सत्यमेव जयते

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

**विषय: प्रचालन समन्वय उप-समिति की 238वीं बैठक की कार्यसूची।**

**Subject: Agenda of the 238th OCC meeting.**

प्रचालन समन्वय उप-समिति की **238वीं** बैठक का आयोजन दिनांक **17.12.2025** को **10:30** बजे से एनआरपीसी सचिवालय, कटवारिया सराय, नई दिल्ली में किया जायेगा। उक्त बैठक की कार्यसूची उत्तर क्षेत्रीय विद्युत् समिति की वेबसाइट https://nrpc.gov.in पर उपलब्ध है।

कृपया बैठक में उपस्थित होने की सुविधा प्रदान करें।

The **238th** meeting of the Operation Co-ordination sub-committee will be conducted through **Physical Mode** on **17.12.2025** from **10:30 Hrs at NRPC Secretariat, Katwaria Sarai, New Delhi**. The agenda of this meeting has been uploaded on the NRPC web-site https://nrpc.gov.in.

Kindly make it convenient to attend the meeting.

Digitally signed by
Dharmendra Kumar Meena
Date: 12-12-2025 19:54:46

(डी. के. मीना)
अधीक्षण अभियंता (प्रचालन)

**सेवा में : प्रचालन समन्वय उप समिति के सभी सदस्य।**
**To : All Members of OCC**

| OCC Members for FY 2025-26 | | | |
|---|---|---|---|
| **S. No.** | **OCC Member** | **Category** | **E-mail** |
| 1 | NLDC | National Load Despatch Centre | nomination awaited (susha@grid-india.in) |
| 2 | NRLDC | Northern Regional Load Despatch Centre | somara.lakra@grid-india.in |
| 3 | CTUIL | Central Transmission Utility | sandeepk@powergrid.in |
| 4 | PGCIL | Central Government owned Transmission Company | rtamc.nr1@powergrid.in rtamcjammu@powergrid.in cpcc.nr3@powergrid.in |
| 5 | NTPC | Central Generating Company | RAMESHSINGH@NTPC.CO.IN |
| 6 | BBMB | | powerc@bbmb.nic.in |
| 7 | THDC | | bhagatsingh@thdc.co.in |
| 8 | SJVN | | sjvn.cso@sjvn.nic.in |
| 9 | NHPC | | surendramishra@nhpc.nic.in |
| 10 | NPCIL | | df@npcil.co.in |
| 11 | Delhi SLDC | State Load Despatch Centre | gmsldc@delhisldc.org |
| 12 | Haryana SLDC | | cesocomml@hvpn.org.in |
| 13 | Rajasthan SLDC | | ce.ld@rvpn.co.in |
| 14 | Uttar Pradesh SLDC | | cepso@upsldc.org |
| 15 | Uttarakhand SLDC | | se_sldc@ptcul.org |
| 16 | Punjab SLDC | | ce-sldc@pstcl.org |
| 17 | Himachal Pradesh SLDC | | cehpsldc@gmail.com |
| 18 | DTL | State Transmission Utility | bl.gujar@dtl.gov.in |
| 19 | HVPNL | | cetspkl@hvpn.org.in |
| 20 | RRVPNL | | ce.ppm@rvpn.co.in |
| 21 | UPPTCL | | smart.saxena@gmail.com |
| 22 | PTCUL | | ce_oandmk@ptcul.org |
| 23 | PSTCL | | ce-tl@pstcl.org |
| 24 | HPPTCL | | gmprojects.tcl@hpmail.in |
| 25 | IPGCL | State Generating Company | ncsharma@ipgcl-ppcl.nic.in |
| 26 | HPGCL | | seom2.rgtpp@hpgcl.org.in |
| 27 | RRVUNL | | ce.ppmcit@rrvun.com |
| 28 | UPRVUNL | | cgm.to@uprvunl.org |
| 29 | UJVNL | | gm_engg_ujvn@yahoo.co.in |
| 30 | HPPCL | | gm_generation@hppcl.in |
| 31 | PSPCL | State Generating Company & State owned Distribution Company | ce-ppr@pspcl.in |
| 32 | DHBVN | State owned Distribution Company (alphabetical rotational basis/nominated by state govt.) | nomination awaited (md@dhbvn.org.in) |
| 33 | Ajmer Vidyut Vitran Nigam Ltd. | | nomination awaited (md.avvnl@rajasthan.gov.in) |
| 34 | Purvanchal Vidyut Vitaran Nigam Ltd. | | nomination awaited (mdpurvanchalvvnl@gmail.com) |
| 35 | UPCL | | cgmupcl@yahoo.com |
| 36 | HPSEB | | cesysophpsebl@gmail.com |

| | | | |
|---|---|---|---|
| 37 | Prayagraj Power Generation Co. Ltd. | IPP having more than 1000 MW installed capacity | sanjay.bhargava@tatapower.com |
| 38 | Aravali Power Company Pvt. Ltd | | amit.hooda01@apcpl.co.in |
| 39 | Apraave Energy Ltd., | | niraj.gupta@apraava.com |
| 40 | Talwandi Sabo Power Ltd. | | arun.kumar@vedanta.co.in |
| 41 | Nabha Power Limited | | Durvesh.Yadav@larsentoubro.com |
| 42 | MEIL Anpara Energy Limited | | arun.tholia@meilanparapower.com |
| 43 | Rosa Power Supply Company Ltd | | Suvendu.Dey@relianceada.com |
| 44 | Lalitpur Power Generation Company Ltd | | avinashkumar.ltp@lpgcl.com |
| 45 | MEJA Urja Nigam Ltd. | | rsjuneja@ntpc.co.in |
| 46 | Adani Power Rajasthan Limited | | manoj.taunk@adani.com |
| 47 | JSW Energy Ltd. (KWHEP) | | roshan.zipta@jsw.in |
| 48 | Transition Cleantech Services Private Limited | IPP having less than 1000 MW installed capacity (alphabetical rotational basis) | nomination awaited (kswamidoss@evrenenergy.com) |
| 49 | UT of J&K | From each of the Union Territories in the region, a representative nominated by the administration of the Union Territory concerned out of the entities engaged in generation/ transmission/ distribution of electricity in the Union Territory. | sojpdd@gmail.com |
| 50 | UT of Ladakh | | cepdladakh@gmail.com |
| 51 | UT of Chandigarh | | seelo-chd@nic.in |
| 52 | NVVN | Nodal Agency appointed by the Government of India for coordinating cross-border power transactions | ceonvvn@ntpc.co.in |
| 53 | Tata Power Delhi Distribution Limited | Private Distribution Company in region (alphabetical rotational basis) | nomination awaited (sandeep.k@tatapower-ddl.com) |
| 54 | Gurgaon Palwal Transmission Limited | Private transmission licensee (nominated by central govt.) | (samriddhi.gogoi@indigrid.com) |
| 55 | PTC India Limited | Electricity Trader (nominated by central govt.) | nomination awaited (bibhuti.prakash@ptcindia.com) |
| 56 | ReNew Power Private Limited | RE Generating Company having more than 1000 | sumant@renew.com |
| 57 | NTPC Green Energy | | rajivgupta@ntpc.co.in |

| | | | |
|---|---|---|---|
| | Limited | MW installed capacity | |
| 58 | Azure Power India Pvt. Limited | | sunil.gupta@azurepower.com |
| 59 | Avaada Energy Private Limited | | kishor.nair@avaada.com |
| 60 | Adani Green Energy Limited | | chaitanya.sahoo@adani.com |

# Contents

## खण्ड-क: उ.क्षे.वि.स. Part-A: NRPC

### A.1. Confirmation of Minutes

237th OCC meeting was held on 17.11.2025. Minutes of the meeting were issued vide letter dt. 08.12.2025. No comments received till date.

**Decision required from Forum:**

*Forum may approve the minutes of 237th OCC meeting.*

### A.2. Status of action taken on decisions of 237th OCC meeting of NRPC

A.2.1. Status of action taken on decisions of 237th OCC meeting is attached as **Annexure- A.I**.

### A.3. Review of Grid operations

A.3.1. **Power Supply Position (Provisional) for November 2025**

Anticipated Power Supply Position v/s Actual Power Supply Position (Provisional) of Northern Region during the month of November-2025 is as under:

| State / UT | Req. / Avl. | Energy (MU) | | | Peak (MW) | | |
|---|---|---|---|---|---|---|---|
| | | Anticipated | Actual | % variation | Anticipated | Actual | % variation |
| CHANDIGARH | (Avl) | 110 | 106 | -3.3% | 350 | 218 | -37.7% |
| | (Req) | 122 | 106 | -12.8% | 322 | 218 | -32.3% |
| DELHI | (Avl) | 2564 | 2252 | -12.1% | 4400 | 4486 | 2.0% |
| | (Req) | 2250 | 2253 | 0.1% | 4400 | 4486 | 2.0% |
| HARYANA | (Avl) | 4760 | 4551 | -4.4% | 9983 | 8795 | -11.9% |
| | (Req) | 4527 | 4551 | 0.5% | 8162 | 8795 | 7.8% |
| HIMACHAL PRADESH | (Avl) | 1126 | 1083 | -3.8% | 2131 | 2239 | 5.1% |
| | (Req) | 1135 | 1084 | -4.5% | 2150 | 2239 | 4.1% |
| J&K and LADAKH | (Avl) | 1030 | 1786 | 73.4% | 2490 | 3131 | 25.7% |
| | (Req) | 1891 | 1786 | -5.6% | 3653 | 3131 | -14.3% |
| PUNJAB | (Avl) | 4510 | 4393 | -2.6% | 10610 | 9808 | -7.6% |
| | (Req) | 4694 | 4394 | -6.4% | 8589 | 9808 | 14.2% |
| RAJASTHAN | (Avl) | 8630 | 8939 | 3.6% | 19890 | 17859 | -10.2% |
| | (Req) | 10075 | 8939 | -11.3% | 17000 | 17859 | 5.1% |
| UTTAR PRADESH | (Avl) | 11100 | 9728 | -12.4% | 20700 | 19341 | -6.6% |
| | (Req) | 10950 | 9728 | -11.2% | 20700 | 19341 | -6.6% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| UTTARAKHAND | (Avl) | 1185 | 1177 | -0.7% | 2225 | 2297 | 3.2% |
| | (Req) | 1200 | 1178 | -1.8% | 2250 | 2297 | 2.1% |
| NORTHERN REGION | (Avl) | 35015 | 34015 | -2.9% | 74000 | 63800 | -13.8% |
| | (Req) | 36844 | 34019 | -7.7% | 64600 | 63800 | -1.2% |

As per above, negative / significant variation (≥5%) in Actual Power Supply Position(Provisional) vis-à-vis Anticipated figures is observed for the month of November-2025 in terms of Energy Requirement for Chandigarh, HP, UTs of J&K and Ladakh, Punjab, Rajasthan, UP, and Uttarakhand and in terms of Peak Demand similar variation is noted for Chandigarh, Haryana, UTs of J&K and Ladakh, Punjab, Rajasthan, UP, . These states/UTs are requested to submit reason for such variations so that the same can be deliberated in the meeting.

All SLDCs are requested to furnish provisional and revised power supply position in prescribed formats on NRPC website portal by 2nd and 15th day of the month respectively for the compliance of Central Electricity Authority (Furnishing of Statistics, Returns and Information) Regulations, 2007.

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

### A.4.1. Maintenance Programme for Generating Units

The meeting on proposed maintenance programme for Generating Units for the month of January-2026 is scheduled on 15-December-2025 via Video Conferencing.

### A.4.2. Outage Programme for Transmission Elements

The meeting on proposed outage programme of Transmission elements for the month of January-2026 is scheduled on 15-December-2025 via Video conferencing.

## A.5. Planning of Grid Operation

### A.5.1. Anticipated Power Supply Position in Northern Region for December 2025

The Anticipated Power Supply Position in Northern Region for December 2025 is as under:

| State / UT | Availability / Requirement | Revised Energy (MU) | Revised Peak (MW) | Date of revision |
|---|---|---|---|---|
| CHANDIGARH | Availability | 120 | 350 | No Revision submitted |
| | Requirement | 173 | 341 | |
| | Surplus / Shortfall | -53 | 9 | |
| | % Surplus / Shortfall | -30.6% | 2.6% | |

| State / UT | Availability / Requirement | Revised Energy (MU) | Revised Peak (MW) | Date of revision |
|---|---|---|---|---|
| | Availability | 3110 | 6810 | |
| DELHI | Requirement | 2766 | 6738 | No Revision submitted |
| | Surplus / Shortfall | 344 | 72 | |
| | % Surplus / Shortfall | 12.4% | 1.1% | |
| HARYANA | Availability | 5580 | 9815 | 5-Dec-2025 |
| | Requirement | 4927 | 9651 | |
| | Surplus / Shortfall | 653 | 164 | |
| | % Surplus / Shortfall | 13.3% | 1.7% | |
| HIMACHAL PRADESH | Availability | 1342 | 2380 | 9-Dec-2025 |
| | Requirement | 1326 | 2400 | |
| | Surplus / Shortfall | 16 | -20 | |
| | % Surplus / Shortfall | 1.2% | -0.8% | |
| J&K and LADAKH | Availability | 1050 | 2460 | No Revision submitted |
| | Requirement | 2349 | 3737 | |
| | Surplus / Shortfall | -1299 | -1277 | |
| | % Surplus / Shortfall | -55.3% | -34.2% | |
| PUNJAB | Availability | 4510 | 10670 | No Revision submitted |
| | Requirement | 5511 | 10868 | |
| | Surplus / Shortfall | -1001 | -198 | |
| | % Surplus / Shortfall | -18.2% | -1.8% | |
| RAJASTHAN | Availability | 9200 | 19690 | No Revision submitted |
| | Requirement | 12090 | 20746 | |
| | Surplus / Shortfall | -2890 | -1056 | |
| | % Surplus / Shortfall | -23.9% | -5.1% | |
| UTTAR PRADESH | Availability | 15000 | 28230 | No Revision submitted |
| | Requirement | 11851 | 27641 | |
| | Surplus / Shortfall | 3149 | 589 | |
| | % Surplus / Shortfall | 26.6% | 2.1% | |
| UTTARAKHAND | Availability | 1433 | 2600 | 3-Dec-2025 |
| | Requirement | 1449 | 2675 | |
| | Surplus / Shortfall | -16 | -75 | |
| | % Surplus / Shortfall | -1.1% | -2.8% | |

| State / UT | Availability / Requirement | Revised Energy (MU) | Revised Peak (MW) | Date of revision |
|---|---|---|---|---|
| | Availability | 41345 | 78400 | |
| NORTHERN REGION | Requirement | 42442 | 80800 | |
| | Surplus / Shortfall | -1097 | -2400 | |
| | % Surplus / Shortfall | -2.6% | -3.0% | |

SLDCs are requested to update the anticipated power supply position of their respective state / UT for the month of January-2026 and submit the measures proposed to be taken to bridge the gap between demand & availability, as well to dispose-off the surplus, if any, in the prescribed format.

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

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

***All utilities are requested to update the status.***

## A.7. NR Islanding scheme

Latest status of Islanding Scheme of NR is attached as **Annexure-A.III.**

***Members may kindly deliberate.***

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

A.8.1 In 186th OCC meeting, it was agreed that coal stock position of generating stations in northern region may be reviewed in the OCC meetings on the monthly basis.

A.8.2 Accordingly, coal stock position of generating stations in northern region during current month (till 08th December 2025) is as follows:

| Station | Capacity (MW) | PLF % (prev. months) | Normative Stock Reqd. (Days) | Actual Stock (Days) |
|---|---|---|---|---|
| ANPARA C TPS | 1200 | 0.60 | 15 | 9.9 |
| ANPARA TPS | 2630 | 0.75 | 15 | 19.5 |
| BARKHERA TPS | 90 | 0.31 | 24 | 43.1 |
| DADRI (NCTPP) | 1820 | 0.51 | 24 | 21.0 |
| GH TPS (LEH.MOH.) | 920 | 0.73 | 24 | 22.9 |
| GOINDWAL SAHIB TPP | 540 | 0.51 | 24 | 23.9 |
| HARDUAGANJ TPS | 1265 | 0.35 | 24 | 37.6 |
| INDIRA GANDHI STPP | 1500 | 0.46 | 24 | 38.1 |
| KAWAI TPS | 1320 | 0.69 | 24 | 24.6 |
| KHAMBARKHERA TPS | 90 | 0.31 | 24 | 45.0 |

| Station | Capacity (MW) | PLF % (prev. months) | Normative Stock Reqd. (Days) | Actual Stock (Days) |
|---|---|---|---|---|
| KOTA TPS | 1240 | 0.62 | 24 | 25.2 |
| KUNDARKI TPS | 90 | 0.31 | 24 | 38.3 |
| LALITPUR TPS | 1980 | 0.59 | 24 | 21.2 |
| MAHATMA GANDHI TPS | 1320 | 0.53 | 24 | 29.0 |
| MAQSOODPUR TPS | 90 | 0.26 | 23 | 47.0 |
| MEJA STPP | 1320 | 0.68 | 24 | 19.2 |
| OBRA TPS | 1094 | 0.48 | 24 | 12.8 |
| PANIPAT TPS | 710 | 0.47 | 24 | 42.7 |
| PARICHHA TPS | 1140 | 0.63 | 24 | 17.3 |
| PRAYAGRAJ TPP | 1980 | 0.65 | 23 | 27.5 |
| RAJIV GANDHI TPS | 1200 | 0.40 | 24 | 38.4 |
| RAJPURA TPP | 1400 | 0.86 | 24 | 24.0 |
| RIHAND STPS | 3000 | 0.80 | 15 | 23.4 |
| ROPAR TPS | 840 | 0.70 | 24 | 26.9 |
| ROSA TPP Ph-I | 1200 | 0.58 | 24 | 27.5 |
| SINGRAULI STPS | 2000 | 0.84 | 15 | 12.7 |
| SURATGARH TPS | 1500 | 0.43 | 24 | 18.4 |
| TALWANDI SABO TPP | 1980 | 0.59 | 24 | 18.8 |
| TANDA TPS | 1760 | 0.53 | 24 | 24.7 |
| UNCHAHAR TPS | 1550 | 0.64 | 24 | 23.2 |
| UTRAULA TPS | 90 | 0.28 | 24 | 40.7 |
| YAMUNA NAGAR TPS | 600 | 0.61 | 24 | 27.9 |
| CHHABRA-I PH-1 TPP | 500 | 0.59 | 24 | 26.6 |
| KALISINDH TPS | 1200 | 0.43 | 24 | 23.9 |
| SURATGARH STPS | 1320 | 0.60 | 24 | 23.8 |
| CHHABRA-I PH-2 TPP | 500 | 0.58 | 24 | 25.5 |
| CHHABRA-II TPP | 1320 | 0.62 | 24 | 30.6 |
| JAWAHARPUR STPP | 660 | 0.03 | 24 | 27.0 |

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

A.9.1. 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/RLDC/NLDC/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."

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, RLDC, NLDC, or RPC, as the case may be.*
*(d) The owners of the power system elements shall implement the recommendations, if any, suggested in the test reports in consultation with NLDC, RLDC, CEA, RPC and CTU.*
*(3) Testing requirements*
*The following tests shall be carried out on the respective power system elements:*

TABLE 9 : TESTS REQUIRED FOR POWER SYSTEM ELEMENTS

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

A.9.4. In 73 NRPC meeting, NRPC forum asked all Generators and HVDC/FACT owners to furnish the Testing schedule for 2024-25 and 2025-26 to NRPC/NRLDC at the earliest. However, the same is still pending.

A.9.5. In 236th OCC meeting, MS NRPC asked Generators and HVDC/FACT owners to furnish Testing schedule for 2025-26 in the format attached at **Annexure-A.IV.a** to seo-nrpc@nic.in.

A.9.6. In view of the above Generators and HVDC/FACT owners are requested to furnish Testing schedule for 2025-26 and 2026-27 in the format attached as **Annexure-A.IV.a to seo-nrpc@nic.in .**

A.9.7. List of Generating station from which information is received is attached as **Annexure-A.IV.b**

***Utilities to update status.***

**A.10. Implementation of AUFLS scheme in accordance with the report of Task Force on Automatic under Frequency Load Shedding (AUFLS) (Agenda by NRPC Secretariat)**

A.10.1. In line with the report of Task Force on Automatic under Frequency Load Shedding (AUFLS) and df/dt scheme, NPC Secretariat to communicate the Region wise relief quantum (based on Regional Peak Demand Met during the previous year) by 31st of May to RPCs for implementation in the next Financial Year (FY).

A.10.2. NPC Secretariat has communicated to RPC's that they have computed the quantum of load shedding in different stages of AUFLS based on the Peak Demand Met of the Region in the financial year (2024-25). The region wise Peak Demand Met considered by NPC Sectt. is as follows:

| **Region** | **NR** | **SR** | **WR** | **ER** | **NER** |
|---|---|---|---|---|---|
| Peak Demand Met (MW) | 80,548 | 68,094 | 72,556 | 29,299 | 3,678 |

| **Sr. No.** | **Stage** | **Frequency (Hz)** | **Demand Disconnection (%)** | **Quantum of Load shed in MW** | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AUFLS Set Points and Percentage Quantum of Relief | | | | NR | SR | WR | ER | NER | All India Load shed |
| 1 | Stage 1 | 49.4 Hz | 5.00% | 3801.7 | 3213.9 | 3424.5 | 1382.8 | 173.5 | 11996.55 |
| 2 | Stage 2 | 49.2 Hz | 6.00% | 4562.04 | 3856.7 | 4109.4 | 1659.4 | 208.3 | 14395.86 |
| 3 | Stage 3 | 49.0 Hz | 7.00% | 5322.4 | 4499.5 | 4794.3 | 1935.9 | 243.03 | 16795.17 |
| 4 | Stage 4 | 48.8 Hz | 7.00% | 5322.4 | 4499.5 | 4794.3 | 1935.9 | 243.03 | 16795.17 |
| | **Total (in MW)** | | | **19008.5** | **16069.5** | **17122.4** | **6914.3** | **867.9** | **59982.7** |

A.10.3. The quantum of load shedding as per Task Force in different stages of AUFLS region-wise is as follows:

A.10.4. After the receipt of the allocated load shedding quantum of the Region from NPC, AUFLS relief quantum should be distributed among the State/UT in the region by the RPCs in consultation with the stakeholders.

A.10.5. NRPC Sectt. has computed each State/UT Stage-wise AUFLS quantum for NR based upon the task force report and quantum of load shedding in different stages of AUFLS region-wise finalized by NPC. The details of which are mentioned in the table below:-

| **State/UT** | **Stage-1 49.4 Hz (5%)** | **Stage-2 49.2 Hz (6%)** | **Stage-3 49.0 Hz (7%)** | **Stage-4 48.8 Hz (7%)** | **Total** | **Currently implemented relief as per 231st OCC** |
|---|---|---|---|---|---|---|
| | Stage-1 Relief | Stage-2 Relief | Stage-3 Relief | Stage-4 Relief | | |
| **Chandigarh** | 17 | 21 | 24 | 24 | **86** | **Nil** |
| **Delhi** | 334 | 400 | 467 | 467 | **1668** | **1595** |
| **Haryana** | 586 | 704 | 821 | 821 | **2931** | **3177** |
| **Himachal Pradesh** | 101 | 122 | 142 | 142 | **507** | **1076** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **UT J&K & Ladhak** | 140 | 168 | 196 | 196 | **700** | **777** |
| **Punjab** | 645 | 773 | 902 | 902 | **3223** | **3012** |
| **Rajasthan** | 853 | 1024 | 1194 | 1194 | **4266** | **4066** |
| **Uttar Pradesh** | 1297 | 1557 | 1816 | 1816 | **6486** | **8537** |
| **Uttarakhand** | 127 | 152 | 177 | 177 | **633** | **865** |
| **Total** | **4100** | **4920** | **5740** | **5740** | **20499** | **23105** |

**Note : Pumped storage hydro plants operating in pumping mode or ESS operating in charging mode shall be automatically disconnected before the first stage of UFR**

A.10.6. States/UT shall identify the load relief for each stage considering the Quantum of relief and their demand contribution considering the intra-day, seasonality etc. 10% additional relief would be finalised considering the demand growth of the year, planned and forced outages, UFR and breaker issues etc. SLDC would communicate feeder-wise, Stage-wise details etc. to RPC/RLDC.

A.10.7. In 234th OCC meeting it was apprised that states like Chandigarh, Delhi, Punjab (In Stage 1&2), Rajasthan (In Stage 1& 2) need to plan load relief in comparison to actual load relief required (attached as **Annexure-A.V**). Further, as per the recommendation of task force, the planned relief should be 10% more than the actual estimated relief.

A.10.8. In 237th OCC meeting forum asked Forum asked states to plan load relief as per the recommendations of Task Force.

***Members may kindly deliberate.***

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

A.11.1. 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.11.2. 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.11.3. Accordingly, NR States/UTs are requested to update the data for the monthly Review of LGBR for the next 11 months (Jan'26 to Nov'26) in the google sheet. Link to access the google sheet is mentioned below:

***https://docs.google.com/spreadsheets/d/1LmYwSHcFCaRAniwHUIpoiWFwaFCmKnQjlPqFDvWYy1k/edit?usp=sharing***

***Members may kindly deliberate.***

**A.12. Deemed Availability for Planned Outages During Retrofitting of Electro-Mechanical relays including Busbar and LBB Relays (agenda by Powergrid NR-3)**

A.12.1. Powergrid NR-3 has submitted that as per CEA regulations on Technical Standards for Construction of Electrical Plants and Electric Lines Regulations, 2022 (dated 27.12.2022, page 166, clause 48.(1).(b)) and regulation 2010 “All major protection relays shall be of numerical type and communication protocol shall be as per IS-61850.” In line with these guidelines, the existing relays including Busbar and LBB relays must be replaced with modern numerical relays supporting IEC 61850 communication protocol.

A.12.2. Accordingly, for compliance CEA Regulation, replacement of electromechanical Busbar and LBB relays has been undertaken. Retrofitting of LBB relays at Lucknow, Allahabad, Gorakhpur, Pithoragarh, and Sitarganj has been completed, while work at Mainpuri and Raebareli is pending. Busbar relay retrofitting at 400/220 kV Lucknow and 220/132 kV Sitarganj is complete, and work at other substations is either in progress or scheduled to start shortly

A.12.3. Several POWERGRID substations commissioned over 20 years ago ( before 2010) were equipped with electro-mechanical Busbar and LBB protection relays, such as those at 400/220 kV Lucknow, Gorakhpur, Prayagraj, Mainpuri, 220/132 kV Pithoragarh, 220 kV Raebareli, and 220/132 kV Sitarganj. These relays have limited settings, configurations, and features, including disturbance recording and event logging. They are now obsolete and no longer supported by the OEM. Therefore, upgrading them to the latest numerical IEDs is essential for system improvement also.

A.12.4. The agenda was discussed in the meeting taken by MS, NRPC on 03.12.2025 wherein it was decided to consider the outages as regulatory requirement (beyond control of licensee/ forced majeure) for replacement of electromechanical relays to numerical relays for substations commissioned before 2010. However, POWERGRID was asked to put up agenda in OCC for decision of approx. time taken in replacement work.

A.12.5. Retrofitting a single LBB relay requires an outage of approximately 15–20 hours for the respective element, while retrofitting Busbar relays typically requires 35–40 hours of outage for each individual element. As the work is being carried out in conventional substations (around 20 years old), several constraints are encountered:

- Space Constraints: Limited panel space with congested wiring and inter-panel connections necessitates extensive dismantling and rewiring.
- Panel Modifications: Cutting panels, installing new relays, rearranging existing relays, and performing Test Block and SEM work are critical and time-consuming tasks.
- Scheme/Drawing Issues: Old or deteriorated drawings, and in some cases, unavailability of drawings, pose challenges.
- RTU Constraints: Non-reporting of critical monitoring signals is observed, requiring troubleshooting and rectification after shutdown.

**Timewise detail for LBB relays Retrofitting Activities:**

| **Activity** | **Estimated Hours** |
|---|---|
| Isolation and Issuance of PTW | 0.5 Hrs |
| CT Shorting & DC isolation after Shutdown | 1 Hrs |
| Dismantling existing wiring & old LBB relay | 2-3 Hrs |
| Panel Cutting and Installation of New LBB Relay | 2-3 Hrs |
| Re-Wiring Termination as per approved Scheme | 3-4 Hrs |
| Verification of new wiring as per approved scheme | 0.5-1 Hrs |
| Configuration of Events & DRs and Integration with SCADA/NTAMC | 1-2 Hrs. |
| LBB relay Testing as per controlled documents | 2-3 Hrs |
| Signal verification with RTAMC/NTAMC | 0.5-1 Hr |
| Result Review and Approvals | 1-2 Hrs. |
| Rectification/Correction of reviewed observations | 0.5-1Hr |
| Code Collection & Charging | 1 Hr. |
| **Total** | **15-20 Hrs.** |

**Time wise detail for Bus bar relays Retrofitting Activities:**

| **Activity** | **Estimated Hours** |
|---|---|
| Isolation and Issuance of PTW | 0.5 Hrs |
| CT Shorting & DC isolation after Shutdown | 2 Hrs |
| Dismantling existing wiring & old relays | 7-8 Hrs |
| Panel Cutting and Installation of New Bus Bar PU A & PU B Relays | 2-3 Hrs |
| Re-Wiring Termination as per approved Scheme | 8-9 Hrs |
| CT TB Replacement Work | 0.5 Hrs |
| Verification of new wiring as per approved scheme | 1-2 Hrs |
| Configuration of Events & DRs and Integration with SCADA/NTAMC | 1-2 Hr. |

| | |
|---|---|
| Bus Bar relay Testing as per controlled documents | 4-5 Hrs |
| Signal verification with RTAMC/NTAMC | 1-2 Hrs |
| Result Review and Approvals | 1-2 Hrs. |
| Rectification/Correction of reviewed observations | 2-3 Hrs |
| Code Collection & Charging | 1 Hr. |
| **Total** | **35-40 Hrs.** |

A.12.6. POWERGRID has requested that in view of regulatory compliance, following time may be allowed for replacement:

- **15–20 hours** for LBB relay retrofitting per element.
- **35–40 hours** for Busbar relay retrofitting per element.

***Members may kindly deliberate.***

**A.13. Delay In Outages (Agenda by BKTL)**

A.13.1. BKTL has submitted that recurring delays in outages at BKTL SPV were observed, primarily due to multiple operational challenges. These delays have adversely impacted the optimal utilization of the scheduled outage period by the Licensee. Contributing factors include issues at the other end, grid constraints, and extended process timelines. A detailed summary of these instances is provided at **Annexure-A.VI.**

***Members may kindly deliberate.***

**A.14. Replacement of Damaged 400 kV Jack Bus Sections at Mandola & Ballabgarh Substations under ADDCAP (Agenda by Powergrid NR-1)**

A.14.1. Powergrid NR-1 has submitted that requirement for complete shutdown of 400 kV Bus–1 & Bus–2 at Mandola and Ballabgarh substations was placed earlier for carrying out the replacement of severely aged and damaged 400 kV jack bus sections. The matter was deliberated in earlier OCC meetings

- At Mandola, shutdown was agreed with DTL consent & work was completed in 400KV Bus system.
- At Ballabgarh, shutdown consent for complete 400 kV bus sections were not provided by BBMB/HVPNL. Subsequently, work of Bus section 3& 4 completed, and shutdown approved for Bus section 1& 2 in recent OCC & same will be taken up after consent of BBMB/HVPNL.

A.14.2. The existing jack buses have completed over 30+ years of service

- Ballabgarh commissioned in 1988
- Mandola commissioned in 1990 and have deteriorated significantly, requiring urgent replacement to ensure safety, reliability, and operational continuity.

A.14.3. Following submission for proposing in ADDCAP:

1. **Severe deterioration of 400 kV jack bus sections:**

The existing conductor/structures have reached the end of their operational life (>30 years), with visible weakening, corrosion, and safety concerns.

2. **Urgent replacement essential for system reliability:**

Any failure in bus conductors at these high-capacity substations can lead to widespread outages and system disturbances.

3. **Unscheduled forced outage risk mitigation:**

Proactive replacement avoids major grid contingencies and reduces high-impact failure possibilities.

4. **Original system assets fully depreciated:**

Since the assets have crossed their useful life, replacement is categorized under Additional Capitalization (AddCap) as per tariff regulations.

5. **Work carried out under urgent operational requirement:**

Replacement work was undertaken to maintain reliability and ensure compliance with safety norms.

A.14.4. Details of Cost Incurred

POWERGRID NR-I has completed the replacement of damaged jack bus sections at Mandola & Ballabgarh 400 kV 3& 4 and also proposed for Bus section 1&2.
The incurred cost includes:
•Supply of 400 kV jack bus conductor & hardware
•Replacement of clamps, tension fittings & accessories
•Tower/gantry strengthening (if required)
•Labour, T&P, shutdown coordination and safety measures
•Testing & commissioning activities
Total Cost Incurred under Add Cap:

**Mandola Substation:- Rs 96,25,000/-**
**Ballabgarhss Substation:- Rs 95,00,000/-**
**Total Additional Capitalization for replacement of Jack bus Conductor at Mandola & Ballabgarh Substation :- Rs 1,91,25,000/-**

A.14.5. Powergrid has requested for the following proposal:

1. Approve the cost incurred under Additional Capitalization (AddCap) for the replacement of the deteriorated jack bus sections at 400 kV Mandola & Ballabgarh Substations.
2. Acknowledge the criticality of timely execution considering the 30+ years of asset age and system safety requirements.
3. outages during complete bus shutdown may be considered deemed available, as the activity pertains to replacement of end-of-life equipment critical for reliable grid operation.

***Members may kindly deliberate.***

**A.15. Details of Captive Generation in NR Region (Agenda by NRPC Secretariat)**

A.15.1. MoP has directed all RPCs (except NERPC) to contact the State Load Despatch Centers (SLDCs) in their respective region to get the details of Captive, Open Access & Rooftop Solar Generation of 500 kW and above at the earliest.

A.15.2. A High Level Meeting under the chairmanship of Secretary MoP is scheduled to be convened on this matter on 16.12.2025.

A.15.3. All the SLDCs are requested to send the requisite data as per format **Annexure-A.VII** (copy enclosed) to GM Division (gmcea@nic.in) at the earliest with copy to NRPC (seo-nrpc@nic.in). Kindly ensure that Captive Generation 500KW and above should be reflected in the report.

***Matter may be treated as most urgent.***

***SLDC's to submit the data before OCC meeting.***

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

## B.1. NR Grid Highlights for Nov 2025

### Demand met and Consumption 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 | 218 | 28-11-2025 07:00 | 482 | 18.06.24 at 15:28 |
| 2 | Delhi | 4486 | 28-11-2025 10:44 | 8656 | 19.06.24 at 15:06 |
| 4 | Haryana | 8626 | 28-11-2025 09:00 | 14662 | 31.07.24 at 14:30 |
| 3 | H.P. | 2239 | 26-11-2025 07:45 | 2273 | 17.01.25 at 09:00 |
| 5 | J&K | 3131 | 28-11-2025 08:00 | 3200 | 07.01.25 at 10:00 |
| 6 | Punjab | 9808 | 29-11-2025 10:45 | 16754 | 28.06.25 at 15:00 |
| 7 | Rajasthan | 17614 | 30-11-2025 09:00 | 19165 | 12.02.25 at 11:00 |
| 9 | U.P. | 19341 | 28-11-2025 18:18 | 31486 | 11.06.25 at 00:45 |
| 8 | Uttarakhand | 2297 | 28-11-2025 07:00 | 2910 | 11.06.25 at 22:00 |

| | | | | | |
|---|---|---|---|---|---|
| 10 | **Northern Region** | 63755 | 28-11-2025 10:00 | 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 | 3.8 | 01-11-2025 | 3.55 | 9.3 | 12.06.2025 |
| 2 | Delhi | 82.9 | 01-11-2025 | 75.44 | 177.7 | 18.06.2024 |
| 4 | Haryana | 163.4 | 28-11-2025 | 151.84 | 293.4 | 30.07.2024 |
| 3 | H.P. | 37.8 | 26-11-2025 | 35.52 | 42.6 | 11.06.2025 |
| 5 | J&K | 65.2 | 28-11-2025 | 59.53 | 70.3 | 04.02.2025 |
| 6 | Punjab | 165.8 | 29-11-2025 | 147.52 | 366.8 | 21.07.2024 |
| 7 | Rajasthan | 338.3 | 29-11-2025 | 297.93 | 388.0 | 11.06.2025 |
| 9 | U.P. | 345.9 | 28-11-2025 | 323.06 | 658.7 | 17.06.2024 |
| 8 | Uttarakhand | 42.17 | 28-11-2025 | 40.74 | 62.1 | 14.06.2024 |
| 10 | **Northern Region** | 1233.1 | 28-11-2025 | 1135.137 | 2022.9 | 12.06.2025 |

- In November'25, the Maximum energy consumption of Northern Region was **1233.1 MUs** on 28th November'25 and it was 1.4% lower than November'24 (1248 MUs on 09th Nov'24).

- In November'25, the Average energy consumption per day of Northern Region was **1135.14 MUs** and it was 2.5% lower than November'24 (1165 MUs/day)

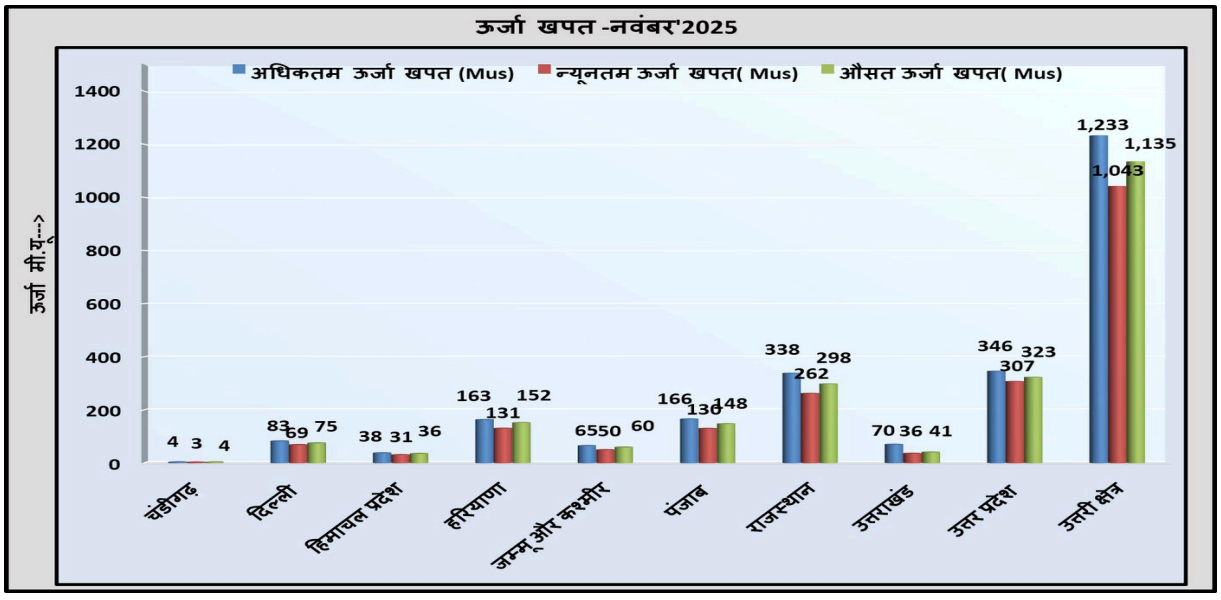
- In November'25, the Maximum Demand met of Northern Region was **63755 MW** on 28th November'25 @10:00 Hrs as compared to **61434 MW** on 29th Nov'24 @10:43 Hrs.

**Comparison of Average Energy Consumption (MUs/Day) – November '24 vs November '25**

| क्षेत्र/राज्य | अक्टूबर- 2024 | अक्टूबर - 2025 | % अंतर |
|---|---|---|---|
| चंडीगढ़ | 3.6 | 3.5 | -2.2% |

| | | | |
|---|---|---|---|
| दिल्ली | 74.8 | 75.4 | 0.9% |
| हिमाचल प्रदेश | 33.9 | 35.5 | 4.7% |
| हरियाणा | 144.8 | 151.8 | 4.9% |
| जम्मू और कश्मीर | 54.6 | 59.5 | 9.0% |
| पंजाब | 143.6 | 147.5 | 2.7% |
| राजस्थान | 320.2 | 297.9 | -7.0% |
| उत्तराखंड | 39.8 | 40.8 | 2.5% |
| उत्तर प्रदेश | 349.5 | 323.1 | -7.6% |
| **उत्तरी क्षेत्र** | 1164.7 | 1135.1 | -2.5% |

## Energy Consumptions

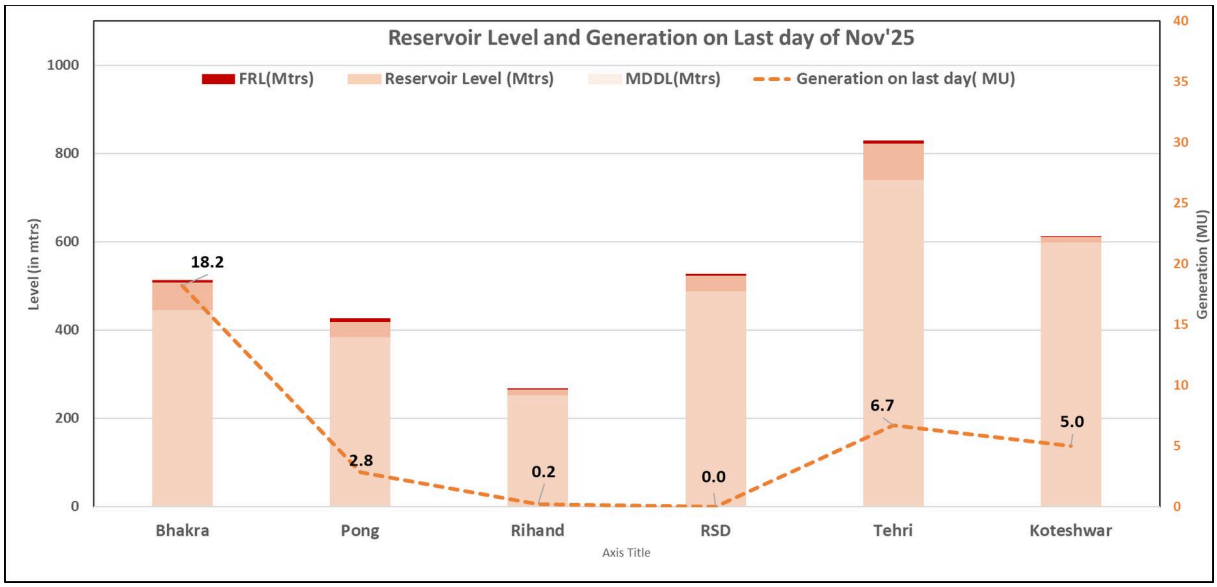



## Frequency profile

| Month | Avg. Freq. (Hz) | Max. Freq. (Hz) | Min. Freq. (Hz) | <49.90 (% time) | 49.90 – 50.05 (% time) | >50.05 (% time) |
|---|---|---|---|---|---|---|
| **Nov'25** | 49.994 | 50.403 (28.11.25 at 06:02:20 hrs) | 49.542 (01.11.25 at 18:14:40 hrs) | 5.66 | 79.39 | 14.95 |
| **Nov'24** | 49.995 | 50.317 (02.11.24 at 11:04:20 hrs) | 49.553 (27.11.24 at 17:18:50 hrs) | 5.2 | 80.8 | 14.0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |

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




| **Reservoir Level on last day of November month** | | | | (Low: -ve) | | (High: +ve) |
|---|---|---|---|---|---|---|
| **Year** | **Bhakra** | **Pong** | **Rihand HPS** | **RSD** | **Tehri** | **Koteshwar** |
| **2025** | 508 | 418 | 265 | 523 | 823 | 611 |
| **2024** | 501 | 415 | 264.235 | 497 | 825 | 606 |
| **Diff (in m)** | 6.7 | 3.5 | 0.6 | 26.3 | -2.1 | 5.4 |

***Detailed presentation on grid highlights of Nov'2025 will be shared by NRLDC in OCC meeting.***

## B.2. Demand forecasting and resource adequacy related: CERC order dated 05.10.2025

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

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

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

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

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

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

| State/Entity | Day Ahead | Week Ahead | Month Ahead | Year-Ahead(2026-27) |
|---|---|---|---|---|
| Punjab | As per Format | As per Format | As per Format | Only Demand |
| Haryana | As per Format but irregular | As per Format but irregular | Not received | Not received |
| Delhi | As per Format | As per Format | As per Format | As per Format |
| Rajasthan | As per Format | As per Format | As per Format but irregular | As per Format |
| Uttar Pradesh | As per Format | As per Format | As per Format | As per Format |
| Uttarakhand | As per Format | As per Format | As per Format | Only Demand |
| Himachal Pradesh | As per Format | As per Format | As per Format | As per Format |
| J&K and Ladakh (UT) | As per Format | As per Format but irregular | Not received | Only Demand |
| Chandigarh (UT) | As per Format | Not received | Not received | Not received |

In accordance with above, all SLDCs are requested to timely furnish the demand estimation data along with generation adequacy data as per the formats available at *https://drive.google.com/drive/folders/1KWY4G9gTBLV5wTJkhGEIeRptKP-QbhjL?*

*usp=drive_link* to NRLDC through mail (nrldcmis@grid-india.in) and FTP as per above timeline.

All SLDCs need to take actions at their end for timely submission of demand forecasting and resource adequacy data on day-ahead, week-ahead, month ahead and year ahead basis.

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

Further, NRLDC has also carried out month ahead resource adequacy analysis on regional basis for Jan 2026 as per data available at NRLDC through PRAS software. The results are attached as **Annexure-B.I**.

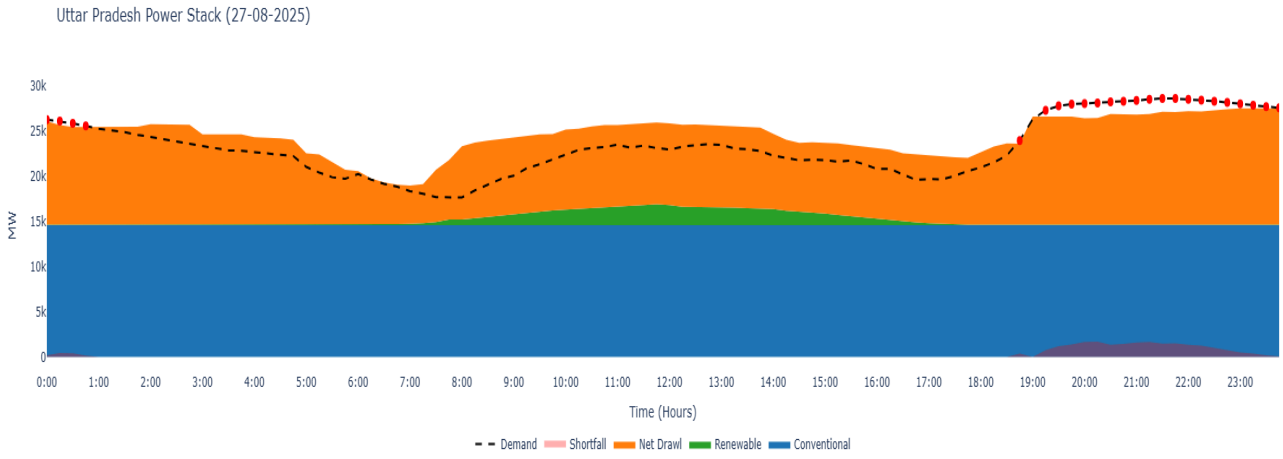
As per IEGC clause 31

*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*

Accordingly, NRLDC is also regularly sending emails based on day ahead resource adequacy exercise being carried out at NRLDC end. In case of major shortfall seen for a state based on demand forecast and generation adequacy data submitted by state, NRLDC communicates the actions required from state side in real-time also. Some sample snapshots emailed to respective states are shown below for reference:




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.

During 237 OCC meeting, OCC forum discussed that:

- NRLDC representative stated that as per CERC RNOD issued on 23.10.2025, demand forecasting and resource adequacy aspect was one of the crucial area and there needs to be major improvement starting from the data submission part. Haryana SLDC was especially asked to regularly share the data as per the approved CERC timelines.
- Haryana SLDC representative stated that they have taken up the matter with concerned wing of Power purchase deptt. at senior level. Power purchase deptt. has agreed to share the data as per approved formats.
- Data on day ahead basis received from some of the states (as shown in table) is not as per NRLDC format. It was further mentioned that NRLDC has developed a code/program for automation of day-ahead resource adequacy. In case data is not received in formats circulated by NRLDC, it would not be possible to map/utilize the data submitted by states in the internal program being developed at NRLDC end.
- States should submit actual generation schedule and not generation availability as flat/constant value throughout the day.
- It was discussed that PRAS is open source tool and can be utilised at SLDC level, also similar to being used at NRLDC end. It was discussed that already one training program on resource adequacy and PRAS was done by NRLDC and another training program would be planned before next OCC meeting.
- Further, it was discussed that one representative from SLDC may visit NRLDC and develop code for each SLDC during one/two day interaction with concerned SLDC.

Accordingly, an online workshop on PRAS software is planned by NRLDC for all NR SLDCs before the OCC meeting.

Further, CERC vide has issued final order dated 05.10.2025 regarding 9/SM/2024. CERC has also issued Consolidated Record Notes of discussions held during the Workshop on addressing various challenges faced by the states in Operational Planning for safe, secure, and reliable integrated operation of the power system dated 23.10.2025. The meeting for Northern region was held on 11.08.2025. The RNOD mentions the discussions held in the meeting on various points such as:

**(i) Adequacy of workforce:**

**(ii) Training and Certification of the SLDC staff:**

**(iii) Backing down of intra-state thermal generating units:**

**(iv) Demand estimation and Resource Adequacy data submission:**

**(v) Alignment of the State Grid Code with IEGC 2023:**

**(vi) Implementation of SAMAST:**

**(vii) Fee and Charges Regulations for SLDCs:**

During 237 OCC meeting, MS NRPC stated that all concerned SLDCs may take necessary actions as discussed in previous OCC meetings also. It was mentioned that special attention may be given by SLDCs on demand estimation and Resource Adequacy data submission & ensuring adequate manpower in SLDCs.

It was suggested that as per IEGC clauses, SLDCs also carry out day-ahead, week-ahead and month ahead resource adequacy exercise and share their results with NRLDC. Further, all may take note of the recent CERC order dated 05.10.2025. All concerned SLDCs were asked to submit the actions taken at their end after the workshop organized by CERC.

***Further, NRLDC MIS team has also mailed to all NR SLDCs to submit actions taken on various action points arising from CERC's observations, along with the current status on each item. To facilitate uniform data submission, a format has been prepared and enclosed as Annexure B.II. Response from SLDC side is still awaited.***

***Members may please discuss.***

## B.3. Database of transmission lines having terminal equipments rating lower than transmission line conductor capacity

For conducting studies for assessment of inter control-area transfer capability or any other related simulation studies, thermal ratings of lines as specified in CEA's Manual on Transmission Planning Criteria 2023 are being considered as safe capacity limit of lines based on anticipated ambient temperature.

However, it is being observed in number of cases, such as in RVPN control area that the rating of terminal equipment is lower than thermal capacity of transmission line. This is leading to under-utilisation of line capacity due to limited switchgear rating and even leading to constraints in RE evacuation from Western Rajasthan RE complex.

Some of the lines in RVPN control area wherein this issue was observed are listed below:

- 400kV Bhadla-Bikaner D/C
- 400kV Jaisalmer-Kankani S/C
- 400kV Akal-Kankani S/C
- 400kV Akal-Jaisalmer S/C
- 400kV Suratgarh SCTPS-Babai D/C.

For these lines, thermal capacity is 1700MVA for design @ 75deg & 2180MVA for design @85deg. However, equipment rating is only 2kA which translates to 1.732*400*2= 1385MVA only, thus limiting line power transfer capacity to 1385MVA only.

Similar issues were earlier observed at **400kV Mahendragarh, Dhanonda and Nawada** substation in HVPN control area.

Further as per information available with NRLDC in case of **Vishnuprayag**, terminal equipment of only 1kA has been installed whereas the line is having twin moose conductor. Therefore the conductor can safely carry around 890MW of power, but due to terminal equipment rating issue, the line can only be loaded upto 400*1.732*1 = 693MVA only thereby reducing line capacity in difficult hilly terrain.

Similar terminal equipment rating issues were also observed in **400kV lines from NJPC and Rampur** wherein the lines such as 400kV NJPC-Panchkula D/C (further LILOed) and 400kV Rampura-Nallagarh sections of lines have equipment rating is only 2kA which translates to 1.732*400*2= 1385MVA only whereas transmission line has triple snowbird conductor.

The issue of lower line equipment rating has also been discussed in the past in 2018 in NRPC-OCC level wherein NPC had asked RPCs to furnish such details. It was requested that the terminal equipment ratings of STUs' and other transmission licensees' transmission lines in region, may be compiled and furnished to Grid-India with a copy to NPC Division, CEA on priority basis.

Subsequently, the agenda was discussed in number of OCC meetings and transmission utilities were asked to submit the data.

As per the data available at NRLDC, following are few transmission lines in Northern region having terminal equipments of lower capacity than conductor capacity:

| Name of Transmission line | Line length (km) | Owner | Conductor Type | Conductor Rating @45deg for 75deg design | Switchgear rating End-1 (MVA) | Switchgear rating End-2 (MVA) |
|---|---|---|---|---|---|---|
| 400kV Bhadla-Bikaner D/C | 189 | RRVPNL | Quad Moose | 1701 | 1386 | 1386 |
| 400kV Jaisalmer-Kankani S/C | 177 | RRVPNL | Quad Moose | 1701 | 1386 | 1386 |
| 400kV Akal-Kankani S/C | 223 | RRVPNL | Quad Moose | 1701 | 1386 | 1386 |
| 400kV Akal-Jaisalmer S/C | 61 | RRVPNL | Quad Moose | 1701 | 1386 | 1386 |
| 400kV Suratgarh SCTPS-Babai D/C | 245 | RRVPNL | Quad Moose | 1701 | 1386 | 1386 |
| 400kV Mahendragarh-Dhanonda D/C | 5 | ATIL | Quad Moose | 1701 | 1386 | 1386 |
| 400kV Gr. Noida-Nawada D/C | 30 | POWERGRID | Quad Bersimis | 1978 | 1386 | 1386 |
| 400kV Vishnuprayag-Muzaffarnagar S/C | 280 | UPPTCL | Twin Moose | 850 | 693 | NA |
| 400kV Vishnuprayag-Alakhnanda D/C | 109 | UPPTCL | Twin Moose | 850 | 693 | NA |
| 400kV Rampur-Nallagarh D/C | 128 | POWERGRID | Triple Snowbird | 1275/1625* | 1386 | 1386 |
| 400kV Jhakri-Gumma D/C | 55 | POWERGRID | Triple Snowbird | 1275/1625* | 1386 | NA |
| 400kV Gumma-Panchkula D/C | 112 | POWERG | Triple | 1275/ | NA | 1386 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | RID | Snowbird | 1625* | | |
| 400kV Jhakri-Rampur D/C | 21 | POWERGRID | Triple Snowbird | 1275/ 1625* | 1386 | 1386 |

*Considering ambient temp of 40deg (lower in Hilly areas)

During 237 OCC meeting,

- MS NRPC stated that the lines listed above from NRLDC side are based on operational experience and accordingly concerned transmission licensees may strongly take up for upgradation of terminal equipments. It was also mentioned that line for which loading restriction has not been observed till date, their terminal equipment upgradation may be taken up subsequently.
- POWERGRID NR-2 representative stated that they are ready for switchgear upgradation but SJVNL has expressed inability to upgrade switchgear at their end due to GIS substation.
- HVPNL representative stated that terminal equipment at their substations such as Nawada, Dhanonda is being planned and likely to be completed before summer 2026.

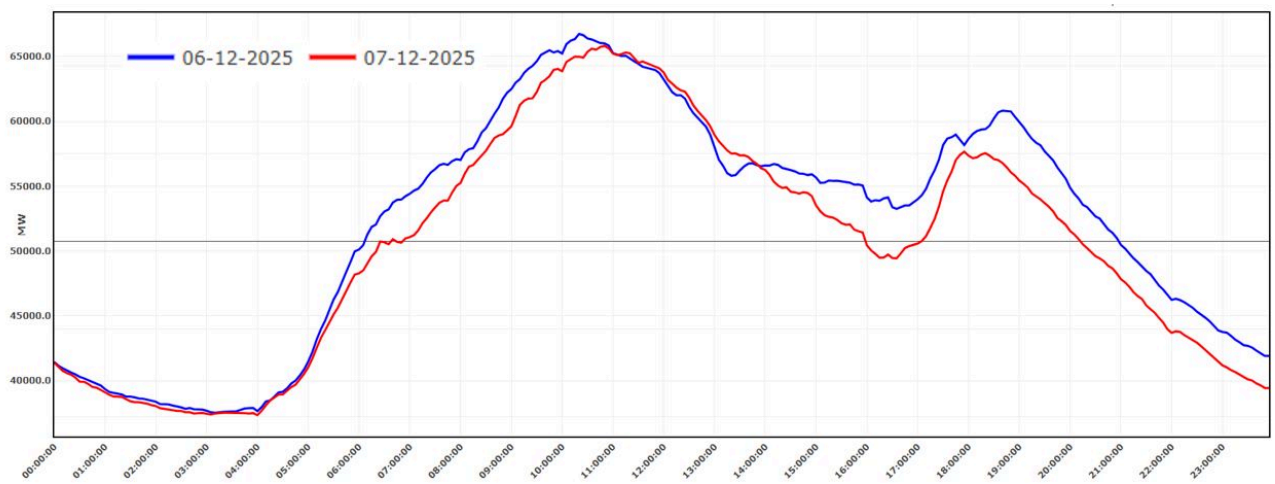
Given the issues arising due to limited switchgear rating in lines which have higher thermal capacity, OCC forum:

- Advised all utilities to furnish the details of lines having terminal equipments of lower capacity to Grid-India /CTUIL/NRPC for consideration in future studies and planning of actions well in advance.
- Asked to plan for uprating switchgear ratings in existing lines to avoid issues in RE evacuation/ facilitating shutdowns may be studied by concerned transmission line and bay equipment owners.
- Asked for written reply through email/letter may be submitted by the concerned transmission licensees to NRPC/NRLDC.

***Reply from utility side as agreed in previous OCC meeting is pending. Concerned transmission utilities and SLDCs may provide update. Members may please discuss.***

## B.4. Winter preparedness measures 2025-26

Winter in Northern region has started and shall continue till February end, and the challenges faced during these months are well known to all the utilities. During winter, demand of NR states except Rajasthan and hilly states is on the lower side. With decreasing temperatures and festivals, onset of winter also brings some severe challenges to NR grid operators. High ramp rate in demand during morning peak and evening peak is being observed which is likely to get further steeper.




Based on the detailed discussion held in last OCC meeting, following actions were suggested:

- To carry out tap change exercise at 220kV and below voltage level. NRLDC had also reviewed tap position of 400/220kV Abdullapur, 765/400kV Mainpuri and 220/132kV Chandigarh (PG) substation. Further, ***study based on voltage profile of 400/220kV substations in NR for the month of Nov 2025 have been done and following tap changes are proposed***:

Increase by 2 steps

- 400/220kV Amritsar(PG)
- 400/220kV Bhiwani(PG)
- 400/220kV Sambha(PG)
- 400/220kV Sonepat(PG)

Increase by 1 step

- 400/220kV Panchkula(PG)
- 400/220kV Bhiwani(PG)
- 400/220kV Nakodar(PSTCL)

Decrease by 2 steps

- 400/220kV Allahabad(PG)
- 400/220kV Hamirpur(PG)
- 400/220kV Panipat(BBMB)
- 400/220kV Deepalpur (Indigrid)
- 400/220kV Gr. Noida(UP)
- 400/220kV Lucknow(UP)

Decrease by 1 step

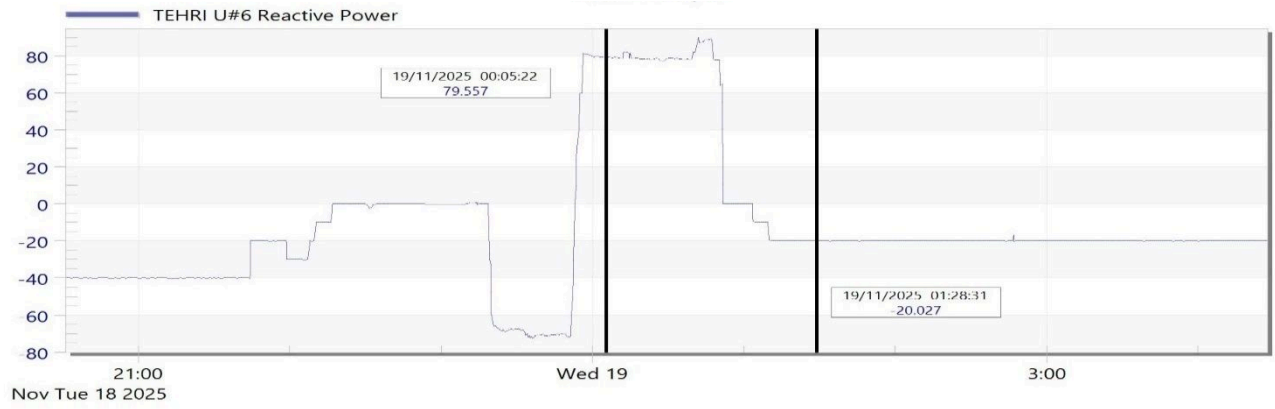
- 400/220kV Jalandhar(PG)
- 400/220kV Kaithal(PG)
- 400/220kV Bareilly(UP)
- 400/220kV Unnao(UP)

- To ensure that all over flux setting of transformers and overvoltage settings of transmission lines are as per approved protection philosophy of NRPC. (HVPNL, PSTCL (partial implementation), NTPC, ADANI, Uttarakhand, J&K are yet to confirm the implementation of revised overvoltage settings (latest PSC deliberations)
- It iss requested that any planned commissioning of bus reactors may please be expedited.
- OCC expressed concern on the lack of progress of DTL reactors and asked them to expedite their works.
- Utilities to submit feedback on NRLDC reactive power document including for line reactors which can be used as bus reactors as per requirement.
- Utilities to ensure maximum availability of bus reactors and line reactors including provision of using line reactors as bus reactors in case of opening of lines on high voltage

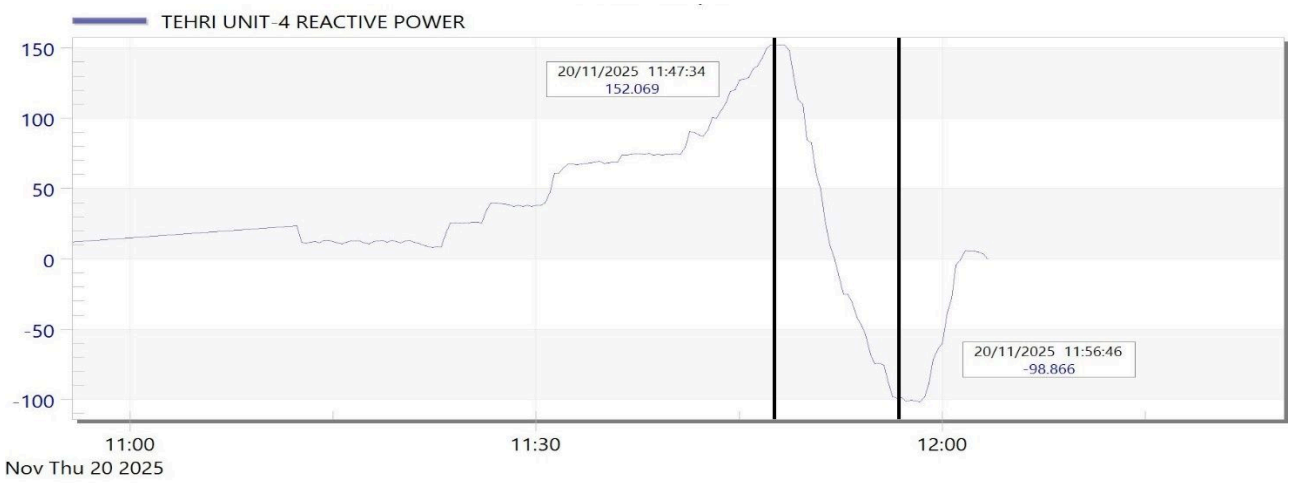
Regarding synchronous condenser mode of operation in 237 OCC meeting it was discussed that,

- NRLDC representative requested THDC, BBMB and Punjab SLDC to confirm the availability of their machines for synchronous condenser support**.**
- THDC representative confirmed the availability of both Tehri Hydro Power Plant and Tehri Pumped Storage Plant generating units for synchronous condenser mode of operation. It was also confirmed that machines from both can be operated in synchronous condenser mode of operation simultaneously.
- BBMB representative confirmed through email regarding availability of Pong Hydroplant for synchronous condenser mode of operation.
- Punjab SLDC confirmed availability of RSD Unit-3 for synchronous condenser mode of operation, as per grid requirement. It was mentioned that RSD is taking measures for including other units also under synchronous condenser mode of operation and one more unit is likely to be available starting from next winter season.
- NHPC representative stated that Chamera-II HEP is having ability to run as synchronous condenser mode of operation. Mock testing would be planned shortly in coordination with concerned HEP.
- MS NRPC and CGM NRLDC stated that as now incentive is also being provided for reactive power support as per IEGC 2023, more hydro generators should come up for synchronous condenser mode of operation which would also help to control grid voltages.
- OCC forum asked NRLDC and all concerned hydro stations to carry out mock testing in synchronous condenser mode of operation at the earliest.

Tehri PSP tested for synchronous condenser mode of operation on 19.11.2025:




Tehri HPP tested for synchronous condenser mode of operation on 20.11.2025:




***OCC members may provide details regarding actions taken at their end as agreed in 237 OCC meeting.***

## B.5. Insulator cleaning and replacement of damaged insulators/ porcelain insulator with polymer insulators

The importance of carrying out insulator cleaning and replacement of damaged insulators was discussed in past OCC meetings and recently in 56 TCC and 81 NRPC meetings held on 30th and 31st Oct 2025. Northern Regional power transmission lines are exposed to high pollution levels along their routes. Such pollution levels with the onset of the winter season, lead to the frequent tripping and finally to breakdown and long outages of the transmission lines. These outages make the grid weak, thereby endangering the grid reliability and security.

Therefore, in order to avoid/mitigate tripping of lines during foggy (smog) weather in winter season, preventive actions like cleaning/washing of insulators, replacement of conventional insulators with polymer insulators have been recommended and are being taken every year.

This being a regular activity, all the transmission licensees in the Northern Region are being requested in monthly OCC and NRPC meetings to update line wise data for insulator replacement and cleaning in the format attached as **Annexure-B.III**. NRLDC

has already requested vide letter dated 22.09.2025 all transmission utilities to furnish the utility-wise latest status of the replacement of porcelain insulators with polymer insulators so that crucial lines for which such works are pending may be identified & prioritized. Further, the same has also been requested through emails dated 24.11.2025, 01.12.2025 & 04.12.2025. Updated list received from SLDC-UK & Adani-APL.

These tripping were also discussed in past OCC and protection subcommittee meetings, wherein actions being taken at utility end were also discussed. All concerned transmission licensees are requested to ensure:

- Priority wise cleaning & replacement is carried out. Priority to be given to the lines that have historical record of tripping during foggy weather.
- Progress on cleaning replacement of porcelain insulator with polymer insulator to be monitored and latest status may be furnished to NRPC/NRLDC. NRLDC will also try and prioritize shutdowns for crucial lines having past instances of tripping during foggy weather.
- Examination of Disturbance record/Event log data including analysis of any issues related to auto-reclosure operation (details also to be shared with NRLDC)
- Adequate manpower in control room during night shift of winter (vigilant and alert)

***Utilities are requested to prepare plan for measures to be taken by them for carrying out pre-winter maintenance activities. Members may please discuss.***

## B.6. Reactive power performance of thermal generators in Northern region

During winter season, demand of Northern region is low and high voltages are a common phenomenon predominantly in Punjab, Haryana and Delhi area. Even after several actions being taken by control centers, it is seen that there is persistent high voltage in Northern region. The reactive power absorption by generators becomes an important resource that helps in managing high voltages in the grid. However, even after continuous follow up in OCC meetings, it is seen that MVAR data telemetry is poor/ inaccurate from most of the generating stations. For some of the generators it is seen that there is inadequate reactive power absorption based on their capability curve especially during night hours. The performance of generators in absorption of reactive power for Dec-2024-Jan2025 is shown below:

| S.No. | Station | Unit No. | Capacity | Geographical location | MVAR capacity as per capability curve (on LV side) | MVAR performance (-) Absorption (+) Generation (HV side data) | Voltage absorption above (in KV) |
|---|---|---|---|---|---|---|---|
| 1 | Dadri NTPC | 1 | 490 | Delhi-NCR | -147 to 294 | -160 to 80 | 410 |
| | | 2 | 490 | | -147 to | -150 to 60 | 408 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | 294 | | |
| 2 | Singrauli NTPC | 1 | 200 | UP | -60 to 120 | -15 to 5 | 397 |
| | | 2 | 200 | | -60 to 120 | 0 to 30 | 404 |
| | | 3 | 200 | | -60 to 120 | 0 to 20 | 402 |
| | | 4 | 200 | | -60 to 120 | -15 to 5 | 400 |
| | | 5 | 200 | | -60 to 120 | -20 to 10 | 400 |
| | | 6 | 500 | | -150 to 300 | 0 to 60 | 405 |
| | | 7 | 500 | | -150 to 300 | 0 to 50 | 404 |
| 3 | Rihand NTPC | 1 | 500 | UP | -150 to 300 | -50 to 50 | 398 |
| | | 2 | 500 | | -150 to 300 | -60 to 30 | 397 |
| | | 3 | 500 | | -150 to 300 | -100 to 0 | 394 |
| | | 4 | 500 | | -150 to 300 | -110 to 0 | 394 |
| 4 | Kalisindh RS | 1 | 600 | Rajasthan | -180 to 360 | -100 to 150 | - |
| | | 2 | 600 | | -180 to 360 | -130 to 50 | - |
| 5 | Anpara C UP | 1 | 600 | UP | -180 to 360 | -150 to 50 | 770 |
| | | 2 | 600 | | -180 to 360 | - | 770 |
| 6 | Talwandi Saboo PB | 1 | 660 | Punjab | -198 to 396 | -210 to 0 | 410 |
| | | 2 | 660 | | -198 to 396 | -210 to 0 | 408 |
| | | 3 | 660 | | -198 to 396 | - | - |
| 7 | Kawai RS | 1 | 660 | Rajasthan | -198 to 396 | -80 to 50 | 404 |
| | | 2 | 660 | | -198 to 396 | -90 to 50 | 404 |
| 8 | IGSTPP Jhajjar | 1 | 500 | Haryana | -150 to 300 | -110 to 60 | 412 |
| | | 2 | 500 | | -150 to 300 | -110 to 120 | 415 |
| | | 3 | 500 | | -150 to 300 | - | - |
| 9 | Rajpura (NPL) | 1 | 700 | Punjab | -210 to 420 | -210 to 70 | 405 |
| | | 2 | 700 | | -210 to 420 | -210 to 80 | 405 |
| 10 | MGTPS | 1 | 660 | Haryana | -198 to 396 | -130 to 40 | 404 |
| | | 2 | 660 | | -198 to 396 | -130 to 70 | 405 |
| 11 | Bawana | 1 | 216 | Delhi-NCR | -65 to 130 | - | - |
| | | 2 | 216 | | -65 to 130 | -70 to 10 | 410 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 3 | 216 | | -65 to 130 | - | - |
| | | 4 | 216 | | -65 to 130 | - | - |
| | | 5 | 253 | | -65 to 130 | -70 to 10 | 412 |
| | | 6 | 253 | | -65 to 130 | - | - |
| 12 | Bara PPGCL | 1 | 660 | UP | -198 to 396 | -40 to 80 | 772,778 |
| | | 2 | 660 | | -198 to 396 | -50 to 60 | 772,778 |
| | | 3 | 660 | | -198 to 396 | -70 to 50 | 772,778 |
| 13 | Lalitpur TPS | 1 | 660 | UP | -198 to 396 | -100 to 50 | 760 |
| | | 2 | 660 | | -198 to 396 | -80 to 50 | 765 |
| | | 3 | 660 | | -198 to 396 | -100 to 50 | 758 |
| 14 | Anpara D UP | 1 | 500 | UP | -150 to 300 | - | - |
| | | 2 | 500 | | -150 to 300 | -150 to 0 | 760 |
| 15 | Chhabra TPS | 1 | 250 | Rajasthan | -75 to 150 | -50 to 50 | 410 |
| | | 2 | 250 | | -75 to 150 | -40 to 50 | 412 |
| | | 3 | 250 | | -75 to 150 | -40 to 40 | 410 |
| | | 4 | 250 | | -75 to 150 | - | - |
| | | 5 | 660 | | -198 to 396 | -50 to 150 | 412 |
| | | 6 | 660 | | -198 to 396 | -70 to 150 | 412 |

All generating stations are requested to resolve any issues related to telemetry and make sure that MVAr absorption is as per grid requirement and capability curve of machine and there needs to be improvement in performance of thermal machines in MVAR support compared to last year.

Since with IEGC 2023 implementation, reactive energy performance also has financial impact, it is desirable that all generating stations continue to support grid voltages by having reactive power performance as per their capability curve and grid requirement.

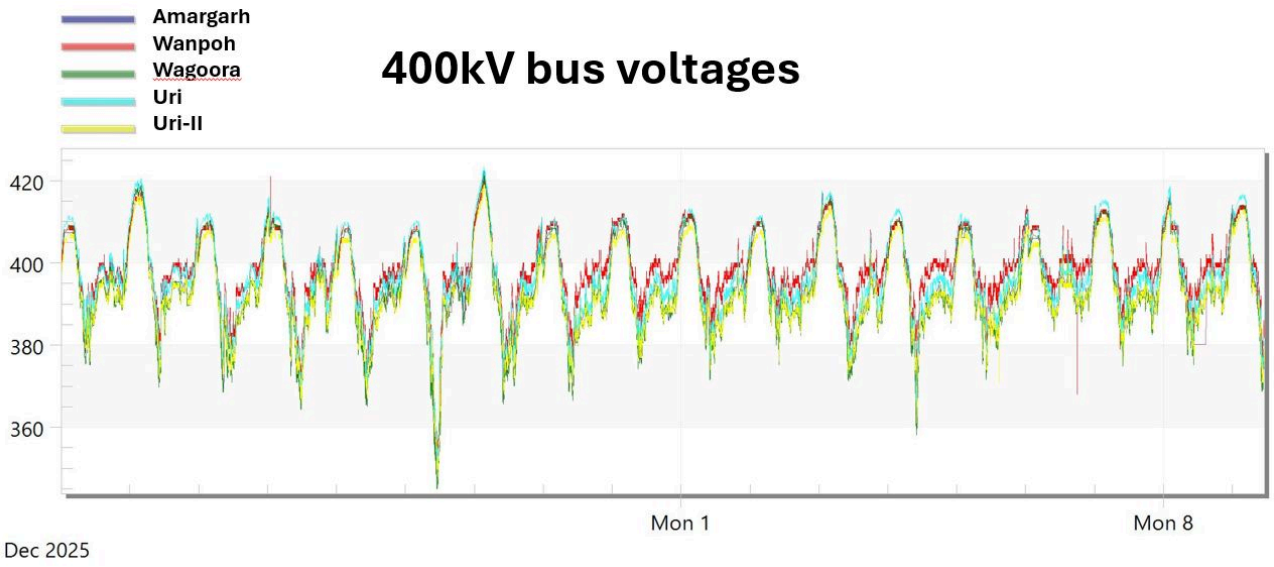
Some of the generating units such IGSTPP Jhajjar, MGTPS Jhajjar, Bara need to explore possibility of further MVAR absorption. Further, intrastate generators in Rajasthan control area may be asked to support through adequate reactive power generation during day-time when Rajasthan grid experiences low voltage.

***All generating stations are requested to resolve any issues related to telemetry and make sure that MVAr absorption is as per grid requirement and capability curve of machine. Generators may also set their Vsch (voltage set point) such that units are absorbing MVAR as per their capability and grid requirement with intimation to RLDC/SLDC.***

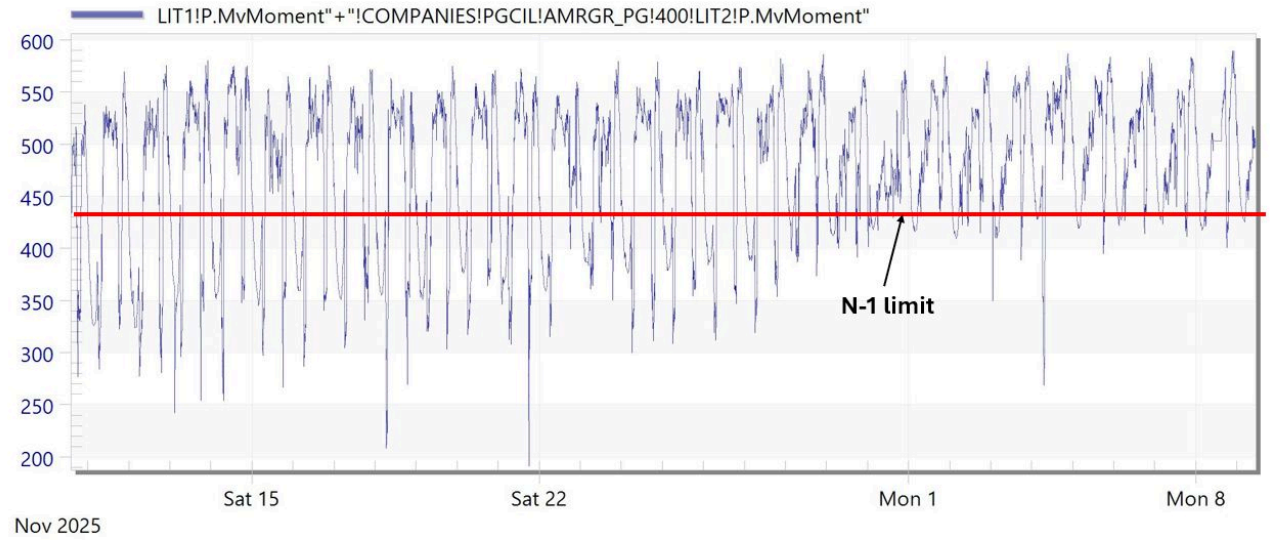
## B.7. Severe Low voltages in J&K and N-1 violations

As expected, with the increase in winter, demand of J&K control area is on higher side and it is hovering around 3200MW. As the heating load is also picking up during early morning and night hours, the demand may further increase in the coming days. It has been observed that the 400kV as well as 220kV Bus voltages at various stations in Kashmir valley are remaining critically low also reaching 347kV and 178kV (well below the IEGC band i.e. 380KV & 198kV respectively) due to low hydro generation and heavy MVAR drawl from the ISTS nodes.

The low voltage is a perennial issue, and it has been deliberated in various meetings as well as in the recently held 56th TCC & 81 NRPC Meeting held on 30th & 31st October 2025 at Srinagar. Recent voltage plots of Amargarh, Wagoora, Wanpoh, Uri-1 and Uri-2 are shown below:




Further, loading of 400/220kV Amargarh ICTs for last one month is shown below:




J&K SLDC is requested to take appropriate measures:

- To maintain the 400kV & 220kV voltages within IEGC band in J&K control area to avoid any untoward incident.
- To ensure N-1 compliance of 400/220kV Amargarh ICTs

***J&K SLDC may provide update. Members may please discuss.***

**B.8. Critical operation of Rajasthan Grid during upcoming winter season:**

Issues related to grid operation in Rajasthan state control area have been highlighted from NRLDC side in last several OCC/TCC/NRPC meetings. It is to be noted that such issues get aggravated during winter months when agricultural demand in state is on the higher side.

In 56 TCC and 81 NRPC meetings held on 30th and 31st Oct 2025, RRVPNL representative informed that:

- ICT at Bikaner (Raj) would be commissioned by December 2025 and at Merta end of October, Jodhpur erection and commissioning under progress..
- 151 Capacitor banks under installation and covered areas which have low power factor viz. Bikaner(Raj).
- RRVPNL informed that DISCOMs have also planned the installation of capacitor but may not come up this winter.
- 880 MVAR capacitor bank installation by Dec 2025.
- NRLDC representative highlighted that 400 KV Hindaun –Alwar sub-station, Voltages reaching lows of 320 KV.
- MS (NRPC) advised RRVPNL to run Dholpur plants and take up with their higher management in view of the present grid condition
- Low Voltages in the system also lead to huge payment under reactive energy account.
- Capacitor bank should also be installed in Bhinmal area in view of low voltages.
- SPS implementation to be expedited in priority where SPS has not been installed.
- At Heerapura ICT would be commissioned this year and SPS may not be required.
- PGCIL informed that bay construction work is under progress at various locations and ICTs would be commissioned in next year.
- SPS can be installed at PGCIL sub-stations in one month time line with feeders emanating from PG.
- Non-essential load may be shifted to Non-solar hours

Further, during 56th TCC and 81st NRPC meeting following decisions were made:

I. Forum advised RRVPNL to take corrective actions from load side if Voltages go below 0.90 pu for ensuring safe and reliable grid operation.
II. RRVPNL was also advised to take up with their higher management for running of Dholpur units this winter season to improve the Voltage profile.
III. RRVPNL to expedite the commissioning of ICTs where N-1 non-compliance is observed.
IV. Prioritise installation of capacitor banks in areas where low voltages and low power factor are observed.
V. Installation of SPS at locations where N-1 issues were observed and take up in the upcoming OCC and PSC meetings.

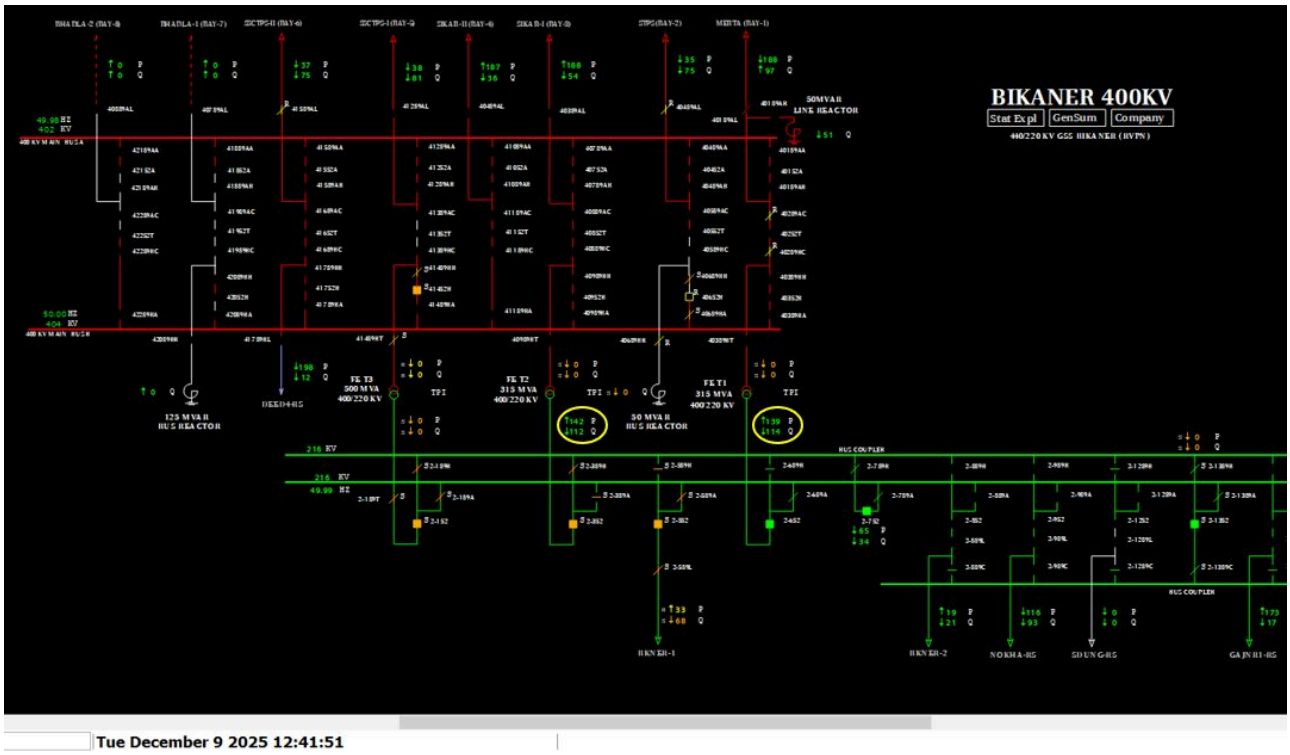
VI. Rajasthan SLDC/STU to ensure compliance of grid connectivity standards of the intra-state generators which get connectivity to the grid of the state network.

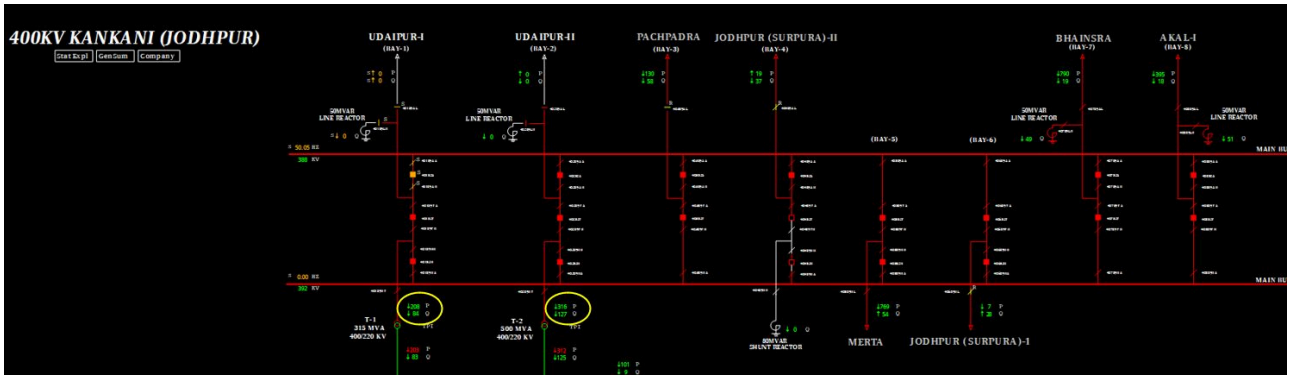
Rajasthan SLDC provided following updates during 237 OCC meeting:

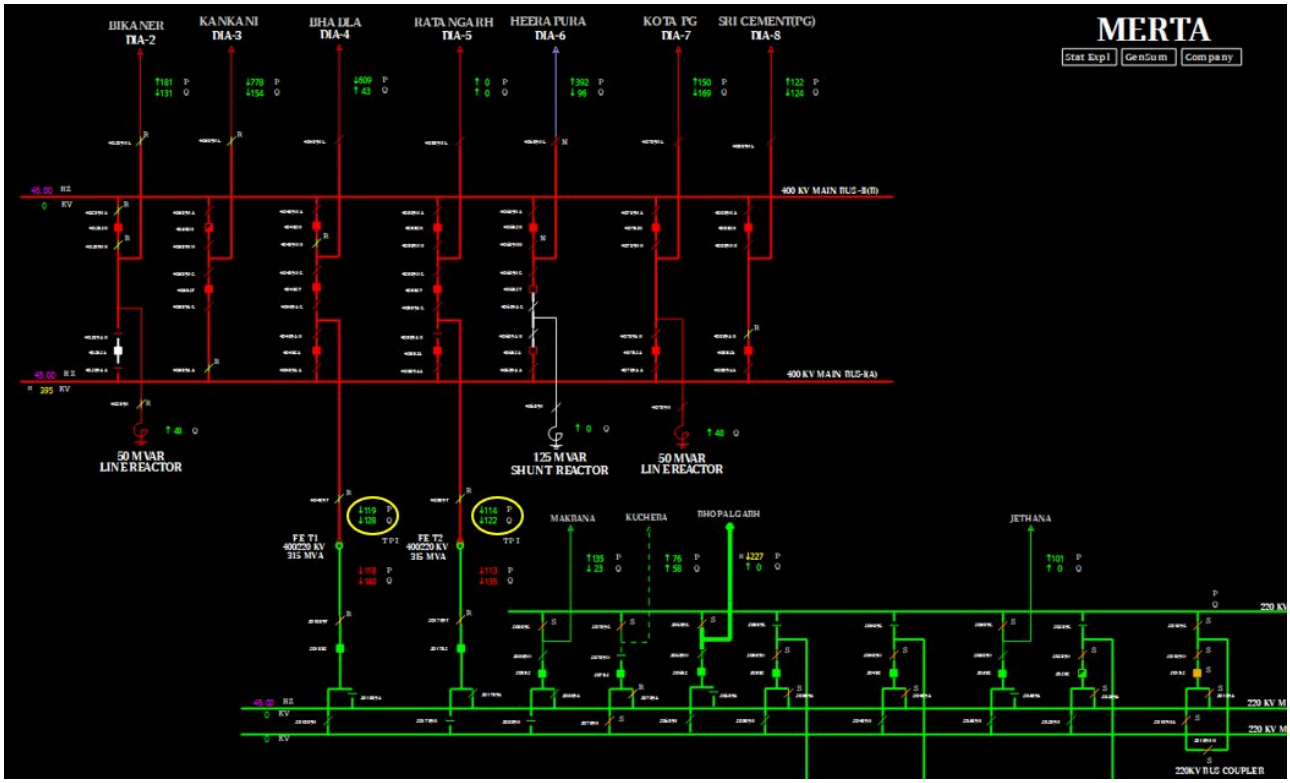
- New 400/220kV ICT at Merta is expected by end of Nov 2025
- New 400/220kV ICT at Bikaner is expected by end of Nov 2025
- New 400/220kV ICT at Heerapura is expected by end of Nov 2025
- New 400/220kV ICT at Jodhpur is expected by end of Dec 2025
- 151 Capacitor banks under installation and covered areas which have low power factor viz. Bikaner(Raj) would be commissioned by Dec 2025.
- RE generators are supporting grid and now injecting MVAr during day time to support grid voltages.
- RREC is also taking up with intrastate RE generators to comply with existing CEA regulations and provide reactive power support.

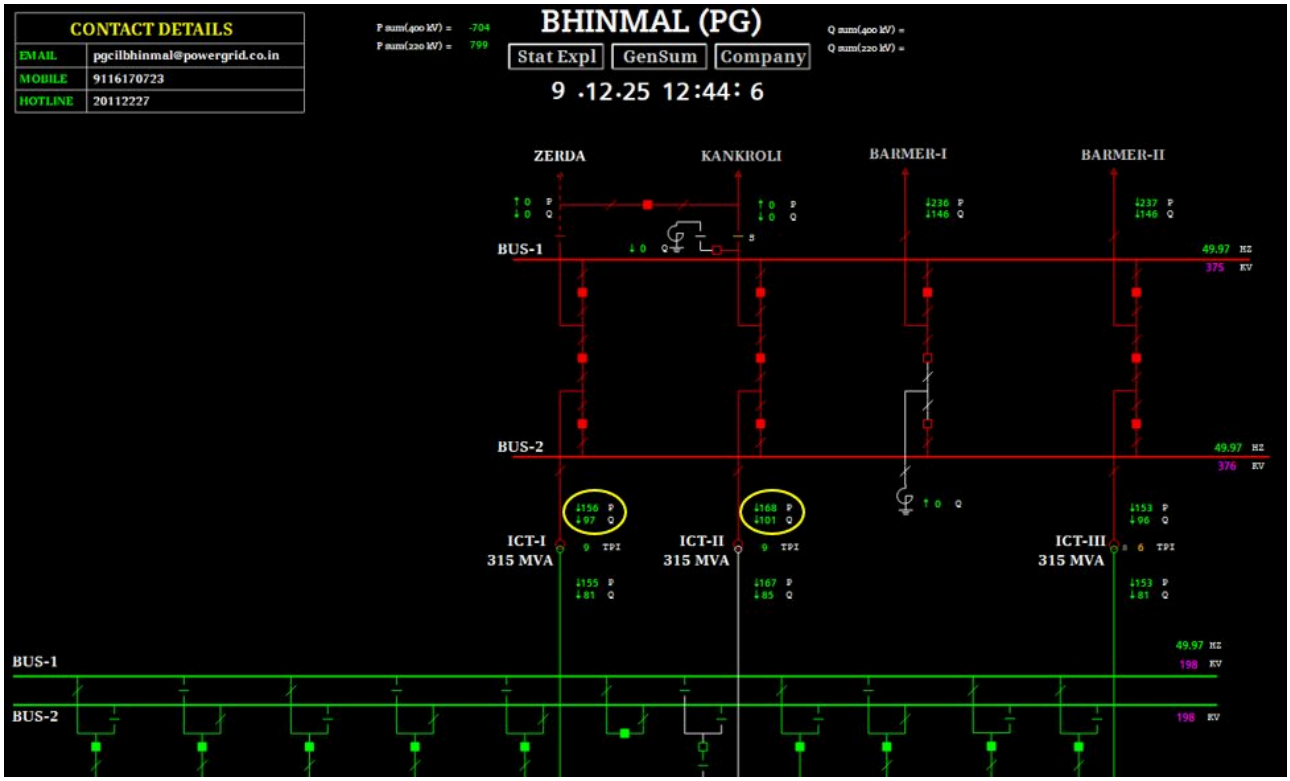
However, with the increased loadings in the transmission system, the operational issues have once again aggravated with poor power factor across different substations and also severe N-1 non-compliance of number of 400/220kV ICTs in Rajasthan.

ICTs MW drawl, MVAr drawl, and S/s voltage for Solar hours 09 Dec 2025, 12:30hrs for some stations are shown below:

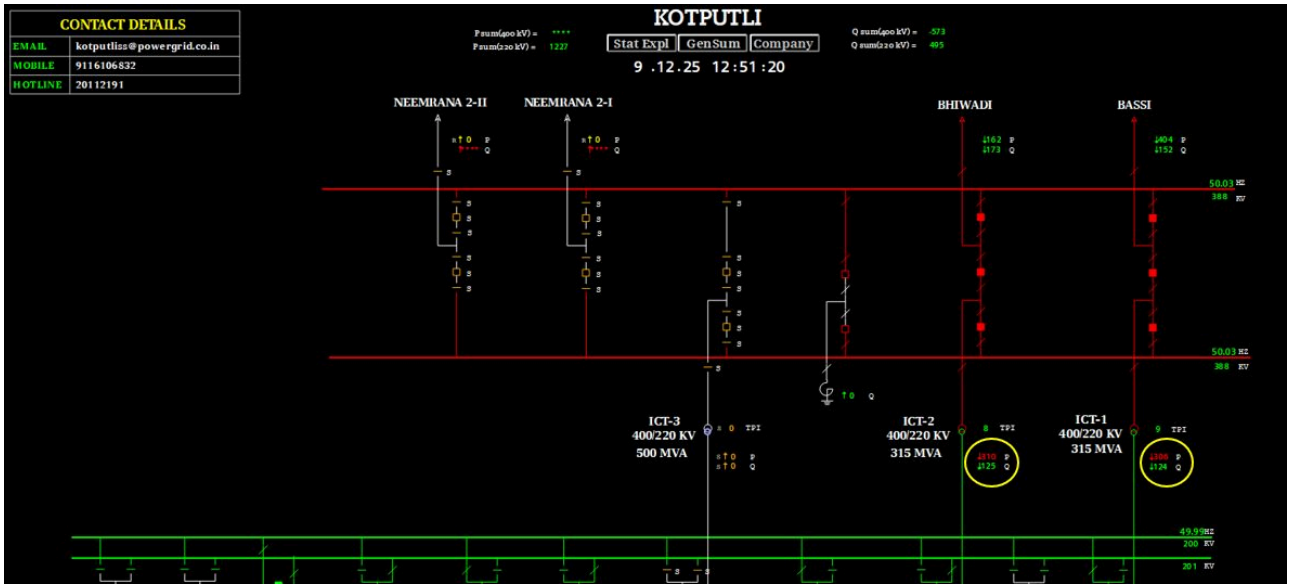



400KV KANKANI (JODHPUR)
UDAIPUR-I
(BAY-1)
UDAIPUR-II
(BAY-2)
PACHPADRA
(BAY-3)
JODHPUR (SURPURA)-II
(BAY-4)
BHAINSRA
(BAY-7)
AKAL-I
(BAY-8)
50MVAR LINE REACTOR
50MVAR LINE REACTOR
50MVAR LINE REACTOR
50MVAR LINE REACTOR
(BAY-5)
(BAY-6)
MAIN BU
MAIN BU
T-1
315 MVA
400/220 KV
T-2
500 MVA
400/220 KV
50MVAR SHUNT REACTOR
MERTA
JODHPUR (SURPURA)-I




***Further, number of 400/220kV ICTs supplying power to Rajasthan are operating close to their rated limits without any n-1 compliance. For example, loading of 400/220kV Kotputli(PG) ICTs is show below where 315MVA ICTs seem to be over loaded.***




List of few 400/220 kV ICTs in Rajasthan with loading beyond N-1 limits (Loading observed

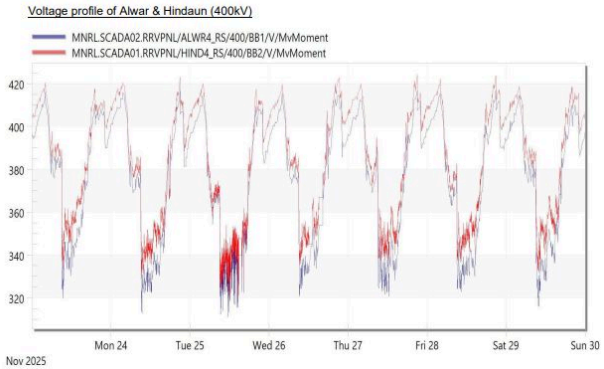
(09Dec 2025 @ 12:30hrs) are mentioned below.

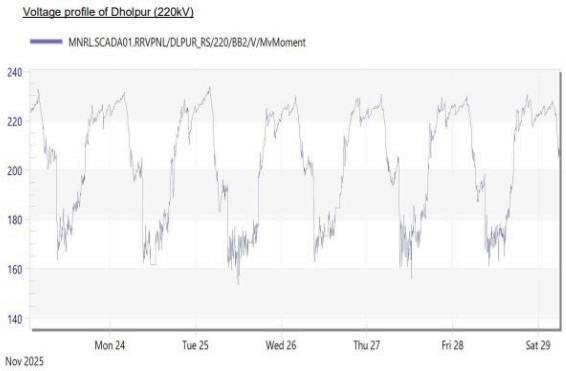
List of constrained 400/220kV ICTs in Rajasthan

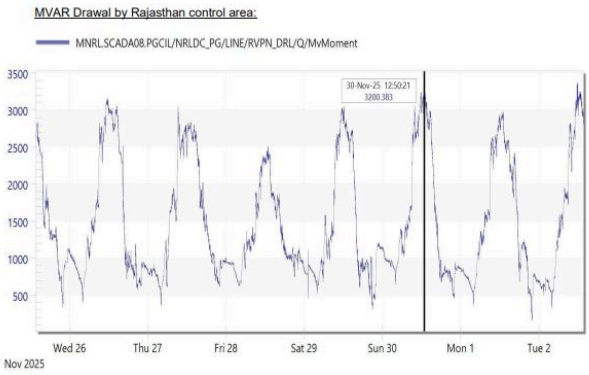
| Constrained location | Status as available with NRLDC | Present Loading (MW) | N-1 contingency limit (MVA) |
|---|---|---|---|
| N-1 contingency of 3*315=945 MVA ICT at Bhiwadi(PG) | Additional 500MVA ICT approved in 29 CMETS on 17.05.2024 | Data suspect | 740 |
| N-1 contingency of 2*315+500=1130 MVA ICT at Bassi(PG) | Additional 500MVA ICT has been approved. Same is anticipated by 14.12.2025. | 800-900 | 730 |
| N-1 contingency of 315+500=815 MVA ICT at Neemrana(PG) | Additional 500MVA ICT has been approved in 36 NR CMETS held on 15.01.2025. | Less loading due to S/d of 220kV Neemrana-Behror D/C | 590 |
| N-1 contingency of 2*500=1000 MVA ICT at Jaipur South(PG) | Additional 500MVA ICT has been approved in 36 NR CMETS held on 15.01.2025. | 450-500 | 680 |
| N-1 contingency of 2*315+500=1130 MVA ICT at Sikar(PG) | Additional 500MVA ICT has been approved in 38 NR CMETS held on 28.05.2025.. | 900-1000 | 680 |

| | | | |
|---|---|---|---|
| N-1 contingency of 3*315=945 MVA ICT at Kankroli(PG) | ICT-4 has been approved and is expected to be commissioned by Dec 2025. | 600-650 | 670 |
| N-1 contingency of 2*315=630 MVA ICT at Kotputli(PG) | Augmentation by 400/220 kV 500 MVA (3rd) ICT at Kotputli (PG) is expected by 31.12.2025 | 600-650 | 380 |
| N-1 contingency of 2*315=630 MVA ICT at Deedwana(RVPN) | As per latest status shared by Rajasthan SLDC order for 10 no. ICT has been placed recently. New 500MVA ICTs are expected to be commissioned at 400/220kV Merta, Ajmer and Bikaner by Dec 2025.<br><br>SPS has been implemented as temporary measure for some of the stations such as Chittorgarh (RVPN), Ajmer (RVPN), Merta (RVPN), Bikaner (RVPN), Jodhpur (RVPN), Suratgarh(RVPN), Ratangarh(RVPN) | 350-400 | 350 |
| N-1 contingency of 3*250+315=1065 MVA ICT at Heerapura(RVPN) | | 600-700 (data to be checked) | 890 |
| N-1 contingency of 3*315 =945 MVA ICT at Chittorgarh (RVPN) | | 600-650 | 670 |
| N-1 contingency of 2*315 =630 MVA ICT at Ajmer (RVPN) | | 550-600 | 370 |
| N-1 contingency of 2*315 =630 MVA ICT at Merta (RVPN) | | 450-500 | 390 |
| N-1 contingency of 2*315 =630 MVA ICT at Bikaner (RVPN) | | 400-500 | 410 |
| N-1 contingency of 2*315=630 MVA ICT at Suratgarh(RVPN) | | 350-400 | 370 |
| N-1 contingency of 3*315=945 MVA ICT at Ratangarh(RVPN) | | 600-700 | 640 |

400kV as well as 220 KV Bus voltages at Alwar, Hindaun and 220kV voltage at Dholpur are remaining critically low (on lower side of IEGC band). The 400kV bus voltages at Alwar and Hindaun are even touching precariously low level of 320kV and 330kV respectively. 220kV Dholpur voltage is also reaching low of 160kV in recent days.




Further, huge MVAR drawl by Rajasthan control area from grid is observed with MVAR drawl reaching alarming levels of >3200 MVAR. It is also pertinent to mention here that excessive MVAR drawl from the Grid would also lead to payment of reactive charges into the pool by Rajasthan control area.

***Rajasthan SLDC may provide update.***

**SPS proposals in Rajasthan**

Majority of 400/220kV ICTs in Rajasthan state (both interstate as well as intrastate are N-1 non-compliant).

For intrastate substations, where SPS have not been planned and implemented, the same may be taken up. List of N-1 non-compliant substations is shown below:

| Constrained location | SPS Status as available with NRLDC |
|---|---|
| 3*315=945 MVA ICT at Bhiwadi(PG) | 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*500=1000 MVA ICT at Jaipur South(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) | Approved and to be implemented |
| 2*315=630 MVA ICT at Deedwana(RVPN) | Not planned |
| 3*250+315=1065 MVA ICT at Heerapura(RVPN) | Not planned |
| 3*315 =945 MVA ICT at Chittorgarh (RVPN) | Implemented |
| 2*315 =630 MVA ICT at Ajmer (RVPN) | Implemented |
| 2*315 =630 MVA ICT at Merta (RVPN) | Implemented |
| 2*315 =630 MVA ICT at Bikaner (RVPN) | Implemented |
| 2*315 =630 MVA ICT at Jodhpur (RVPN) | Implemented |
| 2*315=630 MVA ICT at Suratgarh(RVPN) | Implemented |
| 3*315=945 MVA ICT at Ratangarh(RVPN) | Implemented |
| 1*500+1*315 =815 MVA ICT at Bhilwara (RVPN) | Implemented |

NRLDC vide email dated 02.12.2025 has communicated that the stage wise logic for SPS of ICTs at POWERGRID stations in Rajasthan control area was discussed in 64th PSC meeting held on 21.11.2025. The time delay logic proposed by Rajasthan was agreed and POWERGRID was requested to start the implementation process of the SPS at designated stations.

Time delay for stage-1&2 of SPS was decided as:

1. Stage-1: 105% loading with 1 sec delay
2. Stage-2: 105% loading with 1.5 sec delay

POWERGRID is requested to implement the SPS at designated stations i.e., 400/220kV Kankroli(PG), Bassi(PG), Neemrana(PG), Kotputli(PG), Bhiwadi(PG), Jaipur South(PG) and Sikar(PG) at the earliest possible.

***POWERGRID and Rajasthan SLDC may provide update.***

## B.9. State-wise transmission constraints during high demand season of 2025 and SPS proposals

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

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

State-wise issues and measures required thereof are listed below. Concerned transmission utilities are requested to provide update and ensure that these transmission elements are expeditiously commissioned.

**Punjab:**

During OCC 237,

NRLDC proposed to increase ATC/TTC limits of Punjab state control area by 300MW presently and keeping it under observation and in case no issues are observed with ATC/TTC limits of 10700/11200MW, decision on further increase of ATC/TTC by 200MW would be taken by NRLDC in consultation with Punjab SLDC.

Punjab SLDC representative stated that they are reassessing the ATC/TTC limit for paddy 2026. After review of ATC/TTC limits by Punjab SLDC, revised figures would be shared with NRLDC at the earliest.

***Punjab SLDC may provide update.***

**Haryana:**

**SPS proposals in Haryana**

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

During 237 OCC meeting,

NRLDC representative asked POWERGRID to plan & implement SPS in such a manner that SPS is surely implemented by Apr 2026.

POWERGRID representative stated that only one offer has been received for DTPC panel procurement and the work is expected to be completed in next 3-4 months.

***POWERGRID may provide update.***

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

During 237 OCC meeting, Haryana SLDC stated that they have taken up the matter with their TS-wing and would provide update on SPS implementation at 400/220kV Panipat(BBMB) shortly after the meeting.

OCC forum expressed concern on slow progress and asked Haryana SLDC to expedite SPS implementation at 400/220kV Panipat(BBMB).

***HVPNL and Haryana SLDC may provide update.***

**Uttar Pradesh:**

In 237 OCC meeting,

POWERGRID representative stated that 500MVA ICT-4 at Allahabad is expected to be commissioned by Dec 2025.

It was also informed by UPPTCL representative that old 240MVA ICT at Obra is expected to be revived by Nov 2025 whereas 315MVA ICTs at Obra would be revived after some time due to requirement of procurement of ICTs.

## 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 Dec 2025.

OCC forum asked POWERGRID to implement SPS scheme at Agra(PG) at the earliest.

POWERGRID representative stated that SPS at Agra(PG) would be commissioned by Dec 2025 end.

***POWERGRID, UPPCL and UP SLDC are requested to provide update.***

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

July 2025 Mails

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

August 2025 Mails

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

September 2025 Mails

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

October 2025 Mails

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

November 2025 Mails

| | ATC/TTC Declaration | | | | Interconnection Studies | |
|---|---|---|---|---|---|---|
| | M-1 (Dec-25) | | M-12 (Nov-26) | | M-6 (May-26) | |
| | Data Values | Basecases | Data Values | Basecases | Data Values | Basecases |
| Chandigarh | No | No | No | No | No | No |
| Delhi | No | No | Yes | Yes | No | No |
| Haryana | Yes | Yes | No | No | No | No |
| Himachal | No | No | No | No | No | No |
| J &K | Yes | Yes | Yes | Yes | Yes | Yes |
| Ladakh | No | No | No | No | No | No |
| Punjab | Yes | Yes | Yes | Yes | Yes | Yes |
| Rajasthan | Yes | Yes | Yes | Yes | Yes | Yes |
| Uttar Pradesh | Yes | Yes | Yes | Yes | Yes | Yes |
| Uttarakhand | No | Submitted only Solar peak and evening peak case | No | No | No | No |

December 2025 Mails

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

Submitted after 8th of current month

Submitted in next month

During 237 OCC meeting, Uttarakhand SLDC submitted that they had recently shared basecase file with NRLDC.

NRLDC representative stated that basecase need to submitted for four scenarios as per IEGC approved procedure. Only two scenario basecase has been received by NRLDC from Uttarakhand SLDC which was also submitted after due date.

Further, states submitting basecase with one month delay may note that the changes given by them do not get reflected in the All India/regional basecase file, as NRLDC prepares the basecase as per CERC approved timelines and goes ahead as per the data available as on date.

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

***Members may please discuss.***

## B.10. Bypass of 400kV Dadri-Maharanibagh and 400kV Maharanibagh-Ballabgarh at 400kV Maharanibagh

765/400 kV Narela Substation was energized on 01.10.2025 through the LILO of the 765 kV Meerut–Bhiwani line. Subsequently, all 765/400 kV ICTs, bus reactors, and both the 765 kV and 400 kV buses at Narela have been brought into service.

Following interconnections were recently commissioned:

- 765 kV Khetri–Narela D/c line
- 400 kV Narela–Maharanibagh M/c line

Before the implementation of above arrangement, assessment of the requirement to bypass the 400 kV Ballabgarh–Dadri lines at Maharanibagh and maintain radial connectivity of Maharanibagh with Narela at 400 kV was studied at NRLDC end.

Observations from fault level assessment studies:

a. In the Final arrangement with 400kV Dadri-Ballabgarh Not By-passed at 400kV Maharanibagh (i.e. connected), 3-Ph Fault current at 400kV Maharanibagh, 400kV Narela and 400kV Ballabgarh will increase by 10kA, 23kV and 4kA respectively, but still within 45kA, so no issue in these S/s. Further, it would also provide good fault level support at 765/400kV Narela S/s.

***b.*** However, 3-Ph Fault current at 400kV Dadri NCR and 400kV Dadri (PG) will increase by 5kA at each S/s and it would be ~51kA and 50kA respectively***. Any issue in case of 50kA 3-Ph Fault current at 400kV Dadri S/s may be reviewed by PGCIL/NTPC.***

c. 3-Ph Fault current at 400kV Meerut S/s is 63kA in basecase itself, no major impact with By-passing 400kV Dadri-Ballabgarh at 400kV Maharanibagh.

d. With connection of only 400kV Ballabgarh-Maharanibagh line, following are fault levels:

| | | Fault levels (MVA) | | | | |
|---|---|---|---|---|---|---|
| | | Earlier arrangement of bypass (a) | Present arrangement w/o bypass (b) | Connection of only 400kV Ballabgarh -Mbagh © | % change (b-a) | % change (c-a) |
| 124014 | [BALLABHGR-PG400.00] | 30134 | 30475 | 30428 | 1.13% | 0.98% |
| 124027 | [BALLABH_2ND | 25799 | 28342 | 28126 | 9.86% | 9.02% |
| 144002 | [MAHARANI | 16104 | 28029 | 22346 | 74.05 % | 38.76% |
| 144015 | [NARELA_400 | 18222 | 27257 | 23311 | 49.58 % | 27.93% |
| 154061 | [DADR-NCR | 32096 | 34503 | 30317 | 7.50% | -5.54% |
| 154118 | [DADRI_PG | 31633 | 33968 | 29903 | 7.38% | -5.47% |
| | | Fault current (kA) | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 124014 | [BALLABHGR-PG400.00] | 43.5 | 44.0 | 43.9 | 1.13% | 0.98% |
| 124027 | [BALLABH_2ND | 37.2 | 40.9 | 40.6 | 9.86% | 9.02% |
| 144002 | [MAHARANI | 23.2 | 40.5 | 32.3 | 74.05 % | 38.76% |
| 144015 | [NARELA_400 | 26.3 | 39.3 | 33.6 | 49.58 % | 27.93% |
| 154061 | [DADR-NCR | 46.3 | 49.8 | 43.8 | 7.50% | -5.54% |
| 154118 | [DADRI_PG | 45.7 | 49.0 | 43.2 | 7.38% | -5.47% |

Accordingly, proposal of keeping 400kV Dadri-Maharanibagh-Ballabgarh remain connected at 400kV Maharanibagh may be deliberated.

***Members may please discuss.***

## B.11. Ensuring availability of hydro generators for AGC support

NRLDC has been continuously pursuing intra-State Generators and IPPs (Independent Power Producers) to implement Automatic Generation Control for balancing and improving the grid frequency profile. As a part of this ongoing initiative, a one-day capacity building workshop was successfully organized by the Northern Regional Load Dispatch Centre (NRLDC) on 04th December 2025 at the NRPC Conference Hall for the benefit of Northern Region State Load Dispatch Centres (SLDCs), intra-state generating stations, and IPPs.

The primary objective of the workshop was to enhance stakeholder understanding of the technical requirements, regulatory provisions, and commercial mechanisms associated with the participation of intra-State generators in the Central Secondary Reserve Ancillary Services (SRAS) framework through AGC. During the workshop, detailed presentation was given by GRID-INDIA about how intra-State Generators can also participate under SRAS mechanism at central level and how it would be helpful to generators to earn additional revenue and help in improving reliable grid operation. Representatives from PPGCL-Bara, THDC-Khurja, and UP SLDC also shared valuable insights based on their successful AGC implementation experiences, providing practical perspectives to the participants.

However, recently it is being observed that some of the existing wired hydro stations in Northern region are not keeping their units in AGC remote mode for all the time. For example for 07 Dec 2025, it was reported that despite availability of communication, the time for which the hydro stations participated in secondary frequency control was low as shown below:

| S.No. | Plant Name | % AGC Remote | % Onbar | % Communication Link Availability |
|---|---|---|---|---|
| 1 | BAIRASIUL | 0 | 17 | 100 |
| 2 | DHAULIGNGA | 0 | 18 | 100 |
| 3 | NJPC | 28 | 26 | 100 |
| 4 | TEHRI | 33 | 29 | 100 |
| 5 | CHAMERA2 | 37 | 23 | 100 |
| 6 | SEWA2 | 52 | 16 | 100 |
| 7 | CHAMERA1 | 72 | 14 | 100 |

| | | | | |
|---|---|---|---|---|
| 8 | RIHAND1 | 81 | 100 | 100 |
| 9 | SINGRAULI | 83 | 60 | 100 |
| 10 | UNCHAHAR2 | 86 | 50 | 100 |

NLDC/NRLDC are pursuing with the stations to operate in AGC-remote mode whenever units are brought on bar. However, it is requested that the generating station control room personnel may be advised to keep their units in AGC remote mode whenever they are generating. This would enhance the quantum of regulating reserve in the grid for frequency control.

***Members may please discuss.***

## B.12. Mock testing of islanding scheme and simulation studies

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

During 237 OCC meeting, NRLDC representative presented the latest status of actions required on various islanding schemes.

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

UP SLDC representative stated that Unchahar islanding scheme basecases are being prepared. Data has been requested from field and some data is pending. Basecases would be shared with NRLDC at the earliest.

NRLDC representative further stated that Bawana islanding scheme of Delhi needs review with upcoming network changes due to commissioning of 765/400kV Narela substation.

DTL representative stated that the scheme changes required due to reconfiguration would be implemented at site.

MS NRPC stated that the proposed reconfiguration of islanding scheme by DTL may be shared with NRLDC/ NRPC by next OCC meeting and thereafter changes may be done in islanding scheme.

***Delhi and UP SLDC may provide update.***

## B.13. Self-audit related:

As per IEGC Clause 56.2(c),

Quote

*"The self-audit reports by users, QCAs, and SNAs shall be submitted to the concerned RLDC or SLDC, as the case may be."*

Unquote

Failure to submit the self-audit report within the stipulated timeframe would be considered a non-compliance with IEGC regulations.

During 235 OCC meeting, it was discussed that Self-audit report has been received from NHPC and Koteshwar THDC only for F.Y. 2023-24. As F.Y. 2024-25 has also completed recently, all utilities in Northern region are requested to carry out self-audit exercise and share report with NRLDC as per IEGC Clause 56.2(c).

As 31.07.2025 has already past, it is requested that all concerned users of NRLDC may carry out their self-audit and submit report to NRLDC at the earliest.

NRLDC communication in this regard to all concerned is attached as **Annexure B.V** for reference.

The self-audit report should inter alia include the following details:

1. Sufficient information on any instances of non-compliance, explaining how and why they occurred.
2. Extent of impact or damage caused by such non-compliance.
3. Corrective steps planned along with a timeline for rectification.
4. Measures taken to prevent recurrence in the future.

***Self-audit reports are being received from some of the RE developers and Qualified Coordinating Agencies (QCA) but are still pending for NRLDC users which are part of OCC forum.***

***All concerned are requested to provide update. Members may please discuss.***

**B.14. Multiple element tripping events in Northern region in the month of November 2025:**

A total of **07** grid events occurred in the month of November 2025 of which **3** are of GD-1 category **01** are of GI-2 Category and **03** are 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.VI.**

Maximum delayed clearance of fault observed in event of tripping event at 220/132/33kV Jammu(Gladni(J&K)) at 16:24 hrs on 11th November 2025 (As per

PMU at Kishenpur(PG), R-B phase to phase fault converted to 3-phase fault was observed with delayed fault clearing time of 1040ms).

Delayed clearance of fault (more than 100ms for 400kV and 160ms for 220kV system) observed in total **02** events out of **13** grid events occurred in the month. In **02** (no.) of grid events, there was no fault in the grid.

***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.***

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.

**Members may take necessary preventive measures to avoid such grid incidents / disturbances in future and share the report of actions taken by respective utilities. 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).**

***Members may like to discuss.***

## B.15. Status of submission of DR/EL and tripping report of utilities for the month of November 2025:

The status of receipt of DR/EL and tripping report of utilities for the month of **November 2025** is attached at **Annexure-B.VII**. 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. However, **it is evident from the submitted data that reporting status of RE stations(ADANI, RENEW, SJVN), SLDC-HP, SLDC-PS, SLDC-J&K, SLDC-Delhi, BBMB, NTPC, NHPC, Sterlite and RAPS is not satisfactory and needs improvement**.

Members may please note and advise the concerned for timely submission of the information. It is requested that DR/EL of all the trippings shall be **uploaded on Web Based Tripping Monitoring System "https://postda.nrldc.in/Default.aspx"** within 24 hours of the events as per IEGC clause 37.2(c) and clause 15.3 of CEA grid standard. Apart from prints of DR outputs, the corresponding COMTRADE files (.cfg/.dat) may please also be submitted in tripping portal.

***Members may like to discuss.***

## B.16. Mock testing of System Protection Schemes (SPS) in Northern Region

As per IEGC clause 16.2

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

As per IEGC clause 16.3

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

There are **58 numbers of System Protection Scheme (SPS) approved** in Northern Region. These SPS are implemented at major generation complexes, important evacuating transmission lines and ICTs which are N-1 non-complaint. System Protection Scheme Document of Northern Region has been revised/updated on 31st January 2025. Revised version of the document is available on the NRLDC website in Document section and can be accessed at below link: https://nrldc.in/documents/Documents.

In this regard, communication was sent to constituents through NRLDC letter dated 01.05.2024, 21.02.2025, 05.03.2025, 04.04.2025 & 28.05.2025 for conducting mock testing of SPS in their control area and continuous follow up is also being done in OCC & PSC meeting since May 2024.

During 2024-25, mock testing of 14 SPS out of total 55 SPS were not conducted. In view of high demand scenario during summer 2025-26, NLRDC vide letter dated 04.04.2025 requested all the concerned utility to conduct the mock testing of pending SPS by the end of April 2025. However, as reported, mock testing of 03 SPS out of pending 14 SPS have been done. In this regard, discussion is being continuously held in OCC & PSC meetings. PSC forum requested all the members to conduct the mock testing of all the SPS in their respective control area at the earliest.

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

Members are requested to share the updated w.r.t. their respective control area.

Status of follow-up actions w.r.t. some of the SPS are as follows:

i. **SPS of HVDC Rihand-Dadri:** During mock testing of SPS of HVDC Rihand-Dadri on 20.03.2025, issues i.e., faulty SPS hardware at Singrauli TPS (NTPC) and no receipt of SPS signal at 220/132kV Ratangarh(RS) were identified. Further, during recent operation of SPS on 21.05.2025 in incident of outage of both poles, desired SPS actions i.e., generation backdown at Singrauli TPS and load relief in UP, Delhi, Haryana & Punjab were not observed. Desired load / generation relief is important to ensure the security and reliability of grid during such contingency. As per details received, SPS signal was sent to all the mapped stations from POWERGRID end however either due to non receipt of signal or error in SPS

system at load / generation, SPS action didn't occur. NRLDC vide letter dated 02.07.2025, requested POWERGRID and Singrauli NTPC to take necessary remedial measures and make complete SPS system healthy.
During 233rd OCC meeting, POWERGRID representative stated that the equipment's at Singrauli TPS end is owned by NTPC and need to be revived by them. SPS system at Rihand(PG) is healthy and operational. NTPC representative stated that as per details received from site, NTPC Singrauli team have initiated necessary actions in coordination with the POWERGRID. SPS operation is crucial as it is planned for special contingencies, and its unavailability may lead to cascade tripping or major grid disturbance especially in case of high demand period.

Discussion during 237th OCC meeting:

a) NRLDC requested NTPC Singrauli and POWERGRID to share the details of necessary corrective actions taken / planned to be taken to ensure healthiness of SPS system at Singrauli TPS and load stations.
b) Representative from NTPC informed that existing SPS system at Singrauli TPS is defective, procurement work has been initiated. NRLDC requested NTPC to share the tentative timeline for completion of work and to expedite the remedial actions for early restoration of SPS system at Singrauli TPS.
c) Regarding issues at load stations, POWERGRID agreed to take necessary actions in coordination with the site stations.
d) Further, NRLDC also informed that mock testing of SPS of HVDC Rihand-Dadri has been scheduled tentatively on 19.11.2025. Concerned members were requested to ensure the readiness and share the details of coordinators.

SPS mock testing of HVDC RIhand-Dadri was conducted successfully on 19.11.2025. SPS command didn't receive at 220kV Muradnagar(UP), 220kV Merta(RS), 220kV Kota Sakatpura(RS), 220kV Dhanonda(HR) and Singrauli TPS(NTPC). SPS system at Rihand HVDC, Dadri HVDC and at remaining load and generating stations are healthy.

**POWERRGID, Singrauli(NTPC) and other concerned may share the details of actions taken / planned to be taken to rectify the issues in HVDC Rihand-Dadri SPS system.**

ii. **SPS of Anta, Kawai, Chhabra generation complex:** In one of the SPS cases i.e., N-1-1/ N-2 of 765kV Anta-Phagi 1 & 2, instantaneous generation backdown of ~2100 MW is designed as SPS action. In such scenario, to avoid overloading of WR-NR corridor and over drawl by Rajasthan, it was agreed that RVPNL shall implement the automatic load shedding of ~750 MW by 28.02.2018. However, as per details available, implementation of automatic load shedding as per SPS hasn't been done yet. This matter has already been discussed in PSC as well as OCC meetings on regular basis. The concern of grid security and reliability was also raised during request of shutdown of 765kV Anta-Phagi line. is requested to

expedite implementation of the automatic load shedding of ~750 MW as per SPS (N-1-1/ N-2 contingency of 765kV Anta-Phagi-1 & 2).
During 235th OCC meeting, SLDC-Rajasthan representative informed that automatic load shedding of ~750 MW has been implemented.
During 236th OCC meeting, SLDC-Rajasthan confirmed that mock testing of automatic load shedding part of the SPS has been conducted.

Discussion during 237th OCC meeting:

a) NRLDC representative requested Rajasthan to share the mock test report of the automatic load shedding part of the SPS.
b) RVPNL agreed to share the mock test report w.r.t. automatic load shedding part of the SPS at the earliest.

**Details haven't been received yet. Rajasthan is requested to share the details at the earliest possible.**

iii. **SPS of N.Jhajkri, Karcham, Rampur hydro generation complex:** Status of implementation of case-6(i) and corrective actions w.r.t case-6 (ii) need to be shared.
During 235th OCC meeting, HPPTCL representative informed that faulty communication card at Wangtoo S/s is to be replaced with new card. The case is at procurement stage, and it is estimated that work will be completed by the end of December 2025.
**Karcham(JSW) and HPPTCL may share the update in this regard.**

iv. **SPS of 765kV Agra-Gwalior D/C:** Mock testing of the SPS was conducted on 10.10.2025. During the testing, it was observed that there is communication issue at Bhiwadi(PG), Bamnauli(DTL), Kota, Debari, Chittorgarh, Ratangarh, Nunamajra, Safidon, Ajitwal, Dandhari-II, Ablowal substations.
NRLDC requested all the concerned states to submit the mock test report of their respective control area. Details have been received from Delhi, Rajasthan and Punjab. UP, BBMB, Haryana and POWERGRID have shared the partial details.
Further, POWERGRID was requested to share the details of actions taken / planned to be taken to resolve the issues in SPS system.
During 237 OCC meeting, POWERGRID was requested to take expeditious corrective actions to rectify the issues and make the SPS healthy and operational at all the stations.
NRLDC has also sent a letter dated 28.11.2025 to POWERGRID for expeditious corrective actions and make complete SPS system healthy and operational.

**POWERRGID may share the details of actions taken / planned to be taken to rectify the issues in 765kV Agra-Gwalior D/C SPS system.**

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

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

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

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

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

Further, during 60th PSC meeting, it was decided that the SPS which are not required from constraint point of view will not be disabled for keeping the assets associated with SPS healthy and will be treated as “reserve SPS”, as may be required during prolonged outages of any system element. In case of reserve SPS for transformers (where logic was based on “tripping” of transformer) logic need to be modified based on “loading” of transformer in place of “tripping” of transformer.

The list of reserve SPS as on date are as follows:

i. SPS for Transformers at Ballabhgarh (PG)
ii. SPS for Transformers at Bamnauli (DTL)
iii. SPS for Transformers at 400KV Muzaffarnagar (UP)
iv. SPS for Transformers at 400KV Sultanpur (UPPTCL)
v. SPS for Transformers at 400KV Gorakhpur (UPPTCL)
vi. SPS for Transformers at 400KV Greater Noida (UPPTCL)

During 64th PSC meeting, MS-NRPC suggested that assets of “reserve SPS” can be used in new SPS to be commissioned and hence they may be removed from existing SPS list. PSC forum suggested to remove the above mentioned 06 ”reserve SPS” schemes.

**Implementation of SPS in POWERGRID substations in Rajasthan control area:**

SPS stage wise logic (received from Rajasthan) for SPS of ICTs at POWERGRID stations in Rajasthan control area was discussed in 64th PSC meeting. The time delay logic proposed by Rajasthan was found OK and POWERGRID was requested to start the implementation process of the SPS at designated stations.

Time delay for stage-1&2 of SPS was decided as:

1. Stage-1: 105% loading with 1 sec delay
2. Stage-2: 105% loading with 1.5 sec delay

NRLDC through mail dated 0.12.2025 requested POWERGRID to implement the SPS at designated stations i.e., 400/220kV Kankroli(PG), Bassi(PG), Neemrana(PG), Kotputli(PG), Bhiwadi(PG), Jaipur South(PG) and Sikar(PG) at the earliest possible.

***POWERGRID may share the update in this regard. Mock testing report of the SPS also need to be shared after implementation.***

***Members may like to discuss.***

**B.17. Mock trial run and testing of black start facilities at generating stations in Northern Region**

As per Indian Electricity Grid Code (IEGC) clause 34.3

"*Detailed procedures for restoration post partial and total blackout of each user system within a region shall be prepared by the concerned user in coordination with the concerned SLDC, RLDC or NLDC, as the case may be. The concerned user shall review the procedure every year and update the same.* ***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.*** *Diesel generator sets and other standalone auxiliary supply source to be used for black start shall be tested on a weekly basis and the user shall send the test reports to the concerned SLDC, RLDC and NLDC on a quarterly basis*".

Hydro and gas-based plants are capable of self-black-start. Conducting periodic mock black start exercises are extremely important to ensure the healthiness of black start facilities and also to build awareness as well as confidence among the system operators.

In view of above, regional entity generating stations shall conduct the dead bus charging of their units on rotation basis as per availability of schedule under intimation to the NRLDC. Testing of Diesel generator sets and other standalone auxiliary supply source to be used for black start shall also be done on a weekly basis. SLDC shall also ensure the same in their respective control area. This will ensure the healthiness of blackstart facility at generating stations. Further, NRLDC shall coordinate with the ISGS and states to conduct the mock black start exercise of subsystems.

Therefore, regional entity generating stations and SLDCs are requested to share the annual schedule plan for conducting dead bus charging / mock black start exercise of generating stations /sub-systems during 2025-26. The present status of mock black start of generating units is attached as **Annexure-B.IX**. Constituents are also requested to share the test report of diesel generators / auxiliary supply on a quarterly basis.

**Mock black start exercised conducted during FY 2025-26 are as follows:**

| Sr. No. | Name of Generating station | Date of Mock Black Start Exercise conducted |
|---|---|---|
| 1. | Parbati_III HEP | 17.05.2025 |
| 2. | Sewa_II HEP | 16.05.2025 |
| 3. | Rihand & Obra HEP(UP) | 02.06.2025 |
| 4. | Ramgarh GPS | 11.05.2025 |
| 5. | RSD HEP(Punjab) | 01.12.2025 |
| 6. | Tehri HEP | 11.11.2025 |

**Therefore, ISGS and SLDCs are requested to take following actions:**

- **To share the tentative schedule of mock black start exercise of generating stations in their respective control area.**
- **SLDCs are requested to share the tentative schedule plan of mock black start exercise of generating stations in their respective control area.**
- **To conduct dead bus charging after self-starting the generating station if schedule with load is not available.**
- **To share the test report of mock black start exercise conducted along with weekly DG testing on monthly/quarterly basis.**

***Members may like to discuss.***

**B.18. Revision of document for Reactive Power Management of Northern Region:**

NRLDC has been issuing 'Reactive Power document of Northern Region' on annual basis. Reactive Power Management document for Northern region was last revised on 31st Dec 2024 & updated document is available on NRLDC website in document section, the weblink of the same is as below:

https://nrldc.in/documents/Documents

The document is password protected and password has already been informed to all the NR constituents.

In view of new addition/modification of transmission & generation element in NR grid since Dec'24, the document is being reviewed for update.

Constituents were requested to share the details by 03.12.2025, however details have been pending from all the SLDCs, BBMB, transmission licensees and other utilities.

Details have been received from Karcham & Baspa HEP, Tehri HEP & Tehri PSP, Luni HEP, Gumma(HP) S/s, APCPL Jhajjar TPS, Singoli Bhatwari HEP, Budhil HEP, Koldam HEP only

All the constituents / utilities are again requested to share the details w.r.t. your respective control area at the earliest possible, so that Reactive Power Document 2026 can be updated and compiled within stipulated time.

***Constituents are requested to provide feedback, suggestion and updated information w.r.t. Reactive Power Document 2026 at the earliest possible.***

## B.19. Revision of document for System Restoration Procedure Document of Northern Region:

NRLDC has been issuing '**System Restoration Procedure Document of Northern Region**' on annual basis. The document was last revised on 31st Jan 2025 & updated document is available on NRLDC website in document section, the weblink of the same is as below:

https://nrldc.in/documents/Documents

The document is password protected and password has already been informed to all the NR constituents.

In view of new addition/modification of transmission & generation element in NR grid since Jan'25, the document is being reviewed for update.

***Constituents are requested to provide feedback, suggestion and updated information by 15th Jan 2025.***

## B.20. Revision of document for System Protection Scheme Document of Northern Region:

NRLDC has been issuing '**System Protection Scheme Document of Northern Region**' on annual basis. The document was last revised on 31st Jan 2025 & updated document is available on NRLDC website in document section, the weblink of the same is as below:

https://nrldc.in/documents/Documents

The document is password protected and password has already been informed to all the NR constituents.

In view of new addition/modification of transmission & generation element in NR grid and revision in existing SPS, addition of new SPS and review of SPS, since Jan'25, the document is being reviewed for update.

***Constituents are requested to provide feedback, suggestion and updated information by 15th Jan 2025.***

Status of action taken on decision of 237th OCC meeting of NRPC

| S.N. | Agenda | Decision of 237th OCC meeting of NRPC | Status of action taken |
|---|---|---|---|
| 1. | A.12. Interim charging (rated voltage) of 765 kV D/C Bhadla III Ramgarh line and Ramgarh SS (PS) (Agenda by Powergrid NR-1) | OCC forum agreed that the proposal may be reviewed after the charging of 765 KV Khetri- Narela DC line. | CTU and NRLDC to update status. |
| 2. | A.15. Utilisation of dynamic capability of SVCs and STATCOM to maintain GRID voltage (Agenda by Powergrid NR-2) | OCC forum asked POWERGRID to provide inputs to CTUIL regarding suitable locations for installing SVCs based on space availability for long-term planning. Further, OCC forum agreed that CTUIL may carry out the study in coordination with J&K and POWERGRID to assess the requirement of reactive power devices in J&K. | POWERGRID and CTUIL may update the status. |
| 3. | A.16. Increase in fault level at 400/220KV Substation Ludhiana and Moga Substations (Agenda by Powergrid NR-2) | OCC forum asked CTUIL, NRLDC and POWERGRID to conduct a site visit before next OCC meeting to assess the feasibility of installation of Bus sectionalizer at Ludhiana and Moga Substations. Forum requested POWERGRID to coordinate and facilitate the site visit. Further, forum asked NRLDC and CTUIL to study jointly and suggest necessary measures for fault level control at these substations. | NRLDC and CTUIL may update the status. |

Status of action taken on decision of 237th OCC meeting of NRPC

| | | | |
|---|---|---|---|
| 4. | AA.1 Action Taken Report with respect to the past recommendations of the Standing Committee of Experts on EHV Tower Failures (Agenda by NRPC Secretariat) | OCC Forum asked UPPTCL, RVPNL, NTPC, NRSS XXXVI and PGCIL to submit Action Taken Report with respect to the past recommendations of the Standing Committee to PSETD Division, CEA and NRPC at the earliest. | UPPTCL, RVPNL, NTPC, NRSS XXXVI and PGCIL may update the status. |
| 5. | AA.3 Details of allocation of Power to States and UTs of NR and tieups from Long Term arrangement for FY 2026-27 (Agenda by NRPC Secretariat) | OCC forum asked all SLDCs of NR to submit the details of allocation of Power to their control area and tie-ups from Long Term and Medium-Term arrangements along with banking and bilateral arrangements for FY 2026-27 within a week. | SLDC's to update the status. |

## Follow up issues from previous OCC meetings

Annexure-A.II

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

<table>
<tr><td>4</td><td>Status of Automatic Demand Management System in NR states/UT's</td><td>The status of ADMS implementation in NR, which is mandated in clause 5.4.2 (d) of IEGC by SLDC/SEB/DISCOMs is presented in the following table:</td><td>The status of ADMS implementation in NR is enclosed in Annexure-A.II.II.<table><tr><td>◎</td><td>DELHI</td><td>Scheme Implemented but operated in manual mode.</td></tr><tr><td>◎</td><td>HARYANA</td><td>Scheme not implemented</td></tr><tr><td>◎</td><td>HP</td><td>Scheme not implemented</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Scheme not implemented</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Under implementation.</td></tr><tr><td>◎</td><td>UP</td><td>Scheme implemented by NPCIL only</td></tr><tr><td>◎</td><td>UTTARAKHAND</td><td>Scheme not implemented</td></tr></table></td></tr>
<tr><td>5</td><td>Status of availability of ERS towers in NR</td><td>As per the decesion of 68th NRPC and 211th OCC meeting, ERS availability monitoring is being taken as rolling/follow-up agenda in OCC meetings for regular monitoring of ERS under different utilities in Northern region.</td><td>As per the information received from different utilities in Northern region, updated status of availability of ERS towers in Northern Region attached as Annexure-A.II.III.</td></tr>
<tr><td>6</td><td>Submission of breakup of Energy Consumption by the states</td><td>All states/UTs are requested to submit the requisite data as per the billed data information in the format given as under:<table><tr><td>Category→</td><td>Consumption by Domestic Loads</td><td>Consumption by Commercial Loads</td><td>Consumption by Agricultural Loads</td><td>Consumption by Industrial Loads</td><td>Traction supply load</td><td>Miscellaneous / Others</td></tr><tr><td><Month></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></td><td>Status of the information submission (month) from states / utilities is as under:<table><tr><td></td><td>State / UT</td><td>Upto</td></tr><tr><td>◎</td><td>CHANDIGARH</td><td>Not Submitted</td></tr><tr><td>◎</td><td>DELHI</td><td>Oct-25</td></tr><tr><td>◎</td><td>HARYANA</td><td>Oct-25</td></tr><tr><td>◎</td><td>HP</td><td>Oct-25</td></tr><tr><td>◎</td><td>J&K and LADAKH</td><td>JPDCL- Mar'24<br>KPDCL- Not Submitted</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Jul-25</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Aug-25</td></tr><tr><td>◎</td><td>UP</td><td>Oct-25</td></tr><tr><td>◎</td><td>UTTARAKHAND</td><td>Feb-25</td></tr></table>Chandigarh is requested to submit the requisite data w.e.f. April 2018 as per the billed data information in the given format</td></tr>
</table>

| 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. |

Annexure-A-II.I

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

| Sl. No. | Substation | Downstream network bays | Status of bays | Planned 220 kV system and Implementation status | Revised Target | Remarks |
|---|---|---|---|---|---|---|
| 1 | 400/220kV, 3x315 MVA Samba | Commissioned: 8<br>Total: 8 | Utilized: 6<br>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<br>Total: 6 | Utilized: 2<br>Unutilized: 4 | • 220 kV New Wanpoh - Alusteng D/c Line | Mar'25 | 02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Alusteng D/c Line. RoW issues persisting; At present new-wampoh-mirbazar 5km and harwan-alstung 16km have been completed, expected date of completion is Mar 2025 subject to availability of funds and resolving of RoW issues), Updated in 214th OCC by JKPTCL. |
| | | | | • 220 kV New Wanpoh - Mattan D/c Line | End of 2024 | 02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Mattan D/c Line. The funding source for the project is being identified and the project is expected to be completed by ending 2024. Updated in 204th OCC by JKPTCL. |
| 3 | 400/220kV, 2x315 MVA Amargarh | Commissioned: 6<br>Total: 6 | Utilized: 4<br>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<br>Total: 8 | Utilized: 6<br>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<br>Total: 6 | Utilized: 2<br>Unutilized: 4 | • Network to be planned for 4 bays | - | PTCUL to update the status. |
| 6 | Shahjahanpur, 2x315 MVA 400/220 kV | Commissioned: 6<br>Approved/Under Implementation:1 | Utilized: 7 | • 220 kV D/C Shahajahanpur (PG) - Gola line | Commissioned | Energization date: 26.10.2023 updated by UPPTCL in 215th OCC |
| | | | | • LILO of Sitapur – Shahjahanpur 220 kV SC line at Shahjahanpur (PG) | Commissioned | Energization date: 25.02.2022 updated by UPPTCL in 196th OCC |
| 7 | Hamirpur 400/220 kV Sub-station | Commissioned: 8<br>Total: 8 | Utilized: 4<br>Unutilized: 4 | • 220 kV Hamirpur-Dehan D/c line | Commissioned | HPPTCL has commissioned the Planned 220kV Dehan-Hamirpur TL utilizing 2 No. 220kV Bays.Commisioned date: 09.06.2022. Updated in 198th OCC by HPPTCL |
| | | | | • Network to be planned for 4 bays | - | HPPTCL to update the status. |
| 8 | Sikar 400/220kV, 1x 315 MVA S/s | Commissioned: 8<br>Total: 8 | Utilized: 6<br>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<br>Total: 6 | Utilized: 2<br>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. | Dec'25 | Issue related to ROW as intimated in 228th OCC by HVPNL.<br>**Status:**<br>Work was stalled since 29.07.2021 due to ROW issues and farmers agitation and further restarted on 9.10.2023 with the help of district administration. Now, work was again stalled since30.11.2023 due to severe ROW issues.<br>Expected to be completed by 31.03.2025.<br>Foundation 209/212. Erection 193/212. Stinging 37.8/50.3 km |
| | | | | • 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 Pardesh 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<br>Approved:4<br>Total: 8 | Utilized: 4<br>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 | Sep'25 | Erection and stringing work completed.The signing of Connection agreement amongst the Utilities is pending. Updated in 234th OCC by HVPNL. |
| 11 | 400/220kV Tughlakabad GIS | Commissioned: 6<br>Under Implementation: 4 | Utilized: 6<br>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<br>Total: 6 | Utilized: 2<br>Unutilized: 2<br>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<br>Total: 8 | Utilized: 0<br>Unutilized: 8 | • D/C line Kadarpur - Pali D/C line Kadarpur - Sec-65 | Commissioned | Updated in 232nd OCC by HVPNL<br>**Status:-**<br>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<br>Total: 8 | Utilized: 4<br>Unutilized: 4 | • LILO of both circuits of 220kV D/c Sohna-Rangla Rajpur at Roj Ka Meo line at 400kV Sohna Road | Oct'25 | Line work completed, but commissioning of 220kV substation Roj ka Meo is pending till now.. However, this arrangement will not lead to usage of additional bays i.e. no of utilitsed bays at Sohna road will remain same.Updated in 230th OCC by HVPNL |
| | | | | • LILO of both circuits of 220kV D/c Badshahpur-Sec77 line at 400kV Sohna Road | - | The matter is subjudice in Hon'ble Punjab & Haryana High court, Chandigarh Updated in 228th OCC by HVPNL.<br>**Status:-**<br>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<br>Aprroved: 2<br>Total: 10 | Utilized: 4<br>Unutilized: 4<br>Under Implementation:2 | • 220kV D/C line from Prithla to Harfali with LILO of one circuit at 220kV Meerpur Kurali | Dec'25 | Contract awarded on 08.08.23 to M/s Skipper with completion in December 25.Updated in 230th OCC by HVPNL |
| | | | | • LILO of both ckt of 220kV D/c Ranga Rajpur – Palwal line | Commissioned | Energization date: 31.12.2021. Updated in 198th OCC by HVPNL |
| | | | | • 220kV D/C for Sector78, Faridabad | Dec'25 | Issue related to ROW and Pending crossing approval from Northern Railways and DFCCIL. as intimated in 228th OCC by HVPNL. |
| | | | | • Prithla - Sector 89 Faridabad 220kV D/c line | Dec'25 | The work for construction of 220kV D/C Prithla-Sector-78 Faridabad line on multi circuit towers is delayed mainly due to severe resistance by local villagers & ROW problem at site during construction. Due to delay in construction of 220kV D/C Prithla-Sector-78 Faridabad line, the work for construction of 220kV D/C Prithla-Sector 89 Faridabad line might delay..Updated in 230th OCC by HVPNL |
| 16 | 400/220kV Sonepat Sub-station | Commissioned: 6<br>Under Implementation:2<br>Total: 8 | Utilized: 2<br>Unutilized: 4<br>Under Implementation:2 | • LILO of both circuits of 220kV Samalkha - Mohana line at Sonepat | Commissioned | Commissioned as updated by HVPNL in 233rd OCC |
| | | | | • Sonepat - HSIISC Rai 220kV D/c line | Commissioned | Energization date: 31.05.2024 updated by HVPNL in 220th OCC |
| | | | | • Sonepat - Kharkhoda Pocket A 220kV D/c line | Nov'25 | Updated in 232nd OCC by HVPNL.<br>**Status:**<br>Work order has been issued to M/s R.S Infra on dated 09.08.2023 by O/o CE/PD&C, Panchkula for construction of line.<br>Both bays are under construction and erection of electrical equipment is under progress. |
| 17 | 400/220kV Neemrana Sub-station | Commissioned: 6<br>Total: 6 | Utilized: 4<br>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<br>Total: 6 | Utilized: 4<br>Unutilized: 2 | • Kotputli - Pathreda 220kV D/c line | - | Date of bid opening has been extended up to 30.04.2024 as updated in 218th OCC by RVPNL. |
| 19 | 400/220kV Jallandhar Sub-station | Commissioned: 10<br>Total: 10 | Utilized: 8<br>Unutilized: 2 | • LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar | - | LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar being planned. Route plan and estimate of work sanctioned, DNIT has been sent to float tender as updated by PSTCL in 227th OCC |
| 20 | 400/220kV Roorkee Sub-station | Commissioned: 6<br>Total: 6 | Utilized: 4<br>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<br>Total: 8 | Utilized: 4<br>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.<br>_____<br>• 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<br>Total: 6 | Utilized: 4<br>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<br>Under Implementation:2<br>Total: 10 | Utilized: 6<br>Unutilized: 2<br>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).<br>_____<br>• 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<br>Under Implementation:2<br>Total: 12 | Utilized: 10<br>Unutilized: 0<br>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<br>Under tender:2<br>Total: 10<br>Out of these 10 nos. 220kV | Utilized: 2<br>Unutilized: 4<br>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 | Nov'25 | 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<br>Approved in 50th NRPC- 1 no.<br>Total: 8 | Utilized: 6<br>Under Implementation:2 | • Amritsar – Patti 220kV S/c line | - | Draft connectivity agreements for 220kV Rashiana-Amritsar has been received from CTU and the same under processing. Draft connectivity agreements for 220kV Patti-Amritsar line is under consideration by CTU. CTU is processing the agreement and PSTCL has provided with the requisite inputs/data to CTU. Updated in 232nd OCC by PSTCL. |
| | | | | • Amritsar – Rashiana 220kV S/c line<br>(2 bays shall be required for above lines. However, 1 unutilized bay shall be used for Patti and requirement of one additional bay approved for Rashiana by NRPC) | - | Draft connectivity agreements for 220kV Rashiana-Amritsar & 220kV Patti-Amritsar lines are under consideration by CTU. CTU is processing the agreement and PSTCL has provided with the requisite inputs/data to CTU. Updated in 232nd OCC by PSTCL. |
| 27 | 400/220kV Bagpat S/s | Commissioned: 8<br>Total: 8 | Utilized:6<br>Unutilized: 2 | • Bagpat - Modipuram 220kV D/c line | Commissioned | Updated in 201st OCC by UPPTCL |
| 28 | 400/220kV Bahardurgarh S/s | Commissioned: 4<br>Approved: 4<br>Total: 8 | Utilized:2<br>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.<br>**Status:**<br>The work stands awarded to the M/s KRR and the execution work has been started at site. Partial route stands approved by the competant authority of the HVPNL. Further, 06 no. Foundation has been casted. |
| | | | | • Bahadurgarh - Kharkhoda Pocket B 220kV D/c line | 30.11.2025 | Updated in 234th OCC by HVPNL.<br>**Status:**<br>RoW issues which are being resolved with the help of Duty Magistrate. |
| 29 | 400/220kV Jaipur (South) S/s | Commissioned: 4<br>Total: 4 | Utilized:2<br>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<br>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<br>_____<br>• Sohawal - Bahraich 220kV S/c line (Energization date: 15.02.2021) updated by UPPTCL in 196th OCC |
| 31 | 400/220kV, Kankroli | Commissioned: 6<br>Total: 6 | Utilized: 4<br>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<br>Total: 8 | Utilized: 4<br>Unutilized: 4 | • Network to be planned for 2 bays | - | Status:-<br>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<br>Under Implementation:2<br>Total: 8 | Utilized: 6<br>Unutilized: 0<br>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<br>Total: 10 | Utilized: 6<br>Unutilized: 4 | • Network to be planned for 4 bays | - | PDD, J&K to update the status. |
| 35 | 400/220kV, Ludhiana | Commissioned: 9<br>Total: 9 | Utilized: 8<br>Unutilized: 1 | • Network to be planned for 1 bay | Commissioned | Direct circuit from 220 kV Lalton Kalan to Dhandari Kalan to be diverted to 400 kV PGCIL Ludhiana. Work completed , final agrrement is expected to be signed by May'24. Updated in 218th OCC by PSTCL. |
| 36 | 400/220kV, Chamba (Chamera Pool) | Commissioned: 3<br>Under tender:1<br>Total: 4 | Utilized:3<br>Unutilized: 0<br>Under tender:1 | • Stringing of 2nd ckt of Chamera Pool – Karian 220kV D/c line | Commissioned | Stringing of 2nd Circuit of Chamera Pool-Karian Tansmission line has been completed & terminal bay at 400/220 kV chamera pooling substation (PGCIL) is commissioned on 20.01.2024. Updated in 217th OCC by HPPTCL. |
| 37 | 400/220kV, Mainpuri | Commissioned: 6<br>Under Implementation:2<br>Total: 8 | Utilized: 6<br>Unutilized: 0<br>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<br>Total: 8 | Utilized: 6<br>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 dismantaling 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 Dec'25. Further, SCADA upgradation work of TPDDL would be completed by Dec'26. |
| 2 | HARYANA | Scheme not implemented | Haryana SLDC intimated that as per Joint Roadmap of implementation of ADMS in Haryana supplied to NRPC vide memo dated 17.10.2023 (Annexure-II), the implementation plan was proposed to be carried out in two parts, as mentioned below:<br><br>PART-I: Control with Transmission Utility<br><br>PART-II: Control with Distribution Utility<br><br>It is pertinent to mention that as part of upcoming SCADA-EMS system i.e. upgradation of SCADA-EMS system, a feature in the name of LSS (Load Shedding Software)/ ADMS is part of the Technical Specification of project to be delivered. Therefore, the functionalities of ADMS application will be covered under 'Part-I: Control with Transmission Utility' will already be covered using the RTUs available at select substations along with the ADMS software being delivered by M/s GE under SCADA upgradation project.<br><br>Hence, there is no need to acquire a separate ADMS application & associated hardware for data centre for implementation of PART-I.<br><br>Further for Part -II a committee has been constituted for further finalization of the ADMS module with control with Discoms is under discussions for preparation of DPR. |
| 3 | HP | Scheme not implemented | In 237th OCC meeting, HPSDLC 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 236th OCC meeting, Punjab SLDC representative informed that testing of SCADA upgradation under ULDC phase III is underway. It is likely to be completed by Dec'25. |
| 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. |
| 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.<br><br>MS, NRPC asked UPSLDC to have and meeting with Discoms in its control areas and finalize of feeder list before next OCC meeting.<br>In 237th OCC meeting, UPSLDC representative mentioned that they are planning to have a meeting with higher management of Discom's by the end of Nov'25. |
| 7 | UTTARAKHAND | Scheme not implemented | i. UPCL has prepared a system architecture in which all the non-monitored sub-stions have been selected and 11kV feeders have been considered for ADMS operation. For the scheme, discom has also done group-wise selection of feeders and quantum of MW relief to be given for automatic demand response at 11kV level has also been decided. UPCL has awarded the tender for implementation of the aforementioned scheme to M/s Metergy Pvt.Ltd.<br>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.<br>iii. Uttarakhand SLDC informed that feeder list at 11kV level has been finalized and logic of ADMS implementation is under finalization.<br>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.<br>v. First Phase- Data Acquisition of 32 interstate points completed.<br>vi. Second Phase-95 distribution side Substation work is on progress.<br>vii In 230th OCC meeting Uttarakhand SLDC representative informed that Harbour installation and communication establishment has been done on 35 11kV feeders out of total 195 11kV feeders. The work is expected to be completed by December, 2025. |

Annexure-A.II.III.

## Status of availability of ERS towers in NR

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

| 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 |
|---|---|---|---|---|---|---|---|
| 13 | DTL | 220kV | 915.498 | NIL | 1 | 400kV Bamnauli Sub station | ERS tower available for 400KV rating can also be used for lower voltage lines as well |
| | | 400kV | 249.19 | 02 Sets (32 towers) | 1 | | |
| 14 | JKPTCL | | | | | | JKPTCL, Jammu: being procured<br>JKPTCL, Kashmir:10 tower procured (out of which 3 on loan to JKPTCL, Jammu) |
| 15 | HVPN | | | | | | HVPN has apprised that purchase order for procurement of 2 sets of Emergency Restoration System (ERS) in HVPNL has been issued to M/s Jost's Engineering Company Ltd., Mumbai |
| 16 | PSTCL | 400 kV | 1666.43 | 2 | 2 | | |
| | | 220 kV | 7921.991 | | | | |
| 17 | UPPTCL 1- Meerut | 132KV | 27508.321 | 24 Nos(15 Running+9 Angle) | | 400 kV S/s Gr. Noida | ERS will be also be used in other voltage level lines. |
| | | 220KV | 14973.453 | | | | |
| | | 400KV | 6922.828 | | | | |
| | UPPTCL 2-Prayagraj | 765KV | 839.37 | 24 Towers | | 220 kv S/s phulpur | ERS will also be used in other voltage lines. |
| | | 400KV | 1804.257 | | | | |
| | | 220KV | 2578.932 | | | | |
| | | 132KV | 4714.768 | | | | |
| 18 | POWERLINK | | | | | | |
| 19 | POWERGRID HIMACHAL TRANSMISSION LTD | | | | | | |
| 20 | Powergrid Ajmer Phagi Transmission Limited | | | | | | |
| 21 | Powergrid Fatehgarh Transmission Limited | | | | | | |
| 22 | POWERGRID KALA AMB TRANSMISSION LTD | | | | | | |
| 23 | Powergrid Unchahar Transmission Ltd | | | | | | |
| 24 | Powergrid Khetri Transmission Limited | | | | | | |
| 25 | POWERGRID VARANASI TRANSMISSION SYSTEM LTD | | | | | | |
| 26 | ADANI TRANSMISSION INDIA LIMITED | | 2090 | 1 Set (12 towers) | 1 set (12 towers) | Sami (Gujarat) | Make-Lindsey<br>ERS set available for 400KV & 500KV rating can be used for lower as well as higher voltage Towers. In case used for 765KV Line, No of towers can reduce due to increase in Tower Height & nos of conductors. |
| 27 | BIKANER KHETRI TRANSMISSION LIMITED | | 482 | | | | |
| 28 | FATEHGARH BHADLA TRANSMISSION LIMITED | 500 kV HVDC<br>400 kV HVAC | 291 | | | | |
| 29 | NRSS-XXXI(B) TRANSMISSION LTD | 400 kV | 577.74 | Not Available | Not Available | | Tied up with M/s INDIGRID for providing ERS on need basis. |
| 30 | ARAVALI POWER COMPANY PVT LTD | 765 kv HVAC | | | | | |

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

**MIS Report for Status of Islanding Schemes**

**Implemented Schemes**

| Sl. No. | Islanding Scheme | SLDC | Status | Submission of Self Certification of Healitheness | SOP | SCADA Display Page | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | NAPS IS | UP | Implemented | Yes (08-10-2021) | Yes | Yes | - |
| 2 | RAPS IS | Rajasthan | Implemented | 16-Aug-21 | Yes | Yes | List of officials in-charge, format for generation, islanding scheme sld and relays in RAPP IS submitted by RVPN on 04.12.2021. |
| 3 | Delhi IS | Delhi | Implemented | | | | |
| 4 | Lucknow-Unchahar IS | UP | Implemented | | | | UPPTCL representative apprised forum that 132 KV S/S Husainganj --- line is on H-pole therefore OPGW laying is not possible on this line. However, the data of 132 KV S/S Husainganj is made available through GPRS. |

**Under Implementation/ Newly Proposed/Under Discussion**

| Sl. No. | Islanding Scheme | SLDC | Status | Details of progress | DPR for PSDF funding (Required / Not Required) | Timelines Status - Proposed/Actual | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Study | | Design | | Approval | | Procurement | | Commissioning | |
| | | | | | | Proposed | Actual | Proposed | Actual | Proposed | Actual | Proposed | Actual | Proposed | Actual |
| 1 | Pathankot-RSD IS | Punjab | Dismantled | In 236th OCC meeting MS, NRPC asked PSTCL to get the designing aspect of both the islanding schemes in Punjab control area vetted by Punjab SLDC and thereafter submit the proposal to NRPC with the undertaking that earlier PSDF funding was not availed for these schemes. In the 237th OCC meeting, the Punjab SLDC representative informed both schemes would be taken up for discussion in their State OCC meeting scheduled on 20.11.2025. | | - | | - | - | - | - | - | - | - | - |
| 2 | Agra IS | UP | Under Implementation | Scheme has been approved in 71th NRPC meeting held on 29.01.2024. In 228th OCC, UPPTCL representative apprised forum that management is of view that procurement of UFRs for the Lalitpur-Agra islanding scheme should be explored through PSDF funding. During the meeting held on 07.03.2025, PSDF Secretariat raised some queries regarding the scheme and UPPTCL was asked to submit their board approval. In 235th OCC meeting, UPPTCL representative informed the forum that the proposal has been resubmitted to the PSDF Secretariat for funding under PSDF, following approval by the UPPTCL Board | | - | | - | - | - | - | - | - | - | - |
| 3 | Jodhpur-Barmer-Rajwest IS | Rajasthan | Under Implementation | Scheme has been approved in 60th NRPC meeting held on 30.11.2022. In 228th OCC, RRVPNL representative mentioned that they have submitted their proposal of Jodhpur-Barmer-Rajwest islanding scheme to PSDF Secretariat on 16.01.2025 for PSDF funding. During the meeting held on 07.03.2025, PSDF Secretariat raised some queries regarding the scheme. In 232nd OCC, RRVPNL representative informed that responses to these queries have been replied on 30.05.2025. | - | - | | - | - | - | - | - | - | - | - |
| 4 | Suratgarh IS | Rajasthan | Under Implementation | Scheme has been approved in 60th NRPC meeting held on 30.11.2022. In 228th OCC, RRVPNL representative mentioned that DPR for implementation of Suratgarh islanding scheme would be submitted after confirmation of status of PSDF funding from PSDF Sectt for Jodhpur-Barmer Rajwest IS. | - | - | | - | - | - | - | - | - | - | - |
| 5 | Patiala-Nabha Power Rajpura IS | Punjab | Under Implementation | Scheme has been approved in 60th NRPC meeting held on 30.11.2022. In 236th OCC meeting MS, NRPC asked PSTCL to get the designing aspect of both the islanding schemes in Punjab control area vetted by Punjab SLDC and thereafter submit the proposal to NRPC with the undertaking that earlier PSDF funding was not availed for these schemes. In the 237th OCC meeting, the Punjab SLDC representative informed both schemes would be taken up for discussion in their State OCC meeting scheduled on 20.11.2025. | | - | | - | - | - | - | - | - | - | - |
| 6 | Kullu-Manali-Mandi IS | HP | Under Implementation | Scheme has been approved in 60th NRPC meeting held on 30.11.2022. In 231st OCC, HPSLDC representative informed that the Monitoring committee of State PSDF has provided approval for State PSDF funding for implementation of proposed UFR scheme for Kullu- Manali islanding scheme in the meeting held on 22nd April, 2025. In the 237th OCC meeting, the HPSLDC representative informed that HPSEBL has awarded the tender for implementation of both schemes on 27.10.2025, with a work completion period of six months. | | - | | - | - | - | - | - | - | - | - |
| 7 | Shimla-Solan IS | HP | Under Implementation | Scheme has been approved in 60th NRPC meeting held on 30.11.2022. In 232nd OCC, HPSLDC representative informed that HPSEBL has done the testing and requisite frequency settings of their generators for Shimla-Solan islanding scheme. HPSLDC representative further informed that the Monitoring committee of State PSDF has provided approval for State PSDF funding for implementation of proposed UFR scheme for Shimla-Solan islanding scheme in the meeting held on 22nd April, 2025. In the 237th OCC meeting, the HPSLDC representative informed that HPSEBL has awarded the tender for implementation of both schemes on 27.10.2025, with a work completion period of six months. | | | | | | | | | | | |

# Thermal Generators

Annexure-A.IV.a

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

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

# Nuclear Generators

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

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

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

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

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

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

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

Annexure-A.IV.B

## Hydro Generators

| S. No. | Name of Plant | Unit | Installed Capacity | MVA Rating | Make of Units | COD | GT Details | | | Type (Pondage/RoR etc.) | Name of Utility | Sector | Control Area | Real and Reactive Power Capability assessment. | | | Assessment of Reactive Power Control Capability as per CEA Technical Standards for connectivity | | | Model Validation and verification test for the complete Generator and Excitation System model including PSS. | | | Model Validation and verification of Turbine/Governor and Load Control or Active Power/frequency Control Functions. | | | Testing of Governor performance | | | Automatic Generation Control | | | Revised Simulation Models | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Voltage Ratio | GT MVA Capacity | Tap Ratio of GT (Present Tap/Total Taps) | | | | | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Whether Revised Models Submitted? | Remarks |
| 1 | Bairasiul | UNIT-I | 60 MW | 67 MVA | M/S BHEL | 18.05.1980 | 11kV/220kV | 25 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 2 | Bairasiul | UNIT-II | 60 MW | 67 MVA | M/S BHEL | 19.05.1980 | 11kV/220kV | 25 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 3 | Bairasiul | UNIT-III | 60 MW | 67 MVA | M/S BHEL | 13.09.1981 | 11kV/220kV | 25 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 4 | Salal | UNIT-I | 115 MW | 127.8 MVA | M/S BHEL | November'87 | 11kV/220kV | 43.33 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 5 | Salal | UNIT-II | 115 MW | 127.8 MVA | M/S BHEL | November'87 | 11kV/220kV | 43.33 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 6 | Salal | UNIT-III | 115 MW | 127.8 MVA | M/S BHEL | November'87 | 11kV/220kV | 43.33 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 7 | Salal | UNIT-IV | 115 MW | 127.8 MVA | M/S BHEL | March'93 | 11kV/220kV | 43.33 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 8 | Salal | UNIT-V | 115 MW | 127.8 MVA | M/S BHEL | May'94 | 11kV/220kV | 43.33 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 9 | Salal | UNIT-VI | 115 MW | 127.8 MVA | M/S BHEL | February'95 | 11kV/220kV | 43.33 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 10 | Tanakpur | UNIT-I | 31.4 MW | 45 MVA | M/S BHEL | 31.03.1992 | 11kV/220kV | 49.5 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 11 | Tanakpur | UNIT-II | 31.4 MW | 45 MVA | M/S BHEL | 06.04.1992 | 11kV/220kV | 49.5 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 12 | Tanakpur | UNIT-III | 31.4 MW | 45 MVA | M/S BHEL | 04.04.1992 | 11kV/220kV | 49.5 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 13 | Chamera-I | UNIT-I | 180 MW | 200 MVA | GE, Canada | 28.04.1992 | 13.8KV/400 KV | 75 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 14 | Chamera-I | UNIT-II | 180 MW | 200 MVA | GE, Canada | 25.04.1993 | 13.8KV/400 KV | 75 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 15 | Chamera-I | UNIT-III | 180 MW | 200 MVA | GE, Canada | 22.04.1994 | 13.8KV/400 KV | 75 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 16 | Uri-I | UNIT-I | 120 MW | 136 MVA | ABB | 10.04.1997 | 13.8KV/400 KV | 50 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 17 | Uri-I | UNIT-II | 120 MW | 136 MVA | ABB | 27.01.1997 | 13.8KV/400 KV | 50 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 18 | Uri-I | UNIT-III | 120 MW | 136 MVA | ABB | 03.03.1997 | 13.8KV/400 KV | 50 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 19 | Uri-I | UNIT-IV | 120 MW | 136 MVA | ABB | 13.03.1997 | 13.8KV/400 KV | 50 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 20 | Chamera-II | UNIT-I | 100 MW | 111.1 MVA | GE | 04.10.2003 | 11KV/400 KV | 41 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 21 | Chamera-II | UNIT-II | 100 MW | 111.1 MVA | GE | 05.12.2003 | 11KV/400 KV | 41 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 22 | Chamera-II | UNIT-III | 100 MW | 111.1 MVA | GE | 26.02.2004 | 11KV/400 KV | 41 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 23 | Dulhasti | UNIT-I | 130 MW | 145 MVA | GEC ALSTHOM | 28.03.2007 | 11KV/400 KV | 48.33 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 24 | Dulhasti | UNIT-II | 130 MW | 145 MVA | GEC ALSTHOM | 28.02.2007 | 11KV/400 KV | 48.33 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 25 | Dulhasti | UNIT-III | 130 MW | 145 MVA | GEC ALSTHOM | 18.03.2007 | 11KV/400 KV | 48.33 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 26 | Dhauliganga | UNIT-I | 70 MW | 78 MVA | Alstom/GE | 14.10.2005 | 11kV/220kV | 29 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 27 | Dhauliganga | UNIT-II | 70 MW | 78 MVA | Alstom/GE | 01.09.2005 | 11kV/220kV | 29 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 28 | Dhauliganga | UNIT-III | 70 MW | 78 MVA | Alstom/GE | 28.07.2005 | 11kV/220kV | 29 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 29 | Dhauliganga | UNIT-IV | 70 MW | 78 MVA | Alstom/GE | 26.07.2005 | 11kV/220kV | 29 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 30 | Sewa-II | UNIT-I | 40 MW | 50 MVA | M/S BHEL | 27.06.2010 | 11kV/132kV | 50 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 31 | Sewa-II | UNIT-II | 40 MW | 50 MVA | M/S BHEL | 10.07.2010 | 11kV/132kV | 50 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 32 | Sewa-II | UNIT-III | 40 MW | 50 MVA | M/S BHEL | 27.07.2010 | 11kV/132kV | 50 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 33 | Uri-II | UNIT-I | 60 MW | 67 MVA | Alstom | 25.09.2013 | 11KV/400 KV | 25 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 34 | Uri-II | UNIT-II | 60 MW | 67 MVA | Alstom | 25.11.2013 | 11KV/400 KV | 25 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 35 | Uri-II | UNIT-III | 60 MW | 67 MVA | Alstom | 27.09.2013 | 11KV/400 KV | 25 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 36 | Uri-II | UNIT-IV | 60 MW | 67 MVA | Alstom | 02.02.2014 | 11KV/400 KV | 25 MVA | | RoR | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 37 | Chamera-III | UNIT-I | 77 MW | 85.56 MVA | Alstom | 27.06.2012 | 11kV/220kV | 32 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |
| 38 | Chamera-III | UNIT-II | 77 MW | 85.56 MVA | Alstom | 10.06.2012 | 11kV/220kV | 32 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 | Chamera-III | UNIT-III | 77 MW | 85.56 MVA | Alstom | 07.06.2012 | 11kV/220kV | 32 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 40 | Parbati-III | UNIT-I | 130 MW | 145 MVA | M/S BHEL | 17.02.2014 | 13.8KV/400 KV | 53 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 41 | Parbati-III | UNIT-II | 130 MW | 145 MVA | M/S BHEL | 27.02.2014 | 13.8KV/400 KV | 53 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 42 | Parbati-III | UNIT-III | 130 MW | 145 MVA | M/S BHEL | 15.03.2014 | 13.8KV/400 KV | 53 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 43 | Parbati-III | UNIT-IV | 130 MW | 145 MVA | M/S BHEL | 22.05.2014 | 13.8KV/400 KV | 53 MVA | | Pondage | NHPC | Power/Energy | Northern | | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 44 | Kishanganga | UNIT-I | 110 MW | 122.22 MVA | M/S BHEL | 13.03.2018 | 13.8KV/220 KV | 45 MVA | | Pondage | NHPC | Power/Energy | Northern | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 45 | Kishanganga | UNIT-II | 110 MW | 122.22 MVA | M/S BHEL | 21.03.2018 | 13.8KV/220 KV | 45 MVA | | Pondage | NHPC | Power/Energy | Northern | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 46 | Kishanganga | UNIT-III | 110 MW | 122.22 MVA | M/S BHEL | 30.03.2018 | 13.8KV/220 KV | 45 MVA | | Pondage | NHPC | Power/Energy | Northern | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | 03/01/2018 | Yes | Jan-Feb 2026 | | | Jan-Feb 2026 | | | Jan-Feb 2026 | |
| 47 | Parbati-II | UNIT-I | 200 MW | 222.22 MVA | M/S BHEL | 01.04.2025 | 13.8KV/400 KV | 82 MVA | | Pondage | NHPC | Power/Energy | Northern | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 |
| 48 | Parbati-II | UNIT-II | 200 MW | 222.22 MVA | M/S BHEL | 01.04.2025 | 13.8KV/400 KV | 82 MVA | | Pondage | NHPC | Power/Energy | Northern | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 |
| 49 | Parbati-II | UNIT-III | 200 MW | 222.22 MVA | M/S BHEL | 01.04.2025 | 13.8KV/400 KV | 82 MVA | | Pondage | NHPC | Power/Energy | Northern | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 |
| 50 | Parbati-II | UNIT-IV | 200 MW | 222.22 MVA | M/S BHEL | 16.04.2025 | 13.8KV/400 KV | 82 MVA | | Pondage | NHPC | Power/Energy | Northern | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 | March/April 2025 | No | 2030 |
| 51 | Tehri HPP(4*250 MW) | 1 | 250 MW | 278 MVA | Power Machine | 09.07.2007 | 420/15.75 kV | 306 | 0.4 (2/5) | | THDC India Limited | Power Generation | Northern | - | Yes | Mar-26 | - | Yes | Mar-26 | - | Yes | Mar-26 | Apr-23 | No | Mar-28 | Apr-23 | No | Mar-28 | Mar-2021 | Yes | Mar-26 | | |
| 52 | | 2 | 250 MW | 278 MVA | | 30.03.2007 | 420/15.75 kV | 306 | 0.4 (2/5) | | | | | | | | | | | | | | | | | | | | | | | | | |
| 53 | | 3 | 250 MW | 278 MVA | | 09.11.2006 | 420/15.75 kV | 306 | 0.4 (2/5) | | | | | | | | | | | | | | | | | | | | | | | | | |
| 54 | | 4 | 250 MW | 278 MVA | | 22.09.2006 | 420/15.75 kV | 306 | 0.4 (2/5) | | | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | NJHPS | 1 | 250 MW | 278 MVA | EUCONA (Voith Siemens(Germany), GE Hydro (Oslo/Norway), Alstom(Germany), VA Tech(Italy), BHEL(India)) | 18.05.2004 | 15.75kV/ 400kV | 3 x 102 MVA | Tap Ratio - 2/5 | RoR | SJVN | Power/Energy | NRLDC | 18.02.2023 | No | - | 18.02.2023 | No | - | 18.02.2023 | No | - | 05.05.2022 | No | - | 09.02.2021 | Yes | 08.02.2026 | 09.02.2021 | Yes | 08.02.2026 | | |
| 56 | NJHPS | 2 | 250 MW | 278 MVA | | 06.05.2004 | | | | | SJVN | | NRLDC | 28.02.2023 | No | - | 28.02.2023 | No | - | 28.02.2023 | No | - | 05.05.2022 | No | - | 09.02.2021 | Yes | 08.02.2026 | 09.02.2021 | Yes | 08.02.2026 | | |
| 57 | NJHPS | 3 | 250 MW | 278 MVA | | 31.03.2004 | | | | | SJVN | | NRLDC | 20.02.2023 | No | - | 20.02.2023 | No | - | 20.02.2023 | No | - | 05.05.2022 | No | - | 09.02.2021 | Yes | 08.02.2026 | 09.02.2021 | Yes | 08.02.2026 | | |
| 58 | NJHPS | 4 | 250 MW | 278 MVA | | 30.03.2004 | | | | | SJVN | | NRLDC | 19.02.2023 | No | - | 19.02.2023 | No | - | 19.02.2023 | No | - | 05.05.2022 | No | - | 09.02.2021 | Yes | 08.02.2026 | 09.02.2021 | Yes | 08.02.2026 | | |
| 59 | NJHPS | 5 | 250 MW | 278 MVA | | 06.10.2003 | | | | | SJVN | | NRLDC | 10.02.2023 | No | - | 10.02.2023 | No | - | 10.02.2023 | No | - | 05.05.2022 | No | - | 09.02.2021 | Yes | 08.02.2026 | 09.02.2021 | Yes | 08.02.2026 | | |
| 60 | NJHPS | 6 | 250 MW | 278 MVA | | 02.01.2004 | | | | | SJVN | | NRLDC | 11.02.2023 | No | - | 11.02.2023 | No | - | 11.02.2023 | No | - | 03.11.2023 | No | - | 09.02.2021 | Yes | 08.02.2026 | 09.02.2021 | Yes | 08.02.2026 | | |
| 61 | Rampur HPS, SJVNL | 1 | 25 MW | | | | | | | | SJVN | Power/Energy | NRLDC | June. 2023 | Yes | June. 2028 | June. 2023 | Yes | June. 2028 | June. 2023 | Yes | June. 2028 | Nov. 2023 | Yes | Nov. 2028 | Nov. 2023 | Yes | Nov. 2028 | | | | | |
| 62 | | 2 | 25 MW | | | | | | | | SJVN | | NRLDC | June. 2024 | Yes | June. 2028 | June. 2024 | Yes | June. 2028 | June. 2024 | Yes | June. 2028 | Nov. 2023 | Yes | Nov. 2028 | Nov. 2023 | Yes | Nov. 2028 | | | | | |
| 63 | | 3 | 25 MW | | | | | | | | SJVN | | NRLDC | June. 2025 | Yes | June. 2028 | June. 2025 | Yes | June. 2028 | June. 2025 | Yes | June. 2028 | Nov. 2023 | Yes | Nov. 2028 | Nov. 2023 | Yes | Nov. 2028 | | | | | |
| 64 | | 4 | 25 MW | | | | | | | | SJVN | | NRLDC | June. 2026 | Yes | June. 2028 | June. 2026 | Yes | June. 2028 | June. 2026 | Yes | June. 2028 | Jun. 2022 | Yes | Jan. 2027 | Jun. 2022 | Yes | Jan. 2027 | | | | | |
| 65 | | 5 | 25 MW | | | | | | | | SJVN | | NRLDC | June. 2027 | Yes | June. 2028 | June. 2027 | Yes | June. 2028 | June. 2027 | Yes | June. 2028 | Jun. 2022 | Yes | Jan. 2027 | Jun. 2022 | Yes | Jan. 2027 | | | | | |
| 66 | | 6 | 25 MW | | | | | | | | SJVN | | NRLDC | June. 2028 | Yes | June. 2028 | June. 2028 | Yes | June. 2028 | June. 2028 | Yes | June. 2028 | Jun. 2022 | Yes | Jan. 2027 | Jun. 2022 | Yes | Jan. 2027 | | | | | |
| 67 | Karcham Wangtoo Hydro-Electric Plant | 1 | 261.25 MW | | | | | | | | JSW Hydro | Power/Energy | NRLDC | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | | | | |
| 68 | | 2 | 261.25 MW | | | | | | | | JSW Hydro | | NRLDC | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | | | | |
| 69 | | 3 | 261.25 MW | | | | | | | | JSW Hydro | | NRLDC | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | | | | |
| 70 | | 4 | 261.25 MW | | | | | | | | JSW Hydro | | NRLDC | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | Yes | Dec 2026 to Feb 2027 | | | | | |
| 71 | AD Hydro Power Ltd. | Unit-1 | 96MW | 106.667 MVA | BHEL BHOPAL | 16.09.2010 | 11kv/ 220kv | 135MVA | 4/9 | ROR | AD Hydro Power Ltd. | Power/ Energy | NRLDC | | | Nov 26 | | | Nov 26 | 02/09/2021 | | Nov 26 | 07/10/2021 | | Nov 26 | N.A | N.A | N.A | N.A | N.A | N.A | | |
| 72 | AD Hydro Power Ltd. | Unit-2 | 96MW | 106.667 MVA | BHEL BHOPAL | 18.09.2010 | 11kv/ 220kv | 135MVA | 4/9 | ROR | AD Hydro Power Ltd. | Power/ Energy | NRLDC | | | Nov 26 | | | Nov 26 | 02/09/2021 | | Nov 26 | 07/10/2021 | | Nov 26 | N.A | N.A | N.A | N.A | N.A | N.A | | |

Notice: 1. Only PSS RG Mo testing done in 2021
2. AGC not implemented

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 73 | MPCL | Unit-1 | 43MW | 57.5 MVA | BHEL BHOPAL | 05.07.2001 | 11kV/ 132kV | 58MVA | 3/9 | ROR | MPCL | Power/ Energy | HPSLDC | | | Nov 26 | | | Nov 26 | 06/11/2023 | | Nov 26 | | | Nov 26 | N.A | N.A | N.A | N.A | N.A | N.A | | |
| 74 | MPCL | Unit-2 | 43MW | 57.5 MVA | BHEL BHOPAL | 05.07.2001 | 11kV/ 132kV | 58MVA | 3/9 | ROR | MPCL | Power/ Energy | HPSLDC | | | Nov 26 | | | Nov 26 | 06/11/2023 | | Nov 26 | | | Nov 26 | N.A | N.A | N.A | N.A | N.A | N.A | | |
| 75 | Singoli Bhatwari HEP | 1 | 33 | 36.67 | Voith | 19.11.2020 | 11/220 KV | 42 | 06-Mar | | ReNew Jal Urja Private Limited | Power/Energy | NR | | YES | 31.03.2026 | | YES | 31.03.2026 | | YES | 31.03.2026 | | YES | 31.03.2026 | | YES | 31.03.2026 | N.A | N.A | N.A | | |
| | | 2 | 33 | 36.67 | Voith | 29.12.2020 | 11/220 KV | 42 | 06-Mar | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3 | 33 | 36.67 | Voith | 01.01.2021 | 11/220 KV | 42 | 06-Mar | ROR | | | | | | | | | | | | | | | | | | | | | | | | |
| 76 | Bajoli Holi | 1 | 60MW | 66.7 MVA | GE Hydro | 28/03/22 | 11KV/220KV | 81 MVA | 05-Feb | ROR | NA | Power/Energy | | 05.04.22 | No | 27-Mar | 30.03.22 | No | 27-Mar | 30.03.22 | No | 27-Mar | 31.05.22 | No | 27-Mar | 31.05.22 | NO | 27-Mar | N.A | N.A | N.A | | |
| | | 2 | 60MW | 66.7 MVA | GE Hydro | 28/03/22 | 11KV/220KV | 81 MVA | 05-Feb | ROR | NA | Power/Energy | | 09.04.22 | No | 27-Mar | 30.03.22 | No | 27-Mar | 30.03.22 | No | 27-Mar | 31.05.22 | No | 27-Mar | 31.05.22 | NO | 27-Mar | | | | | |
| | | 3 | 60MW | 66.7 MVA | GE Hydro | 28/03/22 | 11KV/220KV | 81 MVA | 05-Feb | ROR | NA | Power/Energy | | 02.04.22 | No | 27-Mar | 30.03.22 | No | 27-Mar | 30.03.22 | No | 27-Mar | 31.05.22 | No | 27-Mar | 31.05.22 | NO | 27-Mar | | | | | |

Notice: 1. Only RG Mo testing done in 2023
2. AGC not implemented

## Thermal Generators

| S. No. | Name of Plant | Unit | Installed Capacity | MVA Rating | Make of Units | COD | GT Details | | | Mode of Fuel Transport (Pit Head/Non Pit-head) | Name of Utility | Sector | Control Area | Type | Real and Reactive Power Capability assessment. | | | Assessment of Reactive Power Control Capability as per CEA Technical Standards for connectivity | | | Model Validation and verification test for the complete Generator and Excitation System model including PSS. | | | Model Validation and verification of Turbine/Governor and Load Control or Active Power/frequency Control Functions. | | | Testing of Governor performance and Automatic Generation Control | | | Revised Simulation Models | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Voltage Ratio | GT MVA Capacity | Tap Ratio of GT (Present Tap/Total Taps) | | | | | | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Whether Revised Models Submitted? | Remarks |
| 1 | Rosa Power Supply Co Ltd | I | 300 MW | 353 | Shanghai Electric Co Ltd, China | 12.03.2010 00:00 Hrs | 20KV / 220 KV | 370 OFAF | 5 | Non-Pit Head | Rosa Power Supply Co Ltd | Private | Reliance Power | Coal Based | Real and Reactive Power Capability assessment was completed during unit commisioning.All units are runing with dual channel auto mode AVR with governor in auto control mode. | | FY 2028-29 | Reactive Power Control Capability as per CEA Technical Standards for connectivity was completed during unit commisioning | | FY 2028-29 | 24.09.2024 | | FY 2028-29 | Turbine/Governor and Load Control or Active Power/frequency Control Functions are enabled & working fine in all units.Load correction in auto as per frequency variation is enabled & same has been verified by UPSLDC. | | FY 2028-29 | Governor performance testing done during comssioning of the units , also all units are runing in auto governor mode. | | FY 2028-29 | No | |
| 2 | Rosa Power Supply Co Ltd | II | 300 MW | 353 | Shanghai Electric Co Ltd, China | 30.06.2010 | 20KV / 220 KV | 370 OFAF | 5 | Non-Pit Head | Rosa Power Supply Co Ltd | Private | Reliance Power | Coal Based | | | FY 2028-29 | | | FY 2028-29 | 15.01.2022 | | FY 2028-29 | | | FY 2028-29 | | | | | FY 2028-29 | No | |
| 3 | Rosa Power Supply Co Ltd | III | 300 MW | 353 | Shanghai Electric Co Ltd, China | 01.01.2012 24:00 hrs | 20 KV / 400 KV | 370 OFAF | 5 | Non-Pit Head | Rosa Power Supply Co Ltd | Private | Reliance Power | Coal Based | | | FY 2028-29 | | | FY 2028-29 | Not Tested | | FY 2028-29 | | | FY 2028-29 | | | | | FY 2028-29 | No | |
| 4 | Rosa Power Supply Co Ltd | IV | 300 MW | 353 | Shanghai Electric Co Ltd, China | 31.03.2012 24:00 hrs | 20 KV / 400 KV | 370 OFAF | 5 | Non-Pit Head | Rosa Power Supply Co Ltd | Private | Reliance Power | Coal Based | | | FY 2028-29 | | | FY 2028-29 | 05.10.2021 | | FY 2028-29 | | | FY 2028-29 | | | | | FY 2028-29 | No | |
| 5 | Barsingsar Thermal Power Station | I | 125 | 147 | BHEL | 20.01.2012 | 230/10.5 | 150 | 7/9 | Pit Head | JdVVNL, AVVNL, JVVNL | Distribution | SLDC | SLDC | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | | |
| 6 | Barsingsar Thermal Power Station | II | 125 | 147 | BHEL | 29.12.2011 | 230/10.5 | 150 | 7/9 | Pit Head | JdVVNL, AVVNL, JVVNL | Distribution | SLDC | SLDC | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | Yes | 31.01.2026 | | | |
| Remarks | | | | | | | Remarks: As per OEM (BHEL) recommendations, above tests may be completed by 31.01.2026 | | | | | | | | | | | | | | | | | Remarks: As per OEM (BHEL) recommendations, as the modelling procedure to carry out the above tests is under development, and may be available after April-25, the above tests may be completed by 31.03.2026 | | | Remarks: AGC is not a part of the original Main plant Erection package, hence the same may be excluded from the list of tesing to be carried out by BTPS. However possiblities will be explored for completion of Testing of Governer performance by 31.03.2026 | | | | |
| 7 | LPGCL | 1 | 660 | 777 | BHEL | 01-Oct-15 | 800/√3/21/√3 | 3x275 | 0505 | Railway | LPGCL, Lalitpur | Private | Northen region | | Not applicable | | 10/25/2026 | Not applicable | | 10/25/2026 | Not applicable | | 10/25/2026 | Not applicable | | 10/25/2026 | Not applicable | | 10/25/2026 | Not applicable | | 10/25/2026 | | |
| 8 | LPGCL | 2 | 660 | 777 | BHEL | 14-Oct-16 | 800/√3/21/√3 | 3x275 | 0505 | Railway | LPGCL, Lalitpur | Private | Northen region | | Not applicable | | 01/20/2027 | Not applicable | | 01/20/2027 | Not applicable | | 01/20/2027 | Not applicable | | 01/20/2027 | Not applicable | | 01/20/2027 | Not applicable | | 01/20/2027 | | |
| 9 | LPGCL | 3 | 660 | 777 | BHEL | 23-Dec-16 | 800/√3/21/√3 | 3x275 | 0505 | Railway | LPGCL, Lalitpur | Private | Northen region | | Not applicable | | 12/15/2027 | Not applicable | | 12/15/2027 | Not applicable | | 12/15/2027 | Not applicable | | 12/15/2027 | Not applicable | | 12/15/2027 | Not applicable | | 12/15/2027 | | |
| 10 | PPGCL | I | 660 MW | 777 | BHEL | 29.02.2016 | 21KV / 765 KV | 3X275 | 4 out of 5 | Head | PPGCL, Prayagraj | IPP | SLDC Lucknow | STU | - | - | 2026 | - | - | 2026 | Nov 2022 | No | 27-Nov | 13-11-2024 | - | - | 09/15/2025 | - | - | | | | |
| 11 | PPGCL | II | 660 MW | 777 | BHEL | 10.09.2016 | 21KV / 765 KV | 3X275 | 4 out of 5 | Head | PPGCL, Prayagraj | IPP | SLDC Lucknow | STU | - | - | 2027 | - | - | 2027 | Nov 2022 | No | 27-Nov | 14-11-2024 | - | - | 09/15/2025 | - | - | | | | |
| 12 | PPGCL | III | 660 MW | 777 | BHEL | 26.05.2017 | 21KV / 765 KV | 3X275 | 4 out of 5 | Head | PPGCL, Prayagraj | IPP | SLDC Lucknow | STU | - | - | 2026 | - | - | 2026 | Nov 2022 | No | 27-Nov | - | Yes | 26-Nov | 09/15/2025 | - | - | | | | |

**HVDC Links**

| S. No | Name of Link | Type (LCC/VSC/ Back-to-Back) | HVDC_Voltage (kV) | Converter-1 | | Converter-2 | | Master Converter Station | Pole_number | Length (km) | Capacity (MW) | Owner | Forward Direction | | | Reverse Direction | | | Reactive Power Controller (RPC) Capability for HVDC/FACTS | | | Filter bank adequacy assessment based on present grid condition, in consultation with NLDC. | | | Revised Simulation Models | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Station Name | Region | Station Name | Region | | | | | | Maximum Capacity | Minimum Capacity | Ground_return_capacity | Maximum Capacity | Minimum Capacity | Ground_return_capacity | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Whether Revised Models Submitted? | Remarks | |
| | Rihand - Dadri LCC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Champa-Kurukshetra LCC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ballia-Bhiwadi LCC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Vindhyachal BtB | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Tentative schedule for Periodic testing of HVDC/Facts Devices iro NR-III Region of POWERGRID

| Sr. No. | HVDC Link/ FACTS | Proposed date of periodic testing |
|---|---|---|
| 1 | Rihand - Dadri LCC | Mar'26 |
| 2 | Ballia-Bhiwadi LCC | Apr'26 |
| 3 | NEA LCC | Aug'25 |
| 4 | Vindhyachal BtB | Sep'26 |
| 5 | Lucknow STATCOM | Apr'26 |

## STATCOMs/SVCs

| S.No | Station | Statcom | Capacity (MVAR) | Owner | Make | Reactive Power Controller (RPC) Capability for HVDC/FACTS | | | Filter bank adequacy assessment based on present grid condition, in consultation with NLDC | | | Validation of response by FACTS devices as per settings. | | | Revised Simulation Models | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Last tested on (dd/mm/yyyy) | Whether due? | Tentative Schedule date | Whether Revised Models Submitted? | Remarks |
| 1 | Bhadla-2 | STATCOM-1&2 | .+/- 600 MVAr, 400kV | POWERGRID | SIEMENS | July-2023. | NO | NOT APPLICABLE | NOT APPLICABLE | NOT APPLICABLE | NOT APPLICABLE | July-2023. | NO | NOT APPLICABLE | | |
| 2 | Fatehgarh-2 | STATCOM-1&2 | .+/- 600 MVAr, 400kV | POWERGRID | SIEMENS | Oct-2023. | NO | NOT APPLICABLE | NOT APPLICABLE | NOT APPLICABLE | NOT APPLICABLE | Oct-2023. | NO | NOT APPLICABLE | | |
| 3 | Bikaner-2 | STATCOM | .+/- 300 MVAr, 400kV | POWERGRID | SIEMENS | Aug-2023. | NO | NOT APPLICABLE | NOT APPLICABLE | NOT APPLICABLE | NOT APPLICABLE | Aug-2023. | NO | NOT APPLICABLE | | |
| 4 | KANKROLI | SVC | .+400 MVAr, -300MVAr, 400kV | POWERGRID | SIEMENS | Dec-2016. | YES | Nov-2025. | NOT APPLICABLE | NOT APPLICABLE | NOT APPLICABLE | Dec-2016. | YES | Nov-2025. | | |
| 5 | Nalagarh | STATCOM | | | | | | | | | | | YES | Oct-25 | | |
| 6 | Ludhiana | SVC | | | | | | | | | | | YES | Oct-25 | | |
| 7 | New Wanpoh | SVC | | | | | | | | | | | YES | Oct-25 | | |
| 8 | Lucknow | STATCOM | | | | | | | | | | | YES | 26-Apr | | |

| State/UT | | Stage-1 49.4 Hz (5%) | Stage-2 49.2 Hz (6%) | Stage-3 49.0 Hz (7%) | Stage-4 48.8 Hz (7%) | Total |
|---|---|---|---|---|---|---|
| | | Stage-1 Relief | Stage-2 Relief | Stage-3 Relief | Stage-4 Relief | |
| Chandigarh | Planned (MW) | 17 | 21 | 24 | 24 | 86 |
| | Actual (MW) | 0 | 0 | 0 | 0 | 0 |
| | Difference (MW) | -17 | -21 | -24 | -24 | -86 |
| | Difference (%) | -100% | -100% | -100% | -100% | -100% |
| Delhi | Planned (MW) | 334 | 400 | 467 | 467 | 1668 |
| | Actual (MW) | 322 | 399 | 442 | 434 | 1597 |
| | Difference (MW) | -11 | -1 | -25 | -33 | -71 |
| | Difference (%) | -3% | 0% | -5% | -7% | -4% |
| Haryana | Planned (MW) | 586 | 704 | 821 | 821 | 2931 |
| | Actual (MW) | 735 | 730 | 815 | 897 | 3175 |
| | Difference (MW) | 148 | 26 | -6 | 76 | 244 |
| | Difference (%) | 25% | 4% | -1% | 9% | 8% |
| Himachal Pradesh | Planned (MW) | 101 | 122 | 142 | 142 | 507 |
| | Actual (MW) | 432 | 365 | 183 | 97 | 1077 |
| | Difference (MW) | 331 | 244 | 41 | -45 | 570 |
| | Difference (%) | 326% | 200% | 29% | -32% | 112% |
| UT J&K & Ladhak | Planned (MW) | 140 | 168 | 196 | 196 | 700 |
| | Actual (MW) | 156 | 204 | 204 | 214 | 778 |
| | Difference (MW) | 16 | 36 | 8 | 18 | 78 |
| | Difference (%) | 11% | 22% | 4% | 9% | 11% |
| Punjab | Planned (MW) | 645 | 773 | 902 | 902 | 3223 |
| | Actual (MW) | 584 | 715 | 855 | 859 | 3014 |
| | Difference (MW) | -61 | -58 | -47 | -43 | -209 |
| | Difference (%) | -9% | -8% | -5% | -5% | -6% |
| Rajasthan | Planned (MW) | 853 | 1024 | 1194 | 1194 | 4266 |
| | Actual (MW) | 812 | 974 | 1138 | 1142 | 4066 |
| | Difference (MW) | -41 | -50 | -56 | -52 | -200 |
| | Difference (%) | -5% | -5% | -5% | -4% | -5% |
| Uttar Pradesh | Planned (MW) | 1297 | 1557 | 1816 | 1816 | 6486 |
| | Actual (MW) | 2580 | 2188 | 2013 | 1757 | 8538 |
| | Difference (MW) | 1283 | 631 | 197 | -59 | 2052 |
| | Difference (%) | 99% | 41% | 11% | -3% | 32% |
| Uttarakhand | Planned (MW) | 127 | 152 | 177 | 177 | 633 |
| | Actual (MW) | 319 | 138 | 167 | 241 | 865 |
| | Difference (MW) | 192 | -14 | -10 | 64 | 232 |
| | Difference (%) | 152% | -9% | -6% | 36% | 37% |
| Total | Planned (MW) | 4100 | 4920 | 5740 | 5740 | 20499 |
| | Actual (MW) | 5940 | 5713 | 5816 | 5642 | 23111 |
| | Difference (MW) | 1840 | 793 | 76 | -98 | 2612 |
| | Difference (%) | 45% | 16% | 1% | -2% | 13% |

| Month | Outage Details | | | Outage of Line | | | | | | Restoration of Line | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Outage Date & Time | Restoration Date & Time | Total Outage Duration | Outage Punch Time at NRLDC Portal. | Outage Code isued Time ( OMS Portal) | RLDC Code Process | PTW issued Time | PTW Issue time taken by PGCIL | Supporting Mails (Annexure-Number) | Charging Punch time at NRLDC Portal | Charging Code issued Time ( As Per OMS portal) | RLDC Code Process | PTW cancellation time as per mail information | Charging Process time | Effective time utilized for Work | Supporting Mails (Annexure-Number) | Permitted duration as per mail information | Remarks | Extra Hours not Utilized by Licensee |
| Jul-25 | 24-07-25 17:34 | 24-07-25 22:33 | 4:59 | 24-07-25 15:54 | 24-07-25 16:59 | 1:05 | 24-07-25 18:53 | 1:19 | Mail -1 july | 24-07-25 20:05 | 24-07-25 21:09 | 1:04 | 24-07-25 19:59 | 1:24 | 1:06 | Mail - 1 july | 4:59 | 765kV Bikaner-Khetri CKT-1 | 3:53 |
| Jul-25 | 24-07-25 23:03 | 25-07-25 5:33 | 6:30 | 24-07-25 15:56 | 24-07-25 22:51 | 6:55 | 25-07-25 0:05 | 1:02 | Mail -2 july | 25-07-25 4:58 | 25-07-25 5:16 | 0:18 | 25-07-25 4:48 | 0:17 | 4:43 | Mail - 2 july | 6:30 | 765kV Bikaner-Khetri CKT-2 | 1:47 |
| Jul-25 | 26-07-25 17:56 | 27-07-25 0:56 | 7:00 | 26-07-25 14:41 | 26-07-25 17:49 | 3:08 | 26-07-25 18:43 | 0:47 | Mail -3 july | 27-07-25 0:11 | 27-07-25 0:20 | 0:09 | 26-07-25 23:54 | 0:36 | 5:11 | Mail - 3 july | 7:00 | 765kV Bikaner-Khetri CKT-2 | 1:49 |
| Jul-25 | 27-07-25 1:44 | 27-07-25 9:00 | 7:16 | 26-07-25 14:34 | 27-07-25 1:17 | 10:43 | 27-07-25 2:37 | 0:53 | Mail -4 july | 27-07-25 4:54 | 27-07-25 8:15 | 3:21 | 27-07-25 4:48 | 0:45 | 2:11 | Mail - 4 july | 7:16 | 765kV Bikaner-Khetri CKT-1 | 5:05 |
| Jul-25 | 30-07-25 18:03 | 30-07-25 23:41 | 5:38 | 30-07-25 16:07 | 30-07-25 17:53 | 1:46 | 30-07-25 18:56 | 0:53 | Mail -5 july | 30-07-25 22:23 | 30-07-25 22:35 | 0:12 | 30-07-25 22:21 | 1:06 | 3:25 | Mail - 5 july | 5:38 | 765kV Bikaner-Khetri CKT-2 | 2:13 |
| Aug-25 | 06-08-25 18:28 | 06-08-25 23:01 | 4:33 | 06-08-25 15:06 | 06-08-25 18:01 | 2:55 | 06-08-25 19:41 | 1:13 | Mail -1 aug | 06-08-25 21:54 | 06-08-25 22:23 | 0:29 | 06-08-25 21:45 | 0:38 | 2:04 | Mail - 1 aug | 4:33 | 765kV Bikaner-Khetri CKT-2 | 2:29 |
| Aug-25 | 20-08-25 17:38 | 20-08-25 23:56 | 6:18 | 20-08-25 15:58 | 20-08-25 17:12 | 1:14 | 20-08-25 18:30 | 0:52 | Mail -2 aug | 20-08-25 22:13 | 20-08-25 22:40 | 0:27 | 20-08-25 22:08 | 1:16 | 3:38 | Mail - 2 aug | 4:33 | 765kV Bikaner-Khetri CKT-1 | 2:40 |
| Aug-25 | 21-08-25 0:42 | 21-08-25 8:21 | 7:39 | 21-08-25 0:17 | 21-08-25 0:26 | 0:09 | 21-08-25 2:09 | 1:27 | Mail -3 aug | 21-08-25 4:55 | 21-08-25 5:16 | 0:21 | 21-08-25 4:48 | 3:05 | 2:39 | Mail - 3 aug | 4:33 | 765kV Bikaner-Khetri CKT-2 | 5:00 |

FORMAT-A

## Captive Power Plant Details

| S.No. | Name of Captive Power Plant | Name and Contact Number of Nodal Officer | Complete Address with postal code | Gross Generation | Net Generation | Electricity Consumption | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Power Drawl from Grid | Net injection of power to Grid | Captive Consumption |
| | | | | (kwh) | (kwh) | (kwh) | (kwh) | (kwh) |
| 1 | | | | | | | | |
| 2 | | | | | | | | |

**FORMAT-B**

## Open Access Details

| S.No. | Name of Utility | Open Access (kWh) |
|---|---|---|
| 1 | | |
| 2 | | |

| | FORMAT-C |
|---|---|

## Rooftop Solar Generation Details

| S.No. | Name of Utility | | Rooftop Solar Generation (kWh) | | Exchange with Grid (kWh) | |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |

# Resource Adequacy

## PRAS results- Northern Region

## Month ahead for Jan-2026

# Resource Adequacy - PRAS

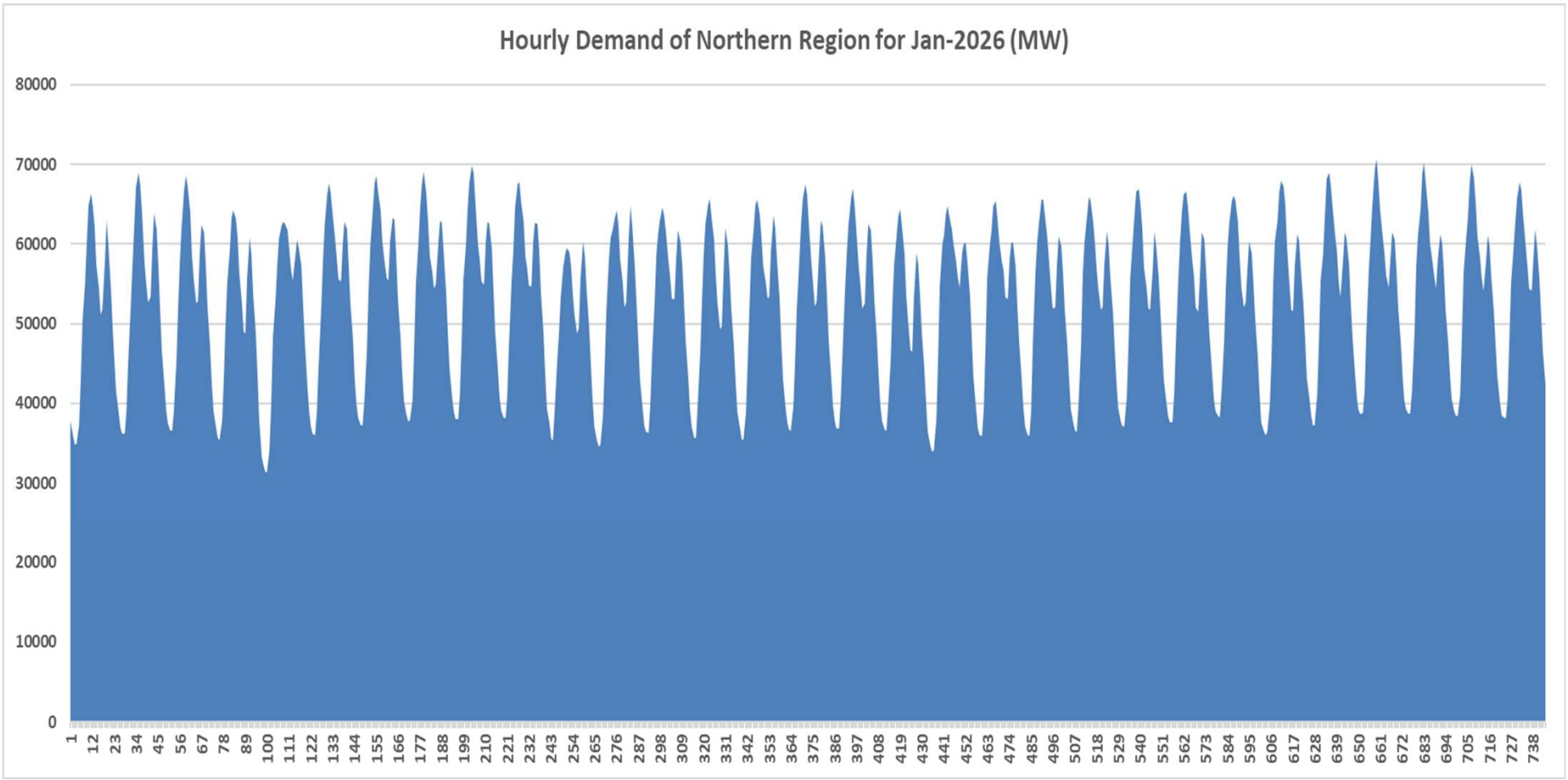
- The Probabilistic Resource Adequacy Study (PRAS) for the month of Jan 2026 has been carried out for the Northern Region to assess the sufficiency of available generation resources to meet the projected demand under varying scenarios. The study was conducted using 1000 probabilistic scenarios, with median results presented to reflect expected system behavior under typical conditions.
- To evaluate the net load that must be met by dispatchable thermal generation, the projected regional demand for Jan 2026 was first estimated. From this demand, the expected contribution from non-thermal resources **solar, wind, hydro, and nuclear** was subtracted, based on historical generation profiles observed for these sources during the same period in past years. This approach ensures that the inherent variability and diurnal patterns of renewable generation are accurately captured in the analysis.
- For thermal generation, a detailed availability assessment was carried out using the following assumptions:

  **Planned Outages:**

  Unit-wise planned outages for the month of Jan 2026 were incorporated as per the data available in the latest LGBR. This reflects scheduled maintenance and other operational constraints known in advance.

  **Forced Outages:**

  A Monte Carlo simulation approach was adopted to model forced outages of thermal generating units. This stochastic simulation utilized historical outage and revival rates specific to each unit and capacity. The probabilistic nature of this method allows for modeling of unplanned events, enhancing the robustness of the adequacy assessment.


Hourly Demand of Northern Region for Jan-2026 (MW)
80000
70000
60000
50000
40000
30000
20000
10000
0
1
12
23
34
45
56
67
78
89
100
111
122
133
144
155
166
177
188
199
210
221
232
243
254
265
276
287
298
309
320
331
342
353
364
375
386
397
408
419
430
441
452
463
474
485
496
507
518
529
540
551
562
573
584
595
606
617
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661
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705
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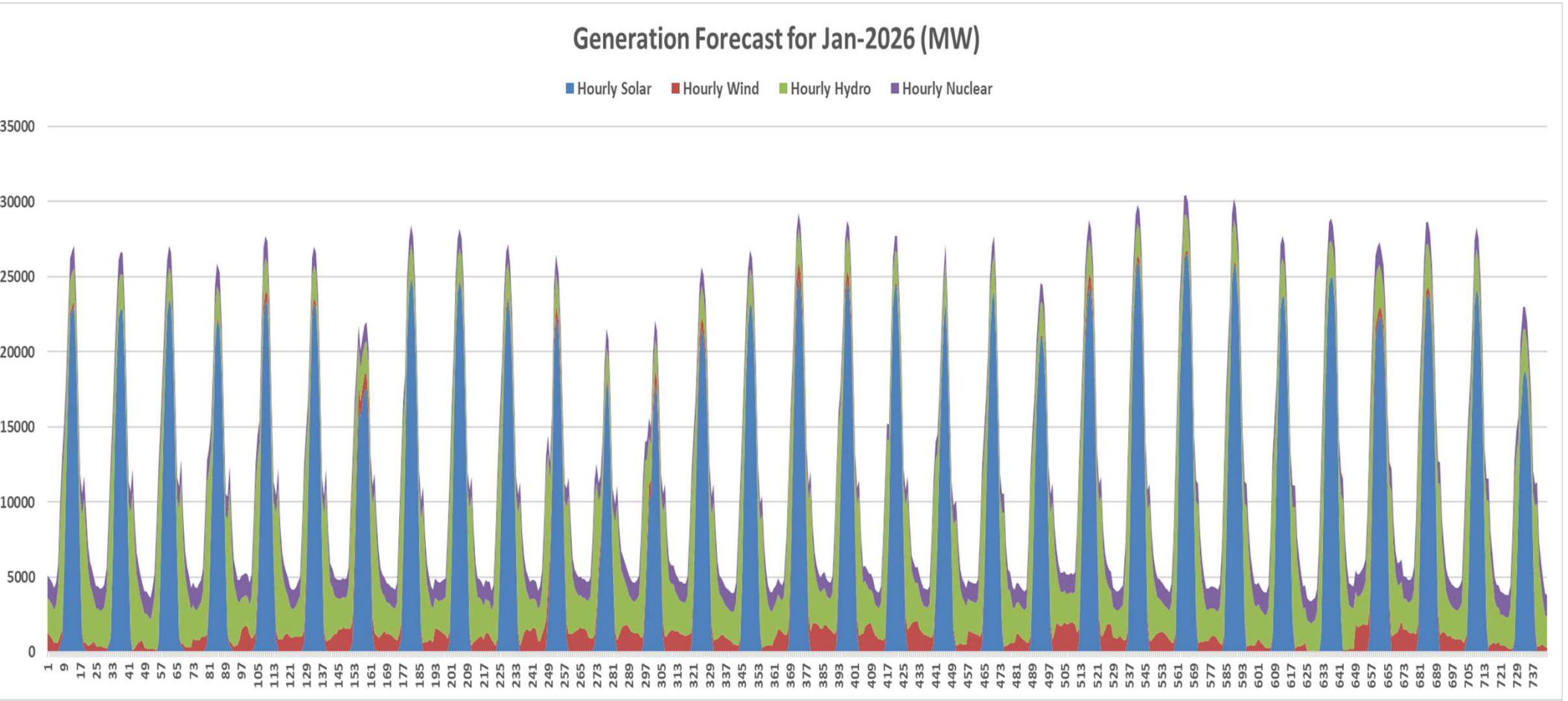
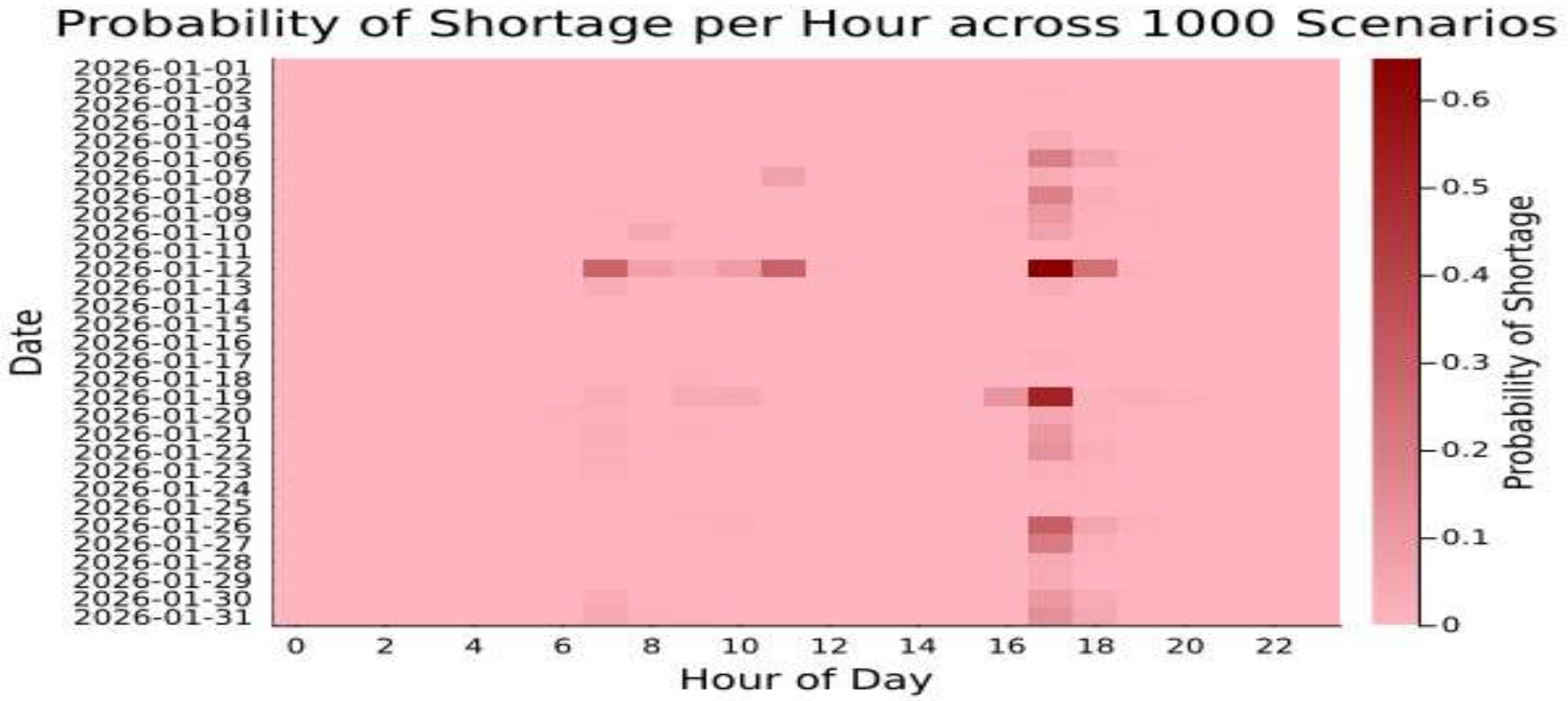
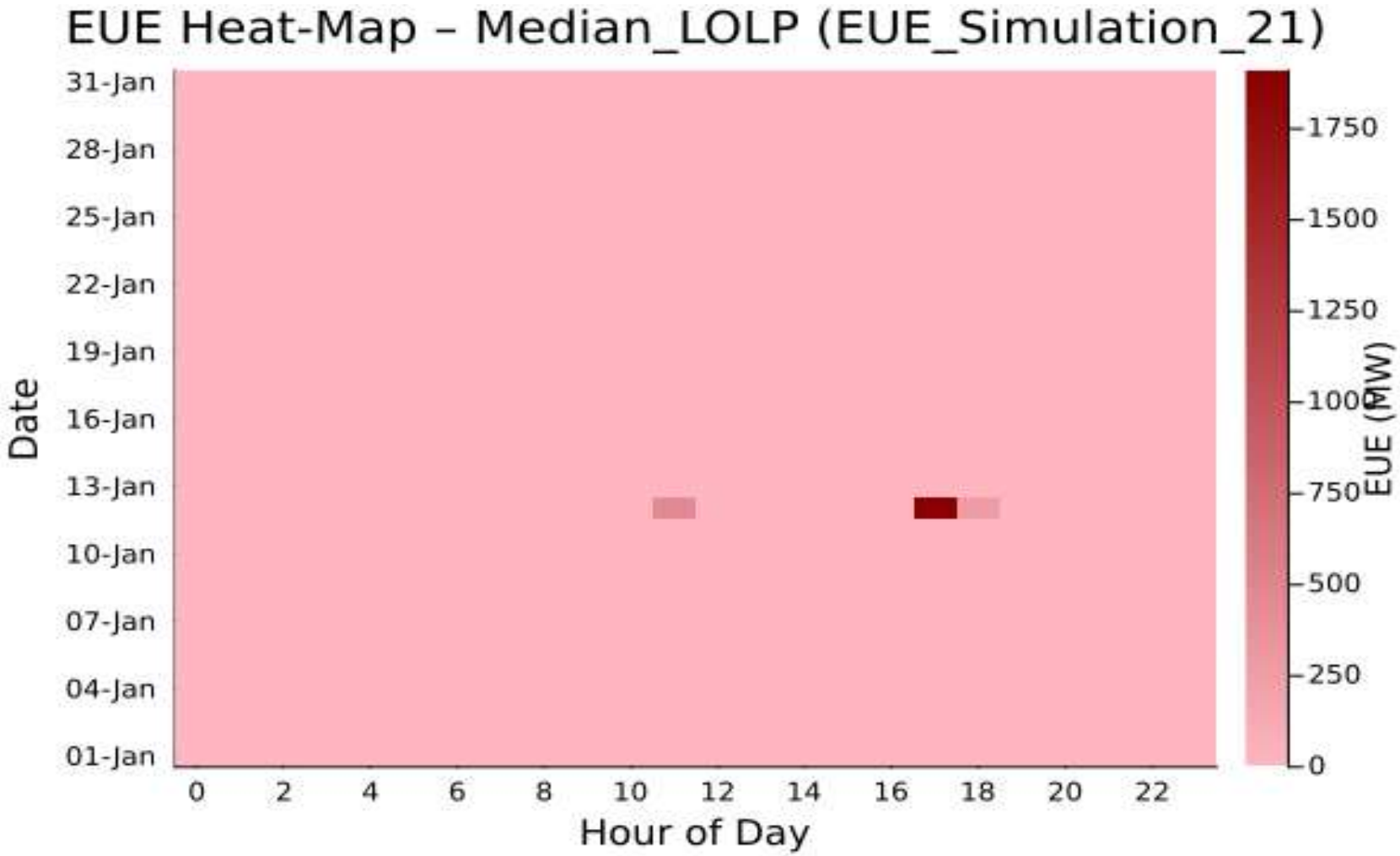
727
738


Generation Forecast for Jan-2026 (MW)
Hourly Solar
Hourly Wind
Hourly Hydro
Hourly Nuclear
35000
30000
25000
20000
15000
10000
5000
0
1 9 17 25 33 41 49 57 65 73 81 89 97 105 113 121 129 137 145 153 161 169 177 185 193 201 209 217 225 233 241 249 257 265 273 281 289 297 305 313 321 329 337 345 353 361 369 377 385 393 401 409 417 425 433 441 449 457 465 473 481 489 497 505 513 521 529 537 545 553 561 569 577 585 593 601 609 617 625 633 641 649 657 665 673 681 689 697 705 713 721 729 737

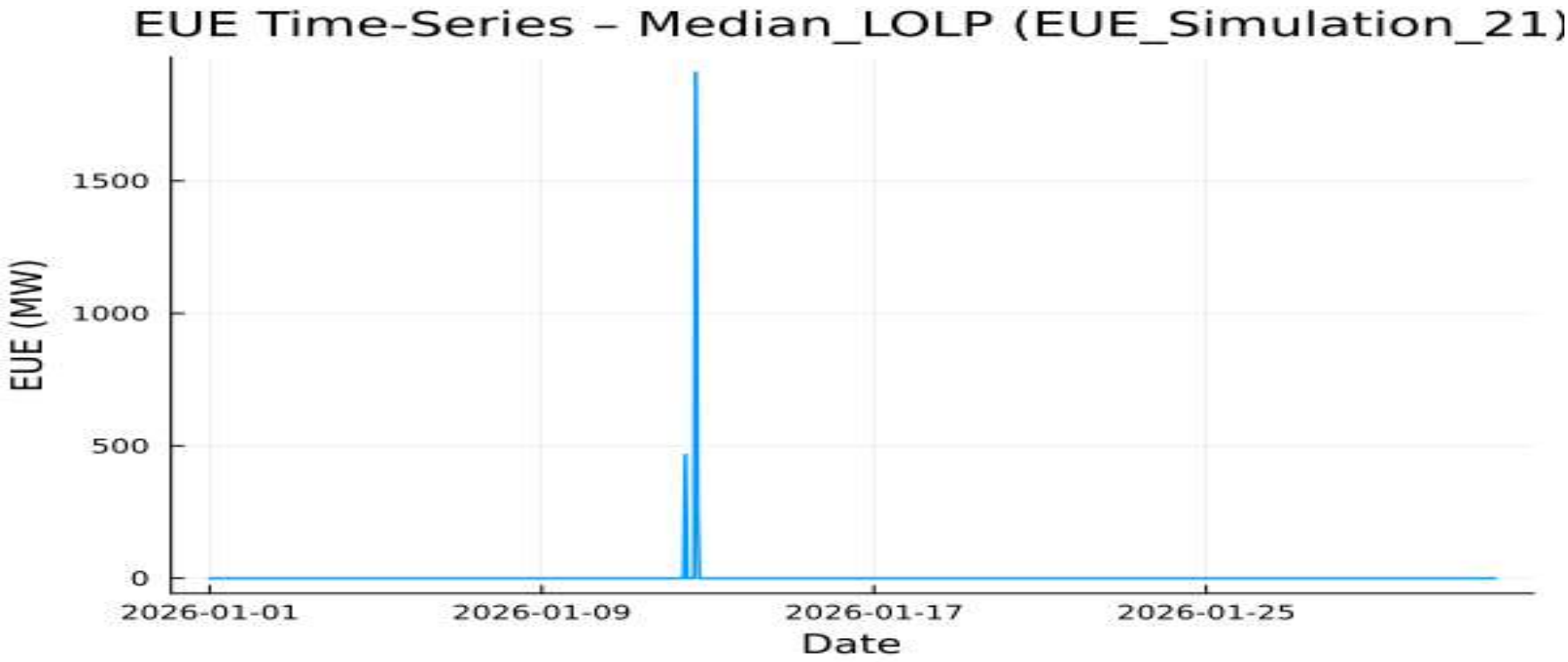
# 2. (A) Resource Adequacy results



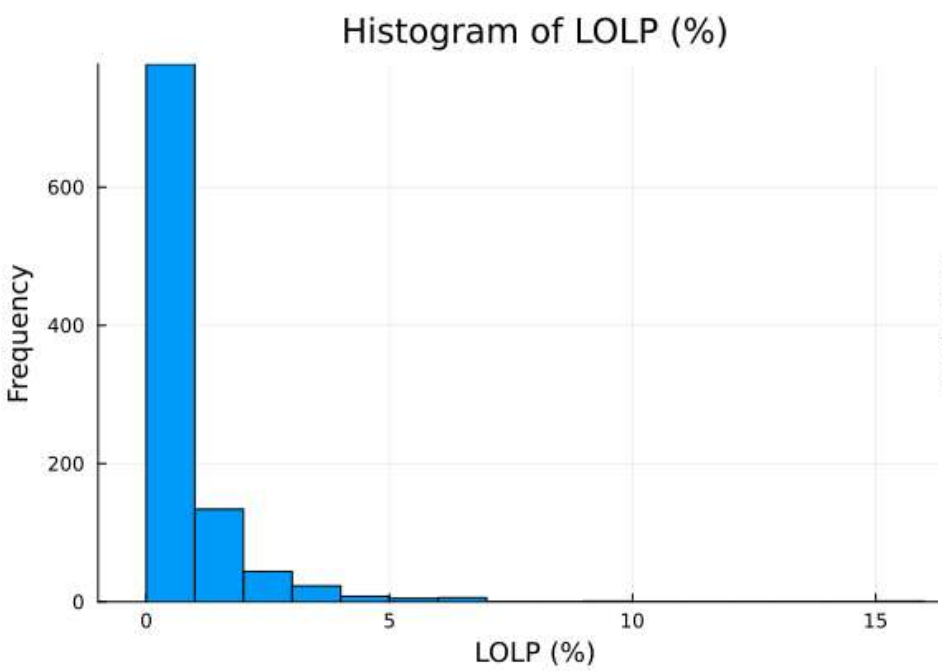
# 2. (B) Resource Adequacy results

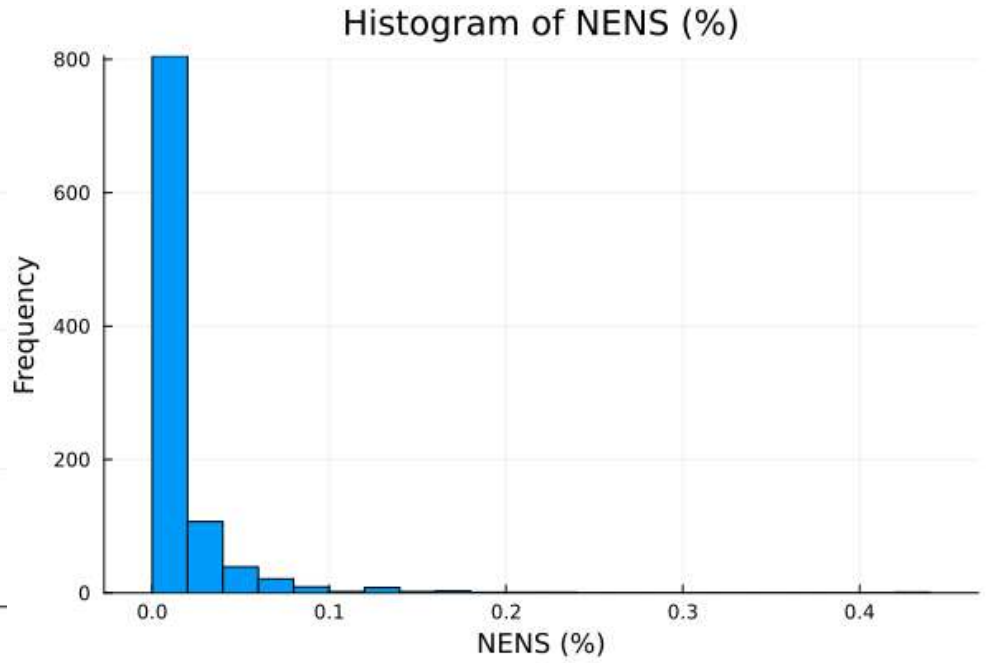


# 2.(C) Resource Adequacy results



# 2. (D) Resource Adequacy results (with Jan 2024 IR schedule)



Annexure-B.II

| S. No. | Points discussed in the Meeting held on 29.08.2025 (09/SM/2024) | Action taken and Current Status | Punjab | Delhi | Haryana | Rajasthan | Uttar Pradesh | Uttarakhand | Himachal Pradesh | J&K (UT) and Ladakh (UT) | Chandigarh |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Adequacy of workforce:** The issue of the shortage of manpower across all the SLDCs in the northern region was discussed. SLDCs have submitted that they are taking up the issue of additional manpower as per the MoP Guidelines. HPSLDC mentioned that their manpower position has been restricted to 42 by the HPERC. Rajasthan SLDC mentioned that with the higher renewable penetration in Rajasthan, they are facing issues specifically in the field of cyber security, market operation and IT Logistics. Representative of UPSLDC submitted that UPSLDC has framed an HR Management and Development Policy which aimed to structure the movement of officers in specialised functions without disrupting operations. Representative from Goa informed that the recruitment of additional 26 personnel will be carried out. Punjab SLDC suggested that the minimum tenure of staff in SLDCs should be at least 5 years. It was discussed that all the SLDCs may develop a separate HR policy and a transfer policy for the SLDC staff. | Details of the action taken regarding the increase in manpower as per the Ministry of Power (MoP) guidelines. Kindly also confirm whether a separate HR and transfer policy, similar to the one framed by UP SLDC, has been formulated. | | | | | | | | | |
| 2 | **Training and Certification of the SLDC staff:** It was discussed that all the executives of SLDCs are required be adequately trained and certified. Representative of UPSLDC pointed out that basic level training is good but there are some gaps in advanced level training due to unavailability of slots. UPSLDC has around 20 staff who are to be trained. Punjab SLDC also added that they have the same number of staff who are to be trained. Grid-India was asked to take up the issue with the NPTI. It was also suggested during the discussion that ideally, the trained staff should not be shifted from the SLDCs, and to attract the staff for working in SLDCs, incentive provisions can be incorporated under the Fee and Charges of the SLDCs. In addition to the above, it was also suggested that, cyber security is a critical area and with the growing concerns of cyber security threats, adequate staff are required to be trained in this area. With regard to the gap in advanced-level training due to unavailability of slots, Grid-India was requested to address the issue of shortage of advanced-level training slots and to increase the frequency of conducting the certification exams with NPTI. | Introduction of Posting criteria, tenure policies and appropriate staff incentives at SLDC. | | | | | | | | | |
| 3 | **Backing down of intra-state thermal generating units:** Haryana SLDC submitted that the Panipat old units are not able to operate at MTL of 55%. Rajasthan SLDC mentioned that they have started giving the schedule of 55% in some thermal generating stations. In this regard, it was suggested that representatives of intra-state thermal generating stations may visit NTPC plants, as even the older units of NTPC are able to operate at a MTL of 55%.. It was also suggested that the states should come up with a part-load compensation mechanism for thermal power plants and also explore the possibilities for the two-shift operation of the thermal generating stations keeping in view the large RE integration. | Backing down of intra-state thermal generating units upto 55% | | | | | | | | | |
| 4 | **Demand estimation and Resource Adequacy data submission:** State SLDCs have submitted that there was some lag in data submission, and they are trying to improve. It was emphasised that the States needs to be prepared for a sudden change in demand and generation for which proper operational planning is required. The adequate quantum of Power may be tied up on a long term, medium term and short-term basis. | Portal has been developed by NRLDC to collect data from SLDCs. Status of submission either by mail or portal shall be provided. | | | | | | | | | |
| 5 | **Alignment of the State Grid Code with the Indian Electricity Grid Code 2023:** It was discussed that CERC has notified the new Grid Code, which contains the various provisions with respect to AGC, Reserve requirement and part load compensation for the thermal generating stations. The state SERCs may align their respective Grid Code with the 2023 Grid Code of CERC. | Updated status shall be shared | | | | | | | | | |
| 6 | **Implementation of SAMAST:** It was discussed that wherever the SAMAST has not been implemented yet, there is a need to speed up its implementation. | Updated status of implementation shall be shared | | | | | | | | | |
| 7 | **Fee and Charges Regulations for SLDCs:** It was discussed that SERCs may formulate separate Fee and Charges Regulations for State Load Despatch Centers wherein the provision regarding training of the SLDC staff, as well as incentive provisions, can be incorporated. | Status of availabilty of regulations along with training and incentive provisions. | | | | | | | | | |
| 8 | **Enablement of AGC in intra-state generating stations:** It was suggested that SLDCs need to impress the generators to enable AGC in intra-state generating stations. SERCs may also make suitable provisions for incentives under State Regulations in line with provisions under CERC Regulations. Adoption of AGC would offer dual benefits—generators would be able to earn revenue from AGC operations, while states would be able to maintain reserves within their own boundaries. | Status of Enablement of AGC in intra-state generating stations. | | | | | | | | | |
| 9 | **Cybersecurity preparedness:** A power system is a critical infrastructure that must be safeguarded against cyberattacks. State SLDCs do not have adequate manpower in the area of cybersecurity. With the growing concern of cyber threats, an adequate number of staff may be deployed in the area of cyber security. Further, the staff may be mandatorily trained on cyber security. | Actions taken pertaining to the cyber preparedness and deployment of dedicated manpower at SLDC. | | | | | | | | | |
| 10 | **Strengthening of intra-state transmission network:** Most of the Grid disturbances are occurring due to radial connectivity issues, which require the strengthening of the intra-state transmission network to enhance reliability and reduce such disturbances. | Actions taken pertaining to improvement of intra-state network | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | **Maintaining adequate Reserves:**<br>No state is actually maintaining reserves, and even in cases where states claim to have reserves, these are scheduled during peak hours, defeating the purpose. It was informed that in the event a state falls short in maintaining the reserves, NLDC is to procure reserve capacity as allocated to such State and allocate the cost of procurement to that State as per the CERC (Indian Electricity Grid Code) Regulations, 2023. Further, as per CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2024, from 1st April 2026, NLDC shall start recovering the amount from the States in the ratio of the shortfall of reserves allocated by NLDC to States, to meet the deficit in the Deviation and Ancillary Service Pool Accounts. Such allocation by NLDC may prove costly for the states, as NLDC may need to maintain reserves in costlier gas-based plants. Hence, states were urged to maintain their own reserves. States are required to meet the expected demand as well as keep the necessary reserve so that any load loss would not occur in case of any contingency. | Status of Maintaining adequate Reserves<br>Action plan to ensure primary response. | | | | | | | | | |

**Annexure-II**

| S.No. | Voltage Level | Name of Line | Circuit ID | Tower Configura | Line Length | OEM by | Agency at | | Type of conductor | Remarks | Replaced with Polymer Insulator (As a % of Total Line) | Additional Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | End-I | End-II | | | | |
| **1. HVDC lines** | | | | | | | | | | | | |
| **ISTS LINES** | | | | | | | | | | | | |
| **A. POWERGRID** | | | | | | | | | | | | |
| 1 | ± 800kV | Agra-Bishwanath Chariali Pole-I | 1 | Bi-pole | 1728 | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | HVDC capcacity 6000 MW, only two physical lines | Partial (11%) | |
| 2 | ± 800kV | Agra-Bishwanath Chariali Pole-II | 2 | Bi-pole | 1728 | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | | Partial (11%) | |
| 3 | ± 800kV | Agra-Alipurduar Pole-I | 1 | Bi-pole | 1296* | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | | Partial (11%) | |
| 4 | ± 800kV | Agra-Alipurduar Pole-II | 2 | Bi-pole | 1296* | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | | Partial (11%) | |
| 5 | ± 800kV | Kurukshetra-Champa Pole-I | 1 | Bi-pole | 1305 | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | HVDC capcacity 6000 MW, only two physical lines | Partial (11%) | |
| 6 | ± 800kV | Kurukshetra-Champa Pole-II | 2 | Bi-pole | 1305 | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | | Partial (11%) | |
| 7 | ± 800kV | Kurukshetra-Champa Pole-III | 3 | Bi-pole | 1305 | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | | Partial (11%) | |
| 8 | ± 800kV | Kurukshetra-Champa Pole-IV | 4 | Bi-pole | 1305 | POWERGRID | POWERGRID | POWERGRID | Hexagon Lapwing | | Partial (11%) | |
| 9 | ± 500kV | Balia-Bhiwadi Pole-I | 1 | Bi-pole | 790 | POWERGRID | POWERGRID | POWERGRID | ACSR Quad Bersimis | HVDC capacity 2500 MW | Partial (15%) | |
| 10 | ± 500kV | Balia-Bhiwadi Pole-II | 2 | Bi-pole | 790 | POWERGRID | POWERGRID | POWERGRID | | | Partial (15%) | |
| 11 | ± 500kV | Rihand-Dadri Pole-I | 1 | Bi-pole | 815 | POWERGRID | POWERGRID | POWERGRID | ACSR Quad Bersimis | HVDC capacity 1500 MW | Partial (62%) | |
| 12 | ± 500kV | Rihand-Dadri Pole-II | 2 | Bi-pole | 815 | POWERGRID | POWERGRID | POWERGRID | | | Partial (43%) | |
| **B. Adani Power Ltd (Adani Transmission India Ltd.)** | | | | | | | | | | | | |
| 1 | ± 500kV | Adani Mundra - Mahindergarh Pole-I | 1 | Bi-pole | 990 | ATIL | APL Mundra | ATIL | ACSR Quad Bersimis | HVDC capacity 2500 MW | Partial (43%) | |
| 2 | ± 500kV | Adani Mundra - Mahindergarh Pole-II | 2 | Bi-pole | 990 | ATIL | APL Mundra | ATIL | | | Partial (43%) | |
| **2. 765kV Transmission Line** | | | | | | | | | | | | |
| **ISTS LINES** | | | | | | | | | | | | |
| **A. POWERGRID** | | | | | | | | | | | | |
| 1 | 765kV | Agra-Aligarh | 1 | D/C | 123 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | LILO of Agra-Gr. Noida at Aligarh (LILO portion | Polymer Insulator | |
| 2 | 765kV | Aligarh-Gr.Noida | 1 | D/C | 51 | POWERGRID | POWERGRID | WUPPTCL | Quad Bersimis | | Polymer Insulator | |
| 3 | 765kV | Agra-Fatehpur | 1 | S/C | 335 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Conventional | |
| 4 | 765kV | Agra-Fatehpur | 2 | S/C | 334 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Conventional | |
| 5 | 765kV | Agra-Jhatikara | 1 | S/C | 252 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Polymer Insulator | |
| 6 | 765kV | Ajmer-Chittorgarh | 1 | D/C | 211 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 7 | 765kV | Ajmer-Chittorgarh | 2 | D/C | 211 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 8 | 765kV | Ajmer-Bhadla II | 1 | D/C | 326 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | LILO of 765kV D/C Ajmer-Bikaner-1 at Bhadla II(PG) | Not Available | |
| 9 | 765kV | Ajmer-Bhadla II | 2 | D/C | 326 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | LILO of 765kV D/C Ajmer-Bikaner-2 at Bhadla II(PG) | Not Available | |
| 10 | 765kV | Balia - Lucknow765 (N) | 1 | S/C | 319 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Conventional | |
| 11 | 765kV | Bikaner - Bhadla | 1 | D/C | 167 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 12 | 765kV | Bikaner - Bhadla | 2 | D/C | 167 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 13 | 765kV | Bikaner- Moga | 1 | D/C | 367 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 14 | 765kV | Bikaner- Moga | 2 | D/C | 367 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 15 | 765kV | Bikaner-Bhadla II | 1 | D/C | 197 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | LILO of 765kV D/C Ajmer-Bikaner-1 at Bhadla II(PG) | Not Available | |
| 16 | 765kV | Bikaner-Bhadla II | 2 | D/C | 197 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | LILO of 765kV D/C Ajmer-Bikaner-2 at Bhadla II(PG) | Not Available | |
| 17 | 765kV | Kanpur(GIS)-Aligarh | 1 | D/C | 322 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | LILO of Kanpur-Jhatikara at Aligarh | Polymer Insulator | |
| 18 | 765kV | Aligarh-Jhatikara | 1 | D/C | 158 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Polymer Insulator | |
| 19 | 765kV | Jhatikara-Bhiwani (PG) | 1 | S/C | 85 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Polymer Insulator | |
| 20 | 765kV | Koteshwar(PG)-Meerut | 1 | S/C | 176 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | Earlier charged at 400kV | Not Available | |
| 21 | 765kV | Koteshwar(PG)-Meerut | 2 | S/C | 176 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Not Available | |
| 22 | 765kV | Lucknow-Bareilly | 1 | S/C | 252 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Conventional | |
| 23 | 765kV | Meerut-Bhiwani(PG) | 1 | S/C | 174 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Partial (99%) | |
| 24 | 765kV | Meerut-Gr.Noida | 1 | S/C | 119 | POWERGRID | POWERGRID | WUPPTCL | Quad Bersimis | Agra-Meerut LILOed at G. Noida by UPPTCL | Polymer Insulator | |
| 25 | 765kV | Moga- Bhiwani (PG) | 1 | S/C | 273 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Partial (96%) | |
| 26 | 765kV | Moga-Meerut | 1 | S/C | 338 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Polymer Insulator | |
| 27 | 765kV | Orai-Aligarh | 1 | D/C | 331 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 28 | 765kV | Orai-Aligarh | 2 | D/C | 331 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 29 | 765kV | Phagi-Bhiwani(PG) | 1 | S/C | 272 | POWERGRID | RRVPNL | POWERGRID | Quad Bersimis | | Partial (18%) | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 765kV | Phagi-Bhiwani(PG) | 2 | S/C | 277 | POWERGRID | RRVPNL | POWERGRID | Quad Bersimis | | Partial (16%) | |
| 31 | 765kV | Varanasi-Balia | 1 | S/C | 166 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Conventional | |
| 32 | 765kV | Varanasi-Fatehpur | 1 | S/C | 223 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | LILO of Gaya (ER)- Fatehpur at Varanasi | Conventional | |
| 33 | 765kV | Varanasi-Kanpur(GIS) | 1 | S/C | 326 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Polymer Insulator | |
| 34 | 765kV | Varanasi-Kanpur(GIS) | 2 | S/C | 326 | POWERGRID | POWERGRID | POWERGRID | Hexa Zebra | | Polymer Insulator | |
| **B. PKTSL** | | | | | | | | | | | | |
| 1 | 765kV | Khetri-Jhatikara | 1 | D/C | 146 | PKTSL | PKTSL | POWERGRID | Hexa Zebra | | Not Available | |
| 2 | 765kV | Khetri-Jhatikara | 2 | D/C | 146 | PKTSL | PKTSL | POWERGRID | Hexa Zebra | | Not Available | |
| **C. PFTL** | | | | | | | | | | | | |
| 1 | 765kV | Fatehgarh II-Bhadla II | 1 | D/C | 186 | PFTL | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| 2 | 765kV | Fatehgarh II-Bhadla II | 2 | D/C | 186 | PFTL | POWERGRID | POWERGRID | Hexa Zebra | | Not Available | |
| **D. FBTL** | | | | | | | | | | | | |
| 1 | 765kV | Fatehgarh II-Bhadla | 1 | D/C | 175 | FBTL | POWERGRID | POWERGRID | Hexa Zebra | Loop in of 400kV Fatehgarh (FBTL)- | Polymer Insulator | |
| 2 | 765kV | Fatehgarh II-Bhadla | 2 | D/C | 175 | FBTL | POWERGRID | POWERGRID | Hexa Zebra | | Polymer Insulator | |
| **E. BKTL** | | | | | | | | | | | | |
| 1 | 765kV | Bikaner-Khetri | 1 | D/C | 241 | BKTL | POWERGRID | PKTSL | Hexa Zebra | | Polymer Insulator | |
| 2 | 765kV | Bikaner-Khetri | 2 | D/C | 241 | BKTL | POWERGRID | PKTSL | Hexa Zebra | | Polymer Insulator | |
| **F. PAPTL** | | | | | | | | | | | | |
| 1 | 765kV | Ajmer-Phagi | 1 | D/C | 134 | PAPTL | POWERGRID | RRVPNL | Hexa Zebra | | Not Available | |
| 2 | 765kV | Ajmer-Phagi | 2 | D/C | 134 | PAPTL | POWERGRID | RRVPNL | Hexa Zebra | | Not Available | |
| **G. PASTL** | | | | | | | | | | | | |
| 1 | 765kV | Aligarh(PG)-SIKAR_2 | 1 | D/C | 265 | PASTL | PSTL | POWERGRID | Hexa Zebra | Anti theft charged from Aligarh(PG) Upto | Not Available | |
| 2 | 765kV | Aligarh(PG)-SIKAR_2 | 2 | D/C | 265 | PASTL | PSTL | POWERGRID | Hexa Zebra | | Not Available | |
| **STATE LINES** | | | | | | | | | | | | |
| **A. UPPTCL** | | | | | | | | | | | | |
| 1 | 765kV | Agra Fatehabad-Ghatampur | 1 | S/C | 229 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | | Not Available | |
| 2 | 765kV | Agra Fatehabad-Gr. Noida | 1 | S/C | 159 | UPPTCL | UPPTCL | UPPTCL | ACSR Quad Bersimis | | Not Available | |
| 3 | 765kV | Agra(Fatehbad)-Lalitpur | 1 | S/C | 337 | UPPTCL | UPPTCL | LPGCL | Quad Bersimis | | Not Available | |
| 4 | 765kV | Agra(Fatehbad)-Lalitpur | 2 | S/C | 335 | UPPTCL | UPPTCL | LPGCL | Quad Bersimis | | Not Available | |
| 5 | 765kV | AnparaC-AnparaD | 1 | S/C | 3 | UPPTCL | LANCO | UPRVUNL | Quad Bersimis | | Not Available | |
| 6 | 765kV | AnparaC-Unnao | 1 | S/C | 409 | UPPTCL | LANCO | UPPTCL | Quad Bersimis | | Conventional | AnparaB-Unnao shifted to AnparaC and charged at 765kV |
| 7 | 765kV | AnparaD-Obra_C | 1 | D/C | 53 | UPPTCL | UPRVUNL | UPPTCL | Quad Bersimis | After LILO of 765 KV ANPARA D-UNNAO LINE | Not Available | |
| 8 | 765kV | Obra_C-Unnao | 1 | D/C | 390 | UPPTCL | UPRVUNL | UPPTCL | Quad Bersimis | | Not Available | |
| 9 | 765kV | Bara-Mainpuri | 1 | S/C | 377 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | | Not Available | |
| 10 | 765kV | Gr. Noida-Meerut_PMSTL | 1 | S/C | 100 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | After LILO of 765 KV GREATER NOIDA | Not Available | |
| 11 | 765kV | Meerut_PMSTL-Hapur | 1 | S/C | 37 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | | Not Available | |
| 12 | 765kV | Gr. Noida-Jawaharpur | 1 | D/C | 162 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | After LILO of 765 KV MAINPURI(SEUPPTCL)- | Not Available | |
| 13 | 765kV | Jawaharpur-Mainpuri | 1 | D/C | 40 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | | Not Available | |
| 14 | 765kV | Hapur(UP)-Rampur_PRSTL (UP) | 1 | S/C | 230 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | LILO of 765kV Hapur-Ghatampur at Rampur. LILO portion is on D/C tower 2.5km 5towers | Not Available | |
| 15 | 765kV | Mainpuri(UP)-Hapur(UP) | 1 | S/C | 217 | UPPTCL | UPPTCL | UPPTCL | Quad Bersimis | | Not Available | |
| **B. RRVPNL** | | | | | | | | | | | | |
| 1 | 765kV | Anta-Phagi | 1 | S/C | 214 | RRVPNL | RRVPNL | RRVPNL | Quad Bersimis | | Not Available | |
| 2 | 765kV | Anta-Phagi | 2 | S/C | 212 | RRVPNL | RRVPNL | RRVPNL | Quad Bersimis | | Not Available | |
| **3. 765kV Transmission Line charged at 400kV** | | | | | | | | | | | | |
| **ISTS LINES** | | | | | | | | | | | | |
| **A. POWERGRID** | | | | | | | | | | | | |
| 1 | 765kV charged at 400kV | Kishenpur-Moga | 1 | S/C | 275 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Partial (1%) | |
| 2 | | Kishenpur-Moga | 2 | S/C | 287 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | | Partial (1%) | |
| 3 | | Tehri-Koteshwar(PG) | 1 | S/C | 15 | POWERGRID | THDC | POWERGRID | Quad Bersimis | | Conventional | |
| 4 | | Tehri-Koteshwar(PG) | 2 | S/C | 17 | POWERGRID | THDC | POWERGRID | Quad Bersimis | | Conventional | |
| 5 | | Rihand-Vindhyachal Pool | 1 | S/C | 31 | POWERGRID | NTPC | POWERGRID | Quad Bersimis | | Not Available | |
| 6 | | Rihand-Vindhyachal Pool | 2 | S/C | 31 | POWERGRID | NTPC | POWERGRID | Quad Bersimis | | Not Available | |
| **4. 400kV HVAC Transmission Line** | | | | | | | | | | | | |
| **ISTS LINES** | | | | | | | | | | | | |

| A. POWERGRID | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 400kV | Abdullapur- Bawana | 1 | D/C | 167 | POWERGRID | POWERGRID | DTL | Triple Snowbird | | Partial (99%) | |
| 2 | 400kV | Abdullapur- Deepalpur | 1 | D/C | 141 | POWERGRID | POWERGRID | KT Jhajjar | Triple Snowbird | LILO of Abdullapur-Bawana one ckt at Deepalpur by Jhajjar KT | Partial (99%) | LILO of Abdullapur-Bawana one ckt at Deepalpur |
| 3 | 400kV | Abdullapur-Kurukshetra | 1 | D/C | 52 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird+Twin HTLS for LILO | LILO of Abdullapur-Sonipat line at Kurukshetra | Polymer Insulator | LILO of Abdullapur-Sonepat ckts at Kurukshetra |
| 4 | 400kV | Abdullapur-Kurukshetra | 2 | D/C | 52 | POWERGRID | POWERGRID | POWERGRID | | LILO of Abdullapur-Sonipat line at Kurukshetra | Polymer Insulator | |
| 5 | 400kV | Agra-Agra(Fatehbad) | 1 | S/C | 45 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | LILO of Agra(PG)-Agra(UP) ckt-2 at Fatehabad (765kV Agra UP) | Polymer Insulator | |
| 6 | 400kV | Agra(UP)-Agra(Fatehbad) | 1 | S/C | 56 | POWERGRID | UPPTCL | UPPTCL | Twin Moose | | Polymer Insulator | |
| 7 | 400kV | Agra-Agra(UP) | 1 | D/C | 30 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Polymer Insulator | |
| 8 | 400kV | Agra-Ballabgarh | 1 | S/C | 181 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 9 | 400kV | Agra-Bassi | 1 | S/C | 211 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | Planned for insulator replacement in 321nos towers under NR3 |
| 10 | 400kV | Agra-Bhiwadi | 1 | D/C | 209 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 11 | 400kV | Agra-Bhiwadi | 2 | D/C | 209 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 12 | 400kV | Agra-Jaipur South | 1 | D/C | 254 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Agra-Bassi D/C at Jaipur South | Partial (4%) | LILO of Agra-Bassi D/C at Jaipur South |
| 13 | 400kV | Agra-Jaipur South | 2 | D/C | 254 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Agra-Bassi D/C at Jaipur South | Partial (4%) | |
| 14 | 400kV | Agra-Sikar | 1 | D/C | 386 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (3%) | |
| 15 | 400kV | Agra-Sikar | 2 | D/C | 386 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (3%) | |
| 16 | 400kV | Ajmer-Ajmer(PG) | 1 | D/C | 66 | POWERGRID | RRVPNL | POWERGRID | Quad Moose | | Not Available | |
| 17 | 400kV | Ajmer-Ajmer(PG) | 2 | D/C | 66 | POWERGRID | RRVPNL | POWERGRID | Quad Moose | | Not Available | |
| 18 | 400kV | Allahabad-Fatehpur | 3 | S/C | 154 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Allahabad-Kanpur one ckt at Fatehpur | Polymer Insulator | |
| 19 | 400kV | Allahabad-Fatehpur | 1 | D/C | 140 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Lilo of Allahabad-Mainpuri (PG) D/C at Fatehpur | Conventional | |
| 20 | 400kV | Allahabad-Fatehpur | 2 | D/C | 140 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Lilo of Allahabad-Mainpuri (PG) D/C at Fatehpur | Conventional | |
| 21 | 400kV | Allahabad-Varanasi | 1 | D/C | 99 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Allahabad-Sarnath shifted from Sarnath to Varanasi | Conventional | |
| 22 | 400kV | Allahabad-Kanpur | 1 | S/C | 225 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 23 | 400kV | Allahabad-Kanpur(New 765) | 1 | D/C | 240 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |
| 24 | 400kV | Allahabad-Kanpur(New 765) | 2 | D/C | 240 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |
| 25 | 400kV | Allahabad-Meja(NTPC) | 1 | D/C | 28 | POWERGRID | POWERGRID | MUNPL | Twin Moose | | Polymer Insulator | MUNPL is joint venture between NTPC and |
| 26 | 400kV | Allahabad-Meja(NTPC) | 2 | D/C | 28 | POWERGRID | POWERGRID | MUNPL | Twin Moose | | Polymer Insulator | |
| 27 | 400kV | Amritsar-Jalandhar | 1 | S/C | 60 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 28 | 400kV | Amritsar-Jalandhar | 2 | D/C | 71 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | LILO of 400kV Amritsar-Hamirpur at Jalandhar |
| 29 | 400kV | Amritsar-ParbatiPooling (Banala) | 1 | D/C | 251 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (49%) | |
| 30 | 400kV | Auraiya-Agra | 1 | D/C | 166 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Partial (86%) | |
| 31 | 400kV | Auraiya-Agra | 2 | D/C | 166 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Partial (90%) | |
| 32 | 400kV | Baglihar II-Kishenpur | 1 | S/C | 130 | POWERGRID | JKSPDCL | POWERGRID | Twin Moose | LILO of 400kV Kishenpur-New Wanpoh ckt-2 at Baglihar. LILO portion is of JK PDD | Conventional | |
| 33 | 400kV | Baghlihar II-New Wanpoh | 1 | S/C | 130 | POWERGRID | JKSPDCL | POWERGRID | Twin Moose | | Not Available | |
| 34 | 400kV | Bagpat-Kaithal | 1 | D/C | 154 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | LILO of Meerut-Kaithal DC at Baghpat | Polymer Insulator | |
| 35 | 400kV | Bagpat-Kaithal | 2 | D/C | 154 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | LILO of Meerut-Kaithal DC at Baghpat | Polymer Insulator | |
| 36 | 400kV | Bagpat-Saharanpur | 1 | D/C | 121 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Partial (41%) | |
| 37 | 400kV | Bagpat-Dehradun | 1 | D/C | 165 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Partial (40%) | |
| 38 | 400kV | Bahadurgarh-Kabulpur | 1 | S/C | 42 | POWERGRID | POWERGRID | HVPNL | Twin Moose | | Polymer Insulator | LILO of Bahadurgarh-Bhiwani at Kabulpur |
| 39 | 400kV | Bahadurgarh-Sonepat | 1 | D/C | 53 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | Polymer Insulator | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 400kV | Bahadurgarh-Sonepat | 2 | D/C | 53 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | Polymer Insulator | |
| 41 | 400kV | Balia-Mau | 1 | D/C | 9 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Conventional | |
| 42 | 400kV | Balia-Sohawal | 1 | D/C | 229 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Balia- LUCKNOW D/C at Sohawal | Conventional | LILO of Balia-Lucknow (316 KM) D/C at Sohawal |
| 43 | 400kV | Balia-Sohawal | 2 | D/C | 229 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Balia- LUCKNOW D/C at Sohawal | Conventional | LILO of Balia-Lucknow (316 KM) D/C at Sohawal |
| 44 | 400kV | Ballabgarh-Tughlakabad | 1 | M/C | 40 | DTL | POWERGRID | POWERGRID | HTLS INVAR (LILO portion) & Bersimis (before LILO) | Tower is quad circuit tower | Polymer | |
| 45 | 400kV | Ballabgarh-Tughlakabad | 2 | M/C | 40 | DTL | POWERGRID | POWERGRID | | Tower is quad circuit tower | Polymer | |
| 46 | 400kV | Ballabhgarh-Gurgaon | 1 | S/C | 43 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 47 | 400kV | Ballabhgarh-Maharanibagh | 1 | D/C | 61 | POWERGRID | POWERGRID | POWERGRID | Quad Bersimis | Bypassed at Maharanibagh to form Dadri-Ballabgarh | Polymer Insulator | |
| 48 | 400kV | Ballabhgarh-Nawada | 1 | D/C | 13 | POWERGRID | POWERGRID | HVPNL | Quad Bersimis | | Polymer Insulator | Ballabhgarh-Gnoida LILOed at Nawada (Faridabad,Haryana) |
| 49 | 400kV | Bareilly PG-Moradabad | 1 | D/C | 93 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Partial (3%) | |
| 50 | 400kV | Bareilly PG-Rampur_PRSTL | 1 | S/C | 40 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | After LILO of 400 KV BAREILLY(PG)-MORADABAD(UPPTCL) CIRCUIT-II at RAMPUR(PRSTL) | Not Available | |
| 51 | 400kV | Rampur_PRSTL-Moradabad | 1 | S/C | 57 | POWERGRID | UPPTCL | UPPTCL | Twin Moose | After LILO of 400 KV BAREILLY(PG)-MORADABAD(UPPTCL) CIRCUIT-II at RAMPUR(PRSTL) | Not Available | |
| 52 | 400kV | Bareilly PG-Bareilly (765kV) | 1 | D/C | 2 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Conventional | |
| 53 | 400kV | Bareilly PG-Bareilly (765kV) | 2 | D/C | 2 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Conventional | |
| 54 | 400kV | Bareilly PG(765kV)-Kashipur | 1 | D/C | 101 | POWERGRID | POWERGRID | PTCUL | Quad Moose | | Partial (90%) | |
| 55 | 400kV | Bareilly PG(765kV)-Kashipur | 2 | D/C | 101 | POWERGRID | POWERGRID | PTCUL | Quad Moose | | Partial (90%) | |
| 56 | 400kV | Bassi-Bhiwadi | 2 | S/C | 220 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 57 | 400kV | Bassi-Heerapura | 1 | D/C | 48 | POWERGRID | POWERGRID | RRVPNL | Twin Moose | | Polymer Insulator | |
| 58 | 400kV | Bassi-Heerapura | 2 | D/C | 49 | POWERGRID | POWERGRID | RRVPNL | Twin Moose | | Polymer Insulator | |
| 59 | 400kV | Bassi-Kotputli | 1 | S/C | 106 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 60 | 400kV | Bassi-Phagi | 1 | D/C | 48 | POWERGRID | POWERGRID | RRVPNL | Quad Moose | | Partial (26%) | |
| 61 | 400kV | Bassi-Phagi | 2 | D/C | 48 | POWERGRID | POWERGRID | RRVPNL | Quad Moose | | Partial (26%) | |
| 62 | 400kV | Bassi-Sikar | 1 | D/C | 170 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (16%) | |
| 63 | 400kV | Bassi-Sikar | 2 | D/C | 170 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (17%) | |
| 64 | 400kV | Bawana(CCGT)-Bahadurgarh | 1 | D/C | 49 | POWERGRID | DTL/Pragati CCGT | POWERGRID | Twin Moose | | Polymer Insulator | |
| 65 | 400kV | Bhadla-Bhadla(PG) | 1 | D/C | 27 | POWERGRID | RRVPNL | POWERGRID | Quad Moose | | Not Available | |
| 66 | 400kV | Bhadla-Bhadla(PG) | 2 | D/C | 27 | POWERGRID | RRVPNL | POWERGRID | Quad Moose | | Not Available | |
| 67 | 400kV | Bhadla-Bhadla II | 1 | D/C | 52 | POWERGRID | POWERGRID | POWERGRID | Twin HTLS+Hexa Zebra | 48.309KM Twin HTLS conductor of POWERGRID and 3.73 KM HEXA Zebra of FBTL | Not Available | |
| 68 | 400kV | Bhadla-Bhadla II | 2 | D/C | 52 | POWERGRID | POWERGRID | POWERGRID | Twin HTLS+Hexa Zebra | | Not Available | |
| 69 | 400kV | Bhinmal-Kankroli | 1 | D/C | 202 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bypassed at Bhinmal to form 400kV Kankroli Zerda ckt-2 | Polymer Insulator | |
| 70 | 400kV | Bhiwadi-Gurgaon | 1 | S/C | 83 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 71 | 400kV | Bhiwadi-Hissar | 1 | S/C | 212 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 72 | 400kV | Bhiwadi-Hissar | 2 | D/C | 144 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | LILO of Bhiwadi-Moga both ckts at Hisar |
| 73 | 400kV | Bhiwadi-Hissar | 3 | D/C | 144 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 74 | 400kV | Bhiwadi-NeemranaPG | 1 | D/C | 48 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 75 | 400kV | Bhiwadi-NeemranaPG | 2 | D/C | 48 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 76 | 400kV | Bhiwani BBMB - Hissar | 1 | S/C | 35 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bypassed at Hissar to form Bhiwani BBMB-Fatehabad | Polymer Insulator | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 77 | 400kV | Bhiwani (PG) - Hissar | 1 | S/C | 64 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bypassed at Hissar to form Moga-Bhiwani(PG) | Polymer Insulator | LILO of Bawana-Hisar (132KM) at Bhiwani PG |
| 78 | 400kV | Bhiwani (PG) - Hissar | 2 | D/C | 57 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bypassed at Bhiwani(PG) to form | Polymer Insulator | |
| 79 | 400kV | Bhiwani (PG) - Hissar | 3 | D/C | 57 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 80 | 400kV | Bhiwani PG - Jind | 1 | D/C | 82 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 81 | 400kV | Bhiwani PG - Jind | 2 | D/C | 82 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 82 | 400kV | Bhiwani PG- BawanaCCGT | 1 | D/C | 97 | POWERGRID | POWERGRID | DTL/ CCGT | Twin Moose | | Polymer Insulator | LILO of Bawana-Hisar (132KM) at Bhiwani PG |
| 83 | 400kV | Bhiwani PG- Bhiwani BBMB | 1 | S/C | 34 | POWERGRID | POWERGRID | BBMB | Twin Moose | | Polymer Insulator | LILO of Bhiwani (BBMB)-Bahadurgarh (84km) at Bhiwani (PG) |
| 84 | 400kV | Bhiwani PG-Kabulpur | 1 | S/C | 48 | POWERGRID | POWERGRID | HVPNL | Twin Moose | | Polymer Insulator | LILO of Bahadurgarh-Bhiwani at Kabulpur |
| 85 | 400kV | Bikaner_2 (PBTSL)-Bikaner(PG) | 1 | D/C | 43 | POWERGRID | PBTSL | POWERGRID | Quad Moose | | Not Available | |
| 86 | 400kV | Bikaner_2 (PBTSL)-Bikaner(PG) | 2 | D/C | 43 | POWERGRID | PBTSL | POWERGRID | Quad Moose | | Not Available | |
| 87 | 400kV | Chamba pool - Jalandhar | 1 | D/C | 162 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (48%) | |
| 88 | 400kV | Chamba pool - Jalandhar | 2 | D/C | 162 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (48%) | |
| 89 | 400kV | Chamera-II - Chamba Pool | 1 | S/C | 0.38 | POWERGRID | NHPC | POWERGRID | Twin Moose | | Conventional | Two tower is S/C and one tower is D/C |
| 90 | 400kV | Chamera-II-Chamera-I | 1 | S/C | 36 | POWERGRID | NHPC | NHPC | Twin Moose | | Conventional | |
| 91 | 400kV | Chamera-II-Kishenpur | 1 | S/C | 135 | POWERGRID | NHPC | POWERGRID | Twin Moose | | Conventional | |
| 92 | 400kV | Chamera-I-Jalandhar | 1 | D/C | 152 | POWERGRID | NHPC | POWERGRID | Twin ACAR | | Partial (43%) | |
| 93 | 400kV | Chamera-I-Jalandhar | 2 | D/C | 152 | POWERGRID | NHPC | POWERGRID | Twin ACAR | | Partial (43%) | |
| 94 | 400kV | Chittorgarh-Chittorgarh(PG) | 1 | D/C | 49 | POWERGRID | RRVPNL | POWERGRID | Quad Moose | | Not Available | |
| 95 | 400kV | Chittorgarh-Chittorgarh(PG) | 2 | D/C | 49 | POWERGRID | RRVPNL | POWERGRID | Quad Moose | | Not Available | |
| 96 | 400kV | Chittorgarh-Kankroli | 1 | D/C | 71 | POWERGRID | RRVPNL | POWERGRID | Twin Moose | | Polymer Insulator | LILO of 400 kV Rapp C-Kankroli at Chhitorgarh |
| 97 | 400kV | Dadri NCTPP-G. Noida | 1 | D/C | 13 | POWERGRID | NTPC | UPPCL | Quad Bersimis | | Polymer Insulator | |
| 98 | 400kV | Dadri NCTPP-Maharanibagh | 1 | D/C | 54 | POWERGRID | NTPC | POWERGRID | Quad Bersimis | Bypassed at Maharanibagh to form Dadri-Ballabgarh | Polymer Insulator | |
| 99 | 400kV | Dadri NCTPP-Kaithal | 1 | S/C | 213 | POWERGRID | NTPC | POWERGRID | Twin Moose | LILO of Dadri-Malerkotla at Kaithal | Polymer Insulator | |
| 100 | 400kV | Dadri NCTPP-Mandola | 1 | D/C | 46 | POWERGRID | NTPC | POWERGRID | Quad Bersimis | | Polymer Insulator | |
| 101 | 400kV | Dadri NCTPP-Mandola | 2 | D/C | 46 | POWERGRID | NTPC | POWERGRID | Quad Bersimis | | Polymer Insulator | |
| 102 | 400kV | Dadri NCTPP-Muradnagar New | 1 | S/C | 33 | POWERGRID | NTPC | UPPTCL | Twin Moose | | Polymer Insulator | Line shifted from Muradnagar to Muradnagar New (UPPTCL) |
| 103 | 400kV | Dadri NCTPP-Panipat | 1 | S/C | 112 | POWERGRID | NTPC | BBMB | Twin Moose | | Polymer Insulator | |
| 104 | 400kV | Dadri NCTPP-Panipat | 2 | S/C | 117 | POWERGRID | NTPC | BBMB | Twin Moose | | Polymer Insulator | |
| 105 | 400kV | Deepalpur-Bawana | 1 | D/C | 26 | POWERGRID | KT-Jhajjar | DTL | Triple Snowbird | LILO of 400kV Bawana-Abdullapur one circuit at Deepalpur by Jhajjar KT | Polymer Insulator | |
| 106 | 400kV | Dehradun-Abdullapur | 1 | D/C | 89 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Not Available | |
| 107 | 400kV | Dehradun-Abdullapur | 2 | D/C | 89 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Not Available | |
| 108 | 400kV | Dulhasti-Kishenpur | 1 | S/C | 120 | POWERGRID | NHPC | POWERGRID | Quad Moose | | Conventional | |
| 109 | 400kV | Dulhasti-Kishenpur | 2 | S/C | 120 | POWERGRID | NHPC | POWERGRID | Quad Moose | | Conventional | |
| 110 | 400kV | Dwarka-Jhatikara | 1 | S/C | 18 | POWERGRID | POWERGRID | POWERGRID | Twin HTLS | After LILO of 400KV Jhatikara-Bamnoli-I at | Not Available | |
| 111 | 400kV | Dwarka-Bamnauli | 1 | S/C | 10 | POWERGRID | POWERGRID | DTL | Twin HTLS | | Not Available | |
| 112 | 400kV | Fatehbad PG-Hissar | 1 | D/C | 89 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bypassed at Hissar to form Bhiwani BBMB-Fatehabad | Polymer Insulator | |
| 113 | 400kV | Fatehpur-Kanpur | 1 | S/C | 100 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bypassed at Kanpur to form Fatehpur-Panki | Polymer Insulator | LILO of Singrauli- |
| 114 | 400kV | Fatehpur-Kanpur | 2 | S/C | 107 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (64%) | LILO of Allahabad-Kanpur one ckt at Fatehpur |
| 115 | 400kV | Kanpur-Panki | 1 | S/C | 6 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | Bypassed at Kanpur to form Fatehpur-Panki | Polymer Insulator | |
| 116 | 400kV | Kanpur-Panki | 2 | S/C | 6 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Polymer Insulator | |

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| 117 | 400kV | Fatehpur-Mainpuri | 1 | D/C | 260 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | LILO of Allahabad-Mainpuri (363 KM) D/C at Fatehpur<br>Series compensated line (Degree of comp. - 40%) |
| 118 | 400kV | Fatehpur-Mainpuri | 2 | D/C | 260 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 119 | 400kV | G.Noida-Nawada | 1 | D/C | 30 | POWERGRID | UPPTCL | HVPNL | Quad Bersimis | Lilo of Ballabgarh-G.Noida at Nawada | Polymer Insulator | Ballabhgarh-Gnoida LILOed at Nawada (Faridabad,Haryana) |
| 120 | 400kV | Gorakhpur PG-Gorakhpur UP | 1 | D/C | 46 | POWERGRID | POWERGRID | UPPCL | Twin Moose | | Polymer Insulator | Partial Planning has been completed |
| 121 | 400kV | Gorakhpur PG-Gorakhpur UP | 2 | D/C | 46 | POWERGRID | POWERGRID | UPPCL | Twin Moose | | Polymer Insulator | Partial Planning has been completed |
| 122 | 400kV | Gorakhpur PG-Lucknow PG | 1 | D/C | 264 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (3%) | At crossing |
| 123 | 400kV | Gorakhpur PG-Lucknow PG | 2 | D/C | 264 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (3%) | At crossing |
| 124 | 400kV | Gorakhpur PG-Basti (UP) | 1 | D/C | 117 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | LILO of 400kV Gorakhpur PG- Lucknow PG ckt-4 at Basti (UP). LILO portion is of UP | Not Available | |
| 125 | 400kV | Gorakhpur PG-Basti (UP) | 2 | D/C | 108 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | LILO of 400kV Lucknow Gorakhpur-3 at Basti. LILO portion is of UP | Not Available | |
| 126 | 400kV | Basti (UP)-Lucknow PG | 1 | D/C | 204 | POWERGRID | UPPTCL | POWERGRID | Twin Moose | | Not Available | |
| 127 | 400kV | Gurgaon-Sohna Road | 1 | D/C | 7 | POWERGRID | POWERGRID | GPTL | Quad Moose | LILO of 400kV Gurgaon Manesar D/C at Sohna | Not Available | |
| 128 | 400kV | Gurgaon-Sohna Road | 2 | D/C | 7 | POWERGRID | POWERGRID | GPTL | Quad Moose | | Not Available | |
| 129 | 400kV | Hamirpur-ParbatiPooling (Banala) | 1 | D/C | 77 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | LILO of Amritsar- Banala 1 at Hamirpur |
| 130 | 400kV | Jaipur South-Bassi | 1 | D/C | 37 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Agra-Bassi D/C at Jaipur South | Polymer Insulator | LILO of Agra-Bassi D/C at Jaipur South |
| 131 | 400kV | Jaipur South-Bassi | 2 | D/C | 37 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Agra-Bassi D/C at Jaipur South | Polymer Insulator | |
| 132 | 400kV | Jaipur South-Kota | 1 | D/C | 180 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |
| 133 | 400kV | Jaipur South-RAPP D | 1 | D/C | 228 | POWERGRID | POWERGRID | NPCIL | Twin Moose | | Not Available | |
| 134 | 400kV | Jalandhar-Nakodar | 1 | D/C | 42 | POWERGRID | POWERGRID | PSTCL | Quad Moose | | Polymer Insulator | |
| 135 | 400kV | Jalandhar-Hamirpur | 1 | D/C | 135 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (43%) | LILO of 400kV Amritsar-Hamirpur at Jalandhar |
| 136 | 400kV | Kaithal-Hissar | 1 | D/C | 113 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | LILO of Patiala-Hissar at Kaithal | |
| 137 | 400kV | Kaithal-Hissar | 2 | D/C | 113 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | LILO of Patiala-Hissar at Kaithal | |
| 138 | 400kV | Kaithal-Malerkotla | 1 | S/C | 135 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 139 | 400kV | Kankroli-Jodhpur | 1 | S/C | 188 | POWERGRID | POWERGRID | RRVPNL | Twin HTLS | | Conventional | |
| 140 | 400kV | Kanpur-Agra | 1 | S/C | 240 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 141 | 400kV | Kanpur-Auraiya | 1 | D/C | 73 | POWERGRID | POWERGRID | NTPC | Twin Moose | | Conventional | |
| 142 | 400kV | Kanpur-Auraiya | 2 | D/C | 73 | POWERGRID | POWERGRID | NTPC | Twin Moose | | Conventional | |
| 143 | 400kV | Kanpur-Ballabgarh | 1 | S/C | 386 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | *Series Compensated,Ckt 1-35%, Ckt-2 & 3-40% |
| 144 | 400kV | Kanpur-Ballabgarh | 2 | D/C | 371 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | *Series Compensated,Ckt 1-35%, Ckt-2 & 3-40% |
| 145 | 400kV | Kanpur-Ballabgarh | 3 | D/C | 371 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | *Series Compensated,Ckt 1-35%, Ckt-2 & 3-40% |
| 146 | 400kV | Kanpur-Kanpur(GIS) | 1 | D/C | 21 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Polymer Insulator | |
| 147 | 400kV | Kanpur-Kanpur(GIS) | 2 | D/C | 21 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Polymer Insulator | |
| 148 | 400kV | Kanpur(GIS)-Lucknow(765) | 1 | D/C | 160 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |
| 149 | 400kV | Kanpur(GIS)-Lucknow(765) | 2 | D/C | 160 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |
| 150 | 400kV | Kishenpur-NewWanpoh | 1 | D/C | 130 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 151 | 400kV | Kishenpur-NewWanpoh | 3 | D/C | 135 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 152 | 400kV | Kishenpur-NewWanpoh | 4 | D/C | 135 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 153 | 400kV | Kishenpur-Samba | 1 | D/C | 35 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |
| 154 | 400kV | Kishenpur-Samba | 2 | D/C | 35 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 155 | 400kV | Kota-Merta | 1 | D/C | 256 | POWERGRID | POWERGRID | RRVPNL | Twin Moose | | Conventional | |
| 156 | 400kV | Kotputli-Bhiwadi | 1 | S/C | 132 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | LILO of Bassi-Bhiwadi-2 at Kotputli |
| 157 | 400kV | Kurukshetra-Jind | 1 | D/C | 103 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Not Available | |
| 158 | 400kV | Kurukshetra-Jind | 2 | D/C | 103 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Not Available | |
| 159 | 400kV | Kurukshetra-Sonipat | 1 | D/C | 125 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird (Twin HTLS for LILOportion) | LILO of Abdullapur-Sonipat line at | Partial (99%) | LILO of Abdullapr- |
| 160 | 400kV | Kurukshetra-Sonipat | 2 | D/C | 125 | POWERGRID | POWERGRID | POWERGRID | | | Partial (99%) | |
| 161 | 400kV | Kurukshetra(PG)-Dhanansu(PS) | 1 | D/C | 165 | POWERGRID | POWERGRID | PSTCL | Quad Moose | Kurukshetra-Jalandhar (LILO portion is of | Polymer Insulator | LILO portion to be checked |
| 162 | 400kV | Dhanansu(PS)-Jalandhar(PG) | 1 | D/C | 106 | POWERGRID | PSTCL | POWERGRID | Quad Moose | | Polymer Insulator | |
| 163 | 400kV | Kurukshetra-Nakodar | 1 | D/C | 234 | POWERGRID | POWERGRID | PSTCL | Quad Moose | | Polymer Insulator | |
| 164 | 400kV | Lucknow-Basti | 1 | D/C | 203 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Not Available | |
| 165 | 400kV | Lucknow-Basti | 2 | D/C | 203 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Not Available | |
| 166 | 400kV | Lucknow PG-Lucknow UP | 1 | S/C | 63 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Conventional | |
| 167 | 400kV | Lucknow PG-Unnao | 1 | D/C | 74 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Conventional | |
| 168 | 400kV | Lucknow PG-Unnao | 2 | D/C | 74 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Conventional | |
| 169 | 400kV | Lucknow UP-Bareilly PG | 1 | S/C | 279 | POWERGRID | UPPTCL | POWERGRID | Twin Moose | | Conventional | |
| 170 | 400kV | 765 Lucknow (PG) - Lucknow (PG) | 1 | D/C | 3 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Polymer Insulator | |
| 171 | 400kV | 765 Lucknow (PG) - Lucknow (PG) | 2 | D/C | 3 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Polymer Insulator | |
| 172 | 400kV | LucknowPG-Sohawal | 1 | D/C | 98 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | LILO of Balia-Lucknow (316 KM) D/C at Sohawal |
| 173 | 400kV | LucknowPG-Sohawal | 2 | D/C | 98 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 174 | 400kV | Lucknow PG-Shahjahanpur | 1 | D/C | 170 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (10%) | |
| 175 | 400kV | Lucknow PG-Shahjahanpur | 2 | D/C | 170 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Partial (10%) | |
| 176 | 400kV | Lucknow-Jehta | 1 | D/C | 32 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | LILO of 400kV Lucknow Unnao DC at Jehta (UP). | Not Available | |
| 177 | 400kV | Lucknow-Jehta | 2 | D/C | 32 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Not Available | |
| 178 | 400kV | Ludhiana-Jalandhar | 1 | S/C | 85 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 179 | 400kV | Ludhiana-Malerkotla | 1 | S/C | 36 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 180 | 400kV | Ludhiana-Patiala | 1 | D/C | 76 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 181 | 400kV | Ludhiana-Patiala | 2 | D/C | 76 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 182 | 400kV | Mainpuri-Ballabgarh | 1 | D/C | 236 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 183 | 400kV | Mainpuri-Ballabgarh | 2 | D/C | 236 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 184 | 400kV | Malerkotla-Patiala | 1 | S/C | 62 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 185 | 400kV | Manesar- Sohna Road | 1 | D/C | 17 | POWERGRID | POWERGRID | GPTL | Quad Moose | LILO of 400kV Gurgaon Manesar D/C at Sohna | Not Available | |
| 186 | 400kV | Manesar- Sohna Road | 2 | D/C | 17 | POWERGRID | POWERGRID | GPTL | Quad Moose | | Not Available | |
| 187 | 400kV | Mandola-Maharanibagh | 1 | D/C (LILO towers are M/C) | 29 | POWERGRID | POWERGRID | POWERGRID | Twin HTLS | After LILO of 400KV Mandola-Bawana D/C Lines at 400KV Maharanibagh(PG) | Not Available | |
| 188 | 400kV | Mandola-Maharanibagh | 2 | D/C (LILO towers are M/C) | 29 | POWERGRID | POWERGRID | POWERGRID | Twin HTLS | | Not Available | |
| 189 | 400kV | Maharanibagh-Bawana | 1 | D/C | 29 | POWERGRID | POWERGRID | DTL | Twin HTLS | | Not Available | |
| 190 | 400kV | Maharanibagh-Bawana | 2 | D/C | 29 | POWERGRID | POWERGRID | DTL | Twin HTLS | | Not Available | |
| 191 | 400kV | Meerut-Bagpat | 1 | D/C | 71 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Meerut-Kaithal DC at Baghpat | Polymer Insulator | |
| 192 | 400kV | Meerut-Bagpat | 2 | D/C | 71 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | LILO of Meerut-Kaithal DC at Baghpat | Polymer Insulator | |
| 193 | 400kV | Meerut-Mandola | 1 | D/C | 60 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 194 | 400kV | Meerut-Mandola | 2 | D/C | 60 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 195 | 400kV | Meerut-Muzzafarnagar | 1 | S/C | 37 | POWERGRID | POWERGRID | UPPTCL | Twin Moose | | Polymer Insulator | |
| 196 | 400kV | Moga-Fatehabad | 1 | D/C | 179 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 197 | 400kV | Moga-Hissar | 1 | D/C | 209 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bypassed at Hissar to form Moga-Bhiwani(PG) | Polymer Insulator | |
| 198 | 400kV | Moga-Hissar | 2 | D/C | 206 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | LILO of Bhiwadi-Moga both ckts at Hisar |
| 199 | 400kV | Moga-Hissar | 3 | D/C | 206 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 200 | 400kV | Moga-Jalandhar | 1 | D/C | 85 | POWERGRID | POWERGRID | POWERGRID | Twin ACAR | | Polymer Insulator | |
| 201 | 400kV | Moga-Jalandhar | 2 | D/C | 85 | POWERGRID | POWERGRID | POWERGRID | Twin ACAR | | Polymer Insulator | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 202 | 400kV | Muradnagar-Hapur | 1 | S/C | 28 | POWERGRID | UPPTCL | UPPTCL | Twin Moose | Moradabad-Muradnagar LILOed at | Not Available | |
| 203 | 400kV | Moradabad-Hapur | 2 | S/C | 109 | POWERGRID | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 204 | 400kV | Nallagarh-Koldam | 1 | D/C | 46 | POWERGRID | POWERGRID | NTPC | Quad Moose | | Conventional | Koldam to Parbati |
| 205 | 400kV | Nallagarh-Patiala | 1 | D/C | 94 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | Polymer Insulator | |
| 206 | 400kV | Nallagarh-Patiala | 2 | D/C | 94 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | Polymer Insulator | |
| 207 | 400kV | Nathpa Jhakri-Gumma | 1 | D/C | 55 | POWERGRID | SJVNL | HPPTCL | Triple Snowbird | LILO of DC Jhakri-Panchkula line at Gumma | Not Available | |
| 208 | 400kV | Nathpa Jhakri-Gumma | 2 | D/C | 55 | POWERGRID | SJVNL | HPPTCL | Triple Snowbird | | Not Available | |
| 209 | 400kV | Gumma-Panchkula | 1 | D/C | 112 | POWERGRID | HPPTCL | POWERGRID | Triple Snowbird | | Not Available | |
| 210 | 400kV | Gumma-Panchkula | 2 | D/C | 112 | POWERGRID | HPPTCL | POWERGRID | Triple Snowbird | | Not Available | |
| 211 | 400kV | Nathpa Jhakri-RampurHEP | 1 | D/C | 21 | POWERGRID | SJVNL | SJVNL | Triple Snowbird | Nathpa Jhakri-Nallagarh LILOed at | Conventional | LILO of Jhakri-Nalagarh |
| 212 | 400kV | Nathpa Jhakri-RampurHEP | 2 | D/C | 21 | POWERGRID | SJVNL | SJVNL | Triple Snowbird | | Conventional | |
| 213 | 400kV | NeemranaPG-Manesar | 1 | D/C | 67 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 214 | 400kV | NeemranaPG-Manesar | 2 | D/C | 67 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 215 | 400kV | NeemranaPG-Babai | 1 | D/C | 85 | POWERGRID | POWERGRID | RRVPNL | Twin Moose | LILO PORTION IF OF NRSS36(B), LILO of 400kV Neemrana-Sikar 1 at Babai | Not Available | LILO of 400kV Neemrana-Sikar at Babai by NRSSXXXVI (Essel group): Earlier 29% of Neemrana- Sikar PG |
| 216 | 400kV | NeemranaPG-Sikar | 2 | D/C | 176 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Not Available | |
| 217 | 400kV | NewWanpoh-Wagoora | 1 | D/C | 57 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 218 | 400kV | NewWanpoh-Wagoora | 2 | D/C | 57 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 219 | 400kV | Orai(PG)-Orai | 1 | D/C | 42 | POWERGRID | POWERGRID | UPPTCL | Quad Moose | | Not Available | |
| 220 | 400kV | Orai(PG)-Orai | 2 | D/C | 42 | POWERGRID | POWERGRID | UPPTCL | Quad Moose | | Not Available | |
| 221 | 400kV | Panchkula -Abdullapur | 1 | D/C | 63 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | Polymer Insulator | LILO of Jhakri-Abdullapur at Panchkula |
| 222 | 400kV | Panchkula -Abdullapur | 2 | D/C | 63 | POWERGRID | POWERGRID | POWERGRID | Triple Snowbird | | Polymer Insulator | LILO of Jhakri- |
| 223 | 400kV | Patiala-Panchkula | 1 | D/C | 65 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 224 | 400kV | Patiala-Panchkula | 2 | D/C | 65 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Polymer Insulator | |
| 225 | 400kV | Patiala-Patran | 1 | D/C | 79 | POWERGRID | POWERGRID | PTCL | Triple Snowbird | LILO of 400kV D/C Patiala – Kaithal Line at Patran SS under the ownership of PTCL. | Polymer Insulator | LILO of 400 kV Kaithal- |
| 226 | 400kV | Patiala-Patran | 2 | D/C | 79 | POWERGRID | POWERGRID | PTCL | Triple Snowbird | | Polymer Insulator | |
| 227 | 400kV | Patran-Kaithal | 1 | D/C | 47 | POWERGRID | PTCL | POWERGRID | Triple Snowbird | | Polymer Insulator | |
| 228 | 400kV | Patran-Kaithal | 2 | D/C | 47 | POWERGRID | PTCL | POWERGRID | Triple Snowbird | | Polymer Insulator | |
| 229 | 400kV | RampurHEP-Nallagarh | 1 | D/C | 128 | POWERGRID | SJVNL | POWERGRID | Triple Snowbird | Nathpa Jhakri-Nallagarh LILOed at | Conventional | LILO of Jhakri-Nalagarh |
| 230 | 400kV | RampurHEP-Nallagarh | 2 | D/C | 128 | POWERGRID | SJVNL | POWERGRID | Triple Snowbird | | Conventional | |
| 231 | 400kV | RAPS-C-Chittorgarh | 1 | D/C | 155 | POWERGRID | NPCIL | RRVPNL | Twin Moose | | Partial (38%) | LILO of 400 kV Rapp C-Kankroli at Chhitorgarh |
| 232 | 400kV | RAPS-C-Kankroli | 1 | D/C | 199 | POWERGRID | NPCIL | POWERGRID | Twin Moose | | Partial (51%) | |
| 233 | 400kV | RAPS-C-Kota | 1 | S/C | 51 | POWERGRID | NPCIL | POWERGRID | Twin Moose | | Partial (55%) | 400kV RAPS-Jaipur line whose work was completed till Kota section is connected with 400kV Raps-Kota#2 (for antitheft purpose) and hence 400kV RapsC-Kota #2 is now two twin moose lines connected in parallel paths |
| 234 | 400kV | RAPS-C-Kota | 2 | D/C | 55 | POWERGRID | NPCIL | POWERGRID | Twin Moose | D/C with 400kV Jaipur-RAPP D line | Not Available | |
| 235 | 400kV | Rasra-Balia | 1 | S/C | 46 | POWERGRID | UPPTCL | POWERGRID | Twin Moose | LILO of 400kV Balia-Mau-II at Rasara. LILO | Not Available | |
| 236 | 400kV | Rasra-Mau | 1 | S/C | 38 | POWERGRID | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 237 | 400kV | Rihand-Allahabad | 1 | D/C | 279 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Conventional | |
| 238 | 400kV | Rihand-Allahabad | 2 | D/C | 279 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Conventional | |
| 239 | 400kV | Roorkee-Kashipur | 1 | D/C | 151 | POWERGRID | POWERGRID | PTCUL | Quad Moose | | Partial (72%) | |
| 240 | 400kV | Roorkee-Kashipur | 2 | D/C | 151 | POWERGRID | POWERGRID | PTCUL | Quad Moose | | Partial (72%) | |
| 241 | 400kV | Roorkee-Saharanpur | 1 | D/C | 36 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Polymer Insulator | |
| 242 | 400kV | Roorkee-Dehradun | 1 | D/C | 80 | POWERGRID | POWERGRID | POWERGRID | Quad Moose | | Partial (50%) | |

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| 243 | 400kV | Sarnath-Varanasi | 1 | D/C | 70 | POWERGRID | UPPTCL | POWERGRID | Quad Moose | | Partial (52%) | LILO of Sarnath-Allahabad (144 KM) at 765/400kV Varanasi |
| 244 | 400kV | Sarnath-Varanasi | 2 | D/C | 107 | POWERGRID | UPPTCL | POWERGRID | Quad Moose | | Partial (52%) | |
| 245 | 400kV | Shahjahanpur-Bareilly PG | 1 | D/C | 116 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 246 | 400kV | Shahjahanpur-Bareilly PG | 2 | D/C | 116 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 247 | 400kV | Shahjahanpur-Rosa | 1 | D/C | 8 | POWERGRID | POWERGRID | UPPCL | Twin Moose | | Not Available | |
| 248 | 400kV | Shahjahanpur-Rosa | 2 | D/C | 8 | POWERGRID | POWERGRID | UPPCL | Twin Moose | | Not Available | |
| 249 | 400kV | Shree Cement-Kota | 1 | D/C | 208 | POWERGRID | Sh. Cement | POWERGRID | Twin Moose | | Polymer Insulator | |
| 250 | 400kV | Shree Cement-Merta | 2 | D/C | 103 | POWERGRID | Sh. Cement | RRVPNL | Twin Moose | | Polymer Insulator | |
| 251 | 400kV | Sikar-Babai | 1 | D/C | 95 | POWERGRID | POWERGRID | RRVPNL | Twin Moose | LILO PORTION IF OF NRSS36(B), LILO of 400kV Neemrana-Sikar 1 at Babai | Not Available | |
| 252 | 400kV | Sikar-Ratangarh | 1 | D/C | 76 | POWERGRID | POWERGRID | RRVPNL | Twin Moose | | Conventional | |
| 253 | 400kV | Sikar-Ratangarh | 2 | D/C | 76 | POWERGRID | POWERGRID | RRVPNL | Twin Moose | | Conventional | |
| 254 | 400kV | Singrauli-Allahabad | 1 | S/C | 224 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Conventional | |
| 255 | 400kV | Singrauli-Allahabad | 2 | S/C | 202 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Conventional | |
| 256 | 400kV | Singrauli-Allahabad | 3 | S/C | 215 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Not Available | |
| 257 | 400kV | Singrauli-Anpara | 1 | S/C | 25 | POWERGRID | NTPC | UPPTCL | Twin Moose | | Partial (91%) | |
| 258 | 400kV | Singrauli-Fatehpur | 1 | S/C | 331 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Conventional | LILO of Singrauli-Kanpur at Fatehpur |
| 259 | 400kV | Singrauli-LucknowUP | 1 | S/C | 409 | POWERGRID | NTPC | UPPTCL | Twin Moose | | Conventional | |
| 260 | 400kV | Singrauli-Rihand | 1 | S/C | 42 | POWERGRID | NTPC | NTPC | Twin Moose | | Conventional | |
| 261 | 400kV | Singrauli-Rihand | 2 | S/C | 44 | POWERGRID | NTPC | NTPC | Twin Moose | | Conventional | |
| 262 | 400kV | Singrauli-Vindhyachal | 1 | S/C | 3 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Conventional | |
| 263 | 400kV | Singrauli-Vindhyachal | 2 | S/C | 5 | POWERGRID | NTPC | POWERGRID | Twin Moose | | Conventional | |
| 264 | 400kV | Koteswar(PG)-Koteswar(THDC) | 1 | D/C | 3 | POWERGRID | POWERGRID | THDC | Twin Moose | | Conventional | |
| 265 | 400kV | Koteswar(PG)-Koteswar(THDC) | 2 | D/C | 3 | POWERGRID | POWERGRID | THDC | Twin Moose | | Conventional | |
| 266 | 400kV | Tehri-Koteshwar(PG) | 3 | S/C | 14 | POWERGRID | THDC | POWERGRID | Quad Moose | | Not Available | |
| 267 | 400kV | Unnao-Jehta | 1 | D/C | 70 | POWERGRID | UPPTCL | UPPTCL | Twin Moose | LILO of 400kV Lucknow Unnao DC at Jehta (UP). LILO portion is of UP | Not Available | |
| 268 | 400kV | Unnao-Jehta | 2 | D/C | 70 | POWERGRID | UPPTCL | UPPTCL | Twin Moose | LILO of 400kV Lucknow Unnao DC at Jehta (UP). LILO portion is of UP | Not Available | |
| 269 | 400kV | Uri-II - Uri-I | 1 | S/C | 10 | POWERGRID | NHPC | NHPC | Twin Moose | | Conventional | LILO of 400kV Uri-I - Wagoora D/C at Amargarh |
| 270 | 400kV | Uri-II - Wagoora | 1 | S/C | 105 | POWERGRID | NHPC | POWERGRID | Twin Moose | | Conventional | |
| 271 | 400kV | Jauljivi-Bareilly_2 | 1 | D/C | 205 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | After LILO of 400kV Dhauliganga - Bareilly(UP) Double circuit line(Initially LILOed at Pithoragarh and charged at 220kV level) at Jauljivi(PG) After LILO of 400kV Dhauliganga - | Not Available | |
| 272 | 400kV | Jauljivi-Bareilly_2 | 2 | D/C | 205 | POWERGRID | POWERGRID | POWERGRID | Twin Moose | Bareilly(UP) Double circuit line(Initially LILOed at Pithoragarh and charged at 220kV level) at Jauljivi(PG) | Not Available | |
| **B. POWERLINK Transmission Ltd** | | | | | | | | | | | | |
| 1 | 400kV | Bareilly PG-Meerut | 1 | D/C | 250 | POWERLINK | POWERGRID | POWERGRID | Twin Moose | | Conventional | LILO of Bareilly PG-Mandola-1 (241 Km) at |
| 2 | 400kV | Bareilly PG-Meerut | 2 | D/C | 250 | POWERLINK | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 3 | 400kV | Bareilly UP-Bareilly PG | 1 | D/C | 14 | POWERLINK | UPPTCL | POWERGRID | Twin Moose | | Polymer Insulator | |
| 4 | 400kV | Bareilly UP-Bareilly PG | 2 | D/C | 14 | POWERLINK | UPPTCL | POWERGRID | Twin Moose | | Polymer Insulator | |
| 5 | 400kV | Gorakhpur PG-Lucknow PG | 1 | D/C | 246 | POWERLINK | POWERGRID | POWERGRID | Twin Moose | | Conventional | *Series compensated line |
| 6 | 400kV | Gorakhpur PG-Lucknow PG | 2 | D/C | 246 | POWERLINK | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| 7 | 400kV | Meerut-Mandola | 3 | D/C | 102 | POWERLINK | POWERGRID | POWERGRID | Twin Moose | | Conventional | LILO of Bareilly PG-Mandola-1&2 (241 Km) |
| 8 | 400kV | Meerut-Mandola | 4 | D/C | 102 | POWERLINK | POWERGRID | POWERGRID | Twin Moose | | Conventional | |
| **C. PKTSL** | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 400kV | Khetri-Sikar | 1 | D/C | 78 | PKTSL | PKTSL | POWERGRID | Twin HTLS | | Not Available | |
| 2 | 400kV | Khetri-Sikar | 2 | D/C | 78 | PKTSL | PKTSL | POWERGRID | Twin HTLS | | Not Available | |
| **D. Adani Transmission India Ltd.** | | | | | | | | | | | | |
| 1 | 400kV | Mahindergarh (APL)-Bhiwani PG | 1 | D/C | 50 | ATIL | APL | POWERGRID | Twin Moose | | Conventional | |
| 2 | 400kV | Mahindergarh (APL)-Bhiwani PG | 2 | D/C | 50 | ATIL | APL | POWERGRID | Twin Moose | | Conventional | |
| 3 | 400kV | Mahindergarh (APL)-Bhiwani PG | 3 | D/C | 56 | ATIL | APL | POWERGRID | Twin Moose | Bypassed at 400kV | Not Available | |
| 4 | 400kV | Mahindergarh (APL)-Bhiwani PG | 4 | D/C | 56 | ATIL | APL | POWERGRID | Twin Moose | Bhiwani to form 400kV | Not Available | |
| 5 | 400kV | MahindergarhHVDC-Dhanonda | 1 | D/C | 5 | ATIL | APL | HVPNL | Quad Moose | Bypassed at Dhanonda | Conventional | |
| 6 | 400kV | MahindergarhHVDC-Dhanonda | 2 | D/C | 5 | ATIL | APL | HVPNL | Quad Moose | to form | Conventional | |
| **E. APCPL (Aravali Power Corporation Pvt Ltd.)** | | | | | | | | | | | | |
| 1 | 400kV | Jhajjar (IGSTPS)-Mundka | 1 | D/C | 66 | APCPL | APCPL | DTL | Twin Moose | | Polymer | |
| 2 | 400kV | Jhajjar (IGSTPS)-Mundka | 2 | D/C | 66 | APCPL | APCPL | DTL | Twin Moose | | Polymer | |
| **F. PHTL (Powergrid Himachal Transmission Limited)** | | | | | | | | | | | | |
| 1 | 400kV | Abdullapur-Kala Amb | 1 | D/C | 39 | PHTL | POWERGRID | PKATL | Quad Moose | | Conventional | |
| 2 | 400kV | Abdullapur-Kala Amb | 2 | D/C | 39 | PHTL | POWERGRID | PKATL | Quad Moose | | Conventional | |
| 3 | 400kV | Kala Amb- Wangtoo (HP) | 1 | D/C | 174 | PHTL | PKATL | HPPTCL | Quad Moose | Karcham-Kala Amb | Not Available | |
| 4 | 400kV | Karcham Wangtoo - Wangtoo (HP) | 1 | D/C | 1 | PHTL | JSW | HPPTCL | Quad Moose | LILOed at Wangtoo (HP) | Not Available | |
| 5 | 400kV | Karcham Wangtoo - Wangtoo (HP) | 2 | D/C | 1 | PHTL | JSW | HPPTCL | Quad Moose | | Not Available | |
| 6 | 400kV | Baspa-Karcham Wangtoo | 1 | D/C | 22 | PHTL | JPVL | JSW | Triple snowbird | | Conventional | |
| 7 | 400kV | Baspa-Karcham Wangtoo | 2 | D/C | 22 | PHTL | JPVL | JSW | Triple snowbird | | Conventional | |
| 8 | 400kV | Karcham Wangtoo-NJPC | 1 | D/C | 34 | PHTL | JSW | SJVNL | Triple snowbird | | Conventional | |
| 9 | 400kV | Karcham Wangtoo-NJPC | 2 | D/C | 34 | PHTL | JSW | SJVNL | Triple snowbird | | Conventional | |
| 10 | 400kV | Sorang-Wangtoo | 1 | D/C | 21 | PHTL | SORANG | HPPTCL | Quad Moose | | Not Available | |
| 11 | 400kV | Sorang-Kala Amb | 1 | D/C | 160 | PHTL | SORANG | PKATL | Quad Moose | | Not Available | |
| **G. PKTCL (Parbati-Koldam Transmission)** | | | | | | | | | | | | |
| 1 | 400kV | Koldam-Ludhiana | 1 | D/C | 151 | PKTCL | NTPC | POWERGRID | Triple Snowbird | | 27% Polymer & 73% porcelain | |
| 2 | 400kV | Koldam-Ludhiana | 2 | D/C | 151 | PKTCL | NTPC | POWERGRID | Triple Snowbird | | 27% Polymer & 73% porcelain | |
| 3 | 400kV | Koldam-Banala | 1 | D/C | 67 | PKTCL | NTPC | POWERGRID | Quad Moose | | 100% porcelain | |
| 4 | 400kV | Nallagarh-Banala | 1 | D/C | 62 | PKTCL | POWERGRID | POWERGRID | Quad Moose | | 100% porcelain | Powergrid owned 46.38km |
| 5 | 400kV | Parbati-II- ParbatiPooling (Banala) | 1 | S/C | 13 | PKTCL | NHPC | POWERGRID | Quad Moose | | 100% porcelain | Some portion is of Powergrid |
| 6 | 400kV | Parbati-III- ParbatiPooling (Banala) | 1 | S/C | 4 | PKTCL | NHPC | POWERGRID | Quad Moose | | 100% porcelain | |
| 7 | 400kV | Parbati II- Sainj | 1 | S/C | 1 | PKTCL | NHPC | HPPCL | Quad Moose | | 100% porcelain | LILO of 400kV Parbati II-Parbati III at Sainj |
| 8 | 400kV | Parbati III- Sainj | 1 | S/C | 9 | PKTCL | NHPC | HPPCL | Quad Moose | | 100% porcelain | |
| **H. INDIGRID:NRSS-29 Transmission Company Limited** | | | | | | | | | | | | |
| 1 | 400kV | Jalandhar-Samba | 1 | D/C | 135 | NRSS-29 | POWERGRID | POWERGRID | Twin Moose | | Polymer | |
| 2 | 400kV | Jalandhar-Samba | 2 | D/C | 135 | NRSS-29 | POWERGRID | POWERGRID | Twin Moose | | Polymer | |
| 3 | 400kV | Amargarh-Samba | 1 | D/C | 286 | NRSS-29 | NRSS-29 | POWERGRID | Twin Moose | | Polymer | |
| 4 | 400kV | Amargarh-Samba | 2 | D/C | 286 | NRSS-29 | NRSS-29 | POWERGRID | Twin Moose | | Polymer | |
| 5 | 400kV | Uri-I - Amargarh | 1 | D/C | 62 | NRSS-29 | NHPC | NRSS-29 | Twin Moose | LILO of 400kV D/C Uri-I – Wagoora Line at Amargarh SS under the ownership of NRSS- XXIX. | Polymer | |
| 6 | 400kV | Uri-I - Amargarh | 2 | D/C | 62 | NRSS-29 | NHPC | NRSS-29 | Twin Moose | | Polymer | |
| 7 | 400kV | Amargarh - Wagoora | 1 | D/C | 36 | NRSS-29 | NRSS-29 | POWERGRID | Twin Moose | | Polymer | |
| 8 | 400kV | Amargarh - Wagoora | 2 | D/C | 36 | NRSS-29 | NRSS-29 | POWERGRID | Twin Moose | | Polymer | |
| **I. Powergrid Unchahar Transmission Ltd.** | | | | | | | | | | | | |
| 1 | 400kV | Fatehpur-Unchahar | 1 | D/C | 54 | PUTL | POWERGRID | NBPPL | Twin Moose | | Not Available | |
| 2 | 400kV | Fatehpur-Unchahar | 2 | D/C | 54 | PUTL | POWERGRID | NBPPL | Twin Moose | | Not Available | |
| **J. NRSSXXXI(B) (Sekura Energy)** | | | | | | | | | | | | |
| 1 | 400kV | Amritsar-Malerkotla | 1 | D/C | 149 | NRSSXXXXI(B) | POWERGRID | POWERGRID | Twin Moose | | Polymer | |
| 2 | 400kV | Amritsar-Malerkotla | 2 | D/C | 149 | NRSSXXXXI(B) | POWERGRID | POWERGRID | Twin Moose | | Polymer | |
| 3 | 400kV | Kurukshetra-Malerkotla | 1 | D/C | 139 | NRSSXXXXI(B) | POWERGRID | POWERGRID | Twin Moose | | Polymer | |
| 4 | 400kV | Kurukshetra-Malerkotla | 2 | D/C | 139 | NRSSXXXXI(B) | POWERGRID | POWERGRID | Twin Moose | | Polymer | |
| **K. Gurgaon Palwal Transmission Ltd.** | | | | | | | | | | | | |
| 1 | 400kV | Dhanoda-Neemrana | 1 | D/C | 47 | GPTL | HVPNL | POWERGRID | Twin HTLS | Bypassed at Dhanonda | Polymer | |
| 2 | 400kV | Dhanoda-Neemrana | 2 | D/C | 47 | GPTL | HVPNL | POWERGRID | Twin HTLS | to form | Polymer | |
| 3 | 400kV | Prithala-Kadarpur | 1 | D/C | 29 | GPTL | GPTL | GPTL | Twin HTLS | | Polymer | |
| 4 | 400kV | Prithala-Kadarpur | 2 | D/C | 29 | GPTL | GPTL | GPTL | Twin HTLS | | Polymer | |
| 5 | 400kV | Prithala(GPTL)-Aligarh(PG) | 1 | D/C | 49 | GPTL | GPTL | POWERGRID | Twin HTLS | | Polymer | |
| 6 | 400kV | Prithala(GPTL)-Aligarh(PG) | 2 | D/C | 49 | GPTL | GPTL | POWERGRID | Twin HTLS | | Polymer | |
| 7 | 400kV | Kadarpur-Sohna Road | 1 | D/C | 10 | GPTL | GPTL | GPTL | Twin HTLS | | Polymer | |
| 8 | 400kV | Kadarpur-Sohna Road | 2 | D/C | 10 | GPTL | GPTL | GPTL | Twin HTLS | | Polymer | |
| **L. FBTL** | | | | | | | | | | | | |
| 1 | 400kV | AREPRL-Fatehgarh Pooling | 1 | D/C | 1 | FBTL | FBTL | FBTL | Quad moose | | Not Available | |
| 2 | 400kV | AREPRL-Fatehgarh Pooling | 2 | D/C | 1 | FBTL | FBTL | FBTL | Quad moose | | Not Available | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 400kV | Fatehgarh II-Fatehgarh Pooling | 1 | D/C | 45 | FBTL | POWERGRID | FBTL | Hexa Zebra+ Twin HTLS | LILO of 400kV Fatehgarh I-Bhadla-1 at Fatehgarh II. LILO Portion is of Powergrid | Not Available | |
| 4 | 400kV | Fatehgarh II-Fatehgarh Pooling | 2 | D/C | 45 | FBTL | POWERGRID | FBTL | Hexa Zebra+ Twin HTLS | | Not Available | |
| **M. PBTSL** | | | | | | | | | | | | |
| 1 | 400kV | Bikaner_2 (PBTSL)-Khetri (PKTSL) | 1 | D/C (some towers M/C) | 275 | PBTSL | PBTSL | PKTSL | Twin HTLS | | Not Available | |
| 2 | 400kV | Bikaner_2 (PBTSL)-Khetri (PKTSL) | 2 | D/C (some towers M/C) | 275 | PBTSL | PBTSL | PKTSL | Twin HTLS | | Not Available | |
| 3 | 400kV | Bikaner_2 (PBTSL)-Khetri (PKTSL) | 3 | D/C (some towers M/C) | 275 | PBTSL | PBTSL | PKTSL | Twin HTLS | | Not Available | |
| 4 | 400kV | Bikaner_2 (PBTSL)-Khetri (PKTSL) | 4 | D/C (some towers M/C) | 275 | PBTSL | PBTSL | PKTSL | Twin HTLS | | Not Available | |
| 5 | 400kV | Khetri (PKTSL)-Bhiwadi(PG) | 1 | D/C | 126 | PBTSL | PKTSL | POWERGRID | Twin HTLS | | Not Available | |
| 6 | 400kV | Khetri (PKTSL)-Bhiwadi(PG) | 2 | D/C | 126 | PBTSL | PKTSL | POWERGRID | Twin HTLS | | Not Available | |
| **N. PRTL** | | | | | | | | | | | | |
| 1 | 400kV | Jaisalmer(RS)-Fatehgarh_III(PG) | 1 | D/C | 50 | PRTL | RAJASTHAN | PRTL | Twin HTLS | | Not Available | |
| 2 | 400kV | Jaisalmer(RS)-Fatehgarh_III(PG) | 2 | D/C | 50 | PRTL | RAJASTHAN | PRTL | Twin HTLS | | Not Available | |
| 3 | 400kV | Fatehgarh_III(PG)- Fatehgarh_II(PG) | 1 | D/C | 44 | PRTL | PRTL | POWERGRID | Twin HTLS | | Not Available | |
| 4 | 400kV | Fatehgarh_III(PG)- Fatehgarh_II(PG) | 2 | D/C | 44 | PRTL | PRTL | POWERGRID | Twin HTLS | | Not Available | |
| **O. NRSS-36** | | | | | | | | | | | | |
| 1 | 400kV | Babai(RS)-Bhiwani(PG) | 1 | D/C | 111 | NRSS-36 | NRSS-36 | POWERGRID | Twin Moose | | Not Available | |
| 2 | 400kV | Babai(RS)-Bhiwani(PG) | 2 | D/C | 111 | NRSS-36 | NRSS-36 | POWERGRID | Twin Moose | | Not Available | |
| **RE Connected at ISTS Dedicated Lines** | | | | | | | | | | | | |
| **A. RENEW** | | | | | | | | | | | | |
| 1 | 400kV | Bikaner(PG) - Bikaner (Renew) | 1 | S/C | 5 | RENEW | POWERGRID | RENEW | Twin Moose | | Not Available | |
| **B. Avaada** | | | | | | | | | | | | |
| 1 | 400kV | Bikaner(PG)-Avaada | 1 | S/C | 14 | AEPL | POWERGRID | AEPL | Twin Moose | | Not Available | |
| **C. ARPOPL** | | | | | | | | | | | | |
| 1 | 400kV | Bikaner(PG)-Ayana | 1 | S/C | 12 | ARPOPL | PGCIL | Ayana | ACSR Twin Moose+AL 59 | | Not Available | |
| **D. Azure** | | | | | | | | | | | | |
| 1 | 400kV | Bikaner(PG)-Azure 43 PSS | 1 | S/C | 9 | Azure | POWERGRID | Azure 43 PSS | Twin Moose | | Not Available | |
| 2 | 400kV | Azure43(RSS)-Azure 43 PSS | 1 | S/C | 3 | Azure | Azure 43 PSS | Azure 43 RSS | Twin Moose | | Not Available | |
| **E. RSRPL** | | | | | | | | | | | | |
| 1 | 400kV | Bikaner(RENEW) - Renew Surya Ravi | 1 | S/C | 13 | RSRPL | RENEW | RSRPL | Twin Moose | | Not Available | |
| **F. NTPC** | | | | | | | | | | | | |
| 1 | 400kV | Bhadla II - Kolayat | 1 | D/C | 29 | NTPC | POWERGRID | NTPC | Quad Moose | | Not Available | |
| 2 | 400kV | Kolayat - Kolayat_2 | 1 | D/C | 2 | NTPC | NTPC | NTPC | Quad Moose | | Not Available | |
| **STATE LINES** | | | | | | | | | | | | |
| **A. DTL** | | | | | | | | | | | | |
| 1 | 400kV | Bamnauli-Tughlakabad | 1 | M/C | 68 | DTL | DTL | POWERGRID | | Tower is quad circuit tower | Polymer Insulator | |
| 2 | 400kV | Bamnauli-Tughlakabad | 2 | M/C | 68 | DTL | DTL | POWERGRID | | Tower is quad circuit tower | Polymer Insulator | |
| 3 | 400kV | Bamnoli-Jhatikara | 1 | D/C | 12 | DTL | DTL | POWERGRID | Quad bersimis | | Polymer Insulator | |
| 4 | 400kV | Bamnoli-Jhatikara | 2 | D/C | 12 | DTL | DTL | POWERGRID | Quad bersimis | | Polymer Insulator | |
| 5 | 400kV | Bawana-Mundka | 1 | D/C | 18 | DTL | DTL | DTL | Quad bersimis | | Polymer Insulator | |
| 6 | 400kV | Bawana-Mundka | 2 | D/C | 18 | DTL | DTL | DTL | Quad bersimis | | Polymer Insulator | |
| 7 | 400kV | Jhatikara-Mundka | 1 | D/C | 17 | DTL | POWERGRID | DTL | Quad bersimis | | Polymer Insulator | |
| 8 | 400kV | Jhatikara-Mundka | 2 | D/C | 17 | DTL | POWERGRID | DTL | Quad bersimis | | Polymer Insulator | |
| **B. HVPNL** | | | | | | | | | | | | |
| 1 | 400kV | CLP Jhajjar -Dhanonda | 1 | D/C | 20 | HVPNL | CLP Jhajjar | HVPNL | Twin Moose | | Conventional | |
| 2 | 400kV | CLP Jhajjar -Dhanonda | 2 | D/C | 20 | HVPNL | CLP Jhajjar | HVPNL | Twin Moose | | Conventional | |
| 3 | 400kV | CLP Jhajjar- Kabulpur | 1 | D/C | 35 | JKTPL | CLP Jhajjar | HVPNL | Quad Moose | | Already had Anti fog | |
| 4 | 400kV | CLP Jhajjar- Kabulpur | 2 | D/C | 35 | JKTPL | CLP Jhajjar | HVPNL | Quad Moose | | Polymer Insulator | |
| 5 | 400kV | Deepalpur-Kabulpur | 1 | D/C | 67 | JKTPL | KT Jhajjar | HVPNL | Quad Moose | | Installed on every | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 400kV | Deepalpur-Kabulpur | 2 | D/C | 67 | JKTPL | KT Jhajjar | HVPNL | Quad Moose | | towers | |
| 7 | 400kV | Dhanoda-Daultabad | 1 | D/C | 73 | HVPNL | HVPNL | HVPNL | Quad Moose | | Already had Polymer Insulator | |
| 8 | 400kV | Dhanoda-Daultabad | 2 | D/C | 73 | HVPNL | HVPNL | HVPNL | Quad Moose | | | |
| 9 | 400kV | Gurgaon-Daultabad | 1 | D/C | 21 | HVPNL | POWERGRID | HVPNL | Quad Moose | | | Six towers multi-circuit with Bamnauli- |
| 10 | 400kV | Gurgaon-Daultabad | 2 | D/C | 21 | HVPNL | POWERGRID | HVPNL | Quad Moose | | | |
| 11 | 400kV | Jhajjar-Daulatabad | 1 | D/C | 64 | HVPNL | APCPL | HVPNL | Twin Moose | | Polymer Insulator | Partial (84%), |
| 12 | 400kV | Jhajjar-Daulatabad | 2 | D/C | 64 | HVPNL | APCPL | HVPNL | Twin Moose | | Polymer Insulator | Remaining pending |
| 13 | 400kV | Khedar-Fatehabad | 1 | D/C | 40 | HVPNL | HPGCL | POWERGRID | Twin Moose | | Conventional | Presently there is no planning of replacment of Convention disc Insulator with Polymer Insulators |
| 14 | 400kV | Jind-Kirori | 1 | D/C | 51 | HVPNL | POWERGRID | HVPNL | Twin Moose | | Polymer Insulator | |
| 15 | 400kV | Jind-Kirori | 2 | D/C | 51 | HVPNL | POWERGRID | HVPNL | Twin Moose | | Polymer Insulator | |
| 16 | 400kV | Khedar-Kirori | 1 | D/C | 6.2 | HVPNL | HPGCL | HVPNL | Twin Moose | | Conventional | Presently there is no planning of replacment |
| 17 | 400kV | Khedar-Kirori | 2 | D/C | 6 | HVPNL | HPGCL | HVPNL | Twin Moose | | | |
| 18 | 400kV | Khedar-Nuhiawali | 1 | D/C | 114 | HVPNL | HPGCL | HVPNL | Twin Moose | | Conventional | Existing disc insulator |
| 19 | 400kV | Nuhiawali-Fatehabad | 1 | D/C | 78 | HVPNL | HVPNL | POWERGRID | Twin Moose | | Conventional | are of Porcelain |
| **C. PDD (Jammu & Kashmir)** | | | | | | | | | | | | |
| 1 | 400kV | Baglihar(stage 1)-Kishenpur | 1 | D/C | 68 | JK PDD | JKSPDCL | POWERGRID | Twin Moose | | Conventional | |
| 2 | 400kV | Baglihar(stage 1)-Kishenpur | 2 | D/C | 68 | JK PDD | JKSPDCL | POWERGRID | Twin Moose | | Not Available | |
| **D. PSTCL** | | | | | | | | | | | | |
| 1 | 400kV | Behman Jassa- HMEL | 1 | D/C | 17 | PSTCL | PSTCL | PSTCL | Twin Moose | | Not Available | |
| 2 | 400kV | Behman Jassa- HMEL | 2 | D/C | 17 | PSTCL | PSTCL | PSTCL | Twin Moose | | Not Available | |
| 3 | 400kV | Behman Jassa- Moga | 1 | S/C | 113 | PSTCL | PSTCL | PSTCL | Twin Moose | After LILO of 400 KV TSPL to 400 KV Moga at 400 KV Behman Jassa Singh | Not Available | |
| 4 | 400kV | Makhu-Amritsar | 1 | D/C | 64 | PSTCL | PSTCL | PSTCL | Twin Moose | | Partial (10%) | |
| 5 | 400kV | Makhu-Amritsar | 2 | D/C | 64 | PSTCL | PSTCL | PSTCL | Twin Moose | | Partial (10%) | |
| 6 | 400kV | Muktsar-Makhu | 1 | D/C | 96 | PSTCL | PSTCL | PSTCL | Twin Moose | | Conventional | |
| 7 | 400kV | Muktsar-Makhu | 2 | D/C | 96 | PSTCL | PSTCL | PSTCL | Twin Moose | | Polymer | |
| 8 | 400kV | Nakodar-Makhu | 1 | D/C | 52 | PSTCL | PSTCL | PSTCL | Twin Moose | | Conventional | |
| 9 | 400kV | Nakodar-Makhu | 2 | D/C | 52 | PSTCL | PSTCL | PSTCL | Twin Moose | | Conventional | |
| 10 | 400kV | Nakodar-Moga | 1 | S/C | 78 | PSTCL | PSPCL | POWERGRID | Twin Moose | | Not Available | LILO of 400kV Talwandi sabo-Nakodar at Moga |
| 11 | 400kV | Rajpura-Dhuri | 1 | D/C | 86 | PSTCL | PSTCL | PSTCL | Twin Moose | | Conventional | Lilo of Rajpura th-Dhuri |
| 12 | 400kV | Rajpura TPS- Rajpura | 1 | D/C | 9 | PSTCL | PSPCL | PSTCL | Twin Moose | | Conventional | 1 at 400kV Rajpura |
| 13 | 400kV | Rajpura-Dhuri | 2 | D/C | 86 | PSTCL | PSTCL | PSTCL | Twin Moose | | Conventional | Lilo of Rajpura th-Dhuri |
| 14 | 400kV | Rajpura TPS- Rajpura | 2 | D/C | 9 | PSTCL | PSPCL | PSTCL | Twin Moose | | Not Available | 2 at 400kV Rajpura |
| 15 | 400kV | Rajpura TPS-Nakodar | 1 | D/C | 139 | PSTCL | PSPCL | PSTCL | Twin Moose | | Conventional | |
| 16 | 400kV | Rajpura TPS-Nakodar | 2 | D/C | 139 | PSTCL | PSPCL | PSTCL | Twin Moose | | Conventional | |
| 17 | 400kV | Talwandi Saboo- Dhuri | 1 | D/C | 175 | PSTCL | PSPCL | PSTCL | Twin Moose | | Partial (22%) | |
| 18 | 400kV | Talwandi Saboo- Dhuri | 2 | D/C | 175 | PSTCL | PSPCL | PSTCL | Twin Moose | | Partial (22%) | |
| 19 | 400kV | Talwandi Saboo- Behman Jassa | 1 | D/C | 20 | PSTCL | PSPCL | PSTCL | Twin Moose | After LILO of 400 KV TSPL to 400 KV Moga at 400 KV Behman Jassa Singh | Polymer | |
| 20 | 400kV | Talwandi Saboo- Nakodar | 1 | D/C | 180 | PSTCL | PSPCL | PSTCL | Twin Moose | | Conventional | |
| 21 | 400kV | Talwandi Saboo- Muktsar | 1 | D/C | 100 | PSTCL | PSPCL | PSTCL | Twin Moose | | Polymer | |
| 22 | 400kV | Talwandi Saboo- Muktsar | 2 | D/C | 100 | PSTCL | PSPCL | PSTCL | Twin Moose | | Polymer | |
| **E. PTCUL** | | | | | | | | | | | | |
| 1 | 400kV | Alaknanda(GVK)-Srinagar(PTCUL) | 1 | D/C | 14 | PTCUL | GVKPIL | PTCUL | Twin Moose | | Conventional | |
| 2 | 400kV | Alaknanda(GVK)-Srinagar(PTCUL) | 2 | D/C | 14 | PTCUL | GVKPIL | PTCUL | Twin Moose | | Conventional | |
| 3 | 400kV | Muradabad-Kashipur | 1 | S/C | 108 | PTCUL | UPPTCL | PTCUL | Twin Moose | | Conventional | |
| 4 | 400kV | Rishikesh-Nehtaur | 1 | D/C | 124 | PTCUL | PTCUL | UPPTCL | Twin Moose | | Not Available | LILO of 400kV |
| 5 | 400kV | Nehtaur-Kashipur | 2 | D/C | 80 | PTCUL | UPPTCL | PTCUL | Twin Moose | | Not Available | Rishikesh-Kashipur |
| 6 | 400kV | Roorkee-Rishikesh | 1 | S/C | 50 | PTCUL | POWERGRID | PTCUL | Twin Moose | LILO portion is of POWERGRID | Not Available | |
| 7 | 400kV | Roorkee-Muzaffarnagar | 1 | S/C | 71 | PTCUL | POWERGRID | UPPTCL | Twin Moose | | Not Available | |
| **F. RRVPNL** | | | | | | | | | | | | |
| 1 | 400kV | Ajmer-Bhilwara | 1 | D/C | 160 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 2 | 400kV | Ajmer-Bhilwara | 2 | D/C | 160 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 3 | 400kV | Akal-Barmer | 1 | S/C | 124 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Conventional | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 400kV | Akal-Jodhpur | 1 | S/C | 225 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Conventional | |
| 5 | 400kV | Akal-Ramgarh | 1 | D/C | 99 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 6 | 400kV | Akal-Ramgarh | 2 | D/C | 99 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 7 | 400kV | Anta-Chhabra | 1 | S/C | 90 | RRVPNL | RRVPNL | RVUNL | Quad Moose | Bypassed at Anta to form Chhabra-Kota(PG) | Not Available | |
| 8 | 400kV | Anta-Chhabra SC | 1 | D/C | 89 | RRVPNL | RRVPNL | RVUNL | Quad Moose | | Not Available | |
| 9 | 400kV | Anta-Chhabra SC | 2 | D/C | 89 | RRVPNL | RRVPNL | RVUNL | Quad Moose | | Not Available | |
| 10 | 400kV | Anta-Kalisindh | 1 | D/C | 80 | RRVPNL | RRVPNL | RVUNL | Quad Moose | | Not Available | |
| 11 | 400kV | Anta-Kalisindh | 2 | D/C | 80 | RRVPNL | RRVPNL | RVUNL | Quad Moose | | Not Available | |
| 12 | 400kV | Anta-Kawai | 1 | D/C | 50 | RRVPNL | RRVPNL | Kawai(Adani) | Quad Moose | | Not Available | |
| 13 | 400kV | Anta-Kawai | 2 | D/C | 50 | RRVPNL | RRVPNL | Kawai(Adani) | Quad Moose | | Not Available | |
| 14 | 400kV | Anta-Kota (PG) | 1 | S/C | 91 | RRVPNL | RRVPNL | POWERGRID | Twin Moose | Bypassed at Anta to form Chhabra-Kota(PG) | Not Available | |
| 15 | 400kV | Barmer-Bhinmal | 1 | D/C | 144 | RRVPNL | RRVPNL | POWERGRID | Twin Moose | | Not Available | |
| 16 | 400kV | Barmer-Bhinmal | 2 | D/C | 144 | RRVPNL | RRVPNL | POWERGRID | Twin Moose | | Not Available | |
| 17 | 400kV | Barmer-Jaisalmer-II (Bhaesada) | 1 | D/C | 117 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 18 | 400kV | Barmer-Jaisalmer-II (Bhaesada) | 2 | D/C | 117 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 19 | 400kV | Barmer-Rajwest | 1 | D/C | 15 | RRVPNL | RRVPNL | RAJWEST | Twin Moose | | Conventional | |
| 20 | 400kV | Bhadla-Jodhpur | 1 | D/C | 106 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 21 | 400kV | Bhilwara-Chhabra | 1 | S/C | 303 | RRVPNL | RRVPNL | RVUNL | Twin Moose | | Conventional | |
| 22 | 400kV | Bhilwara-Chittorgarh(RRVPNL) | 1 | D/C | 49 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 23 | 400kV | Bhilwara-Chittorgarh(RRVPNL) | 2 | D/C | 49 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 24 | 400kV | Bikaner-Bhadla | 1 | D/C | 189 | RRVPNL | RRVPNL | RRVPNL | Quad Moose | | Not Available | |
| 25 | 400kV | Bikaner-Bhadla | 2 | D/C | 189 | RRVPNL | RRVPNL | RRVPNL | Quad Moose | | Not Available | |
| 26 | 400kV | Bikaner-Merta | 1 | S/C | 172 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 27 | 400kV | Bikaner-Sikar(PG) | 1 | D/C | 171 | RRVPNL | RRVPNL | POWERGRID | Twin Moose | | Not Available | |
| 28 | 400kV | Bikaner-Sikar(PG) | 2 | D/C | 171 | RRVPNL | RRVPNL | POWERGRID | Twin Moose | | Not Available | |
| 29 | 400kV | Chhabra - Kawai SCTPS | 1 | S/C | 45 | RRVPNL | RVUNL | APRL | Twin Moose | | Conventional | |
| 30 | 400kV | Chhabra-Chhabra SC | 1 | D/C | 2 | RRVPNL | RRVPNL | RVUNL | Quad Moose | | Not Available | |
| 31 | 400kV | Chhabra-Chhabra SC | 2 | D/C | 2 | RRVPNL | RRVPNL | RVUNL | Quad Moose | | Not Available | |
| 32 | 400kV | Heerapura-Hindaun | 1 | S/C | 192 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Conventional | |
| 33 | 400kV | Hindaun-Chhabra | 1 | S/C | 305 | RRVPNL | RRVPNL | RVUNL | Twin Moose | | Conventional | |
| 34 | 400kV | Kakani (Jodhpur New)-Jodhpur | 2 | S/C | 102 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 35 | 400kV | Kankani (Jodhpur New)-Akal | 1 | D/C | 223 | RRVPNL | RRVPNL | RRVPNL | Quad Moose | | Not Available | |
| 36 | 400kV | Kankani(Jodhpur New)-Jaisalmer-II(Bhainsra) | 1 | D/C | 177 | RRVPNL | RRVPNL | RRVPNL | Quad Moose | LILO of 400kV Kankani(Jodhpur New)-Akal ckt-2 | Not Available | |
| 37 | 400kV | Jaisalmer-II(Bhainsra)-Akal | 1 | D/C | 61 | RRVPNL | RRVPNL | RRVPNL | Quad Moose | | Not Available | |
| 38 | 400kV | Kankani (Jodhpur New)-Jodhpur | 1 | S/C | 67 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 39 | 400kV | Kankani (Jodhpur New)-Merta | 1 | S/C | 140 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | LILO of 400kV Jodhpur-Merta-1 at Kakani | Not Available | |
| 40 | 400kV | Merta-Bhadla | 1 | D/C | 175 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | LILO of 400kV Jodhpur-Merta-2 at Bhadla | Not Available | |
| 41 | 400kV | Merta-Heerapura | 1 | S/C | 175 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Conventional | |
| 42 | 400kV | Merta-Ratangarh | 1 | S/C | 173 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Conventional | |
| 43 | 400kV | Phagi-Ajmer(RRVPNL) | 1 | D/C | 109 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 44 | 400kV | Phagi-Ajmer(RRVPNL) | 2 | D/C | 109 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 45 | 400kV | Phagi-Heerapura | 1 | D/C | 52 | RRVPNL | RRVPNL | RRVPNL | Quad Moose | | Not Available | |
| 46 | 400kV | Phagi-Heerapura | 2 | D/C | 52 | RRVPNL | RRVPNL | RRVPNL | Quad Moose | | Not Available | |
| 47 | 400kV | Rajwest - Kankani (Jodhpur New) | 1 | S/C | 209 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | LILO of 400kV Jodhpur-Rajwest-I at Kakani | Not Available | |
| 48 | 400kV | Rajwest-Jodhpur | 1 | D/C | 209 | RRVPNL | RWPL | RRVPNL | Twin Moose | | Conventional | |
| 49 | 400kV | Ramgarh-Bhadla | 1 | D/C | 160 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 50 | 400kV | Ramgarh-Bhadla | 2 | D/C | 160 | RRVPNL | RRVPNL | RRVPNL | Twin Moose | | Not Available | |
| 51 | 400kV | Suratgarh-Bikaner | 1 | S/C | 146 | RRVPNL | RVUNL | RRVPNL | Twin Moose | | Conventional | |
| 52 | 400kV | Suratgarh-Ratangarh | 1 | S/C | 144 | RRVPNL | RVUNL | RRVPNL | Twin Moose | | Conventional | |
| 53 | 400kV | Suratgarh-Ratangarh | 2 | S/C | 144 | RRVPNL | RVUNL | RRVPNL | Twin Moose | | Conventional | |
| 54 | 400kV | Suratgarh-Suratgarh SC | 1 | S/C | 2 | RRVPNL | RVUNL | RVUNL | Quad Moose | | Not Available | |
| 55 | 400kV | Suratgarh SC-Bikaner | 1 | D/C | 140 | RRVPNL | RVUNL | RRVPNL | Twin Moose | | Not Available | |
| 56 | 400kV | Suratgarh SC-Bikaner | 2 | D/C | 140 | RRVPNL | RVUNL | RRVPNL | Twin Moose | | Not Available | |
| **G. UPPTCL** | | | | | | | | | | | | |

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| 1 | 400kV | Agra (Fatehbad)-Agra South | 1 | D/C | 70 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 2 | 400kV | Agra (UP)-Agra(Fatehbad) | 1 | S/C | 104 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | LILO of 400 kV Agra(UP)- Muradnagar(N) at Fatehabad(UP) |
| 3 | 400kV | Agra UP-Unnao | 1 | S/C | 279 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (25%) | |
| 4 | 400kV | Agra(Fatehbad)-Mathura | 1 | S/C | 142 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 5 | 400kV | Agra(Fatehbad)-Mathura | 2 | D/C | 151 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | LILO of 400 kV Fatehabad(UP)- Muradnagar at Mathura |
| 6 | 400kV | Alakhnanda-Vishnuprayag | 1 | D/C | 109 | UPPTCL | GVKPIL | JPVL | Twin Moose | | Not Available | |
| 7 | 400kV | Aligarh-Mainpuri | 1 | D/C | 93 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 8 | 400kV | Aligarh-Mainpuri | 2 | D/C | 93 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 9 | 400kV | Aligarh-Muradnagar | 1 | S/C | 177 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | *Series Compensated line (40%). It would be shifted |
| 10 | 400kV | Aligarh-Sikandrabad | 1 | D/C | 95 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 11 | 400kV | Aligarh-Harduaganj | 1 | S/C | 40 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 12 | 400kV | AnparaB-AnparaC | 1 | D/C | 0.05 | UPPTCL | UPRVUNL | LANCO | Quad Moose | | Conventional | |
| 13 | 400kV | AnparaB-AnparaC | 2 | D/C | 0.05 | UPPTCL | UPRVUNL | LANCO | Quad Moose | | Conventional | |
| 14 | 400kV | AnparaB-AnparaD | 1 | D/C | 5 | UPPTCL | UPRVUNL | UPPTCL | Twin Moose | | Not Available | |
| 15 | 400kV | AnparaB-AnparaD | 2 | D/C | 5 | UPPTCL | UPRVUNL | UPPTCL | Twin Moose | | Not Available | |
| 16 | 400kV | AnparaB-Mau | 1 | S/C | 262 | UPPTCL | UPRVUNL | UPPTCL | Twin Moose | | Partial (13%) | |
| 17 | 400kV | AnparaB-Obra B | 1 | S/C | 40 | UPPTCL | UPRVUNL | UPPTCL | Twin Moose | | Partial | |
| 18 | 400kV | AnparaB-Sarnath | 1 | D/C | 158 | UPPTCL | UPRVUNL | UPPTCL | Twin Moose | | Partial | |
| 19 | 400kV | AnparaB-Sarnath | 2 | D/C | 158 | UPPTCL | UPRVUNL | UPPTCL | Twin Moose | | Conventional | |
| 20 | 400kV | Ataur-Hapur | 1 | D/C | 52 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 21 | 400kV | Ataur-Hapur | 2 | D/C | 52 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 22 | 400kV | Ataur-Indirapuram | 1 | D/C | 15 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 23 | 400kV | Ataur(UP)-Noida Sec 123(UP) | 1 | D/C | 19 | UPPTCL | UPPTCL | UPPTCL | Quad Moose (LILO portion Twin HTLS) | LILO of 400 KV ATAUR-INDIRAPURAM CKT-II at 400 KV NOIDA SECTOR 123 | Not Available | |
| 24 | 400kV | Indirapuram(UP)-Noida Sec 123(UP) | 1 | D/C | 17 | UPPTCL | UPPTCL | UPPTCL | Quad Moose (LILO portion Twin HTLS) | | Not Available | |
| 25 | 400kV | Azamgarh-Mau | 1 | S/C | 48 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (79%) | |
| 26 | 400kV | Azamgarh-Tanda | 1 | D/C | 153 | UPPTCL | UPPTCL | NTPC | Twin Moose | | Not Available | |
| 27 | 400kV | Badaun-Sambhal | 1 | D/C | 77 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 28 | 400kV | Badaun-Sambhal | 2 | D/C | 77 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 29 | 400kV | Banda-Orai | 1 | D/C | 108 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 30 | 400kV | Banda-Orai | 2 | D/C | 108 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 31 | 400kV | Banda-Rewa road | 1 | D/C | 177 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 32 | 400kV | Banda-Rewa road | 2 | D/C | 177 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 33 | 400kV | Bara-Meja | 1 | D/C | 32 | UPPTCL | UPPTCL | MUNPL | Quad Moose | | LILO of 400kV Bara-Rewa road D/C at Meja | |
| 34 | 400kV | Bara-Meja | 2 | D/C | 32 | UPPTCL | UPPTCL | MUNPL | Quad Moose | | | |
| 35 | 400kV | Bareilly UP-Unnao | 1 | D/C | 271 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (15%) | *Series Compensated line (45%) |
| 36 | 400kV | Bareilly UP-Unnao | 2 | D/C | 271 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (15%) | *Series Compensated line (45%) |
| 37 | 400kV | Gorakhpur UP-Azamgarh | 1 | S/C | 90 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (76%) | |
| 38 | 400kV | Gr. Noida(765)-Sector 148 | 1 | D/C | 47 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 39 | 400kV | Gr. Noida(765)-Sector 148 | 2 | D/C | 47 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 40 | 400kV | Gr. Noida-Gr. Noida (765) | 1 | D/C | 45 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 41 | 400kV | Gr. Noida-Gr. Noida (765) | 2 | D/C | 45 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 42 | 400kV | Gr.Noida-Sikandrabad | 1 | D/C | 17 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 43 | 400kV | Gr.Noida-Sikandrabad | 2 | D/C | 17 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 44 | 400kV | Hapur-Dasna | 1 | D/C | 14 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 45 | 400kV | Hapur-Dasna | 2 | D/C | 14 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 46 | 400kV | Hapur-Moradabad | 1 | S/C | 109 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 47 | 400kV | Hapur-Muradnagar | 1 | S/C | 28 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 48 | 400kV | Harudaganj-Sikandarabad | 1 | S/C | 115 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |

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| 49 | 400kV | Mainpuri(UP)-Mainpuri(PG) | 1 | D/C | 25 | UPPTCL | UPPTCL | POWERGRID | Twin Moose | | Not Available | LILO of 400kV Orai-Mainpuri(PG) at Mainpuri(UP) |
| 50 | 400kV | Mainpuri(UP)-Mainpuri(PG) | 2 | D/C | 26 | UPPTCL | UPPTCL | POWERGRID | Twin Moose | | Not Available | |
| 51 | 400kV | Meja-Musauli | 1 | D/C | 65 | UPPTCL | MUNPL | UPPTCL | Quad Moose | | Not Available | |
| 52 | 400kV | Meja-Rewa road | 1 | D/C | 45 | UPPTCL | MUNPL | UPPTCL | Quad Moose | | Not Available | |
| 53 | 400kV | Muradnagar New- Mathura | 1 | D/C | 246 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | LILO of 400 kV Fatehabad(UP)-Muradnagar at Mathura |
| 54 | 400kV | Muradnagar-Ataur | 2 | D/C | 18 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 55 | 400kV | Musauli-Rewa road | 1 | D/C | 34 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 56 | 400kV | Muzaffarnagar-Alakhnanda | 1 | D/C | 189 | UPPTCL | UPPTCL | GVKPIL | Twin Moose | | Not Available | |
| 57 | 400kV | Muzaffarnagar-Ataur | 1 | D/C | 121 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 58 | 400kV | Muzaffarnagar-Vishnuprayag | 1 | D/C | 280 | UPPTCL | UPPTCL | JPVL | Twin Moose | | Conventional | |
| 59 | 400kV | Noida Sec 148 - Noida Sec 123 | 1 | D/C | 20 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 60 | 400kV | Noida Sec 148 - Noida Sec 123 | 2 | D/C | 20 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 61 | 400kV | Noida Sec 148-Noida Sec 123 | 1 | D/C | 20 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 62 | 400kV | Noida Sec 148-Noida Sec 123 | 2 | D/C | 20 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 63 | 400kV | Obra-Rewa road | 1 | S/C | 179 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 64 | 400kV | Obra-Sultanpur | 1 | S/C | 230 | UPPTCL | UPRVUNL | UPPTCL | Twin Moose | | Conventional | |
| 65 | 400kV | Obra B - Obra C | 1 | S/C | 1 | UPPTCL | UPRVUNL | UPRVUNL | Twin Moose | | Not Available | |
| 66 | 400kV | Orai-Mainpuri(UP) | 1 | D/C | 176 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 67 | 400kV | Orai-Mainpuri(UP) | 2 | D/C | 176 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 68 | 400kV | Orai-Paricha | 1 | D/C | 111 | UPPTCL | UPPTCL | UPRVUNL | Twin Moose | | Not Available | |
| 69 | 400kV | Orai-Paricha | 2 | D/C | 111 | UPPTCL | UPPTCL | UPRVUNL | Twin Moose | | Not Available | |
| 70 | 400kV | Panki-Aligarh | 1 | S/C | 285 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (24%) | |
| 71 | 400kV | Rewa road -Panki | 1 | S/C | 210 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | LILO of Bara-Panki at 400kV Rewa Road |
| 72 | 400kV | Rosa-Badaun | 1 | D/C | 85 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 73 | 400kV | Rosa-Badaun | 2 | D/C | 85 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 74 | 400kV | Sarnath-Azamgarh | 1 | S/C | 97 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 75 | 400kV | Lucknow_1(PG)-Mohanlalganj (PGYTL) | 1 | S/C | 58 | UPPTCL | POWERGRID | UPPTCL | Twin Moose | LILO of 400kV LUCKNOW(PG)- | Conventional | |
| 76 | 400kV | Sultanpur(UP)-Mohanlalganj (PGYTL) | 1 | S/C | 133 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Conventional | |
| 77 | 400kV | Sultanpur-Tanda | 1 | D/C | 103 | UPPTCL | UPPTCL | NTPC | Twin Moose | | Not Available | |
| 78 | 400kV | Tanda-Basti | 1 | D/C | 44 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 79 | 400kV | Tanda-Basti | 2 | D/C | 44 | UPPTCL | UPPTCL | UPPTCL | Quad Moose | | Not Available | |
| 80 | 400kV | Mohanlalganj (PGYTL)-Unnao(UP) | 1 | S/C | 104 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | LILO of 400 KV SAROJANI | Partial (13%) | Status after LILO? |
| 81 | 400kV | Lucknow(UP)-Mohanlalganj (PGYTL) | 1 | S/C | 89 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (13%) | |
| 82 | 400kV | Unnao-Panki | 1 | S/C | 49 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Partial (41%) | |
| 83 | 400kV | Varanasi-Jaunpur | 1 | D/C | 73 | UPPTCL | POWERGRID | UPPTCL | Twin Moose | | Not Available | |
| 84 | 400kV | Varanasi-Jaunpur | 2 | D/C | 73 | UPPTCL | POWERGRID | UPPTCL | Twin Moose | | Not Available | |
| 85 | 400kV | Jaunpur (UP)-Obra_B(UP) | 1 | D/C | 177 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | After LILO of 400 KV OBRA B- OBRA-C CKT- | Not Available | |
| 86 | 400kV | Obra_C_TPS(UP)-Jaunpur (UP) | 1 | D/C | 176 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 87 | 400kV | Sambhal-Rampur | 1 | D/C | 74 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 88 | 400kV | Sambhal-Rampur | 2 | D/C | 74 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 89 | 400kV | Simbholi-Meerut_PMSTL | 1 | D/C | 29 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 90 | 400kV | Simbholi-Meerut_PMSTL | 2 | D/C | 29 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 91 | 400kV | Simbholi_PMSTL (UP)-Muradnagar_2(UP) | 1 | D/C | 71 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 92 | 400kV | Simbholi_PMSTL (UP)-Muradnagar_2(UP) | 2 | D/C | 71 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| 93 | 400kV | Panki-Panki_TPS | 1 | S/C | 1 | UPPTCL | UPPTCL | UPPTCL | Twin Moose | | Not Available | |
| **H. PJFTL** | | | | | | | | | | | | |
| 1 | 400kV | Firozabad-Jawaharpur | 1 | D/C | 40 | PJFTL | PJFTL | UPRVUNL | Quad Moose | Anti-theft charging from Firozabad(PJFTL) | Not Available | |
| 2 | 400kV | Firozabad-Jawaharpur | 2 | D/C | 40 | PJFTL | PJFTL | UPRVUNL | Quad Moose | | Not Available | |
| 3 | 400kV | Agra South-Firozabad PJFTL | 1 | D/C | 79 | PJFTL | UPPTCL | PJFTL | Twin Moose | LILO of 400kV Agra South-Agra Fatehabad ckt-2 at Firozabad PJFTL | Not Available | |
| 4 | 400kV | Agra(Fatehabad)-Firozabad PJFT | 1 | D/C | 79 | PJFTL | UPPTCL | PJFTL | Twin Moose | | Not Available | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. GTL** | | | | | | | | | | | | |
| 1 | 400kV | Kanpur(PG)-Ghatampur_TPS(UP) | 1 | D/C | 49 | GTL | POWERGRID | UPPTCL | Twin Moose | Antitheft charging from Kanpur(PG) Upto DEAD | Not Available | |
| 2 | 400kV | Kanpur(PG)-Ghatampur_TPS(UP) | 2 | D/C | 49 | GTL | POWERGRID | UPPTCL | Twin Moose | | Not Available | |
| **J. HPPTCL** | | | | | | | | | | | | |
| 1 | 400kV | Lahal-Chamba | 1 | D/C | 35 | HPPTCL | HPPTCL | POWERGRID | Twin Moose | | Not Available | |
| 2 | 400kV | Lahal-Chamba | 2 | D/C | 35 | HPPTCL | HPPTCL | POWERGRID | Twin Moose | | Not Available | |
| **K. NTPC JV** | | | | | | | | | | | | |
| 1 | 400kV | Dadri-Loni (Harsh Vihar) | 1 | D/C | 54 | NTPC | NTPC | DTL | Twin Moose | | Polymer | |
| 2 | 400kV | Dadri-Loni (Harsh Vihar) | 2 | D/C | 54 | NTPC | NTPC | DTL | Twin Moose | | Polymer | |
| **L. MTSCL** | | | | | | | | | | | | |
| 1 | 400kV | Ajmer-Deedwana | 1 | S/C | 110 | MTSCL | RRVPNL | MTSCL | Twin Moose | | Not Available | |
| 2 | 400kV | Bikaner-Deedwana | 1 | S/C | 129 | MTSCL | RRVPNL | MTSCL | Twin Moose | | Conventional | |
| **M. Aravali Transmission Service Company Ltd (ATSCL)** | | | | | | | | | | | | |
| 1 | 400kV | Alwar-Hindaun | 1 | S/C | 96 | ATSCL | ATSL | RRVPNL | Twin Moose | | Not Available | Partly owned by Aravali Transmission Services ILtd. |
| **N. BBMB** | | | | | | | | | | | | |
| 1 | 400kV | Dehar-Rajpura | 1 | S/C | 129 | BBMB | BBMB | PSTCL | Twin Morkulla+ LILO portion is of twin moose | Dehar-Bhiwani LILOed at Rajpura | Antifog | LILO of Dehar-Bhiwani at Rajpura |
| 2 | 400kV | Bhiwani(BBMB)-Rajpura | 1 | S/C | 213 | BBMB | BBMB | PSTCL | | Dehar-Bhiwani LILOed at Rajpura | Antifog | |
| 3 | 400kV | Dehar-Panchkula | 1 | S/C | 125 | BBMB | BBMB | POWERGRID | Twin Morkulla+ LILO portion is of twin moose | POWERGRID owned LILO portion of 9.034Km | Antifog | LILO of Dehar-Panipat at Panchkula |
| 4 | 400kV | Panchkula-Panipat | 1 | S/C | 155 | BBMB | POWERGRID | BBMB | | | Antifog | |
| **OTHER DEDICATED LINES** | | | | | | | | | | | | |
| **A. THDC** | | | | | | | | | | | | |
| 1 | 400kV | Aligarh-Khurja | 1 | D/C | 35 | THDC | POWERGRID | THDC | Twin Moose | | Not Available | |
| 2 | 400kV | Aligarh-Khurja | 2 | D/C | 35 | THDC | POWERGRID | THDC | Twin Moose | | Not Available | |
| **5. 400kV Transmission Line charged at 220kV** | | | | | | | | | | | | |
| **STATE LINES** | | | | | | | | | | | | |
| **A. RRVPNL** | | | | | | | | | | | | |
| 1 | 400kV charged at 220kV | Dholpur-Hindaun | 1 | S/C | 100 | RRVPNL | RRVUNL | RRVPNL | Twin Moose | | Conventional | |
| 2 | 400kV charged at 220kV | Kota-KTPS | 1 | D/C | 7 | RRVPNL | POWERGRID | RRVUNL | Twin Moose | | Conventional | |
| 3 | 400kV charged at 220kV | Kota-KTPS | 2 | D/C | 7 | RRVPNL | POWERGRID | RRVUNL | Twin Moose | | Conventional | |

# National Load Despatch Centre
## Import Capability of Punjab for January 2026

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Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 10900 | 500 | 10400 | 5497 | 4903 | | https://www.punjabsldc.org/ATC_TTC.aspx |
| **Limiting Constraints** | | N-1 contigency of 400/220KV ICT at Rajpura, Ludhiana, Jalandhar, Muktsar<br>Loading close to N-1 contingency limits of 400/220kV Malerkotla and Patiala ICTs<br>220 kV underlying network at Jalandhar, Ludhiana and Amritsar | | | | | | |

# National Load Despatch Centre
## Import Capability of Uttar Pradesh for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 17700 | 600 | 17100 | 10165 | 6935 | | https://www.upsldc.org/documents/20182/0/ttc_atc_24-11-16/4c79978e-35f2-4aef-8c0f-7f30d878dbde |
| **Limiting Constraints** | N-1 contingency of 400/220kV Panki, Allahabad(PG), Agra(PG), Lucknow (PG) ICTs | | | | | | | |

# National Load Despatch Centre
## Import Capability of Haryana for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 10700 | 300 | 10400 | 5418 | 4982 | | https://hvpn.org.in/#/atcttc |
| **Limiting Constraints** | N-1 contingency of 400/220kV ICT at Deepalpur, Hisar, Kabulpur and Panipat(BBMB) | | | | | | | |

# National Load Despatch Centre
## Import Capability of Rajasthan for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 7600 | 600 | 7000 | 5755 | 1245 | | https://sldc.rajasthan.gov.in/rrvpnl/scheduling/downloads |
| **Limiting Constraints** | N-1 contingency of 400/220kV Heerapura, Jodhpur, Bikaner, Ajmer, Merta, Hindaun and Ratangarh ICTs | | | | | | | |

# National Load Despatch Centre
## Import Capability of Delhi for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 7600 | 300 | 7300 | 4810 | 2490 | | https://www.delhisldc.org/resources/atcttcreport.pdf |
| **Limiting Constraints** | N-1 contingency of 400/220kV HarshVihar and Bawana (bus-split) ICTs. | | | | | | | |

# National Load Despatch Centre
## Import Capability of Uttarakhand for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 1990 | 100 | 1890 | 1402 | 488 | | https://uksldc.in/ttc-atc |
| **Limiting Constraints** | | N-1 contingency of 400/220kV Kashipur ICTs. High loading of 220kV Roorkee-Roorkee and 220kV CBGanj-Pantnagar lines | | | | | | |

# National Load Despatch Centre
## Import Capability of HP for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 2386 | 100 | 2286 | 1181 | 1105 | | https://hpsldc.com/mrm_category/ttc-atc-report/ |
| **Limiting Constraints** | | Overloading of 2*100MVA Giri transformers<br>High loading of 220kV Nallagarh-Upernangal D/C | | | | | | |

# National Load Despatch Centre
## Import Capability of J&K for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | **00-09 & 14-24** | **3500** | **100** | **3400** | **1977** | **1423** | | |
| | **09-14** | 2800 | 100 | 2700 | 1977 | 723 | | |
| **Limiting Constraints** | | N-1 contigency of 400/220KV ICTs at Amargarh, Kishenpur<br>220 kV underlying network at Amargarh, Wagoora<br>Low voltages in J&K control area due to high MVAR drawl | | | | | | |

# National Load Despatch Centre
## Import Capability of Chandigarh for January 2026

Issue Date: -  Issue Time: 1600  Revision No. 0

| Date | Time Period in IST (hrs) | Total Transfer Capability (TTC) (MW) | Reliability Margin (MW) | Available Transfer Capability (ATC) (MW) | Approved General Network Access (MW) | Margin Available for Temporary General Network Access(MW) | Changes in TTC w.r.t. Last Revision | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 January 2026 to 31 January 2026 | 00-24 | 480 | 20 | 460 | 342 | 118 | | |
| **Limiting Constraints** | | N-1 contigency of 220kV Nallagarh-Kishengarh | | | | | | |

ग्रिड-इंडिया GRID-INDIA
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
भारत सरकार का उद्यम
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर क्षेत्रीय भार प्रेषण केन्द्र / Northern Regional Load Despatch Centre
कार्यालय : 18-ए, शहीद जीत सिंह सनसनवाल मार्ग, कटवारिया सराय, नई दिल्ली-110016
Office : 18-A, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi-110016
CIN : U40105DL2009GOI188682, Website : www.nrldc.in, E-mail : nrldc@grid-india.in, Tel.: 011 26519406, 26523869, Fax: 011 26852747

**संदर्भ सं:** उ.क्षे.भा.प्रे.कें/अनुपालन निगरानी/2025 30th सितम्बर 2025

**सेवा में,**

वितरण सूची के अनुसार

**विषय: IEGC विनियम की धारा 56 के अनुसार वार्षिक स्व-मूल्यांकन (Self-Audit) रिपोर्ट प्रस्तुत करने हेतु**

महोदय / महोदया,

भारतीय विद्युत ग्रिड संहिता (IEGC) विनियम की धारा 56 के अनुसार, सभी संबंधित पक्षों – जैसे कि उपयोगकर्ता (Users), केंद्रीय पारेषण उपयोगकर्ता (CTU), राज्य पारेषण उपयोगकर्ता (STUs), एनएलडीसी, आरएलडीसी, आरपीसी, एसएलडीसी, पावर एक्सचेंज, क्यूसीए एवं एसएनए– को प्रत्येक वर्ष एक स्व-मूल्यांकन (Self-Audit) करना आवश्यक है, ताकि इन विनियमों के अनुपालन की समीक्षा की जा सके।

As per Clause 56 of the Indian Electricity Grid Code (IEGC) Regulations, all stakeholders involved in grid operations and market functions–including Users, CTU, STUs, NLDC, RLDCs, RPCs, SLDCs, Power Exchanges, QCAs, and SNAs–are required to conduct an annual self-audit to assess their compliance with the applicable provisions of the regulations.

ध्यान दिलाया जाता है कि वर्ष 2024-25 के लिए सेल्फ-ऑडिट रिपोर्ट 31 जुलाई 2025 तक अनिवार्य रूप से प्रस्तुत की जानी थी, जैसा कि भारतीय विद्युत ग्रिड संहिता (IEGC) विनियम की धारा 56(2)(a) में वर्णित है।

In accordance with IEGC Clause 56(2)(a), the self-audit report for the year 2024-25 was required to be submitted by 31st July 2025.

कृपया रिपोर्ट में निम्नलिखित बिंदुओं को अवश्य शामिल करें:

1. किसी भी गैर-अनुपालन (Non-Compliance) की स्थिति में उसके कारण और प्रक्रिया की स्पष्ट जानकारी;
2. ऐसे गैर-अनुपालन से हुई क्षति या प्रभाव की सीमा;
3. सुधारात्मक कदम तथा समाधान हेतु प्रस्तावित समय-सीमा;
4. भविष्य में ऐसी पुनरावृत्ति को रोकने के लिए उठाए गए कदम।

The self-audit report should inter alia include the following details:

1. Sufficient information on any instances of non-compliance, explaining how and why they occurred.
2. Extent of impact or damage caused by such non-compliance.
3. Corrective steps planned along with a timeline for rectification.
4. Measures taken to prevent recurrence in the future.

रिपोर्ट प्रस्तुत करने के निर्देश:

- उपयोगकर्ता, क्यूसीए, एसएनए - संबंधित आरएलडीसी या एसएलडीसी को रिपोर्ट भेजें।
- पावर एक्सचेंज - रिपोर्ट एनएलडीसी को भेजें।
- एनएलडीसी, आरएलडीसी, सीटीयू, आरपीसी - रिपोर्ट सीईआरसी को भेजें।
- एसटीयू और एसएलडीसी - रिपोर्ट संबंधित एसईआरसी को भेजें।

Submission Guidelines:

- Users, QCAs, SNAs are to submit their self-audit reports to the respective RLDC or SLDC, depending on their jurisdiction.
- Power Exchanges shall submit their reports to the NLDC.
- NLDC, RLDCs, CTU, and RPCs shall submit their reports to the CERC.
- STUs and SLDCs shall submit their reports to the respective SERC.

सभी घटकों से यह भी अपेक्षा की जाती है कि धारा 56(2)(f) के अनुसार, चिन्हित कमियों को एक निश्चित और उचित समय-सीमा के भीतर ठीक किया जाए।

All constituents are also reminded that as per Clause 56(2)(f), any deficiencies identified during the self-audit must be rectified in a time-bound and reasonable manner.

यह उल्लेख करना उचित है कि ओसीसी बैठकों, टीसीसी-एनआरपीसी बैठक तथा अन्य बैठकों में कई बार चर्चा होने के बावजूद, उत्तर क्षेत्र के विभिन्न घटकों से स्व-मूल्यांकन रिपोर्ट (Self-Audit Report) अब तक प्राप्त नहीं हुई है। सभी घटकों से पुनः अनुरोध किया जाता है कि वे शीघ्रता से अपनी-अपनी Self-Audit रिपोर्ट प्रस्तुत करें, क्योंकि इसकी नियत तिथि 31 जुलाई 2025 पहले ही समाप्त हो चुकी है।

It is pertinent to mention that despite multiple discussions in the OCC meetings, TCC-NRPC meeting and other meetings the Self-Audit reports from various constituents of the Northern Region are still awaited. All constituents are once again urged to expedite the submission of their respective Self-Audit reports at the earliest, as the deadline of 31st July 2025 has already passed.

संबंधित जानकारी एवं स्व-मूल्यांकन रिपोर्ट प्रस्तुत करने हेतु कृपया निम्न ईमेल आईडी का उपयोग करें:

**nrldc-compliance@grid-india.in**

**nrldcso2@grid-india.in**

For submission of information and self-audit reports, the following email IDs may be used:

**nrldc-compliance@grid-india.in**

**nrldcso2@grid-india.in**

आपके शीघ्र सहयोग की अपेक्षा है।

Your prompt cooperation in this matter is earnestly requested.

धन्यवाद।

**सादर,**

30/09/2025

**सोमारा लोकरा**
**मुख्य महाप्रबंधक**
**उ.क्षे.भा.प्रे.कें., नई दिल्ली**

**प्रतिलिपि सूचनार्थ:**

1. कार्यकारी निदेशक, राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली
2. सदस्य सचिव, उत्तर क्षेत्रीय विद्युत समिति, नई दिल्ली
3. निदेशक (प्रणाली संचालन), ग्रिड-इंडिया, नई दिल्ली

**Distribution List:**

1. Head (State Load Dispatch Centre), Delhi Transco Limited, SLDC Building (Behind Zakir Husain College), Tagore Hostel Lane, Minto Road, New Delhi – 110002
2. Head (State Load Dispatch Centre), Haryana Vidyut Prasaran Nigam Limited, Shakti Bhawan, Sector-6, Panchkula – 134109
3. Chief Engineer, Haryana Power Purchase Centre, Room No. 308, Shakti Bhawan, Sector-6, Panchkula – 134109, Haryana
4. Chief Engineer, State Load Dispatch Centre (Nodal agency for Himachal Pradesh), Himachal Pradesh State Load Despatch Centre, Totu, Shimla – 171011, Himachal Pradesh
5. Head (State Load Dispatch Centre), Punjab State Load Dispatch Centre, Punjab State Transmission Corporation Limited, 220 kV Sub Station Ablowal, Patiala, Punjab – 147001
6. Chairman and Managing Director, Punjab State Power Corporation Limited, The Mall, Patiala, Punjab – 147001
7. Head (State Load Dispatch Centre), Rajasthan Rajya Vidyut Prasaran Nigam Limited, Heerapura, Jaipur, Rajasthan – 302024
8. Chairman, Rajasthan Urja Vikas Nigam Limited, Vidyut Bhawan, Janpath, Jyoti Nagar, Jaipur – 302005, Rajasthan
9. Chief Engineer, Electricity Department, Union Territory of Chandigarh, Sector 9-D, Chandigarh – 160019
10. Managing Director, Jammu and Kashmir Power Corporation Limited, State Load Dispatch Centre Building, First Floor, Gladni Grid Station, Nanval Bala, Jammu – 180004
11. Chairman, Uttar Pradesh Power Corporation Limited, Shakti Bhawan, 14-Ashok Marg, Lucknow – 226001
12. Managing Director, Uttarakhand Power Corporation Limited, Kanwli Road, Urja Bhawan, Dehradun – 248001, Uttarakhand
13. Chief Electrical Engineer, North Central Railway, General Manager Office, Subedarganj, Uttar Madhya Railway, Allahabad, Uttar Pradesh – 211011
14. Head of Project, Singrauli Super Thermal Power Station, NTPC, Post Office – Shakti Nagar, District Sonebhadra, Uttar Pradesh – 231222
15. Head of Project, Singrauli Solar Photovoltaic Power Project, NTPC, Post Office – Shakti Nagar, District Sonebhadra, Uttar Pradesh – 231222
16. Head of Project, Singrauli Small Hydro Power Project, NTPC, Post Office – Shakti Nagar, District Sonebhadra, Uttar Pradesh – 231222
17. Head of Project, Rihand Super Thermal Power Station-I, NTPC, Post Office – Rihand Nagar, District Sonebhadra, Uttar Pradesh – 231223
18. General Manager, Rihand Super Thermal Power Station-II, NTPC, Post Office – Rihand Nagar, District Sonebhadra, Uttar Pradesh – 231223

19. Head of Project, Rihand Super Thermal Power Station-III, NTPC, Post Office – Rihand Nagar, District Sonebhadra, Uttar Pradesh – 231223
20. Head of Project, Dadri, National Capital Power Project, NTPC-Dadri, Vidyut Nagar, District Gautam Budh Nagar, Uttar Pradesh – 201008
21. Head of Project, Dadri – Stage II, National Capital Power Project, NTPC-Dadri, Vidyut Nagar, District Gautam Budh Nagar, Uttar Pradesh – 201008
22. Head of Project, Dadri Gas Power Project, NTPC-Dadri, Vidyut Nagar, District Gautam Budh Nagar, Uttar Pradesh – 201008
23. Head of Project, Dadri Solar Photovoltaic Power Project, NTPC-Dadri, Vidyut Nagar, District Gautam Budh Nagar, Uttar Pradesh – 201008
24. Head of Project, Firoz Gandhi Unchahar Thermal Power Project-I, NTPC, Post Office – Unchahar, District Raebareilly, Uttar Pradesh – 229406
25. Head of Project, Firoz Gandhi Unchahar Thermal Power Project-II, NTPC, Post Office – Unchahar, District Raebareilly, Uttar Pradesh – 229406
26. Head of Project, Firoz Gandhi Unchahar Thermal Power Project-III, NTPC, Post Office – Unchahar, District Raebareilly, Uttar Pradesh – 229406
27. Head of Project, Firoz Gandhi Unchahar Thermal Power Project-IV, NTPC, Post Office – Unchahar, District Raebareilly, Uttar Pradesh – 229406
28. Head of Project, Firoz Gandhi Unchahar Solar Photovoltaic Power Project, NTPC, Post Office – Unchahar, District Raebareilly, Uttar Pradesh – 229406
29. Head of Project, Auraiya Gas Power Project (Gas Fired, Re-gasified Liquefied Natural Gas Fired, Liquid Fired), NTPC, Post Office – Dibiyapur, District Auraiya, Uttar Pradesh – 206244
30. Head of Project, Auraiya Solar Power Plant, NTPC Limited, Post Office – Dibiyapur, District Auraiya, Uttar Pradesh – 206244
31. Head of Project, Anta Gas Power Project (Gas Fired, Re-gasified Liquefied Natural Gas Fired, Liquid Fired), NTPC, Post Office – Anta, District Baran, Rajasthan – 325209
32. Head of Project, Koldam Hydroelectric Power Project, NTPC, Post – Barmana, District Bilaspur, Himachal Pradesh – 174013
33. Head of Project, NTPC Limited, Tanda Stage-II, Post Office – Vidyut Nagar, District Ambedkar Nagar, Uttar Pradesh – 224238
34. General Manager, Nidan Solar Power Plant, NTPC Limited, Fatehgarh Solar Project, Village – Nidan, Tehsil – Pokharan, District Jaisalmer – 345021, Rajasthan
35. Deputy General Manager, Devikot Solar Power Plant, NTPC Green Energy Limited, Plot No. 929, Barmer-Jaisalmer Highway, Devikot, Fatehgarh, District Jaisalmer, Rajasthan – 345027
36. General Manager (Head of Project), Nokhra Solar Plant, NTPC Green Energy Limited, D-903, Tirupati Apartment, Near Kothari Hospital, Gajner Road, District Bikaner, Rajasthan – 334001
37. General Manager, Kolayat Solar Plant, NTPC Green Energy Limited, Nokhra Solar Plant, NTPC Limited, Pethado Ki Dhani, Tehsil Kolayat, District Bikaner, Rajasthan – 334303

38. Station Director, Narora Atomic Power Station, Nuclear Power Corporation of India Limited, Narora, District Bulandshahar, Uttar Pradesh – 203389

39. Station Director, Rajasthan Atomic Power Station-B, Nuclear Power Corporation of India Limited, Rawatbhata, Post Office – Anu Shakti Vihar, District Kota, Rajasthan – 323303

40. Station Director, Rajasthan Atomic Power Station-C (Units 5 and 6), Nuclear Power Corporation of India Limited, Rawatbhata, Post Office – Anushakti Vihar, District Kota, Rajasthan – 323303

41. Station Director, Rajasthan Atomic Power Project Units 7 and 8, Nuclear Power Corporation of India Limited, Rawatbhata, Post Office – Anushakti Vihar, District Kota, Rajasthan – 323303

42. Head of Power Station, Bairasiul Hydroelectric Project, National Hydroelectric Power Corporation Limited, Surangini, District Chamba, Himachal Pradesh – 176317

43. Head of Power Station, Salal Hydroelectric Project, National Hydroelectric Power Corporation Limited, Jyotipuram, District Udhampur, Jammu and Kashmir – 182312

44. Head of Power Station, Tanakpur Hydroelectric Project, National Hydroelectric Power Corporation Limited, Banbassa, District Champawat, Uttarakhand – 262310

45. Head of Power Station, Chamera-I Hydroelectric Project, National Hydroelectric Power Corporation Limited, Khairi, District Chamba, Himachal Pradesh – 176310

46. Head of Power Station, Uri Hydroelectric Project, National Hydroelectric Power Corporation Limited, Mohra, District Baramulla, Jammu and Kashmir – 193122

47. Head of Power Station, Chamera-II Hydroelectric Project, National Hydroelectric Power Corporation Limited, Karian, District Chamba, Himachal Pradesh – 176310

48. Head of Power Station, Chamera-III Hydroelectric Project, National Hydroelectric Power Corporation Limited, Dharwala, District Chamba, Himachal Pradesh – 176311

49. Head of Power Station, Dhauliganga Hydroelectric Project, National Hydroelectric Power Corporation Limited, Tapovan, Dharchula, District Pithoragarh, Uttarakhand – 262545

50. Head of Power Station, Dulhasti Hydroelectric Project, National Hydroelectric Power Corporation Limited, Chenab Nagar, District Kishtwar, Jammu and Kashmir – 182206

51. Head of Power Station, Uri-II Hydroelectric Project, National Hydroelectric Power Corporation Limited, Nowpura, District Baramulla, Jammu and Kashmir – 193123

52. Head of Power Station, Parbati Hydroelectric Project Stage-III, National Hydroelectric Power Corporation Limited, Behali, Post Office – Larji, District Kullu, Himachal Pradesh – 175122

53. Head of Power Station, Sewa-II Power Station, National Hydroelectric Power Corporation Limited, Mashke, Post Bag No. 2, Post Office – Khari, District Kathua, Jammu and Kashmir – 176325

54. Head of Power Station, Kishanganga Hydroelectric Project, National Hydroelectric Power Corporation Limited, Office-cum-Residential Colony, Kralpora, District Bandipora, Jammu and Kashmir – 193502

55. Head of Power Station, Parbati-II Hydroelectric Project, National Hydroelectric Power Corporation Limited, Electrical and Mechanical Complex, Sainj, District Kullu, Himachal Pradesh – 175134

56. Head of Project, Nathpa Jhakri Hydroelectric Power Project, Satluj Jal Vidyut Nigam Limited, Post Office – Jhakri, District Shimla, Himachal Pradesh – 172201

57. Head of Project, Rampur Hydroelectric Power Project, Satluj Jal Vidyut Nigam Limited, Bayal, Post Office – Koyal, Nirmand, District Kullu, Himachal Pradesh – 172203

58. Head of Power Station, Tehri Hydroelectric Power Project, Tehri Hydro Development Corporation Limited, Bhagirath Puram, Tehri, Uttarakhand – 249001

59. Head of Power Station, Koteshwar Hydroelectric Power Project, Tehri Hydro Development Corporation Limited, Koteshwerpuram, Post Office – Pokhari, District Tehri Garhwal, Uttarakhand – 249146

60. Project In-charge, Allain Duhangan Hydroelectric Power Limited, Village – Prini, Post Office – Jagat Sukh, Tehsil – Manali, District Kullu, Himachal Pradesh – 175143

61. Chief Executive Officer, Indira Gandhi Super Thermal Power Project, Aravali Power Company Private Limited, Post Office – Jharli, Tehsil – Matanhail, District Jhajjar, Haryana – 124125

62. Project Head, Karcham Wangtoo Hydroelectric Power Project, JSW Hydro Energy Limited, Sholtu Colony, Post Office – Tapti, District Kinnaur, Himachal Pradesh – 172104

63. Company Secretary, Shree Cement Thermal Power Project, Bangurnagar, Beawar, District Ajmer, Rajasthan – 305901

64. Company Secretary, Greenko Budhil Hydroelectric Power Station Limited, Greenko Hub, Number 13, Hitech City, Madhapur, Hyderabad, Telangana – 500081

65. Project Head, Himachal Sorang Power Limited, D-7, Lane-I, Sector-I, New Shimla, District Shimla, Himachal Pradesh – 171009

66. Head of Project, Sainj Hydroelectric Power Project, Himachal Pradesh Power Corporation Limited, Sarabai, District Kullu, Himachal Pradesh – 175125

67. Head of Operation and Maintenance, Singoli-Bhatwari Hydroelectric Power Project, Renew Jal Urja Limited, Village – Bedubagar, Post Office – Augustmuni, District Rudraprayag, Uttarakhand – 246421

68. Director (Power Regulation), Bhakra Power House, Bhakra Beas Management Board, State Load Dispatch Centre Complex, 66 kV Substation, Industrial Area Phase-I, Madhya Marg, Chandigarh – 160002

69. Director (Power Regulation), Dehar Hydroelectric Power Project, Bhakra Beas Management Board, State Load Dispatch Centre Complex, 66 kV Substation, Industrial Area Phase-I, Madhya Marg, Chandigarh – 160002

70. Director (Power Regulation), Pong Power House Circle, Bhakra Beas Management Board, State Load Dispatch Centre Complex, 66 kV Substation, Industrial Area Phase-I, Madhya Marg, Chandigarh – 160002

71. Executive Director, Power Grid Corporation of India Limited, Northern Region Transmission System-I, B-9, Qutab Institutional Area, New Delhi – 110016

72. Director, Operations, Powerlinks Transmission Limited, 10th Floor, DLF Tower-A, District Centre, Jasola, New Delhi – 110044

73. Chief Financial Officer, Powergrid Himachal Transmission Limited, B-9, Qutab Institutional Area, New Delhi – 110016

74. Director, Business Development, Adani Transmission India Limited, Shantigram, Near Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad, Gujarat – 382421

75. Managing Director, Parbati Koldam Transmission Company Limited, 5th Floor 1A, JMD Galleria, Sector-48, Sohna Road, Gurugram, Haryana – 122018

76. Chief Executive Officer, Aravali Power Company Private Limited (Transmission Licensee), Post Office – Jharli, District Jhajjar, Haryana – 124141

77. Vice President (Regulatory and Contracts), Northern Region System Strengthening XXIX Transmission Limited, Unit No. 101, First Floor, Windsor, Village Kole Kalyan, Off CST Road, Vidyanagari Marg, Santacruz (East), Mumbai, Maharashtra – 400098

78. Vice President (Regulatory and Contracts), Rajasthan Atomic Power Project Transmission Company Limited, Unit No. 101, First Floor, Windsor, Village Kole Kalyan, Off CST Road, Vidyanagari Marg, Santacruz (East), Mumbai, Maharashtra – 400098

79. Vice President (Regulatory and Contracts), Patran Transmission Company Limited, Unit No. 101, First Floor, Windsor, Village Kole Kalyan, Off CST Road, Vidyanagari Marg, Santacruz (East), Mumbai, Maharashtra – 400098

80. Vice President (Regulatory and Contracts), Gurugram Palwal Transmission Limited, Unit No. 101, First Floor, Windsor, Village Kole Kalyan, Off CST Road, Vidyanagari Marg, Santacruz (East), Mumbai, Maharashtra – 400098

81. Associate Director – Commercial and Regulatory, Northern Region System Strengthening XXXI (B) Transmission Limited, 504 and 505, 5th Floor, Windsor, Off CST Road, Kalina, Santacruz (East), Mumbai, Maharashtra – 400098

82. Assistant General Manager, Northern Region System Strengthening XXXVI Transmission Limited, Tata Power Company Limited, Shatabdi Bhawan, B-12 and 13, Sector-4, Noida, Uttar Pradesh – 201301

83. Chief Executive Officer, Powergrid Unchahar Transmission Limited, 765/400/220 kV Substation, Village – Chauferava, Post and District – Fatehpur, Uttar Pradesh – 212601

84. Chief Executive Officer, Powergrid Kala Amb Transmission Limited, 400/220 kV Gas Insulated Substation, Village – Meerpur Kotla, Post Office – Trilokpur, Tehsil – Nahan, District Sirmour, Himachal Pradesh – 173030

85. Director, Fatehgarh Bhadla Transmission Limited, 3rd Floor, South Wing, Adani Corporate House, Shantigram, S.G. Highway, Khodiyar, Ahmedabad, Gujarat – 382421

86. Director, Bikaner-Khetri Transmission Limited, 3rd Floor, South Wing, Adani Corporate House, Shantigram, S.G. Highway, Khodiyar, Ahmedabad, Gujarat – 382421

87. Project In-Charge, Powergrid Ajmer Phagi Transmission Limited, Powergrid, B-9, Qutab Institutional Area, New Delhi – 110016

88. Chief Engineer (Communication and Relay), Power Transmission Corporation of Uttarakhand Limited, Vidyut Bhawan, Near ISBT Crossing, Saharanpur Road, Majra, Dehradun, Uttarakhand – 248002

89. Project In-Charge, Powergrid Fatehgarh Transmission Limited, Village – Sanwata, Devikot Sankra Road, 8 Kilometer Milestone, District Jaisalmer, Rajasthan – 345027

90. Project In-Charge, Powergrid Khetri Transmission System Limited, Village – Jasrapur, Tehsil – Khetri, District Jhunjhunu, Rajasthan – 333514

91. Chief Executive Officer, Powergrid Varanasi Transmission System Limited, C-27/210, Kailgad House, Jagatganj, District Varanasi, Uttar Pradesh – 221002

92. Project In-Charge, Powergrid Bikaner Transmission System Limited, 765/400 kV Substation, Village – Jalalsar, Post – Jamsar, District Bikaner, Rajasthan – 334601

93. Chief Engineer (Communication and Relay), Power Transmission Corporation of Uttarakhand Limited, Vidyut Bhawan, Near ISBT Crossing, Saharanpur Road, Majra, Dehradun, Uttarakhand – 248002

# Grid Event summary for November 2025

| S.No. | Category of Grid Incident/ Disturbance | Name of Elements (Tripped/Manually opened) | Affected Area | Owner/ Agency | Outage | | Event (As reported) | Loss of generation / loss of load during the Grid Disturbance | | Fault Clearance time (in ms) | Compliance of Protection Protocol/Standard | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ( GI-I to GD-V) | | | | Date | Time | | Generation Loss(MW) | Load Loss (MW) | | Flash Report Submission (Y/N) | DR/EL Submission (Y/N) | Detail Tripping Report Submission (Y/N) |
| 1 | GI-1 | 1)220 KV RAPS_B(NP)- Kota Sakatpura(RS) (RS) Ckt<br>2)220kV Kota Sakatpura-KTPS ckt-3<br>3)220kV Kota Sakatpura-KTPS ckt-4<br>4)220/132kV 160 MVA Transformer-1 at Kota Sakatpura(RS)<br>5)220/132kV 100 MVA Transformer-3 at Kota Sakatpura(RS)<br>6)220/132kV 100 MVA Transformer-4 at Kota Sakatpura(RS)<br>7)220 KV RAPS_A(NP)-Kota Sakatpura(RS) (RS) Ckt-2<br>8)220 KV Anta-Kota Sakatpura(RS) (RS) Ckt<br>9)220kV Kota Sakatpura-KTPS ckt-2<br>10)210 MW Unit-3 at KTPS(RS)<br>11)210 MW Unit-4 at KTPS(RS)<br>12)210 MW Unit-5 at KTPS(RS) | Rajasthan | RVPNL, RVUNL, NPCIL | 5-Nov-25 | 01:11 | i)220/132kV Kota Sakatpura(RS) has four buses with double main bus scheme at 220kV level. 220kV Bus-A&B are with sectionaliser and Bus-C & D are parallel bus.<br>ii)During antecedent condition, 220/132kV 160 MVA Transformer-1 and 100 MVA Transformer-3&4 and 220kV feeders to RAPS-B, KTPS-3&4 were connected at 220kV Bus-C. Other elements were on another buses.<br>iii)As reported, at 01:11 hrs, Y-ph CT at 220kV side of 220/132kV 100 MVA Transformer-4 burst leading to bus fault on 220kV Bus-C.<br>iv)On this fault, bus bar protection of Bus-C operated resulting into tripping of all the elements connected to 220kV Bus-C along with the bus coupler breaker.<br>v)As per DR of bus bar relay, Y-N fault converted into R-Y fault with delayed clearance ~240 msec is observed.<br>vi)As per PMU at Kota(PG), Y-N fault converted into R-Y fault with delayed clearance ~320 msec is observed<br>vii)At the same time, 220kV Kota Sakatpura-RAPS_A line-2 also tripped from Kota Sakatpura end on Z-4 distance protection operation. Further, 220kV kota Saktpura-Anta line, 220kV Kota Sakatpura-KTPS line-2 along with 210 MW unit-3,4&5 at KTPS also tripped. Reason of multiple elements tripping at KTPS yet to be received.<br>viii)As per SCADA change in demand of approx. 178 MW in Rajasthan control area and loss in generation of ~480 MW at KTPS is observed | 480 | 178 | 320 | Y(d)(RS) | Y(RS) | N(RS) |
| 2 | GD-1 | 1)220kV Fatehgarh_III-RSJPL line | Rajasthan | PGCIL, RSJPL | 7-Nov-25 | 13:40 | i)Generation of 220kV Renew Surya Jyoti Pvt Ltd. (RSJPL) (IP) station evacuates through 220 KV RSJPL-Fatehgarh_III line.<br>ii)During antecedent condition, 220kV RSJPL(IP) station was generating approx. 60 MW (as per PMU).<br>iii)As reported, at 13:40 hrs, 220kV Fatehgarh_III-RSJPL line tripped on earth fault.<br>iv)As per PMU at Fatehgarh_III(PG), no fault and fluctuation in voltage was observed in the system<br>v)As per PMU MW data of RSJPL, solar generation loss of ~60 MW observed at RSJPL Restation. As per SCADA, no significant change in NR solar generation loss is observed. | 60 | 0 | NA | Y(d)(PG)<br>N(RSJPL) | Y(d)(PG)<br>N(RSJPL) | Y(d)(PG)<br>N(RSJPL) |
| 3 | GI-1 | 1) 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-1<br>2) 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-2 | Jammu and Kashmir | NHPC, PDD JK, PGCIL | 10-Nov-25 | 16:24 | i)220/132/33kV Jammu/Gladni(J&K) S/s have double main bus arrangement at 220kV side.<br>ii)During antecedent condition, 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-1 & 2 were carrying 73 MW and 64 MW respectively (as per SCADA).<br>iii)As reported, at 16:24 hrs, 132 KV CT of B-ph Bus coupler bay blasted. During the same time, 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-1 & 2 tripped from Salal end (exact nature and location of fault yet to be shared).<br>iv)As per DR at Salal(NH) end, B-N fault converted to R-B-N fault again converted to R-Y-B fault occurred. Fault current was Ir=~2.105kA, Iy=~2.148kA, Ib=~2.036kA from Salal end for 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-1 and Ir=~1.852kA, Iy=~1.951kA, Ib=~1.877kA from Salal end for 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-2. Fault sensed in zone-3 at Salal end. Line tripped from Salal end after zone-3 time delay.<br>v)As per PMU at Kishenpur(PG), R-B phase to phase fault converted to 3-phase fault was observed with delayed fault clearing time of 1040ms.<br>vi)As per SCADA, change in demand of approx. 180 MW is observed in J&K control area. | 0 | 180 | 1040 | Y(d)(NHPC)<br>N(J&K) | Y(d)(NHPC)<br>N(J&K) | Y(d)(NHPC)<br>N(J&K) |
| 4 | GD-1 | 1) 220 KV Mandola(PG)-Gopalpur(DTL) (DTL) Ckt-1<br>2) 220 KV Mandola(PG)-Gopalpur(DTL) (DTL) Ckt-2<br>3) 220 KV Gopalpur-Sabzi Mandi (DTL) Ckt-1<br>4) 220/33kV 100 MVA ICT-1 at Gopalpur(DTL)<br>5) 220/66kV 100 MVA ICT-2 at Gopalpur(DTL)<br>6) 220/33kV 100 MVA ICT-3 at Gopalpur(DTL)<br>7) 220/66kV 160 MVA ICT-4 at Gopalpur(DTL) | Delhi | PGCIL, DTL | 14-Nov-25 | 16:35 | i)220/66/33kV Gopalpur(DTL) has double main Bus arrangement at 220kV side. 220kV Gopalpur- SOWazirabad D/C was in open condition from Gopalpur end.<br>ii)During antecedent condition, 220kV Bus-2 at Gopalpur(DTL) was taken into outage due to some protection related work on 220kV Gopalpur-Timarpur Ckt.<br>iii)As reported, at 16:35 hrs, bus bar protection operated at 220kV Bus-1 at Gopalpur(DTL) during carrying out protection work on 220kV Gopalpur-Timarpur Ckt (exact reason yet to be shared).<br>iv)Due to bus bar protection operation, all the 220kV elements connected to 220kV Bus-1 at Gopalpur(DTL) tripped and complete blackout occurred at 220/66/33kV Gopalpur(DTL) S/s.<br>v)At 16:47 hrs, 220kV Gopalpur- SOWazirabad Ckt-2 was taken into service to charge 220kV Gopalpur(DTL) S/s.<br>vi)As per PMU at Mandola(PG), no fault was observed in the system.<br>vii)As per SCADA, change in demand of approx. 130 MW in Delhi control area is observed. | 0 | 130 | NA | Y(d)(DTL, PG) | Y(d)(DTL) | Y(DTL)(Partial) |
| 5 | GI-2 | 1) 400 KV Kishenpur-Moga (PG) Ckt-1<br>2) 400 KV Kishenpur-Moga (PG) Ckt-2 | Jammu and Kashmir | PGCIL | 21-Nov-25 | 11:51 | i)400/220kV Kishenpur(PG) S/s has one and half breaker scheme at 400kV level and double main and transfer bus scheme at 220kV level.<br>ii)During antecedent condition, 400 KV Kishenpur-Moga (PG) Ckt-1 &2 were carrying 771 MW and 744 MW respectively (as per SCADA).<br>iii)As reported, at 11:51 hrs, 400 KV Kishenpur-Moga (PG) Ckt-2 tripped on permanent Y-N phase to earth fault due to Y-phase jumper broken near Kishenpur(PG) S/s. As per DR, fault current was 13.41 kA and fault distance was 3.6 km from Kishenpur(PG) end; fault (with unsuccessful A/R) sensed in zone-1 and Main-II relay operated at Kishenpur(PG) end.<br>iv)On the same fault, 400 KV Kishenpur-Moga (PG) Ckt-1 also tripped from Kishenpur(PG) end only. As per DR, fault current was 2.07 kA from Kishenpur(PG) end; fault sensed in zone-4 and Main-II relay operated at Kishenpur(PG) end.<br>v)During investigation, it was observed that after Z4 pickup, D60 (Main-II) relay issued 3ph tripping due to "TRIPBUS-1 optd". On examining setting parameters, it was observed that input setting parameters to Trip Bus 1 function had been assigned for "Z2,Z3 and Z4 pickup" whereas as per standard template inputs to Trip Bus function should be assigned for "Z2,Z3 and Z4 operated".<br>vi)As corrective action taken, setting in D60 relay was corrected and implemented as per standard template.<br>vii)As per PMU at Kishenpur(PG), Y-N phase to earth fault with unsuccessful A/R was observed with fault clearing time of 80ms.<br>viii)As per SCADA, change in demand of approx. 130 MW is observed in J&K control area. | 0 | 130 | 80 | Y(d)(PG) | Y(d)(PG) | Y(d)(Partial)(PG) |
| 6 | GD-1 | 1) 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt<br>2) 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt | Jammu and Kashmir | PDD JK, PGCIL | 22-Nov-25 | 19:44 | i)220/33kV Chowadhi(JK) S/s has double main and transfer bus scheme at 220kV side and two 220kV lines are connected: 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt and 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt.<br>ii)As reported, at 19:44 hrs, 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt tripped on permanent R-N phase fault (unsuccessful A/R) due to R-phase conductor snapped. As per DR at Samba end, fault current was 2.273kA (4.134kA during A/R) from Samba(PG) end; zone-1 distance protection (Main-II) operated at Samba(PG) end. As per DR at Chowadhi end, zone-2 distance protection (Main-I) operated at Chowadhi(JK) end. Carrier sent from Samba(PG), but not received at Chowadhi(JK) (Carrier communication issue observed).<br>iii)On the same fault, 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt also tripped from Chowadhi(JK) end only. As per DR, zone-4 distance protection operated at Chowadhi end (Main-II) and fault sensed in zone-3 at Jammu/Gladini end.<br>iv)During investigation, it was observed that zone-4 delay at Chowadhi(JK) end of 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt and zone-2 delay at Chowadhi(JK) end of 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt were same (500 ms).<br>v)As per PMU at Kishenpur(PG), R-N phase to earth fault with unsuccessful A/R was observed with fault clearing time of 120ms.<br>vi)As per SCADA, change in demand of approx. 80 MW is observed in J&K control area. | 0 | 80 | 120 | Y(d)(PG)<br>N(J&K) | Y(d)(PG)<br>N(J&K) | Y(d)(PG)<br>N(J&K) |
| 7 | GI-1 | 1) 220kV Bus-1 at Agra(PG)<br>2) 220 KV Agra(PG)-Bharatpur(RS) (PG) Ckt<br>3) 220 KV Agra(PG)-Tundla(UP) (UP) Ckt<br>4) 220 KV Agra(PG)-Shamshabad(UP) (UP) Ckt<br>5) 220 KV Agra(PG)-Kirawali(UP) (PG) Ckt | Uttar Pradesh | PGCIL, UPPTCL, RVPNL | 29-Nov-25 | 12:12 | i)765/400/220kV Agra(PG) has double main & transfer bus scheme at 220kV level.<br>ii)During antecedent condition, 220kV Bus-2 at Agra(PG) was already under planned outage due to AMP work. Hence all 220kV elements were connected to 220kV Bus-1 at Agra(PG). 400/220kV 315 MVA ICT-1 & 2 at Agra(PG) were carrying approx. 175 MW & 195 MW respectively.<br>iii)As reported, at 12:12 hrs, Bus bar protection operated at 220kV Bus-1 at Agra(PG) (exact reason of bus bar protection operation including fault details yet to be shared).<br>iv)Due to bus bar protection operation, all 220kV elements connected at Agra(PG) tripped and 220kV Bus-1 at Agra(PG) became dead.<br>v)As per PMU at Agra(PG), B-N phase to earth fault is observed with fault clearing time of 80 ms.<br>vi)As per SCADA change in demand of approx. 70 MW in UP control area and approx. 140 MW in Rajasthan control area were observed. | 0 | 210 | 80 | N (PG) | N (PG) | N (PG) |

Annexure-B.VII

## Status of submission of FIR/DR/EL/Tripping Report on NR Tripping Portal

### Time Period: 1st November 2025 - 30th November 2025

| S. No. | Utility | Total No. of tripping | First Information Report (Not Received) | | Disturbance Recorder (Not Received) | Disturbance Recorder (NA) as informed by utility | Disturbance Recorder (Not Received) | Event Logger (Not Received) | Event Logger (NA) as informed by utility | Event Logger (Not Received) | Tripping Report (Not Received) | Tripping Report (NA) as informed by utility | Tripping Report (Not Received) | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Value | % | Value | | % | Value | | % | Value | | % | |
| 1 | AHEJ4L | 1 | 1 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | DR, EL & Tripping report not submitted |
| 2 | AMP Energy Green Private Limited | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Details received |
| 3 | ANTA-NT | 2 | 1 | 50 | 2 | 0 | 100 | 2 | 0 | 100 | 1 | 0 | 50 | |
| 4 | BAIRASUIL-NH | 4 | 3 | 75 | 3 | 0 | 75 | 3 | 0 | 75 | 3 | 0 | 75 | |
| 5 | BBMB | 29 | 10 | 34 | 13 | 10 | 68 | 12 | 3 | 46 | 11 | 0 | 38 | DR, EL & Tripping report not submitted |
| 6 | CHAMERA-I-NH | 2 | 1 | 50 | 1 | 0 | 50 | 1 | 0 | 50 | 1 | 0 | 50 | |
| 7 | CPCC1 | 25 | 5 | 20 | 6 | 5 | 30 | 9 | 5 | 45 | 11 | 0 | 44 | |
| 8 | CPCC2 | 20 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | Details received |
| 9 | CPCC3 | 16 | 5 | 31 | 5 | 0 | 31 | 6 | 0 | 38 | 5 | 0 | 31 | |
| 10 | DADRI-NT | 2 | 2 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | |
| 11 | DHAULIGANGA-NH | 2 | 2 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | DR, EL & Tripping report not submitted |
| 12 | INDIGRID | 1 | 1 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | |
| 13 | KHURJA STPP | 1 | 1 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | |
| 14 | KISHENGANGA-NH | 3 | 2 | 67 | 2 | 1 | 100 | 2 | 1 | 100 | 2 | 1 | 100 | |
| 15 | NAPP | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | Details received |
| 16 | PARBATI-II-NH | 2 | 2 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | DR, EL & Tripping report not submitted |
| 17 | RAMPUR | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Details received |
| 18 | RAPPA | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 100 | 7 | 0 | 100 | |
| 19 | RAPPB | 3 | 2 | 67 | 2 | 0 | 67 | 2 | 0 | 67 | 3 | 0 | 100 | DR, EL & Tripping report not submitted |
| 20 | RENEW SURYA JYOTI PRIVATE LIMITED(RSJPL) | 5 | 2 | 40 | 2 | 0 | 40 | 2 | 0 | 40 | 2 | 0 | 40 | |
| 21 | SALAL-NH | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Details received |
| 22 | SHREE CEMENT | 2 | 0 | 0 | 2 | 0 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | |

## Status of submission of FIR/DR/EL/Tripping Report on NR Tripping Portal

### Time Period: 1st November 2025 - 30th November 2025

| S. No. | Utility | Total No. of tripping | First Information Report (Not Received) | | Disturbance Recorder (Not Received) | Disturbance Recorder (NA) as informed by utility | Disturbance Recorder (Not Received) | Event Logger (Not Received) | Event Logger (NA) as informed by utility | Event Logger (Not Received) | Tripping Report (Not Received) | Tripping Report (NA) as informed by utility | Tripping Report (Not Received) | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Value | % | Value | | % | Value | | % | Value | | % | |
| 23 | SJVN GREEN ENERGY LIMITED | 1 | 1 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | |
| 24 | SLDC-DV | 10 | 0 | 0 | 7 | 1 | 78 | 6 | 2 | 75 | 6 | 0 | 60 | |
| 25 | SLDC-HP | 4 | 1 | 25 | 4 | 0 | 100 | 4 | 0 | 100 | 2 | 0 | 50 | DR, EL & Tripping report not submitted |
| 26 | SLDC-HR | 17 | 5 | 29 | 5 | 3 | 36 | 5 | 3 | 36 | 5 | 1 | 31 | |
| 27 | SLDC-JK | 9 | 5 | 56 | 5 | 4 | 100 | 5 | 4 | 100 | 5 | 4 | 100 | |
| 28 | SLDC-PS | 10 | 2 | 20 | 7 | 1 | 78 | 7 | 1 | 78 | 9 | 0 | 90 | |
| 29 | SLDC-RS | 52 | 0 | 0 | 5 | 3 | 0 | 5 | 2 | 10 | 5 | 0 | 10 | |
| 30 | SLDC-UK | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | Details received |
| 31 | SLDC-UP | 81 | 20 | 25 | 27 | 7 | 36 | 25 | 14 | 37 | 24 | 0 | 30 | |
| 32 | STERLITE | 3 | 3 | 100 | 3 | 0 | 100 | 3 | 0 | 100 | 3 | 0 | 100 | DR, EL & Tripping report not submitted |
| 33 | TANDA-NT | 1 | 1 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | 1 | 0 | 100 | |
| 34 | TEHRI | 12 | 0 | 0 | 0 | 9 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | Details received |
| 35 | UNCHAHAR-NT | 2 | 2 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | 2 | 0 | 100 | DR, EL & Tripping report not submitted |
| **Total in NR Region** | | **343** | **80** | **23** | **114** | **49** | **39** | **121** | **44** | **40** | **120** | **6** | **36** | |

*As per the IEGC provision under clause 37.2 (c), detailed tripping report along with DR & EL has to be furnished within 24 hrs of the occurrence of the event*

# Status of Mock Test of SPS in NR during 2025-26

| Sr. No. | Scheme Name | Owner / Agency | Commission Year | Last Review | Mock testing conducted before 2025-26 | Tentative Schedule of SPS Mock testing to be conducted during 2025-26 | Date of SPS Mock testing conducted during 2025-26 | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | SPS for WR-NR corridor - 765kV Agra-Gwalior D/C | POWERGRID | | | 27-03-2025 | conducted | 10.10.2025 | Communication issue at Bhiwadi(PG), Bamnauli(DTL), Kota, Debari, Chittorgarh, Ratangarh, Nunamajra, Safidon, Ajitwal, Dandhari-II, Ablowal. |
| 2 | SPS for contingency due to tripping of HVDC Mundra-Mahendergarh | ADANI | | | | SPS Unhealthy | | As reported by ADANI, work order has been placed and action plan also have been rceived. Tentative timeline for revival of SPS is by December 2025. |
| 3 | SPS for high capacity 400 kV Muzaffarpur-Gorakhpur D/C Inter-regional tie-line related contingency | POWERGRID | | | | SPS Under Review | | Not conducted in 2024-25 also. |
| 4 | SPS for 1500 MW HVDC Rihand-Dadri Bipole related contingency | POWERGRID | | | 19-03-2025 and 20-03-2025 | conducted | 19.11.2025 | SPS command didn't receive at 220kV Muradnagar(UP), 220kV Merta(RS), 220kV Kota Sakatpura(RS), 220kV Dhanonda(HR) and Singrauli TPS(NTPC) |
| 5 | System Protection Scheme (SPS) for HVDC Balia-Bhiwadi Bipole | POWERGRID | | | | SPS Under Review | | Not conducted in 2024-25 also |
| 6 | SPS for reliable evacuation of power from NJPS, Rampur, Sawra Kuddu, Baspa Sorang and Karcham Wangtoo HEP | SJVN/HPPTCL/JSW/POWERGRID/SORANG | | | 19-12-2024 | Dec-25 | 04-09-2025 (Partial: Case-1, 3 & 5 conducted) | Case-6(i) & (ii) has been implemented (as confimed by Karcham(JSW) via mail dated 08.12.2025). Communication card issue at Wangtoo(HP) |
| 7 | SPS for Reliable Evacuation of Ropar Generation | PSTCL | | | | SPS Under Review | | As per NRLDC study, evacuation network at Ropta TPS meets N-1-1 reliability criteria, the need for an SPS at Ropar appears redundant under the current network configuration. |
| 8 | SPS for Reliable Evacuation of Rosa Generation | UPPTCL | | | 20-04-2024 | conducted | 12-04-2025 | Mock test report received (Review to be done in view of commissioning of 400kV Rosa-Badaun D/C in April 2021.) |
| 9 | SPS for contingency due to tripping of evacuating lines from Narora Atomic Power Station | NAPS / UPPTCL | | | | SPS Under Review | | Not conducted in 2024-25 also. As reported by UPPTCL, no SPS system is in service at Narora S/s. |
| 10 | SPS for evacuation of Kawai TPS, Kalisindh TPS generation complex | RVPNL | | | 14-03-2025 (Partial) | conducted | 26-04-2025 | As informed by RVPNL, automatic load shedding part of the SPS has been implemented and mock tested. Mock test report is yet to be received. |
| 11 | SPS for evacuation of Anpara Generation Complex | UPPTCL | | | 08-10-2024 (unit-7) and 19-10-2024 (unit-6) | conducted | 21-07-2025 | |
| 12 | SPS for evacuation of Lalitpur TPS Generation | UPPTCL | | | 21-05-2024 | conducted | 09-04-2025 | Mock test report received |
| 13 | SPS for Reliable Evacuation of Bara TPS Generation | UPPTCL | | | 20-11-2024 | conducted | 23-05-2025 | Mock test report received |
| 14 | SPS for Lahal Generation | HPPTCL | | | 08-07-2020 | SPS Under Review | | As reported by HPPTCL, SPS at Lahal not required now. |
| 15 | SPS for Transformers at Ballabhgarh (PG) substation | POWERGRID | | | | Schedule awaited | | N-1 compliant (To be removed) |
| 16 | SPS for Transformers at Maharanibagh (PG) substation | POWERGRID | | | | conducted | Apr-25 | Mock test report received |
| 17 | SPS for Transformers at Mandola (PG) substation | POWERGRID | | | | conducted | Apr-25 | Mock test report received |
| 18 | SPS for Transformers at Bamnauli (DTL) Substation | DTL | | | | Dec-25 | | N-1 compliant (To be removed) |
| 19 | SPS for Transformers at Moradabad (UPPTCL) Substation | Uttar Pradesh | | | 20-04-2024 | conducted | 02-04-2025 | Mock test report pending |
| 20 | SPS for Transformers at Muradnagar (UPPTCL) Substation | UPPTCL | | | 27-03-2025 | Mar-26 | | |
| 21 | SPS for Transformers at Muzaffarnagar(UPPTCL) Substation | UPPTCL | | | 27-03-2025 | Mar-26 | | N-1 compliant (To be removed) |
| 22 | SPS for Transformers at Greater Noida(UPPTCL) Substation | UPPTCL | | | | SPS Unhealthy | | N-1 compliant (To be removed) |
| 23 | SPS for Transformers at Agra (UPPTCL) Substation | UPPTCL | | | 21-03-2025 | Mar-26 | | |
| 24 | SPS for Transformers at 400kV Sarojininagar (UPPTCL) Substation | UPPTCL | | | 15-05-2024 | conducted | 23-07-2025 | Mock test report received |
| 25 | SPS for Transformers at 220kV Sarojininagar (UPPTCL) Substation | UPPTCL | | | 06-06-2024 | conducted | 23-07-2025 | Mock test report received |
| 26 | SPS for Transformers at 400kV Unnao (UPPTCL) Substation | UPPTCL | | | 19-05-2023 | SPS made healthy on 27.05.2025 | 27.05.2025 | Mock test report received |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 27 | SPS for Transformers at 400kV Sultanpur (UPPTCL) Substation | UPPTCL | | | | SPS made healthy on 05.05.2025 | | N-1 compliant (To be removed) |
| 28 | SPS for Transformers at 400kV Bareilly (UPPTCL) Substation | UPPTCL | | | | Revised SPS approved in 234 OCC | | SPS yet to be implemented |
| 29 | SPS for Transformers at 400kV Azamgarh (UPPTCL) Substation | UPPTCL | | | 06-05-2024 | conducted | 19-04-2025 | Mock test report received |
| 30 | SPS for Transformers at 400kV Mau (UPPTCL) Substation | UPPTCL | | | 27-04-2024 | conducted | 21-04-2025 | Mock test report received |
| 31 | SPS for Transformers at 400kV Gorakhpur (UPPTCL) Substation | UPPTCL | | | 27-04-2024 | conducted | 21-04-2025 | N-1 compliant (To be removed) |
| 32 | SPS for Transformers at 400kV Sarnath (UPPTCL) Substation | UPPTCL | | | 23-05-2024 | conducted | 01-04-2025 | Mock test report received |
| 33 | SPS for Transformer at 400kV Rajpura (PSTCL) Substation | PSTCL | | | 31-01-2025 | Jan-26 | | |
| 34 | SPS for Transformers at 400kV Mundka (DTL) Substation | DTL | | | 03-02-2025 | Dec-25 | | |
| 35 | SPS for Transformers at 400kV Deepalpur (JKTPL) Substation | HVPNL | | | | conducted | 08-05-2025 | Mock test report pending |
| 36 | SPS for Transformers at 400kV Ajmer (RVPN) Substation | RVPNL | | | 10-09-2024 | conducted | 20-08-2025 | Mock test report received. |
| 37 | SPS for Transformers at 400kV Merta (RVPN) Substation | RVPNL | | | 12-09-2024 | conducted | 09-09-2025 | Mock test report received. |
| 38 | SPS for Transformers at 400kV Chittorgarh (RVPN) Substation | RVPNL | | | 31-08-2024 and 05-09-2024 | conducted | 11-09-2025 & 12-09-2025 | Mock test report received. |
| 39 | SPS for Transformers at 400kV Jodhpur (RVPN) Substation | RVPNL | | | 24-09-2024 | Dec-25 | | |
| 40 | SPS for Transformers at 400kV Bhadla (RVPN) Substation | RVPNL | | | 27-09-2024 | conducted | 27-09-2025 | |
| 41 | SPS for Transformers at 400kV Ratangarh (RVPN) Substation | RVPNL | | | 20-09-2024 | conducted | 25-09-2025 | |
| 42 | SPS for Transformers at 400kV Nehtaur(WUPPTCL) Substation | UPPTCL | | | 11-01-2025 | Dec-25 | | |
| 43 | SPS for Transformers at Obra TPS | UPPTCL | | | 20-05-2024 | Schedule awaited | | ICTs failed during fire incident |
| 44 | SPS for Transformers at 400KV Kashipur (PTCUL) substation | PTCUL | | | Septemeber 2024 | conducted | 05-10-2025 | |
| 45 | SPS for Transformers at 400KV Fatehgarh Solar Park (AREPRL) | ADANI | | | | conducted | 19-04-2025 | Mock test report received. |
| 46 | SPS to relive transmission congestion in RE complex (Bhadla2) | POWERGRID | | | | conducted | 26-08-2025 | Mock test report pending |
| 47 | SPS for Transformers at 400kV Bikaner (RVPN) Substation | RVPNL | | | 26-09-2024 | conducted | 13-09-2025 & 17-09-2025 | |
| 48 | SPS for Transformers at 400kV Bawana (DTL) Substation | DTL | | | 04-01-2025 | Dec-25 | | |
| 49 | SPS for Transformers at 400kV Bhilwara (RVPN) Substation | RVPNL | | | 09-07-2024 and 10-07-2024 | conducted | 19-09-2025 & 23-09-2025 | Mock test report received. |
| 50 | SPS for Transformers at 400kV Hindaun (RVPN) Substation | RVPNL | | | 26-09-2024 | conducted | 11-09-2025 | Mock test report received. |
| 51 | SPS for Transformers at 400kV Suratgarh (RVPN) Substation | RVPNL | | | 20-10-2024 | Dec-25 | | |
| 52 | SPS for Transformers at 400kV Babai(RS) Substation | RVPNL | | | 20-10-2024 | conducted | 07-08-2025 | Mock test report received. |
| 53 | SPS for Transformers at 400kV Allahabad(PG) Substation | UPPTCL | | | 25.07.2024 | Schedule awaited | | |
| 54 | SPS for Transformers at 400kV Jaunpur(UP) Substation | UPPTCL | | | | | | Implemented on 08.10.2025 |
| 55 | SPS for Transformers at 765kV Jhatikara(PG) Substation (Bamnauli section) | POWERGRID | | | | conducted | Jun-25 | Mock test report received. |
| | SPS for Transformers at 765kV Jhatikara(PG) Substation (Mundka section) | | | | | conducted | Jun-25 | |
| 56 | SPS for Transformers at 765kV Bhiwani(PG) Substation | POWERGRID | | | | SPS implemented | | Mock test report received. |
| 57 | SPS for Transformers at 400kV Panki (UPPTCL) Substation | UPPTCL | | | | Approved in 234 OCC | | Expected to be implemented by Dec-25 |
| 58 | SPS for Transformers at 400kV Agra(PG) Substation | POWERGRID/UPPTCL | | | | Approved in 234 OCC | | Expected to be implemented by Dec-25 |

Annexure-B.IX

| S.No. | Power Station | Sector | Ownership | Fuel Type | Black Start Source | Capacity of Black Start Source | Date of last mock drill before FY 25-26 | Date of mock drill during FY 25-26 | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Bhakra (L) | Central | BBMB | Hydro | DG Set | | 08-11-2024 | | |
| 2 | Bhakra (**R**) | Central | BBMB | Hydro | DG Set | 500kVA | 08-11-2024 | | |
| 3 | Pong | Central | BBMB | Hydro | DG Set | 500kVA, 380kVA | 09.11.2024 | | |
| 4 | Bairasuil | Central | NHPC | Hydro | DG Set | 2X1010 KVA | 14-12-2024 | | |
| 5 | Chamera HPS-I | Central | NHPC | Hydro | DG Set | 1X1010 KVA & 2x1000 KVA | 12-12-2024 | | |
| 6 | Chamera HPS-II | Central | NHPC | Hydro | DG Set | 2x1250 KVA | 02-12-2022 | | |
| 7 | Chamera HPS-III | Central | NHPC | Hydro | DG Set | 2x725 KVA | 04-12-2017 | | Evacuating line was not available |
| 8 | Dhauliganga | Central | NHPC | Hydro | DG Set | 2x625 KVA | 13-12-2024 | | |
| 9 | Kishanganga | Central | NHPC | Hydro | DG Set | 2x1010 KVA | 09-11-2024 | | |
| 10 | **Parbati-2** | **Central** | **NHPC** | **Hydro** | **DG Set** | **2x1000 KVA** | **22-12-2020** | **26-05-2025** | |
| 11 | **Parbati-3** | **Central** | **NHPC** | **Hydro** | **DG Set** | **2x1010 KVA** | **-** | **17-05-2025** | |
| 12 | Salal Stage-I | Central | NHPC | Hydro | DG Set | 2X875 KVA | 16-12-2024 | | |
| 13 | Salal Stage-II | Central | NHPC | Hydro | DG Set | 3X1020 KVA | 16-12-2024 | | |
| 14 | **Sewa-II** | **Central** | **NHPC** | **Hydro** | **DG Set** | **2x500 KVA** | **-** | **16-05-2025** | |
| 15 | Tanakpur HPS | Central | NHPC | Hydro | DG Set | 2X625 KVA & 1X312.5 KVA | 19-12-2024 | | |
| 16 | URI-I | Central | NHPC | Hydro | DG Set | 2x1000 KVA | 20-12-2016 | | Readiness from J&K for availbility of load not received |
| 17 | URI-II | Central | NHPC | Hydro | DG Set | 2x1010 KVA | 20-12-2016 | | |
| 18 | Anta GPS | Central | NTPC | Gas | DG Set | 2.968 MW | 29-02-2024 | | |
| 19 | Auraiya GPS | Central | NTPC | Gas | DG Set | 2900 kVA | Not conducted | | Because of railway line connection |
| 20 | Dadri GPS | Central | NTPC | Gas | DG Set | 2.4 MW | 15-12-2023 | | |
| 21 | Faridabad GPS | Central | NTPC | Gas | DG Set | 3.3 MW / 4.125 MVA | 25-11-2024 | | |
| 22 | Koldam HEP | Central | NTPC | Hydro | DG Set | 2X1250 KVA | 14-03-2024 | | |
| 23 | Nathpa-Jhakri | Central | SJVNL | Hydro | DG Set | 2*750kVA | 08-12-2024 | | |
| 24 | Rampur | Central | SJVNL | Hydro | DG Set | 2*1010kVA | 08-12-2024 | | |
| 25 | **Tehri** | **Central** | **THDC** | **Hydro** | **DG Set** | **2*1000kVA** | **13-11-2024** | **11.11.2025** | |
| 26 | Koteshwar | Central | THDC | Hydro | DG Set | 2*1010kVA | 27-11-2024 | | |
| 27 | AD Hydro | IPP | AD Hydro Power Ltd. | Hydro | DG Set | 750 kVA | 27-01-2023 | | |
| 28 | Malana-II | IPP | Everest Power Company Ltd. | Hydro | DG Set | 725kVA | 27-01-2023 | | |
| 29 | Budhil | IPP | Greenco | Hydro | DG Set | 2*800kVA | Not conducted | | |
| 30 | Alaknanda IPP | IPP | GVK (UP) | Hydro | | | Not conducted | | Due to unavailability of load. Unit is at 400kV level. |
| 31 | I.P. Gas Turbine (IPGCL G.T.) | State | IPPGCL/Delhi Gencos | Gas | DG Set | 500kVA | 10-04-2024 | | |
| 32 | Vishnu Prayag IPP | IPP | Jaiprakash power Venture Ltd. (UP) | Hydro | | | Not conducted | | Due to unavailability of load. Unit is at 400kV level. |
| 33 | Baghlihar-I | State | Jammu & Kashmir | Hydro | | | Not conducted | | No update received from SLDC-J&K |
| 34 | Baghlihar-II | State | Jammu & Kashmir | Hydro | | | Not conducted | | No update received from SLDC-J&K |
| 35 | Lower Jhelum | State | Jammu & Kashmir | Hydro | | | 20-12-2016 | | No update received from SLDC-J&K |
| 36 | Upper Sindh | State | Jammu & Kashmir | Hydro | | | 20-12-2016 | | No update received from SLDC-J&K |
| 37 | Karcham Wangtoo | IPP | JSW | Hydro | DG Set | 2*1500kVA | 29-12-2021 | | Scheduled in 2024-25, however couldn't performed due to SCADA upgradation work at Station. |
| 38 | Baspa | IPP | JSW | Hydro | DG Set | 2*625kVA | 29-12-2021 | | Scheduled in 2024-25, however couldn't performed due to SCADA upgradation work at Station. |
| 39 | Singoli Bhatwari | IPP | L&T | Hydro | DG set | 2*500kVA | Not conducted | | Due to non availability of load |
| 40 | **Ranjit Sagar (Thein Dam)** | **State** | **Punjab** | **Hydro** | **DG Set** | **2*500kVA** | **07-05-2024** | **01.12.2025** | |
| 41 | **Ramgarh GPS** | **State** | **Rajasthan** | **Gas** | **DG Set** | **625kVA** | **-** | **11-05-2025** | |
| 42 | Mahi Bajaj Sagar I | State | Rajasthan | Hydro | DG Set | 200kVA | 20-03-2025 | | |
| 43 | Mahi Bajaj Sagar II | State | Rajasthan | Hydro | DG Set | 2*200kVA | 21-03-2025 | | |
| 44 | Rana Pratap Sagar(RPS) | State | Rajasthan | Hydro | DG Set | 250kVA | 16-01-2011 | | All 4 Units got submerged in 2019. Units were restored in phases. Last unit revived in March 2025. Remainig 3 units revived by 2022 however, AVR systme is not there. Mock testing of 4th unit may be performed during 2025-26. |
| 45 | **Rihand (H) or Pipri** | **State** | **Uttar Pradesh** | **Hydro** | **DG Set** | **2*320kVA** | **13-02-2025** | **02-06-2025** | |
| 46 | **Obra(H)** | **State** | **Uttar Pradesh** | **Hydro** | **DG Set** | **1*320kVA & 1*250kVA** | **16-02-2024** | **02-06-2025** | |
| 47 | Khara HEP | State | Uttar Pradesh | Hydro | | | Not conducted | | Due to unavailability of nearby load |
| 48 | Matatila | State | Uttar Pradesh | Hydro | DG Set | 2*190kVA | Not conducted | | |
| 49 | Khodri | State | Uttrakhand | Hydro | DG Set | 2*500kVA | Not conducted | | Due to issue in governing system(old units, R&M work is proposed). |
| 50 | Chibro | State | Uttrakhand | Hydro | DG Set | 2*500kVA | Not conducted | | |