सत्यमेव जयते

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

सं.: उ.क्षे.वि.स./प्रचालन/106/01/2022/12574-12615 दिनांक: 26.12.2022

विषय: उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 202वी बैठक के खण्ड-अ मे लिए गए निर्णयों का सार।

Subject: Gist of decisions taken in the Part-A of 202nd OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप- समिति की 202वी बैठक दिनांक 16.12.2022 को आयोजित की गयी। उक्त बैठक की खण्ड-अ मे लिए गए निर्णयों का सार **अनुलग्नक – अ** के रूप मे संलग्न है।

202nd meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 16.12.2022. The Gist of the decisions taken in Part-A of this meeting is enclosed as **Annexure-A**.

संतोष 26/12/22

(संतोष कुमार)
अधीक्षण अभियंता (प्रचालन)

सेवा में,
प्रचालन समन्वय उप- समिति के सभी सदस्य।

18-ए, शहीद जीतसिंह मार्ग, कटवरिया सराय, नई दिल्ली दूरभाष:011-26513265 ई-मेल: seo-nrpc@nic.in वेबसाईट: www.nrpc.gov.in
18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016 Phone: 011-26513265 e-mail: seo-nrpc@nic.in Website: www.nrpc.gov.in

अनुलग्नक – अ/
Annexure-A

Gist of decisions taken in the Part-A of 202nd OCC Meeting

Agenda No. 1: Confirmation of Minutes

Minutes of 201st OCC meeting was issued on 07.12.2022.OCC confirmed the minutes.

Agenda No. 2.1: Supply Position (Provisional) for November 2022

Reasons submitted by states for significant deviation of actual demand from anticipated figures during the month of November 2022 are as under:

- **Himachal Pradesh**

  The Anticipation in Peak Demand in respect of Himachal Pradesh for the month of November, 2022 came on the higher side due to the heavy inrush of tourists and consistent dry weather.

- **Haryana**

  The variations between actual and anticipated demand and energy consumption for the month of Novemebr-2022 is due increase in industrial and urban demand.

- **Punjab**

  It is intimated that actual maximum demand and actual energy requirement are more as compared to anticipated maximum demand and anticipated energy requirement respectively because of dry spell and late onset of winters in the state of Punjab during the month of November 2022.

- **Rajasthan**

  Peak demand of Rajasthan state for the month of November-2022 was observed as 16023 MW which is 10.5% higher than anticipated state demand for the month i.e 14500 MW.The reason of this high variation is overlapping of agriculture block supply in day hours by DISCOMs looking to high solar generation in day hours.

Agenda No. 3.1: Maintenance Programme of Generating units and Transmission Lines

- The maintenance programme of generating units and transmission lines for the month of January 2023 was deliberated in the meeting on 15.12.2022.
- Following s/d proposed in May'23 were reviewed in the OCC and their revised dates for LGBR 2023-34 are as below:

Element Name	Owner	Capacity	Reason	Revised Outage From	Revised Outage To	OCC Remarks
CTPP CHHABRA UNIT 3	RUVN	250 MW	Annual Boiler Overhaul	16-May-23	14-Jun-23	OCC agreed to revised dates for incorporation in LGBR 2023-24
RAJIV GANDHI TPS HISAR UNIT 1	HPGCL	600 MW	Annual Overhauling	01-Oct-23	05-Dec-23	OCC agreed to revised dates for incorporation in LGBR 2023-24
UNCHAHAR-III TPS UNIT 1	NTPC	210 MW	Boiler+RLA of Boiler+ Boiler acid cleaning+ Generator+HP/IP SV/CV	01-Oct-23	04-Nov-23	OCC agreed to revised dates for incorporation in LGBR 2023-24
SSCTPP SURATGARH UNIT 8	RUVN	660 MW	Annual Boiler Overhaul	16-May-23	04-Jun-23	OCC agreed to revised dates for incorporation in LGBR 2023-24

Agenda No. 4.: Anticipated Power Supply Position in Northern Region for January 2023

- The updated anticipated Power Supply Position for January 2023 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
CHANDIGARH	Availability	120	270	

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	Requirement	130	280	No Revision submitted
	Surplus / Shortfall	-10	-10	
	% Surplus / Shortfall	-7.7%	-3.6%	
DELHI	Availability	3183	5500	15-Dec-22
	Requirement	2400	5500	
	Surplus / Shortfall	783	0	
	% Surplus / Shortfall	32.6%	0.0%	
HARYANA	Availability	4630	11110	No Revision submitted
	Requirement	4190	7930	
	Surplus / Shortfall	440	3180	
	% Surplus / Shortfall	10.5%	40.1%	
HIMACHAL PRADESH	Availability	1113	2060	09-Dec-22
	Requirement	1116	2080	
	Surplus / Shortfall	-3	-20	
	% Surplus / Shortfall	-0.3%	-1.0%	
J&K and LADAKH	Availability	920	3240	No Revision submitted
	Requirement	1930	3000	
	Surplus / Shortfall	-1010	240	
	% Surplus / Shortfall	-52.3%	8.0%	
PUNJAB	Availability	5160	11390	16-Dec-22
	Requirement	3970	7450	
	Surplus / Shortfall	1190	3940	
	% Surplus / Shortfall	30.0%	52.9%	
RAJASTHAN	Availability	8520	19200	16-Dec-22
	Requirement	9130	16200	
	Surplus / Shortfall	-610	3000	
	% Surplus / Shortfall	-6.7%	18.5%	
UTTAR PRADESH	Availability	9920	20500	12-Dec-22
	Requirement	10075	20500	
	Surplus / Shortfall	-155	0	
	% Surplus / Shortfall	-1.5%	0.0%	
UTTARAKHAND	Availability	1302	2450	06-Dec-22
	Requirement	1333	2550	
	Surplus / Shortfall	-31	-100	
	% Surplus / Shortfall	-2.3%	-3.9%	
NORTHERN REGION	Availability	34867	71000	
	Requirement	34274	61400	
	Surplus / Shortfall	593	9600	
	% Surplus / Shortfall	1.7%	15.6%	

Agenda No. 5: Submission of breakup of Energy Consumption by the states

- The updated status on the submission of energy consumption breakup is presented below:

State / UT	From	To
Delhi	Apr-2018	Oct-2022
Haryana	Apr-2018	Oct-2022
Himachal Pradesh	Apr-2018	Nov-2022
Punjab	Apr-2018	Oct-2022
Rajasthan	Apr-2018	Sep-2022
Uttar Pradesh	Apr-2018	Oct-2022
Uttarakhand	Apr-2018	Sep-2022

Agenda No. 6: Follow-up of issues from various OCC Meetings - Status update

- Updated status is enclosed as ***Annexure-A.I****.*
- In 195th OCC, SLDCs were requested to again to coordinate with respective Transmission utilities of states/UT's and submit details about the updated status of downstream network by State utilities from ISTS Station (***Annexure-A-I.I)*** before every OCC meeting.

Agenda No. 7. NR Islanding scheme

- In the meeting (202nd OCC), EE (P&SS), NRPC apprised that Unchahar Islanding Scheme has been approved in 59th NRPC Meeting (held on 31st Oct'22).
- Further, he also intimated that in 60th NRPC Meeting (held on 30th Nov 2022), following islanding schemes have also been approved:

  a) Rajasthan
     i. Suratgarh STPS Islanding Scheme
     ii. Jodhpur-Barmer-Rajwest LTPS Islanding Scheme
  b) Himachal Pradesh
     i. Shimal Solan Islanding schemes
     ii. Kullu Mandi and Manali Islanding Scheme
  c) Punjab
     i. NPL Rajpura Islanding scheme
     ii. Ranjit Sagar Dam Islanding scheme

- UP representative apprised members that a committee to review the progress of implementation of Unchahar and Agra Islanding scheme has been constituted by Director(Operations), UPPTCL. Further, he intimated that the first meeting of the committee was held on 03.12.2022 and in the said meeting, it was decided that it would be appropriate that UFR's to be installed at NTPC Unchahar and PGCIL end be installed and maintained by respective entity.
- UP representative also informed forum that around 40 sub-stations are covered in both the islanding scheme of UP and procurement for UFR's for 20 sub-station has already being done and for rest 20 sub-station it is under progress. Further, he highlighted that there are total 4 to 5 sub-stations of NTPC and PGCIL covered under UP islanding scheme and opined that UFR's at these sub-stations shall be installed and maintained by respective entity.

- MS, NRPC opined that there shall be single ownership for the activity of installation and maintenance of UFR's and UP may take the responsibility for the said work as UP is the beneficiary for the cited islanding scheme. However, if UP desires it may have a meeting with both NTPC and Powergrid and deliberate on the aforesaid matter and thereafter communicate the discussion of the meeting to NRPC Sectt..
- NRPC representative apprised forum that UP has communicated that CPRI has completed the steady state study for Agra islanding scheme and the draft for dynamic study would be shared by CPRI with them by 25.12.2022
- With regard to Delhi islanding scheme, NRPC representative intimated that revised scheme was received on 15.12.2022 and after scrutiny by NRPC Sectt.. a separate meeting will be held amongst officials of NRPC, NRLDC and Delhi SLDC.
- HPSLDC intimated that OEM has informed that Malana-I HEP Under frequency setting cannot be set below 48.5 Hz.
- EE (P&SS), NRPC stated that as per SOP issued by NPC Division, CEA, islanding frequency shall be 47.9 Hz, therefore, NPC Division, CEA may be asked for reviewing the frequency.
- MS, NRPC stated that a separate meeting may be called with HP for resolution of the issue.

Agenda No. 8. Coal Supply Position of Thermal Plants in Northern Region

- In the meeting, NRPC representative apprised the forum about the coal stock position of generating stations in northern region during current month (till 10th December 2022).
- Average coal stock position of generating stations in northern region, having critical stock, during first ten days of December 2022 is as follows:

Station	Capacity (MW)	PLF % (prev. months)	Normative Stock Reqd. (Days)	Actual Stock (Days)
GOINDWAL SAHIB TPP	540	32.09	23	3.2
KOTA TPS	1240	71.17	23	3.5
PRAYAGRAJ TPP	1980	78.01	23	2.3
TALWANDI SABO TPP	1980	51.98	23	3.3
CHHABRA-I PH-1 TPP	500	71.31	23	0.7
CHHABRA-I PH-2 TPP	500	39.67	23	1.4
CHHABRA-II TPP	1320	59.10	23	2.2

- In the meeting, above mentioned generating stations were requested to take adequate measures.

Agenda No. 9. Regularization of shutdown of 765kV S/C Moga -Bhiwani line taken for diversion work on request of M/s Northern Railways for construction of New Railway line in Meham – Hassi section by them. (Agenda by Powergrid, NR-1)

- Powergrid, NR-1 vide letter dated 01.12.2022 (copy attached as Annexure-A.IV of agenda) requested for regularization of outage of 765kV S/C Moga -Bhiwani line taken

for diversion work on request of M/s Northern Railways for construction of New Railway line in Meham – Hassi section by them.

- The shutdown was availed by Powergrid, NR-1 from 18.10.2022 to 17.11.2022. In outage meeting of 200th OCC the outage was approved from 18th Oct'22 to 05th Nov'22. The detailed reasons of the extension of the outage period of 765kV S/C Moga -Bhiwani line for the cited work is mentioned in the aforesaid letter.
- MS, NRPC stated that decision on deemed availability would be dealt separately after examination of the cited matter by NRPC Sectt. as per tariff regulations.

Agenda No. 10. Testing of circuit breakers at PPGCL BARA UNIT 1,2,3 (Agenda by PPGCL)

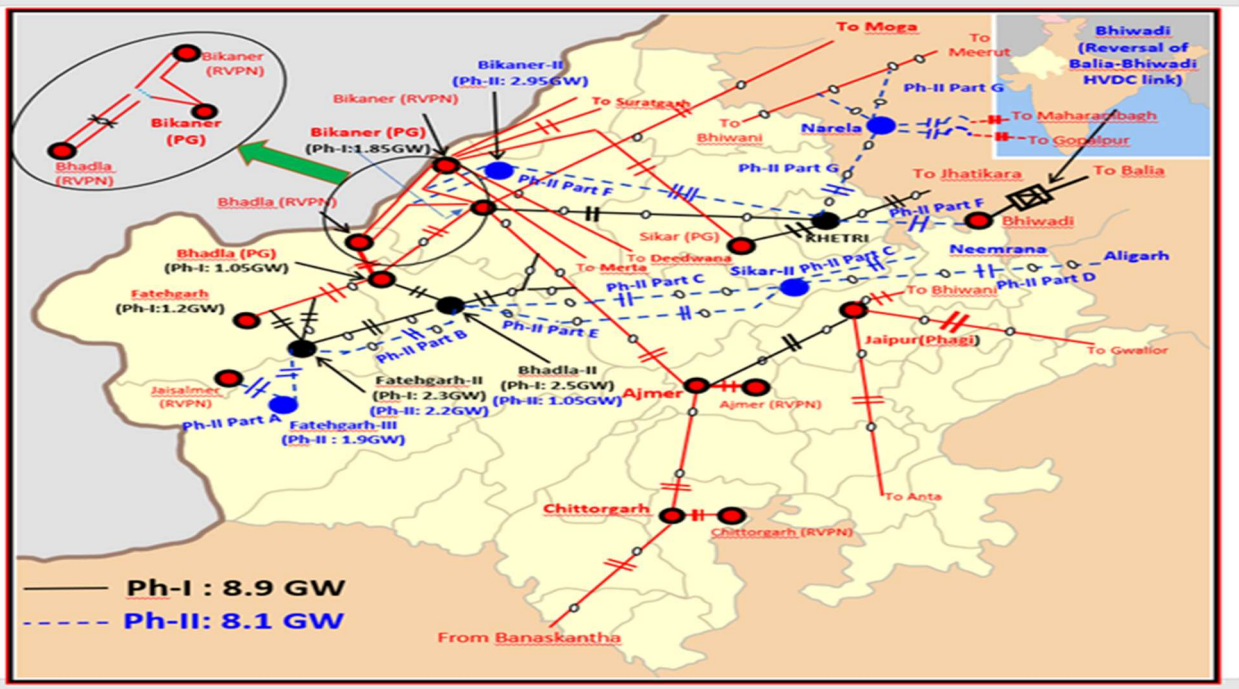
- MS, NRPC directed PPGCL to apply the shutdown on d-3 basis to NRLDC/NLDC.
- NRLDC representative stated that upon receiving the formal request on d-3 basis from PPGCL, the cited shutdowns would be facilitated.

Additional Agenda No.1: SPS implementation to relive transmission congestions in Bikaner complex (Agenda by Powergrid, NR-1 and CTU)

- CTU vide mail dated 16.102.2022 communicated that issue of STOA curtailment in peak solar hours is being faced by various RE Generators in Western Rajasthan due to delay in requisite transmission system (Ph-II Part-F/F1) by POWERGRID.
- In this regard, CTU has evolved a unique interim arrangement to relive transmission congestions in Bikaner complex till availability of planned Ph-II Part-F/F1 (Bikaner-II onwards system).
- CTU representative apprised forum that the scheme was discussed in joint meeting held on 15.12.2022 with RVPN, CEA, NRPC & Grid-India. In the meeting, it was also decided that above proposed SPS arrangement shall be put up to ensuing NR-OCC meeting for their consideration & approval. Based on the deliberations in the meeting on 15.12.2022, following was agreed.

(a) Interim Arrangement

To interconnect one part of LILO to 400 kV Bhadla (RVPN)- Bikaner (RVPN) line so as to form 400kV Bikaner (PG)- Bikaner(RVPN) 2 circuits and isolate 400kV Bhadla (RVPN) with both Bikaner (PG) & Bhadla (RVPN).



Interim solution will be restored after availability of Ph-II Part-F/F1 [Bikaner-II onwards] scheme (expected by Mar'23 end).

(b) Proposed SPS Arrangement

Considering above interim arrangement in place with 400kV Bikaner-Sikar one circuit in service and its other circuit is out of service, following may be implemented:

Case	**Action**
Load on any circuit of 400kV Bikaner (PG)-Bikaner(RVPN) D/c line exceeds 1450 MW	• Tripping of RE Generations connected at 220kV Bikaner(PG) [Existing-737.5 MW]
	• Even after above trip, in case of loading of 400kV Bikaner (PG)-Bikaner (RVPN) line >1450 MW, 400kV Bikaner (RVPN)-Sikar (PG) line (in service) shall be tripped

It was also agreed that in case of any operational issue such as voltage instability, transmission constraints etc. are observed after the proposed interim arrangement, then present arrangement shall be restored.

- At Stage-2, OCC constituents suggested that instead of tripping of 400kV Bikaner-Sikar line, Tripping of other RE Generation [Renew] connected at 400kV Bikaner(PG), who are in STOA for part quantum, may be carried out. In Stage-3, 400kV Bikaner (RVPN)-Sikar (PG) line (in service) shall be tripped. It was also decided that some delay must be kept between all three stages.
- Therefore , the SPS Arrangement approved in OCC meeting is as below:

Case	**Action**
Load on any circuit of 400kV Bikaner (PG)-Bikaner(RVPN) D/c line exceeds 1450 MW	Stage-I • Tripping of RE Generations connected at 220kV Bikaner(PG) [Existing-737.5 MW]
	Stage-2 • Tripping of RE Generation [Renew] connected at 400kV Bikaner(PG)
	Stage-3 • Even after above trip, in case of loading of 400kV Bikaner (PG)-Bikaner (RVPN) line >1450 MW, 400kV Bikaner (RVPN)-Sikar (PG) line (in service) shall be tripped

- Powergrid representative intimated forum that within 6-7 days they would be able to implement the above interim arrangement along with SPS and all the costs in this regard as well as its restoration to planned configuration shall be borne by them
- OCC agreed to above interim arrangement along with proposed SPS arrangement with following observations:
    1. Lines in this section to be kept in anti-theft charging condition to avoid conductor theft as well as to keep voltage profile under control in peak solar period.
    2. Till the new elements are commissioned, Powergrid shall keep its gangs ready for the lines in Bikaner complex so that in case of any tripping (400kV Bikaner(PG)-Bikaner(RVPN) lines) due to maloperation or other reasons like faults etc, immediately the line is restored back.
- Further, OCC forum was of view that considering urgency of the scheme, Powergrid shall implement above interim arrangement along with SPS to relieve transmission congestions in Bikaner complex on urgent basis so as to reap out benefit of clean energy resources without any curtailment.

***

Follow up issues from previous OCC meetings

Annexure-A.I

<table>
<tr><td>1</td><td>Down Stream network by State utilities from ISTS Station</td><td>Augmentation of transformation capacity in various existing substations, addition of new substations along with line bays as well as requirement of line bays by STUs for downstream network are under implementation at various locations in Northern Region. Further, 220kV bays have already been commissioned at various substations in NR. For its utilization, downstream 220kV system needs to be commissioned.</td><td>List of downstream networks is enclosed in Annexure-A.I.I.</td></tr>
<tr><td>2</td><td>Progress of installing new capacitors and repair of defective capacitors</td><td>Information regarding installation of new capacitors and repair of defective capacitors is to be submitted to NRPC Secretariat.</td><td>Data upto following months, received from various states / UTs:
<table><tr><td>◎</td><td>CHANDIGARH</td><td>Sep-2019</td></tr><tr><td>◎</td><td>DELHI</td><td>Nov-2022</td></tr><tr><td>◎</td><td>HARYANA</td><td>Aug-2022</td></tr><tr><td>◎</td><td>HP</td><td>Jan-2022</td></tr><tr><td>◎</td><td>J&K and LADAKH</td><td>Not Available</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Jul-2022</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Oct-2022</td></tr><tr><td>◎</td><td>UP</td><td>Nov-2022</td></tr><tr><td>◎</td><td>UTTARAKHAND</td><td>Nov-2022</td></tr></table>All States/UTs are requested to update status on monthly basis.</td></tr>
<tr><td>3</td><td>Healthiness of defence mechanism: Self-certification</td><td>Report of mock exercise for healthiness of UFRs carried out by utilities themselves on quarterly basis is to be submitted to NRPC Secretariat and NRLDC. All utilities were advised to certify specifically, in the report that “All the UFRs are checked and found functional”.</td><td>Data upto following months, received from various states / UTs:
<table><tr><td>◎</td><td>CHANDIGARH</td><td>Not Available</td></tr><tr><td>◎</td><td>DELHI</td><td>Sep-2022</td></tr><tr><td>◎</td><td>HARYANA</td><td>Sep-2022</td></tr><tr><td>◎</td><td>HP</td><td>Oct-2022</td></tr><tr><td>◎</td><td>J&K and LADAKH</td><td>Not Available</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Jun-2022</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Sep-2022</td></tr><tr><td>◎</td><td>UP</td><td>Sep-2022</td></tr><tr><td>◎</td><td>UTTARAKHAND</td><td>Sep-2022</td></tr><tr><td>◎</td><td>BBMB</td><td>Sep-2022</td></tr></table>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></td><td></td><td>In compliance of NPC decision, NR states/constituents agreed to raise the AUFR settings by 0.2 Hz in 47th TCC/49th NRPC meetings.</td><td>Status:
<table><tr><td>◎</td><td>CHANDIGARH</td><td>Not Available</td></tr><tr><td>◎</td><td>DELHI</td><td>Increased</td></tr><tr><td>◎</td><td>HARYANA</td><td>Increased</td></tr><tr><td>◎</td><td>HP</td><td>Increased</td></tr><tr><td>◎</td><td>J&K and LADAKH</td><td>Not increased</td></tr><tr><td>◎</td><td>PUNJAB</td><td>Increased</td></tr><tr><td>◎</td><td>RAJASTHAN</td><td>Increased</td></tr><tr><td>◎</td><td>UP</td><td>Increased</td></tr><tr><td>◎</td><td>UTTARAKHAND</td><td>Increased</td></tr><tr><td>◎</td><td>BBMB</td><td>Increased</td></tr></table></td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td colspan="3">BBMB was requested to submit the updated self certification report indicating increase of 0.2 Hz in AUFR settings, within one week. J&K and LADAKH were requested to update status for increasing settings of UFRs.</td></tr>
<tr><td>4</td><td>Status of FGD installation vis-à-vis installation plan at identified TPS</td><td>List of FGDs to be installed in NR was finalized in the 36th TCC (special) meeting dt. 14.09.2017.
All SLDCs were regularly requested since 144th OCC meeting to take up with the concerned generators where FGD was required to be installed.
Further, progress of FGD installation work on monthly basis is monitored in OCC meetings.</td><td colspan="3">Status of the information submission (month) from states / utilities is as under:
◎ HARYANA Sep-2022
◎ PUNJAB Sep-2022
◎ RAJASTHAN Nov-2022
◎ UP Sep-2022
◎ NTPC Feb-2022
FGD status details are enclosed as Annexure-A.I.II.
All States/utilities are requested to update status of FGD installation progress on monthly basis.</td></tr>
<tr><td>5</td><td>Information about variable charges of all generating units in the Region</td><td>The variable charges detail for different generating units are available on the MERIT Order Portal.</td><td colspan="3">All states/UTs are requested to submit daily data on MERIT Order Portal timely.</td></tr>
<tr><td>6</td><td>Status of Automatic Demand Management Sysytem 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 colspan="3">Status:
◎ DELHI Fully implemented
◎ HARYANA Scheme not implemented
◎ HP Scheme not implemented
◎ PUNJAB Scheme not implemented
◎ RAJASTHAN Under implementation. Likely completion schedule is 31.03.2023.
◎ UP Scheme implemented by NPCIL only</td></tr>
</table>

7	Reactive compensation at 220 kV/ 400 kV level at 15 substations			
	State / Utility	Substation	Reactor	Status
i	POWERGRID	Kurukshetra	500 MVAr TCR	Testintg is under progress and Anticipated commissioning: Dec'22
ii	DTL	Peeragarhi	1x50 MVAr at 220 kV	PO awarded to M/s Kanohar Electricals Ltd. Drawings approved and under final stage inspection. GIS Bay is already available.
iii	DTL	Harsh Vihar	2x50 MVAr at 220 kV	PO awarded to M/s Kanohar Electricals Ltd. Drawings approved and under final stage inspection. GIS Bay is already available.
iv	DTL	Mundka	1x125 MVAr at 400 kV & 1x25 MVAr at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec.21. Reactor part tender is dropped and at present same is under revision.
v	DTL	Bamnauli	2x25 MVAr at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec.21. Reactor part tender is dropped and at present same is under revision.
vi	DTL	Indraprastha	2x25 MVAr at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec.21. Reactor part tender is dropped and at present same is under revision.
vii	DTL	Electric Lane	1x50 MVAr at 220 kV	Under Re-tendering due to Single Bid
viii	PUNJAB	Dhuri	1x125 MVAr at 400 kV & 1x25 MVAr at 220 kV	400kV Reactors - LOA issued on dated. 17.08.2021 and date of completion of project is 18 months from the date of LOA. 220kV Reactors - LOA issued on dated 19.07.2021 and date of completion of project is 18 months from the date of LOA.
ix	PUNJAB	Nakodar	1x25 MVAr at 220 kV	220kV Reactors - LOA issued on dated 19.07.2021 and date of completion of project is 18 months from the date of LOA.
x	PTCUL	Kashipur	1x125 MVAR at 400 kV	Price bid has been opened and is under evaluation
xi	RAJASTHAN	Akal	1x25 MVAr	1x25 MVAR Reactor at Akal has been commissioned on dated 25th July' 2022.

xii	RAJASTHAN	Bikaner	1x25 MVAr	Erection work of 1x25 MVAR Reactors at Bikaner and Suratgarh completed and testing work is pending. The same are likely to be commissioned in Aug / Sept 2022.
xiii	RAJASTHAN	Suratgarh	1x25 MVAr	Erection work of 1x25 MVAR Reactors at Bikaner and Suratgarh completed and testing work is pending. The same are likely to be commissioned in Aug / Sept 2022.
xiv	RAJASTHAN	Barmer & others	13x25 MVAr	Agreement signed on dt. 22.06.2020. Grant of Ist Instalment received on dt.19.02.21 &work order placed on dt. 7.04.2022 to M/s Kanohar Electricals Ltd.
xv	RAJASTHAN	Jodhpur	1x125 MVAr	Agreement signed on dt. 22.06.2020. Grant of Ist Instalment received on dt.19.02.21 &work order placed on dt. 7.04.2022 to M/s Kanohar Electricals Ltd.

Annexure-A-I.I

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

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
1	400/220kV, 3x315 MVA Samba	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• Network to be planned for 2 bays.	-	PDD, J&K to update the status.
2	400/220kV, 2x315 MVA New Wanpoh	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 220 kV New Wanpoh - Alusteng D/c Line	-	PDD, J&K to update the status.
				• 220 kV New Wanpoh - Mattan D/c Line	-	PDD, J&K to update the status.
3	400/220kV, 2x315 MVA Amargarh	Commissioned: 6 Total: 6	Utilized: 6 Unutilized: 2	• 220kV D/C line from 400/220kV Kunzar - 220/33kV Sheeri	-	PDD, J&K to update the status.
4	400/220kV, 2x500 MVA Kurukshetra (GIS)	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 220kV Bhadson (Kurukshetra) – Ramana Ramani D/c line	-	HVPNL to update the status.
5	400/220 kV, 2x315 MVA Dehradun	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• Network to be planned for 4 bays	-	PTCUL to update the status.
6	Shahjahanpur, 2x315 MVA 400/220 kV	Commissioned: 6 Approved/Under Implementation:1 Total: 7	Utilized: 5 Unutilized: 1 (1 bays to be utilized shortly) Approved/Under Implementation:1	• 220 kV D/C Shahajahanpur (PG) - Gola line	Feb'23	Updated in 201st OCC by UPPTCL
				• LILO of Sitapur – Shahjahanpur 220 kV SC line at Shahjahanpur (PG)	Commissioned	Energization date: 25.02.2022 updated by UPPTCL in 196th OCC
7	Hamirpur 400/220 kV Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4 (2 bays to be utilized shortly)	• 220 kV Hamirpur-Dehan D/c line	Commissioned	Commisioned date: 09.06.2022. Updated in 198th OCC by HPPTCL
				• Network to be planned for 4 bays	-	HPPTCL to update the status.
8	Sikar 400/220kV, 1x 315 MVA S/s	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• LILO of 220 kV Sikar (220 kV GSS)-Dhod S/c line at Sikar (PG)	Commissioned	LILO of 220 kV S/C Sikar-Dhod line at 400 kV GSS PGCIL, Sikar has been charged on dt. 31.03.2022
				• Network to be planned for 2 bays.	-	Against the 3rd ICT at 400 kV GSS Sikar, only 2 bays were constructed and same has been utilized by RVPN by constructing LILO of 220 kV S/C Sikar – Dhod line as updated by RVPNL in 195th OCC
9	Bhiwani 400/220kV S/s	Commissioned: 6 Total: 6	Utilized: 0 Unutilized: 6	• 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.	Jun'23	Issue related to ROW as intimated in 202nd OCC by HVPNL.
				• 220 kV Bhiwani (PG) - Dadhibana (HVPNL) D/c line.	Apr'24	Issue related to ROW as intimated in 192nd OCC.HVPNL to update the status.
10	Jind 400/220kV S/s	Commissioned: 4 Approved:4 Total: 8	Utilized: 4 Unutilized: 0 Approved:4	• 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	May'24	Updated in 197th OCC by HVPNL
11	400/220kV Tughlakabad GIS	Commissioned: 6 Under Implementation: 4 Total: 10	Utilized: 6 Unutilized: 0 Under Implementation:4	• RK Puram – Tughlakabad (UG Cable) 220kV D/c line – March 2023.	-	DTL to update the status.
				• Masjid Mor – Tughlakabad 220kV D/c line.	-	DTL to update the status.
12	400/220kV Kala Amb GIS (TBCB)	Commissioned: 6 Total: 6	Utilized: 0 Unutilized: 6	• HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Kala Amb S/s	Mar'23	Updated in 198th OCC by HPPTCL
				• Network to be planned for 4 bays	-	HPPTCL to update the status.
13	400/220kV Kadarpur	Commissioned: 8	Utilized: 0	• LILO of both circuits of 220 KV Pali - Sector 56 D/C line at Kadarpur along with augmentation of existing conductor from 220 KV Sector-56 to LILO point with 0.4 sq inch AL-59 conductor.	Mar'23	Updated in 197th OCC by HVPNL

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
13	Sub-station	Total: 8	Unutilized: 8	• LILO of both circuits of 220KV Sector 65 - Pali D/C line at Kadarpur along with augmentation of balance 0.4 sq. inch ACSR conductor of 220 kV Kadarpur - Sector 65 D/C line with 0.4sq inch AL-59 conductor	May'23	Updated in 197th OCC by HVPNL
14	400/220kV Sohna Road Sub-station	Commissioned: 8 Total: 8	Utilized: 2 Unutilized: 4	• LILO of both circuits of 220kV D/c Sector-69 - Roj Ka Meo line at 400kV Sohna Road	Jun'23	Updated in 197th OCC by HVPNL
				• LILO of both circuits of 220kV D/c Badshahpur-Sec77 line at 400kV Sohna Road	Jun'23	Updated in 197th OCC by HVPNL
15	400/220kV Prithla Sub-station	Commissioned: 8 Total: 8	Utilized: 2 Unutilized: 4 Under Implementation:2	• Prithla - Harfali 220kV D/c line with LILO of one ckt at Meerpur Kurali	Commissioned	Commisioned date: 31.12.2021. Updated in 198th OCC by HVPNL
				• LILO of both ckt of 220kV D/c Ranga Rajpur – Palwal line	-	HVPNL to update the status
				• 220kV D/C for Sector78, Faridabad	02.03.2023	Updated in 198th OCC by HVPNL
				• Prithla - Sector 89 Faridabad 220kV D/c line	31.03.2024	Under Implementation (Mar'24). Updated in 198th OCC by HVPNL
16	400/220kV Sonepat Sub-station	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 2 Unutilized: 2 Under Implementation:2	• LILO of both circuits of 220kV Samalkha - Mohana line at Sonepat	-	HVPNL to update the status.
				• Sonepat - HSIISC Rai 220kV D/c line	Mar'23	Line work is complete howere substation work is under progress. Updated in 201st OCC by HVPNL
17	400/220kV Neemrana Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• LILO of Bhiwadi - Neemrana 220kV S/c line at Neemrana (PG)	-	Work order is finalized as updated in 201st OCC by RVPNL.. 5 months from layout finalization.
18	400/220kV Kotputli Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Kotputli - Pathreda 220kV D/c line	-	Bid documents under approval as updated in 195th OCC by RVPNL.
19	400/220kV Jallandhar Sub-station	Commissioned: 10 Total: 10	Utilized: 8 Unutilized: 2	• Network to be planned for 2 bays	May'24	LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar being planned. Work expected to be completed by May 2024. Updated in 198th OCC by PSTCL.
20	400/220kV Roorkee Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Roorkee (PG)-Pirankaliyar 220kV D/c line	Commissioned	Roorkee (PG)-Pirankaliyar 220kV D/c line comiisioned in 2020 as intimated by PTCUL in 197th OCC
21	400/220kV Lucknow Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• Network to be planned for 2 bays	Jan'23	• Lucknow -Kanduni, 220 kV D/C line expected energization date Jan'23 updated by UPPTCL in 201st OCC _____ • No planning for 2 no. of bays upated by UPPTCL in 196th OCC. The same has been communicated to Powergrid.
22	400/220kV Gorakhpur Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Network to be planned for 2 bays	Feb'23	• Gorakhpur(PG)- Maharajganj, 220 kV D/C line expected energization date Feb'23 updated by UPPCL in 202nd OCC
23	400/220kV Fatehpur Sub-station	Commissioned: 8 Under Implementation:2 Total: 10	Utilized: 6 Unutilized: 2 Under Implementation:2	• Network to be planned for 2 bays	-	• UPPTCL intimated that 02 no. of bays under finalization stage. In 201st OCC, UPPTCL intimated that it is finalized that Khaga s/s will be connected (tentative time 1.5 years). _____ • No planning for 2 no. of bays updated by UPPTCL in 196th OCC. The same has been communicated to Powergrid.
24	400/220kV Abdullapur Sub-station	Commissioned: 10 Under Implementation:2 Total: 12	Utilized: 10 Unutilized: 0 Under Implementation:2	• Abdullapur – Rajokheri 220kV D/c line	Oct'22	Updated in 198th OCC by HVPNL

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
25	400/220kV Pachkula Sub-station	Commissioned: 8 Under tender:2 Total: 10 Out of these 10 nos. 220kV Line Bays, 2 bays would be used by the lines being constructed by POWERGRID (Chandigarh-2) and balance 8 nos. bays would be used by HVPNL	Utilized: 2 Unutilized: 4 Under Implementation:2	• Panchkula – Pinjore 220kV D/c line	31.12.2022	Updated in 194th OCC by HVPNL
				• Panchkula – Sector-32 220kV D/c line	31.12.2022	Updated in 194th OCC by HVPNL
				• Panchkula – Raiwali 220kV D/c line	Commissioned	Updated in 194th OCC by HVPNL
				• Panchkula – Sadhaura 220kV D/c line: Sep'23	Sept'23	Updated in 194th OCC by HVPNL
26	400/220kV Amritsar S/s	Commissioned:7 Approved in 50th NRPC- 1 no. Total: 8	Utilized: 6 Unutilized: 1 Approved in 50th NRPC- 1 no.	• Amritsar – Patti 220kV S/c line	May'23	Route survey/tender under process. Work expected to be completed by May 2023. Updated in 198th OCC by PSTCL.
				• Amritsar – Rashiana 220kV S/c line (2 bays shall be required for above lines. However, 1 unutilized bay shall be used for Patti and requirement of one additional bay approved for Rashiana by NRPC)	May'23	Route survey/tender under process. Work expected to be completed by May 2023. Updated in 198th OCC by PSTCL.
27	400/220kV Bagpat S/s	Commissioned: 8 Total: 8	Utilized:6 Unutilized: 2	• Bagpat - Modipuram 220kV D/c line	Commissioned	Updated in 201st OCC by UPPTCL
28	400/220kV Bahardurgarh S/s	Commissioned: 4 Total: 4	Utilized:2 Unutilized: 2	• Network to be planned for 2 bays.	Mar'24 and July'24	Updated in 198th OCC by HVPNL
29	400/220kV Jaipur (South) S/s	Commissioned: 4 Total: 4	Utilized:2 Unutilized: 2	• Network to be planned for 2 bays.	-	LILO case of 220 kV Dausa – Sawai Madhopur line at 400 kV GSS Jaipur South (PG) is under WTD approval as updated by RVPNL in 195th OCC
30	400/220kV Sohawal S/s	Commissioned: 8 Total: 8	Utilized: 8	• Sohawal - Barabanki 220kV D/c line	Commissioned	Energization date: 14.04.2018 updated by UPPTCL in 196th OCC
				• Sohawal - New Tanda 220kV D/c line	Commissioned	Energization date: 28.05.2019 updated by UPPTCL in 196th OCC
				• Network to be planned for 2 bays	Commissioned	• Sohawal - Gonda 220kV S/c line (Energization date: 27.04.2020) updated by UPPTCL in 196th OCC _____ • Sohawal - Bahraich 220kV S/c line (Energization date: 15.02.2021) updated by UPPTCL in 196th OCC
31	400/220kV, Kankroli	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Network to be planned for 2 bays	-	RVPNL to update the status
32	400/220kV, Manesar	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• Network to be planned for 4 bays	-	One bay 220 kV Manesar (PG)-Panchgaon ckt commissioned on 05.09.2022
33	400/220kV, Saharanpur	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	Jan'23	Saharanpur(PG)-Devband D/c line expected energization date Jan'23 updated by UPPTCL in 202nd OCC
34	400/220kV, Wagoora	Commissioned: 10 Total: 10	Utilized: 6 Unutilized: 4	• Network to be planned for 4 bays	-	PDD, J&K to update the status.
35	400/220kV, Ludhiana	Commissioned: 9 Total: 9	Utilized: 8 Unutilized: 1	• Network to be planned for 1 bay	Mar'23	Direct circuit from 220 kV Lalton Kalan to Dhandari Kalan to be diverted to 400 kV PGCIL Ludhiana. Work expected to be completed by March 2023.Updated in 198th OCC by PSTCL.

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
36	400/220kV, Chamba (Chamera Pool)	Commissioned: 3 Under tender:1 Total: 4	Utilized:3 Unutilized: 0 Under tender:1	• Stringing of 2nd ckt of Chamera Pool – Karian 220kV D/c line	-	Stringing of 2nd Circuit of Chamera Pool-Karian Tansmission line has been completed & terminal bay at 400/220 kV chamera pooling substation (PGCIL) is not ready.Updated in 198th OCC by HPPTCL
37	400/220kV, Mainpuri	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	-	• 02 no. of bays under finalization stage updated by UPPTCL in 196th OCC. Mainpuri S/s planned. Land is not finalized, therefore timeline not available as intimated by UPPTCL in 201st OCC.
38	400/220kV, Patiala	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• Network to be planned for 2 bays	May'24	2 Nos. bays for 400 kV PGCIL Patiala - 220 kV Bhadson (D/C) line being planned. Work expected to be completed by May 2024. Updated in 198th OCC by PSTCL.

2. Establishment of new 400/220kV substations in Northern Region:

Sl. No.	Name of Substation	MVA Capacity	Expected Schedule		Downstream connectivity by States
1	400/220kV Dwarka-I GIS (8 nos. of 220kV bays)	4x 500	Mar'22		DTL to update the status
2	220/66kV Chandigarh GIS (8 nos. of 66kV bays)	2x 160	Apr'22		Chandigarh to update the status.
3	400/220kV Jauljivi GIS Out of these 8 nos. 220kV Line Bays, 4 nos. (Pithoragath-2, & Dhauliganga-2) would be used by the lines being constructed by POWERGRID and balance 4 nos. bays would be used by the lines being constructed by PTCUL.	2x315	Feb'22		• 220kV Almora-Jauljibi line • 220kV Brammah-Jauljibi line PTCUL to update the status of lines.

FGD Status

Updated status of FGD related data submission

NTPC (25.02.2022)
MEJA Stage-I (Updated by UP on 18.06.2022)
RIHAND STPS
SINGRAULI STPS
TANDA Stage-I
TANDA Stage-II
UNCHAHAR TPS
UPRVUNL (14.11.2022)
ANPARA TPS
HARDUAGANJ TPS
OBRA TPS
PARICHHA TPS

PSPCL (14.11.2022)
GGSSTP, Ropar
GH TPS (LEH.MOH.)
RRVUNL (14.11.2022)
CHHABRA SCPP
CHHABRA TPP
KALISINDH TPS
KOTA TPS
SURATGARH SCTPS
SURATGARH TPS

Updated status of FGD related data submission

Lalitpur Power Gen. Co. Ltd. (17.10.2022)
Lalitpur TPS
Lanco Anpara Power Ltd. (18.06.2022)
ANPARA-C TPS

HGPCL (14.09.2022)
PANIPAT TPS
RAJIV GANDHI TPS
YAMUNA NAGAR TPS

Adani Power Ltd. (18.02.2022)
KAWAI TPS

Rosa Power Supply Company (18.06.2022)
Rosa TPP Phase-I
Prayagraj Power Generation Company Ltd. (17.10.2022)
Prayagraj TPP
APCPL (25.02.2022)
INDIRA GANDHI STPP

Pending submissions

GVK Power Ltd.
GOINDWAL SAHIB

NTPC
DADRI (NCTPP)
Talwandi Sabo Power Ltd.
TALWANDI SABO TPP
L&T Power Development Ltd.
Nabha TPP (Rajpura TPP)

Target Dates for FGD Commissioning (Utility-wise)

Adani Power Ltd.	KAWAI TPS U#1 (Target: 31-12-2024), KAWAI TPS U#2 (Target: 31-12-2024)
APCPL	INDIRA GANDHI STPP U#1 (Target: 30-09-2022), INDIRA GANDHI STPP U#2 (Target: 30-09-2022), INDIRA GANDHI STPP U#3 (Target: 30-09-2022)
GVK Power Ltd.	GOINDWAL SAHIB U#1 (Target: 30-04-2020), GOINDWAL SAHIB U#2 (Target: 29-02-2020)
HGPCL	PANIPAT TPS U#6 (Target: 30-04-2021), PANIPAT TPS U#7 (Target: 28-02-2021), PANIPAT TPS U#8 (Target: 31-12-2020), RAJIV GANDHI TPS U#1 (Target: 30-04-2022), RAJIV GANDHI TPS U#2 (Target: 28-02-2022), YAMUNA NAGAR TPS U#1 (Target: 31-12-2021), YAMUNA NAGAR TPS U#2 (Target: 31-10-2021)

NTPC	DADRI (NCTPP) U#1 (Target: 31-12-2020), DADRI (NCTPP) U#2 (Target: 31-10-2020), DADRI (NCTPP) U#3 (Target: 31-08-2020), DADRI (NCTPP) U#4 (Target: 30-06-2020), DADRI (NCTPP) U#5 (Target: 30-06-2022), DADRI (NCTPP) U#6 (Target: 30-06-2022), RIHAND STPS U#1 (Target: 30-06-2024), RIHAND STPS U#2 (Target: 30-06-2024), RIHAND STPS U#3 (Target: 31-12-2023), RIHAND STPS U#4 (Target: 31-12-2023), RIHAND STPS U#5 (Target: 30-06-2023), RIHAND STPS U#6 (Target: 30-06-2023), SINGRAULI STPS U#1 (Target: 30-06-2024), SINGRAULI STPS U#2 (Target: 30-06-2024), SINGRAULI STPS U#3 (Target: 30-06-2024), SINGRAULI STPS U#4 (Target: 30-06-2024), SINGRAULI STPS U#5 (Target: 30-06-2024), SINGRAULI STPS U#6 (Target: 31-03-2023), SINGRAULI STPS U#7 (Target: 31-03-2023), UNCHAHAR TPS U#1 (Target: 31-12-2023), UNCHAHAR TPS U#2 (Target: 31-12-2023), UNCHAHAR TPS U#3 (Target: 30-06-2024), UNCHAHAR TPS U#4 (Target: 30-06-2024), UNCHAHAR TPS U#5 (Target: 30-06-2024), UNCHAHAR TPS U#6 (Target: 30-06-2022), MEJA Stage-I U#1 (Target: 31-12-2022), MEJA Stage-I U#2 (Target: 31-03-2023), TANDA Stage-I U#3 (Target:), TANDA Stage-I U#4 (Target:), TANDA Stage-II U#3 (Target: 31-12-2022), TANDA Stage-II U#4 (Target: 31-12-2022)

L&T Power Development Ltd (Nabha)	Nabha TPP (Rajpura TPP) U#1 (Target: 30-04-2021), Nabha TPP (Rajpura TPP) U#2 (Target: 28-02-2021)
Lalitpur Power Gen. Company Ltd.	LALITPUR TPS U#1 (Target: 31-12-2026), LALITPUR TPS U#2 (Target: 30-09-2026), LALITPUR TPS U#3 (Target: 30-06-2026)
Lanco Anpara Power Ltd.	ANPARA C TPS U#1 (Target: 31-12-2023), ANPARA C TPS U#2 (Target: 31-12-2023)
Prayagraj Power Generation Company Ltd.	PRAYAGRAJ TPP U#1 (Target: 31-12-2024), PRAYAGRAJ TPP U#2 (Target: 31-12-2024), PRAYAGRAJ TPP U#3 (Target: 31-12-2024)
PSPCL	GH TPS (LEH.MOH.) U#1 (Target: 31-12-2024), GH TPS (LEH.MOH.) U#2 (Target: 31-12-2024), GH TPS (LEH.MOH.) U#3 (Target: 31-12-2024), GH TPS (LEH.MOH.) U#4 (Target: 31-12-2024), GGSSTP, Ropar U#3 (Target: 31-03-2022), GGSSTP, Ropar U#4 (Target: 31-05-2022), GGSSTP, Ropar U#5 (Target: 31-07-2022), GGSSTP, Ropar U#6 (Target: 30-09-2022)

Rosa Power Supply Company	ROSA TPP Ph-I U#1 (Target: 31-12-2026), ROSA TPP Ph-I U#2 (Target: 31-12-2026), ROSA TPP Ph-I U#3 (Target: 31-12-2026), ROSA TPP Ph-I U#4 (Target: 31-12-2026)
RRVUNL	KOTA TPS U#5 (Target: 31-08-2022), KOTA TPS U#6 (Target: 31-08-2022), KOTA TPS U#7 (Target: 31-08-2022), SURATGARH TPS U#1 (Target: 31-12-2026), SURATGARH TPS U#2 (Target: 31-12-2026), SURATGARH TPS U#3 (Target: 31-12-2026), SURATGARH TPS U#4 (Target: 31-12-2026), SURATGARH TPS U#5 (Target: 31-12-2026), SURATGARH TPS U#6 (Target: 31-12-2026), SURATGARH SCTPS U#7 (Target: 28-02-2025), SURATGARH SCTPS U#8 (Target: 28-02-2025), CHHABRA TPP U#1 (Target: 31-12-2026), CHHABRA TPP U#2 (Target: 31-12-2026), CHHABRA TPP U#3 (Target: 31-12-2026), CHHABRA TPP U#4 (Target: 31-12-2026), CHHABRA SCPP U#5 (Target: 28-02-2025), CHHABRA SCPP U#6 (Target: 28-02-2025), KALISINDH TPS U#1 (Target: 28-02-2025), KALISINDH TPS U#2 (Target: 28-02-2025)
Talwandi Sabo Power Ltd.	TALWANDI SABO TPP U#1 (Target: 28-02-2021), TALWANDI SABO TPP U#2 (Target: 31-12-2020), TALWANDI SABO TPP U#3 (Target: 31-10-2020)
UPRVUNL	ANPARA TPS U#1 (Target: 31-12-2023), ANPARA TPS U#2 (Target: 31-12-2023), ANPARA TPS U#3 (Target: 31-12-2023), ANPARA TPS U#4 (Target: 31-12-2023), ANPARA TPS U#5 (Target: 31-12-2023), ANPARA TPS U#6 (Target: 31-12-2023), ANPARA TPS U#7 (Target: 31-12-2023), HARDUAGANJ TPS U#8 (Target: 31-12-2024), HARDUAGANJ TPS U#9 (Target: 31-12-2024), OBRA TPS U#9 (Target: 31-12-2024), OBRA TPS U#10 (Target: 31-12-2024), OBRA TPS U#11 (Target: 31-12-2024), OBRA TPS U#12 (Target: 31-12-2024), OBRA TPS U#13 (Target: 31-12-2024), PARICHHA TPS U#3 (Target: 30-04-2022), PARICHHA TPS U#4 (Target: 31-12-2024), PARICHHA TPS U#5 (Target: 31-12-2024), PARICHHA TPS U#6 (Target: 31-12-2024)