



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 241<sup>वीं</sup> बैठक का कार्यवृत्त |

**Subject:** Minutes of the 241<sup>st</sup> OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 241<sup>वीं</sup> बैठक दिनांक 16.03.2026 को आयोजित की गयी थी। उक्त बैठक का कार्यवृत्त उत्तर क्षेत्रीय विद्युत समिति की वेबसाइट <https://www.nrpc.gov.in> पर उपलब्ध है। यदि कार्यवृत्त पर कोई टिप्पणी हो तो कार्यवृत्त जारी करने के एक सप्ताह के अन्दर इस कार्यालय को भेजें |

The 241<sup>st</sup> meeting of the Operation Co-ordination Sub-Committee (OCC) of NRPC was held on 16.03.2026. The Minutes of this meeting has been uploaded on the NRPC website <https://www.nrpc.gov.in>. Any comments on the minutes may kindly be submitted within a week of issuance of the minutes.

**संलग्नक:** यथोपरि।

(डी. के. मीना)  
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 2026-27			
S. No	OCC Member	Category	E-mail
1	NLDC	National Load Despatch Centre	<b>nomination awaited</b> ( <a href="mailto:mkagarwal@grid-india.in">mkagarwal@grid-india.in</a> )
2	NRLDC	Northern Regional Load Despatch Centre	<a href="mailto:ashokkr@grid-india.in">ashokkr@grid-india.in</a>
3	CTUIL	Central Transmission Utility	<a href="mailto:sandeepk@powergrid.in">sandeepk@powergrid.in</a>
4	PGCIL	Central Government owned Transmission Company	<a href="mailto:rtamc.nr1@powergrid.in">rtamc.nr1@powergrid.in</a> <a href="mailto:rtamcjammu@powergrid.in">rtamcjammu@powergrid.in</a> <a href="mailto:cpcc.nr3@powergrid.in">cpcc.nr3@powergrid.in</a>
5	NTPC	Central Generating Company	<a href="mailto:RAMESHSINGH@NTPC.CO.IN">RAMESHSINGH@NTPC.CO.IN</a>
6	BBMB		<a href="mailto:powerc@bbmb.nic.in">powerc@bbmb.nic.in</a>
7	THDC		<a href="mailto:bhagatsingh@thdc.co.in">bhagatsingh@thdc.co.in</a>
8	SJVN		<a href="mailto:sjvn.cso@sjvn.nic.in">sjvn.cso@sjvn.nic.in</a>
9	NHPC		<a href="mailto:surendramishra@nhpc.nic.in">surendramishra@nhpc.nic.in</a>
10	NPCIL		<a href="mailto:df@npcil.co.in">df@npcil.co.in</a>
11	Delhi SLDC	State Load Despatch Centre	<a href="mailto:gmsldc@delhisldc.org">gmsldc@delhisldc.org</a>
12	Haryana SLDC		<a href="mailto:cesocomml@hvpn.org.in">cesocomml@hvpn.org.in</a>
13	Rajasthan SLDC		<a href="mailto:ce.ld@rvpn.co.in">ce.ld@rvpn.co.in</a>
14	Uttar Pradesh SLDC		<a href="mailto:cepso@upsldc.org">cepso@upsldc.org</a>
15	Uttarakhand SLDC		<a href="mailto:se_slcd@ptcul.org">se_slcd@ptcul.org</a>
16	Punjab SLDC		<a href="mailto:ce-sldc@pstcl.org">ce-sldc@pstcl.org</a>
17	Himachal Pradesh SLDC		<a href="mailto:cehpsldc@gmail.com">cehpsldc@gmail.com</a>
18	DTL	State Transmission Utility	<a href="mailto:bl.gujar@dtl.gov.in">bl.gujar@dtl.gov.in</a>
19	HVPNL		<a href="mailto:cetspkl@hvpn.org.in">cetspkl@hvpn.org.in</a>
20	RRVPNL		<a href="mailto:ce.ppm@rvpn.co.in">ce.ppm@rvpn.co.in</a>
21	UPPTCL		<a href="mailto:smart.saxena@gmail.com">smart.saxena@gmail.com</a>
22	PTCUL		<a href="mailto:ce_oandmk@ptcul.org">ce_oandmk@ptcul.org</a>
23	PSTCL		<a href="mailto:ce-tl@pstcl.org">ce-tl@pstcl.org</a>
24	HPPTCL		<a href="mailto:gmprojects.tcl@hpmail.in">gmprojects.tcl@hpmail.in</a>
25	IPGCL		<a href="mailto:ncsharma@ipgcl-ppcl.nic.in">ncsharma@ipgcl-ppcl.nic.in</a>
26	HPGCL	State Generating Company	<a href="mailto:seom2.rgtpp@hpgcl.org.in">seom2.rgtpp@hpgcl.org.in</a>
27	RRVUNL		<a href="mailto:ce.ppmcit@rrvun.com">ce.ppmcit@rrvun.com</a>
28	UPRVUNL		<a href="mailto:cgm.to@uprvunl.org">cgm.to@uprvunl.org</a>
29	UJVNL		<a href="mailto:gm_engg_ujvn@yahoo.co.in">gm_engg_ujvn@yahoo.co.in</a>
30	HPPCL		<a href="mailto:gm_generation@hppcl.in">gm_generation@hppcl.in</a>
31	PSPCL	State Generating Company & State owned Distribution Company	<a href="mailto:ce-ppr@pspcl.in">ce-ppr@pspcl.in</a>

OCC Members for FY 2026-27			
32	UHBVN		<b>nomination awaited</b> ( <a href="mailto:md@uhbvn.org.in">md@uhbvn.org.in</a> )
33	Jaipur Vidyut Vitran Nigam Ltd.	State owned Distribution Company (alphabetical rotational basis/nominated by state govt.)	<b>nomination awaited</b> ( <a href="mailto:md@jvvn.org">md@jvvn.org</a> )
34	Dakshinanchal Vidyut Vitaran Nigam Ltd.		<b>nomination awaited</b> ( <a href="mailto:md@dvvn.org">md@dvvn.org</a> )
35	UPCL		<a href="mailto:cgmupcl@yahoo.com">cgmupcl@yahoo.com</a>
36	HPSEB		<a href="mailto:cesysophsebl@gmail.com">cesysophsebl@gmail.com</a>
37	Adani Power Rajasthan Limited		<a href="mailto:Raguvendral.Dewra@adani.com">Raguvendral.Dewra@adani.com</a>
38	Apraava Energy Private Limited	IPP having more than 1000 MW installed capacity	<a href="mailto:niraj.gupta@apraava.com">niraj.gupta@apraava.com</a>
39	Aravali Power Company Pvt. Ltd		<a href="mailto:amit.hooda01@apcpl.co.in">amit.hooda01@apcpl.co.in</a>
40	JSW Hydro Energy Limited		<a href="mailto:roshan.zipta@jsw.in">roshan.zipta@jsw.in</a>
41	Lalitpur Power Generation Company Ltd		<a href="mailto:avinashkumar.ltp@lpgcl.com">avinashkumar.ltp@lpgcl.com</a>
42	MEIL Anpara Energy Limited		<a href="mailto:arun.tholia@meilanparapower.com">arun.tholia@meilanparapower.com</a>
43	MEJA Urja Nigam Ltd.		<a href="mailto:amitkumarmaithil@ntpc.co.in">amitkumarmaithil@ntpc.co.in</a>
44	Nabha Power Limited		<a href="mailto:Durvesh.Yadav@larsentoubro.com">Durvesh.Yadav@larsentoubro.com</a>
45	Neyveli Uttar Pradesh Power Limited (NUPPL) Ghatampur		<a href="mailto:ceo.nuppl@nlcindia.in">ceo.nuppl@nlcindia.in</a>
46	Prayagraj Power Generation Co. Ltd.		<a href="mailto:anurag.shukla@tatapower.com">anurag.shukla@tatapower.com</a>
47	Rosa Power Supply Company Ltd		<a href="mailto:Suvendu.Dey@relianceada.com">Suvendu.Dey@relianceada.com</a>
48	Talwandi Sabo Power Ltd.		<a href="mailto:arun.kumar@vedanta.co.in">arun.kumar@vedanta.co.in</a>
49	XL Xergi Power Pvt. Ltd.	IPP having less than 1000 MW installed capacity (alphabetical rotational basis)	<b>nomination awaited</b> ( <a href="mailto:vineet.singh@o2power.in">vineet.singh@o2power.in</a> )
50	UT of J&K	From each of the Union Territories in the region, a representative nominated by the administration of the	<a href="mailto:sojpd@gmail.com">sojpd@gmail.com</a>
51	UT of Ladakh		<a href="mailto:cepdladakh@gmail.com">cepdladakh@gmail.com</a>
52	UT of Chandigarh		<a href="mailto:seelo-chd@nic.in">seelo-chd@nic.in</a>

OCC Members for FY 2026-27			
		Union Territory concerned out of the entities engaged in generation/	
53	NVVN	Nodal Agency appointed by the Government of India for coordinating cross-border power transactions	<a href="mailto:ceonvvn@ntpc.co.in">ceonvvn@ntpc.co.in</a>
54	BRPL	Private Distribution Company in region (alphabetical rotational basis)	<a href="mailto:nomination%20awaited%20(abhishek.ranjan@reliancegroupindia.com)">nomination awaited (abhishek.ranjan@reliancegroupindia.com)</a>
55	NRSS-XXIX Transmission Ltd	Private transmission licensee (nominated by central govt.)	<a href="mailto:lokendra.ranawat@indigrid.com">lokendra.ranawat@indigrid.com</a>
56	Shree Cement Limited	Electricity Trader (nominated by central govt.)	<a href="mailto:nomination%20awaited%20(shyam.khandelwal@shreecement.com)">nomination awaited (shyam.khandelwal@shreecement.com)</a>
57	Adani Green Energy Limited	RE Generating Company having more than 1000 MW installed capacity	<a href="mailto:sanjay.bhatt@adani.com">sanjay.bhatt@adani.com</a>
58	Avaada Energy Private Limited		<a href="mailto:kishor.nair@avaada.com">kishor.nair@avaada.com</a>
59	Azure Power India Pvt. Limited		<a href="mailto:sunil.gupta@azurepower.com">sunil.gupta@azurepower.com</a>
60	NTPC Green Energy Limited		<a href="mailto:ceongel@ntpc.co.in">ceongel@ntpc.co.in</a>
61	ReNew Power Private Limited		<a href="mailto:sumant@renew.com">sumant@renew.com</a>
62	SJVN Green Energy		<a href="mailto:ceo.sgel@sjvn.nic.in">ceo.sgel@sjvn.nic.in</a>

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## उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 241<sup>वीं</sup> बैठक का कार्यवृत्त

The 241<sup>st</sup> OCC meeting of NRPC was held on 16.03.2026 in hybrid mode at NRPC Secretariat, New Delhi.

MS, NRPC welcomed all the participants of NR power utilities to the 241st OCC Meeting. She urged SLDCs to ensure preparedness for the upcoming summer season through reserves, proper voltage, reactive power, and system management.

She highlighted the concern of oscillations and low system inertia in Rajasthan, which needs to be catered in coordinated manner.

She further emphasized that all thermal generating stations must ensure minimum shutdown during the period of April–August 2026, in accordance with the directions of the Ministry of Power (MoP). She noted that the upcoming summer season will be very critical, and demand must be managed effectively with minimal shortfall and reduced tripping incidents to avoid any contingency in the grid.

खण्ड-क:उ.क्षे.वि.स.

PART-A:NRPC

### A.1. Confirmation of Minutes

Minutes of the 240<sup>th</sup> OCC meeting were issued on 13.03.2026.

For agenda, item no. A.23, decision of OCC forum mentioned in MoM is as below:

*OCC Forum requested UPSLDC to carry out the dynamic study of the proposed islanding schemes and in the meantime seek suggestions from Member, GO&D, CEA regarding implementation of multiple islanding schemes within a State.*

MS, NRPC intimated OCC forum that SOP for islanding scheme was issued by NPC division, CEA. Therefore, a meeting may be held *under the Chairpersonship of MS, NPC regarding implementation of multiple islanding schemes within a State.*

In this regard, MS, NRPC suggested modifications in Minutes of Meeting of 240<sup>th</sup> OCC as follows:

*OCC Forum requested UPSLDC to carry out the dynamic study of the proposed islanding schemes and in the meantime, a meeting may be held under the Chairpersonship of MS, NPC regarding implementation of multiple islanding schemes within a State.*

#### **Decision of OCC Forum:**

*OCC Forum confirmed the minutes of the 240<sup>th</sup> OCC meeting with above modifications.*

## A.2. Status of action taken on decisions of 240<sup>th</sup> 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 the decision of the 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 February 2026

### **Anticipated vis-à-vis Actual Power Supply Position (Provisional) for February 2026**

Reasons submitted by States/UTs for significant deviation of actual demand from anticipated figures during the month of February 2026 are as follows:

- **Delhi**

Delhi witnessed western disturbance conditions during first week of February, resulting in higher peak demand than anticipated. However, the overall energy consumption remained lower than expected due to reduced heating load caused by the rise in temperature in the 2<sup>nd</sup> fortnight of Feb-2026.

- **Haryana**

The variation for the month of Feb-26 is within range i.e. less than 5%.

- **Himachal Pradesh**

HP mentioned that anticipation in Energy Requirement & Peak demand in respect of Himachal Pradesh for the month of February, 2026 was on the lower side due to the downward trend in the actual demand pattern observed during the current year. Further, the anticipated cold spell impact during the month of February was not as intense as expected due to comparatively dry weather conditions, resulting in reduced demand projections.

- **Rajasthan**

The Actual Peak Demand and Actual Energy requirement w.r.t. Anticipated Peak Demand and Anticipated Energy requirement for the month of February'2026 decreased by 5.3% and 8.1% respectively due to early completion of Rabi season.

- **Punjab**

Actual energy requirement is more than anticipated energy requirement because of increased agricultural demand due to dry spell and above normal temperatures in the month of February 2026 in the state of Punjab.

#### A.4. Maintenance Programme of Generating Units and Transmission Lines

A.4.1. The maintenance programme of generating units and transmission lines for the month of April 2026 was deliberated in the meeting on 13.03.2026.

#### A.5. Anticipated Power Supply Position in Northern Region for April 2026

The updated anticipated Power Supply Position for April 2026 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
CHANDIGARH	Availability	190	490	No Revision submitted
	Requirement	149	323	
	Surplus / Shortfall	41	167	
	% Surplus / Shortfall	27.3%	51.9%	
DELHI	Availability	4121	6448	10-Mar-26
	Requirement	3300	6250	
	Surplus / Shortfall	821	198	
	% Surplus / Shortfall	24.9%	3.2%	
HARYANA	Availability	6360	10774	No Revision submitted
	Requirement	5509	10440	
	Surplus / Shortfall	851	334	
	% Surplus / Shortfall	15.4%	3.2%	
HIMACHAL PRADESH	Availability	970	1450	No Revision submitted
	Requirement	1123	1956	
	Surplus / Shortfall	-153	-506	
	% Surplus / Shortfall	-13.6%	-25.9%	

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	Availability	1840	2880	
J&K and LADAKH	Requirement	1755	3119	No Revision submitted
	Surplus / Shortfall	85	-239	
	% Surplus / Shortfall	4.8%	-7.7%	
PUNJAB	Availability	5390	11750	15-Mar-26
	Requirement	5498	11860	
	Surplus / Shortfall	-108	110	
	% Surplus / Shortfall	-1.96%	-0.93%	
RAJASTHAN	Availability	9220	19210	No Revision submitted
	Requirement	9305	17000	
	Surplus / Shortfall	-85	2210	
	% Surplus / Shortfall	-0.9%	13.0%	
UTTAR PRADESH	Availability	14130	27800	10-Mar-26
	Requirement	14100	27800	
	Surplus / Shortfall	30	0	
	% Surplus / Shortfall	0.2%	0.0%	
UTTARAKHAND	Availability	1260	2470	No Revision submitted
	Requirement	1442	2629	
	Surplus / Shortfall	-182	-159	
	% Surplus / Shortfall	-12.6%	-6.0%	
NORTHERN REGION	Availability	47830.0	88900	
	Requirement	41938.6	75900	
	Surplus / Shortfall	5891.4	13000	
	% Surplus / Shortfall	14.0%	17.1%	

A.5.1. MS, NRPC advised the respective SLDCs to make requisite arrangements in advance to meet the demand, as power may not be available on exchanges during peak hours.

#### **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. MS, NRPC requested all States to submit the status of rectifications carried out in UFR settings at various substations, based on the UFR inspection report, as deliberated in the 240th OCC Meeting.

A.6.3. EE(O), NRPC informed that during the 238th OCC Meeting, all SLDCs were requested to coordinate with the DISCOMs in their respective control areas for identification of feeders for ADMS implementation and submit the list of such feeders to the NRPC

A.6.4. MS, NRPC requested all SLDCs to finalize the ADMS logic at the SLDC level and to inform only the status of ADMS implementation to the NRPC Secretariat.

A.6.5. OCC Forum requested all SLDCs to discuss the matter in State OCC meetings or similar forum at state level and coordinate with the respective DISCOMs for identification of feeders for ADMS implementation. SLDCs were also advised to identify the feeders based on their operational experience, in cases where the list is not provided by the respective DISCOMs and share the same with their DISCOMs for their consent and thereafter submit it to the NRPC Secretariat and NRLDC.

A.6.6. SE (O), NRPC requested all SLDCs to preliminarily identify the feeders and finalize the ADMS logic in advance so that the same can be implemented upon SCADA-EMS upgradation.

A.6.7. EE(O), NRPC apprised the forum that the matter regarding availability of ERS towers in the NR region was deliberated in the 240th OCC Meeting, wherein all transmission utilities in NR were requested to furnish updated voltage-level-wise cumulative transmission line length (ckm) and ERS availability, including location and utilization status, as per the prescribed format. However, the updated information has been received only from J&K and Rajasthan.

A.6.8. MS, NRPC informed the forum that ERS deployment is a critical issue and is being monitored at Ministry level. She requested all the transmission utilities of NR to submit the status of availability of ERS towers as per prescribed guidelines to NRPC Secretariat within 15 days and further to indicate the alternative arrangements made in case of any shortfall, considering the requirement of ERS during critical shutdowns, disaster situations, or war-like scenarios.

#### **A.7. NR Islanding scheme**

- A.7.1. EE (O), NRPC apprised the forum that in 239<sup>th</sup> OCC, Delhi SLDC and RVPN were advised to review their islanding scheme based on their updated network configuration.
- A.7.2. Rajasthan SLDC representative informed that the revised islanding scheme has been implemented and the report shall be submitted after examination within a week.
- A.7.3. NRLDC representative requested UP SLDC to submit the requisite details of mock testing reports and simulation files for the NAPS and Lucknow–Unchahar implemented islanding schemes to facilitate periodic testing in accordance with the IEGC 2023.

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

- A.8.1. In the meeting, NRPC representative apprised the forum about the coal stock position of generating stations in Northern Region during the current month (till 9<sup>th</sup> March 2026).
- A.8.2. The coal stock position of generating stations in Northern Region, having critical stock, during first nine days of March 2026 is NIL.

### **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	<ol style="list-style-type: none"> <li>(1) Real and Reactive Power Capability assessment.</li> <li>(2) Assessment of Reactive Power Control Capability as per CEA Technical Standards for Connectivity</li> <li>(3) Model Validation and verification test for the complete Generator and Excitation System model including PSS.</li> <li>(4) Model Validation and verification of Turbine/Governor and Load Control or Active Power/ Frequency Control Functions.</li> <li>(5) Testing of Governor performance and Automatic Generation Control.</li> </ol>	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)	<ol style="list-style-type: none"> <li>(1) Real and Reactive Power Capability for Generator</li> <li>(2) Power Plant Controller Function Test</li> <li>(3) Frequency Response Test</li> <li>(4) Active Power Set Point change test.</li> <li>(5) Reactive Power (Voltage / Power Factor / Q) Set Point change test</li> </ol>	Applicable as per CEA Technical Standards for Connectivity.
HVDC/FACTS Devices	<ol style="list-style-type: none"> <li>(1) Reactive Power Controller (RPC) Capability for HVDC/FACTS</li> <li>(2) Filter bank adequacy assessment based on present grid condition, in consultation with NLDC.</li> <li>(3) Validation of response by FACTS devices as per settings.</li> </ol>	To all ISTS HVDC as well as Intra-State HVDC/FACTS, as applicable

- A.9.5 In accordance with the above, Generators and HVDC/FACT owners were supposed to furnish the Testing schedule for the next five financial years.
- 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 view of this, a Google sheet was prepared and it was requested that the testing plan for the next five financial years may be updated in the sheet provided at the earliest as per the requirement of IEGC 2023 and the decision of 73rd NRPC meeting.
- A.9.8 EE(O), NRPC informed that a letter has been issued in this regard to all the state generators and NR ISTS renewables for submitting their testing schedule for the next five financial years. All SLDCs were requested to take up this with all the generators in their control area for providing of information at the earliest.
- A.9.9 EE(O), NRPC stated that, as per IEGC 2023, the testing schedule for the next financial year was required to be submitted by 31st October 2025. The testing schedule is still awaited from the intra-state generating stations of Rajasthan and UPRVUNL.
- A.9.10 List of Generating station from which a periodic testing schedule is not received is attached as Annexure-A.IV.c of agenda.
- A.9.11 MS, NRPC asked respective SLDCs to coordinate with their respective intra-state generating stations to furnish the pending testing schedules at the earliest.
- A.9.12 MS, NRPC asked all the SLDCs and ISTS Generating Stations whose testing schedule is yet to be received to furnish Testing schedule at the earliest in the format attached at Annexure-A.IV.a of agenda to [seo-nrpc@nic.in](mailto:seo-nrpc@nic.in).

**Decision of OCC Forum:**

*OCC forum asked all the SLDCs and ISTS Generating Stations whose testing schedule is yet to be received to furnish the testing schedule at the earliest in the format attached at Annexure-A.IV.a of the agenda to [seo-nrpc@nic.in](mailto:seo-nrpc@nic.in).*

**A.10. Monthly Review of LGBR for the next 11 months (Availability & Requirement)  
(Agenda by NRPC Secretariat)**

- A.10.1. EE(O), NRPC informed the forum that in 236th OCC meeting matter regarding monthly Review of LGBR for the next 11 months (Availability & Requirement) was discussed and it was agreed that NR States/UTs shall submit the data for the monthly Review of LGBR for the next 11 months including the break-up of sources through which demand is proposed to be met, such as ISGS, internal generation, bilateral arrangements, DAM/RTM transactions, or other contracts, shall also be provided.

- A.10.2. EE(O), NRPC informed that in 237th OCC meeting, OCC forum requested NR States/UT's to submit the data for monthly Review of LGBR for the next 11 months in the Google sheet to be shared by NRPC Secretariat.
- A.10.3. EE(O), NRPC informed that details have been received from all the states of NR except J&K and Chandigarh.
- A.10.4. He further informed that data submitted for rolling LGBR is not being periodically updated by the concerned states, leading to inconsistencies and deviations have also been observed in the data submitted to NRPC and NRLDC.
- A.10.5. MS, NRPC advised all SLDCs to update details of bilateral transactions, banking arrangements, and short-term tie-ups as and when finalized, so that the actual quantum of surplus/deficit is accurately reflected in the LGBR.
- A.10.6. She further advised all SLDCs to ensure correctness of the data being submitted, as the same is shared with CEA and may affect future planning decisions.

**Decision of OCC Forum:**

*OCC forum directed NR States/UTs to submit LGBR data for the next 11 months in the Google Sheet shared by the NRPC Secretariat and update it monthly for any revisions due to short-term arrangements.*

**A.11. Data Collection for Monitoring Pan-India Captive Generating Capacity (Agenda by NRPC Secretariat)**

- A.11.1. EE(O), NRPC apprised the forum that GM division, CEA has informed that in the meeting taken by the Secretary (Power) on 17.12.2025, it was decided that the State Chief Electrical Inspectors (CEIs) / State Load Despatch Centres (SLDCs) shall act as the nodal agencies for the collection of Captive Generation & Open Access data for their respective States.
- A.11.2. Further, in the said meeting it was decided that the Regional Power Committees (RPCs) shall act as the nodal coordinating agencies for consolidation and compilation of the data at the regional level and shall forward the same to the GM Division, CEA, for All-India level compilation on a monthly basis.
- A.11.3. In this regard, all the SLDCs of the NR Region have been requested to kindly submit the requisite details (in the attached format) for each month (starting from December 2025 onwards) by the 7th of the following month in the format attached at Annexure-A.V of agenda to the NRPC Secretariat at [seo-nrpc@nic.in](mailto:seo-nrpc@nic.in).
- A.11.4. EE (O), NRPC apprised the forum that the captive generation data for the month of February 2026 was received from HP, Delhi and Punjab open access details.
- A.11.5. He requested all the states to provide the data on monthly basis by 7<sup>th</sup> of succeeding month and in case of non-receipt of data from the respective DISCOMs/CEIs the same shall also be communicated to NRPC Secretariat.

A.11.6. Representatives from Punjab and Rajasthan stated that they will submit the data for February 2026 within a week time.

A.11.7. MS, NRPC asked all the SLDCs to coordinate with their respective DISCOMs and CEIs and submit the requisite information about Captive Generation & Open Access data for each month by the 7th of the following month as per the CEA-prescribed format.

**Decision of OCC Forum:**

*OCC forum directed SLDCs to coordinate with their respective DISCOMs and CEIs and submit the requisite information about Captive Generation & Open Access data for each month by the 7th of the following month as per the CEA-prescribed format.*

**A.12. Analysis of Partial Outages of Thermal Power Plants (Agenda by NRPC Secretariat)**

A.12.1 EE(O), NRPC apprised the forum that a meeting was taken by Member (GO&D), CEA on 28<sup>th</sup> Jan, 2026 to discuss the partial outages of thermal power plants and its related issues.

A.12.2 In the said meeting, RPC's were directed to monthly review in the OCC meeting the station-wise major incidences of partial outages in last month and seek remedial measures from the concerned generating stations.

A.12.3 Details of generating stations in NR that had reported incidences of partial outage in February'26 is attached as Annexure-A.VI of agenda.

A.12.4 MS, NRPC requested the generating stations having partial outages due to technical reasons to make efforts to rectify the addressable issues, so that the units can operate at maximum capacity during the summer season. She further stated that the generating stations currently under RSD should also undertake remedial measures to ensure maximum generation during the peak summer period.

**Decision of OCC Forum:**

*OCC forum directed the generating stations having partial outages due to technical reasons to make efforts to rectify the addressable issues, so that the units can operate at maximum capacity during the summer season. Forum further advised that generating stations currently under RSD should also undertake remedial measures to ensure maximum generation during the peak summer period.*

**A.13. Approval of Temporary Operational Arrangement for 220 kV Adhydro-Phozal-Nalagarh Circuits (Agenda by ADHPL)**

- A.13.1. ADHPL has informed that The 220 kV Phozal (HP) – Nalagarh (PG) (ADHPL) Ckt-1 has been non-operational since 20 August 2025 at 11:08 Hours.
- A.13.2. This outage was initially attributable to the collapsing of Tower Nos. 157 & 158 of the D/C 220 kV AD Hydro - Nallagarh Transmission Line but the outage of this line still continues till date due to the collapse of Tower No. 1 on the HPPTCL owned D/C LILO of the 220 kV Phozal–Prini and Phozal–Nalagarh transmission line (6.7 km section) on 26 August 2025 at 12:20 Hours even after the restoration of the Tower Nos. 157 & 158 of the D/C 220 kV AD Hydro - Nallagarh Transmission Line at 13:33 Hours on 08-10-2025.
- A.13.3. HPPTCL is yet to start the erection of their Tower No.-1, which is proposed to be relocated at a different location. With the approaching season, we are anticipating a significant rise in water discharge and consequently, increased power output from the generating stations. With the present arrangement it shall not be possible to evacuate the entire power about 265 MW in the high flow season through the 220 kV AD Hydro(AD)-Nallagarh(PG)(ADHPL)Ckt-1.
- A.13.4. HPPTCL have temporarily restored the 220 kV AD Hydro(AD)-Phozal(HP) (ADHPL) Ckt-1 by stringing the conductors directly from Tower No.-2 to the gantry.
- A.13.5. Currently, both ADHPL and the HPPTCL IPPs are solely dependent on the 220 kV AD Hydro(AD)-Nallagarh(PG) (ADHPL) Ckt-1 for power evacuation. However, the carrying capacity of this single circuit is limited to only 240 MW. This single contingency poses a severe bottleneck for power evacuation during the upcoming high-discharge period and risks system instability or forced generation curtailments.
- A.13.6. In order to mitigate this risk and ensure reliable operation of all dependent IPPs and ADHPL, ADHPL has proposed a temporary arrangement which involves the following modifications to the existing network:
1. **Cross-jumpering**: Cross-jumpering at a location between Tower no. 2 and Tower No. 24 (HPPTCL-owned D/C LILO of the 220 kV Phozal–Prini and Phozal–Nalagarh transmission line (6.7 km section)) in the Phozal area.
  2. **Reconfiguration**: Under this plan, 220 kV Phozal(HP)-Nalagarh(PG) (ADHPL) Ckt-1 will be charged to connect the Phozal end to Nalagarh dedicately.
  3. **Isolation**: 220 kV AD Hydro(AD)-Phozal(HP) (ADHPL) Ckt-1 will be isolated from this network by opening the jumpers at the same location.
  4. 220 kV AD Hydro(AD)-Nallagarh(PG) (ADHPL) Ckt-1 will be dedicately connected to ADHPL and HPPTCL Prini.
  5. The relay settings of the 220 kV Phozal–Prini bay will be changed and matched with the relay settings of the 220 kV Phozal(HP)-Nalagarh(PG) bay.
- A.13.7. Expected Outcome of this Temporary Arrangement:

- ADHPL and HPPTCL end at Prini will be able to evacuate 208.46 MW plus 24 MW = 232.46 MW via the existing 220 kV AD Hydro(AD)-Nallagarh(PG) (ADHPL) Ckt-1.
- The HPPTCL IPPs at Phozal end will be able to feed their power (max. up to 50 MW) via the reconfigured 220 kV Phozal(HP)-Nalagarh(PG) (ADHPL) Ckt-1.

A.13.8. This temporary measure will allow to utilize both corridors effectively, strategically avoiding the bottleneck caused by the collapsed tower and ensuring uninterrupted power flow during the peak season until HPPTCL completes the permanent restoration of Tower No. 1.

A.13.9. ADHPL has requested approval for the proposed temporary cross-jumpering arrangement.

A.13.10. MS, NRPC sought views of NRLDC and HPPTCL on the proposed arrangement. HPPTCL representative was not available in the meeting.

A.13.11. NRLDC representative stated that proposal seems in order from power flow point of view & mentioned that CEA safety clearance would be required for issuing temporary operational arrangement first time charging approval.

A.13.12. MS, NRPC agreed for the temporary arrangement proposed by ADHPL subject to the consent of HPPTCL.

***Decision of OCC Forum:***

*OCC forum agreed for the temporary arrangement proposed by ADHPL subject to the consent of HPPTCL.*

**A.14. Augmentation of 400 kV S/Stn BBMB Prem Nagar (Bhiwani) from 1x500 MVA, 400/220KV Power T/F to 2x500 MVA, 400/220KV Power T/Fs (Agenda by HVPNL)**

A.14.1. EE(O), NRPC apprised the forum that HVPNL has submitted the proposal for Augmentation of 400 KV S/Stn BBMB Prem Nagar (Bhiwani) from 1x500 MVA, 400/220KV Power T/F to 2x500 MVA, 400/220KV Power T/Fs was submitted to BBMB, Chandigarh as an agenda for deliberation in the 146th BBMB Power Sub-committee meeting held on 25.11.2022.

A.14.2. During the 146th BBMB Power Sub-committee meeting, the Agenda was deliberated at length. However, the agenda was deferred due to non-consensus in the 146th Power sub-committee meeting of BBMB.

A.14.3. In 147th BBMB Power Sub-committee meeting scheduled on dated 25.7.2023, at item-I the agenda for replacement of existing 500MVA, 400/220/33 ICT Bank comprising 4nos. 1-phase 166.7MVA, 400/220/33kV TF with 1 no. 3-phase, 500MVA, 400/220/33 Auto Transformer at 400kV Substation BBMB, Bhiwani was discussed and all power utilities agreed to the proposal and accordingly proposal was approved by power sub-

committee. The MoM of 147th PSC meeting was circulated vide BBMB Letter no. 22150-61/B-1684 PSC/4P/147 dated 03.08.2023.

- A.14.4. Director/P&D(TS) BBMB, Chandigarh office letter no. 1596-97/PNGS-778 dated 26.3.2024 requested to provide the latest status of the case of providing additional 500MVA, 400/220/33kV Auto-Transformer at 400kV S/stn. BBMB Bhiwani.
- A.14.5. The load flow study was carried out in line with the requirement of Additional 1x500MVA, 400/220/33kV ICT at 400kV BBMB, Bhiwani considering the impact of outage of existing 4 nos. 1-phase 166.67MVA, 400/220/33kV TFs bank on the underlying 220kV network and neighbouring 220kV system connected to 400kV BBMB Prem Nagar, Bhiwani.
- A.14.6. The following 2 nos. transmission elements are found overloaded in case of failure of existing 4 nos. 1-phase 166.67MVA, 400/220/33kV TFs banks at 400kV BBMB Bhiwani:
- i. 220kV I.A Hisar-Hisar (PGCIL) D/C line (Zebra Conductor).
  - ii. 2x315MVA, 400/220kV ICTs at 765kV S/stns. PGCIL, Bhiwani.
- A.14.7. It is conveyed by PGCIL that there is no approved plan for augmentation of 765kV PGCIL Bhiwani from existing 2x315MVA, 400/22kV Transformation capacity to any higher capacity in near future.
- A.14.8. According to the load flow study, the outage of the existing 1x500MVA, 400/220kV ICT Bank at 400kV BBMB Bhiwani could lead to potential overloads on the 2x315MVA, 400/220kV T/Fs at the 765kV PGCIL and 220kV I.A Hisar-Hisar (PGCIL) D/C line, thereby compromising the n-1 contingency. Considering these findings, there appears to be a requirement for an additional 500MVA, 400/220/33kV ICT.
- A.14.9. 220kV D/C Sangroor (Punjab) and 220kV Khetri (Rajasthan) lines connected from 220kV BBMB Hisar and 220kV BBMB Dadri draw significant power from the 220kV IA Hisar-BBMB lines and 220kV Lula Ahir- BBMB Dadri Lines during outages of single 400/220kV ICT from the 400kV Substation Prem Nagar BBMB Bhiwani. This situation imposes considerable stress on the HVPNL infrastructure.
- A.14.10. During the Load flow study (copy attached as Annexure-A.VII of agenda) wherein following is observed:
- “Overloading has been observed on other circuit of 220kV IA Hisar-BBMB Hisar D/C line in Base Case (Existing Network) contingencies 1.10 (i.e outage of one ckt of 220kV IA Hisar-BBMB Hisar D/C line considering outage of 1x500MVA, 400/220kV ICT at 400kV S/stn Bhiwani BBMB) & 2.10 (i.e outage of one ckt of 220kV IA Hisar-BBMB Hisar D/C line considering outage of 1x500MVA, 400/220kV ICT at 400kV S/stn Bhiwani BBMB).”
- A.14.11. The load flow scenario mentioned at Sr.No. 10 above, comes in the scenario of n-1-1 contingency when 400/220kV ICT (base case) as well as one circuit of 220kV D/C IA Hisar- BBMB Hisar line is simulated to be out. However, in such contingency situations

BBMB may devise a suitable mechanism to limit the load flow to the 220kV Sangroor and Khetri lines during power outages from the 400kV BBMB Prem Nagar Bhiwani substation due to contingencies resulting in overburdening the HVPNL installation at various 220 kV Substations (i.e 220 kV IA Hisar and 220 kV Bhiwani).

A.14.12. After the proposed installation of 1x500MVA,400/220kV T/F at 400kv S/Stn Prem Nagar Bhiwani, power to the Sangroor(Punjab) and Khetri(Rajsthan) lines will be fed from the additional 400/220kV ICT at Prem Nagar Bhiwani in contingency situations of outage of 1st 400/220kV ICT and hence both States (Rajasthan & Punjab) will be benefitted by provision of additional 400/220kV ICTs at 400kV Prem Nagar Bhiwani.

A.14.13. Afterwards agenda was placed in 153rd meeting of Power Sub-Committee of BBMB dated 11.07.2025 wherein after deliberations, PSC members approved the following;

- “For further deliberation, NRPC approval to be first obtained by the HVPNL.
- The O&M arrangement and commercial & regulatory modalities are to be first discussed and decided in the committee constituted vide office order No. 332/B-1684/PSC/4P dated 27.03.2025 & 24.04.2025 “

A.14.14. Accordingly, CE/SO Commercial HVPNL Panchkula requested to CE/PD&C, HVPNL, Panchkula to take up the matter with NRPC in consultation with SLDC wing to put up the agenda in NRPC meeting for the installation of additional 1x500MVA,400/220kV T/F at 400kv S/Stn Prem Nagar Bhiwani (cost to be shared by all constituents i.e. Punjab & Rajasthan as per the power drawl by respective utilities).

A.14.15. Thereafter, the file was put-up for consideration and in circulation approval of Managing Director of HVPNL, Panchkula and the same was got approved for onward submission to SE/SLDC/Op HVPNL, Panchkula office for placing the agenda in NRPC meeting with the following scope of work: -

Sr.no.	Description of work
1.	<p>To concur for the augmentation of 400kV BBMB, Prem Nagar, Bhiwani from <b>1x500MVA, 400/220/33kV ICTs to 2x500MVA, 400/220/33kV ICTs</b> by BBMB during FY2026-27.</p> <p>Note:</p> <p>1. Cost of proposed augmentation of 400kV Prem Nagar BBMB Bhiwani from 1x500MVA, 400/220kV ICT to 2x500MVA, 400/220kV ICTs will be shared by all constituent States.</p> <p>2. <i>During the contingency scenario when 400/200kV ICTs as well as one circuit of 220kV D/C IA Hisar- BBMB Hisar lines are out, BBMB will initiate for the load shedding/SPS arrangements on its circuits i.e. 220kV D/C Sangroor &amp; 220kV S/C Khetri to mitigate overloading of the lines.</i></p>

- A.14.16. MS, NRPC asked NRLDC whether they have done study regarding requirement of augmentation of ICT.
- A.14.17. NRLDC representative stated that proposal for ICT capacity augmentation can be approved as the same is required from grid operation point of view to ensure N-1 compliance. The cost sharing can be discussed internally in sub-committee meeting of BBMB.
- A.14.18. HVPNL can submit a formal proposal for proposed SPS mentioned in the agenda along with relevant PSSe files and proposed signal transfer scheme.
- A.14.19. MS, NRPC advised HVPNL to submit the agenda for ICT augmentation in the CMETS meeting and cost sharing matter may be decided mutually between BBMB and partner states.
- A.14.20. CTUIL representative enquired whether re-conductoring of 220 kV D/C IA Hisar–BBMB Hisar lines is being undertaken, as the same may obviate the requirement of SPS.
- A.14.21. Powergrid representative informed that re-conductoring of 220 kV D/C IA Hisar–BBMB Hisar lines is being undertaken.
- A.14.22. MS, NRPC stated that since re-conductoring is being done so HVPNL may review the need of SPS Proposal.

**Decision of OCC Forum:**

*OCC forum advised HVPNL to submit the agenda for ICT augmentation in the CMETS meeting and cost-sharing matter may be decided mutually between BBMB and partner states. HVPNL was further advised to review the SPS proposal as re-conductoring of 220 kV D/C IA Hisar–BBMB Hisar lines is being done.*

**A.15. Proposed Noida-Ghaziabad— Khurja TPS Islanding Scheme (Agenda by UPSLDC)**

- A.15.1. UPSLDC has informed that for Noida - Khurja TPS Islanding Scheme, steady state feasibility study has been done by UPSLDC, which was found to be feasible (Study results attached as Annexure-A.VIII of agenda). Brief description of the Islanding Scheme is as follows:
- i. This Island shall feed the load of Noida Area and Ghaziabad Area (The details are attached in the report)
  - ii. Load of Noida region shall be fed through 400kV Khurja TPS-Jalpura DC line. 400kV Khurja TPS-Jalpura DC line is under construction and expected to be commissioned in 6 month.
  - iii. The steady state feasibility study has been done by considering the 400kV Khurja TPS- Jalpura DC line operational.
  - iv. Load of Noida region predominantly comprises of load of data centers. Operational load of data centre is 125 MW against the sanctioned load of 600 MW. The steady state study has been done in both the scenario.

- A.15.2. It is worth mentioning that success rate of Islanding Schemes depends on load-generation balance of island. However, the success rate of proposed Islanding schemes can be increased by incorporating df/dt relays with associated time delay, which shall take care of any excess or deficit in load/generation. Settings of df/dt relays can only be arrived at after dynamic study. In addition to above the study has been shared with Grid India and comments of the same is attached as Annexure-A.IX of agenda.
- A.15.3. Therefore, UPLDC has requested that the proposal for aforementioned islanding Scheme may be accepted and approval may be given for carrying out their dynamic study.
- A.15.4. MS, NRPC stated that proposal may be deliberated in the meeting to be held under the chairpersonship of MS, NPC regarding implementation of multiple islanding schemes within a State.

**Decision of OCC Forum:**

*OCC forum agreed that proposal of Noida-Ghaziabad— Khurja TPS Islanding Scheme may be deliberated in the special meeting to be held under the Chairpersonship of MS, NPC regarding implementation of multiple islanding schemes within a State.*

**A.16. Modification in the termination arrangement at Fatehgarh-III PS for transmission lines under schemes Rajasthan Phase-III Part F and Part G (Agenda by Resonia)**

- A.16.1 Resonia representative submitted that, BTL is implementing the Transmission System for Evacuation of Power from REZ in Rajasthan (20 GW) under Phase-III Part F (Part F Project).
- A.16.2 In terms of the TSA, referenced, BTL is required to implement the following elements as part of its transmission project:
- a. Establishment of 2x1500MVA 765/400kV Substation at suitable location near Beawar along with 2x330 MVA 765kV Bus Reactor & 2x125 MVA 420kV Bus Reactor (Beawar S/s/Element 1)
  - b. LILO of both circuit of Ajmer-Chittorgarh 765 kV D/c at Beawar (LILO of AC Line/Element 2)
  - c. LILO of 400 kV Kota Merta line at Beawar (LILO of KM Line/Element 3)
  - d. Fatehgarh-3 PS-Beawar 765 kV D/c along with 330 MVA Switchable line reactor for each circuit at each end of Fatehgarh-3- Beawar 765 kV D/c line (FB Line/Element 4)
  - e.  $\pm 2 \times 300$  MVA STATCOM, 4x125 MVA MSC, 2x125 MVA MSR at Fatehgarh3 PS along with 2 nos. of 400 kV bays at Fatehgarh-3 PS (Statcom/Element 5)
- A.16.3 In terms of Schedule 2 of the TSA, Element Nos. 1-4 are required to be commissioned simultaneously.

- A.16.4 A meeting under the Chairmanship of Chairperson, CEA was held on 20.01.2026 regarding modification in the termination arrangement at Fatehgarh-III PS for transmission lines under schemes Rajasthan Phase-III Part F and Part G.. In the meeting, M/s Resonia was requested to put best efforts to expedite the completion of the Fatehgarh-III PS - Beawar 765 kV line along With Beawar Station and its associated lines by Feb/March 2026.
- A.16.5 In terms of Regulation 27(1)(c)(ii) of the CERC (Indian Electricity Grid Code) Regulations, 2023:
- The COD of a transmission element of the transmission system under Tariff Based Competitive Bidding shall be declared only after the declaration of the COD of all the pre-required transmission elements as per the Transmission Services Agreement:*
- Provided that in case any transmission element is required in the interest of the power system as certified by the concerned RPC(s), the COD of the said transmission element may be declared prior to the declaration of the COD of its prerequired transmission elements.*
- A.16.6 Therefore, in view of the urgent need of evacuation/ISTS transmission margins in the State of Rajasthan, to mitigate against the loss being faced by RE developers due to the recent 4.3 GW T-GNA curtailment in the Rajasthan, and in furtherance of the directions issued by the CEA to BTL, Resonia has requested for requisite certification in terms of Regulation 27(1)(c)(ii) of the CERC (Indian Electricity Grid Code) Regulations, 2023 to allow declaration of COD for the Beawar S/s, LILO of KM Line and/or LILO of AC Line ahead of the COD of other elements otherwise pre-required/required to be commissioned simultaneously.
- A.16.7 MS, NRPC enquired about the status Fatehgarh-3 PS-Beawar 765 kV D/C (Element 4).
- A.16.8 Representative of M/s Resonia informed that it would take around 3 months for commissioning of FB Line/Element 4.
- A.16.9 MS, NRPC enquired about the views of members of the forum.
- A.16.10 NRLDC representative stated that there would be improvement in system strength with commissioning of these transmission lines. It was also mentioned that LILO of 765kV Ajmer-Chittorgarh is necessary. as only major power evacuation is possible, as with only LILO of 400kV Kota-Merta line and 765/400kV Beawar ICTs and 765kV Beawar-Fatehgarh-III lines, the 400kV lines formed i.e. 400kV Beawar-Kota and 400kV Beawar-Merta would be highly loaded and N-1 non-compliant. Detailed studies would be carried out at NRLDC end and would be shared in next one week in NR RE Subcommittee meeting scheduled on 23.03.2026.
- A.16.11 NRLDC representative also stated that PSCAD and PSSE dynamic models of the STATCOM at Fatehgarh-III PS, along with the respective user manuals for both PSSE and PSCAD models along with documents that include the control and design specifications, are still awaited from utility and same may be shared with NRLDC well

before the commencement of charging activities as per the first time charging procedure. In view of present issues in RE complex including oscillations and gain reduction model checking before FTC is necessary.

- A.16.12 CTU representative stated that LILO of AC Line/Element 2 and LILO of KM Line/Element 3 are required to be commissioned simultaneously along with 765/400kV Beawar Substation.
- A.16.13 Rajasthan SLDC representative stated that commissioning of these lines will enhance system strength and improve SCR levels in the RE complex, thereby aiding in the evacuation of RE power.
- A.16.14 MS, NRPC stated that since of Fatehgarh-3- Beawar 765 kV D/c line (FB Line/Element 4) is delayed, request of M/s Resonia for COD for the Beawar S/s, LILO of 400 kV Kota Merta line and LILO of both circuit of Ajmer-Chittorgarh 765 kV D/C line at Beawar, ahead of the COD of Fatehgarh-3- Beawar 765 kV D/c line (FB Line/Element 4), may be conditionally approved subject to the approval in the next NRPC meeting. Further, she requested NRLDC and CTU to carry out the study on the proposal and present the results in the upcoming RE Sub-committee meeting.

**Decision of OCC Forum:**

*OCC forum accorded in-principal approval for commissioning of Beawar S/s, LILO of 400 kV Kota Merta line and LILO of both circuit of Ajmer-Chittorgarh 765 kV D/C line at Beawar simultaneously, ahead of the COD of prerequisite element i.e Fatehgarh-3-Beawar 765 kV D/c line (FB Line/Element 4) subject to the approval in the next NRPC meeting.*

**A.17. Table Agenda 1: Delhi Gas Availability Issues (Agenda by BRPL)**

- A.17.1. BRPL representative stated that availability of PPS-II and GTPS is essential due to internal loading issues in STU network. He mentioned that due to the ongoing geopolitical situation, there is uncertainty about fuel availability to Gas Power Stations of Delhi in the upcoming months. He requested that Delhi Gencos may provide clarity on possible generation from all SGS plants in coming summer.
- A.17.2. MS, NRPC enquired about present status and future requirement of intra state generation in Delhi.
- A.17.3. BRPL representative mentioned that presently approx. 300 MW power is being generated through APM gas.
- A.17.4. DGM (SO), Delhi SLDC stated that demand up to 6000 MW can be managed in coordination with DISCOMs without depending on gas generation. To meet the expected peak demand of around 9000 MW in Jun'26 around 350 MW of gas generation is required. However, if the internal gas is not available then entire 9000 would have to be met through ISGS. However, it may be clarified whether Delhi would

be allowed to draw 9000 MW from ISTS considering the present ATC limit of Delhi is 7300 MW.

- A.17.5. NRLDC representative stated that if the generation from PPCL is available then, ATC of Delhi would be increased by around 1000 MW. Therefore, APM gas of CCGT Bawana may be diverted to PPCL if no RNLG is available.
- A.17.6. BYPL representative stated that last time when there was gas shortage, diversion of APM gas from CCGT Bawana to PPCL was allowed.
- A.17.7. BRPL representative requested IPGCL to take up the matter with concerned authorities for diversion of APM gas from CCGT Bawana to PPCL.
- A.17.8. MS, NRPC asked when Delhi's power demand is expected to exceed 6,000 MW.
- A.17.9. Delhi SLDC representative stated that Delhi demand is expected to exceed 6000 MW around 15th April.
- A.17.10. MS, NRPC advised IPGCL to take up with appropriate authorities for diversion of APM gas from CCGT Bawana to PPCL before 15th April.
- A.17.11. Delhi SLDC representative mentioned that the absence of generation from GTPS and PPS-III would increase loading on ICTs at Mandola and Maharani Bagh, where SPS has already been implemented at 100% loading, which may need to be reviewed.
- A.17.12. MS, NRPC directed that this matter may be deliberated in the PSC meeting.
- A.17.13. MS, NRPC enquired about the works required to formulate Delhi Islanding Scheme from Dadri TPS.
- A.17.14. DTL representative stated that feeders forming the part of islanding scheme would need to be segregated from other feeders at Dadri TPS.
- A.17.15. NRLDC representative stated that UFRs installed at CCGT BAWana may require to be shifted to Dadri. Further, more UFRs may need to be procured. Also additional loads need to be identified by DTL.
- A.17.16. NRLDC representative stated that the UFRs installed at CCGT Bawana may need to be relocated to Dadri TPS. Additionally, more UFRs may need to be procured, and additional load need to be identified by DTL.
- A.17.17. MS, NRPC asked DTL to prepare the proposal for revised Delhi Islanding scheme with Dadri TPS. Thereafter, a meeting may be held with representatives from NRPC, NRLDC, NTPC, DTL Delhi SLDC and POWERGRID to finalize the proposal of revised Delhi Islanding Scheme.

**Decision of OCC Forum:**

- a. *IPGCL to take up with appropriate authorities for diversion of APM gas from CCGT Bawana to PPCL before 15th April.*
- b. *Revised Delhi Islanding Scheme to be implemented from Dadri TPS.*
- c. *DTL to prepare the proposal for revised Delhi Islanding scheme with Dadri TPS.*

d. A meeting to be conducted by NRPC with NRLDC, NTPC, DTL Delhi SLDC and POWERGRID to finalize the proposal of revised Delhi Islanding Scheme.

#### A.18. Table Agenda 2: Revision in case no 5 of logic for SPS at Lalitpur TPS (Agenda by UPSLDC)

A.18.1. UPSLDC representative stated that at present, case no 5 of logic for SPS at Lalitpur TPS is as given below:

CONDITION OF CONTINGENCY	ACTION
<b>Case-5:</b> If load on any 400kV line emanating from 765kV substation Fatehabad (UP) exceeds 800 MW.	Action: SPS command must be initiated to Lalitpur TPS to bring down generation so that the subject line loading comes below 800 MW.

A.18.2. He mentioned that recently, it has been observed that loading of 400 kV Fatehabad-Agra PG line increases around 07:00 hrs in the morning on daily basis and SPS has operated three times i.e. on 08.02.2026, 27.02.2026 and 12.03.2026 due to 400 kV Fatehabad-Agra PG line loading going beyond 800MW. Also, as per information provided by LPGCL, SPS activation was prevented by continuous follow up with SLDC on dated 09.02.2026 and 28.02.2026 and by reducing generation (under-injection) from their end (20 to 40 MW). Loading of 400 kV Fatehabad-Agra PG line from 01.02.2026 to 08.03.2026 is attached at **Annexure-A.III**.

A.18.3. In view of continuous higher loading of 400 kV Fatehabad-Agra PG line and consequent operation of SPS at Lalitpur TPS, threshold of SPS has been increased to 850 MW from existing 800 MW on 12.03.2026 and it has been communicated to NRLDC.

A.18.4. Therefore, UPSLDC requested that change in threshold of SPS as mentioned above may be accepted and approval may be given for the same.

A.18.5. NRLDC representative stated that:

- i. Loading on the 400 kV Fatehabad – Agra (PG) line has high diurnal variation and exceeds 750 MW only during the early morning hours (06:00–07:00 hrs). During this period, power flow on the 765 kV Agra – Gwalior D/C is in the Agra → Gwalior direction, which further increases the loading towards Agra – PG.
- ii. Additional connectivity of Ghatampur TPS has also been there in recent past which is now connected to 765/400kV Fatehabad.
- iii. As of now, to control the high loading of 400kV Fatehabad-Agra(PG) line, power order of Agra-Biswanath Chariali HVDC is also being modulated from 06:00-07:30hrs. HVDC BNC – Agra link (operating in the NR → NER direction) has ~10–11% sensitivity on the line loading and helps in controlling the loading during this period.

- iv. NRLDC/NLDC Control Room have been advised to maintain the 400 kV Fatehabad – Agra (PG) line loading below 820–830 MW. In case the loading exceeds this level, one pole of the HVDC BNC – Agra link may be blocked for (1-2 hrs during this period), and a minimum power order of (150 MW) will be maintained in the other pole.
- v. SPS limit of this line has been temporarily increased to 850 MW, however, as long term solution CTUIL/UPPTCL may take up for reconductoring of this line.
- vi. During high hydro season, HVDC BNC – Agra link is generally operated in NER → NR direction and would not have any flexibility during that period. Therefore, CTU/UPPTCL may please explore reconductoring of 400kV Fatehabad-Agra(PG) line with HTLS etc.

A.18.6. Representative of LPGCL stated that SPS at Lalitpur TPS needs to be reviewed in view of the commissioning of Ghatampur TPS.

A.18.7. MS, NRPC asked UPSLDC to review the SPS at Lalitpur TPS. Further, she requested CTU/UPPTCL to explore reconductoring of 400kV Fatehabad-Agra(PG) line with HTLS.

#### **Decision of OCC Forum:**

OCC forum noted the revision in Case No. 5 of logic for SPS at Lalitpur TPS. Further, forum requested UPSLDC to review the SPS at Lalitpur and advised CTU/UPPTCL to explore the reconductoring of the 400 kV Fatehabad–Agra (PG) line with HTLS conductors.

**खण्ड-ख: उ.क्षे.भा.प्रे.के.**

**Part-B: NRLDC**

### **B.1 NR Grid Highlights for February 2026 and demand forecasting related (Agenda by NRLDC)**

B.1.1. NRLDC representative presented grid highlights for the month of January 2026:

#### **Demand met details of NR**

S.No	Constituents	Max Demand met (in MW)	Date & Time of Max Demand met	All time Max. Demand	Date & Time of All time Max Demand met
1	Chandigarh	274	04-02-2026 10:00	482	18.06.24 at 15:28
2	Delhi	5452	03-02-2026 10:30	8656	19.06.24 at 15:06
4	Haryana	9621	25-02-2026 10:00	14662	31.07.24 at 14:30
3	H.P.	2228	11-02-2026 08:00	2310	09-01-2026 09:15
5	J&K	3140	24-02-2026	3362	07-01-2026 10:00

			19:00		
6	Punjab	10999	21-02-2026 11:30	16754	28.06.25 at 15:00
7	Rajasthan	18841	06-02-2026 09:00	19282	09-01-2026 09:00
9	U.P.	20726	15-02-2026 09:00	31486	11.06.25 at 00:45
8	Uttarakhand	2594	06-02-2026 08:00	2910	11.06.25 at 22:00
10	Northern Region	68098	06-02-2026 09:00	91234	19.06.24 at 14:37

S.No	Constituents	Max Consumption (in MUs)	Date of Max Consumption	Average Demand met (in Mus)	All time Max consumption	Date of All time Max Consumption
1	Chandigarh	4.4	03-02-2026	3.8	9.3	12.06.2025
2	Delhi	89.2	03-02-2026	79.3	177.7	18.06.2024
4	Haryana	175.5	25-02-2026	163.3	293.4	30.07.2024
3	H.P.	42.9	04-02-2026	37.4	42.6	11.06.2025
5	J&K	63.7	02-02-2026	59.3	70.3	04.02.2025
6	Punjab	181.2	25-02-2026	167.7	366.8	21.07.2024
7	Rajasthan	344	06-02-2026	326.2	388.0	11.06.2025
9	U.P.	378	18-02-2026	43.9	658.7	17.06.2024
8	Uttarakhand	47.1	18-02-2026	359.9	62.1	14.06.2024
10	Northern Region	1271.9	13-02-2026	1240.8	2022.9	12.06.2025

In February'26,

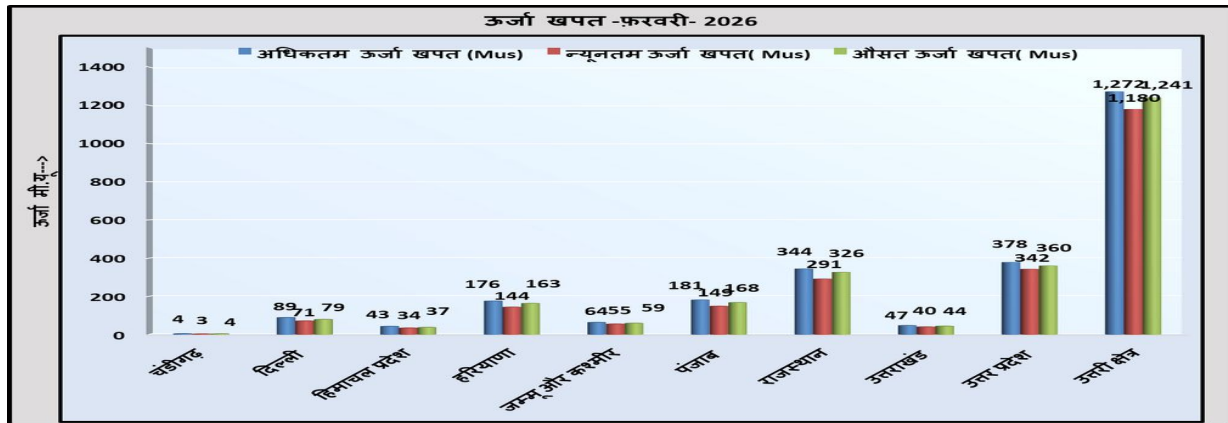
- Maximum energy consumption of Northern Region was 1271.9 MUs on 13th February'26 and it was 0.3% lower than February'25 (1276 MUs on 08th February'25).
- Average energy consumption per day of Northern Region was 1240.8 MUs and it was 1.6% higher than February'25 (1221.6 MUs/day)
- Maximum Demand met of Northern Region was 68098 MW on 06<sup>th</sup> February'26 @09:00 hours as compared to 68573 MW on 07th February'25 @10:00 hours.

#### Comparison of Average Energy Consumption (MUs/Day) – Jan '25 vs Jan'26

क्षेत्र/राज्य	फरवरी- 2025	फरवरी - 2026	% अंतर
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चंडीगढ़	3.9	3.8	-1.32%
दिल्ली	72.9	79.3	8.75%
हरियाणा	37.5	37.4	-0.41%
हिमाचल प्रदेश	157.0	163.3	4.06%
जम्मू और कश्मीर	61.7	59.3	-3.92%
पंजाब	154.4	167.7	8.59%
राजस्थान	344.6	326.2	-5.34%
उत्तराखंड	42.7	43.9	2.78%
उत्तर प्रदेश	346.9	359.9	3.76%
उत्तरी क्षेत्र	1221.6	1240.79	1.57%

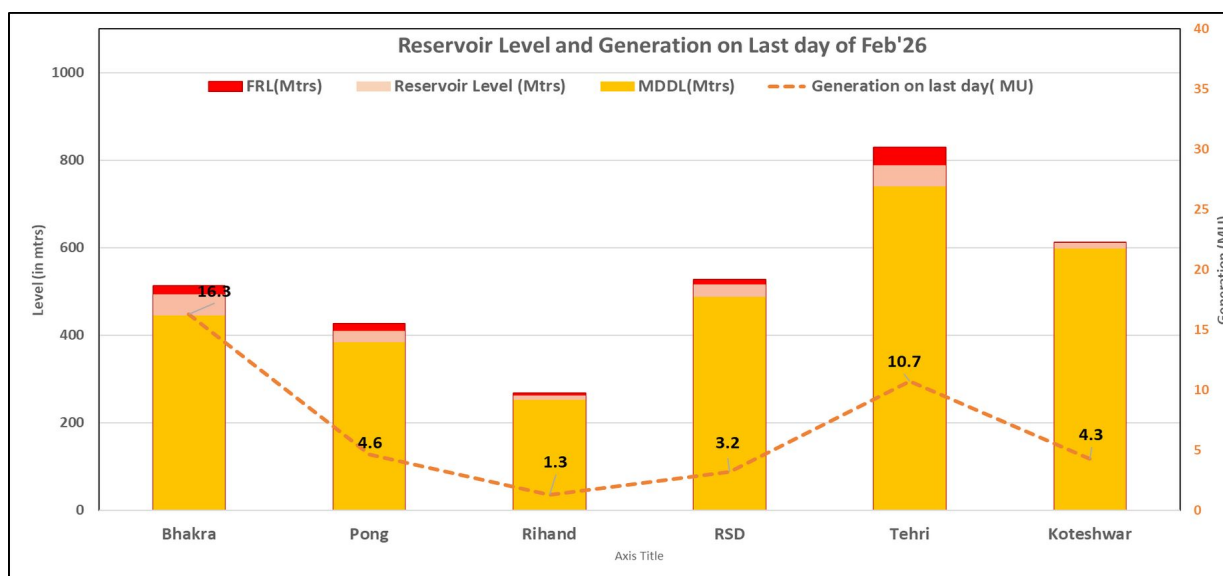
### Energy Consumption



### Frequency profile

Month	Avg. Freq. (Hz)	Max. Freq. (Hz)	Min. Freq. (Hz)	<49.90 (% time)	49.90 – 50.05 (% time)	>50.05 (% time)
Feb'26	49.996	50.361 (12.02.26 at 06:01:40 hrs)	49.621 (09.02.26 at 07:23:20 hrs)	4.99	79.44	15.57
Feb'25	49.999	50.335 (24.02.25 at 08:00:00 hrs)	49.549 (19.02.25 at 12:43:30 hrs)	6.24	75.35	18.41

### Reservoir Level and Generation on Last Day of Month



Year	Reservoir Level on last day of February month (Low: -ve)			(High: +ve)		
	Bhakra	Pong	Rihand HPS	RSD	Tehri	Koteshwar
2026	493.4	409.4	262.2	516.0	788.6	611.6
2025	485	407	257	503	781.38	604
Diff (in m)	8.4	2.4	5.2	13.0	7.6	7.6

B.1.2. Detailed presentation on grid highlights of Feb'2026 as shared by NRLDC in OCC meeting is attached as Annexure-B.I.

## B.2 Demand forecasting and resource adequacy related: CERC order dated 05.10.2025 (Agenda by NRLDC)

B.2.1. Considering the high demand expected in the upcoming months, the Ministry of Power (MoP), in the meeting held on 15-01-2026, has directed RLDCs to carry out Resource Adequacy studies for all States of their respective control regions (MoM Quote: Grid-India to carry out short-term Resource Adequacy assessments for the States and take up the matter with those States that have projected shortages in their control area).

B.2.2. Accordingly, NRLDC has conducted Resource Adequacy studies for all the northern region states for the period April-June 2026. The RA study results which are enclosed as Annexure-B.I of agenda indicate an elevated adequacy gap in forecasted demand and available generation from all sources in the April-June period, particularly during non-solar hours. A higher risk of unserved energy is observed during this period, highlighting the need for timely and firm power arrangements to meet the State demand smoothly.

B.2.3. Following was communicated vide NRLDC letter dated 04.02.2026:

- All NR States are advised to plan in advance for power procurement for the entire summer period (April–June and beyond).
- Early finalisation of firm GNA and bilateral arrangements may be ensured to adequately meet peak and shoulder-hour demand while maintaining sufficient reserve margins.
- Reliance on short-term market purchases for meeting peak summer demand should be minimised and treated only as supplementary.
- States may review the enclosed Resource Adequacy (RA) study and undertake detailed State-level analysis in coordination with DISCOMs / Power Management Companies, considering local demand patterns and resource availability.
- States are further requested to review their demand forecast submissions.
- A detailed source-wise bifurcation of ISGS allocations, in the prescribed format, along with updated details of any new or revised GNA / bilateral contracts for April–June 2026, may be furnished to facilitate refinement of the RA assessment and proactive summer preparedness planning.

#### B.2.4. As per IEGC clause 31

##### Quote

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

##### Unquote

B.2.5. Hon'ble CERC had issued suo-motto order 9/SM/2024 dated 07.10.2024. 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. 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.

B.2.6. 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
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B.2.7. Status of Day Ahead Forecasting, week ahead, month-ahead and year-ahead submission status for Feb-2026 as per Clause 31(4) (a) & (b) of IEGC-2023 is shown below:

State/Entity	Day Ahead	Week Ahead	Month Ahead
Punjab	As per Format	As per Format	As per Format
Haryana	As per Format	As per Format	As per Format
Delhi	As per Format	As per Format	As per Format
Rajasthan	As per Format	As per Format	As per Format
Uttar Pradesh	As per Format	As per Format	As per Format
Uttarakhand	As per Format	As per Format	As per Format
Himachal Pradesh	As per Format	As per Format	As per Format
J&K and Ladakh (UT)	As per Format	As per Format but irregular	As per Format
Chandigarh (UT)	As per Format	As per Format	As per Format

B.2.8. Portal has been prepared for submission of data by states. The user credentials have been provided to all states of Northern region.

B.2.9. However, it is being observed that states are only submitting the generation availability and not the actual internal generation schedule. This leads to a situation wherein only surplus/shortage values are checked. This does not take into account the schedule changes in internal thermal generation which may be happening based on merit order to accommodate high solar generation during daytime.

#### B.2.10. During 241 OCC meeting,

- a) NRLDC representative presented the status of Day Ahead Forecasting, week ahead, month-ahead and year-ahead submission status for Feb-2026 as per Clause 31(4) (a) & (b) of IEGC-2023. OCC appreciated efforts made by SLDCs of NR.
- b) NRLDC representative, presented the sample study Resource Adequacy studies for Delhi state for the period April-June 2026
- c) MS NRPC suggested that Delhi SLDC may make revised data submission so that resource adequacy even in case of non-availability of gas generation is ensured during summer months.
- d) NR States were advised to plan in advance for power procurement for the entire summer period (April-June and beyond).
- e) Reliance on short-term market purchases for meeting peak summer demand should be minimised and treated only as supplementary.

- f) MS NRPC stated that all concerned SLDCs may take necessary actions as discussed in previous OCC meetings. It was mentioned that special attention may be given by SLDCs on demand estimation and Resource Adequacy data submission & ensuring adequate manpower in SLDCs.
- g) CGM NRLDC asked all states to review their demand forecast submissions and plan accordingly including plan for upto 5-6% forecast error.
- h) NRLDC representative highlighted that as per the directions from Ministry, no planned outages of generating units to be approved for Apr-June period. Accordingly, all planned outages may be expeditiously taken and work may be completed by March 2026.

#### **Decision of OCC forum:**

OCC forum asked all SLDCs to review the resource adequacy results and provide their comments along with the proposed tie-ups to avoid shortfall during Apr-Jun 2026.

#### **B.2.11. Action points for Coordination and Operation by SLDCs during the Upcoming Summer Crunch Period were reiterated in the meeting for action by OCC members:**

- *Visibility/monitoring of all the plants at Real-Time Generation (RTG) monitoring portal with data correctness*
- *Minimise hydro generation during solar hours and in off peak night hours so that the conserved water could be utilized for peaking requirements especially during Non solar hours*
- *Partial and Forced Outages monitoring in Thermal Power plants*
- *Physical feeders checking, measures to control OD in real-time*
- *Week-ahead (on rolling) and day-ahead RA Assessment for bringing intrastate units on bar*
- *Complete the pre summer maintenance of transmission network.*

#### **B.2.12. State-wise summary of actions taken till date and latest state-wise status as discussed in the meeting is shown below:**

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

Planned outage is considered NIL and

Forced outage as per PRAS outcome.

#### **B.2.13. UTTAR PRADESH**

- Online meeting held on 11.02.2026 to deliberate on assumptions used in the study, adequacy planning by the State, and data inputs to be provided by the State.

### **RA Analysis Observations**

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/ Deficit(-)	Timestamp
April	Non-Solar	27690	22150	7030	1490	27-04-2026 22:00
	Solar	23266	21919	5260	3912	21-04-2026 18:00
May	Non-Solar	31494	21189	7249	-3056	17-05-2026 21:00
	Solar	26815	21377	5813	375	18-05-2026 18:00
June	Non-Solar	33213	22174	7398	-3641	09-06-2026 01:00
	Solar	30334	22174	7064	-1096	09-06-2026 10:00

#### **B.2.14. UP SLDC response on 11.02.2026**

- UP SLDC concurred that the assumptions and inputs considered in the preliminary RA analysis are largely in order.
- Contract of about 1900 MW finalized through banking arrangements.
- Another ~1500 MW under process through DEEP portal, primarily to address anticipated gap during non-solar hours in June.
- Additionally, 500 MW of banking arrangement is presently under discussion with Karnataka and Andhra Pradesh to support the requirement during non-solar hours.
- Further, a 2000 MW bid is proposed to be placed in the LDC for the period 16 April to May. For June, it is planned that approximately 80% of the projected deficit will be put up for bidding in the LDC once the 90-day bid window opens. It is also informed that additional arrangements through TAM will be explored to reduce the dependency on DAM/RTM.
- Additional procurement options are being explored, as required.

#### **B.2.15. UP SLDC response in 241 OCC meeting:**

*UP-PMC cell representative updated that proposal for banking and OTC arrangements are also underway with SR states.*

*OCC expressed concern on the deficit observed in the power tie-ups by UP state and asked UP SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.*

#### **B.2.16. RAJASTHAN**

- Online meeting held on 10.02.2026 to deliberate on assumptions used in the study, adequacy planning by the State, and data inputs to be provided by the State.

### RA Analysis Observations

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit(-)	Timestamp
April	Non-Solar	14993	12520	2815	343	26-04-2026 23:00
	Solar	16655	12470	11345	7160	28-04-2026 11:00
May	Non-Solar	17772	12578	3402	-1792	20-05-2026 23:00
	Solar	18353	12623	12086	6356	25-05-2026 12:00
June	Non-Solar	17559	12400	3232	-1927	07-06-2026 23:00
	Solar	19363	12400	10353	3389	09-06-2026 15:00

#### **B.2.17. Rajasthan SLDC response on 10.02.2026**

- Rajasthan SLDC concurred that the assumptions are largely in order.
- State indicated it is expected to remain surplus during solar hours, while shortfall may arise during certain non-solar peak blocks.
- DISCOMs highlighted concerns regarding high short-term market prices, procurement premiums and contract execution challenges.
- Requested high-level stakeholder meeting to address procurement issues.
- Gas Plant status: As reported by SLDC, no gas availability issue has been reported by the Ramgarh Gas Plant. Dholpur has reported an increase in gas price effective from 04th March, which will be reviewed; however, no issue regarding gas availability has been reported.

#### **B.2.18. Rajasthan SLDC response in 241 OCC meeting:**

*RVUNL representative stated that Dholpur gas generation shall remain available and would run as per gas purchased from spot market. Presently, Dholpur gas plant is being run based on instruction from SLDCs. It was also mentioned that gas available near Ramgarh has low calorific value and is meant for local consumption, accordingly, gas generation at Ramgarh is expected to remain unaffected. However, as local gas availability is low, gas generation at Ramgarh is expected to also remain low.*

*OCC expressed concern on the deficit observed in the power tie-ups by Rajasthan state and asked Rajasthan SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest. OCC forum also expressed concern on the partial outages in intrastate RVUNL generating units. RVUNL was asked to prepare and ensure that no*

partial outages are reported during summer 2026. MS NRPC asked RVUNL to take necessary actions to avoid partial outages and write to CEA/MoP in case any assistance is required from other agencies.

### B.2.19. PUNJAB

- Online meeting held on 11.02.2026 to deliberate on assumptions used in the study, adequacy planning by the State, and data inputs to be provided by the State.
- NRLDC highlighted expected sharp demand increase during paddy season and advised limiting reliance on DAM/RTM.

#### RA Analysis Observations

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit(-)	Timestamp
April	Non-Solar	10766	7333	2824	-608	28-04-2026 05:00
	Solar	11350	7333	2593	-1425	28-04-2026 06:00
May	Non-Solar	12244	7510	3357	-1377	20-05-2026 23:00
	Solar	14014	7567	3954	-2493	17-05-2026 15:00
June	Non-Solar	15074	7366	4995	-2713	18-06-2026 19:00
	Solar	17122	7073	4294	-5755	25-06-2026 14:00

### B.2.20. Punjab SLDC response on 11.02.2026

- PSPCL confirmed assumptions broadly aligned.
- 2500 MW bilateral procurement has been finalized for June. An additional 1000 MW allocation from the Ministry of Power (MoP) is anticipated and has been factored into the GNA.
- Banking arrangements with HP for approximately 900 MW are presently under process for bidding.
- Further 500MW of AP load is likely to be shifted from non-solar hours to solar hours as a result of various works being carried out by the distribution wing of PSPCL before start of peak summer season. Additionally, district-wise staggering of AP load is under implementation.
- Historically, about 5000 MW of agricultural pump (AP) load was observed during non-solar hours; this is expected to reduce to around 4000 MW during non-solar hours in the current year.

- Provision for shifting approx. 500 MW of AP load by 1-2 hours in real time, subject to power availability/clearance. Additional procurement options being explored to ensure adequacy.

### B.2.21. Punjab SLDC response in 241 OCC meeting:

*Punjab SLDC representative submitted that they have submitted revised figures and based on revised figures also, shortage of 4000MW is anticipated in June 2026. Proposal for banking and OTC arrangements are also underway.*

*CGM NRLDC suggested Punjab to tie-up power with SR states where demand is expected to remain low during May-July period. He also suggested that in view of anticipated non-availability of gas generation, Punjab may pursue with CGPL, Mundra for resolving PPA related issues so that availability of state increases.*

*OCC expressed concern on the deficit observed in the power tie-ups by Punjab state and asked Punjab SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.*

### B.2.22. DELHI

- Online meeting held on 13.02.2026 with SLDC and DISCOMs.

#### RA Analysis Observations

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit(-)	Timestamp
April	Non-Solar	6363	2734	4125	496	28-04-2026 23:00
	Solar	6386	2734	3683	31	28-04-2026 15:00
May	Non-Solar	7881	2788	4007	-1085	17-05-2026 23:00
	Solar	8282	2791	3976	-1515	18-05-2026 15:00
June	Non-Solar	8840	2825	4176	-1839	09-06-2026 23:00
	Solar	8816	2825	4060	-1931	09-06-2026 15:00

### B.2.23. Delhi SLDC response on 13.02.2026

- Delhi SLDC/DISCOMs concurred assumptions largely in order.
- DISCOMs informed staggered procurement planning is under finalization.
- SLDC indicated additional scheduling from Bawana Gas Power Station is being analysed to meet evening/non-solar demand.

- Gas Plant status: SLDC has informed that there are no reported issues regarding gas availability. Details related to gas availability status and pricing have already been taken up with the respective plants. The latest updated status will be shared by the morning of 09-03-2026.

#### B.2.24. Discussion in 241 OCC meeting:

OCC expressed concern on the deficit observed in the power tie-ups by Delhi state and asked Delhi SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.

#### B.2.25. HARYANA

- Online meeting held on 10.02.2026.

##### RA Analysis Observations

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit(-)	Timestamp
April	Non-Solar	10903	5055	5465	-383	14-04-2026 23:00
	Solar	10907	5098	5495	-314	28-04-2026 15:00
May	Non-Solar	12890	5599	6042	-1248	31-05-2026 21:00
	Solar	13889	5599	6110	-2181	31-05-2026 15:00
June	Non-Solar	14025	5412	5937	-2676	12-06-2026 03:00
	Solar	14899	5605	6013	-3281	20-06-2026 14:00

#### B.2.26. Haryana SLDC response on 10.02.2026

- Haryana SLDC concurred assumptions largely in order.
- Any revised contract details will be shared, if applicable.
- SLDC will coordinate with DISCOMs and furnish updated inputs at the earliest.

#### B.2.27. Discussion in 241 OCC meeting:

CGM NRLDC suggested Haryana that in view of anticipated non-availability of gas generation, Haryana may pursue with CGPL, Mundra for resolving PPA related issues so that availability of state increases.

OCC expressed concern on the deficit observed in the power tie-ups by Haryana state and asked Haryana SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.

**B.2.28. UTTARAKHAND**

- Online meeting held on 13.02.2026.
- RA methodology and assumptions explained to SLDC/UPCL. NRLDC advised exploring gas-based support from Gama and Sravanthi.

**RA Analysis Observations**

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit(-)	Timestamp
April	Non-Solar	2471	471	1959	-41	12-04-2026 19:00
	Solar	2392	471	2285	364	13-04-2026 18:00
May	Non-Solar	2707	471	1660	-576	16-05-2026 21:00
	Solar	2711	471	1777	-462	17-05-2026 16:00
June	Non-Solar	2787	458	1810	-519	16-06-2026 20:00
	Solar	2744	440	1706	-599	07-06-2026 16:00

**B.2.29. Uttarakhand SLDC response on 13.02.2026**

- UPCL informed ~150 MW arranged through banking for Apr-Jun.
- ~200 MW additional procurement planned, mainly for non-solar hours.
- **Gas Plant status:** Operation of Gama & Sravanthi gas stations under review. Presently units are under outage due to non-requisition. Decision expected by March in consultation with the Commission.
- As reported by SLDC, Shraavanthi Plant has informed that, at present, no active contract is in place with GAIL for the upcoming months and will be taken up after requisition from UPCL.

**B.2.30. Discussion in 241 OCC meeting:**

*Uttarakhand representative updated that proposal for banking and OTC arrangements are underway. Medium term tie-up have already been made with thermal generator of other regions for 500MW.*

OCC expressed concern on the deficit observed in the power tie-ups by Uttarakhand state and asked Uttarakhand SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.

#### B.2.31. HIMACHAL PRADESH

- Online meeting held on 12.02.2026.

##### RA Analysis Observations

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit (-)	Timestamp
April	Non-Solar	1561	246	1624	310	23-04-2026 19:00
	Solar	1811	236	1467	-108	01-04-2026 07:00
May	Non-Solar	1694	221	1776	303	17-05-2026 20:00
	Solar	1863	221	1488	-154	20-05-2026 10:00
June	Non-Solar	1869	246	2163	540	04-06-2026 20:00
	Solar	1992	226	1798	33	11-06-2026 11:00

#### B.2.32. HP SLDC response on 13.02.2026

- HPSEBL conveyed assumptions largely in order.
- ~125 MW tied up through Long-Duration Contracts (LDC).
- Additional procurement options being explored.

#### B.2.33. Discussion in 241 OCC meeting:

HP SLDC representative stated that the availability here includes GoHP share and efforts for tie-ups for power are being made through long duration contracts.

MS NRPC expressed concern on the situation that after excluding GoHP share, there would be huge shortfall in HP and HP SLDC should take necessary actions at the earliest as hydro rich state having shortage in monsoon months is not justified.

OCC expressed concern on the deficit observed in the power tie-ups by HP state and asked HP SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.

#### B.2.34. JAMMU KASHMIR & LADAKH

- Online meeting held on 13.02.2026.

##### RA Analysis Observations

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit(-)	Timestamp
April	Non-Solar	2867	1251	1481	-135	08-04-2026 19:00
	Solar	2946	1250	1086	-610	01-04-2026 06:00
May	Non-Solar	2912	1121	1682	-109	17-05-2026 21:00
	Solar	2931	1180	1811	60	18-05-2026 06:00
June	Non-Solar	2916	1174	1624	-118	04-06-2026 20:00
	Solar	2961	1162	1290	-509	03-06-2026 14:00

### B.2.35. J&K SLDC response on 13.02.2026

- SLDC concurred assumptions largely in order.
- Any revised contract details to be shared separately.
- SLDC will coordinate with utilities and furnish updated inputs.

### B.2.36. Discussion in 241 OCC meeting:

J&K representative stated that figures need some revision and J&K would not be having shortfall more than 100-300MW which would be procured from DAM/RTM during summer months. J&K would submit the revised figures with NRLDC/NRPC.

OCC expressed concern on the deficit observed in the power tie-ups by J&K and asked J&K SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.

### B.2.37. CHANDIGARH

- Online meeting held on 12.02.2026.

#### RA Analysis Observations

Month	Period	Peak Demand	Thermal Generation	*Others	Gap Surplus(+)/Deficit(-)	Timestamp
April	Non-Solar	322	83	344	106	27-04-2026 22:00
	Solar	342	83	180	-79	27-04-2026 15:00
May	Non-Solar	416	75	359	18	26-05-2026 22:00
	Solar	475	76	246	-152	18-05-2026 15:00
June	Non-Solar	463	84	379	0	09-06-2026 22:00

	Solar	491	84	304	-103	09-06-2026 15:00
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### B.2.38. Chandigarh SLDC response

- Chandigarh concurred assumptions largely in order.
- Central allocation expected to increase from 9% to 14% during summer. This translates to ~100 MW additional allocation, assessed to be adequate to meet the anticipated gap.
- CPDL indicated that further procurement options will be explored, if required.

### B.2.39. Discussion in 241 OCC meeting:

OCC expressed concern on the deficit observed in the power tie-ups by Chandigarh state and asked Chandigarh SLDC to submit the power tie-up date with NRLDC for Apr-Jun 2026 period at the earliest.

CGM NRLDC suggested that NR states should take up for tie-ups with other states timely so that based on inter-regional transfer capability limits, their arrangement get priority and gets scheduled in case of any congestion on inter-regional corridor and avoid to rely on DAM and RTM bids.

#### Decision of OCC forum:

All SLDCs were requested to review the resource adequacy results and provide their comments along with the proposed tie-ups to avoid shortfall during Apr-Jun 2026. All SLDCs were asked to take necessary actions as discussed above including points mentioned in 2.1 and 2.2.

All utilities were asked to prepare and ensure that no partial outages are reported during summer 2026.

### B.3 SPS proposals in Rajasthan (Agenda by NRLDC)

- B.3.1. Majority of 400/220kV ICTs in Rajasthan state (both interstate as well as intrastate are N-1 non-compliant). List of N-1 non-compliant ISTS substations is shown below:

Constrained location	SPS Status as available with NRLDC
3*315=945 MVA ICT at Bhiwadi(PG)	Approved and to be implemented
2*315+500=1130 MVA ICT at Bassi(PG)	Approved and to be implemented
315+500=815 MVA ICT at Neemrana(PG)	Approved and to be implemented
2*315+500=1130 MVA ICT at Sikar(PG)	Approved and to be implemented
3*315=945 MVA ICT at Kankroli(PG)	Approved and to be implemented
2*315=630 MVA ICT at Kotputli(PG)	Implemented
2*315=630 MVA ICT at Deedwana(RVFN)	Not planned

### B.3.2. During 241 OCC meeting,

- POWERGRID representative informed that SPS has been implemented at 400/220kV Kotputli(PG), Bhiwadi(PG) and Neemrana(PG). SPS shall be implemented at other substations of POWERGRID by end of Mar 2026.
- OCC asked POWERGRID to submit mock-testing report for 3no. SPS implemented.

#### **Decision of OCC forum:**

**OCC forum asked POWERGRID to expedite the works.**

### **B.4 State-wise transmission constraints anticipated during high demand season of 2026 (Agenda by NRLDC)**

B.4.1. 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.

B.4.2. 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.

B.4.3. State-wise issues and measures required thereof are listed below.

#### **B.4.4. Punjab:**

During 241 OCC meeting,

NRLDC representative confirmed that ATC/TTC limits of Punjab shall be enhanced to 10950/11450MW upon commissioning of certain transmission elements.

#### **Punjab SLDC provided update on status of commissioning of:**

- i.* Commissioning of 2 no. 400/200kV 500MVA ICTs at 400kV Behman Jassa Singh (PSTCL): **March 2026**
- ii.* LILO of one circuit of 220kV Mansa- Bathinda Refinery at 400kV Behman Jassa: **May 2026**
- iii.* Commissioning of 400/220kV 4<sup>th</sup> 500MVA ICT at 400kV Rajpura (PSTCL): **June 2026**
- iv.* Conductor augmentation of 220kV Patran- Patran (PTCL) D/c from Zebra to HTLS: **May 2026**
- v.* Commissioning of additional 2 no. 220kV inter-connecting circuits from 400kV Ropar to 220kV GGSSTP/Ropar: **May 2026**
- vi.* Connectivity of 220kV Dhandari Kalan-Sherpur: **May 2026**

#### **B.4.5. Haryana:**

## SPS proposals in Haryana

### For SPS at 400/220kV Hissar(PG) ICTs:

During 241 OCC meeting,

Punjab SLDC expressed concern that opening of 220kV Hisar (BBMB) - Sangrur D/C line may lead to overloading of 220kV Ludhiana-Dhandharikalan lines as power will flow from Ludhiana to Dhandhari kalan to Jamalpur to Sangrur.

OCC forum discussed that as the feeders were already identified in meeting taken under SE(O) NRPC on 27.06.2025, accordingly, the proposed SPS was approved and POWERGRID was asked to implement it at the earliest. Further, Punjab SLDC was assured that this SPS operation would not impact the ATC/TTC of Punjab state control area.

POWERGRID representative stated that ICT-4 at Hissar(PG) is expected by June 2026 (after diverting it from another location). Further, SPS logic shall be implemented by March 2026.

Punjab SLDC was asked by OCC forum:

- to separately discuss with NRLDC regarding solutions to the issues raised by them.
- take up with PSTCL planning team to take up for additional supply source for 220kV Sangrur.

POWERGRID was asked to commission the ICT-4 at Hissar at the earliest.

### For SPS at 400/220kV Panipat ICTs:

During 241 OCC meeting,

HVPNL updated that SPS at 400/220kV Panipat ICTs shall be commissioned before summer 2026.

OCC forum asked NRPC to communicate their queries to HVPNL & BBMB and accordingly, the SPS logic can be approved in next protection subcommittee meeting of NRPC.

POWERGRID updated status of ICTs as following:

- 765/400kV Bhiwani ICT-IV: ICT received on site. Expected in March 2026
- 765/400kV Jhatikara ICT-V: Expected in May 2026. Bay location to be changed for bus reactor.

## B.4.6. Delhi

DTL representative stated that 400/220kV Bamnauli ICT-3 shall be revived by May 2026.

OCC forum expressed concern on the same and said that the ICT diversion from Bawana to Bamnauli was discussed few months back still ICT commissioning is pending and asked DTL to expedite the works.

NRLDC representative also highlighted other transmission constraints likely during summer 2026 in Delhi state control area:

- 1500 MVA-05<sup>th</sup> ICT at Jhatikara PG would be commissioned by May 2026 as per POWERGRID. The loading of 400 KV Jhatikara-Bamnauli line may reach up to 2000-2200 MW under N-1 condition of 400 KV Jhatikara-Dwarka line during the day peak hours.
- DTL and Delhi SLDC were requested to take immediate measures viz. deployment of SPS, load re-arrangement, bus-split etc. to manage loading of 400kV Jhatikara-Bamnauli line.
- N-1 non-compliance at 400/220kV Harsh Vihar ICTs due to outage of one ICT. SPS proposal may be expeditiously approved and commissioned by DTL for 400/220kV Harsh Vihar ICTs.

***OCC asked DTL and Delhi SLDC to take necessary steps:***

To expedite commissioning of :

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

To suggest and implement measures for managing:

- Loading of 400kV Jhatikara-Bamnauli (loading beyond N-1 limit)
- Loading of 400kV Jhatikara-Mundka D/C (loading beyond N-1 limit)
- Low voltages in Bamnauli/Tughlakabad/Dwarka area during high demand
- Violation of ATC/TTC limits in case of non-availability of gas generation and high demand

***OCC asked POWERGRID to take necessary steps:***

To expedite commissioning of:

- 765/400kV 1500MVA ICT-5 at Jhatikara
- 765/400kV 1500MVA ICT-4 at Bhiwani

To ensure healthiness of SPS and review SPS settings in consultation with DTL for:

- 400/220kV Mandola ICTs
- 400/220kV Maharaniibagh ICTs

**B.4.7. Uttar Pradesh:**

In 241 OCC meeting,

UPPTCL representative informed that:

- Old 240MVA ICT at Obra is expected to be revived by April 2026 whereas 315MVA ICTs at Obra would be revived after some time due to requirement of procurement of ICTs. Matter shall be discussed in separate meeting with UPPTCL.
- New ICT have been commissioned at 400/220kV Allahabad(PG) and Jaunpur UPPTCL substation which shall help in meeting higher demand.

### SPS proposals in Uttar Pradesh

UP SLDC informed that work order for SPS logic of 400/220kV Bareilly S/s has been placed. SPS at both 400/220kV Panki and Bareilly substation are expected to be commissioned by Mar 2026. 400/220kV Sahupuri and Jehta ICT SPS are also expected to be commissioned by April 2026.

POWERGRID representative stated that SPS at Agra(PG) has been commissioned. SPS at Lucknow(PG) is under implementation and shall be commissioned by March 2026.

### B.4.8. Uttarakhand:

In 241 OCC meeting, NRLDC representative stated that continuous violation of ATC/TTC limits and loading of 400/220kV Rishikesh ICTs beyond their N-1 limit is being observed since the commissioning of 400kV Koteshwar-Rishikesh D/C line. With the commissioning of 400kV Koteshwar-Rishikesh D/C line, the loading of Rishikesh ICTs is heavily dependent on mode of operation of Tehri PSP.

ATC/TTC limits and import by Uttarakhand state for the month of Dec2025-Jan2026 suggest that there is ATC/TTC limits violation almost on daily basis especially during 0800-1200 hrs in morning and 19-22 hrs in evening.

*Uttarakhand SLDC representative stated that during winter season when internal generation of state is low and demand is high, major loading issues of 400/220kV Rishikesh ICTs. Due to less demand in March 2026, some relief in ICT loading is observed and 220kV Rishikesh-SIDCUL feeders has been closed which was previously kept opened. SPS design is also not possible for 400/220kV Rishikesh ICTs due to cyclic nature and may operate on daily basis when intrastate hydro generation is not running.*

OCC forum discussed that 400kV Koteshwar-Rishikesh D/C line was approved in 2015-16 and the demand of Uttarakhand was much lower during that period. When studies were done back then, no constraint at 400/220kV Rishikesh ICTs was envisaged.

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

ATC/TTC limits of states for the month of April 2026 are attached as Annexure-B.III of agenda. Utilities were requested to go through these limits and provide comments.

**Decision of OCC forum:**

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

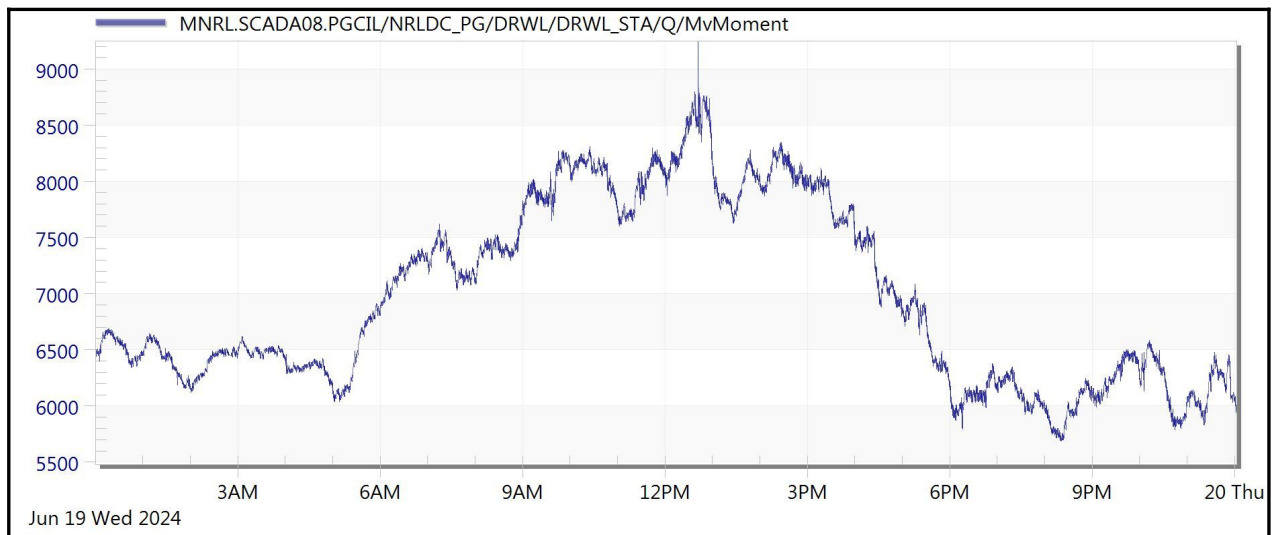
**B.5 SPS for Champa-Kurukshetra HVDC (Agenda by NRLDC)**

B.5.1. There have been unplanned load loss that has taken place in two events related to simultaneous all poles outage of HVDC Champa-Kurukshetra namely,

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

B.5.2. The recommendations of Committee formed under Member (GO&D), CEA] to analyse 17th June 2024 are attached as Annex-B.IV of agenda. NRLDC has been continuously pursuing with NR states to take measures for reactive power support at local level so that reactive power exchange from ISTS is minimal. However, as per discussions held in OCC meetings, no major progress is being reported. There is huge MVAR drawl by NR states during May-Sep months.

B.5.3. On 19th June 2024, the day NR demand reached maximum of 91.2 GW it can be seen that there was huge MVAR drawl by NR states from ISTS and seems to be following pattern of solar generation (maximum MVAR drawl at around 1pm) as shown below:



B.5.4. Accordingly, in 233 OCC meeting it was agreed to implement a SPS scheme which can shed loads in case of simultaneous outage of all poles of HVDC Champa-Kurukshetra. Since, identification and wiring of new load groups may be difficult for implementation in short time frame and further utilities have also expressed concerns

in identifying further new feeders for UFR or other load shedding schemes, it was suggested to utilise the wired loads of existing Agra-Gwalior SPS scheme. Signal of multiple HVDC pole outage can be extended from Kurukshetra station to Agra SPS scheme and some load relief can be obtained. The automatic disconnection of wired loads post outage of multiple HVDC Poles at Kurukshetra may provide some relief and may help in containing the voltages till suitable static and dynamic compensation devices are commissioned.

**B.5.5. CTUIL representative stated that planning for additional dynamic compensation devices have been done in CMETS meeting and shall also be put up for discussion in next TCC/NRPC meeting. State transmission utilities also need to plan for reactive power resources both reactive and capacitive so that the MVAR exchange by state from ISTS is minimum.**

*B.5.6. Rajasthan SLDC representative stated that 800MVAR capacitor installation was in progress in state out of which around 540MVAR capacitor installation has been completed and remaining capacitors have also been received at site and would be commissioned shortly. Additional 300MVAR capacitor are under tendering stage. It was also discussed that Distributed RE penetration has also increased in grid and they are only supplying MW and drawing MVAR from the grid degrading the voltage profile.*

*B.5.7. Further, as Apr-Sep is the main high demand period of NR and availability of all poles of HVDC Champa-Kurukshetra is desirable, accordingly POWERGRID was asked by OCC to plan to take any shutdown related activities of Champa-Kurukshetra HVDC by March 2026.*

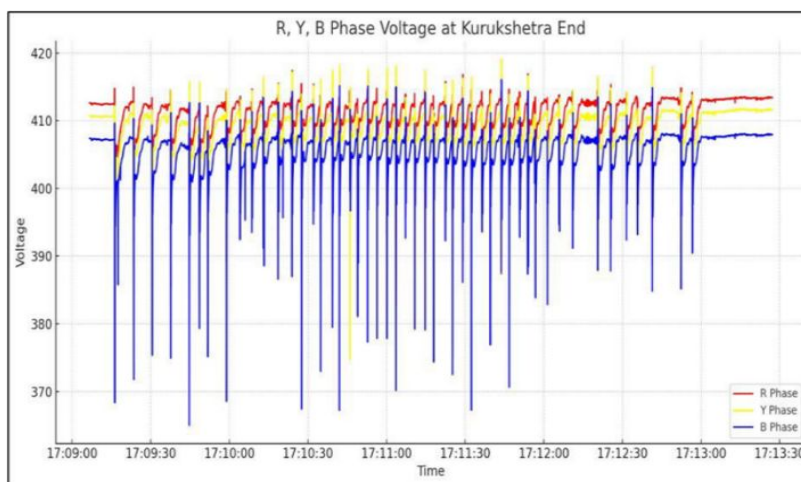
B.5.8. Following tentative logics for SPS were proposed in 241 OCC meeting:

- Voltage in all 3-phases at Kurukshetra fall below 380kV and more than 50kV for 250ms: Shed load in Groups C and D
- Voltage in all 3-phases at Kurukshetra fall below 360kV and more than 50kV for 250ms: Shed load in all Groups

(Time delay increased considering LBB protection timing)

B.5.9. Voltage >50kV is being proposed so that SPS does not operate in case of any CVT data error.

B.5.10. Moreover, it was observed that bus voltages at Kurukshetra were reaching below 380kV during frequent commutation failures observed on 21.05.2025.



B.5.11. Accordingly, it is important that SPS logic resets immediately, so that in case of multiple voltage dip and recovery events, any maloperation of SPS may be avoided.

#### **Decision of OCC forum:**

OCC forum asked all utilities to provide actions taken at their end in compliance to recommendations of MoP Committee constituted under Member (GO&D), CEA to analyse 17th June 2024. OCC forum approved the proposed SPS logic and asked POWERGRID to implement it at the earliest.

### **B.6 Minimising deviation against scheduled drawl by Rajasthan state control area (Agenda by NRLDC)**

B.6.1. It has been observed that some of the NR states have been under drawing from the grid in last few weeks. The under drawl in Energy terms has reached 8-12 MUs on daily basis as per the Daily Operation Report published by NRLDC. With inclement weather leading to load crash and lower demand, high frequency grid operation has been observed recently. NRLDC has been advising constituents to maintain load generation balance and messages are also regularly issued from Real time operators to the under-drawing constituents. Further, NRLDC has been pro-actively carrying out hydro moderation of ISGS plants in addition to TRAS down support from NLDC to arrest high frequency.

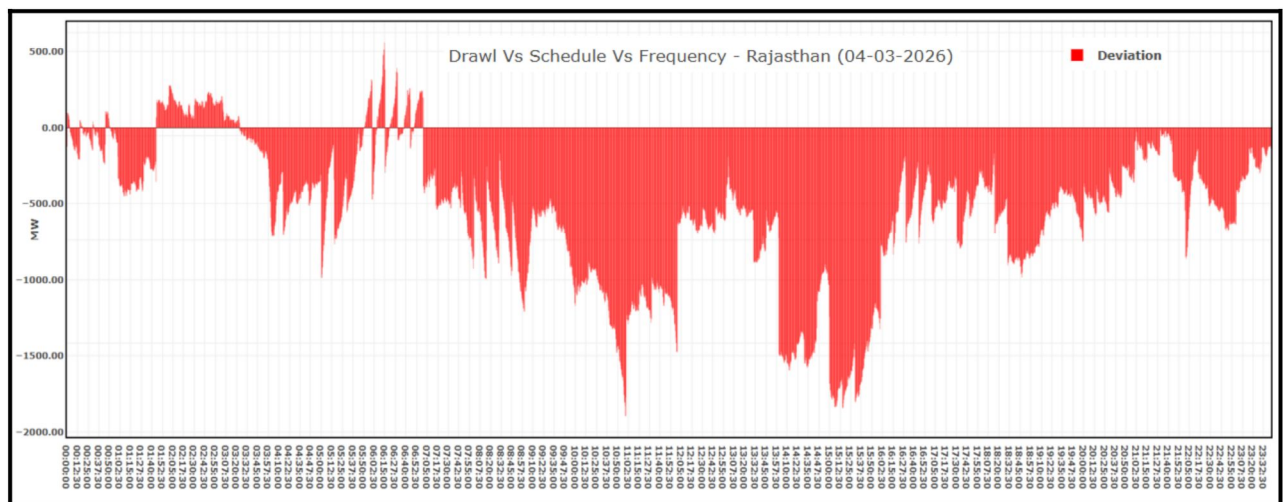
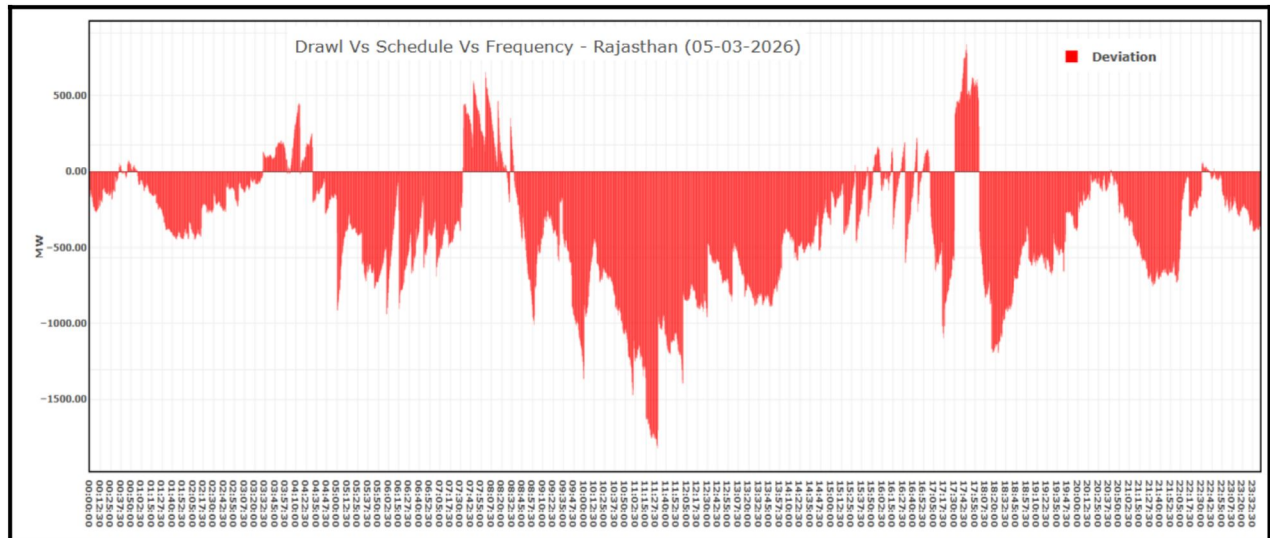
B.6.2. The details of daily under-drawl (MU) and max. under-drawl based on 5 minutes average telemetered data i.r.o. Rajasthan state control area is given below:

#### **Rajasthan Deviation and grid frequency**

Date	Deviation/UI [Overdrawl (+) Under drawl (-)] MUs	Max Under-drawl (in MW) during 09-15 hrs of day
01-03-2026	-2.01	1099
02-03-2026	-2.3	1667
03-03-2026	-3.82	1312
04-03-2026	-12.08	1830

05-03-2026	-8.26	1823
06-03-2026	-7.02	1671
07-03-2026	-4.32	1339
08-03-2026	-4.25	1105

B.6.3. Plots for deviation by Rajasthan state control area for 04-03-2026 & 05-03-2026 are shown below wherein it can be clearly seen that Rajasthan state was heavily under drawing from the grid during the day time.



B.6.4. Such large deviations from schedule and high frequency operation are a threat to the system security.

B.6.5. To avoid continuous high frequency operation in the grid, following actions may be ensured during real-time grid operation and maintaining drawal close to schedule:

- Portfolio management through sale of power in T-GNA
- Lifting of planned load shedding, curtailments, if any

- Generation backing down in coal fired thermal stations to 55% of Maximum Continuous Rating (MCR) loading of the units on bar at the generating station after deducting the normative Auxiliary Energy Consumption plus Auxiliary Energy Consumption compensation as per the provisions of the Grid Code as per merit order based on variable charges
- Downward revision of requisitions from ISGS as per merit order on request of beneficiaries
- Generation reduction at hydro stations having storage capability

B.6.6. NRLDC representative highlighted that as per analysis at NRLDC end there is lot of scope for further improvement in load generation balancing and maintaining drawl close to schedule by Rajasthan SLDC.

*B.6.7. Rajasthan SLDC representative stated that except KTPS all intrastate thermal units are now backing down to 55% of MCR. However, due to large scale RE at distribution as well as solarization of pumps, net demand of state is reducing during day-time and state is under drawing this period. However, measures to arrest this deviation are being explored at SLDC level.*

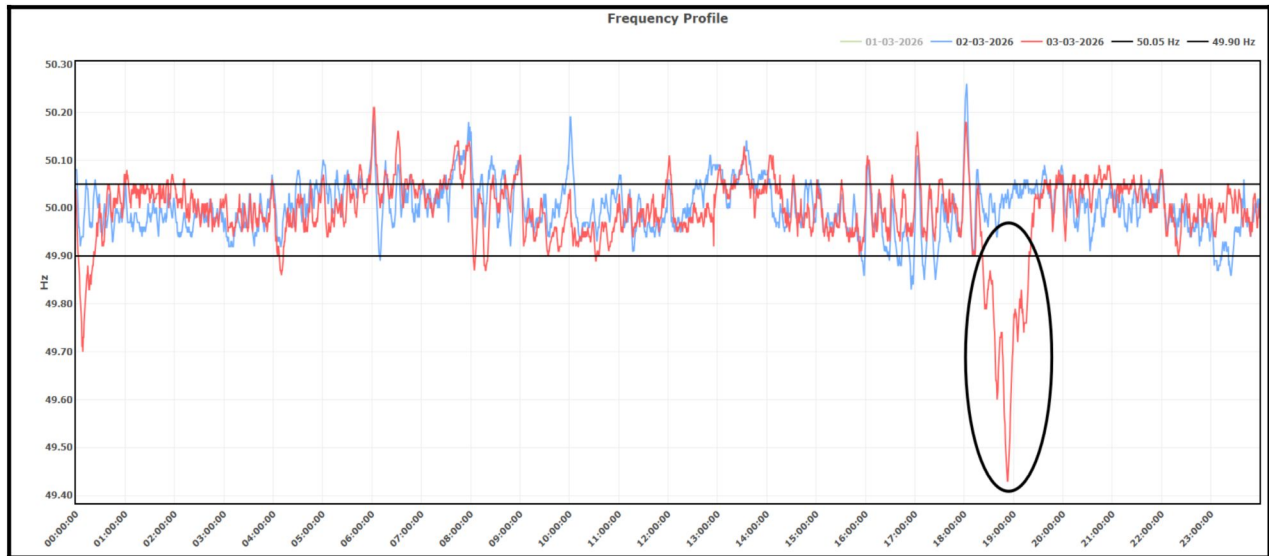
*B.6.8. NRLDC representative asked Rajasthan to explore for two-shift operation of intrastate thermal units as they have also planned for 13GW of intrastate RE which was recently approved by CEA PSPA-I.*

**Decision of OCC forum:**

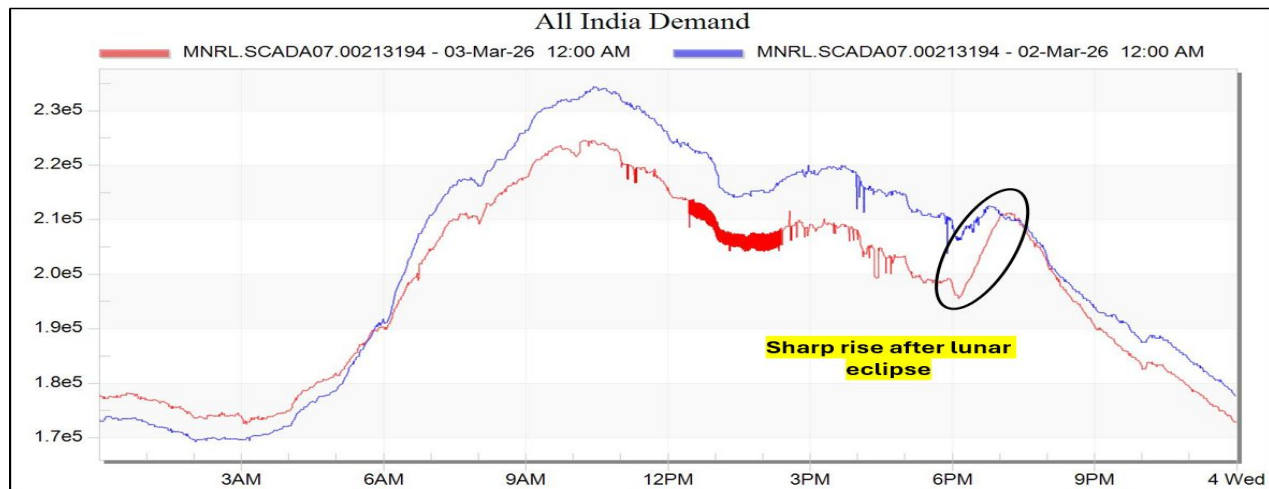
*OCC forum expressed concern on the same and asked Rajasthan SLDC to take necessary actions as discussed above so that under drawl during day-time can be minimized.*

**B.7 Poor frequency profile after lunar eclipse on 03.03.2026 (Agenda by NRLDC)**

B.7.1. Grid frequency remained low for duration of 18:22 hrs. to 19:19 hrs. on 03.03.2026 and even reached to 49.42 HZ @18:52 hrs. Low frequency operation was due to high demand and very sharp rise in All India demand accompanied with high ramp rate (about 312 MW/per minute) from 18:10 hrs. during the lunar eclipse.

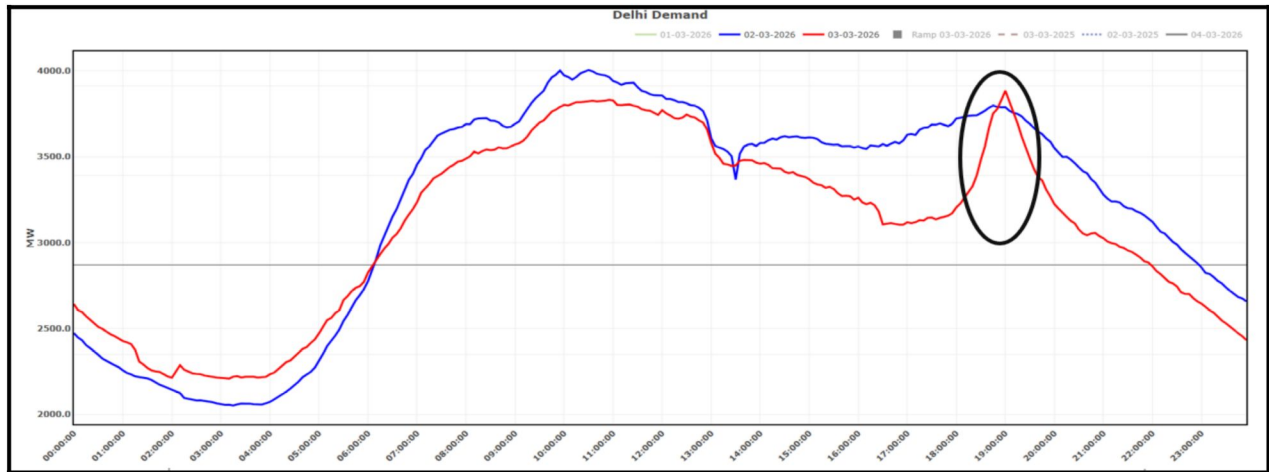


B.7.2. All India demand pattern for 02.03.2026 & 03.03.2026 are shown below:

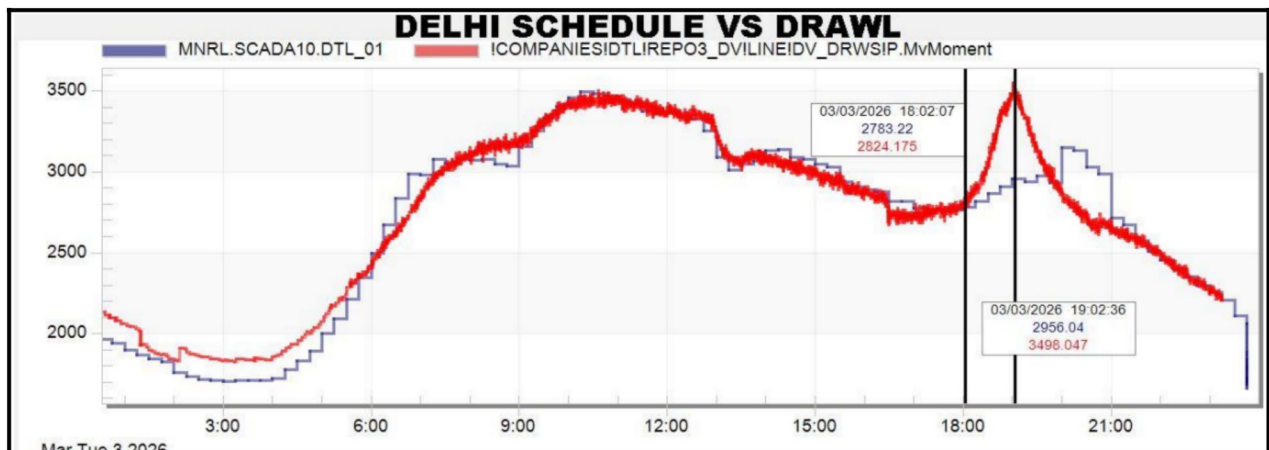


B.7.3. In NR it was observed that Raj and Delhi were continuously overdrawing during the low frequency period. At 18:52 hrs, frequency touched 49.42HZ. During the same time the over drawl of Raj and Delhi was 265MW and 470MW respectively.

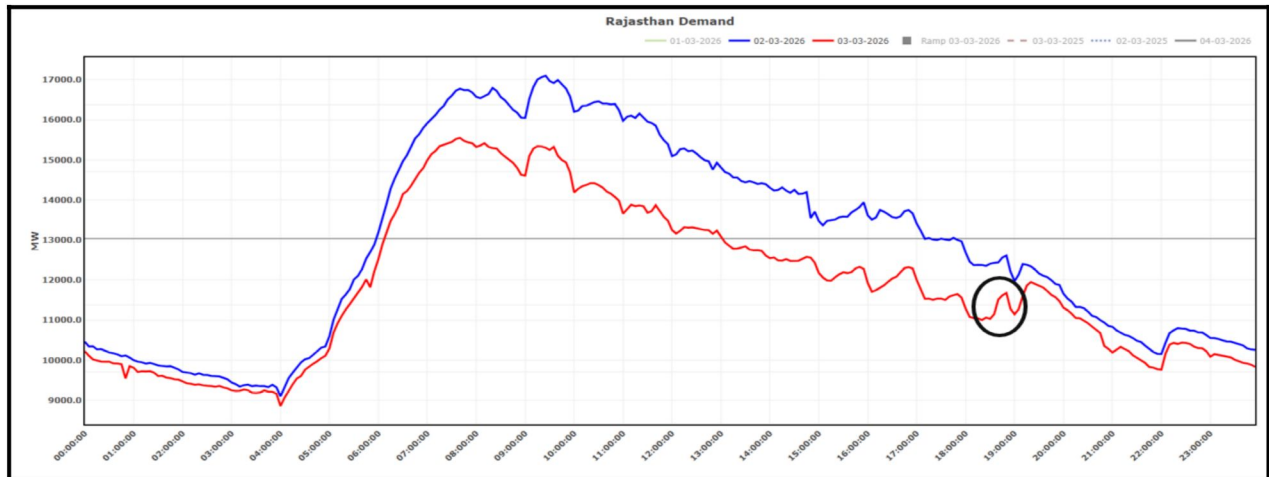
### Delhi's Demand Profile



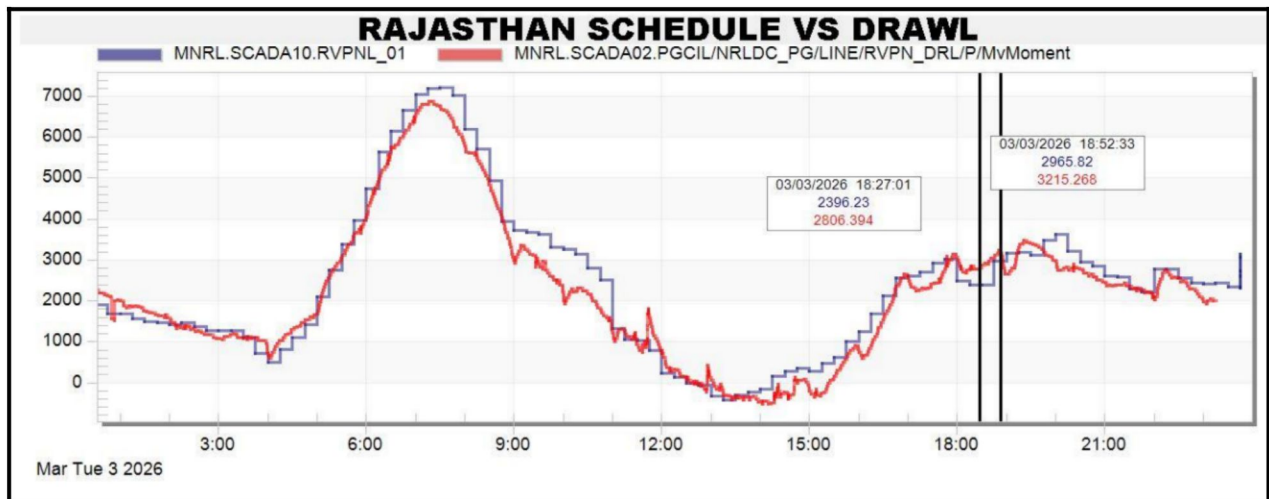
B.7.4. A sharp ramp up of 650MW was observed from 18:00 hrs to 19:00 hrs. As intimated by Delhi SLDC, the sharp rise in demand is attributed to the geyser load which came in service during evening bath on account of lunar eclipse bath ritual. It was also observed that there was a net sale of quantum ranging from 56 MW to 197 MW in the power exchange by Delhi between 18:15 hrs and 19:15 hrs. From the Schedule vs Actual graph below it has been observed that there was no significant change in schedule to meet the rise in demand. No UFR operation took place during the low frequency operation.



**Rajasthan's Demand Profile:**

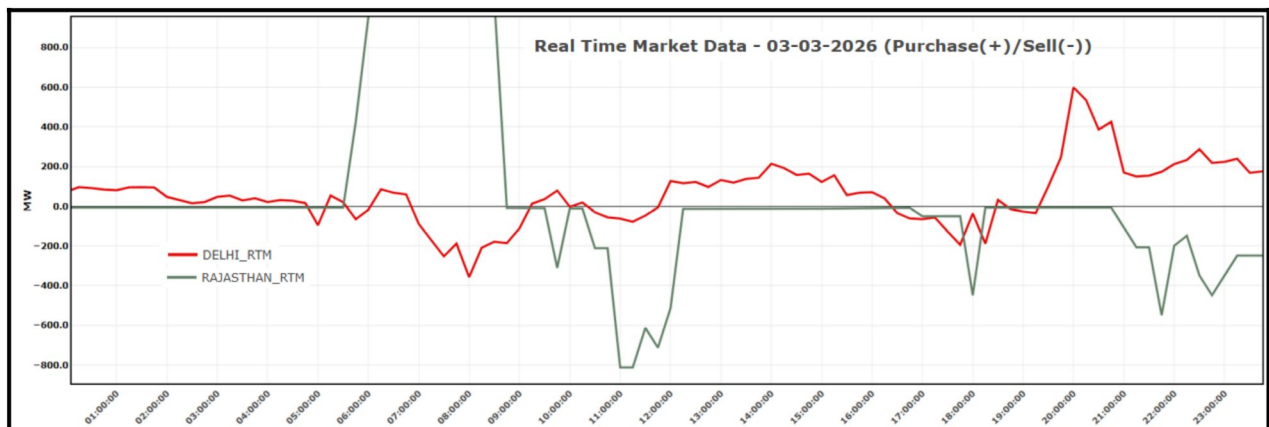
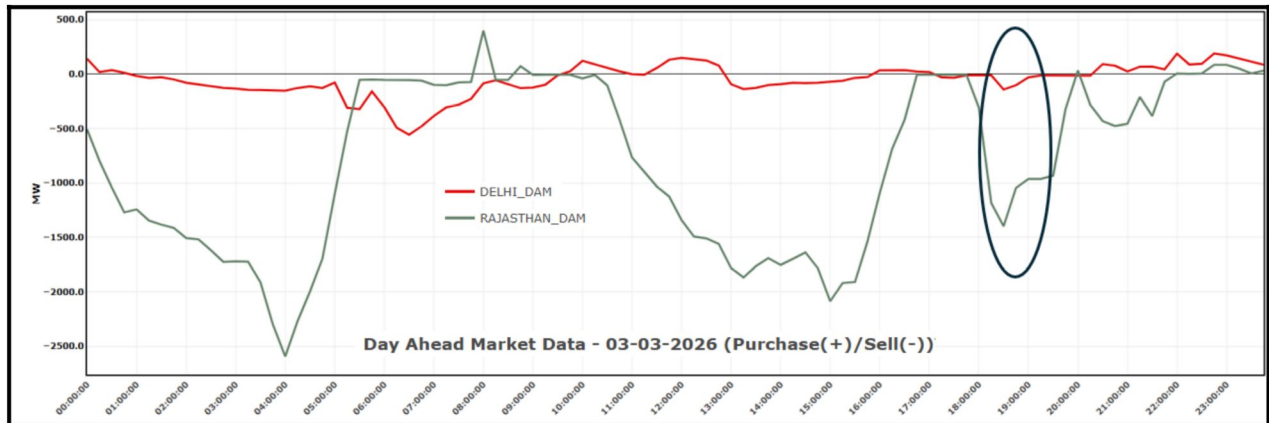


B.7.5. From the above graph it has been observed that the Rajasthan's demand was lower by around 2500MW as compared to that of previous day. However, 18:54 hrs the gap has reduced to 150MW.

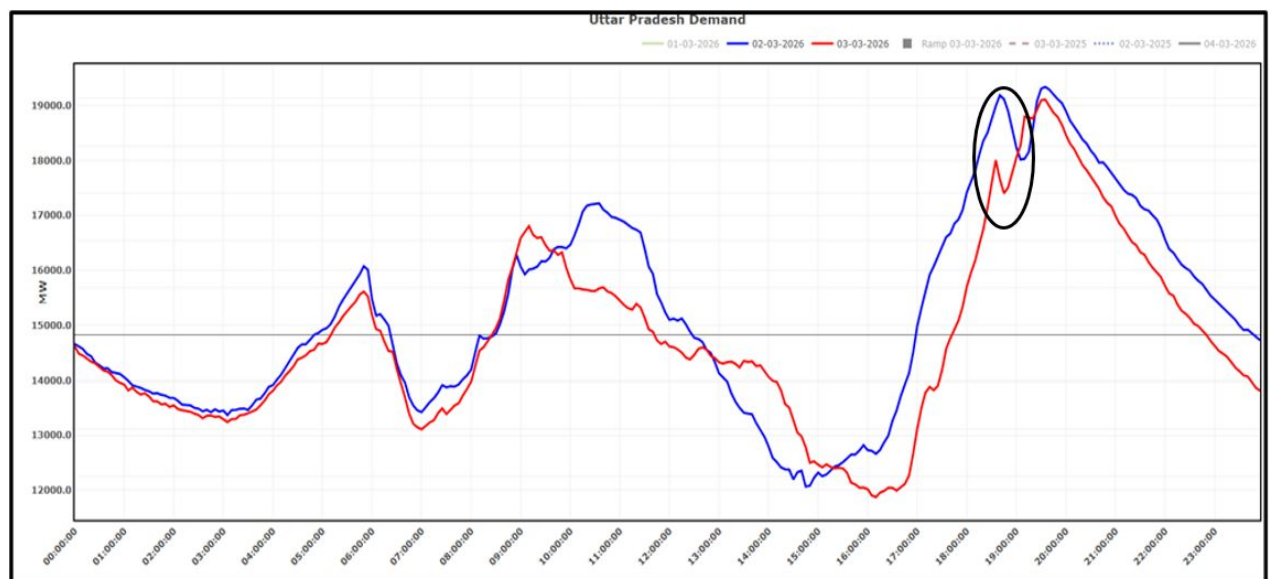


B.7.6. Rajasthan has sold upto max of 1000MW in DAM during 18:30 to 19:30 hrs.

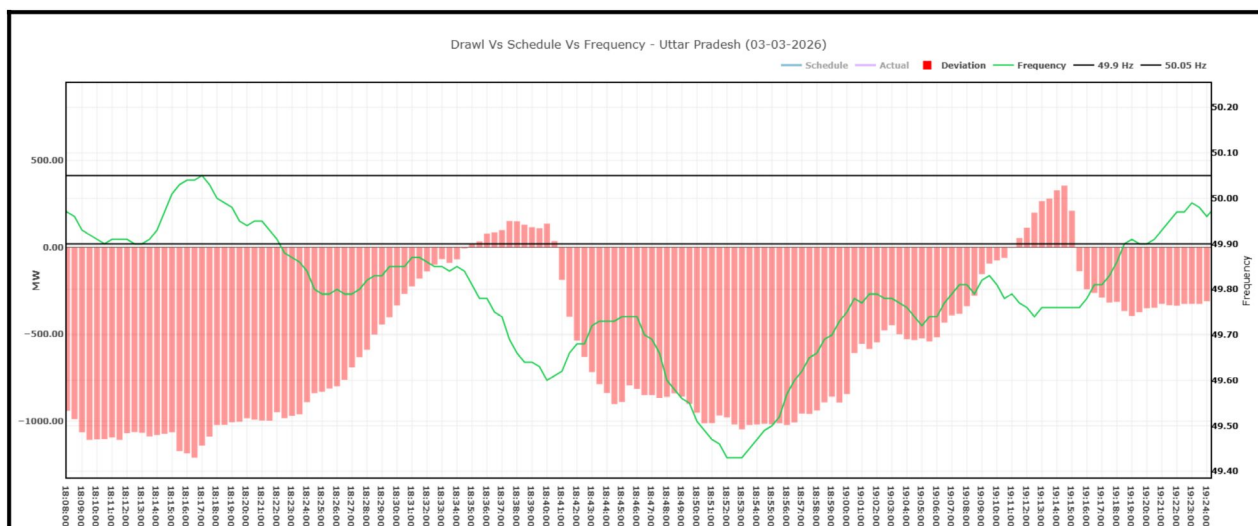
B.7.7. Further, from day-ahead and real-time power exchange data, it is seen that neither Delhi nor Rajasthan had purchased in DAM/RTM rather, they had sold power in Day ahead market.



B.7.8. However, performance of UP state control area during this low frequency period was better and they supported in managing grid frequency. It seems that UP SLDC did some load management also to manage their deviations and support grid frequency during low frequency operation from 18:00hrs to 19:30 hrs.



B.7.9. The deviation by UP state and grid frequency profile for 03.03.2026 is shown below:



B.7.10. Accordingly, to maintain the Grid security all SLDCs were once again requested to take proactive steps as follows:

- Ensure that ADMS is in service and expedite its implementation if not commissioned.
- Ensure healthiness and availability of AUFLS and df/dt load shedding.
- Ensure revival of intra-state generators under economic shutdown/RSD based on requirement
- Ensure portfolio balancing through T-GNA/RTM market segments
- Ensure no under injection by the generators from schedule
- In case of inadequate margins in intrastate generators, measures for emergency load regulation measures may be taken in interest of grid security.
- Pursue generators to expedite revival of thermal units under forced outage wherever feasible.

B.7.11. Moreover, following is latest status of monthly UFR certification as shared by NR states:

CHANDIGARH	Not Available
DELHI	Dec-2025
HARYANA	Sep-2025
HP	Nov-2025
J&K and LADAKH	Not Available
PUNJAB	Dec-2025
RAJASTHAN	Dec-2025
UP	Jan-2026
UTTARAKHAND	Dec-2025
BBMB	Dec-2025

**Decision of OCC forum:**

All SLDCs were asked by OCC forum to take up the matter with concerned STUs and ensure that Under Frequency Relay in their state are in healthy condition. Further, the religious events such as solar eclipse, lunar eclipse, other events also need to be duly factored in demand forecast and load-generation balancing and ramping requirements should be done accordingly.

### B.8 Transmission elements under long outage (Agenda by NRLDC)

- B.8.1. With the increase in temperature, demand of Northern Region starts increasing from March onwards every year. Summer of Northern region are typically hot and demand is also high during this time, therefore advance actions help in better grid operation. During the high demand season, the transmission system in Northern region remains heavily loaded.
- B.8.2. Accordingly, it is desirable that maximum number of transmission elements remain in service so that transmission element loadings do not become very high. Number of transmission elements in NR grid are under prolonged outage such as:

S. No.	Element Name	Owner	Date	Reason / Remarks
1	400/220 kV 315 MVA ICT 1 at Muradnagar_1(UP)	UPPTCL	13-03-2020	Transformer tested and found damaged. It is to be replaced with New T/F.
2	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.
3	220 KV KISHENPUR(PG)-MIR BAZAR(PDD)	JKPTCL	21-06-2024	Tower foundation damaged.
4	220 KV PHOZAL-NALLAGARH(PG) CKT-1	ADHYDRO	20-08-2025	Tower Damage location 157 and 158, 42.5 km towards Nalagarh
5	220 KV PANCHKULA(PG)-PANCHKULA_SEC_32 CKT-1	HVPNL	03-09-2025	Tower collapse at location no. 13
6	220 KV PANCHKULA(PG)-PANCHKULA_SEC_32 CKT-2	HVPNL	03-09-2025	
7	400/220 KV 315 MVA	DTL	01-06-	Differential protection trip.

	ICT 4 AT BAMNOLI(DV)		2025	
8	765/400 KV 1000 MVA ICT 2 AT ANPARA_C(LAN)	UPPTCL	17-11-2025	Attending oil leakages from ICT & Earthing Transformer and Testing
9	400/220 KV 315 MVA ICT 1 AT BAREILLY(UP)	UPPTCL	01-01-2026	Increasing capacity work from 1x315 MVA TO 1X500 MVA
10	400 KV GR.NOIDA_2(UPC)- NOIDA SEC 148 (UP) CKT-1	UPPTCL	13-01-2026	To attend abnormal noise which is coming from Circuit breaker
11	400/220 KV 500 MVA ICT 2 AT DADRI(NT)	NTPC		Overhauling

B.8.3. UP SLDC representative stated that ICT upgradation at Bareilly(UP) has been completed whereas other elements are not expected to be revived till June 2026.

B.8.4. All other transmission utilities were requested to update likely revival date for these in the NRLDC outage portal and communicate to NRLDC through email.

B.8.5. Number of Fixed Series capacitors (FSCs) are also under prolonged outage such as:

Name of Elements (Owner: POWERGRID)	Outage time/date	Reason of tripping
FSC of 400 KV Fatehpur-Mainpuri (PG) Ckt-1 at Mainpuri (PG)	21:07 / 24.10.21	BHEL breaker hydraulic pressure could not be developed in B phase and (loss of N2 pressure) doesn't allow the FSC-1 taken into service as reported by CPCC3. OEM support stopped
FSC of 400 KV Fatehpur-Mainpuri (PG) Ckt-2 at Mainpuri (PG)	08:25 / 29.01.22	VME protection system was blocking the FSC back in service as reported by CPCC3. OEM support stopped
FSC (40%) of 400 KV Kanpur-Ballabgarh (PG) Ckt-1 at Ballabgarh (PG)	15:55 / 02.01.26	Abnormal Sound

FSC(40%) OF 400 KV Balia-Sohawal (PG) ckt-2 at Sohawal(PG)	18:31/07.01.26	To attend hot spot in Line side connector and droppers in FSC. Issue in finger contact of line side ds 1 isolator of b phase.
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- B.8.6. POWERGRID NR-3 representative submitted that FSC at Mainpuri can not be revived as OEM has stopped support. All other FSC are healthy and can be taken in service when power flow on line increases.
- B.8.7. MS NRPC expressed concern on the same and asked POWERGRID to raise the matter at higher forum if OEM is not supporting. Further, all transmission utilities were advised to ensure FSC availability during summer 2026.
- B.8.8. Further, as per information available with NRLDC, following transmission lines are in service through ERS since long time. Accordingly, it was requested that concerned transmission utilities may plan for revival of transmission lines on normal towers so that ERS set is available for other contingencies that may happen in near future.

SL No	Name of the Transmission Line	Revival Date/Time through ERS	Expected Restoration to Permanent tower
1	765 KV BAREILLY_2.LUCKNOW_2 (PG) CKT.1 (ERS tower at location 566)	21:13/20.09.25	14th March 2026
2	765 KV KOTESHWAR.MEERUT (PG) CKT.1 (ERS tower at location 142)	19:38/03.09.25	12th March 2026
3	400 KV RAMPUR HEP(SJ).NALLAGARH(PG) (PG) CKT.1 & 2 (ERS tower at location number 343)	19:48/15.09.25	10th March 2026
4	400 KV CHAMERA_2(NH).KISHENPUR(PG) (PG) CKT.1 (ERS tower at location number 238)	22:10/18.09.25	30th April 2026
5	220 KV SALAL(NH).JAMMU(PDD) (PG) CKT.2 (ERS tower at location 48)	22:23/11.09.25	15th April 2026

6	400 KV JALANDHAR(PG).SAMBA(PG) (NRSS XXIX) CKT.1  (04 Nos ERS at tower location 235 to 238)	18:40/30.09.25	10th March 2026
7	400 KV JALANDHAR(PG).SAMBA(PG) (NRSS XXIX) CKT.2  (02 Nos ERS at tower location 236)	17:20/16.10.25	10th March 2026
8	400 KV KOLDAM(NT)-PARBATI POOLING BANALA(PG) (PKTCL) CKT-1  (01 Nos ERS at tower location 42)	23:37/22.11.25	31st May 2026
9	220 KV KISHENPUR(PG)- RAMBAN(PDD) (PDD) CKT-1 (03 Nos of ERS Towers (01 Nos ERS towers between KP-61 and KP-63, 02 Nos ERS towers between KP-75 and KP- 82))	10:03/19.12.25	30th June 2026

B.8.9. POWERGRID representative stated that

- Rampur-Nallagarh, Salal-Jammu, Chamera1-Chamera2 shall be revived on normal tower in next 1-2 months
- Chamera-Kishenpur, Kishenpur-Ramban, Salal-Jammu shall be revived on normal after receiving tower parts at field.

B.8.10. Indigrid representative stated that 400 KV JALANDHAR(PG)-SAMBA(PG) shall be revived on normal tower by May 2026.

B.8.11. MS NRPC expressed concern on the same and asked all concerned transmission utilities to free ERS tower which have been in service for long time.

B.8.12. CGM NRLDC also highlighted that there have been directions from MoP in this regard that all ERS towers presently in use shall be made free and maximum ERS availability for any contingency during summer 2026 shall be ensured.

**Decision of OCC forum:**

OCC forum advised all transmission utilities to strictly adhere to the approved timelines so that grid operation is not affected and other shutdown requests are also timely allowed. Further, it was requested to update likely revival date for these in the NRLDC outage portal and expedite revival of these transmission elements before summer 2026. Concerned transmission utilities may plan for revival of transmission lines on normal towers so that ERS set is available for other contingencies that may happen in near future.

## B.9 Mock testing of islanding scheme and simulation studies (Agenda by NRLDC)

B.9.1. Following four islanding schemes are operational in the Northern Region: NAPP Islanding Scheme (Uttar Pradesh), RAPP Islanding Scheme (Rajasthan), Bawana Islanding Scheme (Delhi), and Unchahar Islanding Scheme (Uttar Pradesh).

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

B.9.2. There have been recent directions from NPC and MoP also for islanding testing.

B.9.3. As per Clause 29.10 and 29.11 of the IEGC:

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

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

B.9.4. NRLDC representative stated that:

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

- RAPP Islanding Scheme (basecase last received on 21.03.2025)

Mock testing data has been received for:

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

Further, the status of other schemes is as follows:

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

B.9.5. The SOP for mock testing of islanding schemes in the Northern Region was approved during the 223rd OCC meeting held in September 2024.

B.9.6. In compliance with the above provisions of the IEGC, it was requested to submit the requisite data and report, as stipulated in the approved SOP, to facilitate successful conduct of mock testing of islanding schemes for FY 2025–26 at the earliest.

B.9.7. Communication have already been sent from NRLDC side vide email dated 16.02.2026 & 03.03.2026.

B.9.8. In case of non-availability of gas generation at Bawana, other islanding scheme with generation of Dadri NTPC / IGSTPP NTPC (Jhajjar) is being explored for maximizing the chances of survival of critical loads in Delhi. Separate islanding scheme with Bawana generation is also under review.

**Decision of OCC forum:**

*Concerned SLDCs were requested to submit field testing and simulation-based testing of each islanding scheme at the earliest.*

**B.10 Enhancing support from transmission utilities for day to day grid operation (Agenda by NRLDC)**

**a) STATCOMS day to day mode change operations**

- B.10.1. With the increasing penetration of Renewable Energy generation, particularly solar power, the grid in RE pockets is experiencing frequent oscillations during high solar generation hours. In such situations, STATCOM devices play a very crucial role in maintaining voltage stability and damping system oscillations. It has been observed that changing the operating mode of STATCOMs from Auto Mode to Dead Band / Fixed Reactive Power (Q) Mode, depending upon system requirements, helps in mitigating these oscillations almost instantly. Such timely intervention supports better voltage control and improves overall grid stability in renewable-dominant areas.
- B.10.2. However, it has been observed that whenever a code or instruction is issued to PGCIL for changing the STATCOM operating mode, there is often a delay in implementation because the operation is currently carried out from the field level. This time lag can reduce the effectiveness of immediate corrective action required during oscillatory conditions.
- B.10.3. If the operation of STATCOM mode change is enabled through remote facilities such as NTAMC or RTAMC, the mode switching can be performed instantly. This would significantly enhance the response time during system disturbances or oscillatory events, thereby improving grid reliability and operational efficiency in RE dominated regions.
- B.10.4. POWERGRID representative stated that since implementation of dead-band logic, mode change can only be done from site. However, suggestion of NRLDC shall be discussed with SIEMENS and RTAMC/NTAMC team.**

**b) Out-source Employee at Crucial RE Sub Stations**

- B.10.5. On 14th January 2026, when multiple trippings occurred at Bhadla , Sikar and Fatehgarh III Substation, delay in response and information sharing was observed. When Northern Regional Load Despatch Centre contacted Fatehgarh III control room, the outsourced employee present there stated that they were not authorized to share operational information and asked to contact POWERGRID directly.

- B.10.6. Such situations may delay critical communication during grid disturbances; therefore, it is suggested that important RE substations should be manned by authorised, regular and trained personnel to ensure timely coordination and grid security.
- B.10.7. The deployment of outsourced employees at critical renewable energy substations of PGCIL may create operational challenges, as RE substations operate under dynamic conditions and require quick response during disturbances.

**Decision of OCC forum:**

*OCC forum noted the request from NRLDC side and asked POWERGRID to explore possibility of implementing the suggestions from NRLDC side. For RE pooling substations in Western Rajasthan, POWERGRID was advised to deploy regular employees and not rely on out-source employees for immediate actions and also coordination with NRLDC in case of emergency.*

**B.11 Multiple element tripping events in Northern region in the month of February 2026 (Agenda by NRLDC)**

- B.11.1. A total of 14 grid events occurred in the month of February 2026 of which 12 are of GD-1 category, 01 is of GI-2 Category and 01 is of GI-1 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.V of agenda.
- B.11.2. Maximum delayed clearance of fault observed in event of tripping event at Rajasthan RE Complex, 400/220kV RAPP\_D(NP) and 400kV Tehri PSP(TH) at 11:33 hrs on 16th February 2026 (As per PMU at RAPP-C(NP), consecutive three 3-phase voltage dips were observed with voltage recovery time of 80 ms, 4360 ms and 80 ms).
- B.11.3. It is observed that DR/EL & tripping report of most of the grid events are not being submitted as per timeline specified in IEGC 2023. Non availability to tripping details further hampers the grid event analysis at RLDC level.
- B.11.4. Members agreed to share the tripping details at the earliest and assured to submit the tripping details as per the timeline specified in IEGC.
- B.11.5. 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.**

**Decision of OCC forum:**

*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 IEGC clause 37.2 (c) & (e).*

## **B.12 Status of submission of DR/EL and tripping report of utilities for the month of February 2026 (Agenda by NRLDC)**

- B.12.1. The status of receipt of DR/EL and tripping report of utilities for the month of February 2026 is attached at Annexure-B.VI of the 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.
- B.12.2. NRLDC representative stated that on the basis of the status of January month it is evident that the reporting status of some of the constituents i.e., RE stations, SLDC-HR, SLDC-PS, SLDC-J&K, SLDC-Delhi, INDIGRID, BBMB and RAPS is not satisfactory and needs improvement.
- B.12.3. 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.
- B.12.4. The Member Secretary, NRPC, also advised that the DR/EL report should be submitted in a timely manner to help prevent further tripping incidents in the future. Timely submission will also facilitate accurate assessment of the nature of tripping, whether genuine or spurious.

### ***Decision of OCC forum:***

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 availability verification. The unavailability of these details delays the availability verification process. Hence, timely submission of DR/EL & tripping report is 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 the timely submission of the information. It is requested that DR/EL of all the tripping shall be uploaded on Web Web-Based Tripping Monitoring System (TMS) “<https://postda.nrlc.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.13 Frequency response performance for the reportable events of month of February 2026 (Agenda by NRLDC)**

- B.13.1. Total three (3) nos of reportable events were notified by NLDC for which FRC/FRP need to be calculated during the month of February’2026.
- B.13.2. Description of the event is as given in the Table below:

S N	Event Date	Time (In hrs.)	Event Description	Startin g Frequ	Nadir Frequ ency	End Frequ ency	$\Delta f(\text{Hz})$	NR FRP durin
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o .				ency (in Hz)	(in Hz)	(in Hz)		g the even t
1	13-Feb-26	12:14 hrs	As reported, at 12:14 hrs on 13th February 2026, generation loss event of 740 MW occurred in RE generation complex, NR. Hence generation loss of 740 MW is considered for FRC/FRP Calculation.	49.926	49.776	49.913	-0.013	-2.34
2	22-Feb-26	22:56 hrs	As reported, at 22:56 hrs on 22.02.2026, generation loss event of 1470 MW occurred in Sterlite Thermal Power Plant, ER. Hence generation loss of 1470 MW is considered for FRC/FRP Calculation.	50.040	49.887	50.003	-0.037	2.43
3	22-Feb-26	23:00 hrs	As reported, at 23:00 hrs on 22.02.2026, load loss event of 1353 MW occurred in Sterlite Thermal Power Plant, ER. Hence load loss of 1353 MW is considered for FRC/FRP Calculation.	49.917	50.081	50.012	0.095	0.51

B.13.3. 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."

B.13.4. 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."

- B.13.5. 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)."
- B.13.6. 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."
- B.13.7. 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 09th March 2026, FRC/FRP as per NRLDC HDR data is used for computation of Average Monthly Frequency Response Performance, Beta 'β' for Generating Stations.
- B.13.8. Status of details received from constituents and FRP values as considered for the events of January 2026 are attached as Annexure-B.VII of Agenda.
- B.13.9. NRLDC representative requested to submit the data within two(2) days from the receipt of mail from NRLDC end.
- B.13.10. NTPC informed that generation from Anta and Auraiya was unavailable during the said event.
- B.13.11. The representative of NRLDC requested that, in such instances, NRLDC may be duly informed, and a confirmation email may also be sent for cross verification.
- B.13.12. NRLDC member also highlighted the persistent issue of partial data submission from Singrauli TPS. NTPC was requested to share the complete plant data of Singrauli TPS otherwise it can't be considered for FRP computation. Presently, data of only 2 units are being submitted by Singrauli TPS.*
- B.13.13. NTPC representative agreed to share the complete FRC data of Singrauli TPS.*
- B.13.14. The representative of NRLDC further informed that the data shall be considered as duly submitted only if it is provided within the stipulated timeline (i.e., within six days from the receipt of email from the NRLDC end in case of SLDC); otherwise, it shall be treated as non-submission.

- B.13.15. Status of Frequency response Performance is available in Annexure-B.VII of Agenda.
- B.13.16. NRLDC has requested to review the frequency response of the entities those have poor response in their respective control area and improve accordingly.
- B.13.17. ISGS were requested to confirm whether FGMO as per IEGC 2023 has been implemented at their respective stations or not. All were requested to share the data as per the format shared by NRLDC. The detail of the present status is as per agenda item of B.11.
- B.13.18. Memembers 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.
- B.13.19. NRLDC highlighted the unsatisfactory response of some of the generating stations during the event. As per FRC/FRP computation details received from SLDCs, it was highlighted that FRP of most of the generating stations in state control area is unsatisfactory. Necessary remedial actions need to be taken to improve the FRP of generating stations.

***Decision of OCC forum:***

*Members were requested to take necessary remedial actions to improve the governor response. PFR testing (governor tuning) may also be conducted if required. The IEGC clause 40.2(c) also mandates governor testing once every five (5) years or whenever major retrofitting is done.*

**B.14 Mock trial run and testing of black start facilities at generating stations in Northern Region (Agenda by NRLDC)**

- B.14.1. As per IEGC, the user shall carry out a mock trial run of the procedure for different sub-systems including black-start of generating units along with grid forming capability of inverter based generating station and VSC based HVDC black-start support at least once a year under intimation to the concerned SLDC and RLDC. Status of Black start is available in Annexure-B.VIII of agenda.
- B.14.2. NRLDC representative presented the status of mock black start exercises in NR and requested ISGS and SLDCs to take the following actions:
- *Share the report of testing of DG sets.*
  - *The plants that have not conducted the mock black start exercise were requested to conduct the mock black start exercise on priority.*
  - *Share the tentative schedule of the mock black start exercise of generating stations in their respective control area and complete by Mar'26.*
  - *SLDCs were requested to share the tentative schedule plan of the mock black start exercise of generating stations in their respective control area.*

- *Conduct dead bus charging after self-starting the generating station if a schedule with the load is not available.*
- *Certain generating stations have successfully carried out black start operations under actual real-time system conditions. Plants were requested to share such events with NRLDC along with detail report.*

***Decision of OCC forum:***

*OCC forum requested all the concerned generating stations and States to conduct the mock black start exercise of black start facilities in your respective control area. Members were also requested to share the report of mock black start exercises after conducting and testing of DG sets on quarterly basis.*

S.N.	Agenda	Decision of 240 <sup>th</sup> OCC meeting of NRPC	Status of action taken
1.	A.26. Operational Challenges at Kutehr HEP Arising from Uncoordinated Water Releases by Bajoli-Holi HEP (Agenda by JSW Hydro Energy)	OCC Forum requested HPSLDC to convene a meeting of the committee and finalise SOP within fifteen (15) days. Further, forum requested HP SLDC to also invite HP-PWD in the meeting for deliberations on silt-related issues.	HPSLDC representative informed a meeting of the committee was held wherein concerned generators were asked to submit inputs for SOP. Inputs are awaited. MS, NRPC requested HPSLDC to expedite the process and submit the finalized SOP to NRPC within one week.

**Follow up issues from previous OCC meetings**

Annexure-A. II

1	Down Stream network by State utilities from ISTS Station	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.	List of downstream networks is enclosed in <b>Annexure-A. II. I</b> .																																								
2	Progress of installing new capacitors and repair of defective capacitors	Information regarding installation of new capacitors and repair of defective capacitors is to be submitted to NRPC Secretariat.	<p>Data upto following months, received from various states / UTs:</p> <table border="1" data-bbox="889 764 1438 1020"> <tr><td>⊙ CHANDIGARH</td><td>Sep-2019</td></tr> <tr><td>⊙ DELHI</td><td>Feb-2026</td></tr> <tr><td>⊙ HARYANA</td><td>Nov-2025</td></tr> <tr><td>⊙ HP</td><td>Oct-2025</td></tr> <tr><td>⊙ J&amp;K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Dec-2025</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Dec-2025</td></tr> <tr><td>⊙ UP</td><td>Jan-2026</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Jan-2026</td></tr> </table> <p>All States/UTs are requested to update status on monthly basis.</p>	⊙ CHANDIGARH	Sep-2019	⊙ DELHI	Feb-2026	⊙ HARYANA	Nov-2025	⊙ HP	Oct-2025	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Dec-2025	⊙ RAJASTHAN	Dec-2025	⊙ UP	Jan-2026	⊙ UTTARAKHAND	Jan-2026																						
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3	Healthiness of defence mechanism: Self-certification	<p>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”.</p> <p>In compliance of NPC decision, NR states/constituents agreed to raise the AUFR settings by 0.2 Hz in 47th TCC/49th NRPC meetings.</p>	<p>Data upto following months, received from various states / UTs:</p> <table border="1" data-bbox="889 1163 1438 1478"> <tr><td>⊙ CHANDIGARH</td><td>Not Available</td></tr> <tr><td>⊙ DELHI</td><td>Dec-2025</td></tr> <tr><td>⊙ HARYANA</td><td>Dec-2025</td></tr> <tr><td>⊙ HP</td><td>Jan-2026</td></tr> <tr><td>⊙ J&amp;K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Dec-2025</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Dec-2025</td></tr> <tr><td>⊙ UP</td><td>Jan-2026</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Dec-2025</td></tr> <tr><td>⊙ BBMB</td><td>Dec-2025</td></tr> </table> <p>All States/UTs are requested to update status for healthiness of UFRs on monthly basis for islanding schemes and on quarterly basis for the rest.</p> <p>Status:</p> <table border="1" data-bbox="889 1633 1438 1929"> <tr><td>⊙ CHANDIGARH</td><td>Not Available</td></tr> <tr><td>⊙ DELHI</td><td>Increased</td></tr> <tr><td>⊙ HARYANA</td><td>Increased</td></tr> <tr><td>⊙ HP</td><td>Increased</td></tr> <tr><td>⊙ J&amp;K and LADAKH</td><td>Increased</td></tr> <tr><td>⊙ PUNJAB</td><td>Increased</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Increased</td></tr> <tr><td>⊙ UP</td><td>Increased</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Increased</td></tr> <tr><td>⊙ BBMB</td><td>Increased</td></tr> </table>	⊙ CHANDIGARH	Not Available	⊙ DELHI	Dec-2025	⊙ HARYANA	Dec-2025	⊙ HP	Jan-2026	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Dec-2025	⊙ RAJASTHAN	Dec-2025	⊙ UP	Jan-2026	⊙ UTTARAKHAND	Dec-2025	⊙ BBMB	Dec-2025	⊙ CHANDIGARH	Not Available	⊙ DELHI	Increased	⊙ HARYANA	Increased	⊙ HP	Increased	⊙ J&K and LADAKH	Increased	⊙ PUNJAB	Increased	⊙ RAJASTHAN	Increased	⊙ UP	Increased	⊙ UTTARAKHAND	Increased	⊙ BBMB	Increased
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tripping report

4	Status of Automatic Demand Management System in NR states/UT's	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:	<p>The status of ADMS implementation in NR is enclosed in <b>Annexure-A.II.II.</b></p> <table border="1"> <tr> <td>⊙ DELHI</td> <td>Scheme Implemented but operated in manual mode.</td> </tr> <tr> <td>⊙ HARYANA</td> <td>Scheme not implemented</td> </tr> <tr> <td>⊙ HP</td> <td>Scheme not implemented</td> </tr> <tr> <td>⊙ PUNJAB</td> <td>Scheme not implemented</td> </tr> <tr> <td>⊙ RAJASTHAN</td> <td>Under implementation.</td> </tr> <tr> <td>⊙ UP</td> <td>Scheme implemented by NPCIL only</td> </tr> <tr> <td>⊙ UTTARAKHAND</td> <td>Scheme not implemented</td> </tr> </table>	⊙ DELHI	Scheme Implemented but operated in manual mode.	⊙ HARYANA	Scheme not implemented	⊙ HP	Scheme not implemented	⊙ PUNJAB	Scheme not implemented	⊙ RAJASTHAN	Under implementation.	⊙ UP	Scheme implemented by NPCIL only	⊙ UTTARAKHAND	Scheme not implemented																				
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5	Status of availability of ERS towers in NR	As per the decision 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.	As per the information received from different utilities in Northern region, updated status of availability of ERS towers in Northern Region attached as <b>Annexure-A.II.III.</b>																																		
6	Submission of breakup of Energy Consumption by the states	<p>All states/UTs are requested to submit the requisite data as per the billed data information in the format given as under:</p> <table border="1"> <thead> <tr> <th>Category→</th> <th>Consumption by Domestic Loads</th> <th>Consumption by Commercial Loads</th> <th>Consumption by Agricultural Loads</th> <th>Consumption by Industrial Loads</th> <th>Traction supply load</th> <th>Miscellaneous / Others</th> </tr> </thead> <tbody> <tr> <td>&lt;Month&gt;</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Category→	Consumption by Domestic Loads	Consumption by Commercial Loads	Consumption by Agricultural Loads	Consumption by Industrial Loads	Traction supply load	Miscellaneous / Others	<Month>							<p>Status of the information submission (month) from states / utilities is as under:</p> <table border="1"> <thead> <tr> <th>State / UT</th> <th>Upto</th> </tr> </thead> <tbody> <tr> <td>⊙ CHANDIGARH</td> <td>Not Submitted</td> </tr> <tr> <td>⊙ DELHI</td> <td>Oct-25</td> </tr> <tr> <td>⊙ HARYANA</td> <td>Jan-26</td> </tr> <tr> <td>⊙ HP</td> <td>Jan-26</td> </tr> <tr> <td>⊙ J&amp;K and LADAKH</td> <td>JPDCI- Mar' 24 KPDCL- Not Submitted</td> </tr> <tr> <td>⊙ PUNJAB</td> <td>Jan-26</td> </tr> <tr> <td>⊙ RAJASTHAN</td> <td>Aug-25</td> </tr> <tr> <td>⊙ UP</td> <td>Jan-26</td> </tr> <tr> <td>⊙ UTTARAKHAND</td> <td>Oct-25</td> </tr> </tbody> </table> <p>Chandigarh is requested to submit the requisite data w.e.f. April 2018 as per the billed data information in the given format</p>	State / UT	Upto	⊙ CHANDIGARH	Not Submitted	⊙ DELHI	Oct-25	⊙ HARYANA	Jan-26	⊙ HP	Jan-26	⊙ J&K and LADAKH	JPDCI- Mar' 24 KPDCL- Not Submitted	⊙ PUNJAB	Jan-26	⊙ RAJASTHAN	Aug-25	⊙ UP	Jan-26	⊙ UTTARAKHAND	Oct-25
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9	Reactive compensation at 220 kV/ 400 kV level at 5 substations			
	State / Utility	Substation	Reactor	Status
i	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.
ii	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.
iii	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.
iv	DTL	Electric Lane	1x50 MVAR at 220 kV	Under Re-tendering due to Single Bid
v	PTCUL	Kashipur	1x125 MVAR at 400 kV	The Letter of Award for "Procurement of 125 MVAR Reactor, Online DGA, ODS, NIFPS along with its accessories at 400 KV Sub-station Kashipur" against Tender Specification no. PTCUL/E-Tender/C&P-II/SS-12/2024-25 has been issued to M/s Bharat Heavy Electricals Limited, New Delhi on 26.06.2025.

## 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.	-	02 No. of bays shall be utilized for LILO-II of 220kV Jatwal-Bishnah Transmission Line, the work of which is expected to begin on 16th July 2025. Updated in 233rd 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-wanpoh-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	Commissioned	Updated by HVPNL in 235th OCC.
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 Shahjahanpur (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.Commissioned 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.	Jan'26	Line work already completed. Signing of Connectivity agreement with CTU is under process. Likely to be commissioned by end of January-2026 as intimated in 239th OCC by HVPNL.
				• 220 kV Bhiwani (PG) - Dadhibana (HVPNL) D/c line.	Mar'26	Line work awarded to M/s R S Infra Projects Pvt. Ltd. Noida, Uttar Pradesh on dated 09.03.2024. Work of route plan and route alignment has been started by the firm as intimated in 234th 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	Mar'26	220kV Jind PG - Jind D/C line commissioned. Further, 220kV Jind PG - Nain (HVPNL) D/C will be commissioned after completion of new 220kV Substation Nain (HVPNL) which is under construction. And likely to be commissioned by 15.03.2026.
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 <b>Status:-</b> 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	Mar'26	Line work completed, Substation is under construction. However, this arrangement will not lead to usage of additional bays i.e. no of utilised 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. <b>Status:-</b> 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 Approved: 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	Mar'26	Contract awarded on 08.08.23 to M/s Skipper with completion in December 25. Likely date of commissioning of the project has been revised as 31.03.2026 due to slow progress of the work by the firm. Updated in 238th 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	Mar'26	Issue related to ROW. Likely date of commissioning of the project has been revised as 31.03.2026 due to slow progress of the work by the firm.
				• Prithla - Sector 89 Faridabad 220kV D/c line	Mar'26	Stringing is in progress at TL No.25 to 35 of Prithla - Sector 78 section as updated in 238th OCC by HVPNL
16	400/220kV Sonapat 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 Sonapat	Commissioned	Commissioned as updated by HVPNL in 233rd OCC
				• Sonapat - HSIISC Rai 220kV D/c line	Commissioned	Energization date: 31.05.2024 updated by HVPNL in 220th OCC
				• Sonapat - Kharkhoda Pocket A 220kV D/c line	Commissioned	Commissioned on dated 02.12.2025
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 Jalandhar 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 is under consideration with upcoming CMETS-NR as updated by PSTCL in 238th 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.
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	Jan'26	Revised target date as confirmed by concerned XEN TS, Panchkula.Updated in 234th OCC by HVPNL

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
26	400/220kV Amritsar S/s	Commissioned:7	Utilized: 6 Under Implementation:2	• Amritsar – Patti 220kV S/c line	31.01.2026	Commissioning of 220kv S/C Amritsar -Patti S/c and 220kV Amritsar – Rashiana S/c may be done by 31.01.2026. Updated in 238th OCC by PSTCL.
		Approved in 50th NRPC- 1 no. Total: 8		• 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)	31.01.2026	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 238th 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 Bahadurgarh 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. <b>Status:</b> The work stands awarded to the M/s KRR and the execution work has been started at site. Partial route stands approved by the competent authority of the HVPNL. Further, 06 no. Foundation has been casted.
				• Bahadurgarh - Kharkhoda Pocket B 220kV D/c line	30.06.2026	Updated in 234th OCC by HVPNL. <b>Status:</b> 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	-	<b>Status:-</b> 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 agreement 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 Transmission 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.
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. Construction of boundary wall has started at 220 kv ss bhadson.yard work could not be started as approval for dismantling existing 517 no tress is pending at district level committee which is competent for giving approval of dismantling of trees. Chairman of committee is DC pataiala.. as updated by PSTCL in 233th OCC meeting

## Status of ADMS implementation in NR:

Sl. No.	State / UT	Status	Remarks
1	DELHI	Scheme Implemented but operated in manual mode.	In 236th OCC meeting, Delhi SLDC representative stated that as informed by BRPL and BYPL, SCADA upgradation work of would be completed by Mar'26. Further, SCADA upgradation work of TPDDL would be completed by Dec'26.
2	HARYANA	Scheme not implemented	Haryana SLDC intimated that ADMS software has already been taken under project work of upgradation of SCADA-EMS in Haryana. As per already decided methodology, the current status of ADMS Project is as under: - i. Part-1 i.e. Control with HVPNL Any hindrances/delay in execution of PART-I which is covered under upgradation of SCADA-EMS system (ULDC Phase-III of Northern Region) being delivered by M/s GE Vernova, completion timelines etc. ii. PART-II: Control with Distribution Utility Communication with DISCOMs, identification of feeders, status of retrofitting of 33kV & 11kV substations of DISCOMs to handle the automation, hiring of consultant on the pattern of Rajasthan etc. In this regard, the matter has already been taken up with Discoms to provide the lists of 11kV & 33kV feeders to prepare the DPR of the same.
3	HP	Scheme not implemented	In 237th OCC meeting, HPSLDC representative informed that vide letter dated 25.10.2025 they have requested HPSEBL to expedite the feeder list. However, reply of HPSEBL is awaited. Further, they have also requested MD, HPSEBL for a suitable date for a meeting in this regard.
4	PUNJAB	Scheme not implemented	In 238th OCC meeting, Punjab SLDC representative informed that testing of SCADA upgradation under ULDC phase III is underway. All the material may be commissioned by March-26 and implementation of logic of ADMS may be executed by Sept-26. Punjab has submitted list of feeders vide mail dated 16.01.2026
5	RAJASTHAN	Under implementation	RVPN has pilot tested the logic of ADMS which is to be implemented for Rajasthan. In 232th OCC meeting, RVPN informed that 351 nos. of circuit breakers have been mapped to ADMS, all 351 circuit breakers tested upto yard individually. Total 650CBs are to be mapped in phased manner. In 241st OCC Meeting, RVPN representative informed that 400 no. of feeders have been identified and the logic needs to be reviewed before ADMS implementation.
6	UP	Scheme implemented by NPCIL only	In 236th OCC meeting, UP SLDC representative stated that 300 No. of 132 KV Substations have been integrated with SCADA. SCADA upgradation under ULDC phase III is likely to be completed in the next 3 to 4 months. List of 33kV feeders to be mapped under ADMS is required from the Discoms. In the meeting held in Aug'25, UPSLDC had requested Discoms to provide the feeders list. Reminders were also sent to Discoms. However, 33 kV feeder list is still pending from the Discoms.  MS, NRPC asked UPSLDC to have meeting with Discoms in its control areas and finalize of feeder list before next OCC meeting. In the 241st OCC Meeting, UPSLDC representative informed that 466 feeders have been identified and that the same would be updated to the NRPC after receiving consent from the DISCOMs and parallel testing of feeders at SLDC level is being carried out.
7	UTTARAKHAND	Scheme not implemented	i. UPCL has prepared a system architecture in which all the non-monitored sub-stations 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.

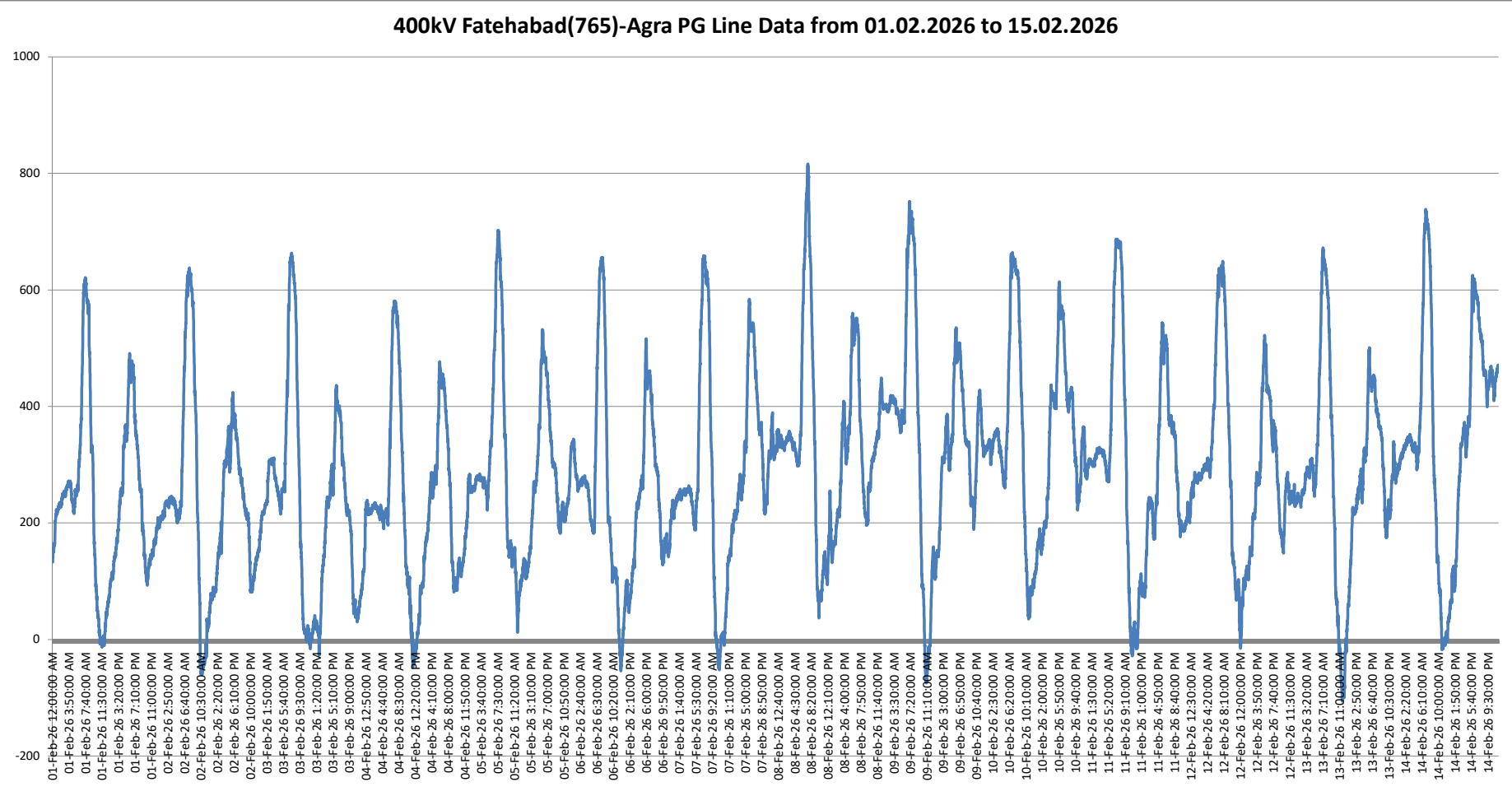
## Status of availability of ERS towers in NR

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	Delhi (DTL)	220kV	915.498	NIL	1	400kV Bamnauli Sub station	2 ERS tower available.
		400kV	249.19	02 Sets (32 towers)	1		
2	Himachal Pradesh (HPPTCL)	220 kV	659	NIL	1		
		400 kV	75.7	NIL	1		
3	Haryana (HVPNL)						ERS towers (6 nos tension and 6 nos suspension type 400kv level) in Haryana have been procured and already dispatched to 220kv Substation karnal and DD store Hisar.
4	Punjab (PSTCL)	400 kV	1666.43	2	3		
		220 kV	7921.991				
5	Rajasthan (RVPN)	132 kV	20706.876	1	4	01 No. ERS available at 220 kV GSS Heerapura, Jaipur	1 ERS set is available and work order has been placed for 3 more Sets.
		220 kV	16429.022		3		
		400 kV	8416.434		2		
		765 kV	425.498		1		
6	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				
7	Uttarakand (PTCUL)	400kV	418.394	NIL	1		Tender has been scraped due to single bidder.
		220kV	1045.135	NIL	1		
8	JKPTCL	132 kV	1040.63	8		Z Mohr, Kanispora Pathla T141 D/C, Kalanpora Delina Railway station T 3 & T4, Bagh-i Wahpoh	1 No. LILO USHP-I Kangan Line, 2 No. In Sheeri LJHP Line, 2 No. Delina Baramulla Railway Line, 1 No. Bagh-i Wanpoh (KPTL) and 2 No. Lying at the stores
		220 kV	419.34				
9	Powergrid NR-1	220 KV	1842.88	NIL	1		
		400 KV	11074.26	12 Towers	3	All 400kV ERS at Ballabgarh	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		

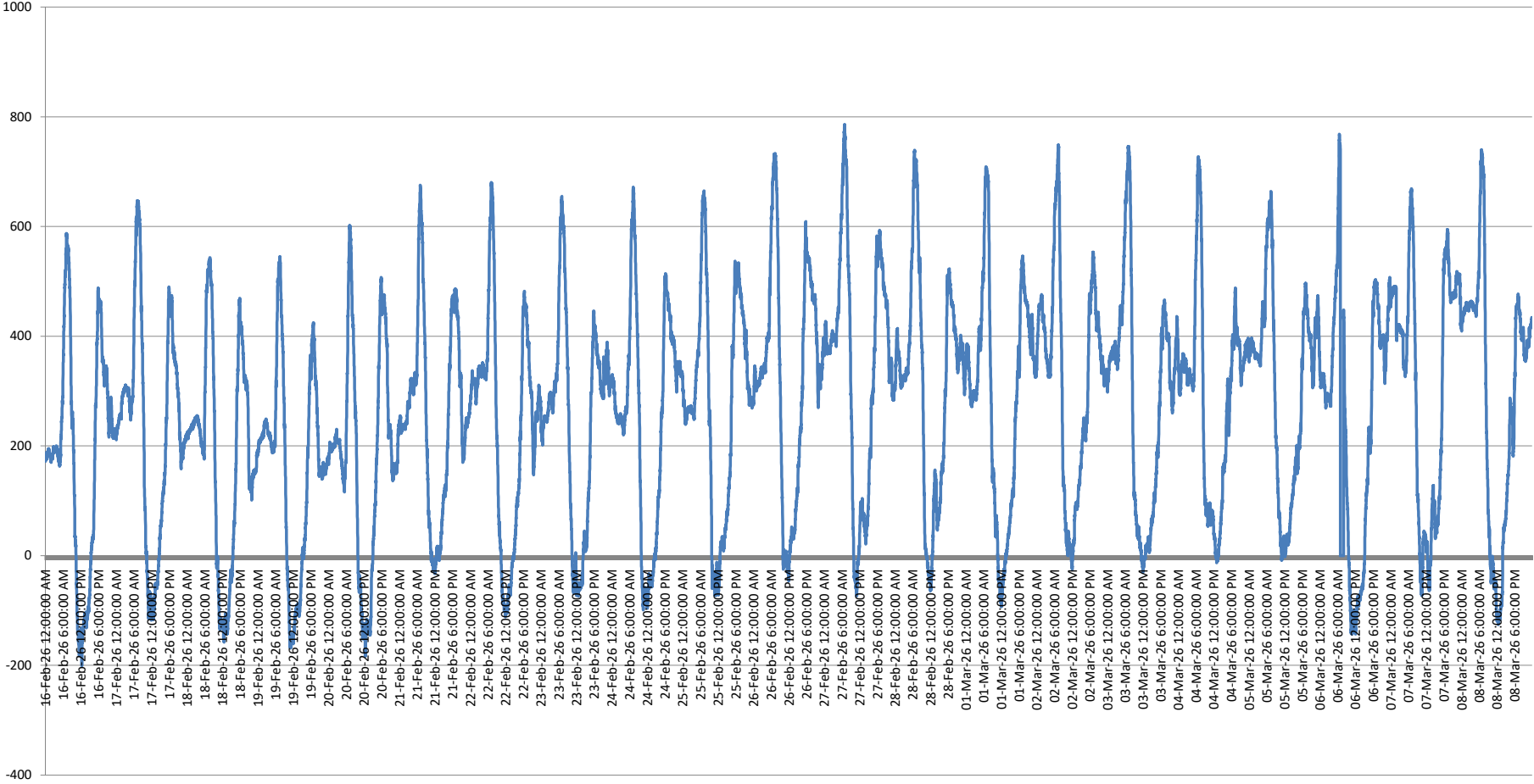
Sl. No.	Transmission Utility	Voltage Level (220kV/400kV/765kV/ 500 kV HVDC etc.)	Length of the transmission lines owned by the Utility (Ckt. Kms.)	Number of ERS Sets (towers) available (Nos.)	ERS Set ( towers) required as per the Govt. norms.	Location	Remarks
10	Powergrid NR-2	66 KV	37.56	Nil	1		ERS 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	
11	Powergrid NR-3	765 KV	337.5	Nil	1		400KV ERS will be also be used in other voltage level lines
		800KV HVDC	2205	NIL	1		
		500KV HVDC	2566	NIL	1		
		765KV	4396	NIL	1		
		400KV	12254	26 Towers	3	Kanpur	
		220KV	1541	NIL	1		
12	PARBATI KOLDAM TRANSMISSION COMPANY LIMITED	400kV	457	NIL	1		Procurement under process.
13	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.
14	NRSS-XXIX TRANSMISSION LTD	400kV	853	NIL	1		
15	GURGAON PALWAL TRANSMISSION LTD	400kV	272	NIL	1		
16	RAPP Transmission Company Limited.	400kV	402	NIL	1		
17	NRSS XXXVI Transmission Limited	400kV	301.924/225.004	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.
18	POWERLINKS TRANSMISSIONLIMITED (PTL)	400 kV	1485				
19	POWERGRID HIMACHAL TRANSMISSION LTD	400 kV	454				
20	Powergrid Ajmer Phagi Transmission Limited	765 KV	269				
21	Powergrid Fatehgarh Transmission Limited	765 KV	372				
22	POWERGRID KALA AMB TRANSMISSION LTD	400 kV	2.38				
23	Powergrid Unchahar Transmission Ltd	400 kV	106.744				
24	Powergrid Khetri Transmission Limited	765 KV	292				
		400 kV	156.16				
25	POWERGRID VARANASI TRANSMISSION SYSTEM LTD	765 KV	379				
26	POWERGRID ALIGARH SIKAR TRANSMISSION LIMITED	765 KV	514				
27	ADANI TRANSMISSION INDIA LIMITED	400 kV	110				
28	Bikaner Khetri Transmission Limited (Adani)	765 KV	482	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.
29	Fatehgarh Bhadla Trasmission Limited (Adani)	765 kV HVAC 400 kV HVAC	282 10				
30	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.
31	AD Hydro Power Limited (Renew)	400 kV	360				
32	ARAVALI POWER COMPANY PVT LTD	400 kV	132				
33	POWEGRID BHADLA TRANSMISSION LIMITED	765 KV	405				
34	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED	400 kV	1353				
35	POWERGRID RAMGARH TRANSMISSION LIMITED	400 kV	188				
36	POWERGRID SIKAR TRANSMISSION LIMITED	765 KV	619				
		400 kV	267				

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
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\*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)



400kV Fatehabad(765)-Agra PG Line Data from 16.02.2026 to 08.03.2026





# प्रचालन समन्वय उपसमिति की बैठक फरवरी - 2026

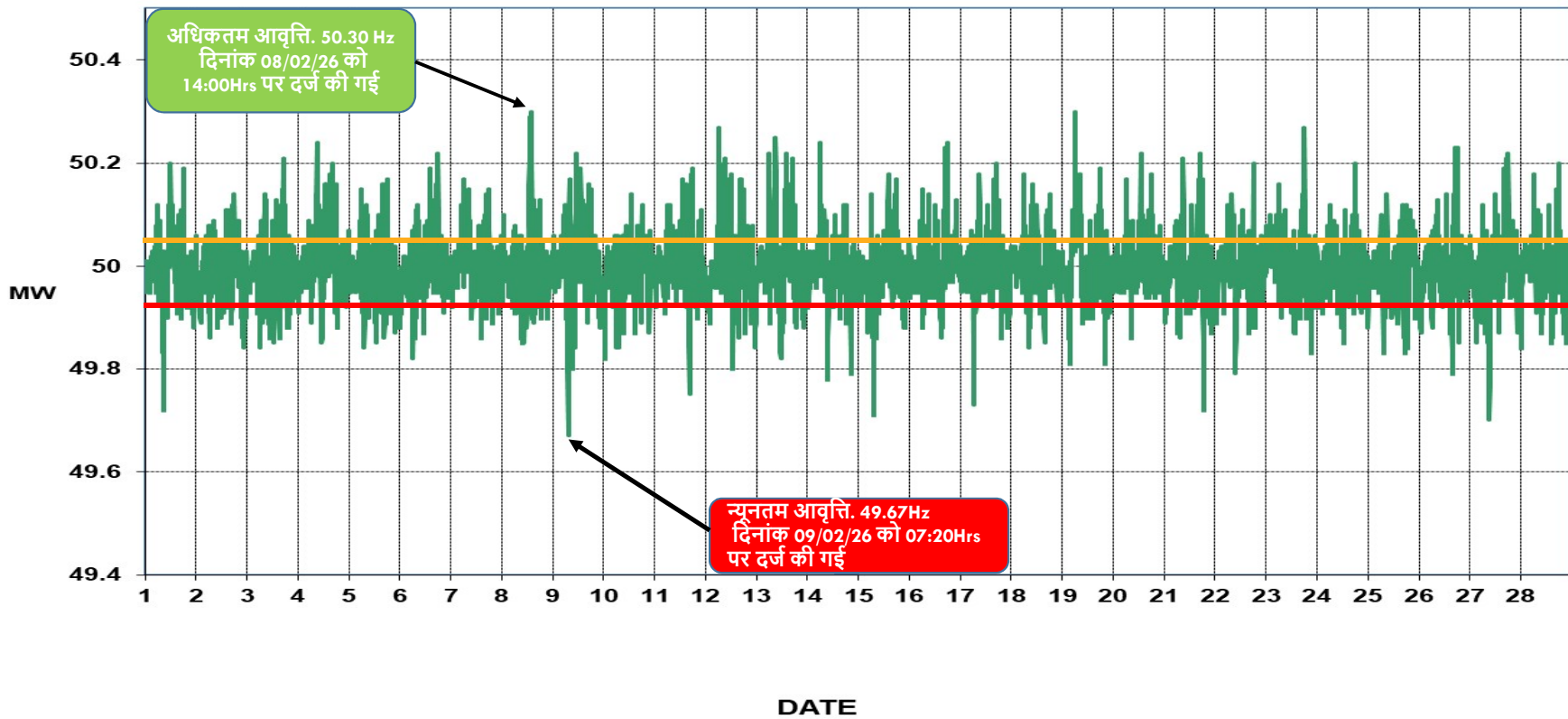
NRLDC (Northern Regional Load Dispatch Centre),  
New Delhi

# फरवरी-2026 के दौरान आवृत्ति की स्थिति (As per 5 Minute SCADA data)



क्षेत्रीय OD/UD : अधिकतम आवृत्ति पर : -954 MW(UD) न्यूनतम आवृत्ति पर : +280 MW(OD)

FREQ



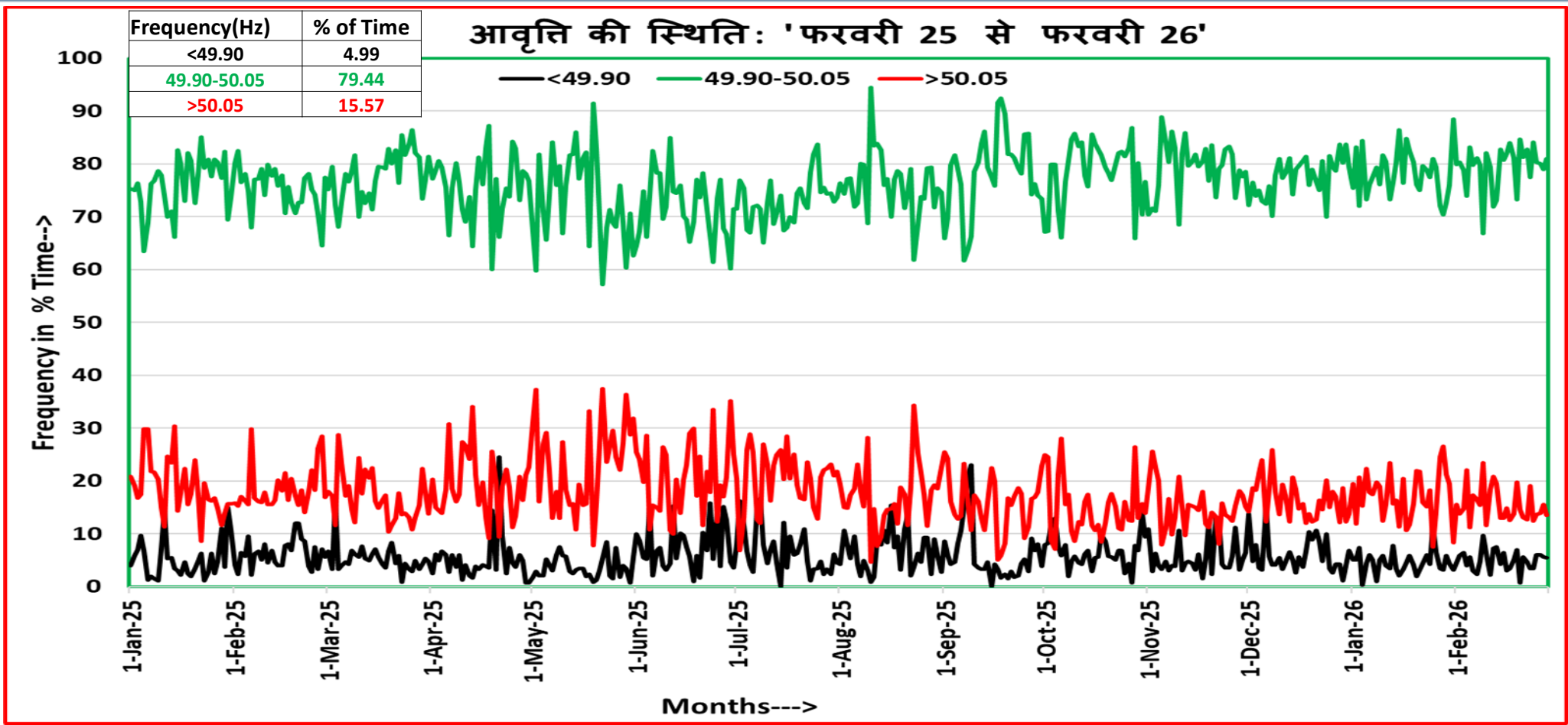
OD(+)/UD(-) at  
Max Freq

Har	+112
Chd	+0.3
Raj	-247
Utt	-152
Pun	-463
JK	-54
Del	-55
HP	-90
UP	-4

OD(+)/UD(-) at  
Min Freq

JK	+148
Pun	+435
Utt	+50
Chd	+12
Raj	+5
Har	-320
Del	-23
UP	-15
HP	-11

# आवृत्ति की स्थिति: फरवरी-2025 से 2026



# पिछले एक साल मे आवृत्ति की स्थिति

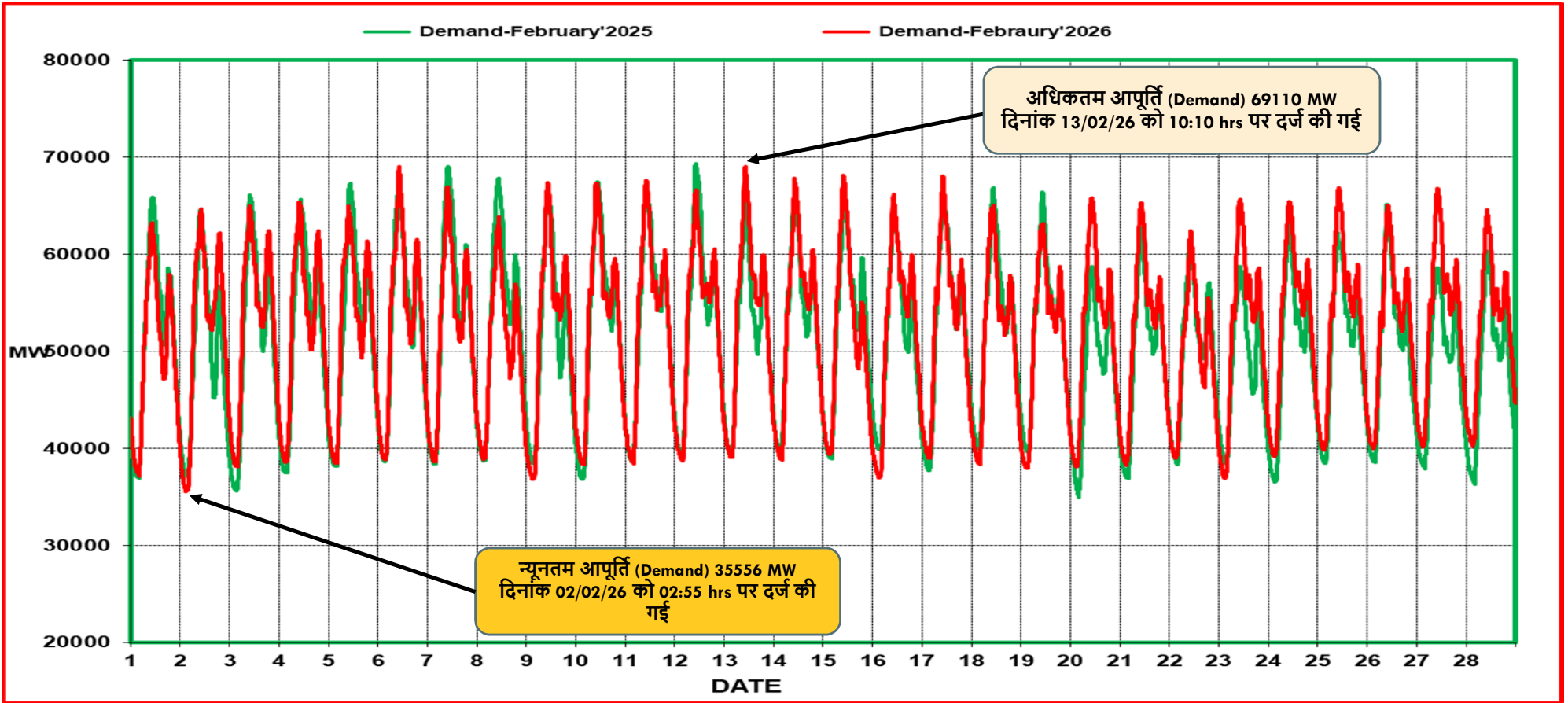
आवृत्ति बैंड	फरवरी 2025	मार्च 2025	अप्रैल 2025	मई 2025	जून 2025	जुलाई 2025	अगस्त 2025	सितम्बर 2025	अक्टूबर 2025	नवम्बर 2025	दिसंबर 2025	जनवरी 2026	फरवरी 2026
< 49.7 Hz(%)	0.12	0.05	0.27	0.07	0.15	0.32	0.20	0.42	0.16	0.19	0.26	0.09	0.04
<49.8 Hz(%)	0.73	0.61	0.96	0.29	0.86	1.39	0.80	0.93	0.75	0.75	0.97	0.55	0.30
<49.9 Hz(%)	6.24	5.32	5.16	3.60	7.56	6.65	6.63	6.02	6.60	5.66	6.00	4.58	4.99
49.90-50.05 Hz(%)	75.35	77.89	75.64	73.30	71.85	72.89	76.22	78.33	78.59	79.39	77.50	78.26	79.44
50.05-50.10 Hz(%)	14.23	13.12	14.80	15.35	14.11	16.38	13.19	12.76	11.36	11.46	12.78	13.15	10.33
>50.10 Hz(%)	4.18	3.67	4.39	7.76	6.48	4.08	3.96	2.89	3.46	3.49	3.73	4.01	5.24
>50.20 Hz(%)	0.55	0.63	1.09	2.87	1.73	0.64	0.83	0.28	0.62	0.60	0.48	0.54	0.60
औसत आवृत्ति	49.999	50.001	50.004	50.015	50.002	50.003	49.999	49.996	49.993	49.994	49.995	50.001	49.996

## फरवरी -2026 के दौरान अधिकतम मांग (Demand Met), अधिकतम ऊर्जा खपत (Energy consumption) और अब तक का कीर्तिमान (राज्यों द्वारा जमा आंकड़ों के अनुसार)

राज्य	अधिकतम मांग (MW) (in Feb'26)	दिनांक / समय	रिकॉर्ड अधिकतम मांग (in MW) (upto Jan'26)	दिनांक / समय	अधिकतम ऊर्जा खपत (MU) (in Feb'26)	दिनांक	रिकॉर्ड अधिकतम ऊर्जा खपत (MU) (Upto Jan'26)	दिनांक
पंजाब	10999	21-02-2026 11:30	16754	28.06.25 at 15:00	181.2	25-02-2026	366.8	21.07.2024
हरियाणा	9621	25-02-2026 10:00	14662	31.07.24 at 14:30	175.5	25-02-2026	293.4	30.07.2024
राजस्थान	18841	06-02-2026 09:00	19617	09-01-2026 09:45	344	06-02-2026	388.01	11.06.2025
दिल्ली	5452	03-02-2026 10:30	8656	19.06.24 at 15:06	89.2	03-02-2026	177.7	18.06.2024
उत्तर प्रदेश	20726	15-02-2026 09:00	31486	11.06.25 at 00:45	378	18-02-2026	658.7	17.06.2024
उत्तराखंड	2594	06-02-2026 08:00	2910	11.06.25 at 22:00	47.1	18-02-2026	62.1	14.06.2024
हिमाचल प्रदेश	2228	11-02-2026 08:00	2310	09-01-2026 09:15	42.9	04-02-2026	42.55	11.06.2025
जम्मू और कश्मीर (UT) तथा लद्दाख (UT)	3140	24-02-2026 19:00	3325	07-01-2026 11:00	63.7	02-02-2026	70.3	04.02.2025
चंडीगढ़	274	04-02-2026 10:00	482	18.06.24 at 15:28	4.4	03-02-2026	9.28	12.06.2025
उत्तरी क्षेत्र #	68098	06-02-2026 09:00	91234	19.06.24 at 14:37	1271.9	13-02-2026	2022.9	12.06.2025

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

# क्षेत्रीय विद्युत आपूर्ति (Demand) फरवरी 2025 बनाम फरवरी 2026 (As per 5 Minute SCADA data)

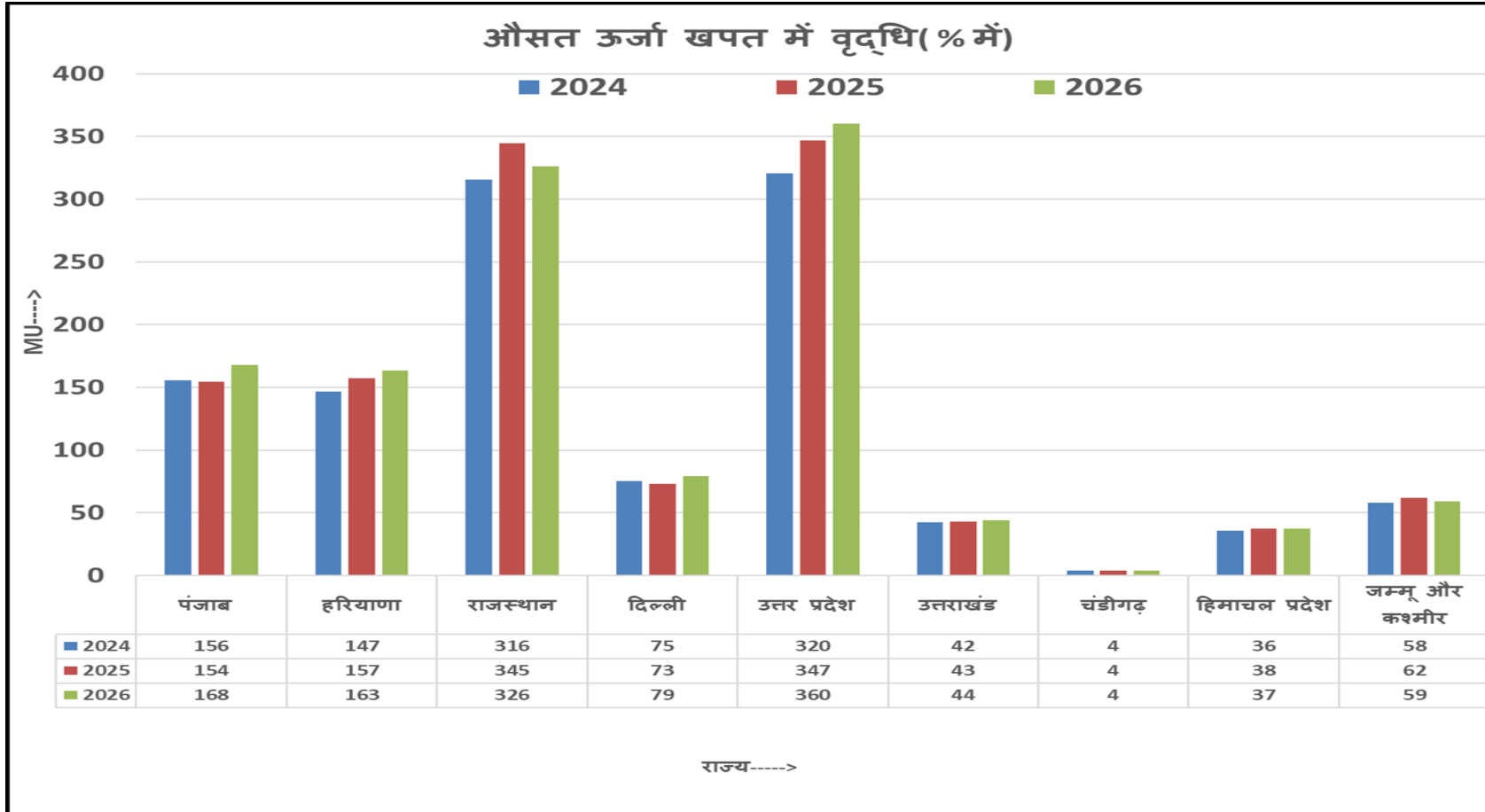


फरवरी -2025 की तुलना में फरवरी -2026 की औसत विद्युत आपूर्ति में 962 MW वृद्धि हुई

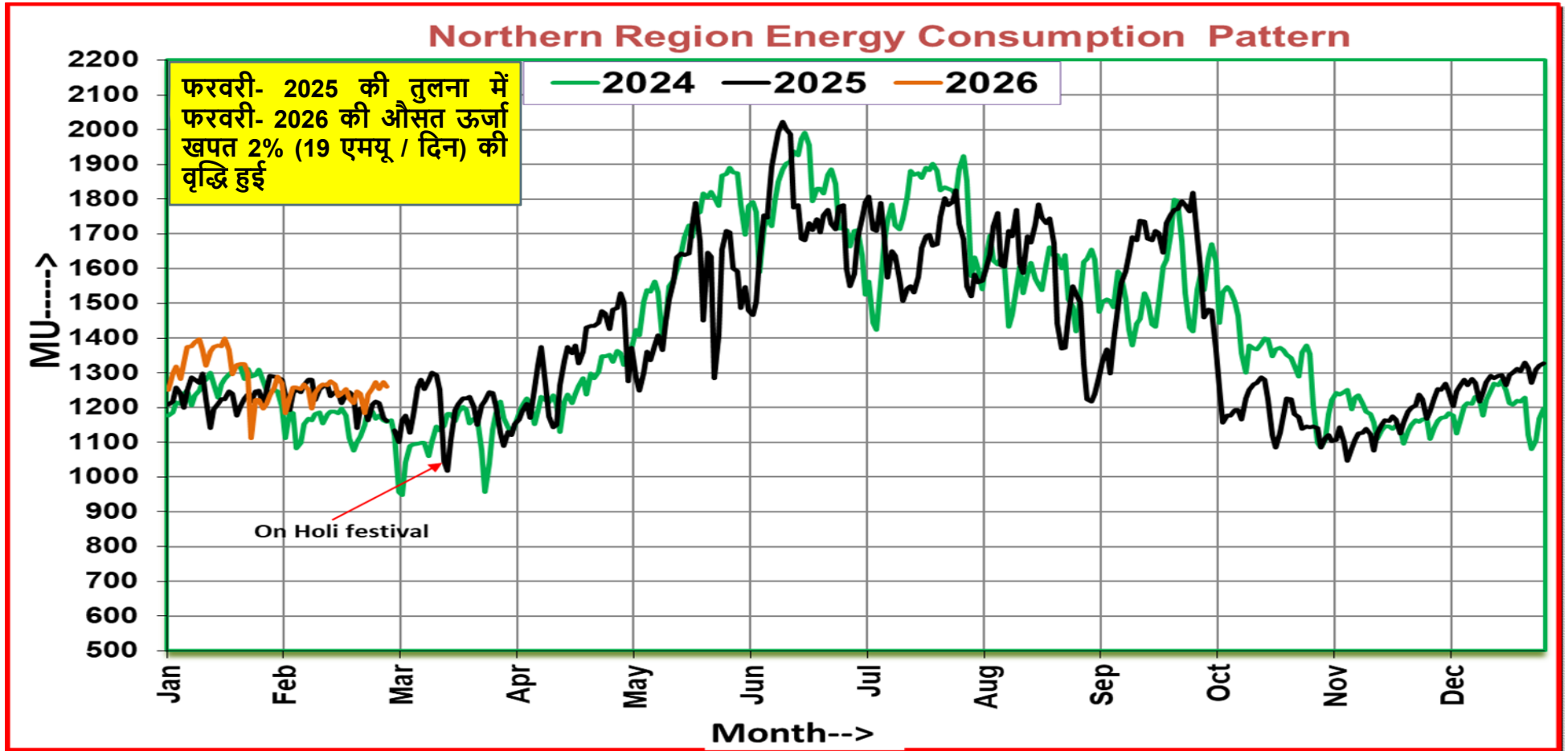
## उत्तरी क्षेत्र की औसत ऊर्जा खपत में वृद्धि( % में) फरवरी -2026/ फरवरी-2025 / फरवरी -2024

राज्य	फरवरी-2024	फरवरी-2025	फरवरी-2026	% वृद्धि (फरवरी-2025 vs फरवरी-2024)	% वृद्धि (फरवरी-2026 vs फरवरी-2025)
पंजाब	156	154	168	-0.9%	8.6%
हरियाणा	147	157	163	7.0%	4.1%
राजस्थान	316	345	326	9.1%	-5.3%
दिल्ली	75	73	79	-2.8%	8.8%
उत्तर प्रदेश	320	347	360	8.3%	3.8%
उत्तराखंड	42	43	44	0.6%	2.8%
चंडीगढ़	4	4	4	-3.7%	-1.3%
हिमाचल प्रदेश	36	38	37	5.6%	-0.4%
जम्मू और कश्मीर (UT) तथा लद्दाख (UT)	58	62	59	7.0%	-3.9%
<b>उत्तरी क्षेत्र</b>	<b>1157</b>	<b>1226</b>	<b>1245</b>	<b>5.9%</b>	<b>1.6%</b>

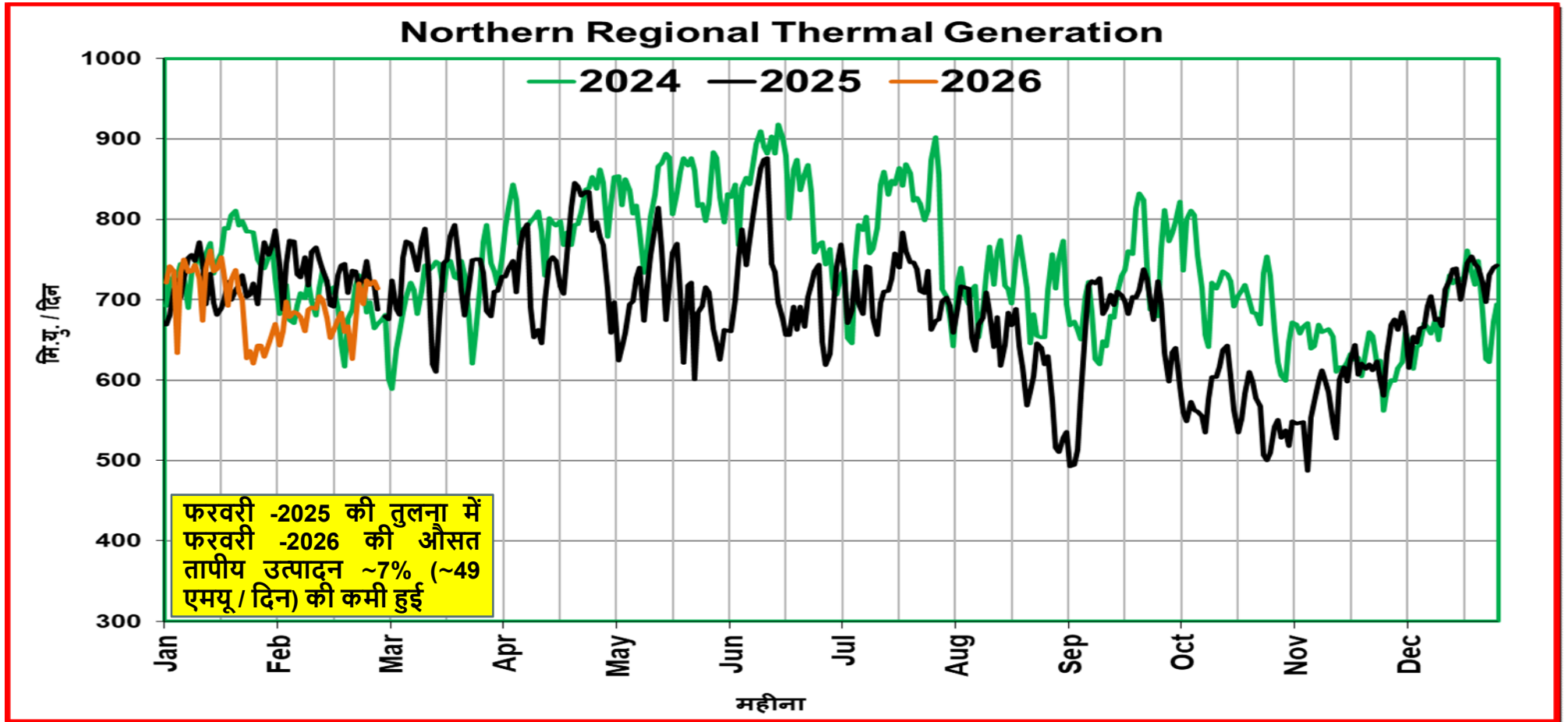
## उत्तरी क्षेत्र की औसत ऊर्जा खपत में वृद्धि( % में) फरवरी-2026/ फरवरी-2025 / फरवरी-2025



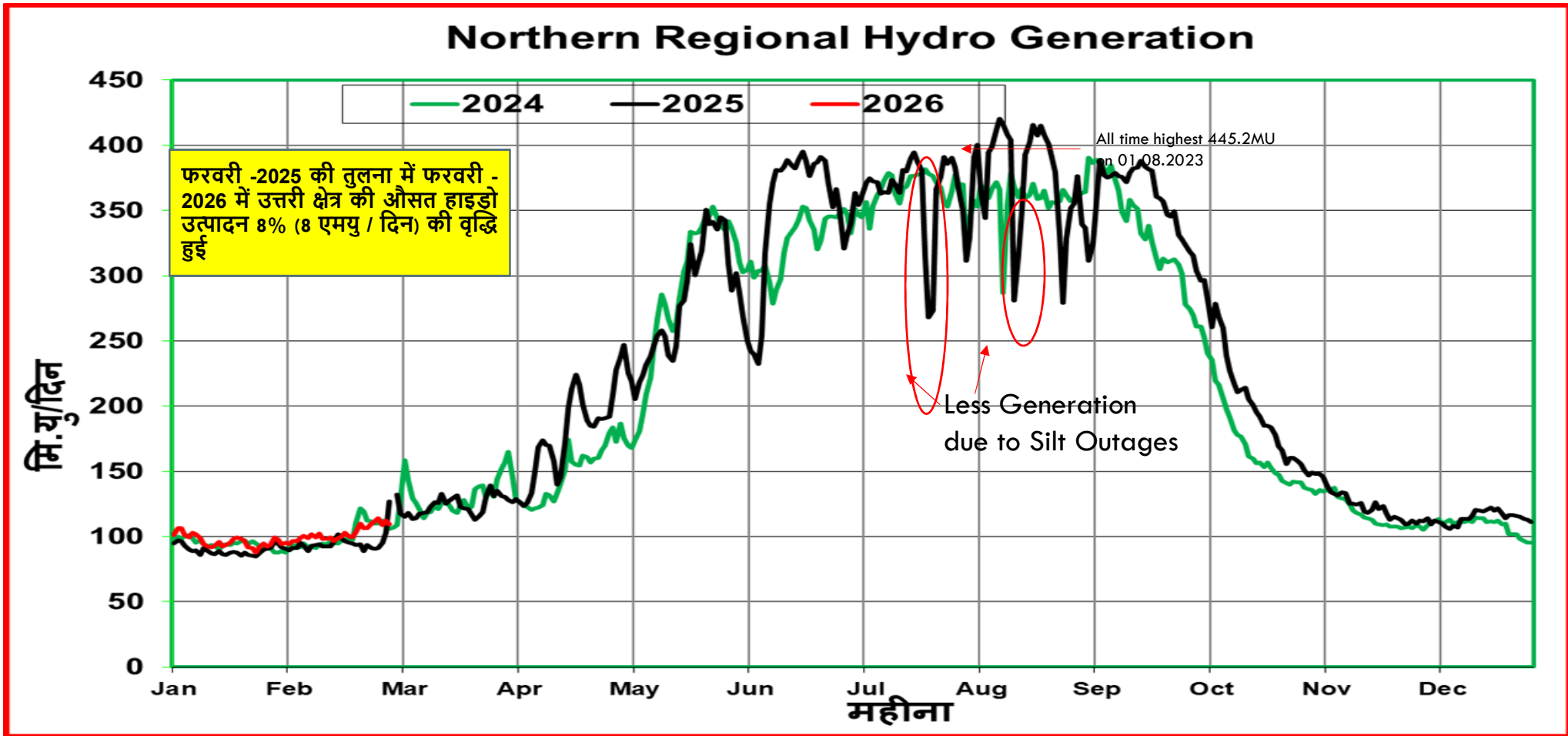
## उत्तरी क्षेत्र की ऊर्जा खपत(MUs)



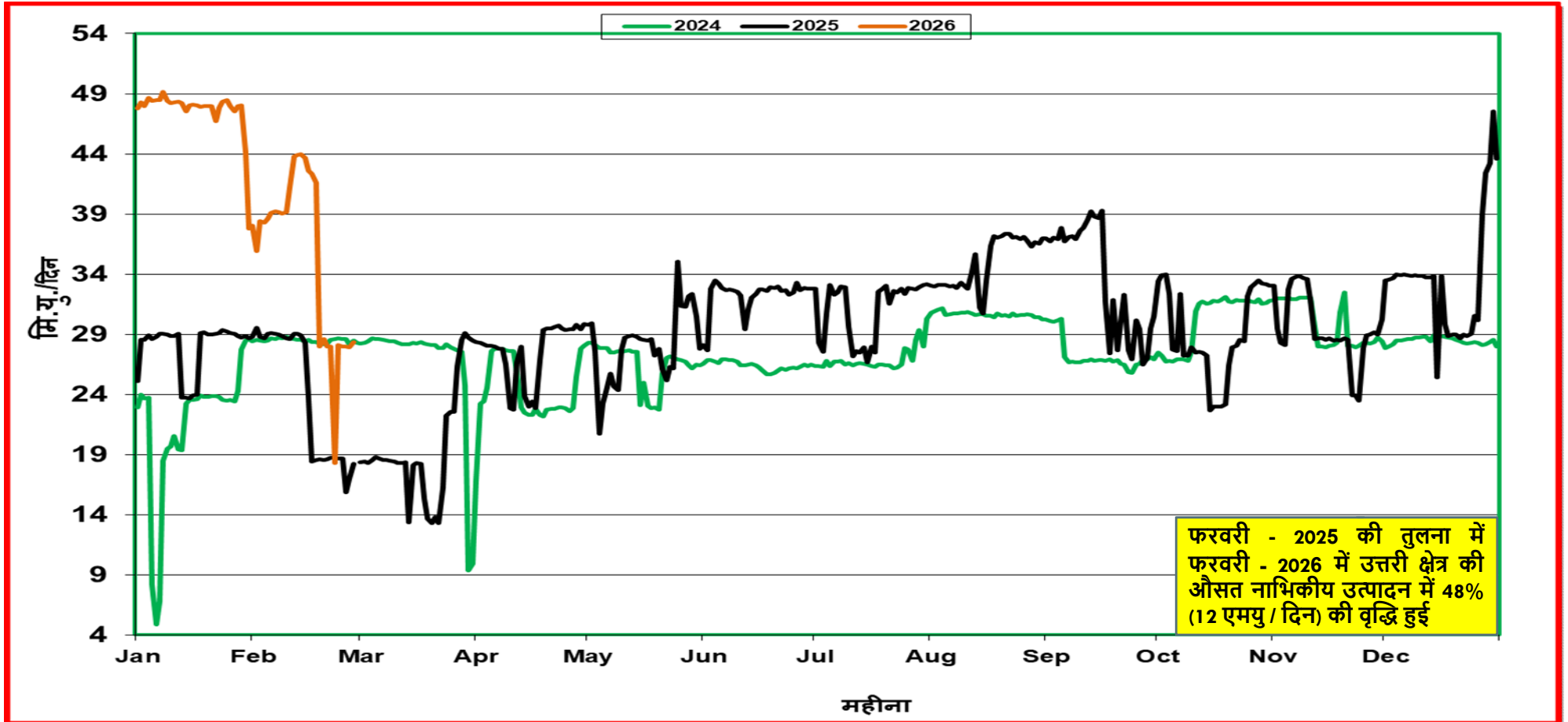
## उत्तरी क्षेत्र की तापीय (Thermal) उत्पादन की स्थिति (MUs/Day)



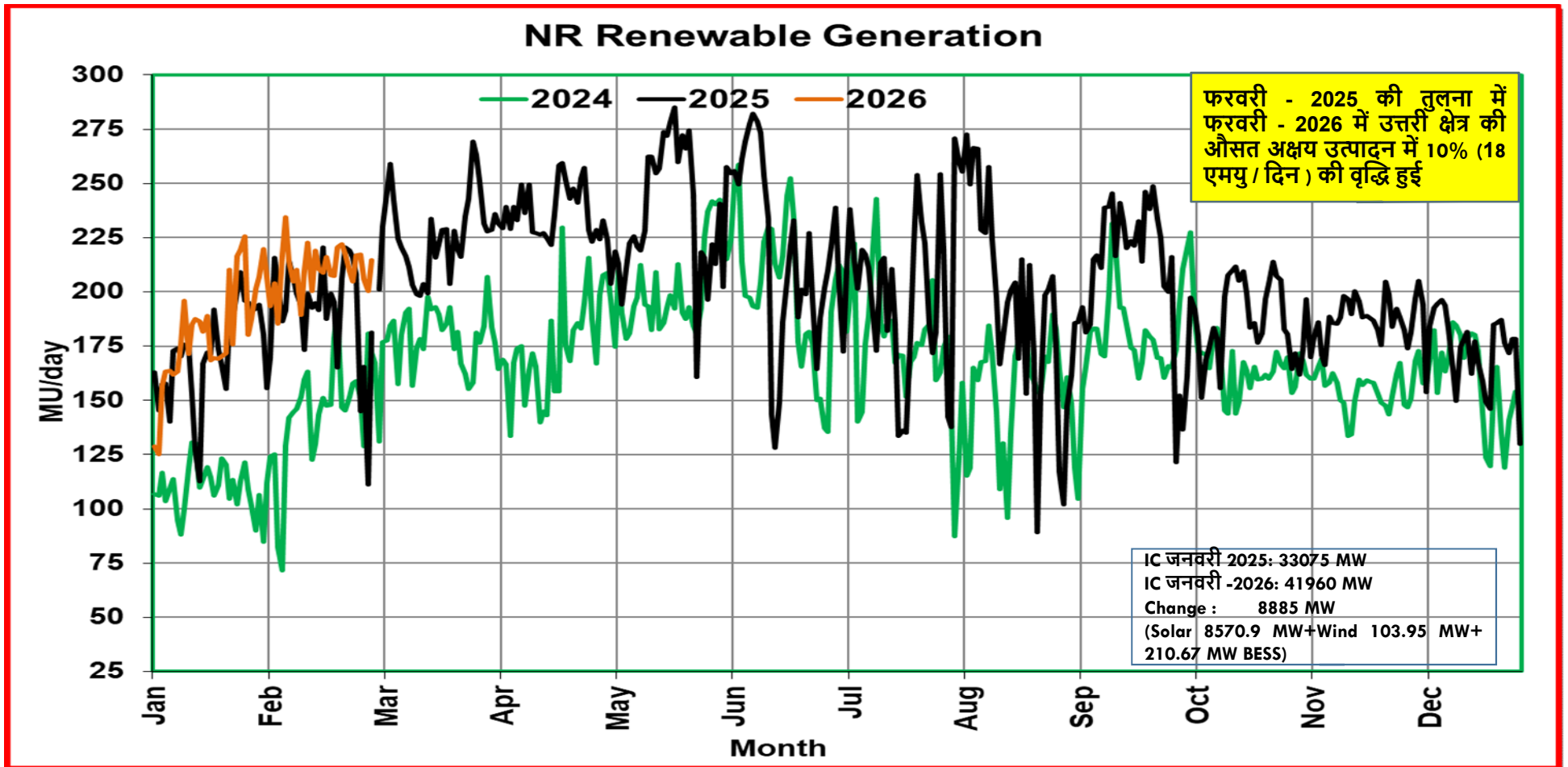
## उत्तरी क्षेत्र की जलीय (हाइड्रो) उत्पादन की स्थिति (MUs/Day)



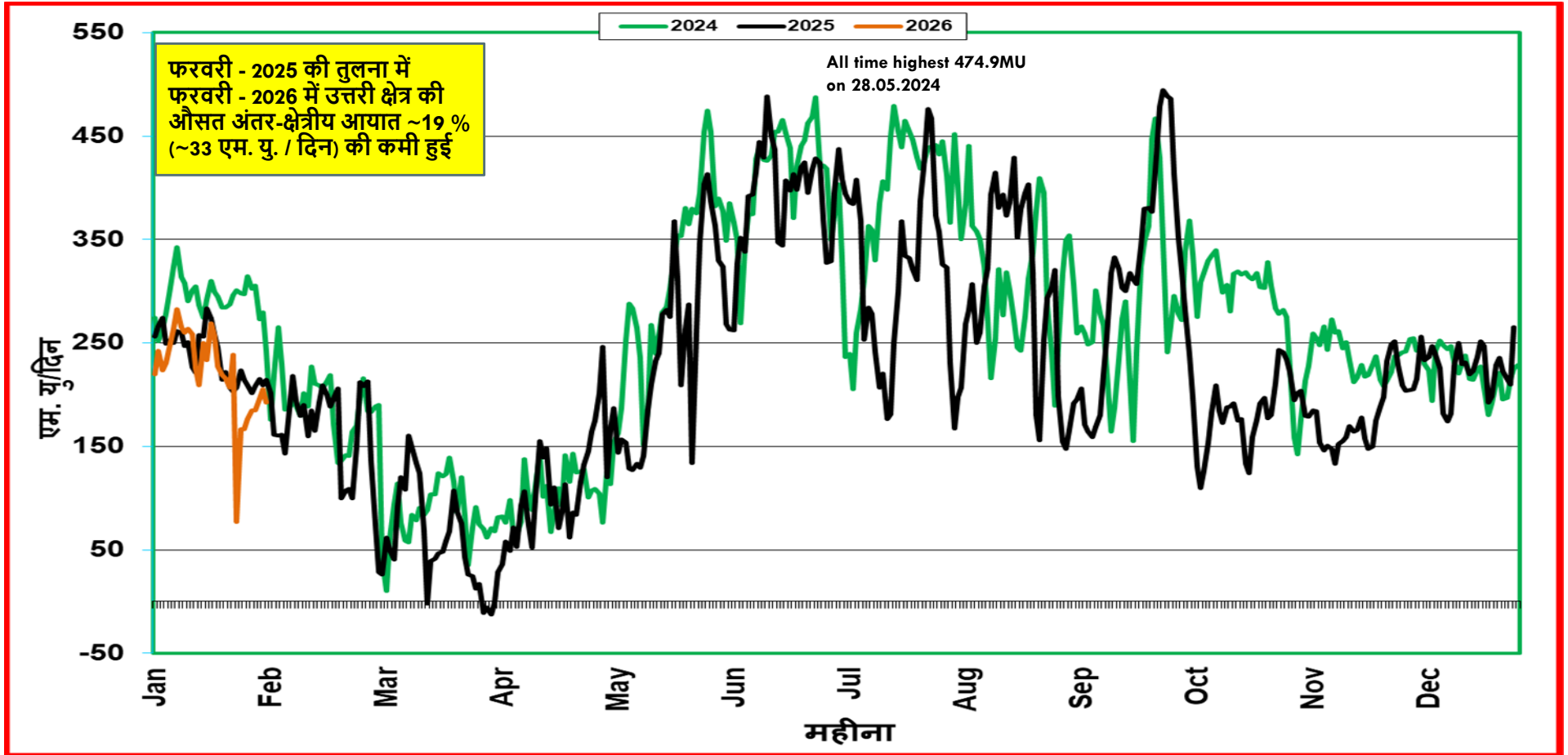
## उत्तरी क्षेत्र की नाभिकीय उत्पादन की स्थिति (MUs/Day)



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



## अंतर-क्षेत्रीय आयात(MUs/Day) की स्थिति



वास्तविक सारांश -  
फरवरी -2025 बनाम फरवरी -2026

	फरवरी-2025 (मि.यु. /दिन)	फरवरी-2026 (मि.यु. /दिन)	फरवरी माह में वृद्धि (मि.यु./दिन)
तापीय (Thermal) उत्पादन	732	683	-49
जलीय (Hydro) उत्पादन	95	103	8
नाभिकीय (Nuclear) उत्पादन	24	36	12
अंतर-क्षेत्रीय (Inter-Regional) कुल आयात	173	140	-33
अक्षय (Renewable) उत्पादन	192	210	18

## नवीकरणीय ऊर्जा की क्षमता (VRE PENETRATION)

	अधिकतम दैनिक (MU) क्षमता			
	फरवरी '2026		फरवरी '2026 तक का रिकॉर्ड	
	अधिकतम % क्षमता	दिनांक	अधिकतम % क्षमता	दिनांक
पंजाब	5.10	23 February 2026	12.28	01-04-2020
राजस्थान	23.05	19 February 2026	36.47	22-10-2021
उत्तर प्रदेश	5.65	10 February 2026	6.03	05-03-2025
उत्तर क्षेत्रीय	18.71	05 February 2026	23.00	15-03-2025

**OUTAGE SUMMARY FOR Feb-2026**

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	432	189	131	58	77%	23%	69%	31%	621
UPPTCL	215	100	47	53	82%	18%	47%	53%	315
RRVPL	105	56	16	40	87%	13%	29%	71%	161
HVPL	57	35	19	16	75%	25%	54%	46%	92
BBMB	78	30	21	9	79%	21%	70%	30%	108
PSTCL	85	22	12	10	88%	12%	55%	45%	107
DTL	27	9	4	5	87%	13%	44%	56%	36
PTCUL	23	7	3	4	88%	12%	43%	57%	30
HPPTCL	1	4	0	4	100%	0%	0%	100%	5
NTPC	11	9	5	4	69%	31%	56%	44%	20
PDD JK	4	1	0	1	100%	0%	0%	100%	5
NRSS36	2	8	8	0	20%	80%	100%	0%	10
ATIL	6	2	0	2	100%	0%	0%	100%	8

### OUTAGE SUMMARY OF LAST FOUR MONTHS

MONTH	PLANNED	FORCED OUTAGES	EMERGENCY SHUTDOWNS	TRIPPING	% PLANNED as of total S/D	% EMERGENCY SHUTDOWNS as of total S/D	TOTAL OUTAGES
	(A)	(B=C+D)	(C)	(D)	(A/(A+C))	(C/(A+C))	(A+B)
Nov-25	1411	564	334	230	80.86%	19.14%	1975
Dec-25	1217	770	396	374	75.45%	24.55%	1987
Jan-26	942	1015	446	569	67.87%	32.13%	1957
Feb-26	1216	657	347	310	77.80%	22.20%	1873

## New Elements First Time Charged During Feb 2026

S. No.	Type of transmission element	Total No.
1	AC/Lilo Lines (9+4)	13
2	Antitheft Charging	00
3	Transformer	11
4	Solar/Wind Plant (6+2)	08
5	Bus Reactors	05
6	Harmonic Filter	09
8	Line Reactor	07
	<b>Total New Elements Charged</b>	<b>53</b>

## AC Lines

S.No	Name of element	Owner	Voltage Level (in kV)	Circuit No	Line Length	Conductor Type	Actual date of charging
1	220kV Ampin_EG10PL_Hyb_W/S_FTHG4-Ampin_EG8PL_Hyb_W/S_FTHG4-1	Ampin_EG10PL	220kV	1	10.3	AL59 Moose	03-Feb-2026
2	765kV Bhadla_3(PB3TL)-Sikar_2(PSTL)-2	PB3TL	765kV	2	325	AL59 Hexa Zebra	10-Feb-2026
3	765kV Bhadla_3(PB3TL)-Sikar_2(PSTL)-1	PB3TL	765kV	1	325	AL59 Hexa Zebra	10-Feb-2026
4	220kV Dehar(BB)-Kangoo(HP)-2	HPPTCL	220kV	2	3.207	ZEBRA	10-Feb-2026
5	400kV Renew_SS3PL_SL_Ftg3-Fatehgarh_III(PG)-1	Renew_SS3PL	400kV	1	28.9	AL59 Quad Moose	10-Feb-2026
6	765kV Bhadla_3(PB3TL)-RAMGARH_II(PR2TL)-2	PR2TL	765kV	2	186.147	AL59 Hexa Zebra	12-Feb-2026
7	765kV Bhadla_3(PB3TL)-RAMGARH_II(PR2TL)-1	PR2TL	765kV	1	186.147	AL59 Hexa Zebra	12-Feb-2026
8	400kV Renew_Samir_SPL_SL_Ftg3-Renew_SS3PL_SL_Ftg3-1	Renew_Samir_SPL	400kV	1	1.74	AL59 Quad Moose	13-Feb-2026
9	220kV Khaba_REPL_SL_Ftg3-Fatehgarh_III(PG)-1	Khaba_REPL	220kV	1	13.743	AL59 Zebra	26-Feb-2026

## Lilo Lines Charging

S.No	Name of element	Name of Line to be LILOed	Line Length of New Line after LILO (In Km)	LILO Portion Line Length (In Km)	Conductor Type	Agency/ Owner	Actual date of charging
1	400kV Orai(UP)-Maheba(UP)-1(After LILO of 400KV ORAI-BANDA CIRCUIT-II at Maheba(UP))	400KV ORAI-BANDA CIRCUIT-II (108.7Km)	20.114	14.85	Quard Moose	UPPTCL	26-Feb-2026
2	400kV Banda(UP)-Maheba(UP)-1(After LILO of 400KV ORAI-BANDA CIRCUIT-II at Maheba(UP))	400KV ORAI-BANDA CIRCUIT-II (108.7Km)	118.32	14.85	Quard Moose	UPPTCL	26-Feb-2026
3	400kV Gonda(UP)-Basti(UP)-1(After LILO of 400 kV Tanda- Basti CKT-2 at 400 kV Gonda)	400 kV Tanda- Basti CKT-2(43.47Km)	80	77.825	HTLS	SEUPPTCL	27-Feb-2026
4	400kV Tanda(NT)-Gonda(UP)-1(After LILO of 400 kV Tanda- Basti CKT-2 at 400 kV Gonda)	400 kV Tanda- Basti CKT-2(43.47Km)	124	77.825	HTLS	SEUPPTCL	27-Feb-2026

## Line Reactor

S.No	Name of element	Owner	Voltage Level (in kV)	MVAR Capacity	Line Reactor Details	OLD MVAR Capacity	Actual date of charging
1	330 Switchable Convertible LINE_REACTOR of 765 KV Bhadla_III Sikar_II CKT 2 at Bhadla_3(PB3TL)	PB3TL	765kV	330	New	NA	10-Feb-2026
2	330 Switchable Convertible LINE_REACTOR of 765 KV Bhadla_III Sikar_II CKT 1 at Bhadla_3(PB3TL)	PB3TL	765kV	330	New	NA	10-Feb-2026
3	3 X 80 MVAR Switchable Convertible LINE_REACTOR of 765 KV Bhadla_III Ramgarh_II CKT 2 at RAMGARH_II(PR2TL)	PR2TL	765kV	240	New	NA	12-Feb-2026
4	3X80 MVAR Switchable Convertible LINE_REACTOR of 765 KV Bhadla_III Ramgarh_II CKT 1 at RAMGARH_II(PR2TL)	PR2TL	765kV	240	New	NA	12-Feb-2026
5	240 Switchable Convertible LINE_REACTOR of 765 KV Dausa Beawar Line-1 at DAUSA(PBDTL)	PB_DAUSA_TL	765kV	240	New	NA	25-Feb-2026
6	240 Switchable Convertible LINE_REACTOR of 765 KV Dausa Beawar Line-2 at DAUSA(PBDTL)	PB_DAUSA_TL	765kV	240	New	NA	25-Feb-2026
7	3X80 MVAR Switchable Convertible LINE_REACTOR of 765 KV Dausa Gwalior Line-2 at DAUSA(PBDTL)	PB_DAUSA_TL	765kV	240	New	NA	27-Feb-2026

## Transformer

S.No	Name of element	Owner	Voltage Level (HV/LV/Tertiary)	MVA Capacity	HV Station	Transformer Details	OLD MVA Capacity	Actual date of charging
1	220/33kV, 140 MVA, 3-Phase, ATLANTA ELECTRICALS , ICT - 1 at Ampin_EG10PL_Hyb_W/S_FTHG4	Ampin_EG10PL	220/33kV	140	Ampin_EG10PL_Hyb_W/S_FTHG4	New	NA	05-Feb-2026
2	400/33kV, 200 MVA, 3-Phase, Meiden T&D (India) Ltd., Power Transformer - 2 at Renew_SS3PL_SL_Ftg3	Renew_SS3PL	400/33kV	200	Renew_SS3PL_SL_Ftg3	New	NA	10-Feb-2026
3	400/33kV, 200 MVA, 3-Phase, Meiden T&D (India) Ltd, Power Transformer - 3 at Renew_SS3PL_SL_Ftg3	Renew_SS3PL	400/33kV	200	Renew_SS3PL_SL_Ftg3	New	NA	11-Feb-2026
4	400/33kV, 200 MVA, 3-Phase, Shirdi Sai Electricals, - 1 at Renew_Samir_SPL_SL_Ftg3	Renew_Samir_SPL	400/33kV	200	Renew_Samir_SPL_SL_Ftg3	New	NA	13-Feb-2026
5	765/400/33kV, 1500 MVA, 3x1-Phase, BHEL, ICT - 2 at Bhadla_3(PB3TL)	PB3TL	765/400/33kV	1500	Bhadla_3(PB3TL)	New	NA	15-Feb-2026
6	400/220/33kV, 500 MVA MVA, 3-Phase, Toshiba, ICT - 1 at RAMGARH_II(PR2TL)	PR2TL	400/220/33kV	500	RAMGARH_II(PR2TL)	New	NA	17-Feb-2026
7	400/220/33kV, 500 MVA MVA, 3-Phase, Toshiba, ICT - 2 at RAMGARH_II(PR2TL)	PR2TL	400/220/33kV	500	RAMGARH_II(PR2TL)	New	NA	17-Feb-2026
8	400/220/33kV, 500 MVA MVA, 3-Phase, TOSHIBA, ICT - 4 at Allahabad(PG)	POWERGRID	400/220/33kV	500	Allahabad(PG)	New	NA	26-Feb-2026
9	220/33kV, 140 MVA, 3-Phase, MEIDEN T&D (India) Ltd., Power Transformer - 2 at Khaba_REPL_SL_Ftg3	Khaba_REPL	220/33kV	140	Khaba_REPL_SL_Ftg3	New	NA	27-Feb-2026
10	220/33kV, 140 MVA, 3-Phase, MEIDEN T&D (India) Ltd., Power Transformer - 1 at Khaba_REPL_SL_Ftg3	Khaba_REPL	220/33kV	140	Khaba_REPL_SL_Ftg3	New	NA	27-Feb-2026
11	400/220/33, 500 MVA, 3-Phase, T&R, ICT - 2 at Maheba(UP)	UPPTCL	400/220/33kV	500	Maheba(UP)	New	NA	28-Feb-2026

## Solar/Wind plants

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/WTG Charged	Agency/ Owner	Actual date of charging
1	RENEW SOLAR SHAKTI THREE PRIVATE LIMITED(RSS3PL)	Fatehgarh_III	300	300	300	Solar	42	Renew_SS3PL	11-Feb-2026
2	AMPIN ENERGY GREEN TEN PRIVATE LIMITED(AEG10PL)	Fatehgarh_IV	114.4	114.4	120MW (114.4 MW Solar + 40.95 MW Wind)	Hybrid	13	Ampin_EG10PL	14-Feb-2026
3	RENEW SAMIR SHAKTI PRIVATE LIMITED(RSSPL)	Fatehgarh_III	300	300	300	Solar	38	Renew_Samir_SPL	16-Feb-2026
4	BBMB	Hisar	1.5	1.5	1.5	Solar	1	BBMB	26-Feb-2026
5	ACME SURYODAYA PRIVATE LIMITED(ACME_SPL)	Fatehgarh_I	76	76	285	BESS	32 - BESS Containers	ACME_SURYODAY A_PL	10-Feb-26
6	ACME SUN POWER PRIVATE LIMITED(ASPPL)	Bhadla-2	66.67	66.67	300	BESS	64 - BESS Containers	ACME_Sun_PPL	27-Feb-26
7	AMPIN ENERGY GREEN THREE PRIVATE LIMITED(AEG3PL)-WIND	Fatehgarh_IV	18.9	18.9	50MW (52.8 MW Solar + 18.9 MW Wind)	Hybrid	6	Ampin_EG3PL	01-Feb-2026
8	AMPIN ENERGY GREEN TEN PRIVATE LIMITED(AEG10PL)-WIND	Fatehgarh_IV	40.95	40.95	120MW (114.4 MW Solar + 40.95 MW Wind)	Hybrid	13	Ampin_EG10PL	24-Feb-26

## Bus Reactors

S.No	Name of element	Owner	Voltage Level	MVAR Capacity	Bus Reactor Details	OLD MVAR Capacity	Actual date of charging
1	765kV, 240 MVAR Bus Reactor 1 at RAMGARH_II(PR2TL)	PR2TL	765kV	240	New	NA	12-Feb-2026
2	400kV, 125 Bus Reactor 1 at RAMGARH_II(PR2TL)	PR2TL	400kV	125	New	NA	14-Feb-2026
3	400kV, 125 MVAR Bus Reactor 2 at RAMGARH_II(PR2TL)	PR2TL	400kV	125	New	NA	20-Feb-2026
4	765kV, 330 Bus Reactor 2 at Bhadla_3(PB3TL)	PB3TL	765kV	330	New	NA	21-Feb-2026
5	400kV, 125 Bus Reactor 1 at Maheba(UP)	UPPTCL	400kV	125	New	NA	26-Feb-2026

## Harmonic Filters

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, 10.5 MVAR Capacitor bank no-2 at Renew_SS3PL_SL_Ftg3	Renew_SS3PL	33kV	Harmonic Filter Capacitor Bank	2	10.5MVAR (3 Phase) High Pass filter with quality factor of 2 and cutoff frequency of 249.5Hz	10.5	11-Feb-2026
2	33kV,10.5 MVAR Capacitor bank no-1 at Renew_SS3PL_SL_Ftg3	Renew_SS3PL	33kV	Harmonic Filter Capacitor Bank	1	10.5MVAR (3 Phase) High Pass filter with quality factor of 2 and cutoff frequency of 249.5Hz	10.5	11-Feb-2026
3	33kV, 10.5 MVAR Capacitor bank no-3 at Renew_SS3PL_SL_Ftg3	Renew_SS3PL	33kV	Harmonic Filter Capacitor Bank	3	10.5MVAR (3 Phase) High Pass filter with quality factor of 2 and cutoff frequency of 249.5Hz	10.5	11-Feb-2026
4	33kV, 12 MVAR Capacitor bank no-1 at Ampin_EG10PL_Hyb_W/S_FTHG4	Ampin_EG10PL	33kV	Harmonic Filter Capacitor Bank	1	C-Type Filter Bank, 12 MVAR	12	11-Feb-2026
5	33kV, 10.5 MVAR Capacitor bank no-5 at Renew_Samir_SPL_SL_Ftg3	Renew_Samir_SPL	33kV	Harmonic Filter Capacitor Bank	5	10.5MVAR (3 Phase) High Pass filter with quality factor of 2 and cutoff frequency of 249.5Hz	10.5	13-Feb-2026
6	33kV, 10 MVAR Capacitor bank no-1 at Renew_Samir_SPL_SL_Ftg3	Renew_Samir_SPL	33kV	Harmonic Filter Capacitor Bank	1	2*5 MVAR(3- Phase) single tuned filter with quality factor 60 of 2 and cutoff frequency of 115 Hz	10	16-Feb-2026
7	33kV, 10 MVAR Capacitor bank no-2 at Renew_Samir_SPL_SL_Ftg3	Renew_Samir_SPL	33kV	Harmonic Filter Capacitor Bank	2	2*5 MVAR (3- PHASE) High pass filter with quality factor of 2 and cutoff frequency of 250 Hz	10	16-Feb-2026
8	33kV, 8 MVAR Capacitor bank no-1 at ARP3PL_SL_BIK_PG	Ayana_RP3PL	33kV	Harmonic Filter Capacitor Bank	1	5 MVAR and 3 MVAR	8	21-Feb-2026
9	33kV, 8 MVAR Capacitor bank no-2 at ARP3PL_SL_BIK_PG	Ayana_RP3PL	33kV	Harmonic Filter Capacitor Bank	2	4 MVAR and 2 MVAR	6	21-Feb-2026

