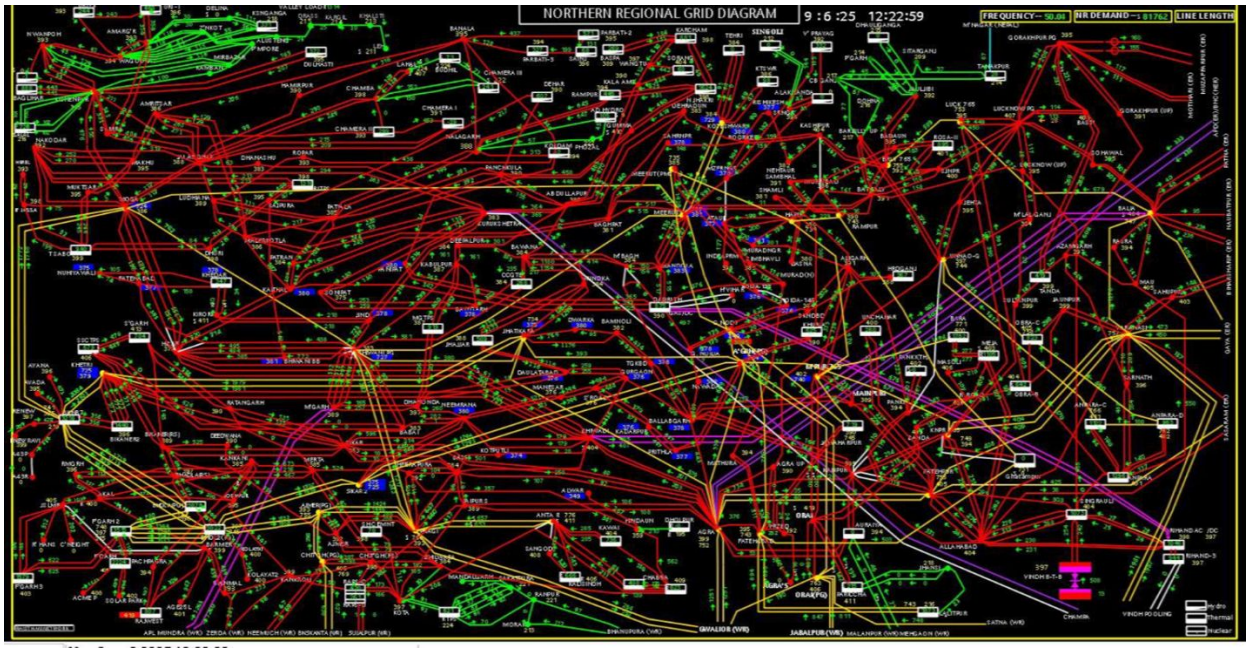
Further, NRLDC recommended Haryana SLDC to maximise internal generation of Haryana and ensure drawl within the ATC/TTC limits.

Haryana SLDC representative requested NRPC to convene joint meeting between NRPC, NRLDC, SLDC Punjab, SLDC Rajasthan, BBMB, POWERGRID NR-1, HVPNL and SLDC Haryana at the earliest for finalization of SPS. It was further informed that 315MVA Kabulpur ICT 1 is expected to be revived by 31.07.2025. Further, LILO of 220kV Samalkha-Mohana at Sonepat(PG) is expected to be competed in next 10-15 days. It was mentioned from Haryana SLDC side that Hissar(BBMB) is supplying 200-300MW power to Punjab and Rajasthan which can be wired under SPS as incase of contingency supplying power to other states may not be feasible.

NRPC Sectt. assured to convene separate meeting for discussion on SPS at the earliest.

NRLDC representative requested Punjab SLDC and Rajasthan SLDC to examine request from Haryana side and examine if 220kV Sangrur and 220kV Chirawa respectively can be fed from sources other than Hissar(BBMB) during this season especially in case of contingency or SPS operation. Concerned SLDCs were asked to study this proposal at their end and present their observations in joint meeting to be shortly convened by NRPC Sectt.

NRLDC representative asked Haryana to ensure that all underlying capacitors are taken in service. It was mentioned that on 9th June recently, all poles of HVDC Champa-Kurukshetra had tripped and as a result low voltages were observed in NR grid especially in Haryana due to high power flow on AC network.



POWERGRID representative stated that conductor has been supplied for reconductoring of 220kV Hissar(PG)-Hissar(IA) line and tower material is yet to be received. 1-2 towers also need to be erected as part of this reconductoring work and it is expected that work for reconductoring will start from Sep 2025 onwards.

Rajasthan:

Constrained location	Status as available with NRLDC
N-1 contingency of 3*315=945 MVA ICT at Bhiwadi(PG)	Additional 500MVA ICT approved in 29 CMETS on 17.05.2024
N-1 contingency of 2*315+500=1130 MVA ICT at Bassi(PG)	Additional 500MVA ICT has been approved. Same is anticipated by 14.12.2025.
N-1 contingency of 315+500=815 MVA ICT at Neemrana(PG)	Additional 500MVA ICT has been approved in 36 NR CMETS held on 15.01.2025.
N-1 contingency of 2*500=1000 MVA ICT at Jaipur South(PG)	Additional 500MVA ICT has been approved in 36 NR CMETS held on 15.01.2025.
N-1 contingency of 2*315+500=1130 MVA ICT at Sikar(PG)	ICT Augmentation may be taken up in discussion with CTUIL/RVPNL.
N-1 contingency of 3*315=945 MVA ICT at Kankroli(PG)	ICT-4 has been approved and is expected to be commissioned by 22.09.2025.
N-1 contingency of 2*315=630 MVA ICT at Kotputli(PG)	Augmentation by 400/220 kV 500 MVA (3rd) ICT at Kotputli (PG) is expected by 31.12.2025

N-1 contingency of 2*315=630 MVA ICT at Deedwana(RVPN)	As per latest status shared by Rajasthan SLDC order for 10 no. ICT has been placed recently. New 500MVA ICTs are expected to be commissioned at 400/220kV Merta, Ajmer and Bikaner by Sep 2025. SPS has been implemented as temporary measure for some of the stations such as Chittorgarh (RVPN), Ajmer (RVPN), Merta (RVPN), Bikaner (RVPN), Jodhpur (RVPN), Suratgarh(RVPN), Ratangarh(RVPN)
N-1 contingency of 3*250+315=1065 MVA ICT at Heerapura(RVPN)	
N-1 contingency of 3*315 =945 MVA ICT at Chittorgarh (RVPN)	
N-1 contingency of 2*315 =630 MVA ICT at Ajmer (RVPN)	
N-1 contingency of 2*315 =630 MVA ICT at Merta (RVPN)	
N-1 contingency of 2*315 =630 MVA ICT at Bikaner (RVPN)	
N-1 contingency of 2*315 =630 MVA ICT at Jodhpur (RVPN)	
N-1 contingency of 2*315=630 MVA ICT at Suratgarh(RVPN)	
N-1 contingency of 3*315=945 MVA ICT at Ratangarh(RVPN)	
N-1 contingency of 1*500+1*315 =815 MVA ICT at Bhilwara (RVPN)	

NRLDC requested Rajasthan to share measures taken for:

- Bid opening for upgradation of terminal equipment in different lines and maintenance for improvement of line condition of 400kV Bhadla(RVPN)-Bikaner(RVPN) D/C line
- High MVAr drawal observed by intra-state network of Rajasthan at number of substations and poor power factor at various 400/220kV substations such as Bikaner, Kankani, Barmer, Jodhpur, Merta etc. (power factor of 0.55 observed at 400/220kV Bikaner during solar hours)

RRVPNL representative informed that:

- Work order has been placed for improvement of condition of 400kV Bhadla-Bikaner D/C and also upgradation of terminal equipment. Work is expected to be completed by Dec 2025.
- Proposal of upgradation of terminal equipment for other lines is being prepared and order would be placed shortly.
- Supply of 100no. total 5.43MVAr capacitors has been done and in next 1-2 months all the supplied capacitors would be commissioned.

- Proposal of 100no.s capacitor banks through PSDF funding are under development.
- Jaipur and Jodhpur DISCOMs have directly applied for PSDF funding. Ajmer DISCOM has already included proposal for capacitor under RDSS Scheme and is not going for additional capacitor banks
- New 500MVA ICTs are expected to be commissioned at 400/220kV Merta, Ajmer and Bikaner by Sep 2025.

Uttar Pradesh:

POWERGRID representative stated that around 4-5 months would further be required for commissioning of 500MVA ICT-4 at Allahabad due to constraint of material supply (220kV cable and associated termination & Jointing kit)

NRPC, UP SLDC and NRLDC representatives expressed concern on the same and POWERGRID was asked to ensure healthiness of SPS installed at 400/220kV Allahabad(PG)

NRLDC representative enquired from UP SLDC whether any issues were encountered when demand of state crossed 31GW recently. It was mentioned that there are 3 ICTs under outage at 400kV Obra and 1-ICT at 400kV Jaunpur.

UP SLDC informed that no major operational issues were observed. N-1 non-compliance was observed at 400/220kV Panki S/s for which SPS has already been proposed.

Uttarakhand:

PTCUL representative was asked to provide status of new ICT procurement at 400/220kV Kashipur and capacitor commissioning expected before summer 2025.

PTCUL representative stated that LoA has been placed to BHEL for new ICT at 400/220kV Kashipur. 125MVAr bus reactor at 400/220kV Kashipur will also be awarded in next 1-2 days to BHEL.

In view of above transmission constraints for all states, it was requested that:

- All SLDCs to take actions such that loading of ICTs and lines in their control area are below their N-1 contingency limits.
- While requisitioning power from various sources, states should take care to limit their scheduled drawl as well as actual drawl in real time within the Available Transfer Capability (ATC) limits assessed by SLDC and NRLDC.
- SLDCs also need to ensure that their drawl from grid remains within these limits during real-time operation. In the past, it has been observed that some states have drawn power beyond their ATC limits as assessed by SLDCs and NRLDC.
- Further, all SLDCs need to make sure that loading of 220kV and below voltage level intrastate lines remain within safe limits during the high demand season.

Further, it may be noted that CERC vide their order dated 29.09.2023 has granted approval of "'Detailed Procedure for Allocation of Transmission Corridor for Scheduling of General Network Access and Temporary General Network Access under Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022" which requires SLDCs to submit network data as well as PSSE basecases on M-12, M-6, M-1 basis. The monitoring of submission of these data by SLDCs is being done in OCC meetings on monthly basis where response of some of the states needs improvement.

January 2025 Mails						
	ATC/TTC Declaration				Interconnection Studies	
	M-1 (February-25)		M-12 (January-26)		M-6 (July-25)	
	Data Values	Basecases	Data Values	Basecases	Data Values	Basecases
Chandigarh	No	No	No	No	No	No
Delhi	No	No	Yes	Yes	No	No
Haryana	Yes	Yes	No	Yes	No	No
Himachal	Yes	No	Yes	No	Yes	No
J &K	Yes	Yes	Yes	Yes	Yes	Yes
Ladakh	No	No	No	No	No	No
Punjab	No	No	Yes	Yes	Yes	Yes
Rajasthan	Yes	Yes	Yes	Yes	Yes	Yes
Uttar Pradesh	Yes	Yes	Yes	Yes	Yes	Yes
Uttarakhand	No	No	No	No	No	No

February 2025 Mails						
	ATC/TTC Declaration				Interconnection Studies	
	M-1 (March-25)		M-12 (February-26)		M-6 (August-25)	
	Data Values	Basecases	Data Values	Basecases	Data Values	Basecases
Chandigarh	No	No	No	No	No	No
Delhi	No	No	Yes	Yes	No	No
Haryana	No	No	No	No	No	No
Himachal	Yes	No	Yes	No	Yes	No
J &K	Yes	Yes	Yes	Yes	Yes	Yes
Ladakh	No	No	No	No	No	No
Punjab	No	No	Yes	Yes	Yes	Yes
Rajasthan	Yes	Yes	Yes	Yes	Yes	Yes
Uttar Pradesh	Yes	Yes	Yes	Yes	Yes	Yes
Uttarakhand	No	No	No	No	No	No

March 2025 Mails						
	ATC/TTC Declaration				Interconnection Studies	
	M-1 (April-25)		M-12 (March-26)		M-6 (September-25)	
	Data Values	Basecases	Data Values	Basecases	Data Values	Basecases
Chandigarh	No	No	No	No	No	No
Delhi	No	No	Yes	Yes	No	No
Haryana	No	No	Yes	Yes	No	No
Himachal	Yes	No	Yes	No	Yes	No
J &K	Yes	No	Yes	Yes	Yes	No
Ladakh	No	No	No	No	No	No
Punjab	Yes	Yes	Yes	Yes	Yes	Yes
Rajasthan	Yes	Yes	Yes	Yes	Yes	Yes
Uttar Pradesh	Yes	Yes	Yes	Yes	Yes	Yes
Uttarakhand	No	No	No	No	No	No

April 2025 Mails						
	ATC/TTC Declaration				Interconnection Studies	
	M-1 (May-25)		M-12 (April-26)		M-6 (October-25)	
	Data Values	Basecases	Data Values	Basecases	Data Values	Basecases
Chandigarh	No	No	No	No	No	No
Delhi	No	No	Yes	Yes	No	No
Haryana	Yes	Yes	Yes	Yes	Yes	Yes
Himachal	Yes	No	Yes	No	Yes	No
J &K	Yes	Yes	Yes	Yes	Yes	Yes
Ladakh	No	No	No	No	No	No
Punjab	Yes	Yes	Yes	Yes	Yes	Yes
Rajasthan	Yes	Yes	Yes	Yes	Yes	Yes
Uttar Pradesh	Yes	Yes	Yes	Yes	Yes	Yes
Uttarakhand	No	No	No	No	No	No

Submitted with one month delay

May 2025 Mails						
	ATC/TTC Declaration				Interconnection Studies	
	M-1 (June-25)		M-12 (May-26)		M-6 (November-25)	
	Data Values	Basecases	Data Values	Basecases	Data Values	Basecases
Chandigarh	No	No	No	No	No	No
Delhi	No	No	Yes	Yes	No	No
Haryana	No	No	No	No	No	No
Himachal	Yes	No	Yes	No	Yes	No
J &K	Yes	Yes	Yes	Yes	Yes	Yes
Ladakh	No	No	No	No	No	No
Punjab	Yes	Yes	Yes	Yes	Yes	Yes
Rajasthan	No	No	No	No	No	No
Uttar Pradesh	Yes	Yes	Yes	Yes	Yes	Yes
Uttarakhand	No	No	No	No	No	No

June 2025 Mails						
	ATC/TTC Declaration				Interconnection Studies	
	M-1 (July-25)		M-12 (June-26)		M-6 (December-25)	
	Data Values	Basecases	Data Values	Basecases	Data Values	Basecases
Chandigarh						
Delhi			Yes	Yes		
Haryana						
Himachal						
J &K	Yes	Yes	Yes	Yes	Yes	Yes
Ladakh						
Punjab	Yes	Yes	Yes	Yes	Yes	Yes
Rajasthan	Yes	Yes	Yes	Yes	Yes	Yes
Uttar Pradesh	Yes	Yes	Yes	Yes	Yes	Yes
Uttarakhand						

Haryana, HP, Rajasthan, Delhi and Uttarakhand SLDCs were requested to submit the basecase as per CERC approved procedure.

ATC/TTC limits of states for the month of July 2025 are attached as Annexure-B.I of agenda. All states were requested to go through these limits and share any comments with NRLDC at the earliest.

OCC forum asked all utilities to take necessary actions as discussed above.

B.3 Expediting SPS implementation before summer 2025:

Very high demand in Northern region is expected during the month of May-Sep months. During the high demand period, it is observed that often the transmission system remains heavily loaded and may become N-1 non-compliant on several occasions.

To overcome this N-1 non-compliance, planning for new transmission system is being carried out by CTUIL and CEA. However, it is observed that there are certain occasions when the transmission elements approved will take considerable time for commissioning. Due to this delay, the existing transmission system may get overloaded.

To address the issue and avoid major contingency due to cascading tripping, SPS are being designed to minimize impact of outage of one or more transmission elements. As per clause 29.14 of IEGC 2023,

"NLDC, RLDCs, SLDCs, CTU, STUs or users may identify the requirement of System Protection Schemes (SPS) (including inter-tripping and run-back) in the power system to operate the transmission system within operating limits and to protect against situations such as voltage collapse, cascade tripping and tripping of important corridors/flow-gates. Any such SPS at the intra-regional level shall be finalized by the concerned RPC. SPS at the inter-regional and cross-border levels shall be finalized by the NLDC in coordination with the concerned RPCs. SPS shall be installed and commissioned by the concerned users. SPS shall always be kept in service. If any SPS at the intra-regional level is to be taken out of service, the permission of the concerned RLDC shall be required. If any SPS at the inter-regional and cross-border levels is to be taken out of service, permission of NLDC shall be required."

As per NRLDC, SPS at following substations need to be commissioned before summer 2025 so as to avoid major contingency in case of outage of one or more transmission element.

Haryana

Haryana SLDC to provide feeder details to be wired under SPS

- 765/400kV 2*1000MVA Bhiwani ICTs (two ICT section)
- 400/220kV 450+500MVA Panipat ICTs (BBMB)
- 400/220kV 2*315MVA Kabulpur ICTs
- 400/220kV 3*315MVA Hissar ICTs

It was discussed that Haryana SLDC representatives had visited NRLDC on 13.05.2025 for discussion on SPS proposal at different HVPNL substations. Following was discussed in the meeting:

- 765/400kV 2*1000MVA Bhiwani ICTs (two ICT section): Required load relief is not observed with feeders proposal from HVPNL. HVPNL was asked to review the same.
- 400/220kV 450+500MVA Panipat ICTs (BBMB): Feeders identified by HVPNL are also supplying power to DTL. HVPNL and DTL to jointly discuss and converge.
- 400/220kV 3*315MVA Hissar ICTs: Feeders identified by HVPNL are also supplying power to Rajasthan and Punjab. HVPNL to discuss the feeders with RRVPNL and PSTCL also.
- 400/220kV 2*315MVA Kabulpur ICTs: Load will be shifted to 400/220kV Sonepat after LILO of Mohana-Samalkha line at Sonepat(PG). 1no. 315MVA ICT under long outage since Aug 2024. Remaining single 315MVA ICT will radially feed load.

Haryana SLDC was asked to discuss with concerned states for SPS at 400/220kV Panipat(BBMB) and Hissar ICTs. Further, additional feeders need to be identified for 765/400kV 2*1000MVA Bhiwani ICTs. NRLDC representative suggested that Haryana may bilaterally discuss with concerned states first, thereafter NRLDC may also be intimated.

It was discussed that separate meeting will be convened by NRPC as it involves Punjab, Rajasthan and BBMB also.

Rajasthan

As discussed earlier on numerous occasions, as majority of 400/220kV ICTs in Rajasthan state (both interstate as well as intrastate are N-1 non-compliant, RVPNL may identify feeders and discuss with POWERGRID for finalisation of SPS at interstate substations. For intrastate substations, where SPS have not been planned and implemented, the same may be taken up. List of N-1 non-compliant substations is shown below:

Constrained location	SPS Status as available with NRLDC
3*315=945 MVA ICT at Bhiwadi(PG)	Not planned
2*315+500=1130 MVA ICT at Bassi(PG)	Not planned
315+500=815 MVA ICT at Neemrana(PG)	Not planned
2*500=1000 MVA ICT at Jaipur South(PG)	Not planned
2*315+500=1130 MVA ICT at Sikar(PG)	Not planned
3*315=945 MVA ICT at Kankroli(PG)	Not planned
2*315=630 MVA ICT at Kotputli(PG)	Not planned
2*315=630 MVA ICT at Deedwana(RVPN)	Not planned
3*250+315=1065 MVA ICT at Heerapura(RVPN)	Not planned
3*315 =945 MVA ICT at Chittorgarh (RVPN)	Implemented
2*315 =630 MVA ICT at Ajmer (RVPN)	Implemented
2*315 =630 MVA ICT at Merta (RVPN)	Implemented
2*315 =630 MVA ICT at Bikaner (RVPN)	Implemented
2*315 =630 MVA ICT at Jodhpur (RVPN)	Implemented
2*315=630 MVA ICT at Suratgarh(RVPN)	Implemented
3*315=945 MVA ICT at Ratangarh(RVPN)	Implemented
1*500+1*315 =815 MVA ICT at Bhilwara (RVPN)	Implemented

NRLDC representative stated that details of feeders to be wired under SPS is yet to be received from Rajasthan SLDC.

Rajasthan SLDC/RVPN were also requested to identify feeders for SPS at pending 400/220kV POWERGRID and RVPN substations supplying power to Rajasthan. While identification of feeders it needs to be ensured that in case of SPS operation and tripping of one/two feeders, any other element should not get overloaded (no cascade tripping).

Rajasthan SLDC representative informed that proposal has been prepared for SPS at 400/220kV Heerapura and is under internal approval whereas ATIL has been asked to prepare SPS logic for 400/220kV Deedwana.

Rajasthan SLDC/RVPN were also requested to identify feeders for SPS at pending 400/220kV POWERGRID and RVPN substations supplying power to Rajasthan. While identification of feeders it needs to be ensured that in case of SPS operation and tripping of one/two feeders, any other element should not get overloaded (no cascade tripping).

NRPC and NRLDC representatives expressed concern on the slow progress for feeder identification exercise by Rajasthan SLDC and asked to expedite the same.

Delhi

POWERGRID representative confirmed SPS implementation at 765/400kV Jhatikara for both sections and agreed to share mock testing report of SPS before upcoming PSC meeting of NRPC.

Parbati-II evacuation related

NRLDC had received letter from NHPC side regarding evacuation of power from Parbati-II HEP through deemed T-GNA till commissioning of 400/200kV 500MVA ICT-4 at Nallagarh(PG).

Subsequently, NRLDC carried out simulation studies and following are inputs:

Major Impact on Line and ICT Loadings:

- 765/400kV ICTs at Moga: Decrease in loading by ~75 MW per ICT.
- 400kV Amritsar – Banala: Increase in loading by ~175 MW.
- 400kV Koldam – Ludhiana: Increase in loading by ~145 MW.
- 400kV Koldam – Ropar: Increase in loading by ~195 MW.
- 765/400kV ICTs at Bhiwani: Decrease in loading by ~95 MW per ICT (2 ICT section).
- 400kV Rampur – Nallagarh: Decrease in loading by ~95 MW per circuit.
- 400kV KWHEP – Wangtoo: Increase in loading by ~58 MW per circuit.

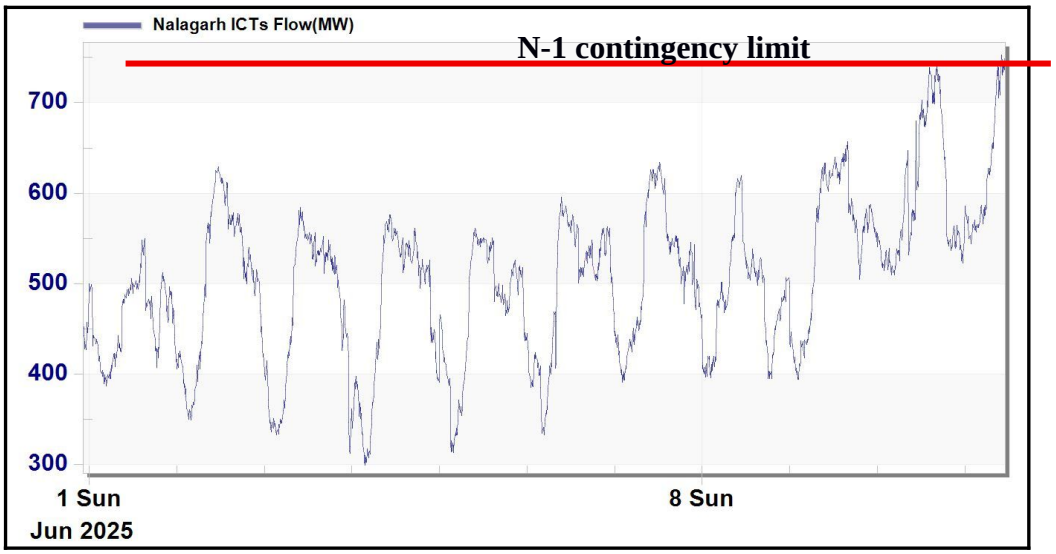
Critical Observation at Nallagarh ICTs:

The loading of 400/220kV ICTs at Nallagarh is expected to increase by approximately 33 MW per ICT.

- Considering the last year’s maximum loading of ~245-250 MW per ICT, the loading is projected to reach around 280-285 MW per ICT.
- The N-1 loading of the ICTs is estimated to be around 255 MW, which indicates that the ICTs will be significantly stressed post-commissioning of Parbati-II generation.
- To mitigate potential overloading risks, implementation of a SPS is needed.

NRLDC representative stated that as of now, loading of 400/220kV Nallagarh ICTs has not been seen to be high due to lower demand in Northern region and Parbati-2 generation is also running during evening hours, when loading of 400/220kV Nallagarh ICTs is well below the N-1 contingency limits.

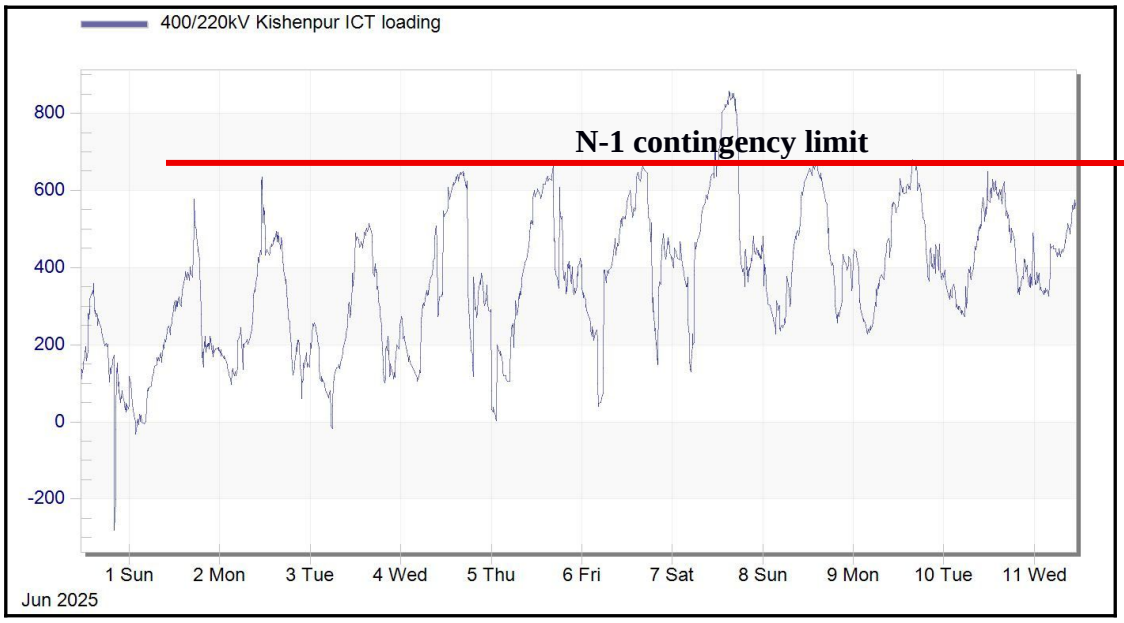
The loading pattern of 400/220kV 3*315MVA Nallagarh ICTs for June 2025 is shown below. It can be seen that loading is within the N-1 contingency limits during day-time. With expected increase in generation at Parbati-II during day-time, the loading of 400/220kV Nallagarh ICTs will further increase.



POWERGRID representative informed that 500MVA ICT-IV at Nallagarh is expected to be commissioned by 30th June 2025.

Accordingly, OCC forum discussed that there may not be requirement of SPS at 400/220kV Nallagarh ICTs.

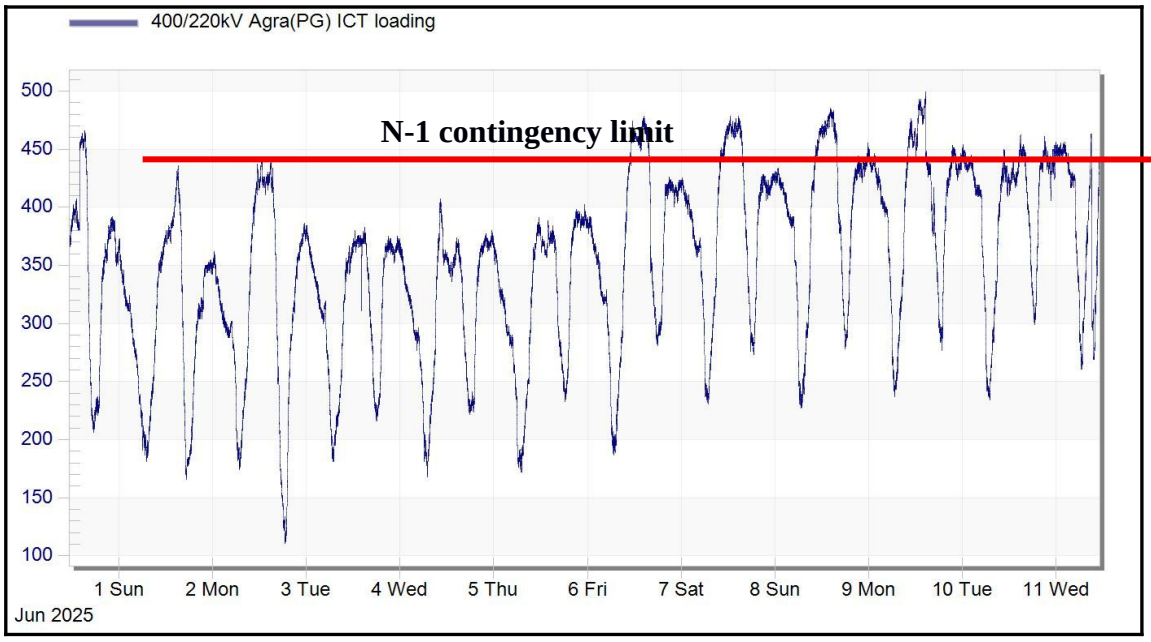
NRLDC representative stated that loading of 400/220kV ICTs at Kishenpur is also observed to be on the higher side during June 2025. Accordingly, it was proposed that J&K may provide the reasons for the same as it was not observed last year. Moreover, in case of persistent high loading of existing 4000/220kV ICTs at Kishenpur, SPS proposal may also be deliberated.



POWERGRID NR-II representative stated that generally there is not much high loading issue of 400/220kV Kishenpur ICTs and only in special cases such as less hydro generation at Salal, high loading issues may arise. It was discussed that NRLDC and POWERGRID will monitor loading of 400/220kV Kishenpur ICTs.

J&K representative was not available for comments.

NRLDC representative also mentioned that they have also received a request from UP SLDC vide email dated 24.05.2025 regarding implementation of SPS at 400/220kV Agra(PG) ICTs. The loading pattern of June 2025 is shown below.

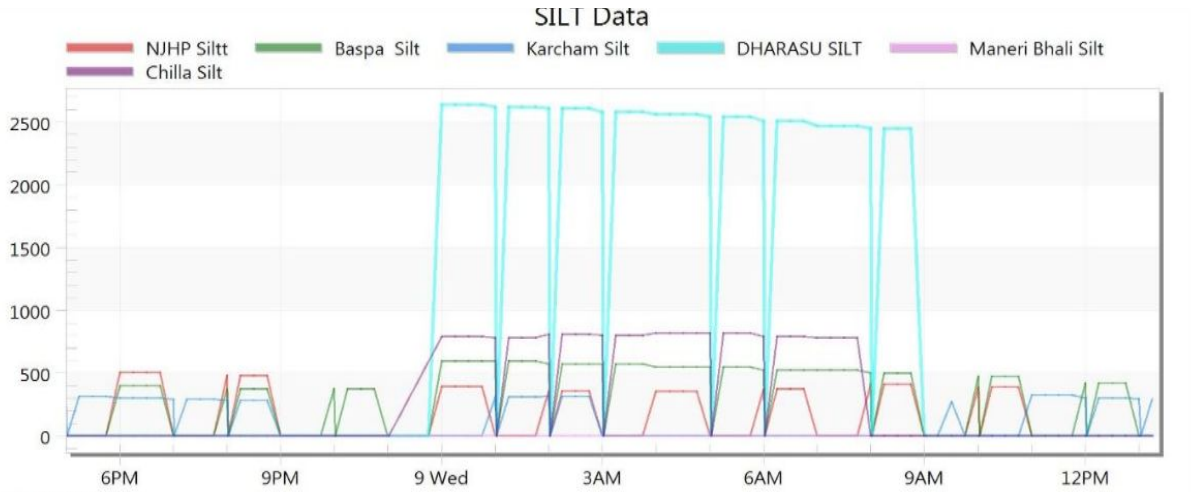


UP SLDC stated that they will shortly convene a meeting with participation from POWERGRID and STU in next week and submit agenda for SPS proposal at 400/220kV Agra(PG) in upcoming Protection subcommittee meeting of NRPC.

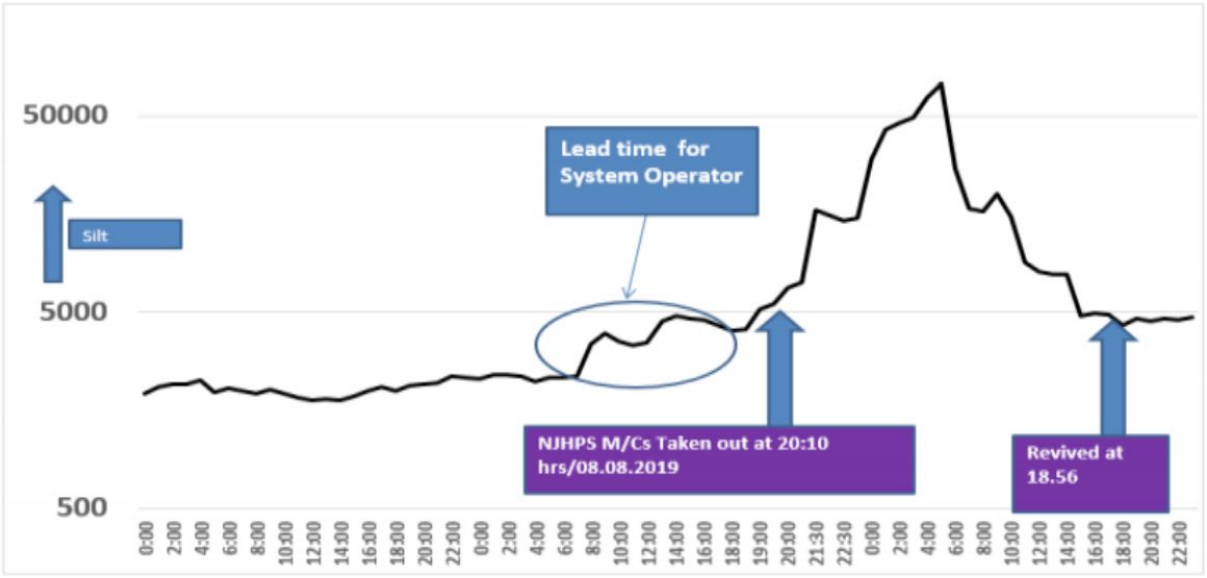
OCC forum asked all utilities to take necessary actions as discussed above.

B.4 Near real-time monitoring of silt at NRLDC for hydro generating stations

Availability of near real time silt measurement data to NRLDC/ SLDCs will be helpful for real time system operation in view of frequent hydro generation outage due to silt. PPM numbers are being punched directly from the site/control room at NRLDC server providing silt measurement at NRLDC control room. During previous years also, for Nathpa Jhakri, Baspa, Karcham and other small HEPs of Uttarakhand, trends of silt data were made available at NRLDC & being monitored by system operators in real-time.



Sample available data of silt shown below suggests that there is some lead-time (varying from few hours to several hours) available with system operators to accommodate outage of hydro generators on account of high silt level.



In view of upcoming silt scenario, all hydro stations are requested to furnish the silt forecast data (near-real time silt measurement) for operational planning measures to control centers (RLDCs/SLDCs) as this would help them gain some lead-time for better tackling of hydro generator outage on silt.

Large hydro outage in short duration during monsoon on silt is a common phenomenon and the associated challenges have been highlighted in regular OCC/TCC meeting. The agreed action based on deliberation in various meetings are given below:

- Action for Generator
  - Silt monitoring/Silt forecasting for planned hydro outage [Advance information]
  - Reduction of Generation/Tripping of Units as per protocol (Staggering of units)
  - Slow ramping down of generation on the units to be closed as per protocol.

- Action by SLDC/Constituents
  - Generation reserve to be maintained
    - Own Generation
    - Contracted Generation from Other State/Traders
  - Load management to be planned
  - Optimization of Hydro generation as per demand requirement

It has been experienced that states those have major share in hydro e.g. Himachal Pradesh over draw from the grid during such condition. As deviation mechanism is also strict, it is gentle reminder for each state to plan in advance for such eventualities.

NRLDC representative also shared the steps to be taken by Hydro generating stations of NR for sharing of silt data with NRLDC.

OCC asked all hydro stations may timely share silt related information with NRLDC and also follow protocol as approved by NRPC for taking units out incase of high silt.

B.5 Grid Operation related issues in Northern region

a) Long outage of transmission elements

It was requested to expedite restoration of the Grid elements under long outage at the earliest and also provide an update regarding their expected restoration date/time in the meeting/ NRLDC outage portal.

Some of the key elements that need to be revived at the earliest:

S.	Element Name	Owner	Date	Reason / Remarks	Discussion in 232 OCC

No.					Meeting
1	400/220 kV 315 MVA ICT 1 at Muradnagar_1(UP)	UPPTCL	13-03-2020	Buccholz relay alarm and Local Breaker Backup protection operated.	To be replaced by new 500MVA ICT. ICT to be received on site in Sep 2025
2	220 KV SHAHJAHANPUR(PG)-HARDOI(UP) (UP) CKT-1	UPPTCL	05-06-2024	Tower collapse at loc no. 86 & 87	Expected to be revived by Jul 2025
3	400 KV MORADABAD(UP)-KASHIPUR(UK) (UK) CKT-1	PTCUL	18-04-2025	Tower collapsed at Loc. no. 94.	-
4	400/220 kV 240 MVA ICT 3 at Moradabad(UP)	UPPTCL	13-12-2021	Due to high DGA values, Hydrogen gas is above permissible limit.	To be replaced by 31MVA ICT, expected to be revived by Sep 2025
5	400 KV JAISALMER-BARMER (RS) CKT-2	RRVPNL	01-05-2025	Tower collapsed from Location No. 70 to 81-12 Nos.	Expected to be revived by 31st Jul 2025. NRLDC stated that wind season started so Raj SLDC needs to thoroughly monitor loading of lines in the complex.
6	400 KV JAISALMER-BARMER (RS) CKT-1	RRVPNL	01-05-2025		
7	400 KV DADRI(NT)-LONI HARSH VIHAR(DV) (NT) CKT-1	NTPC	21-05-2025	Tower No. 24 Collapse	Expected to be revived by 20th Jun 2025
8	400 KV DADRI(NT)-LONI HARSH VIHAR(DV) (NT)	NTPC	21-05-2025		

	CKT-2				
9	400 KV Noida Sec 148-Noida Sec 123 (UP) Ckt-2	UPPTCL	09-03-2023	Flashover Y-phase earth switch compartment at Noida Sector-148.	Expected to be revived by Dec 2025
10	400 KV UNNAO-PANKI (UP) CKT-1	UPPTCL	30-05-2025	Tower damaged at Loc. No. 108-112	Expected to be revived by 30th June 2025
11	400/220 kV 500 MVA ICT 1 at Rasra (UP)	UPPTCL	26-10-2023	Y-phase bushing has got damaged.	Expected to be revived by 31st July 2025
12	400/220 kV 315 MVA ICT 1 at Kabulpur(HV)	HVPNL	11-08-2024	Operation of transformer protection . Differential protection trip.	Expected to be revived by 15th Jul 2025

It was requested to provide update regarding the likely revival date for these in the meeting/ NRLDC outage portal and expedite revival of these transmission elements.

OCC forum asked all utilities to provide update regarding the likely revival date for these in the NRLDC outage portal and expedite revival of these transmission elements.

b) Update of Operating Procedure document in line with IEGC:

In compliance with Regulation 28.4 of Indian Electricity Grid Code-2023, Operating Procedure document would be updated by NRLDC in mid-July 2025. Latest available document is available at

https://drive.google.com/file/d/16HHfg_YbGHl9XuP4vkO9Drxy-rUZmUlA/view?usp=drive_link

Utilities were requested to provide their inputs/comments for any suggested changes in the document. It was requested that inputs/comments may be provided by 30th June 2025.

OCC forum asked all utilities to go through the operating Procedure Document of NRLDC and provide their inputs/comments for any suggested changes in the document.

B.6 Demand forecasting and resource adequacy related

Hon'ble CERC In the matter of Planning for safe, secure, and reliable integrated operation of the power system during critical periods arising on account of seasonal variations wherein the electricity demand increases rapidly by undertaking specific measures to mitigate the risks on the power system, under clause (h) of sub-section (1) of Section 79 of the Electricity Act, 2003 and the Regulation 31 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023 has issued suo-motto order 9/SM/2024 dated 07.10.2024.

Commission has issued the following directions to NLDC, RLDCs, and SLDCs in connection with the implementation of Regulations 31 and 33 of the Grid Code to address the anticipated surge in demand of electricity during October 2024 on account of seasonal variations. NLDC, RLDCs, and SLDCs were directed to submit their responses to the measures contained in para 9 of this order by 16.10.2024.

Subsequently, a meeting was taken by Hon'ble CERC on 14.02.2025 with all NR SLDCs, NRLDC and NRPC to review the actions being taken at SLDC end on measures related to resource adequacy.

It is to be noted that CERC has also released "Report on Planning for safe, secure, and reliable integrated operation of the power system during critical periods arising on account of seasonal variations wherein the electricity demand increases rapidly by undertaking specific measures to mitigate the risks on the power system under Order dated 07.10.2024 in Suo-Moto Petition No. 9/SM/2024" on 29.04.2025.

In the report following actions have been suggested:

Area	Key Action
Power Procurement	Advance contracts, banking arrangements
Forecasting	Tool access, RLDC coordination, automation in case of manpower issue, Feedback from DISCOM,
Manpower	Approvals as per MoP guidelines, training
Reserve Management	Enforce obligations, clarify reserve norms
Thermal Generation	Enable operation at MTL, regulatory support from SERC
SAMAST	Ensure implementation within strict timelines

With reference to the Clause 31(2) of Central Electricity Regulatory Commission-IEGC Regulations, 2023 and the Operating Procedure of NRLDC prepared in accordance with the same, each SLDC has to furnish the demand estimation for day ahead, week ahead, month ahead (with time block wise granularity) and demand estimation for year

ahead (with hour granularity). The sub-clause 31(2) (h) of IEGC-2023 states the following timeline for the submission of demand estimate data to RLDC.

Type of Demand Estimation	**Timeline**
Daily	10:00 hours of previous day
Weekly	First working day of previous week
Monthly	Fifth day of previous month
Yearly	30th September of previous year

Status of Day Ahead Forecasting, week ahead, month-ahead and year-ahead submission status for Jun-2025 as per Clause 31(4) (a) & (b) of IEGC-2023 is shown below:

State/Entity	Day Ahead (As on Jun-25)	Week Ahead	Month Ahead (Jul 2025)	Year-Ahead
Punjab	As per Format	Demand and Resource not as per format & timeline	Not received	Not received
Haryana	Demand and Resource not as per format	Only demand & irregular	Only demand	Not received
Delhi	Demand and Resource not as per format	As per Format	As per Format	Only Demand
Rajasthan	As per Format but irregular	As per Format	Not received	Not received
Uttar Pradesh	As per Format	As per Format	As per Format	As per Format
Uttarakhand	Demand and Resource not as per format and irregular	As per Format	As per Format	Not received
Himachal Pradesh	As per Format	As per Format	As per Format	As per Format
J&K and Ladakh (UT)	Demand and Resource not as per format & irregular	Not received	Not received	Not received
Chandigarh (UT)	Demand and Resource not as per format	Not received	Not received	Not received

In accordance with above, all SLDCs were requested to timely furnish the demand estimation data along with generation adequacy data as per the formats available at *https://drive.google.com/drive/folders/1KWY4G9gTBLV5wTJkhGEIeRptKP-QbhjL?usp=drive_link* to NRLDC through mail (nrldcmis@grid-india.in) and FTP as per above timeline.

The relevant clauses from IEGC 2023 related to demand forecasting exercise and resource adequacy exercise as discussed in 225 OCC meeting are enclosed in Annexure-B.II of agenda:

All SLDCs need to take actions at their end for timely submission of demand forecasting and resource adequacy data on day-ahead, week-ahead, month ahead and year ahead basis. It is also requested to share actions being taken at your end to ensure compliance of listed clauses of IEGC 2023 as Annex-B.II of agenda.

Resource Adequacy guidelines issued by the CEA outline the roles and responsibilities of all stakeholders and provide a framework for RA planning in India. This matter was also discussed during the 52nd NRPC TCC meeting under Agenda Item A.12 to sensitize stakeholders on the importance of RA activities as per the approved CEA

guidelines and IEGC provisions to enhance grid reliability. The format for data submission for ST-NRAP is provided in NLDC operating procedure (Link: https://posoco.in/wp-content/uploads/2024/08/NLDC-Operating-Procedure_2024.pdf).

During the 228th OCC meeting, CGM, NRLDC, reiterated the importance of conducting the self-audit exercise within the timelines mandated by regulations. He informed that NRLDC has already submitted its self-audit report to CERC and urged all stakeholders to do the same.

As per IEGC Clause 56.2(c), 'The self-audit reports by users, QCAs, and SNAs shall be submitted to the concerned RLDC or SLDC, as the case may be.' Failure to submit the self-audit report within the stipulated timeframe would be considered a non-compliance with IEGC regulations.

During 232 OCC meeting, NRLDC representative stated that:

- Data on day ahead basis received from some of the states (as shown in table) is not as per NRLDC format. It was further mentioned that NRLDC is in process of developing a code/program for automation of day-ahead resource adequacy. Incase data is not received in formats circulated by NRLDC, it would not be possible to map/utilize the data submitted by states in the internal program being developed at NRLDC end.
- Self-audit report has been received from NHPC and Koteshwar THDC only for F.Y. 2023-24. As F.Y. 2024-25 has also completed recently, all utilities in Northern region are requested to carry out self-audit exercise and share report with NRLDC as per IEGC Clause 56.2(c).

OCC requested all the states to take actions at their end to ensure compliance of all regulations and guidelines w.r.t. resource adequacy framework. SLDCs were also asked to maintain the reserves as per the allocated quantum by the NLDC as per the Grid Code. OCC forum asked all concerned utilities to carry out self-audit exercise as per IEGC Clause 56.2(c), and submit the report to NRLDC.

B.7 Mock testing of islanding scheme and simulation studies

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).

During 231 OCC meeting, OCC requested Rajasthan and Punjab to complete the work related to SCADA display of islanding scheme and Delhi was requested to complete the UFR testing and submit testing report.

MS NRPC stated that ERS availability and implementation of islanding schemes were deliberated thoroughly in MoP and all concerned were asked to ensure ERS availability and also expedite implementation of islanding schemes along with mock testing of existing islanding schemes.

Punjab SLDC informed that Pathankote-RSD islanding scheme was disabled recently. OCC forum expressed concern on the same and stated that no prior approval was taken by PSTCL from NRPC forum.

MS NRPC asked DTL and POWERGRID to coordinate and carry out field testing of pending UFRs of Bawana islanding scheme.

Further, Rajasthan SLDC was asked to ensure availability of SCADA display at SLDC/NRLDC end at the earliest.

Rajasthan SLDC stated that display has been created at SLDC end, however there are some pending telemetry related issues.

OCC forum asked Rajasthan to resolve the telemetry related issues and ensure availability of SCADA display at SLDC/NRLDC end at the earliest. Further, POWERGRID and DTL to coordinate and carry out mock testing of UFRs part of Bawana islanding scheme.

Subsequently, Rajasthan SLDC vide email dated 04.06.2025 have shared the SCADA display made at SLDC end for the islanding scheme.

During 232 OCC meeting, NRLDC representative presented the latest status of actions required on various islanding schemes.

Scheme	UFR testing done	Basecase shared	SCADA display made
NAPP Islanding scheme (UP)	✅ Yes	✅ Yes	✅ Yes
RAPP Islanding scheme (Raj)	✅ Yes	✅ Yes	✅ Yes
Bawana Islanding scheme (Delhi)	❌ No	✅ Yes	✅ Yes
Unchahar Islanding scheme(UP)	✅ Yes*	✅ Yes*	

*Received at NRLDC on 16.06.2025. Being reviewed.

It was also discussed that there have been recent directions from NPC and MoP also for islanding testing.

DTL representative stated that pending testing of ufr at POWERGRID will be carried out shortly.

NRLDC asked DTL to share comprehensive testing report of islanding scheme after completion of testing exercise.

Punjab SLDC was also asked to share timeline for revival of RSD-Pathankote islanding scheme. Punjab SLDC agreed to share timeline through email.

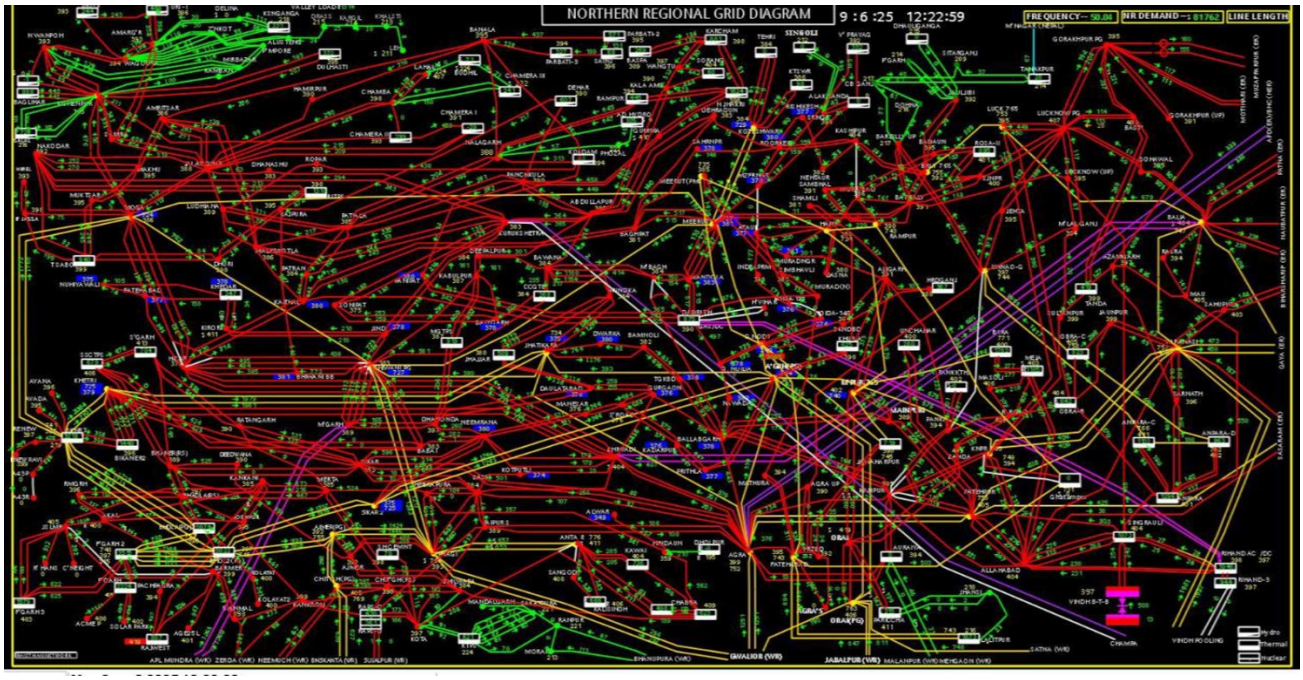
It was highlighted from NRLDC side that although SCADA displays have been made for islanding schemes, telemetry of site data to NRLDC is poor and most of the time, some or other data is missing.

ED NRLDC expressed concern on the slow progress of implementation of islanding schemes and stated that these schemes were approved in 2022-23 and still have not been implemented. It was requested that all utilities expedite the implementation of the approved islanding schemes.

OCC forum asked all utilities to take necessary actions as discussed above.

B.8 Tripping of HVDC Champa-Kurukshetra poles on 09.06.2025

HVDC Champa-Kurukshetra Pole 1,3 and 4 tripped on 09.06.2025. Pole 2 was already under forced outage from 28.05.2025. The tripping of the 03 poles led to severe low voltages, load and generation loss at various nodes and high loading of 765 KV Aligarh-Gr. Noida line in the Northern Grid (3100 MW). Loading 765 KV Bhiwani PG ICTs (2&3) which are already N-1 non-compliant further increased to 1071 MW. The tripping caused alarming conditions in the Northern Region grid.



Tripping of all poles on 17.06.2024 led to severe low voltages and committee was formed under the Chairmanship of Member (GO&D), CEA to analyse the various issues observed during the event. Committee recommendation report on the 17th of June load loss event in 2024 of Northern region, following important points are again being reiterated to maintain reliability of HVDC link:

a. Review of protection schemes to avoid frequent outages.
b. Review of transmission line design including cross arms, jumpers, etc.
c. Design of filter switching logic to support system voltage.

NRPC forum has also acknowledged the sensitivity of the event and directed the concerned to take appropriate actions based on the recommendations of Committee. Also, The Northern region import capability has been reduced by 1500 MW in view of the continuous outage of Pole 2 of HVDC Champa-Kurukshetra.

NRLDC representative stated that all states take necessary measures for minimizing MVAR drawl/injection from ISTS in consultation with respective DISCOMs/STUs and SLDCs. Further, there seems to be requirement of SPS for contingency of Champa-Kurukshetra HVDC due to its poor reliability.

UP SLDC representative stated that tripping of HVDC Champa-Kurukshetra is credible contingency and all NR states need to have SOP for taking actions in real-time in case of tripping of HVDC Champa-Kurukshetra and observance of low voltages in NR grid.

CTUIL representative stated that proposal for new STATCOM at 765/400kV Aligarh will be discussed after confirmation of space at 765/400kV Aligarh.

SE(O) NRPC asked CTUIL along with CEA, STUs and NRLDC may jointly study and suggest the locations for STATCOMs near load centers and logic of SPS required to avoid further contingencies after tripping of HVDC Champa-Kurukshetra.

OCC forum expressed concern on the frequent tripping event of HVDC Champa-Kurukshetra and asked POWERGRID to take necessary measures for improving reliability of HVDC Champa-Kurukshetra. Further, POWERGRID was asked to expedite the restoration of Champa-Kurukshetra Pole-2 which is under long outage since 28.05.2025. POWERGRID was also asked to share detailed report of tripping analysis of 09.06.2025. CTUIL was asked to study in coordination with CEA, STUs and NRLDC and suggest locations for STATCOMs near load centers to arrest low voltages in case of tripping of HVDC Champa-Kurukshetra poles. It was discussed that NRLDC in consultation with NLDC/SLDCs, may prepare SPS logic and SOP actions to be taken in case of tripping of HVDC Champa-Kurukshetra poles during high demand period of NR to take care of low voltage situation.

B.9 High demand of Northern Region

Northern Region demand reached 90 GW on 12.06.2025. Demand is hovering 90 GW in day time and 88 GW in the Evening/Night hours. Constituents were requested to maintain high alertness, monitor line and ICT loadings and manage their portfolio during the high demand period to avoid over drawl and shortages. With further dry spell coupled with hot and humid conditions along with agriculture load, rise in demand is expected. States were also requested to manage their MVAR drawl and not lean on grid as lower voltages are also being observed at various nodes in the grid.

OCC forum asked all utilities to take necessary actions as discussed above.

B.10 Multiple element tripping events in Northern region in the month of May 2025:

A total of 21 grid events occurred in the month of May 2025 of which 15 are of GD-1 category and 06 are of GI-2 Category. The tripping report of all the events have been issued from NRLDC. A list of all these events along with the status of DR/EL & tripping detail submission is attached at Annexure-B.III of agenda.

Maximum delayed clearance of fault observed in event of multiple elements tripping at 765/400kV Meerut(PG), 400kV Koteshwar(PG), 400kV Koteshwar HEP & Tehri HEP at 19:55 hrs. on 21st May 2025. (As per PMU at Meerut(PG), B-N fault at 19:55:19 hrs. (cleared within 100msec) and R-N fault with delayed clearance of ~1640msec is observed).

Delayed clearance of fault (more than 100ms for 400kV and 160ms for 220kV system) observed in total 08 events out of 21 grid events occurred in the month. In 04 (no.) of grid event, there was no fault in the grid.

NRLDC representative presented the reporting status of DR/EL & tripping reports w.r.t. grid events occurred in May 2025. It was highlighted that detailed reports of majority of the tripping events have not been received. Complete DR & EL and tripping report of grid event at 400kV Dadri(NTPC), 400/220kV Obra_B(UP), 765/400kV Bhadla2(PG), 400/220kV Ludhiana(PG), 400kV Kabulpur and CLP Jhajjar TPS have not been received.

SLDC-UP, POWERGRID, SLDC-Punjab and NTPC agreed to share the tripping details at the earliest and assured to submit the tripping details as per timeline specified in IEGC.

NRLDC requested utilities to start preparing the detailed report of the tripping events as per timeline mentioned in IEGC 2023 and share the report with NRLDC, NRPC and PSC forum. Remedial actions taken by constituents to avoid such multiple elements tripping may also be included in the detailed report.

As per IEGC clause 37.2 (c), Disturbance Recorder (DR), station Event Logger (EL), Data Acquisition System (DAS) shall be submitted within 24 hrs of the event and as per IEGC clause 37.2 (e), the user shall submit a detailed report in the case of grid disturbance or grid incidence within one (1) week of the occurrence of event to RLDC and RPC.

OCC forum requested members to take necessary preventive measures to avoid such grid incidents / disturbances in future and report actions taken by respective utilities in OCC & PSC forum. Moreover, utilities may impress upon all concerned for providing the Preliminary Report, DR/EL & detailed report of the events to RLDC in line with the regulations.

B.11 Status of submission of DR/EL and tripping report of utilities for the month of May 2025:

The status of receipt of DR/EL and tripping report of utilities for the month of **May 2025** is attached at Annexure-B.IV of agenda. It is to be noted that as per the IEGC provision under clause 37.2 (c), the tripping report along with DR/EL has to be furnished within 24 hrs. of the occurrence of the event.

NRLDC representative stated that on the basis of status of February month it is evident that reporting status of some of the constituents i.e., RE stations, SLDC-HR, SLDC-PS, SLDC-J&K, SLDC-HP, INDIGRID, NTPC, BBMB, POWERGRID(NR-1) and RAPS are not satisfactory and need improvement. Further, persistent unsatisfactory reporting status of Punjab & J&K was also highlighted.

NRLDC representative requested utilities to improve the status of submission of DR/EL & tripping reports. Timely submission of tripping details (DR, EL, tripping report etc.) helps in detailed analysis of the grid event and further remedial actions.

OCC forum emphasized the importance of DR/EL & tripping report data for analysis of the tripping. In addition, these data are also the base for the availability verification. The unavailability of these details delays the availability verification process also. Hence, timely submission of DR/EL & tripping report is very much necessary. Members were requested to comply with IEGC 37.2(c) and submit the details in time. Members agreed to take necessary follow-up actions to improve the reporting status.

Members may please note and advise the concerned for timely submission of the information. It is requested that DR/EL of all the tripping shall be uploaded on Web Based Tripping Monitoring System (TMS) "https://postda.nrldc.in/Default.aspx" within 24 hours of the events as per IEGC clause 37.2(c) and clause 15.3 of CEA grid standard.

B.12 Frequency response performance for the reportable events of month of May 2025:

In the month of May 2025, only 1 no. of reportable event on 11th May 2025 was notified by NLDC for which FRC/ FRP need to be calculated and the same along with high resolution data need to be submitted to RLDC. Description of the event is as given in the Table below:

S. No.	Event Date	Time (In hrs.)	Event Description	Starting Frequency (in Hz)	Nadir Frequency (in Hz)	End Frequency (in Hz)	*Δf*	NR FRP during the event
1	11-May-	16:51	As reported, at 16:51 hrs on 11th	49.992	49.771	49.966	-*0.03*	0.64

	25	hrs	May 2025, generation loss event of 2832 MW occurred in APL Mundra (WR). Hence generation loss of 2832 MW is considered for FRC/FRP Calculation.					

As per IEGC 2023 Clause 30.8, "The primary response of the generating units shall be verified by the Load Despatch Centres (LDCs) during grid events. The concerned generating station shall furnish the requisite data to the LDCs within two days of notification of reportable event by the NLDC."

As per IEGC 2023 Clause 30.10.(n), "Each control area shall assess its frequency response characteristics and share the assessment with the concerned RLDC along with high resolution data of at least 1 (one) second for regional entity generating stations and energy storage systems and 10 (ten) seconds for the state control area."

As per sub-clause (a(v)) of clause (9) of IEGC 2023 Annexure-2, "All the SLDCs shall work out FRC for all the intra-state entities (for events indicated by the Regional Load Despatch Centres) based on the HDR available at their respective SLDCs and submit the same to respective RLDC within six (6) working days after the event. (Format as per Table-B)."

As per sub-clause (a(vi)) of clause (9) of IEGC 2023 Annexure-2, "All regional entity generating stations shall also assess the FRC for their respective stations and submit the same to respective RLDC within six (6) working days. (Format as per Table-B). The high-resolution data (1 second or better resolution) of active power generation and frequency shall also be shared with RLDC."

Status of details received from constituents as on 06th June 2025 is:

FRC computation and data submission status		
S. No	**Control Area**	**Event Date**
		11-05-2024
1	**Punjab**	Not Received
2	**Haryana**	Received
3	**Rajasthan**	Not Received
4	**Delhi**	Received
5	**Uttar Pradesh**	Received
6	**Uttarakhand**	Received
7	**Chandigarh***	NA
8	**Himachal Pradesh**	Not Received
9	**J&K(UT) and Ladakh(UT)**	Not Received

10	Dadri -1 (TH)	Received
11	Dadri -2 (TH)	Received
12	Jhajjar (TH)	Received
13	Rihand-1 (TH)	Received
14	Rihand-2 (TH)	Received
15	Rihand-3 (TH)	Received
16	Shree Cement (TH)	Not Received
17	Singrauli (TH)	Not Received
18	Tanda-2 (TH)	Received
19	Unchahar-I (TH)	Received
20	Unchahar-II (TH)	Received
21	Unchahar-III (TH)	Received
22	Unchahar-IV (TH)	Received
23	Anta (G)	Received
24	Auraiya (G)	Not Received
25	Dadri (G)	Not Received
26	AD Hydro (H)	Received
27	Bairasiul (H)	Received
28	Bhakra (H)	Received
29	Budhil (H)	Not Received
30	Chamera-1 (H)	Received
31	Chamera-2 (H)	Received
32	Chamera-3 (H)	Not Received
33	Dehar (H)	Received
34	Dhauliganga (H)	Not Received
35	Dulhasti (H)	Received
36	Karcham (H)	Not Received
37	Kishenganga	Not Received
38	Koldam (H)	Received
39	Koteshwar (H)	Received
40	Malana-2 (H)	NA
41	Nathpa Jhakri (H)	Received
42	Parbati-2 (H)	Received
43	Parbati-3 (H)	Received
44	Pong (H)	Received
45	Rampur (H)	Received
46	Sainj (H)	Not Received
47	Salal (H)	Received
48	Sewa-II (H)	Received
49	Singoli Bhatwari (H)	Not Received
50	Sorang (H)	Not Received
51	Tanakpur (H)	Received
52	Tehri (H)	Received
53	Uri-1 (H)	Received
54	Uri-2 (H)	Not Received

NRLDC representaitve higlighted the list of generating stations and control area who haven't shared the FRC/FRP computation details. Details are pending from Shree Cement TPS, Singrauli TPS, Auraiya GPS, Dadri GPS, Budhil HEP, Chamera-III HEP, Dhauliganga HEP, Karcham HEP, Kishenganga HEP, Sainj HEP, Singoli Bhatwari HEP, Sorang HEP and Uri-2 HEP generating stations. Members were requested to share the FRC/FRP computation as per timeline. Rajasthan, Punjab, J&K & HP SLDCs were also requested to share the FRC compuation of their respecive control area as per stipulated timeline.

SLDC-HP and Karcham HEP stated that they have shared the details on 30.05.2025 & 14.06.2025 respectively.

NRLDC requested members to share the FRC/FRP computation of their resepctive control area as per timeline specified in IEGC.

Frequency Response Performance (FRP) of generating stations for each reportable event are calculated based on the submitted high resolution data from generating stations. However, the generating stations for which data is not received till 06th June 2025, FRC/FRP as per NRLDC HDR data is used for computation of Average Monthly Frequency Response Performance, Beta 'β' for Generating Stations.

FRP values as considered (as per NRLDC HDR data/ generator high resolution data) for the event of May 2025 is as follows:

Frequency response Performance		
S. No	Control Area	Event Date
		11-05-2024
1	Punjab	4.83
2	Haryana	4.89
3	Rajasthan	21.55
4	Delhi	2.08
5	Uttar Pradesh	1.32
6	Uttarakhand	0.56
7	Chandigarh*	NA
8	Himachal Pradesh	-5.69
9	J&K(UT) and Ladakh(UT)	-2.60
10	Dadri -1 (TH)	20.35
11	Dadri -2 (TH)	47.48
12	Jhajjar (TH)	48.45
13	Rihand-1 (TH)	40.65
14	Rihand-2 (TH)	16.87
15	Rihand-3 (TH)	31.17
16	Shree Cement (TH)	-10.81
17	Singrauli (TH)	10.90
18	Tanda-2 (TH)	8.04
19	Unchahar-I (TH)	32.66

20	Unchahar-II (TH)	31.78
21	Unchahar-III (TH)	34.02
22	Unchahar-IV (TH)	51.88
23	Anta (G)	No Gen
24	Auraiya (G)	No Gen
25	Dadri (G)	No Gen
26	AD Hydro (H)	0.96
27	Bairasiul (H)	4.59
28	Bhakra (H)	0.00
29	Budhil (H)	No Gen
30	Chamera-1 (H)	6.86
31	Chamera-2 (H)	-1.46
32	Chamera-3 (H)	7.73
33	Dehar (H)	0.06
34	Dhauliganga (H)	No Gen
35	Dulhasti (H)	4.34
36	Karcham (H)	17.10
37	Kishenganga	-2.52
38	Koldam (H)	23.63
39	Koteshwar (H)	11.62
40	Malana-2 (H)	NA
41	Nathpa Jhakri (H)	6.29
42	Parbati-2 (H)	11.77
43	Parbati-3 (H)	2.02
44	Pong (H)	0.30
45	Rampur (H)	13.62
46	Sainj (H)	-0.61
47	Salal (H)	-0.18
48	Sewa-II (H)	No Gen
49	Singoli Bhatwari (H)	-0.58
50	Sorang (H)	-0.27
51	Tanakpur (H)	3.32
52	Tehri (H)	4.57
53	Uri-1 (H)	-0.90
54	Uri-2 (H)	0.00

Memebers were requested to analyse the frequency response of their respective control area and share the FRC/FRP analysis of generating stations along with unit wise 01 sec data as per timeline for ensuring IEGC compliance.

NRLDC highlighted the unsatisfactory response of some of the generating stations during the event. Frequency Response Performance(FRP) of Shree Cement TPS, Bhakhra HEP, Chamera-II HEP, Dehar HEP, Kishenganga HEP, Pong HEP, Sainj HEP, Salal HEP, Singoli Bhatwari HEP, Sornag HEP, Uri-I & II

HEP was poor during the event. Members were requested to take necessary remedial actions to improve the governor response.

NRLDC representative requested NTPC to share the complete plant data of Singrauli TPS otherwise it can't be consisdered for FRP computatuion. Presently, data of only 2 units are being submitted by Singrauli TPS.

ISGS were requested to confirm whether FGMO as per IEGC 2023 has been implemented at their respective stations or not. Updated sheet on the basis of details receicved is as follows:

Sl. No.	Entity	Capacity(MW)	Governor Mode (FGMO as per IEGC 2023) Yes or No	Droop setting (%)	Remarks (if any)
1	Dadri-1 (TH)	4*200			
2	Dadri -2 (TH)	2*490			
3	Jhajjar (TH)	3*500			
4	Rihand-1 (TH)	2*500	Yes	5.0	Under Implementation
5	Rihand-2 (TH)	2*500	Yes	5.0	Under Implementation
6	Rihand-3 (TH)	2*500	Yes	5.0	Under Implementation
7	Shree Cement (TH)	(2 * 150)			
8	Singrauli (TH)	2*500+5*200			
9	Tanda-2 (TH)	2*660			
10	Unchahar stg-4 (TH)	1*500			
11	Unchahar (TH)	2*210			
12	Anta (G)	(1 * 153.2 + 3 * 88.71)			
13	Auraiya (G)	(2 * 109.3 + 4 * 111.19)			
14	Dadri (G)	(2 * 154.51 + 4 * 130.19)			
15	AD Hydro (H)	(2 * 96)	YES	4.0	-
16	Bairasiul (H)	(3 * 60)	Yes	4.0	
17	Bhakra (H)	(5 * 126 + 5 * 157)			
18	Budhil (H)	(2 * 35)			
19	Chamera-1 (H)	(3 * 180)	Yes	5.0	

20	Chamera-2 (H)	(3 * 100)	Yes	5.0	
21	Chamera-3 (H)	(3 * 77)	Yes	4.0	
22	Dehar (H)	(6 * 165)			
23	Dhauliganga (H)	(4 * 70)	Yes	5.0	
24	Dulhasti (H)	(3 * 130)	Yes	5.0	
25	Karcham (H)	(4 * 261.25)	Yes	5.0	
26	Kishenganga	(3 * 110)	Yes	4.0	
27	Koldam (H)	(4 * 200)	Yes	4.0	
28	Koteswar (H)	(4 * 100)	Yes	4.0	
29	Malana-2 (H)	(2 * 50)			
30	Nathpa Jhakri (H)	(6 * 250)	Yes	5.5	
31	Parbati-2 (H)	(4 * 200)			
32	Parbati-3 (H)	(4 * 130)	Yes	4.0	
33	Pong (H)	(6 * 66)			
34	Rampur (H)	(6 * 68.67)			
35	Sainj (H)	(2 * 50)			
36	Salal (H)	(6 * 115)	Yes	3.0	
37	Sewa-II (H)	(3 * 40)	Yes	4.0	
38	Singoli Bhatwari (H)	(3 * 33)			
39	Sorang (H)	(2 * 50)			
40	Tanakpur (H)	(1 * 31.42 + 2 * 31.4)	Yes	4.0	
41	Tehri (H)	(4 * 250)	Yes	4.0	
42	Uri-1 (H)	(4 * 120)	Yes	6.0	
43	Uri-2 (H)	(4 * 60)	Yes	5.0	

Members were requested to ensure implementation of FGMO as per IEGC 2023 at generating stations in their respective control area and share the present status of droop setting.

Memebers were requested to share the data and analysis of FRC of their control area. ISGS stations were requested to share the FRC/FRP calculations of each reportable event and also share the 01 sec data of respective generating stations. It was further requested to take remedial actions to improve the governor response if necessary. States were also requested to follow-up with the generating stations of their respective control area and share the unit wise 01 sec data of respective generating stations along with the anaysis of FRC response for the aforementioned event.

OCC forum requested members to share the FRC/FRP compuation data as per timeline and also analyse the FRC response of their respective control area. Necessary action for imporvement in governor respeonse need be taken to ensure the propoer frequency response in complaince w.r.t. IEGC 2023.

B.13 Mock testing of System Protection Schemes (SPS) in Northern Region

As per IEGC clause 16.2

''For the operational SPS, RLDC or NLDC, as the case may be, in consultation with the concerned RPC(s) shall perform regular load flow and dynamic studies and mock testing for reviewing SPS parameters & functions, at least once in a year. RLDC or NLDC shall share the report of such studies and mock testing including any short comings to respective RPC(s). The data for such studies shall be provided by CTU to the concerned RPC, RLDC and NLDC.''

As per IEGC clause 16.3

''The users and SLDCs shall report about the operation of SPS immediately and detailed report shall be submitted within three days of operation to the concerned RPC and RLDC in the format specified by the respective RPCs.''

There are 56 numbers of System Protection Scheme (SPS) approved in Northern Region. These SPS are implemented at major generation complexes, important evacuating transmission lines and ICTs which are N-1 non-complaint. System Protection Scheme Document of Northern Region has been revised/updated on 31st January, 2025. Revised version of the document is available on the NRLDC website in Document section and can be accessed at below link: https://newnr.nrldc.in/documents/Documents.

Clause 16.2 of IEGC 2023 also mandates the mock testing of SPS for reviewing SPS parameters & functions, at least once a year. Mock testing of all the SPS needs to be conducted in 2025-26.

NRLDC representative stated that in this regard, communication has already been sent to constituents through NRLDC letter dated 01.05.2024, 21.02.2025 & 05.03.2025 for conducting mock testing of SPS in their control area and continuous follow up is also being done in OCC & PSC meeting since May 2024.

Further it was stated informed that during 2024-25, mock testing of 14 SPS out of total 55 SPS were not conducted. In view of high demand scenario during summer 2025-26, NLRDC vide letter dated 04.04.2025 requested all the concerned utility to conduct the mock testing of pending SPS by the end of April 2025. However, as reported, mock testing of 03 SPS out of pending 14 SPS have been done. In this regard, discussion was also held in 60th PSC meeting conducted on 26.05.2025. PSC forum requested all the members to conduct the mock testing of all the SPS in their respective control area at the earliest.

Status of mock testing of all the SPS in NR is attached as Annexure-B.V of agenda.

POWERGRID(NR-3) representative stated that they will plan the mock testing of SPS of HVDC Balia-Bhiwadi during September 2025 and will also share the schedule of mock testing of 400/220kV Allahabad(PG).

SLDC-Punjab representative informed that SPS of Ropar TPS is not in healthy condition and there is no service support due to obsolete nature of existing equipment's. New equipment's need to be purchased and process is at tender stage.

POWERGRID(NR-1) was requested to share the mock test report of SPS of Mandola, Maharanibagh and Jhatikara S/s. POWERGRID(NR-1) agreed to share the details at the earliest. POWERGRID(NR-1) was further requested to share the shuedule of SPS mock testing of 765kV Bhadla2-Ajmer line and Ballabhgarh(PG).

NRLDC representative highlighted that SPS at 400/220kV Unnao, Sultanpur and Gr. Noida is not in healthy condition. UP was requested to share the update in this regard. SLDC-UP was also requested to share the details of SPS of Narora Power Station , 400/220kV Jaunpur(UP) a nd 400/220kV Bareilly(UP) stations.
SLDC-UP representative informed that SPS at 400/220kV Unnao(UP) has been made healthy on 27.05.2025. Regarding SPS of Jaunpur(UP), it was informed that SPS system is in procurement stage. Further update on other SPS shall be shared.
NRLDC representative requested following to the members :

i. ***Concerned constituents / utility are requested to conduct the mock testing of pending SPS (whose mock testing was not conducted in 2024-25) at the earliest.***

ii. ***Utilities are also requested to conduct the mock testing of SPS schemes in their respective control area w.r.t. year 2025-26.***

iii. ***In compliance with IEGC clause 16.2, users shall ensure that mock testing along with the review of SPS logic of all the SPS is conducted at least once a year.***

iv. ***Further In compliance with IEGC clause 16.3, users shall also share the detailed report of SPS operation in their respective control area within 3 days of its operation. Presently, no such report is being received.***

Further, during 60th PSC meeting, forum also decided to not disable the SPS where ICTs are now N-1 compliant after augmentation. It was decided that SPS may be kept enabled with logic based on loading instead of ICT tripping. In view of this, NRLDC requested members to take necessary actions at their end and share the confirmation.

OCC forum requested members to conduct the mock testing of SPS in their respective control area, share the report of the mock testing conducted.

Members were also requested to review the SPS scheme in their respective control area if there is any change in network configuration and load profile.

B.14 Severe voltage fluctuation during multiple elements tripping event in 400/220kV Bareilly(UP), 220kV Tanakpur HEP complex on 31.05.2025

On 31.05.2025 at 20:24 hrs, multiple elements tripping (2*315 MVA ICT) at Bareilly(UP) occurred. Due to this tripping of ICTs at 400/220 kV Bareilly (UP), line loading of 220KV CB Ganj-Sitarganj ckt reached up to the level of 270MW, it leads to voltage oscillation/ fluctuation in the Tanakpur-Sitarganj-CB Ganj complex. Voltage fluctuation was in the range of 125kV to 218kV on 220KV bus. Severe variation in voltage continued till 20:42 hrs when 400/220kV ICT-1 was charged. Again, ICT-1 at Bareilly(UP) tripped leading to fluctuation in voltage in the complex and 220kV Sitarganj and CB Ganj line from Tanakpur tripped at 20:52 hrs. This led to blackout of 220kv Tanakpur HEP and supply to Nepal through 132kV Mahendergarh feeder also lost. Analysis of the event is attached as Annexure-B.VI of agenda.

NRLDC representative highlighted the following observation w.r.t. event during the meeting:

i. *Bus bar protection maloperated at 400/220kV Bareilly(UP) due to wrong CT connection (as informed). Thorough review need to be done after any testing and maintenance work.*
ii. *SPS at 400/220kV Bareilly(UP) has been disabled and shifted without approval of the OCC forum. There is requirement of SPS at Bareilly(UP), SPS at Bareilly(UP) may be enabled at the earliest.*
iii. *Significant overloading (~275MW) of 220kV Rampur-CB Ganj line and 220kV CB Ganj-Sitarganj line is observed after tripping of ICTs at Bareilly(UP). This followed by severe fluctuation in 220kV voltage.*
iv. *Overvoltage protection is enabled on 220kV Tanakpur-Sitarganj line at Tanakpur end. It needs to be disabled. For safety purpose from overvoltage, overvoltage setting may be kept at stage-2 level at 140% with 100msec delay).*
    NHPC representative stated that overvoltage protection in 220kV line is required at generating stations to avoid the stress on generator during overvoltage scenario. In view of this, it was decided that this point may be further discussed in upcoming PSC meeting (61st PSC on 26.06.2025).
v. *400/220kV ICT-1 was charged at 20:42 hrs without taking code from NRLDC. Violation of operating procedure need to be avoided. Later at 20:51 hrs, ICT-1 tripped on overcurrent protection. If additional load would have taken after charging of ICT-3 then tripping of ICT-1 could have avoided. In this regard, SLDC-UP may sensitise the users to follow the NR Operating Procedure for grid related operations.*

OCC forum requested SLDC-UP, NHPC and POWERGRID(NR-3) to further analyse the event and share their observations. Necessary remedial action

may be taken to avoid such event in future. Members may also share their inputs / observation w.r.t. the event and further remedial actions.

Meeting ended with vote of thanks to the chair.

Status of action taken on decision of 231st OCC meeting of NRPC

S.N.	Agenda	Decision of 231st OCC meeting of NRPC	Status of action taken
1	Table Agenda A.17. Rectification of the breaker and charging of the 220kV Sunam (PS)-Patran (indiGrid) Circuit (Agenda by Punjab SLDC)	IndiGrid informed that a specific power card is to be replaced.	IndiGrid representative apprised that a specific power card is to be replaced and order for the same has been placed and OEM is in process to replace it. Expected timeline mentioned by IndiGrid in the meeting for this work is one month as OEM is in process to manufacture this specific power card.

Follow up issues from previous OCC meetings

Annexure-A.II

<table>
<tr><td>1</td><td>Down Stream network by State utilities from ISTS Station</td><td>Augmentation of transformation capacity in various existing substations, addition of new substations along with line bays as well as requirement of line bays by STUs for downstream network are under implementation at various locations in Northern Region. Further, 220kV bays have already been commissioned at various substations in NR. For its utilization, downstream 220kV system needs to be commissioned.</td><td>List of downstream networks is enclosed in Annexure-A.II.I.</td></tr>
<tr><td>2</td><td>Progress of installing new capacitors and repair of defective capacitors</td><td>Information regarding installation of new capacitors and repair of defective capacitors is to be submitted to NRPC Secretariat.</td><td>Data upto following months, received from various states / UTs:
◎ CHANDIGARH — Sep-2019
◎ DELHI — May-2025
◎ HARYANA — Mar-2025
◎ HP — Mar-2025
◎ J&K and LADAKH — Not Available
◎ PUNJAB — Mar-2025
◎ RAJASTHAN — Mar-2025
◎ UP — May-2025
◎ UTTARAKHAND — May-2025
All States/UTs are requested to update status on monthly basis.</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Healthiness of defence mechanism: Self-certification</td><td>Report of mock exercise for healthiness of UFRs carried out by utilities themselves on quarterly basis is to be submitted to NRPC Secretariat and NRLDC. All utilities were advised to certify specifically, in the report that “All the UFRs are checked and found functional”.</td><td>Data upto following months, received from various states / UTs:
◎ CHANDIGARH — Not Available
◎ DELHI — Mar-2025
◎ HARYANA — Mar-2025
◎ HP — Mar-2025
◎ J&K and LADAKH — Not Available
◎ PUNJAB — Mar-2025
◎ RAJASTHAN — Dec-2024
◎ UP — Apr-2025
◎ UTTARAKHAND — Mar-2025
◎ BBMB — Mar-2025
All States/UTs are requested to update status for healthiness of UFRs on monthly basis for islanding schemes and on quartely basis for the rest.</td></tr>
<tr><td>In compliance of NPC decision, NR states/constituents agreed to raise the AUFR settings by 0.2 Hz in 47th TCC/49th NRPC meetings.</td><td>Status:
◎ CHANDIGARH — Not Available
◎ DELHI — Increased
◎ HARYANA — Increased
◎ HP — Increased
◎ J&K and LADAKH — Increased
◎ PUNJAB — Increased
◎ RAJASTHAN — Increased
◎ UP — Increased
◎ UTTARAKHAND — Increased
◎ BBMB — Increased</td></tr>
</table>

<table>
<tr><td>4</td><td>Status of Automatic Demand Management System in NR states/UT's</td><td>The status of ADMS implementation in NR, which is mandated in clause 5.4.2 (d) of IEGC by SLDC/SEB/DISCOMs is presented in the following table:</td><td>The status of ADMS implementation in NR is enclosed in Annexure-A.II.II.
<table><tr><td>◎</td><td>DELHI</td><td>Scheme Implemented but operated in manual mode.</td></tr><tr><td>◎</td><td>HARYANA</td><td>Scheme not implemented</td></tr><tr><td>◎</td><td>HP</td><td>Scheme not implemented</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Scheme not implemented</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Under implementation.</td></tr><tr><td>◎</td><td>UP</td><td>Scheme implemented by NPCIL only</td></tr><tr><td>◎</td><td>UTTARAKHAND</td><td>Scheme not implemented</td></tr></table></td></tr>
<tr><td>5</td><td>Status of availability of ERS towers in NR</td><td>As per the decesion of 68th NRPC and 211th OCC meeting, ERS availability monitoring is being taken as rolling/follow-up agenda in OCC meetings for regular monitoring of ERS under different utilities in Northern region.</td><td>As per the information received from different utilities in Northern region, updated status of availability of ERS towers in Northern Region attached as Annexure-A.II.III.</td></tr>
<tr><td>6</td><td>Submission of breakup of Energy Consumption by the states</td><td>All states/UTs are requested to submit the requisite data as per the billed data information in the format given as under:
<table><tr><td>Category→</td><td>Consumption by Domestic Loads</td><td>Consumption by Commercial Loads</td><td>Consumption by Agricultural Loads</td><td>Consumption by Industrial Loads</td><td>Traction supply load</td><td>Miscellaneous / Others</td></tr><tr><td><Month></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></td><td>Status of the information submission (month) from states / utilities is as under:
<table><tr><td></td><td>State / UT</td><td>Upto</td></tr><tr><td>◎</td><td>CHANDIGARH</td><td>Not Submitted</td></tr><tr><td>◎</td><td>DELHI</td><td>Feb-25</td></tr><tr><td>◎</td><td>HARYANA</td><td>Apr-25</td></tr><tr><td>◎</td><td>HP</td><td>Apr-25</td></tr><tr><td>◎</td><td>J&K and LADAKH</td><td>JPDCL- Mar'24
KPDCL- Not Submitted</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Apr-25</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Mar-25</td></tr><tr><td>◎</td><td>UP</td><td>Feb-25</td></tr><tr><td>◎</td><td>UTTARAKHAND</td><td>Jan-25</td></tr></table>Chandigarh is requested to submit the requisite data w.e.f. April 2018 as per the billed data information in the given format</td></tr>
<tr><td>7</td><td>Status of FGD installation vis-à-vis installation plan at identified TPS</td><td>List of FGDs to be installed in NR was finalized in the 36th TCC (special) meeting dt. 14.09.2017. All SLDCs were regularly requested since 144th OCC meeting to take up with the concerned generators where FGD was required to be installed.
Further, progress of FGD installation work on monthly
basis is monitored in OCC meetings.</td><td>Status of the information submission (month) from states / utilities is as under:
<table><tr><td>◎</td><td>HARYANA</td><td>Jun-2024</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Feb-2025</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Feb-2025</td></tr><tr><td>◎</td><td>UP</td><td>Jan-2024</td></tr><tr><td>◎</td><td>NTPC</td><td>Mar-2025</td></tr></table>FGD status details are enclosed as Annexure-A.II.IV.
All States/utilities are requested to update status of FGD installation progress on monthly basis.</td></tr>
<tr><td>8</td><td>Information about variable charges of all generating units in the Region</td><td>The variable charges detail for different generating units are available on the MERIT Order Portal.</td><td>All states/UTs are requested to submit daily data on MERIT Order Portal timely.</td></tr>
</table>

9	Reactive compensation at 220 kV/ 400 kV level at 7 substations			
	State / Utility	Substation	Reactor	Status
i	DTL	Peeragarhi	1x50 MVAr at 220 kV	1x50 MVAr Reactor at Peeragarhi has been commissioned on dated 18.09.2023
ii	DTL	Harsh Vihar	2x50 MVAr at 220 kV	2x50 MVAR Reactor at Harsh Vihar has been commissioned on dated 31th March 2023.
iii	DTL	Mundka	1x125 MVAr at 400 kV & 1x25 MVAr at 220 kV	Bay work completed on 25.03.2023. Reactor part tender is dropped and at present same is under revision.
iv	DTL	Bamnauli	2x25 MVAr at 220 kV	Bay work completed on 25.03.2023. Reactor part tender is dropped and at present same is under revision.
v	DTL	Indraprastha	2x25 MVAr at 220 kV	Bay work completed on 07.11.2023. Reactor part tender is dropped and at present same is under revision.
vi	DTL	Electric Lane	1x50 MVAr at 220 kV	Under Re-tendering due to Single Bid
vii	PTCUL	Kashipur	1x125 MVAR at 400 kV	Tender for Procurement of 125 MVAR Reactor has been floated on 04.11.2024 and tender opening date is 30.12.2024.

Annexure-A-II.I

1. Down Stream network by State utilities from ISTS Station:

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
1	400/220kV, 3x315 MVA Samba	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• Network to be planned for 2 bays.	Jul'25	02 No. of bays shall be utilized for LILO-II of 220kV Jatwal-Bishnah Transmission Line, the work of which is delayed due to persisting RoW issues. expected date of completion is Mar 2025 subject to availability of funds and resolving of RoW issues), Updated in 220th OCC by JKPTCL.
2	400/220kV, 2x315 MVA New Wanpoh	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 220 kV New Wanpoh - Alusteng D/c Line	Mar'25	02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Alusteng D/c Line. RoW issues persisting; At present new-wampoh-mirbazar 5km and harwan-alstung 16km have been completed, expected date of completion is Mar 2025 subject to availability of funds and resolving of RoW issues), Updated in 214th OCC by JKPTCL.
				• 220 kV New Wanpoh - Mattan D/c Line	End of 2024	02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Mattan D/c Line. The funding source for the project is being identified and the project is expected to be completed by ending 2024. Updated in 204th OCC by JKPTCL.
3	400/220kV, 2x315 MVA Amargarh	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• 220kV D/C line from 400/220kV Kunzar - 220/33kV Sheeri	End of 2024	02 No. of bays are proposed to be utilized for connecting 220/132 kV GSS Loolipora. The funding source for the project is being identified and the project is expected to be completed by ending 2024. Updated in 204th OCC by JKPTCL.
4	400/220kV, 2x500 MVA Kurukshetra (GIS)	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 220kV Bhadson (Kurukshetra) – Ramana Ramani D/c line	Contractual completion date on 04.08.2025.	Under construction.Updated in 230rd OCC by HVPNL
5	400/220 kV, 2x315 MVA Dehradun	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• Network to be planned for 4 bays	-	PTCUL to update the status.
6	Shahjahanpur, 2x315 MVA 400/220 kV	Commissioned: 6 Approved/Under Implementation:1	Utilized: 7	• 220 kV D/C Shahajahanpur (PG) - Gola line	Commissioned	Energization date: 26.10.2023 updated by UPPTCL in 215th OCC
				• LILO of Sitapur – Shahjahanpur 220 kV SC line at Shahjahanpur (PG)	Commissioned	Energization date: 25.02.2022 updated by UPPTCL in 196th OCC
7	Hamirpur 400/220 kV Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• 220 kV Hamirpur-Dehan D/c line	Commissioned	HPPTCL has commissioned the Planned 220kV Dehan-Hamirpur TL utilizing 2 No. 220kV Bays.Commisioned date: 09.06.2022. Updated in 198th OCC by HPPTCL
				• Network to be planned for 4 bays	-	HPPTCL to update the status.
8	Sikar 400/220kV, 1x 315 MVA S/s	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• LILO of 220 kV Sikar (220 kV GSS)-Dhod S/c line at Sikar (PG)	Commissioned	LILO of 220 kV S/C Sikar-Dhod line at 400 kV GSS PGCIL, Sikar has been charged on dt. 31.03.2022
				• Network to be planned for 2 bays.	-	Against the 3rd ICT at 400 kV GSS Sikar, only 2 bays were constructed and same has been utilized by RVPN by constructing LILO of 220 kV S/C Sikar – Dhod line as updated by RVPNL in 195th OCC
9	Bhiwani 400/220kV S/s	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 220 kV D/C line Bhiwani (PG) – Bhiwani (HVPNL) line	Commissioned	Updated in 202nd OCC by HVPNL
				• 220 kV Bhiwani (PG) - Isherwal (HVPNL) D/c line.	-	Issue related to ROW as intimated in 228th OCC by HVPNL. **Status:** Work was stalled since 29.07.2021 due to ROW issues and farmers agitation and further restarted on 9.10.2023 with the help of district administration. Now, work was again stalled since30.11.2023 due to severe ROW issues. Expected to be completed by 31.03.2025. Foundation 209/212. Erection 193/212. Stinging 37.8/50.3 km
				• 220 kV Bhiwani (PG) - Dadhibana (HVPNL) D/c line.	Oct'25	Line work awarded to M/s R S Infra Projects Pvt. Ltd. Noida, Uttar Pardesh on dated 09.03.2024. Work of route plan and route alignment has been started by the firm as intimated in 218th OCC by HVPNL.
10	Jind 400/220kV S/s	Commissioned: 4 Approved:4 Total: 8	Utilized: 4 Unutilized: 0	• LILO of both circuits of 220 kV Jind HVPNL to PTPS D/C line at 400 kV substation PGCIL Khatkar (Jind) with 0.5 sq inch ACSR conductor	Oct'25	Erection and stringing work completed.The signing of Connection agreement amongst the Utilities is pending. Updated in 230th OCC by HVPNL.
11	400/220kV Tughlakabad GIS	Commissioned: 6 Under Implementation: 4	Utilized: 6 Unutilized: 0	• RK Puram – Tughlakabad (UG Cable) 220kV D/c line – March 2023.	Commissioned	Updated in 216th OCC by DTL
				• Masjid Mor – Tughlakabad 220kV D/c line.	Commissioned	Updated in 216th OCC by DTL
12	400/220kV Kala Amb GIS (TBCB)	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 2 Under Implementation:2	• HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Kala Amb S/s	Commissioned	Energization date: 31.05.2024 updated by HPPTCL in 220th OCC
				• HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Giri S/s	-	Tendering process is yet to be started.Updated in 219th OCC by HPPTCL
				• Network to be planned for 2 bays	-	HPPTCL to update the status.
13	400/220kV Kadarpur Sub-station	Commissioned: 8 Total: 8	Utilized: 0 Unutilized: 8	• D/C line Kadarpur - Pali D/C line Kadarpur - Sec-65	Commissioned	Updated in 232nd OCC by HVPNL **Status:-** A-formats for FTC of line submitted on FTC portal of NRLDC on dated 09.04.25.

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
14	400/220kV Sohna Road Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• LILO of both circuits of 220kV D/c Sohna-Rangla Rajpur at Roj Ka Meo line at 400kV Sohna Road	Oct'25	Line work completed, but commissioning of 220kV substation Roj ka Meo is pending till now.. However, this arrangement will not lead to usage of additional bays i.e. no of utilitsed bays at Sohna road will remain same.Updated in 230th OCC by HVPNL
				• LILO of both circuits of 220kV D/c Badshahpur-Sec77 line at 400kV Sohna Road	-	The matter is subjudice in Hon'ble Punjab & Haryana High court, Chandigarh Updated in 228th OCC by HVPNL. **Status:-** Earlier 02 nos 220 kV line bays were to be utilized for the 220 kV GIS S/Stn. Sec-77, Gurugram but due to denotification of land of the 220 kV GIS S/Stn. Sec-77 the said substation is now going to be dismantled and a new substation is proposed at Sec-75A, Gurugram. Now, these 02 no. 220 kV line bays may be utilized at 220 kV GIS S/Stn Sec-75A, Gurugram.
15	400/220kV Prithla Sub-station	Commissioned: 8 Aprroved: 2 Total: 10	Utilized: 4 Unutilized: 4 Under Implementation:2	• 220kV D/C line from Prithla to Harfali with LILO of one circuit at 220kV Meerpur Kurali	Dec'25	Contract awarded on 08.08.23 to M/s Skipper with completion in December 25.Updated in 230th OCC by HVPNL
				• LILO of both ckt of 220kV D/c Ranga Rajpur – Palwal line	Commissioned	Energization date: 31.12.2021. Updated in 198th OCC by HVPNL
				• 220kV D/C for Sector78, Faridabad	31.07.2025	Issue related to ROW and Pending crossing approval from Northern Railways and DFCCIL. as intimated in 228th OCC by HVPNL.
				• Prithla - Sector 89 Faridabad 220kV D/c line	Jul'25	The work for construction of 220kV D/C Prithla-Sector-78 Faridabad line on multi circuit towers is delayed mainly due to severe resistance by local villagers & ROW problem at site during construction. Due to delay in construction of 220kV D/C Prithla-Sector-78 Faridabad line, the work for construction of 220kV D/C Prithla-Sector 89 Faridabad line might delay..Updated in 230th OCC by HVPNL
16	400/220kV Sonepat Sub-station	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 2 Unutilized: 4 Under Implementation:2	• LILO of both circuits of 220kV Samalkha - Mohana line at Sonepat	June'25	Updated in 232nd OCC by HVPNL. **Status:** A-formats for FTC of line submitted on FTC portal of NRLDC on dated 09.04.25.
				• Sonepat - HSIISC Rai 220kV D/c line	Commissioned	Energization date: 31.05.2024 updated by HVPNL in 220th OCC
				• Sonepat - Kharkhoda Pocket A 220kV D/c line	31.07.2025	Updated in 232nd OCC by HVPNL. **Status:** Work order has been issued to M/s R.S Infra on dated 09.08.2023 by O/o CE/PD&C, Panchkula for construction of line. Both bays are under construction and erection of electrical equipment is under progress.
17	400/220kV Neemrana Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• LILO of Bhiwadi - Neemrana 220kV S/c line at Neemrana (PG)	-	Work is under progres. Stub Setting: 14/2017. Permission for Highway is awaited from concerned department as updated in 218th OCC by RVPNL.
18	400/220kV Kotputli Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Kotputli - Pathreda 220kV D/c line	-	Date of bid opening has been extended up to 30.04.2024 as updated in 218th OCC by RVPNL.
19	400/220kV Jallandhar Sub-station	Commissioned: 10 Total: 10	Utilized: 8 Unutilized: 2	• LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar	-	LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar being planned. Route plan and estimate of work sanctioned, DNIT has been sent to float tender as updated by PSTCL in 227th OCC
20	400/220kV Roorkee Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Roorkee (PG)-Pirankaliyar 220kV D/c line	Commissioned	Roorkee (PG)-Pirankaliyar 220kV D/c line commissioned in 2020 as intimated by PTCUL in 197th OCC
21	400/220kV Lucknow Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• Network to be planned for 2 bays	Commissioned	• Lucknow -Kanduni, 220 kV D/C line work energized on 05.10.2023. Updated in 212th OCC by UPPTCL. _____ • No planning for 2 no. of bays upated by UPPTCL in 196th OCC. The same has been communicated to Powergrid.
22	400/220kV Gorakhpur Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Network to be planned for 2 bays	Commissioned	• Gorakhpur(PG)- Maharajganj, 220 kV D/C line energized on 27.09.2023 updated by UPPTCL in 212th OCC
23	400/220kV Fatehpur Sub-station	Commissioned: 8 Under Implementation:2 Total: 10	Utilized: 6 Unutilized: 2 Under Implementation:2	• Network to be planned for 2 bays	-	• UPPTCL intimated that 02 no. of bays under finalization stage. In 201st OCC, UPPTCL intimated that it is finalized that Khaga s/s will be connected (tentative time 1.5 years). _____ • No planning for 2 no. of bays updated by UPPTCL in 196th OCC. The same has been communicated to Powergrid.

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
24	400/220kV Abdullapur Sub-station	Commissioned: 10 Under Implementation:2 Total: 12	Utilized: 10 Unutilized: 0 Under Implementation:2	• Abdullapur – Rajokheri 220kV D/c line	Commissioned	Ckt-1 commissioned at 16:13hrs on dated 06.08.24 & Ckt-2 commissioned at 20:10 hrs on dated 05.08.24. Updated in 223rd OCC by HVPNL
25	400/220kV Pachkula Sub-station	Commissioned: 8 Under tender:2 Total: 10 Out of these 10 nos. 220kV	Utilized: 2 Unutilized: 4 Under Implementation:2	• Panchkula – Pinjore 220kV D/c line	Commissioned	Updated in 218th OCC by HVPNL
				• Panchkula – Sector-32 220kV D/c line	Commissioned	Energization date: 24.05.2024 updated by HVPNL in 220th OCC
				• Panchkula – Raiwali 220kV D/c line	Commissioned	Updated in 194th OCC by HVPNL
				• Panchkula – Sadhaura 220kV D/c line: Sep'23	Jun'25	Revised target date as confirmed by concerned XEN TS, Panchkula.Updated in 230th OCC by HVPNL
26	400/220kV Amritsar S/s	Commissioned:7 Approved in 50th NRPC- 1 no. Total: 8	Utilized: 6 Under Implementation:2	• Amritsar – Patti 220kV S/c line	-	Draft connectivity agreements for 220kV Rashiana-Amritsar has been received from CTU and the same under processing. Draft connectivity agreements for 220kV Patti-Amritsar line is under consideration by CTU. CTU is processing the agreement and PSTCL has provided with the requisite inputs/data to CTU. Updated in 232nd OCC by PSTCL.
				• Amritsar – Rashiana 220kV S/c line (2 bays shall be required for above lines. However, 1 unutilized bay shall be used for Patti and requirement of one additional bay approved for Rashiana by NRPC)	-	Draft connectivity agreements for 220kV Rashiana-Amritsar & 220kV Patti-Amritsar lines are under consideration by CTU. CTU is processing the agreement and PSTCL has provided with the requisite inputs/data to CTU. Updated in 232nd OCC by PSTCL.
27	400/220kV Bagpat S/s	Commissioned: 8 Total: 8	Utilized:6 Unutilized: 2	• Bagpat - Modipuram 220kV D/c line	Commissioned	Updated in 201st OCC by UPPTCL
28	400/220kV Bahardurgarh S/s	Commissioned: 4 Approved: 4 Total: 8	Utilized:2 Unutilized: 2	• LILO of 220 kV Nunamajra- Daultabad S/c line at 400 kV Bahadurgarh PGCIL	-	Proposal turned down by CEA.Updated in 230th OCC by HVPNL.
				• Bahadurgarh - METL 220kV D/c line (Deposit work of M/s METL)	15.06.2026	Updated in 230th OCC by HVPNL. **Status:** The work stands awarded to the M/s KRR and the execution work has been started at site. Partial route stands approved by the competant authority of the HVPNL. Further, 06 no. Foundation has been casted.
				• Bahadurgarh - Kharkhoda Pocket B 220kV D/c line	30.06.2025	Updated in 230th OCC by HVPNL. **Status:** RoW issues which are being resolved with the help of Duty Magistrate.
29	400/220kV Jaipur (South) S/s	Commissioned: 4 Total: 4	Utilized:2 Unutilized: 2	• LILO of 220 kV S/C Dausa – Sawai Madhopur line at 400 kV GSS Jaipur South (PG)	06.10.2025	Work order has been issued on 06.10.2023, work under progress as updated by RVPNL in 215th OCC
30	400/220kV Sohawal S/s	Commissioned: 8 Total: 8	Utilized: 8	• Sohawal - Barabanki 220kV D/c line	Commissioned	Energization date: 14.04.2018 updated by UPPTCL in 196th OCC
				• Sohawal - New Tanda 220kV D/c line	Commissioned	Energization date: 28.05.2019 updated by UPPTCL in 196th OCC
				• Network to be planned for 2 bays	Commissioned	• Sohawal - Gonda 220kV S/c line (Energization date: 27.04.2020) updated by UPPTCL in 196th OCC _____ • Sohawal - Bahraich 220kV S/c line (Energization date: 15.02.2021) updated by UPPTCL in 196th OCC
31	400/220kV, Kankroli	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• 220 kV D/C Kankroli(PG) - Nathdwara line	-	Standard bid document has been finalized on 13.08.2024 and bid is under preparation as updated by RVPN in 222nd OCC.
32	400/220kV, Manesar	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• Network to be planned for 2 bays	-	Status:- A proposal is being prepared for the creation of another 220kV D/C line from the 400kV substation Panchgaon (PG) to the 220kV substation Panchgaon (HVPNL), along with the LILO of one circuit of the 220kV D/C Panchgaon (PG) – Mau line at the 220kV substation Panchgaon to utilize two bays at the 400kV substation Panchgaon. The load flow study for this has already been completed.
33	400/220kV, Saharanpur	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	Commissioned	Saharanpur(PG)-Devband D/c line (Energization date: 20.04.2023) updated by UPPTCL in 207th OCC
34	400/220kV, Wagoora	Commissioned: 10 Total: 10	Utilized: 6 Unutilized: 4	• Network to be planned for 4 bays	-	PDD, J&K to update the status.
35	400/220kV, Ludhiana	Commissioned: 9 Total: 9	Utilized: 8 Unutilized: 1	• Network to be planned for 1 bay	Commissioned	Direct circuit from 220 kV Lalton Kalan to Dhandari Kalan to be diverted to 400 kV PGCIL Ludhiana. Work completed , final agrrement is expected to be signed by May'24. Updated in 218th OCC by PSTCL.
36	400/220kV, Chamba (Chamera Pool)	Commissioned: 3 Under tender:1 Total: 4	Utilized:3 Unutilized: 0 Under tender:1	• Stringing of 2nd ckt of Chamera Pool – Karian 220kV D/c line	Commissioned	Stringing of 2nd Circuit of Chamera Pool-Karian Tansmission line has been completed & terminal bay at 400/220 kV chamera pooling substation (PGCIL) is commissioned on 20.01.2024. Updated in 217th OCC by HPPTCL.

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
37	400/220kV, Mainpuri	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	-	• 02 no. of bays under finalization stage updated by UPPTCL in 196th OCC. Mainpuri S/s planned. Land is not finalized, therefore timeline not available as intimated by UPPTCL in 201st OCC.
38	400/220kV, Patiala	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 400 kV PGCIL Patiala - 220 kV Bhadson (D/C)	-	2 Nos. bays for 400 kV PGCIL Patiala - 220 kV Bhadson (D/C) line being planned. Technical bid for civil work of 66kV to 220kV Bhadson upgradation has been opened and further processed for opening of financial bid. Work likely to be started by 15.05.2025. as updated by PSTCL in 230th OCC meeting

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks

Status of ADMS implementation in NR:

Sl. No.	State / UT	Status	Remarks
1	DELHI	Scheme Implemented but operated in manual mode.	In 225th OCC meeting NRPC representative apprised forum that revised Standard Operating Procedure (SOP) of Automatic Demand ManagementScheme (ADMS) by the DISCOMs in NCT of Delhi has been approved in 51st TCC and 76th NRPC meeting. In 52nd TCC and 77th NRPC DTL intimated that tentative timeline for implemenation is 28th February 2025.DTL intimated that TPPDL has informed that they have engaged SCADA OEM for the implementation of ADMS. However, OEM has confirmed that incorporation of ADMS logic into the current SCADA system is not feasible and it would require an upgrade or refresh of the system, necessitating additional expenditure for which DERC has been approached. The complete implementation cycle is expected to be within 2 years. However, in the meantime considering the criticality, their in-house team is working to develop a trigger notification/alarm system for manual operation of breaker triggering from the control room and thereafter exploring the possibility of automatically triggering the breaker using the trigger notification. TPPDL has stated that they expect to complete it by August 2025, if materialized. BRPL and BYPL have informed that their existing SCADA system is obsolete and it is in the up-gradation phase by OEM. After the up-gradation of SCADA system, the ADMS is expected to be implemented in BRPL & BYPL by Oct 25.
2	HARYANA	Scheme not implemented	Haryana SLDC intimated that as per Joint Roadmap of implementation of ADMS in Haryana supplied to NRPC vide memo dated 17.10.2023 (Annexure-II), the implementation plan was proposed to be carried out in two parts, as mentioned below: PART-I: Control with Transmission Utility PART-II: Control with Distribution Utility It is pertinent to mention that as part of upcoming SCADA-EMS system i.e. upgradation of SCADA-EMS system, a feature in the name of LSS (Load Shedding Software)/ ADMS is part of the Technical Specification of project to be delivered. Therefore, the functionalities of ADMS application will be covered under 'Part-I: Control with Transmission Utility' will already be covered using the RTUs available at select substations along with the ADMS software being delivered by M/s GE under SCADA upgradation project. Hence, there is no need to acquire a separate ADMS application & associated hardware for data centre for implementation of PART-I. Further for Part -II a committee has been constituted for further finalization of the ADMS module with control with Discoms is under discussions for preparation of DPR.
3	HP	Scheme not implemented	HPSDLC has kept the provision of ADMS in upgradation/replacement of SCADA system under ULDC Phase-III scheme for operating the feeders automatically through ADMS functionality. HP SLDC mentioned that HPSEB had intimated that initially 142 Nos. of feeders were identified for operation under ADMS functionality but most of these feeders were from same sub-station. Therefore, now they have increased the no. of sub-station and identified the non-critical feeders. Load relief to be given through these feeders is under finalization. The revised feeder list from HPSEBL is awaited as intimated by HPSLDC.
4	PUNJAB	Scheme not implemented	i. A committee comprising of following officers of PSPCL & PSTCL has been constituted to finalize the logic regarding implementation of Automatic Demand Management System in Punjab Control Area. A meeting in this regard was held on dated 26-02-2024 at PSLDC Complex, Patiala. The committee deliberated various loading scenarios and proposed the following logic for the management of demand: 1. If the frequency sustains below 49.90 Hz for duration of 3 minutes, the Automatic Demand Management System will initiate a 50% reduction in the Over Drawl. 2. In case the frequency falls further below 49.85 Hz, the Over Drawl will be reduced to zero. 3. The software at the SLDC end for ADMS shall be available with ULDC phase –III SCADA system which is under implementation. ii. In 222nd OCC, MS NRPC asked Punjab to co-ordiante with Powergrid for integration of their propsoed logic with the ULDC phase-III SCADA system for timely implementation.

5	RAJASTHAN	Under implementation	In 232th OCC meeting, RVPN informed that 270 nos. of circuit breakers have been mapped to ADMS, all 270 circuit breakers tested upto yard individually. Total 650CBs are to be mapped in phased manner.
6	UP	Scheme implemented by NPCIL only	i. A meeting regarding ADMS was held on 15.01.2023 with the UPPCL under the chairmanship of MD UPPTCL ii. A committee formed for identification of load at 33 kV level under the chairmanship of Director (Distribution), UPPCL. iii. Another committee under the chairmanship of Director UPSLDC shall identify the technical and operational requirement for ADMS implementation iv. The software at the SLDC end for ADMS shall be available with ULDC phase –III SCADA system which is under implementation and likely to be commissioned by March 2025. v. In order to operate identified 33 kV feeders under ADMS scheme, integration of 132 kV substations with SCADA system is under implementation in the Reliable Communication Scheme and expected date of completion of the scheme is October 2024. vi. MS, NRPC apprised forum that a letter has been written to Director, SLDC for co-odinatng with Director (Distribution), UPPCL for expediting the finalization of feeder list at 33kV for ADMS implementation. vii. Response from UPPCL regarding the finalization of feeder list at 33kV for ADMS implementation is awaited. viIi. UPSLDC intimated that they plan to have a meeting with UPPCL in the month of April 2025 for the finalization of feeder list at 33kV. ix. In 230th OCC meeting UP SLDC representative informed that feeder list at 33kV level for ADMS is awaited from UPPCL.
7	UTTARAKHAND	Scheme not implemented	i. UPCL has prepared a system architecture in which all the non-monitored sub-stions have been selected and 11kV feeders have been considered for ADMS operation. For the scheme, discom has also done group-wise selection of feeders and quantum of MW relief to be given for automatic demand response at 11kV level has also been decided. UPCL has awarded the tender for implementation of the aforementioned scheme to M/s Metergy Pvt.Ltd. ii. As per the status report submitted by M/s Metergy Pvt.Ltd, the survey work of 30 nos. incomer sites have been completed and order has been placed by UPCL for hardware equipments. iii. Uttarakhand SLDC informed that feeder list at 11kV level has been finalized and logic of ADMS implementation is under finalization. iv. Uttarakhand has intimated that It is bring to your notice that installation MFT(Multi Function Transducers) at various interstate points at PTCUL Substations under ADRS Project of UPCL is in progress. v. First Phase- Data Acquisition of 32 interstate points completed. vi. Second Phase-95 distribution side Substation work is on progress. vii In 230th OCC meeting Uttarakhand SLDC representative informed that Harbour installation and communication establishment has been done on 35 11kV feeders out of total 195 11kV feeders. The work is expected to be completed by December, 2025.

Annexure-A.II.III.

Status of availability of ERS towers in NR

Sl. No.	Transmission Utility	Voltage Level (220kV/400kV/765kV/ 500 kV HVDC etc.)	Length of the transmission lines owned by the Utility (Ckt. Kms.)	Number of ERS Sets (towers) available (Nos.)	ERS Set (towers) required as per the Govt. norms.	Location	Remarks
1	PTCUL	400kV	418.394	NIL	1		Tender has been scraped due to single bidder.
		220kV	1045.135	NIL	1		
2	Powergrid NR-1	220 KV	1842.88	NIL	1		
		400 KV	11074.26	12 Towers	3	All 400kV ERS at Ballabhgarh	make-Lindsey
		765 KV	4721.85	15 Towers	1	All 765kV ERS at Meerut	Make-SBB
		500 KV HVDC	653.88	NIL	1		
		800 KV HVDC	416.58	NIL	1		
3	Powergrid NR-2	66 KV	37.56	Nil	1		ERS tower available for 400KV rating can be used in place of lower as well as higher voltage Towers. In case used for 765KV Line, No of towers can be erected will reduce due to increase in Tower Hight.
		132 KV	262.7	Nil	1		
		220 KV	2152	Nil	1		
		400 KV	8097.3	02 Set (32 Towers)	2	Kishenpur & Jalandhar	
		765 KV	337.5	Nil	1		
4	Powergrid NR-3	800KV HVDC	2205	NIL	1		400KV ERS will be also be used in other voltage level lines
		500KV HVDC	2566	NIL	1		
		765KV	4396	NIL	1		
		400KV	12254	26 Towers	3	Kanpur	
		220KV	1541	NIL	1		
		132KV	207	NIL	1		
5	PARBATI KOLDAM TRANSMISSION COMPANY LIMITED	400kV	457	NIL	1		Procurement under process.
6	PATRAN TRANSMISSION COMPANY LTD	400kV	0.4	NIL	1	It is kept in Bhopal and on need basis is moved across region	Not available, will tie up based on the requirements in future. However the parent company IndiGrid owns one set of ERS for all five regions.
7	NRSS-XXIX TRANSMISSION LTD	400kV	853	NIL	1		
8	GURGAON PALWAL TRANSMISSION LTD	400kV	272	NIL	1		
9	RAPP Transmission Company Limited.	400kV	402	NIL	1		
10	NRSS XXXVI Transmission Limited	400kV	301.924	NIL	1		Element I - Operational comprising of 3 kms. Element II - Work Under Progress comprising of 221.924 kms. Element II - Work Under Progress comprising of 77 kms.
11	HPPTCL	220 kV	659	NIL	1		
		400 kV	75.7	NIL	1		
12	RVPN	132 kV	18969.958	1	4	01 No. ERS available at 220 kV GSS Heerapura, Jaipur	ERS proposed : 01 Set at 400 kV GSS, Jodhpur. 01 set at 400 kV GSS Ajmer
		220 kV	16227.979		3		
		400 kV	6899.386		2		
		765 kV	425.498		1		
13	DTL	220kV	915.498	NIL	1	400kV Bamnauli Sub station	ERS tower available for 400KV rating can also be used for lower voltage lines as well
		400kV	249.19	02 Sets (32 towers)	1		
14	JKPTCL						JKPTCL, Jammu: being procured JKPTCL, Kashmir:10 tower procured (out of which 3 on loan to JKPTCL, Jammu)

Sl. No.	Transmission Utility	Voltage Level (220kV/400kV/765kV/ 500 kV HVDC etc.)	Length of the transmission lines owned by the Utility (Ckt. Kms.)	Number of ERS Sets (towers) available (Nos.)	ERS Set (towers) required as per the Govt. norms.	Location	Remarks
15	HVPN						HVPN has apprised that purchase order for procurement of 2 sets of Emergency Restoration System (ERS) in HVPNL has been issued to M/s Jost's Engineering Company Ltd., Mumbai
16	PSTCL	400 kV	1666.43	2	2		
		220 kV	7921.991				
17	UPPTCL 1- Meerut	132KV	27508.321	24 Nos(15 Running+9 Angle)		400 kV S/s Gr. Noida	ERS will be also be used in other voltage level lines.
		220KV	14973.453				
		400KV	6922.828				
	UPPTCL 2-Prayagraj	765KV	839.37	24 Towers		220 kv S/s phulpur	ERS will also be used in other voltage lines.
		400KV	1804.257				
		220KV	2578.932				
		132KV	4714.768				
18	POWERLINK						
19	POWERGRID HIMACHAL TRANSMISSION LTD						
20	Powergrid Ajmer Phagi Transmission Limited						
21	Powergrid Fatehgarh Transmission Limited						
22	POWERGRID KALA AMB TRANSMISSION LTD						
23	Powergrid Unchahar Transmission Ltd						
24	Powergrid Khetri Transmission Limited						
25	POWERGRID VARANASI TRANSMISSION SYSTEM LTD						
26	ADANI TRANSMISSION INDIA LIMITED		2090	1 Set (12 towers)	1 set (12 towers)	Sami (Gujarat)	Make-Lindsey ERS set available for 400KV & 500KV rating can be used for lower as well as higher voltage Towers. In case used for 765KV Line, No of towers can reduce due to increase in Tower Height & nos of conductors.
27	BIKANER KHETRI TRANSMISSION LIMITED		482				
28	FATEHGARH BHADLA TRANSMISSION LIMITED	500 kV HVDC 400 kV HVAC	291				
29	NRSS-XXXI(B) TRANSMISSION LTD	400 kV	577.74	Not Available	Not Available		Tied up with M/s INDIGRID for providing ERS on need basis.
30	ARAVALI POWER COMPANY PVT LTD	765 kv HVAC					

*The transmission Utility with line length less than 500 ckt kms (of 400 KV lines) may be given option either to procure ERS or have agreement with other transmission utilities for providing ERS on mutually agreed terms, when need arises. (As per MoP directions)

Annexure-A.II.IV

FGD COMMISSIONING STATUS						
S.No.	Utility	Plant Name	Unit	Target Commissioning Date (As updated by utility in OCC)	If commissioned , Actual Date of Commissioning	If not commissioned , Target Date of Commissioning
1	Adani Power Ltd.	KAWAI TPS	1	31-Dec-24		31-Dec-29
2			2	31-Dec-24		31-Dec-29
3	APCPL	INDIRA GANDHI STPP	1		3-May-24	
4			2	30-Sep-23	27-Jan-25	
5			3	30-Jun-23		31-May-25
6	GVK	GOINDWAL SAHIB	1	30-Apr-20	INFO NOT RECEIVED	
7			2	29-Feb-20		
8	NTPC	DADRI NCTPP	1	31-Dec-20	31.12.2019,(DSI - Dry FGD)	
9			2	31-Oct-20	27.12.2019,(DSI - Dry FGD)	
10			3	31-Aug-20	27.07.2020,(DSI - Dry FGD)	
11			4	30-Jun-20	14.07.2020,(DSI - Dry FGD)	
12			5	30-Jun-22	15-Jun-22	
13			6	31-Mar-23	8-Feb-24	
14		RIHAND STPS	1	31-Dec-24		30-Nov-26
			2	30-Jun-26		31-Aug-26
			3	31-Dec-24		31-Dec-26
			4	31-Mar-25		30-Sep-26
			5	30-Jun-25		30-Jun-26
15			6	31-Mar-25		31-Mar-25
16		SINGRAULI STPS	1	31-Dec-24		30-Sep-25
17			2	31-Dec-24		30-Sep-25
18			3	31-Dec-24		30-Sep-25
19			4	31-Dec-24		31-Dec-25
20			5	31-Mar-25		31-Dec-25
21			6	30-Jun-24		31-Aug-25
22			7	31-Mar-24	Hot Gas In completed on 26.03.2025	30-Jun-25
23		UNCHAHAR TPS	1	31-Dec-23	22-Feb-25	
24			2	31-Dec-23	22-Feb-25	
25			3	30-Sep-23		30-May-25
26			4	30-Sep-23		30-May-25
27			5	30-Sep-23		30-May-25
28			6	31-Aug-22	11-Oct-22	
29		MEJA STAGE- 1	1	31-Oct-23	16-Jan-25	
30			2	30-Jun-23	28-Feb-25	
31		TANDA STAGE -1	1	No FGD		
			2	No FGD		
			3	No FGD		
32			4	No FGD		
33		TANDA STAGE -2	5	31-Mar-23	28-Nov-24	
34			6	30-Sep-23		30-May-25
35	L&T POWER DEVELOPMENT	NABHA TPP (RAJPURA TPP)	1	30-Apr-21	NPL has completed construction of FGD units for	
36			2	28-Feb-21	both of its units, which have been ready for	
37	TALWANDI SABO POWER LTD.	TALWANDI SABO TPP	1	28-Feb-21	INFO NOT RECEIVED	
38			2	31-Dec-20		
39			3	31-Oct-20		
40	HGPCL	PANIPAT TPS	6	31-Dec-25		
41			7	31-Dec-25		
42			8	31-Dec-25		
43		RAJIV GANDHI TPS	1	31-Aug-27		
44			2	31-Aug-27		
45		YAMUNA NAGAR TPS	1	31-Aug-27		
46			2	31-Aug-27		
47	Lalitpur Power Gen. Company Ltd.	LALITPUR TPS	1	31-Dec-26		
48			2	30-Sep-26		
49			3	30-Jun-26		
50	Lanco Anpara Power Ltd.	ANPARA C TPS	1	31-Dec-25		
51			2	31-Dec-25		
52	Prayagraj Power Generation Company Ltd.	PRAYAGRAJ TPP	1	31-Dec-26		
53			2	31-Dec-26		
54			3	31-Dec-26		
55	PSPCL	GH TPS (LEH.MOH.)	1	31-Dec-26		
56			2	31-Dec-26		
57			3	31-Dec-26		
58			4	31-Dec-26		
59		GGSSTP, Ropar	3	31-Dec-26		
60			4	31-Dec-26		
61			5	31-Dec-26		
62			6	30-Dec-26		
63	Rosa Power Supply Company	ROSA TPP PH-I	1	31-Dec-26		
64			2	31-Dec-26		
65			3	31-Dec-26		
66			4	31-Dec-26		
67			5	30-Nov-25		

68	RRVUNL	KOTA TPS	6	30-Nov-25		
69			7	30-Nov-25		
70		SURATGARH TPS	1	31-Dec-29		
71			2	31-Dec-29		
72			3	31-Dec-29		
73			4	31-Dec-29		
74			5	31-Dec-29		
75			6	31-Dec-29		
76		SURATGARH SCTPS	7	28-Feb-26		
77			8	28-Feb-26		
78		CHHABRA TPP	1	31-Dec-29		
79			2	31-Dec-29		
80			3	31-Dec-29		
81			4	31-Dec-29		
82		CHHABRA SCPP	5	28-Feb-26		
83			6	28-Feb-26		
84		KALISINDH TPS	1	28-Feb-26		
85			2	28-Feb-26		
86	UPRVUNL	ANPARA TPS	1	31-Dec-25		
87			2	31-Dec-25		
88			3	31-Dec-25		
89			4	31-Dec-25		
90			5	31-Dec-25		
91			6	31-Dec-25		
92			7	31-Dec-25		
93		HARDUAGANJ TPS	8	31-Dec-26		
94			9	31-Dec-26		
95		OBRA TPS	9	31-Dec-26		
96			10	31-Dec-26		
97			11	31-Dec-26		
98			12	31-Dec-26		
99			13	31-Dec-26		
100		PARICHHA TPS	3	31-Dec-26		
101			4	31-Dec-26		
102			5	31-Dec-26		
103			6	31-Dec-26		

Thermal Generators

Annexure-A.III

S. No.	Name of Plant	Unit	Installed Capacity	MVA Rating	Make of Units	COD	GT Details			Mode of Fuel Transport (Pit Head/Non Pit-head)	Name of Utility	Sector	Control Area	Type	Real and Reactive Power Capability assessment.			Assessment of Reactive Power Control Capability as per CEA Technical Standards for connectivity			Model Validation and verification test for the complete Generator and Excitation System model including PSS.			Model Validation and verification of Turbine/Governor and Load Control or Active Power/frequency Control Functions.			Testing of Governor performance and Automatic Generation Control			Revised Simulation Models		
							Voltage Ratio	GT MVA Capacity	Tap Ratio of GT (Present Tap/Total Taps)						Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks	
1																																
2																																
3																																
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9																																
10																																

Hydro Generators

S. No.	Name of Plant	Unit	Installed Capacity	MVA Rating	Make of Units	COD	GT Details			Type (Pondage/RoR etc.)	Name of Utility	Sector	Control Area	Real and Reactive Power Capability assessment.			Assessment of Reactive Power Control Capability as per CEA Technical Standards for connectivity			Model Validation and verification test for the complete Generator and Excitation System model including PSS.			Model Validation and verification of Turbine/Governor and Load Control or Active Power/frequency Control Functions.			Testing of Governor performance and Automatic Generation Control			Revised Simulation Models		
							Voltage Ratio	GT MVA Capacity	Tap Ratio of GT (Present Tap/Total Taps)					Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks	
1	Mahi Power House-I	UNIT-I	25 MW	27.778 MVA	BHEL, Bhopal	22/01/1986	11kV/132kV	31.5 MVA	3/5	RoR	RVUN	Power/ Energy																			As per guidelines the OEM representative must remain present at the time of Generator periodic testing hence looking to the age and present status of Units at Mahi PH-I, Letters Dated 12/07/2024 and 19/12/2024 have been sent to the OEM M/s BHEL, Bhopal, and accordingly the plan may be scheduled .
2	Mahi Power House-I	UNIT-II	25 MW	27.778 MVA	BHEL, Bhopal	06/02/1986	11kV/132kV	31.5 MVA	3/5	RoR	RVUN	Power/ Energy																			

Nuclear Generators

S. No.	Name of Plant	Unit	Installed Capacity	MVA Rating	Make of Units	COD	GT Details			Type	Name of Utility	Sector	Control Area	Type	Real and Reactive Power Capability assessment.			Assessment of Reactive Power Control Capability as per CEA Technical Standards for connectivity			Model Validation and verification test for the complete Generator and Excitation System model including PSS.			Model Validation and verification of Turbine/Governor and Load Control or Active Power/frequency Control Functions.			Testing of Governor performance and Automatic Generation Control			Revised Simulation Models		
							Voltage Ratio	GT MVA Capacity	Tap Ratio of GT (Present Tap/Total Taps)						Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks	

Gas Based Generators

S. No.	Name of Plant	Unit	Installed Capacity	MVA Rating	Make of Units	COD	GT Details			Name of Utility	Sector	Control Area	Type	Real and Reactive Power Capability assessment.			Assessment of Reactive Power Control Capability as per CEA Technical Standards for connectivity			Model Validation and verification test for the complete Generator and Excitation System model including PSS.			Model Validation and verification of Turbine/Governor and Load Control or Active Power/frequency Control Functions.			Testing of Governor performance and Automatic Generation Control			Revised Simulation Models	
							Voltage Ratio	GT MVA Capacity	Tap Ratio of GT (Present Tap/Total Taps)					Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks

Renewable Energy Plants

S. No.	Name of Plant	Pooling Station Name	Installed Capacity	Type (Solar/Wind)	COD	Owner	Sector	Control Area	Inverter/ WTG Make	Inverter/ WTG Model	PPC Make	Real and Reactive Power Capability for Generator			Power Plant Controller Function Test			Frequency Response Test			Active Power Set Point change test			Reactive Power (Voltage / Power Factor / Q) Set Point change test			Revised Simulation Models		
												Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks	

HVDC Links

S. No	Name of Link	Type (LCC/VSC/Back-to-Back)	HVDC_Voltage (kV)	Converter-1		Converter-2		Master Converter Station	Pole_number	Length (km)	Capacity (MW)	Owner	Forward Direction			Reverse Direction			Reactive Power Controller (RPC) Capability for HVDC/FACTS			Filter bank adequacy assessment based on present grid condition, in consultation with NLDC.			Revised Simulation Models		
				Station Name	Region	Station Name	Region						Maximum Capacity	Minimum Capacity	Ground_return_capacity	Maximum Capacity	Minimum Capacity	Ground_return_capacity	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks	
1			500	APL-Mundra	WR	Mohindargarh	NR		1	989	1,250	ATIL	150	500	1250					Due			Due			
2			500	APL-Mundra		Mohindargarh			2	989	1,250	ATIL	150	500	1250					Due			Due			
3		LCC	800	Champa_HVDC	WR	Kurukshetra	NR	Champa_HVDC	1	1,306	1,500	POWERGRID	150	1,500	DMR path	NA	NA	NA		Due	Apr-2025		Due			
4		LCC	800	Champa_HVDC	WR	Kurukshetra	NR	Champa_HVDC	2	1,306	1,500	POWERGRID	150	1,500	DMR path	NA	NA	NA		Due	Apr-2025		Due			
5		LCC	800	Champa_HVDC	WR	Kurukshetra	NR	Champa_HVDC	3	1,306	1,500	POWERGRID	150	1,500	DMR path	NA	NA	NA		Due	Apr-2025		Due			
6		LCC	800	Champa_HVDC	WR	Kurukshetra	NR	Champa_HVDC	4	1,306	1,500	POWERGRID	150	1,500	DMR path	NA	NA	NA		Due	Apr-2025		Due			

STATCOMs/SVCs

S.No	Station	Statcom	Capacity (MVAR)	Owner	Make	Reactive Power Controller (RPC) Capability for HVDC/FACTS			Filter bank adequacy assessment based on present grid condition, in consultation with NLDC			Validation of response by FACTS devices as per settings.			Revised Simulation Models	
						Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks
1	Kurukshetra	TCR	500	POWERGRID	GE Vernova T&D	NA	NA	NA	NA	NA	NA	Nov-2023	No	Sep-2028		
2	Fatehgarh-2	STATCOM	.+/-600	POWERGRID	SIEMENS	Oct-2023	No	Sep-2028	NA	NA	NA	Oct-2023	No	Sep-2028		
3	Bhadla-2	STATCOM	.+/-600	POWERGRID	SIEMENS	Jun-2023	No	May-2028	NA	NA	NA	Jun-2023	No	May-2028		
4	Bikaner-2	STATCOM	.+/-300	POWERGRID	SIEMENS	Jul-2023	No	Jun-2028	NA	NA	NA	Jul-2023	No	Jun-2028		

FSCs/TCSCs

S. No	End 1	End 2	Line No.	Compensator Location	Make	Fixed Compensation	Variable Compensation Positive	Variable Compensation Negative	Agency	Reactive Power Controller (RPC) Capability for HVDC/FACTS			Filter bank adequacy assessment based on present grid condition, in consultation with NLDC			Validation of response by FACTS devices as per settings.			Revised Simulation Models	
										Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks

Series Reactor

S.No	End 1	End 2	Line No.	End	Capacity	Make	Reactive Power Controller (RPC) Capability for HVDC/FACTS			Filter bank adequacy assessment based on present grid condition, in consultation with NLDC			Validation of response by FACTS devices as per settings.			Revised Simulation Models	
							Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Last tested on (dd/mm/yyyy)	Whether due?	Tentative Schedule date	Whether Revised Models Submitted?	Remarks
1																	
2																	

Annexure-A.IV

Superintending Engineer
(R&A)

U.P. State Load Despatch Centre Ltd.
UPSLDC Complex, Vibhuti Khand – II
Gomti Nagar, Lucknow- 226010
E-mail:sera@upsldc.org

No: 18 /SE(R&A)/EE-II/ SPS

Dated: - 11/06/ 2025

SE (Operations), NRPC
18 – A SJSS Marg,
Katwaria Sarai, New Delhi,
110016. (seo-nrpc@nic.in)

Subject: - Agenda for approval of Proposed System Protection Scheme (SPS) at 400kV substation Panki.

It is to inform that 1X315MVA+1x500MVA ICTs at 400 kV substation Panki are N-1 non-compliant. In order to ensure the reliability of said substation, System Protection Scheme is required. Proposed logic for SPS of 1X315MVA+1x500MVA ICT at 400 kV substation Panki is enclosed.

It is requested to kindly include Proposed SPS logic as an agenda of 232th OCC meeting of NRPC, so that the same may be discussed and approved.

Encl: As above

(Vipin)
Superintending Engineer (R&A)

No: /SE(R&A)/EE-II/ SPS

Dated: - 2025

Copy forwarded to following via-email for information and necessary action:-

1. Director (Operation), UPPTCL, 11th Floor, Shakti Bhawan Extn.,Lucknow.
2. Chief Engineer (PSO), UPSLDC Vibhuti Khand – II, Gomti Nagar, Lucknow.
3. Chief Engineer, (Trans South - west), UPPTCL, near Amar Ujala Press, Kakraitha Road, Agra
4. General Manager, NRLDC 18-A, SJSS Marg, Katwaria Sarai, New Delhi–110016.
5. Superintending Engineer (System Control), UPSLDC, Vibhuti Khand – II, Gomti Nagar, Lucknow.

(Vipin)
Superintending Engineer (R&A)

Logic for proposed SPS (System Protection Scheme) for ICTs at 400kV Substation Panki

Name of Substation	ICT Rating	Tripping Logic-I			Tripping Logic-II		
		% Setting	Time Delay	Priority of feeder for load cut off	% Setting	Time Delay	Priority of feeder for load cut off
400kV Substation Panki	315MVA ICT- I	100-110% of rated current	5 sec	1. 220kV Chibramau 2. 220kV RPH 3. 220kV Bithoor 4. 220kV Raniya 5. 132kV Dibiyapur 6. 132kV Dadanagar 7. 132kV Azad Nagar Ckt II 8. 132kV Azad Nagar Ckt II	Above 110% of rated current	1500 msec	1. 220kV Chibramau 2. 220kV RPH 3. 220kV Bithoor 4. 220kV Raniya 5. 132kV Dibiyapur 6. 132kV Dadanagar 7. 132kV Azad Nagar Ckt II 8. 132kV Azad Nagar Ckt II
	500MVA ICT- II	100-110% of rated current	5 sec	1. 220kV Chibramau 2. 220kV RPH 3. 220kV Bithoor 4. 220kV Raniya 5. 132kV Dibiyapur 6. 132kV Dadanagar 7. 132kV Azad Nagar Ckt II 8. 132kV Azad Nagar Ckt II	Above 110% of rated current	1500 msec	1. 220kV Chibramau 2. 220kV RPH 3. 220kV Bithoor 4. 220kV Raniya 5. 132kV Dibiyapur 6. 132kV Dadanagar 7. 132kV Azad Nagar Ckt II 8. 132kV Azad Nagar Ckt II

Overcurrent setting of ICTs at Panki

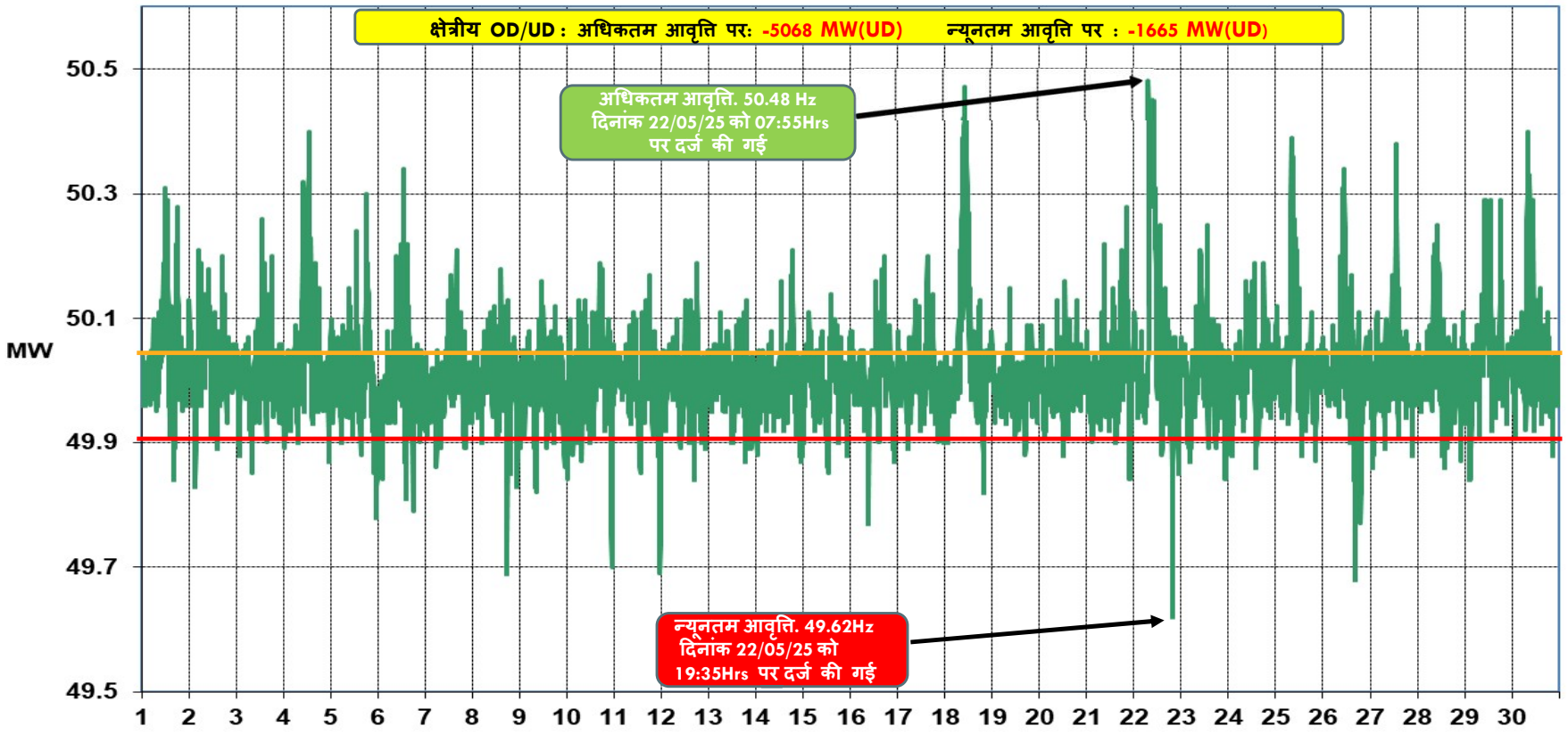
Fault current with respect to full load (FL) current	OC trip time (in Sec)
100% of FL	Pickup
105% of FL	43.026
110% of FL	22.012
120% of FL	11.498
130% of FL	7.983
140% of FL	6.22

प्रचालन समन्वय उपसमिति की बैठक
मई - 2025

मई-2025 के दौरान आवृत्ति की स्थिति
(As per 5 Minute SCADA data)

ग्रिड-इंडिया GRID-INDIA

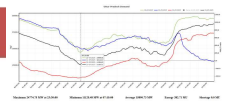
क्षेत्रीय OD/UD : अधिकतम आवृत्ति पर: -5068 MW(UD) न्यूनतम आवृत्ति पर : -1665 MW(UD)



OD(+)/UD(-) at Max Freq	
UP	-4890
JK	-138
Chd	-81
Har	-638
Pun	-107
Del	-11
HP	153
Raj	618
Utt	03

OD(+)/UD(-) at Min Freq	
Pun	-187
JK	-295
UP	-692
Utt	-112
Har	-307
Raj	-33
Del	-98
Chd	-5
HP	37

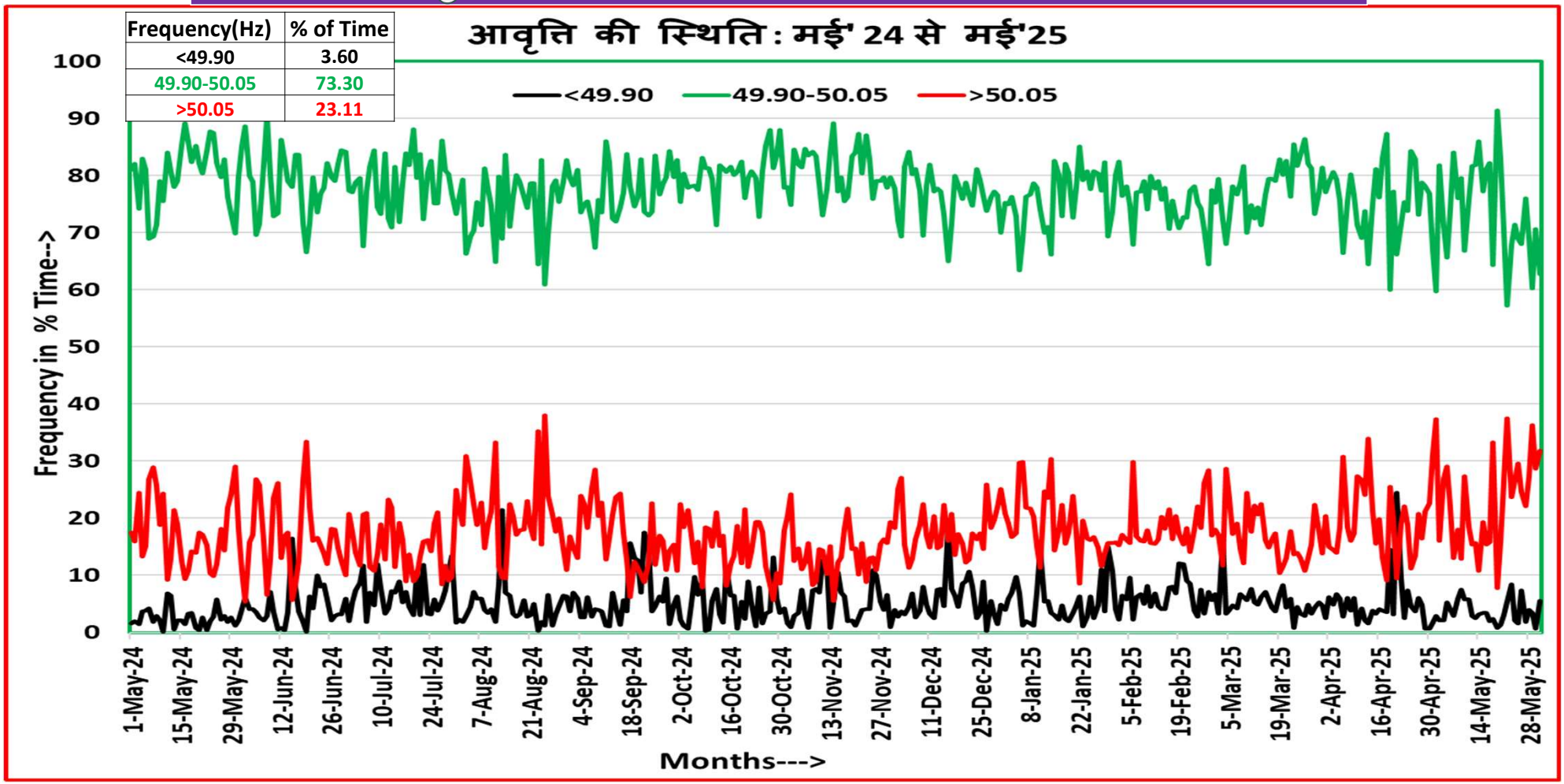
Max Demand Met = 82938 MW "Min Demand Met=39105MW"Ave Demand Met=62977MW



आवृत्ति की स्थिति: मई-2024 से 2025

ग्रिड-इंडिया
GRID-INDIA

Frequency(Hz)	% of Time
<49.90	3.60
49.90-50.05	73.30
>50.05	23.11



पिछले एक साल मे आवृत्ति की स्थिति

ग्रिड-इंडिया GRID-INDIA

आवृत्ति बैंड	मई 2024	जून 2024	जुलाई 2024	अगस्त 2024	सितम्बर 2024	अक्टूबर 2024	नवम्बर 2024	दिसंबर 2024	जनवरी 2025	मई 2025	मार्च 2025	मई 2025	मई 2025
< 49.7 Hz(%)	0.000	0.02	0.054	0.176	0.18	0.14	0.10	0.29	0.18	0.12	0.05	0.27	0.07
<49.8 Hz(%)	0.059	0.31	0.621	0.631	0.89	0.60	0.66	0.97	0.92	0.73	0.61	0.96	0.29
<49.9 Hz(%)	2.490	4.50	6.406	4.660	6.09	4.86	5.15	5.58	5.23	6.24	5.32	5.16	3.60
49.90-50.05 Hz(%)	*80.045*	*79.177*	*78.424*	*75.012*	*77.130*	*80.27*	*80.80*	*76.45*	*76.05*	*75.35*	*77.89*	*75.64*	*73.30*
50.05-50.10 Hz(%)	13.839	13.34	12.122	13.334	10.36	12.18	10.90	14.59	15.09	14.23	13.12	14.80	15.35
>50.10 Hz(%)	3.627	2.99	3.047	6.992	6.42	2.49	3.15	3.38	3.63	4.18	3.67	4.39	7.76
>50.20 Hz(%)	0.285	0.12	0.280	1.725	1.03	0.20	0.21	0.37	0.33	0.55	0.63	1.09	2.87
औसत आवृत्ति	50.00	50.002	49.997	50.008	50.000	49.998	49.995	49.998	49.998	49.999	50.001	50.004	50.015

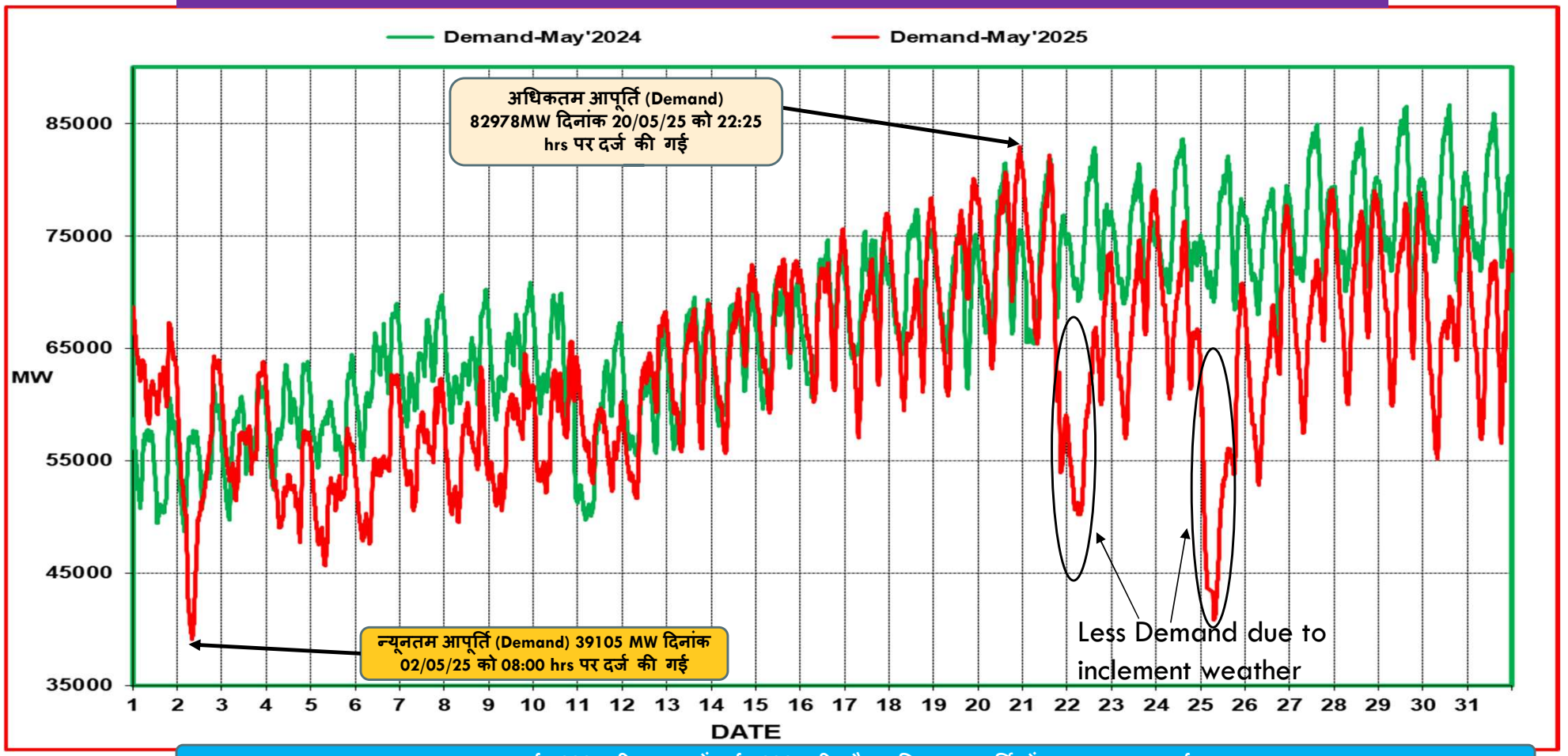
मई-2025 के दौरान अधिकतम मांग (Demand Met), अधिकतम ऊर्जा खपत (Energy consumption) और अब तक का कीर्तिमान (राज्यों द्वारा जमा आंकड़ों के अनुसार)

ग्रिड-इंडिया GRID-INDIA

राज्य	अधिकतम मांग (MW) (in May'25)	दिनांक / समय	रिकॉर्ड अधिकतम मांग (in MW) (upto Apr'25)	दिनांक / समय	अधिकतम ऊर्जा खपत (MU) (in May'25)	दिनांक	रिकॉर्ड अधिकतम ऊर्जा खपत (MU) (Upto Apr'25)	दिनांक
पंजाब	13969	21.05.25 at 15:30	16089	29.06.24 at 12:45	281.0	20.05.25	366.8	21.07.2024
हरियाणा	12526	21.05.25 at 15:30	14662	31.07.24 at 14:30	252.3	20.05.25	293.4	30.07.2024
राजस्थान	17220	28.05.25 at 12:00	19165	12.02.25 at 11:00	365.7	27.05.25	379.1	30.05.2024
दिल्ली	7748	21.05.25 at 15:29	8656	19.06.24 at 15:06	151.5	20.05.25	177.7	18.06.2024
उत्तर प्रदेश	29873	20.05.25 at 21:30	30618	13.06.24 at 22:00	577.8	15.05.25	658.7	17.06.2024
उत्तराखंड	2668	24.05.25 at 22:00	2863	14.06.24 at 22:00	57.0	20.05.25	62.1	14.06.2024
हिमाचल प्रदेश	1866	17.05.25 at 10:00	2273	17.01.25 at 09:00	39.8	17.05.25	41.3	20.12.24
जम्मू और कश्मीर (UT) तथा लद्दाख़ (UT)	2777	01.05.25 at 06:00	3200	07.01.25 at 10:00	57.2	23.05.25	70.3	04.02.25
चंडीगढ़	431	21.05.25 at 15:00	482	18.06.24 at 15:28	8.1	20.05.25	9.1	18.06.2024
उत्तरी क्षेत्र #	82978	20.05.25 at 22:28	91234	19.06.24 at 14:37	1784.6	20.05.25	1990.4	18.06.2024

उत्तरी क्षेत्र अधिकतम मांग (Demand Met) as per 1 min SCADA Data

क्षेत्रीय विद्युत आपूर्ति (Demand) मई 2024 बनाम मई 2025 (As per 5 Minute SCADA data)

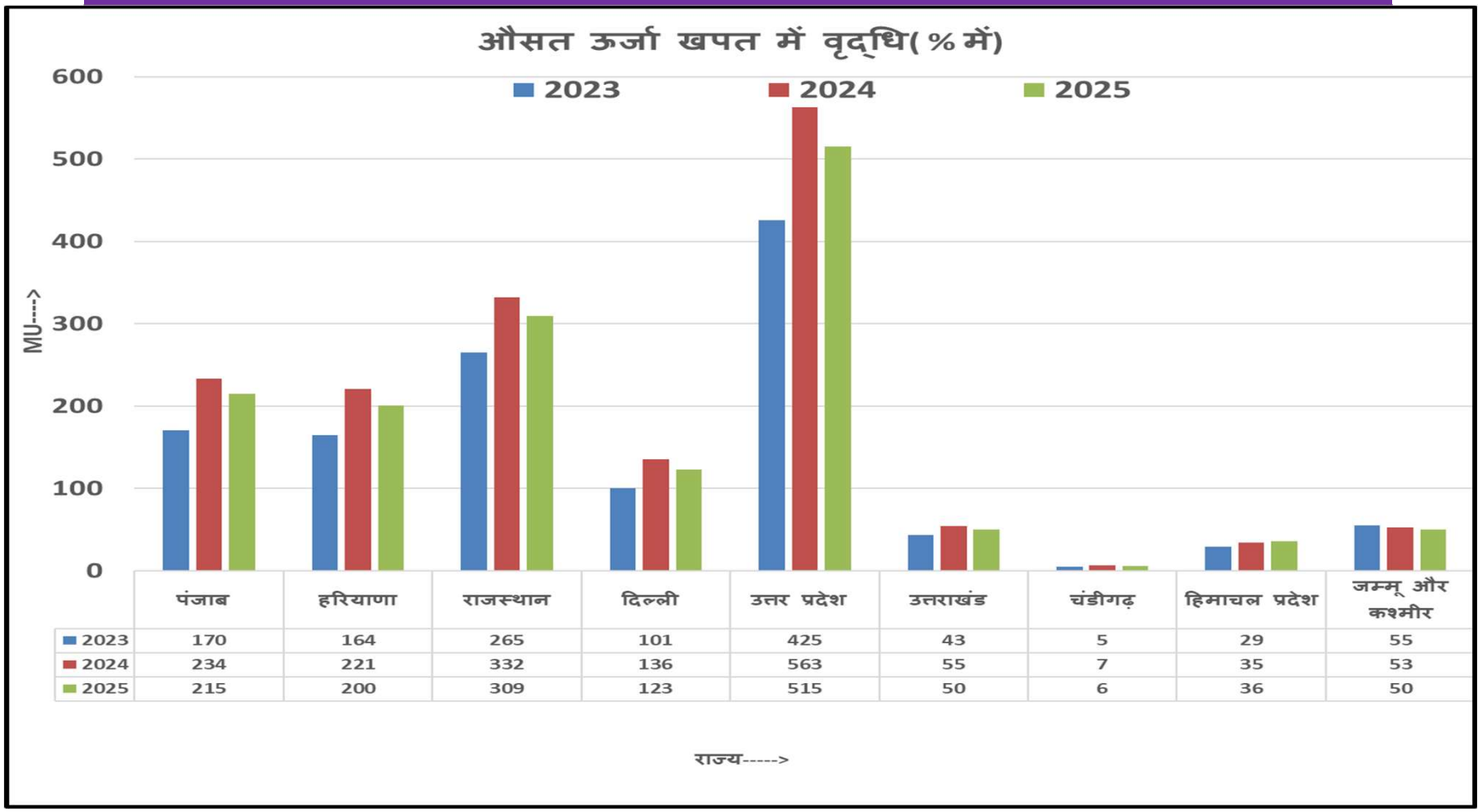


मई -2024 की तुलना में मई -2025 की औसत विद्युत आपूर्ति में 4712 MW कम हुई

उत्तरी क्षेत्र की औसत ऊर्जा खपत में वृद्धि(% में) मई-2025/ मई-2024 / मई-2023

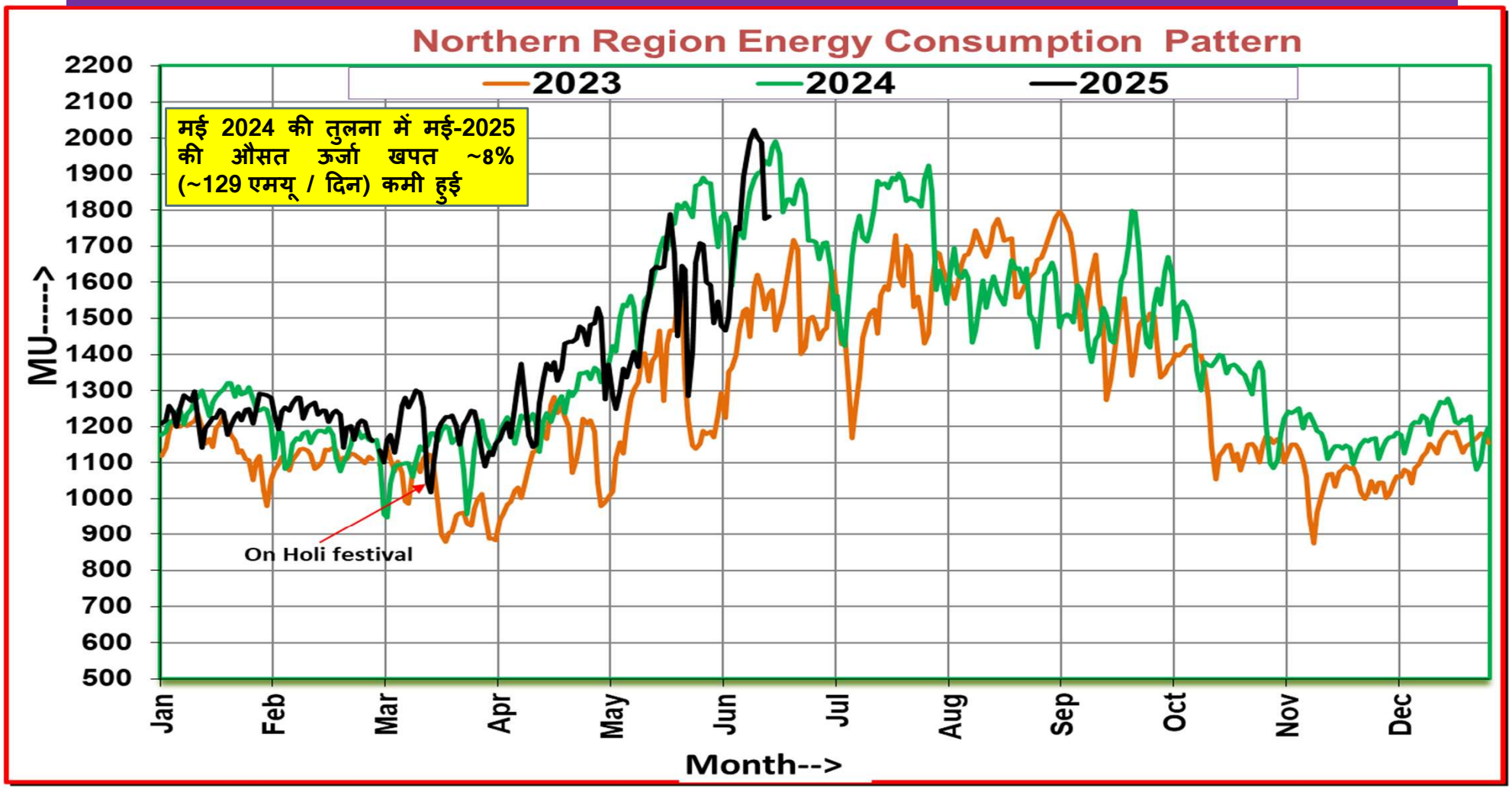
राज्य	मई-2023	मई-2024	मई-2025	% वृद्धि (मई-2024 vs मई-2023)	% वृद्धि (मई-2025 vs मई-2024)
पंजाब	170	234	215	37.1%	-8.1%
हरियाणा	164	221	200	34.2%	-9.1%
राजस्थान	265	332	309	25.2%	-6.7%
दिल्ली	101	136	123	34.9%	-9.4%
उत्तर प्रदेश	425	563	515	32.4%	-8.5%
उत्तराखंड	43	55	50	26.2%	-8.4%
चंडीगढ़	5	7	6	36.5%	-8.7%
हिमाचल प्रदेश	29	35	36	18.4%	4.8%
जम्मू और कश्मीर (UT) तथा लद्दाख़ (UT)	55	53	50	-3.9%	-5.2%
उत्तरी क्षेत्र	**1262**	**1638**	**1509**	**29.8%**	**-7.8%**

उत्तरी क्षेत्र की औसत ऊर्जा खपत में वृद्धि(% में) मई-2025/ मई-2024 / मई-2023

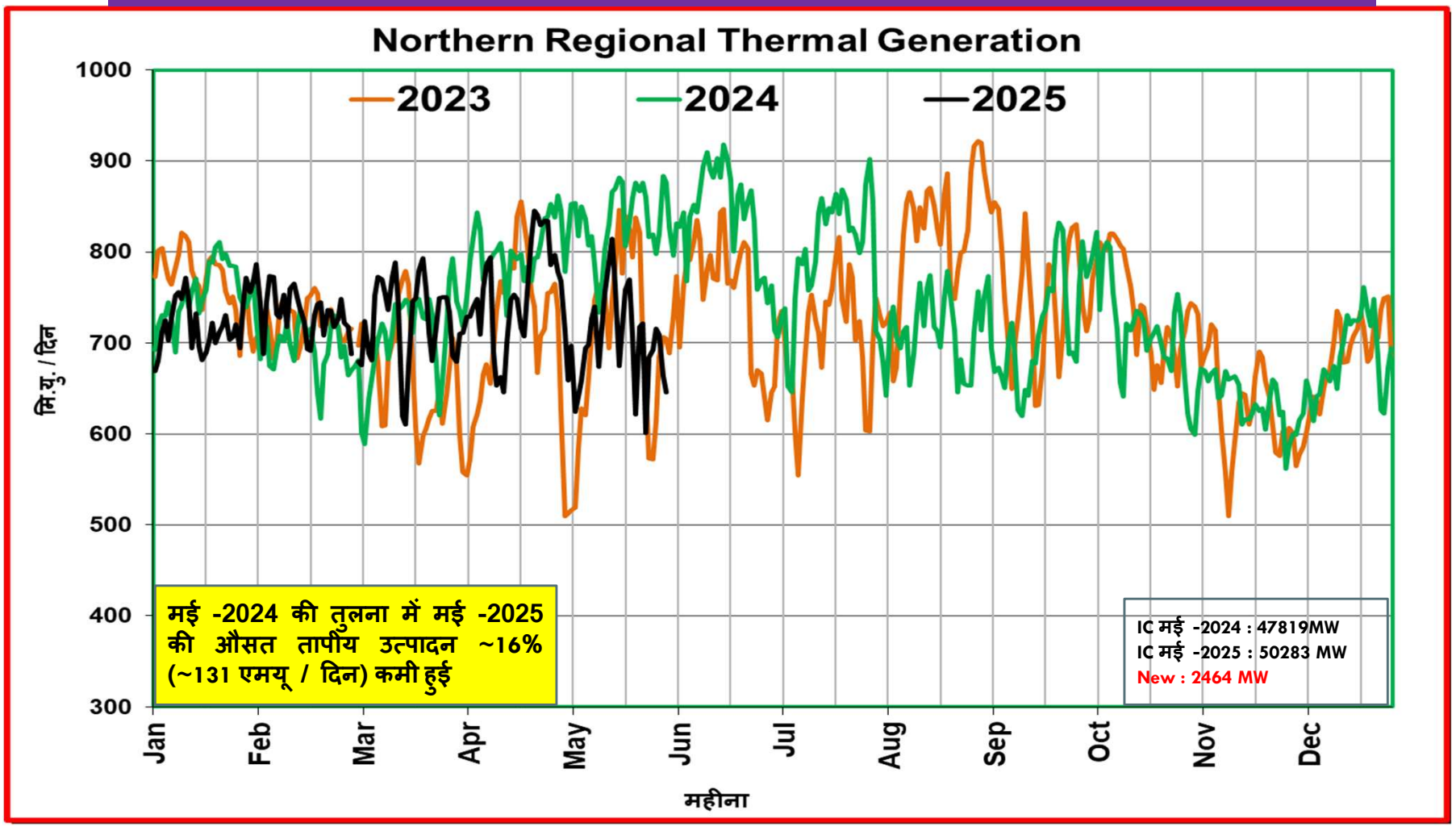


	पंजाब	हरियाणा	राजस्थान	दिल्ली	उत्तर प्रदेश	उत्तराखंड	चंडीगढ़	हिमाचल प्रदेश	जम्मू और कश्मीर
2023	170	164	265	101	425	43	5	29	55
2024	234	221	332	136	563	55	7	35	53
2025	215	200	309	123	515	50	6	36	50

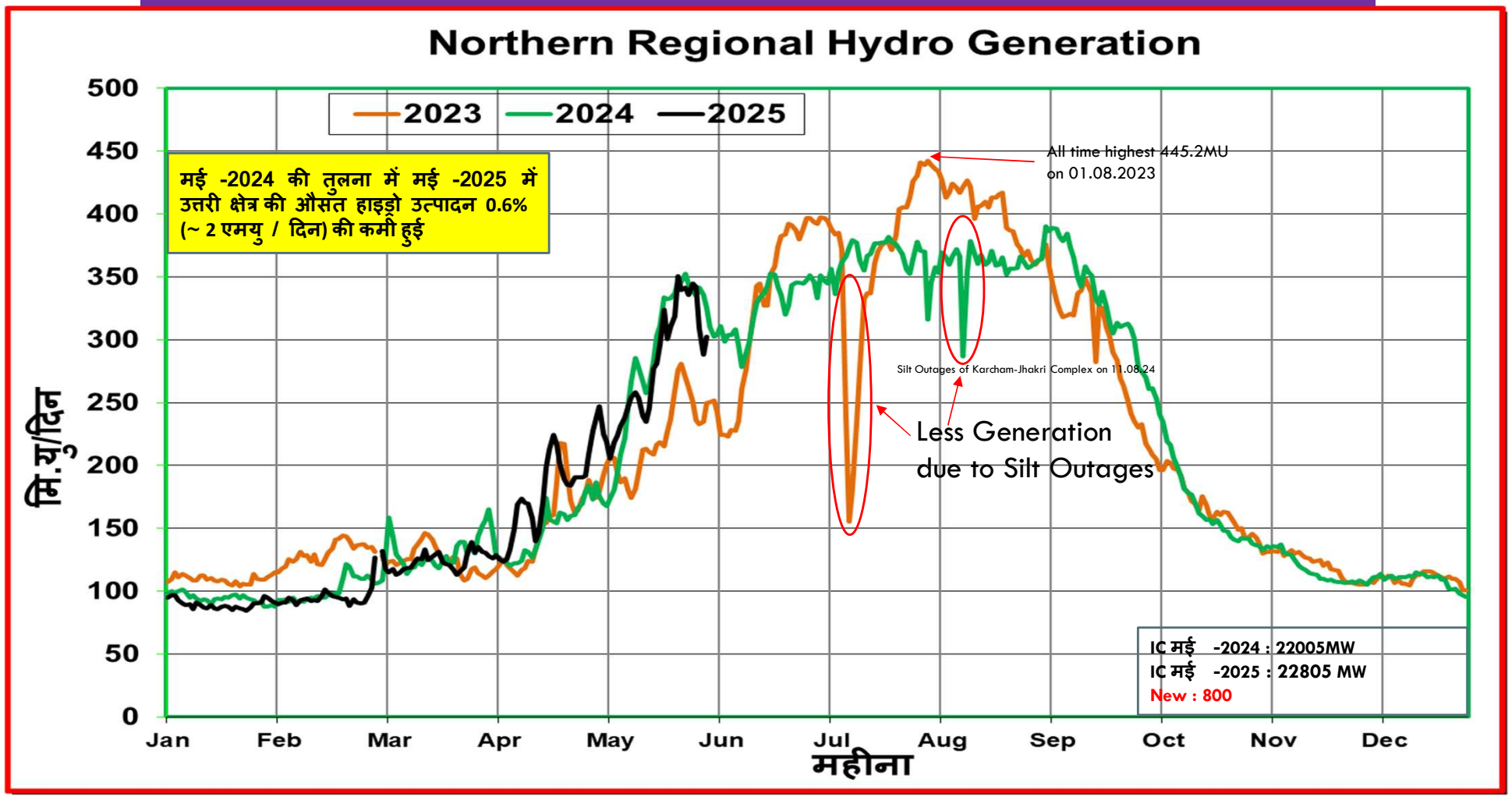
उत्तरी क्षेत्र की ऊर्जा खपत(MUs)



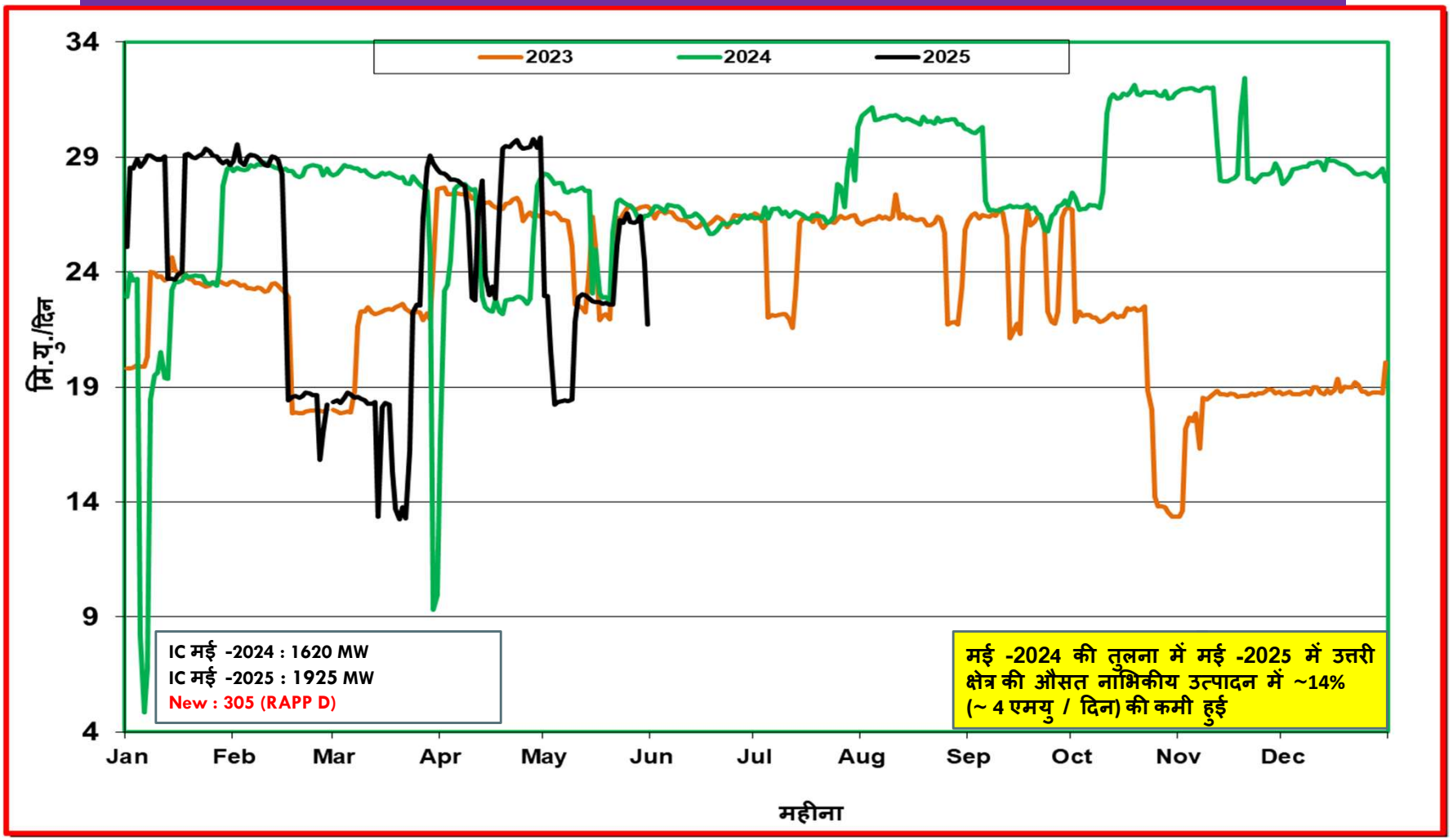
उत्तरी क्षेत्र की तापीय (Thermal) उत्पादन की स्थिति(MUs/Day)



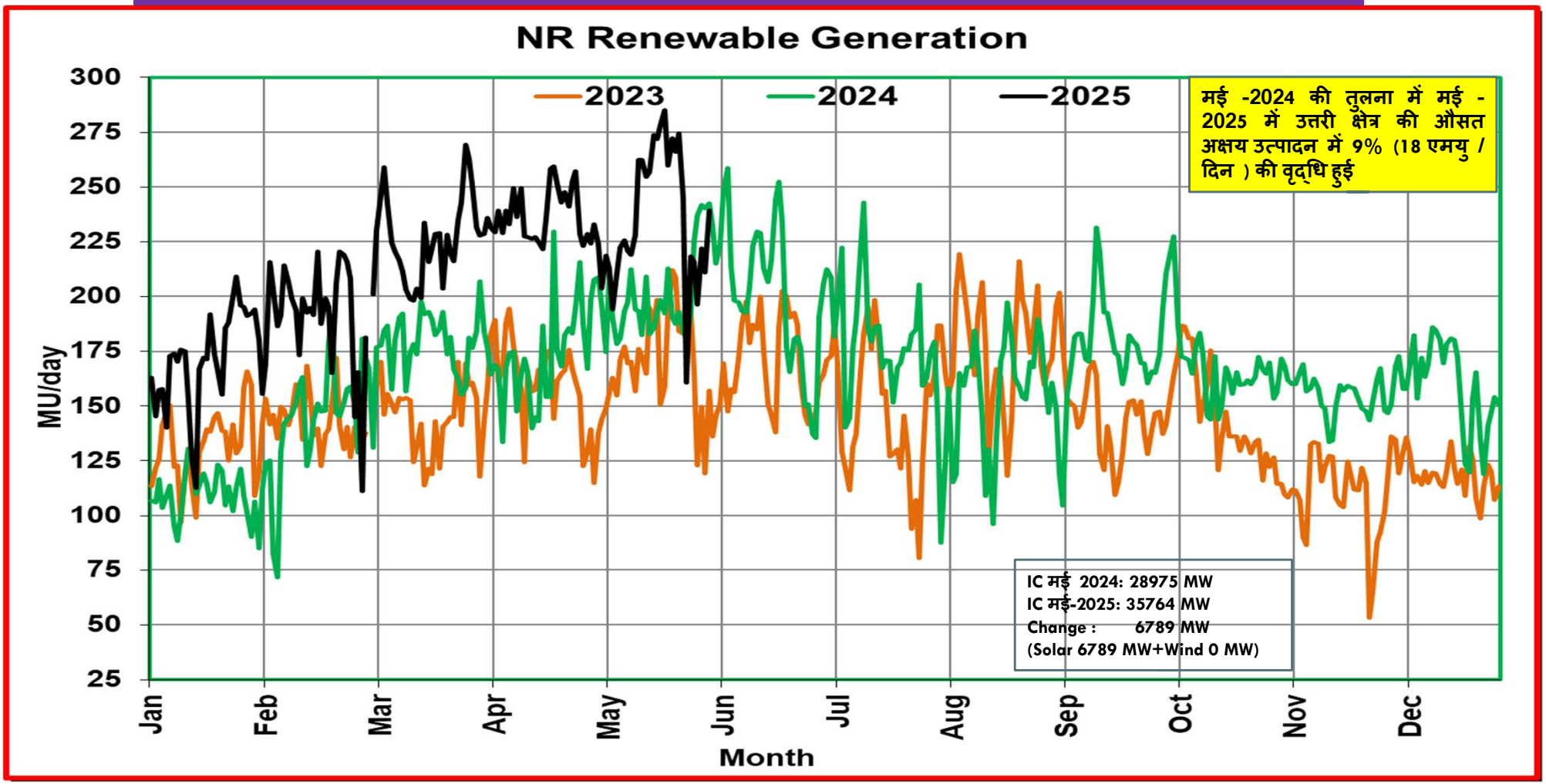
उत्तरी क्षेत्र की जलीय (हाइड्रो) उत्पादन की स्थिति(MUs/Day)



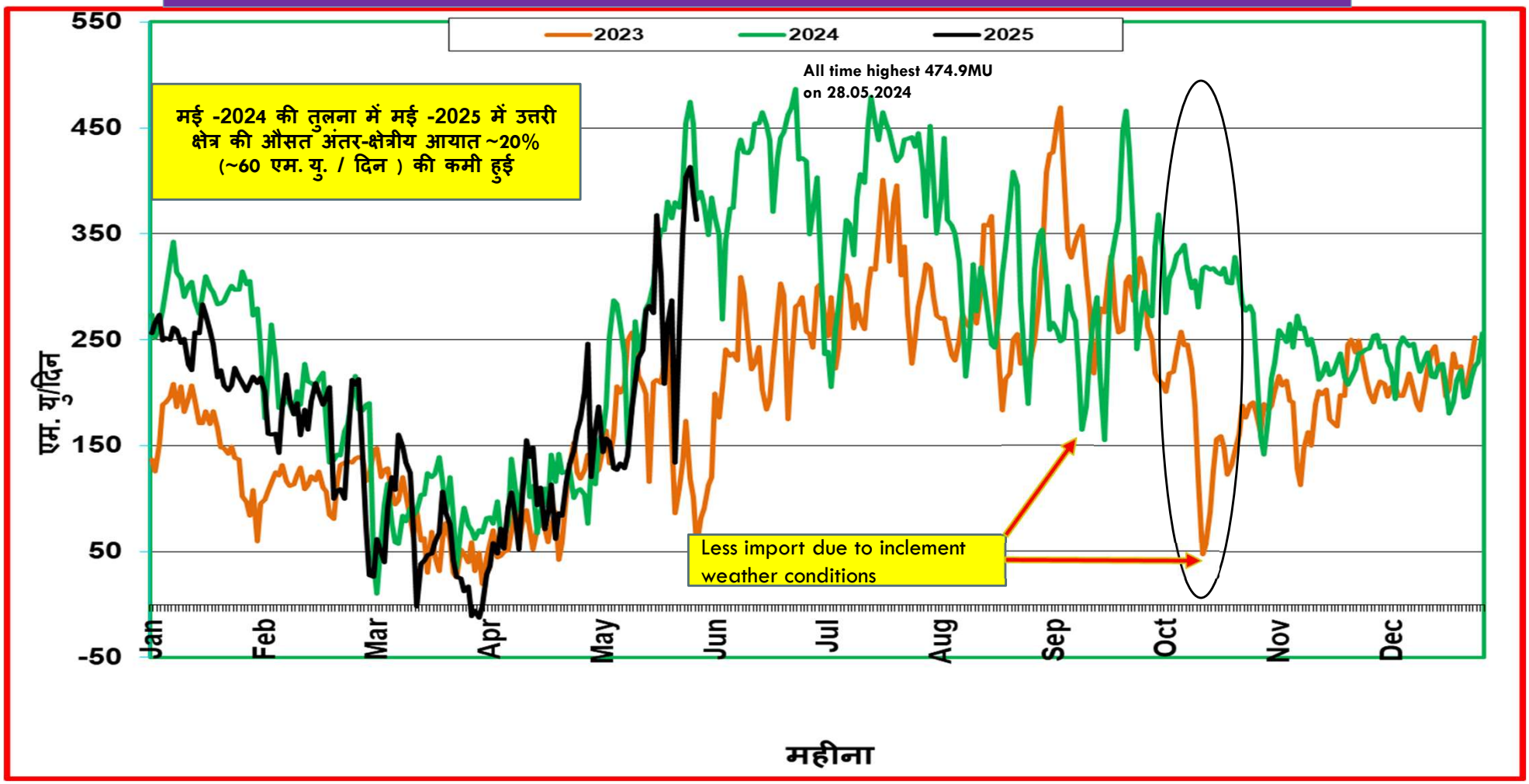
उत्तरी क्षेत्र की नाभिकीय उत्पादन की स्थिति (MUs/Day)



उत्तरी क्षेत्र की अक्षय (Renewable) उत्पादन की स्थिति (MUs/Day)



अंतर-क्षेत्रीय आयात(MUs/Day) की स्थिति



वास्तविक सारांश - मई-2024 बनाम मई-2025

	मई-2024 (मि.यु. /दिन)	मई-2025 (मि.यु. /दिन)	मई माह में वृद्धि (मि.यु./दिन)
तापीय (Thermal) उत्पादन	833	702	-131
जलीय (Hydro) उत्पादन	279	278	-2
नाभिकीय (Nuclear) उत्पादन	26	23	-4
अंतर-क्षेत्रीय (Inter-Regional) कुल आयात	295	235	-60
अक्षय (Renewable) उत्पादन	200	218	18

नवीकरणीय ऊर्जा की क्षमता
(RE PENETRATION)

	अधिकतम दैनिक (MU) क्षमता			
	मई '2025		मई '2025 तक का रिकॉर्ड	
	अधिकतम % क्षमता	दिनांक	अधिकतम % क्षमता	दिनांक
पंजाब	4.81	25-05-2025	12.28	01-04-2020
राजस्थान	26.26	31-05-2025	36.47	22-10-2021
उत्तर प्रदेश	4.10	22-05-2025	6.03	05-03-2025
उत्तर क्षेत्रीय	17.30	22-05-2025	23.00	15-03-2025

DEMAND FORECAST STATUS OF SLDC

- With reference to the Clause 31(2) of Central Electricity Regulatory Commission-IEGC Regulations, 2023 and the Operating Procedure of NRLDC prepared in accordance with the same, each SLDC has to furnish the demand estimation for day ahead, week ahead, month ahead (with time block wise granularity) and demand estimation for year ahead (with hour granularity). The sub-clause 31(2) (h) of IEGC-2023 states the following timeline for the submission of demand estimate data to RLDC.

Type of Demand Estimation	Timeline
Daily	10:00 hours of previous day
Weekly	First working day of previous week
Monthly	Fifth day of previous month
Yearly	30th September of previous year

- The following is the status regarding forecast data submission.

State/Entity	Day Ahead (As on Jun-25)	Week Ahead	Month Ahead (Jul 2025)	Year-Ahead
Punjab	As per Format	Demand and Resource not as per format & timeline	Not received	Not received
Haryana	Demand and Resource not as per format	Only demand & irregular	Only demand	Not received
Delhi	Demand and Resource not as per format	As per Format	As per Format	Only Demand
Rajasthan	As per Format but irregular	As per Format	Not received	Not received
Uttar Pradesh	As per Format	As per Format	As per Format	As per Format
Uttarakhand	Demand and Resource not as per format and irregular	As per Format	As per Format	Not received
Himachal Pradesh	As per Format	As per Format	As per Format	As per Format
J&K and Ladakh (UT)	Demand and Resource not as per format & irregular	Not received	Not received	Not received
Chandigarh (UT)	Demand and Resource not as per format	Not received	Not received	Not received

- **Online portal is under development and will go live within 1 months. All are requested to strictly follow the standard format provided along with the submission timeline.**

Outage Summary For May 2025									
CONSTITUENTS	PLANNED (A)	FORCED OUTAGES (B=C+D)	EMERGENCY SHUTDOWNS (C)	TRIPPING (D)	% PLANNED SHUTDOWNS (A/(A+C))	% EMERGENCY SHUTDOWNS(C/(A+C)	% ESD SHUTDOWNS(C/B)	% TRIPPING (D/B)	TOTAL OUTAGES (A+B)
POWERGRID	281	393	176	217	61.5%	38.5%	44.8%	55.2%	674
UPPTCL	157	313	102	211	60.6%	39.4%	32.6%	67.4%	470
RRVPNL	51	176	50	126	50.5%	49.5%	28.4%	71.6%	227
HVPNL	72	148	40	108	64.3%	35.7%	27.0%	73.0%	220
BBMB	37	95	38	57	49.3%	50.7%	40.0%	60.0%	132
PSTCL	38	81	18	63	67.9%	32.1%	22.2%	77.8%	119
DTL	9	43	19	24	32.1%	67.9%	44.2%	55.8%	52
PTCUL	16	24	4	20	80.0%	20.0%	16.7%	83.3%	40
HPPTCL	13	19	3	16	81.3%	18.8%	15.8%	84.2%	32
NTPC	9	22	8	14	52.9%	47.1%	36.4%	63.6%	31
PDD JK	3	18	3	15	50.0%	50.0%	16.7%	83.3%	21
ESUCRL	12	1	1	0	92.3%	7.7%	100.0%	0.0%	13
GPTL	8	3	0	3	100.0%	0.0%	0.0%	100.0%	11
THAR SURYA1	6	4	4	0	60.0%	40.0%	100.0%	0.0%	10
Adani	4	4	2	2	66.7%	33.3%	50.0%	50.0%	8
NRSS XXIX	0	8	2	6	0.0%	100.0%	25.0%	75.0%	8
APCPL	1	6	1	5	50.0%	50.0%	16.7%	83.3%	7
NHPC	2	4	1	3	66.7%	33.3%	25.0%	75.0%	6
NRSS36	2	4	2	2	50.0%	50.0%	50.0%	50.0%	6
Renew Power	2	4	2	2	50.0%	50.0%	50.0%	50.0%	6
Saurya Urja	1	5	5	0	16.7%	83.3%	100.0%	0.0%	6
PKTCL	2	3	1	2	66.7%	33.3%	33.3%	66.7%	5
MAHINDRA	3	1	0	1	100.0%	0.0%	0.0%	100.0%	4
Total	729	1379	482	897	60.2%	39.8%	35.0%	65.0%	2108

OUTAGE SUMMARY OF LAST THREE MONTHS

MONTH	PLANNED	FORCED OUTAGES	EMERGENCY SHUTDOWNS	TRIPPING	% PLANNED as of TOTAL S/D	% EMERGENCY SHUTDOWNS	TOTAL OUTAGES (A+B)
	(A)	(B=C+D)	(C)	(D)	(A/(A+C))	(C/(A+C))	
Feb-25	1000	658	355	303	73.8%	26.2%	1658
Mar-25	1104	772	392	380	73.8%	26.2%	1876
Apr-25	923	1003	416	587	68.9%	31.1%	1926
May-25	**729**	**1379**	**482**	**897**	**60.2%**	**39.8%**	**2108**

New Elements First Time Charged During May 2025

S. No.	Type of transmission element	Total No
1	AC Lines	2
2	LILO AC Lines	4
3	Antitheft Charging	2
4	Transformer	4
5	Solar plant	7
6	Line Reactor	1
7	Harmonic Filter Capacitor Bank	2
Total New Elements charged		22

New AC Lines

S.No	Name of element	Owner	Voltage Level (in kV)	Circuit No	Line Length	Conductor Type	Actual date of charging
1	220kV Bhadla_2 (PG)-RSDCL(PSS3)_SL_BHD2_PG-1	RSDCL	220kV	1	31.1	AL59 Moose	04-May-2025
2	220kV Bikaner_2 (PBTSL)-Juna_REPL_SL_BKN2-1	Juna_REPL	220kV	1	16.2	AL59 Moose	21-May-2025

LILO AC Lines

S.No	Name of element	Voltage Level (in kV)	Line Length of New Line after LILO (In Km)	LILO Portion Line Length (In Km)	Conductor Type	Agency/Owner	Actual date of charging
1	220kV Kadarpur (GPTL)-Palli(HV)-1(After LILO of 220kV Sector-65 Gurugram - Palli Ckt-1&2 at 400kV Kadarpur)	220kV	19.195	6.536	AL59 Zebra	HVPNL	15-May-2025
2	220kV Kadarpur (GPTL)-Palli(HV)-2(After LILO of 220kV Sector-65 Gurugram - Palli Ckt-1&2 at 400kV Kadarpur)	220kV	19.195	6.536	AL59 Zebra	HVPNL	15-May-2025
3	220kV Kadarpur (GPTL)-Gurugram_sec65 (HVPNL)-1(After LILO of 220kV Sector-65 Gurugram - Palli Ckt-1&2 at 400kV Kadarpur)	220kV	14.927	6.536	AL59 Zebra	HVPNL	15-May-2025
4	220kV Kadarpur (GPTL)-Gurugram_sec65 (HVPNL)-2(After LILO of 220kV Sector-65 Gurugram - Palli Ckt-1&2 at 400kV Kadarpur)	220kV	14.927	6.536	AL59 Zebra	HVPNL	15-May-2025

Antitheft Charging

S.No	Name of element	Voltage Level (in kV)	Line to be charged upto	Conductor Type	Agency/Owner	Actual date of charging
1	Antitheft charging of 132kV Nanpara(UP)-Kohalpur(Nepal) CKT-1 from Nanpara(UP) Upto Tower no.98 (upto Indian border)	132kV	32.072	Panther	UPPTCL	30-May-2025
2	Antitheft charging of 132kV Nanpara(UP)-Kohalpur(Nepal) CKT-2 from Nanpara(UP) Upto Tower no.98 (upto Indian border)	132kV	32.072	Panther	UPPTCL	30-May-2025

Transformer

S.No	Name of element	Owner	Voltage Level (HV/LV/Tertiary)	MVA Capacity	Transformer Details	OLD MVA Capacity	Actual date of charging
1	420/15.75kV, 306 MVA, 3-Phase, M/s GE, GT - 7 at Tehri(THDC)	Tehri PSP	420/15.75kV	306	New	NA	03-May-2025
2	220/33kV, 100 MVA MVA, 3-Phase, BBL, ICT - 1 at RSDCL(PSS3)_SL_BHD2_PG	RSDCL	220/33kV	100	New	NA	05-May-2025
3	220/33kV, 100 MVA MVA, 3-Phase, BBL, ICT - 2 at RSDCL(PSS3)_SL_BHD2_PG	RSDCL	220/33kV	100	New	NA	05-May-2025
4	220/33kV, 100 MVA MVA, 3-Phase, TAL, ICT - 3 at RSDCL(PSS3)_SL_BHD2_PG	RSDCL	220/33kV	100	New	NA	05-May-2025

Solar plant

S.No	Plant Name	Pooling Sub-station	Added Capacity (MW)	Total Capacity Charged(MW)	Total Installed Capacity of Plant(MW)	Type of RE	Total No. of Solar ICR/Block Charged	Agency/ Owner	Actual date of charging
1	SJVN Green Energy Ltd	Bikaner-II	64.01	320	320	Solar	9	SJVNGEL_BKN2	01-May-2025
2	ACME Sikar Solar Private Limited(ASSPL_BKN2)	Bikaner-II	75	165	300	Solar	5	ASSPL_BKN2	03-May-2025
3	Nokh Solar Power Plant NTPC Limited	Bhadla_2	237.57	237.57	735	Solar	32	NTPC	23-May-2025
4	Juna Renewable Energy Private Limited(JREPL)	Bikaner-II	335	335	335	Solar	20	Juna_REPL	24-May-2025
5	GORBEA SOLAR PRIVATE LIMITED(GSPL)	Bhadla_2	100	300	300	Solar	13	Gorbea_SPL	25-May-2025
6	ACME Sikar Solar Private Limited(ASSPL_BKN2)	Bikaner-II	60	225	300	Solar	4	ASSPL_BKN2	27-May-2025
7	Karinsar Solar Plant NHPC Ltd(KSP_NHPC)	Bikaner-II	53.57	161.31	300	Solar	5	NHPC	27-May-2025

Line Reactor

S.No	Name of element	Owner	Voltage Level (in kV)	MVAR Capacity	Actual date of charging
1	330 MVAR Switchable Convertable LINE_REACTOR of 765kV D/C Bhadla-II Sikar-II Ckt-4 at Sikar_2(PSTL)	PBSTL	765kV	330 MVAR	14-May-2025

Harmonic Filter Capacitor Bank

S.No	Name of element	Owner	Voltage Level (in kV)	Type of Capacitor	Capacitor Bank No	Sub Capacitor Bank MVAR Rating	Capacitor MVAR Rating	Actual date of charging
1	33kV, Harmonic Filter Capacitor Bank 01 at GSPL_SL_BHD2_PG	Gorbea_SPL	33kV	Harmonic Filter Capacitor Bank	1	9 MVAR(C- type 240Hz) Filter bank as per compliances related to Clause B.1 Power Quality Norms	9	22-May-2025
2	33kV, Harmonic Filter Capacitor Bank 02 at GSPL_SL_BHD2_PG	Gorbea_SPL	33kV	Harmonic Filter Capacitor Bank	2	9 MVAR(C- type 240Hz) Filter bank as per compliances related to Clause B.1 Power Quality Norms	9	30-May-2025

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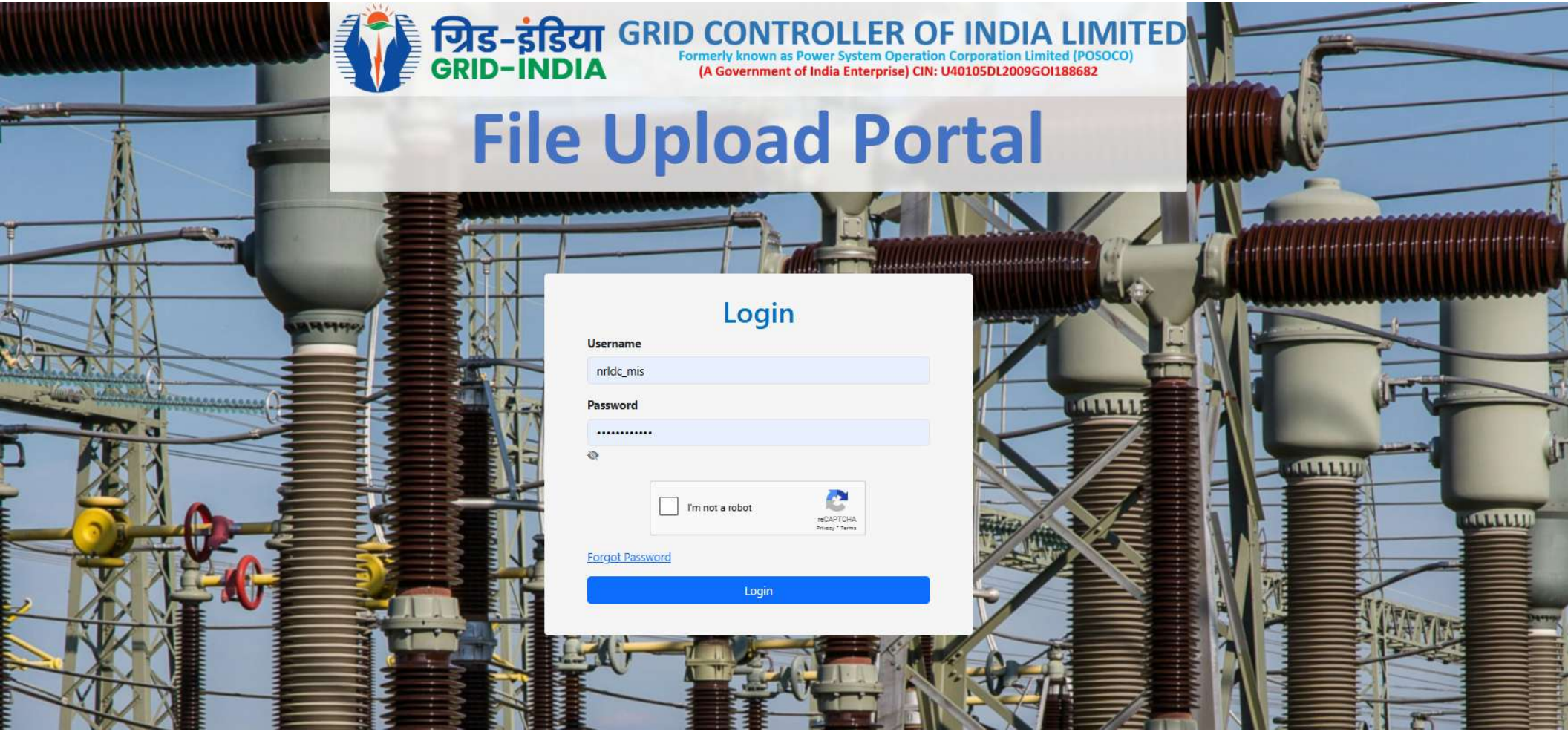
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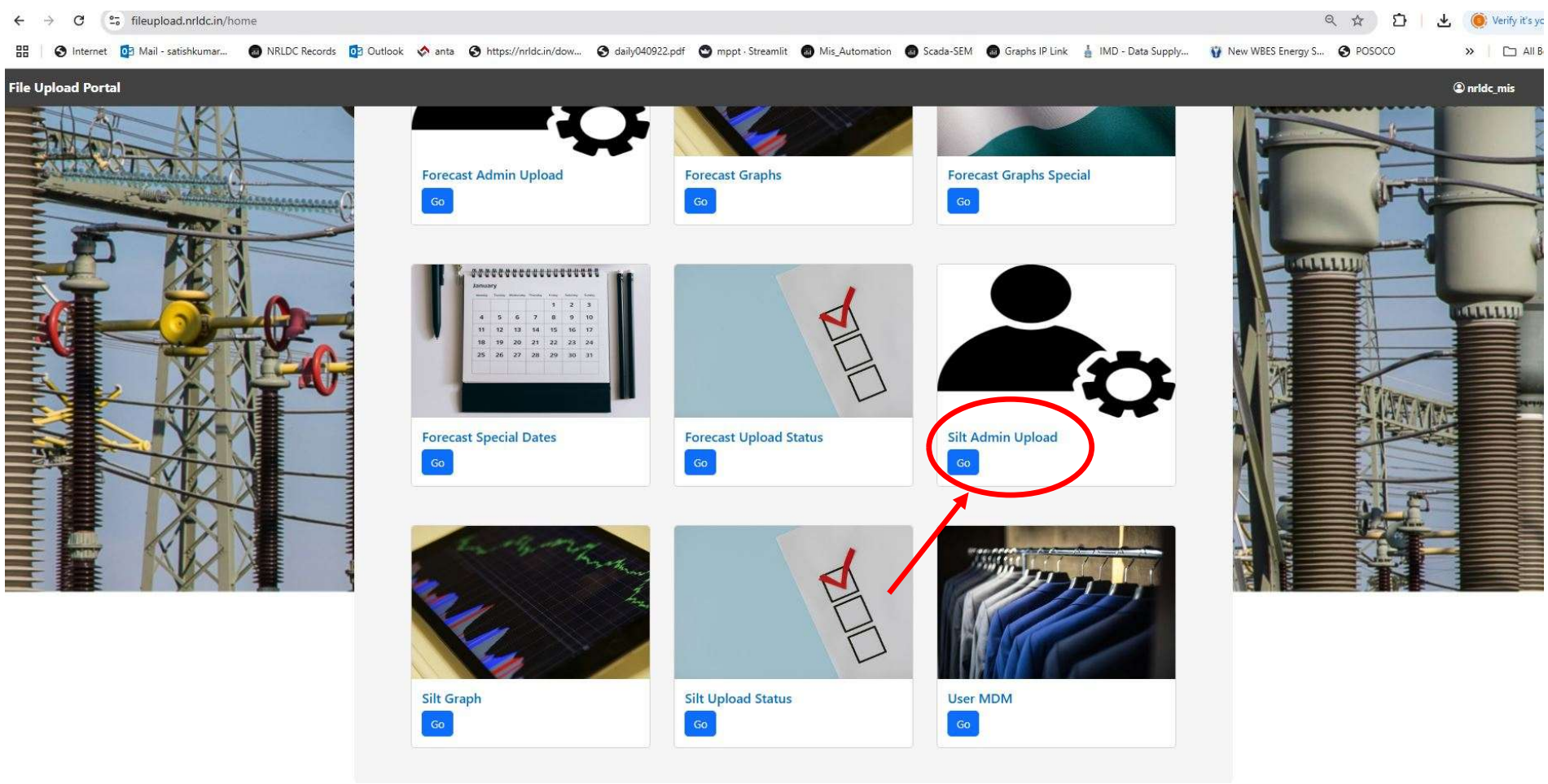
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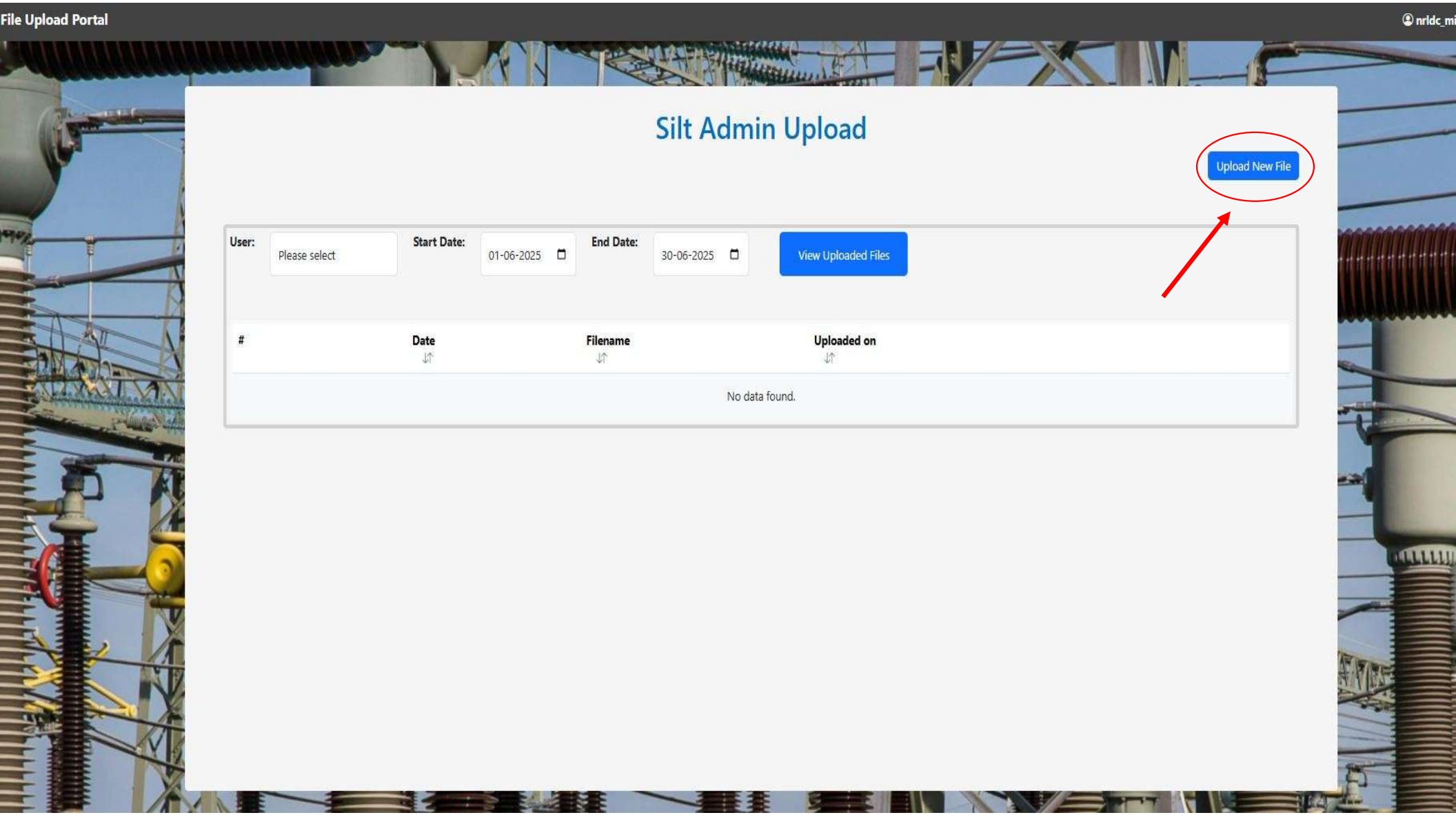
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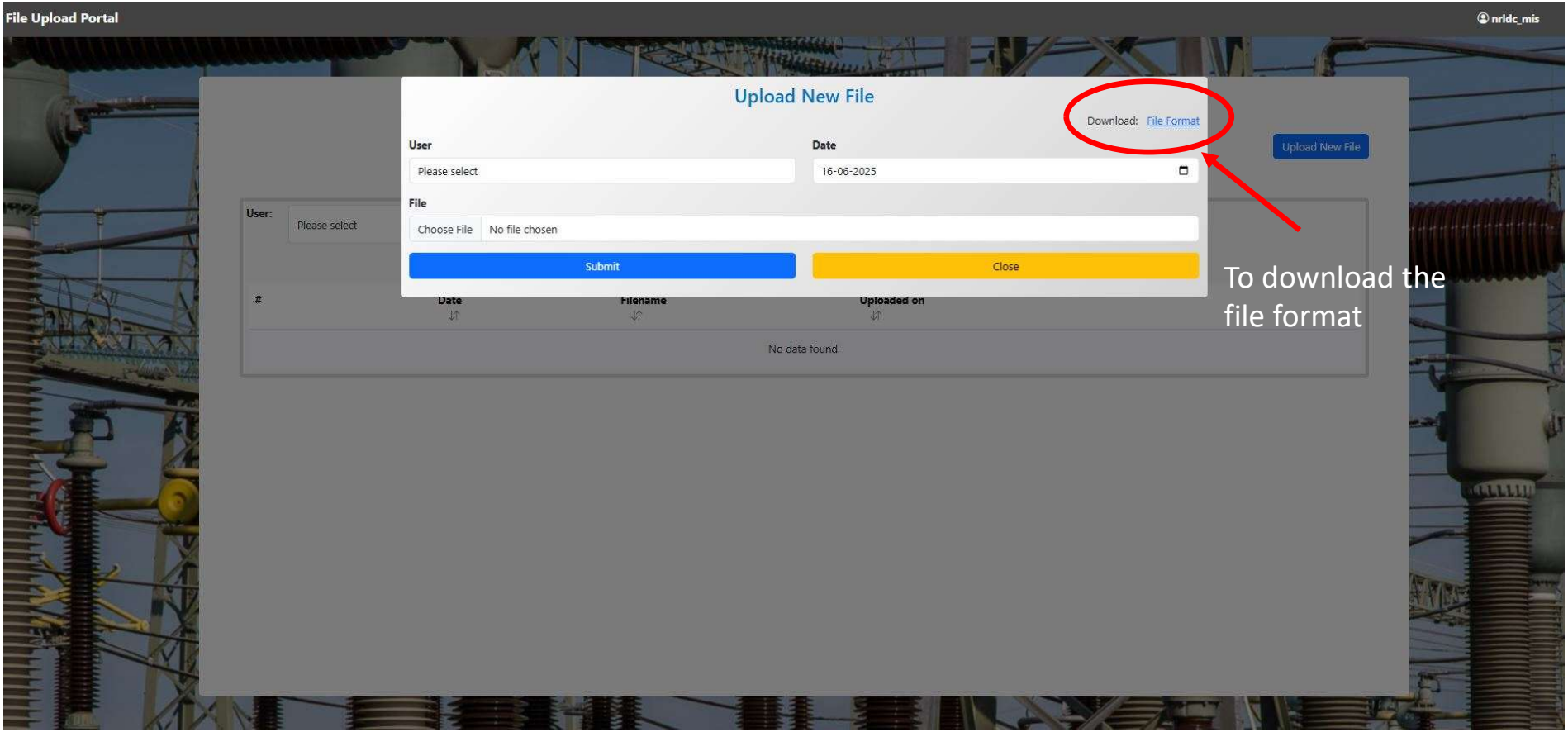
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Category wise Plants details *(as per NRLDC record)*

	CATEGORY							
S.No.	**Silt_NHPC**	**Silt_SJVNL**	**Silt_UTT**	**Silt_HP**	**Silt_UP**	**Silt_THDC**	**Silt_IPP**	**Silt_JK**
1	Chamera-I	Nathpa Jhakri	Chilla	Baspa	Alaknanda	Tehri	Karcham Wangtoo	Baglihar
2	Chamera-II		Maneribhali	Kashang	Vishnuprayag	Koteshwar	Budhil	Lower Jhelum
3	Chamera-III		Chibro				Sainj	
4	Bairasuil		Khodri				Singoli	
5	Dhauliganga						Sorang	
6	Dulhasti							
7	Kishanganga							
8	Parbati-II							
9	Parbati-III							
10	Salal							
11	Sewa-II							
12	Tanakpur							
13	Uri-I							
14	Uri-II							

ACTION REQUIRED BY CONSTITUENTS: The silt data/trend for the above Hydro plants will be displayed on the portal. To proceed with creating login credentials for these plants, kindly share the respective email IDs and contact details at : NRLDCMIS@GRID-INDIA.IN

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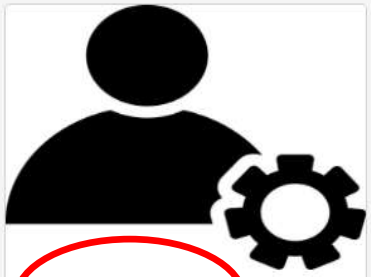

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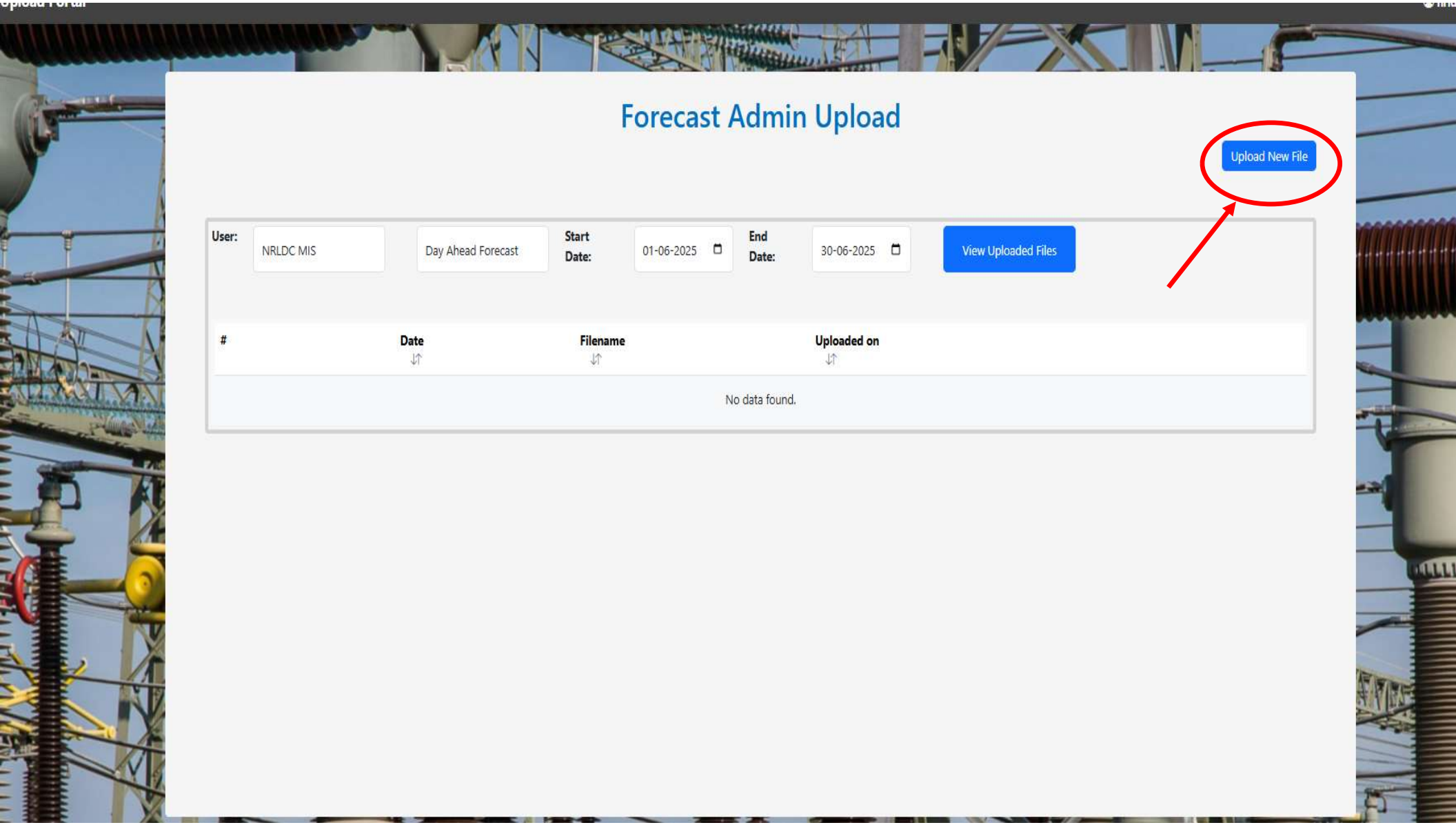
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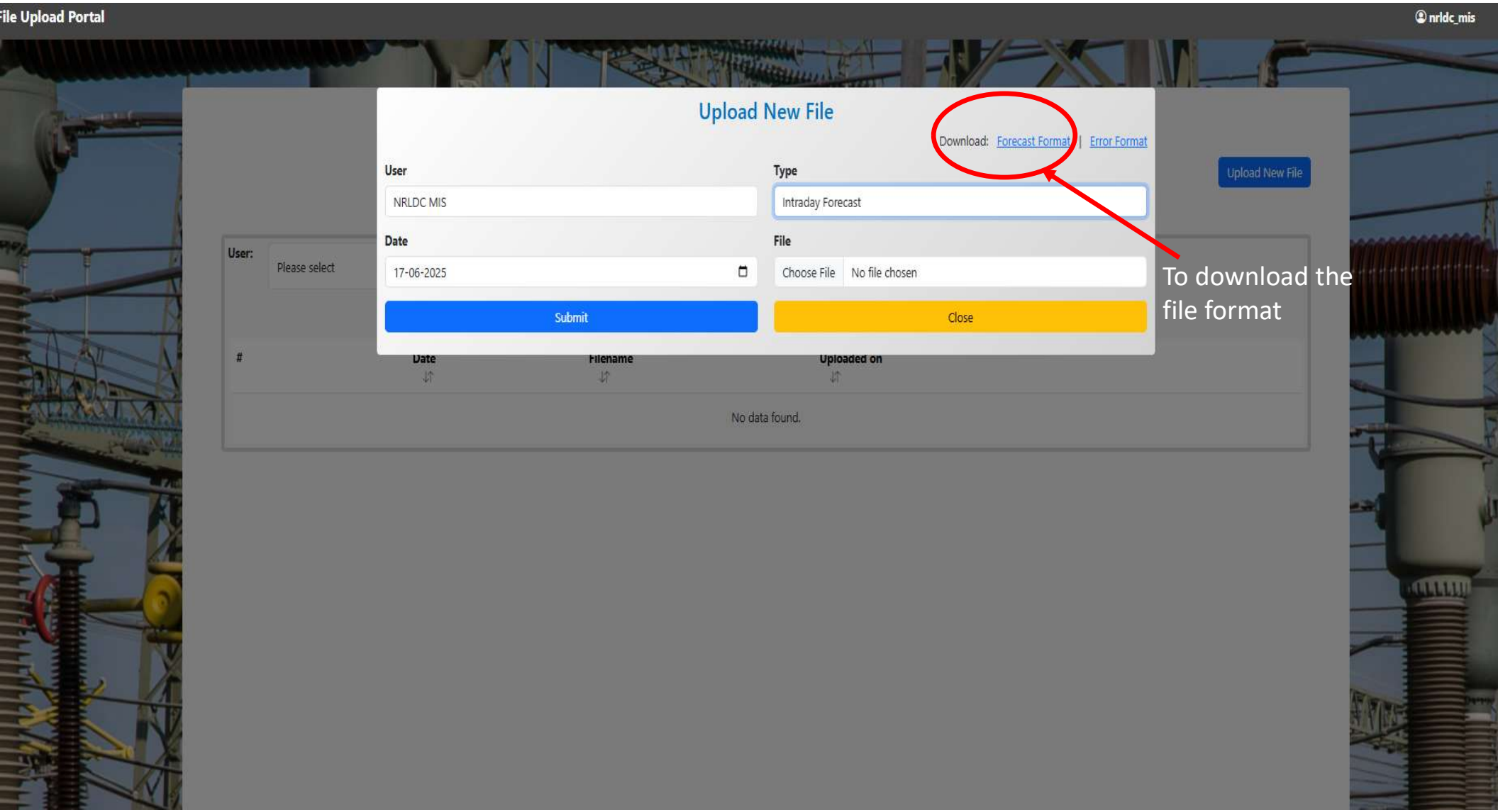
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Once this portal get functional then there is no need to mail the Intra Day And Day ahead forecast.


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