

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

सं.: उ.क्षे.वि.स./प्रचालन/106/01/2023/4417-4458

दिनांक: 27.04.2023

विषयः उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 206<sup>वी</sup> बैठक के खण्ड-अ मे लिए गए निर्णयों का सार।

Subject: Gist of decisions taken in the Part-A of 206th OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप- समिति की 206<sup>वी</sup> बैठक दिनांक 18.04.2023 को आयोजित की गयी। उक्त बैठक की खण्ड-अ मे लिए गए निर्णयों का सार अनुलग्नक – अ के रूप मे संलग्न है।

206<sup>th</sup> meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 18.04.2023. The Gist of the decisions taken in Part-A of this meeting is enclosed as **Annexure-A**.

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अधीक्षण अभियंता (प्रचालन)

सेवा में.

प्रचालन समन्वय उप- समिति के सभी सदस्य ।

#### Gist of decisions taken in the Part-A of 206th OCC Meeting

#### Agenda No. 1: Confirmation of Minutes

Minutes of 205<sup>th</sup> OCC meeting was issued on 12.04.2023.OCC confirmed the minutes.

#### Agenda No. 2.1: Supply Position (Provisional) for March 2023

Reasons submitted by states for significant deviation of actual demand from anticipated figures during the month of March 2023 are as under:

#### • Delhi

Temperature in second half of March-2023 was less & temperature could not pick up due to rain and cloudy weather. Hence peak demand didn't pick up as expected in 2<sup>nd</sup> fortnight of March-2023.

#### • Himachal Pradesh

The Anticipation in Energy Requirement and Peak Demand in respect of Himachal Pradesh for the month of March 2023 came on the lower side due to bad weather conditions and less demand.

#### • Haryana

The variation between actual & anticipated demand for March-2023 is within 5% and variation in actual & anticipated energy consumption for March-2023 is due to unexpected rainfall observed.

#### • Punjab

It is intimated that actual maximum demand and actual energy requirement are less as compared to anticipated maximum demand and anticipated energy requirement respectively because of decrease in demand of Agricultural as well as other categories of consumers due to rainfall in the state of Punjab during the month of March 2023.

#### Rajasthan

The Energy consumption w.r.t. Anticipated Energy requirement for March' 2023 has a variation of -16.1% which is due to various unexpected spell of rain in Rajasthan state.

#### • Uttar Pradesh

Due to pleasant weather in the month of February 2023, peak demand requirement (in MW) was less than anticipated peak demand.

#### • Uttarakhand

The Energy consumption decreased by 6.1% w.r.t. anticipated Energy requirement due to surplus rainfall recorded (13% surplus rain) in the month of March,2023 as compared to 2021 and 2022, causing drop in temperature in all areas of Uttarakhand.

### 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 May 2023 was deliberated in the meeting on 17.04.2023.

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

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision	
	Availability	170	340		
	Requirement	192	400	No Revision	
CHANDIGARH	Surplus / Shortfall	-22	-60	submitted	
	% Surplus / Shortfall	-11.5%	-15.0%		
	Availability	5120	7400		
	Requirement	3950	7400		
DELHI	Surplus / Shortfall	1170	0	17-Apr-23	
	% Surplus / Shortfall	29.6%	0.0%		
	Availability	6030	9412		
	Requirement	6030	10541	07 4	
HARYANA	Surplus / Shortfall	0	-1129	07-Apr-23	
	% Surplus / Shortfall	0.0%	-10.7%		
	Availability	1083	1782		
HIMACHAL	Requirement	1085	1755		
PRADESH	Surplus / Shortfall	-2	27	10-Apr-23	
	% Surplus / Shortfall	-0.2%	1.5%		
	Availability	2110	3530		
	Requirement	1610	2780	No Revision	
J&K and LADAKH	Surplus / Shortfall	500	750	submitted	
	% Surplus / Shortfall	31.1%	27.0%		
	Availability	6570	12330		
	Requirement	6620	11320	47 4	
PUNJAB	Surplus / Shortfall	-50	1010	17-Apr-23	
	% Surplus / Shortfall	-0.8%	8.9%		
	Availability	10270	18410		
	Requirement	9300	14900	47.4.00	
RAJASTHAN	Surplus / Shortfall	970	3510	17-Apr-23	
	% Surplus / Shortfall	10.4%	23.6%		
	Availability	15345	23900		
UTTAR	Requirement	15190	27200	10 4 00	
PRADESH	Surplus / Shortfall	155	-3300	12-Apr-23	
	% Surplus / Shortfall	1.0%	-12.1%	1	
	Availability	1365	2370		
	Requirement	1387	2380	10 4 00	
UTTARAKHAND	Surplus / Shortfall	-23	-10	12-Apr-23	
	% Surplus / Shortfall	-1.6%	-0.4%		

• The updated anticipated Power Supply Position for May 2023 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	Availability	48063	73400	
NORTHERN	Requirement	45364	72700	
REGION	Surplus / Shortfall	2699	700	
	% Surplus / Shortfall	5.9%	1.0%	

#### 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	То
Delhi	Apr-2018	Feb-2023
Haryana	Apr-2018	Feb-2023
Himachal Pradesh	Apr-2018	Feb-2023
Punjab	Apr-2018	Feb-2023
Rajasthan	Apr-2018	Feb-2023
Uttar Pradesh	Apr-2018	Jan-2023
Uttarakhand	Apr-2018	Dec-2022

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

- Updated status is enclosed as Annexure-A.I.
- In 206<sup>th</sup> OCC, SLDCs were requested 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 (206<sup>th</sup> OCC), AEE(SS) apprised forum that a physical meeting was called on 28.03.2023 with DTL, DELHI SLDC, NRLDC at NRPC Secretariat to deliberate on steady state analysis of PSSE basecase of Delhi islanding scheme. Delhi SLDC has already submitted the revised base case for Islanding scheme and NRLDC may kindly securitize the same and submit its observation.
- AEE(SS) apprised forum that a meeting was held on 11.04.2023 among NRPC, NRLDC, HPSLDC, HPSEBL, HPPTCL and various generators involved in Shimla-Solan islanding scheme to review the progress of the Shimla-Solan islanding scheme wherein HPSLDC has been asked to take up the matter with concerned generators and HPSEBL.
- In the meeting, HPSLDC representative informed that they have already intimated the matter regarding UFR required for islanding scheme to Chief Engineer (HPSEBL), however confirmation from them is awaited.
- SE(O), NRPC stated that a letter may be sent to Govt. of Himachal Pradesh in this regard.

- UPSLDC representative apprised forum about the draft report submitted by CPRI for Agra-Lalitpur Islanding scheme
- During discussion, forum observed following issues to be taken up by UPSLDC with CPRI & Generators:
  - ROCOF (Rate of Change of Frequency) considered in Islanding scheme.
  - Automatic reconnection of load in Islanding scheme.
  - Automatic tap changing during island.
  - Reactive compensation during island.
  - Review of 3 sec delay for tripping of generator at 47.5 Hz.
- UPSLDC representative intimated that they will take up the matter with the concerned entities and will inform NRPC Sectt. if a separate meeting is required.
- RVPN representative intimated that DPR for both the islanding scheme is partially ready and the same will be concluded soon.
- Punjab representative informed that RSD islanding scheme is operational since last week and he was requested to intimate the implementation date of Islanding scheme along with test report. to NRPC Sectt.

#### 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 10<sup>th</sup> April 2023).
- Average coal stock position of generating stations in northern region, having critical stock, during first ten days of April 2023 is as follows:

Station	Capacity	PLF % (prev.	Normative Stock	Actual Stock
	(MW)	months)	Reqd. (Days)	(Days)
SURATGARH TPS	1500	45.47	26	3.3

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

#### Agenda No. 9. SPS protection logic review at PPGCL (Agenda by UPSLDC)

- UPSLDC vide its letter dated 13.04.2023 has intimated that 1500MVA, 765/400kV ICT-2 has been commissioned on 31.03.2023 at Bara TPS.
- Following the commissioning of aforementioned ICT, SPS installed at Bara TPS needs to be revised. (Copy of old SPS scheme and revised proposed scheme is attached as **Annexure-A.III. of agenda).**
- As per the discussion held in the meeting, MS, NRPC asked UPSLDC to submit the revised logic and thereafter NRLDC shall a separate meeting among officials of NRPC, NRLDC, UPSLDC and Bara TPS for finalization and approval of the revised SPS scheme.

Table Agenda No.1: Regarding certification of availability of an element as deemed available in case element is in service through a contingency arrangement approved by OCC forum. (Agenda by Powergrid/NR-2)

- In regard to cited matter, NR-2 Powergrid representative requested for consideration of 400KV Kala Amb- Wangtoo line as deemed available on power flow through the line during period of bypassing arrangement provided due to delay in rectification of GIS at Kala Amb substation.
- The details of outage and restoration events of 400KV Kala Amb-Wangtoo for which NR-2 Powergrid requested for consideration as deemed available is as under:

Sr No.	Outage date	Restoration date	Status of the Line	Remarks
1	24/11/21 19:09	28/11/21 9:46	Line was in service through bypass arrangement.	Line remain in service during above period and requested for deemed availability consideration.
2	30/11/21 15:00	07/12/21 11:36	Line was in service through bypass arrangement.	Line remain in service during above period and requested for deemed availability consideration

- NRLDC representative mentioned that as there was no generation loss due to by-pass arrangement therefore outage hours of transmission licensee are not doubled.
- Further, he stated that outage hours during by-pass arrangement shall be considered as per CERC tariff regulation, 2019.
- OCC forum agreed to NRLDC view.

# Table Agenda No.2: Non-compliance of N-1 contingency in ICTs at Moga, Malerkotla,Nalagarh and New Wanpoh Substations of POWERGRID NR-2 (Agenda byPowergrid/NR-2)

- In the meeting, NR-2 Powergrid representative highlighted that presently there is noncompliance of N-1 contingency in ICTs at Moga, Malerkotla, Nalagarh and New Wanpoh Substations of POWERGRID NR-2.
- He mentioned that at Moga S/S there are two 765/400kV ICT's of 1500 MVA each and Peak loading in ICTs reaches as high as 1900MW during Oct'2022 to Feb'2023. (2\*950MW).
- Further, he intimated that in case 400kV Kishenpur-Moga line is shifted to 765kV thereafter these ICT's will become further overloaded.
- NRLDC representative was of view that CTU may be asked to deliberate on this agenda in the upcoming 'consultation meeting for evolving transmission schemes' and thereafter CTU's views may be shared with NRLDC. Further, he also mentioned that they will get this matter examined internally also.

- NRLDC representative stated that Punjab STU views shall also be taken on the cited matter.
- OCC forum agreed to NRLDC view.

### Table Agenda No.3: Unwanted outage of the Lines due to Nonfunctioning of A/R scheme at remote end (Agenda by Powergrid/NR-2)

- In the meeting, NR-2 Powergrid representative highlighted lately that there have been few tripping events wherein Lines Auto reclosed successfully at one end on transient earth fault but from other end due to non-functioning of A/R scheme at remote end there was unwanted outage of lines.
- NRLDC asked Powergrid NR-2 to kindly share with them the details of these tripping events for detailed examination at their end.

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#### Follow up issues from previous OCC meetings

1	Down Stream network by State utilities from ISTS Station	Augmentation of transformation capacity in various existing substations, addition of new substations along with line bays as well as requirement of line bays by STUs for downstream network are under implementation at various locations in Northern Region. Further, 220kV bays have already been commissioned at various substations in NR. For its utilization, downstream 220kV system needs to be commissioned.	List of downstream networks is enclosed in Annexure-A.I.I.
2	Progress of installing new capacitors and repair of defective capacitors	Information regarding installation of new capacitors and repair of defective capacitors is to be submitted to NRPC Secretariat.	Data upto following months, received from various states / UTs: O CHANDIGARH Sep-2019 O DELHI Mar-2023 O HARYANA Dec-2022 O HP Jan-2023 O J&K and LADAKH Not Available O PUNJAB Jul-2022 O RAJASTHAN Feb-2023 O UP Mar-2023 O UP Mar-2023 All States/UTs are requested to update status on monthly basis.
3	Healthiness of defence mechanism: Self-certification	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".	Data upto following months, received from various states / UTs: CHANDIGARH Not Available DELHI Dec-2022 HARYANA Mar-2023 HP Feb-2023 J&K and LADAKH Not Available PUNJAB Jun-2022 RAJASTHAN Dec-2022 UP Mar-2023 UP Mar-2023 UTTARAKHAND Mar-2023 BBMB Mar-2023 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 .
		In compliance of NPC decision, NR states/constituents agreed to raise the AUFR settings by 0.2 Hz in 47th TCC/49th NRPC meetings.	Status:Image: CHANDIGARHNot AvailableImage: DELHIIncreasedImage: HARYANAIncreasedImage: HPIncreasedImage: J&K and LADAKHNot increasedImage: PUNJABIncreasedImage: RAJASTHANIncreasedImage: UPIncreasedImage: UTTARAKHANDIncreased

				Increased requested to update ng settings of UFRs.
4	Status of FGD installation vis-à- vis installation plan at identified TPS	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.	© RAJASTHAN Mar-2023	
5	Information about variable charges of all generating units in the Region	The variable charges detail for different generating units are available on the MERIT Order Portal.	All states/UTs are submit daily data o Portal timely.	*
6	Status of Automatic Demand Management Sysytem in NR states/UT's	The status of ADMS implementation in NR, which is mandated in clause 5.4.2 (d) of IEGC by SLDC/SEB/DISCOMs is presented in the following table:	Status: O DELHI HARYANA HP PUNJAB RAJASTHAN UP	Fully implemented Scheme not implemented Scheme not implemented Scheme not implemented Under implementation. Likely completion schedule is 30.06.2023. Scheme implemented by

7	7 Reactive compensation at 220 kV/ 400 kV level at 15 substations							
	State / Utility	Substation	Reactor	Status				
i	POWERGRID	Kurukshetra	500 MVAr TCR	Anticipated commissioning: May'23				
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	Dhur i	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. Commsioned 27th Jan'23				
ix	PUNJAB	Nakodar	1x25 MVAr at 220 kV	1x25 MVAR Reactor at Nakodar has been commissioned on dated 13th February' 2023.				
X	PTCUL	Kashipur	1x125 MVAR at 400 kV	Price bid has been opened and is under evaluation. Retendered in Jan'23				
xi	RAJASTHAN	Akal	1x25 MVAr	1x25 MVAR Reactor at Akal has been commissioned on dated 25th July' 2022.				

xii	RAJASTHAN	Bikaner	1x25 MVAr	Main bus shutdown is required for commissioning of 1x25 MVAR reactor at Bikaner, same is expected upto March' 2023.
xiii	RAJASTHAN	Suratgarh	1x25 MVAr	1x25 MVAR Reactor at Suratgarh has been commissioned on dated 25th November' 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. Schedule time is 18 months.
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. Schedule time is 18 months.

1 D	Annexure-A-I.I           own Stream network by State utilities from ISTS Station:							
SI. 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.	Mar'23	02 No. of bays shall be utilized for LILO-II of 220kV Hiranagar Bishnah Transmission Line, the work of which is under progress and shall be completed by March'2023. Updated in 204th OCC by JKPTCL.		
	400/220kV, 2x315	Commissioned: 6	Utilized: 2	• 220 kV New Wanpoh - Alusteng D/c Line	End of 2023	02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Alusteng D/c Line. The work is in progress and expected to be commission by the end of 2023. Updated in 204th OCC by JKPTCL.		
2	MVA New Wanpoh	Total: 6	Unutilized: 4	• 220 kV New Wanpoh - Mattan D/c Line	End of 2024	02 No. of bays are to be utilized for connecting 220kV New Wanpoh-Mattan D/c Line. The funding source for the project is being identified and the project is expected to be completed by ending 2024. Updated in 204th OCC by JKPTCL.		
3	400/220kV, 2X315 MVA Amargarh	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• 220kV D/C line from 400/220kV Kunzar - 220/33kV Sheeri	End of 2024	02 No. of bays are proposed to be utilized for connecting 220/132 kV GSS Loolipora. The funding source for the project is being identified and the project is expected to be completed by ending 2024. Updated in 204th OCC by JKPTCL.		
4	400/220kV, 2x500 MVA Kurukshetra (GIS)	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 220kV Bhadson (Kurukshetra) – Ramana Ramani D/c line	Jul'24	Updated in 205th OCC by HVPNL		
5	400/220 kV, 2x315 MVA Dehradun	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	Network to be planned for 4 bays	-	PTCUL to update the status.		
		Commissioned: 6	Utilized: 5 Unutilized: 1	• 220 kV D/C Shahajahanpur (PG) - Gola line	Apr'23	Updated in 205th OCC by UPPTCL		
6	Shahjahanpur, 2x315 MVA 400/220 kV	Approved/Under Implementation:1 Total: 7	(1 bays to be utilized shortly) Approved/Under Implementation:1	• 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	Commissioned: 8	Utilized: 4 Unutilized: 4	• 220 kV Hamirpur-Dehan D/c line	Commissioned	Commisioned date: 09.06.2022. Updated in 198th OCC by HPPTCL		
	Sub-station	Total: 8	(2 bays to be utilized shortly)	Network to be planned for 4	-	HPPTCL to update the status.		
				bays • 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		
8	Sikar 400/220kV, 1x 315 MVA S/s Total: 8	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 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		
				• 220 kV D/C line Bhiwani (PG) – Bhiwani (HVPNL) line	Commissioned	Updated in 202nd OCC by HVPNL		
9	Bhiwani 400/220kV S/s	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 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 by HVPNL.		
10	Jind 400/220kV S/s	Commissioned: 4 Approved:4 Total: 8	Utilized: 4 Unutilized: 0	• LILO of both circuits of 220 kV Jind HVPNL to PTPS D/C line at 400 kV substation PGCIL Khatkar (Jind) with 0.5 sq inch ACSR conductor	May'24	Tender is under process Updated in 205th OCC by HVPNL.		
11	400/220kV Tughlakabad	Commissioned: 6 Under Implementation: 4	Utilized: 6 Unutilized: 0	• RK Puram – Tughlakabad (UG Cable) 220kV D/c line – March 2023.	-	DTL to update the status.		

SI. No		Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
	GIS	Total: 10	Under Implementation:4	• Masjid Mor – Tughlakabad 220kV D/c line.	-	DTL to update the status.
12	400/220kV Kala Amb GIS	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	Jun'23	Updated in 205th OCC by HPPTCL
	(TBCB)		Unutilized. 6	<ul> <li>Network to be planned for 4 bays</li> </ul>	-	HPPTCL to update the status.
10	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.	Dec'23	Forest approval is pending for 220 KV Pali - Sector 56 D/C line. Updated in 205th OCC by HVPNL
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	Dec'23	Updated in 205th OCC by HVPNL
				• 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
14	400/220kV Sohna Road Sub-station	Commissioned: 8 Total: 8	Utilized: 2 Unutilized: 4	• 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 205th OCC by HVPNL. <b>Status:-</b> Earlier 02 nos 220 kV line bays were to be utilized for the 220 kV GIS S/Stn. Sec-77, Gurugram but due to denotification of land of the 220 kV GIS S/Stn. Sec-77 the said substation is now going to be dismantled and a new substation is proposed at Sec-75A, Gurugram. Now, these 02 no. 220 kV Iine bays may be utilized at 220 kV GIS S/Stn Sec-75A, Gurugram.
				• Prithla - Harfali 220kV D/c line with LILO of one ckt at Meerpur Kurali	31.03.2024	Updated in 205th OCC by HVPNL
	400/220kV Prithla	Commissioned: 8	Utilized: 4 Unutilized: 4	• LILO of both ckt of 220kV D/c Ranga Rajpur – Palwal line	Commissioned	Commisioned date: 31.12.2021. Updated in 198th OCC by HVPNL
15	Sub-station	Total: 8	Under Implementation:2	• 220kV D/C for Sector78, Faridabad	31.03.2024	Issue related to ROW and Pending crossing approval from Northern Railways and DFCCIL. as intimated in 205th OCC by HVPNL.
				Prithla - Sector 89 Faridabad     220kV D/c line	31.03.2024	Updated in 205th OCC by HVPNL
				• LILO of both circuits of 220kV Samalkha - Mohana line at Sonepat	05.10.2023	Updated in 205th OCC by HVPNL
16	400/220kV Sonepat Sub-station	Commissioned: 6 Under Implementation:2	Utilized: 2 Unutilized: 4	• Sonepat - HSIISC Rai 220kV D/c line	-	Updated in 205th OCC by HVPNL. Status: Due to non-performance of work of 220KV GIS Rai S/Stn, the Contract has been terminated & blacklisted by O/o XEN/WB O/o CE/PD&C, HVPNL, Panchkula vide Ch-100/HDP-2418/REC- 254/Xen(WB) Dated 24.02.2023. Now pending work will be caried out by HVPNL/ Departmentely
		Total: 8	Under			

SI. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
		Total. 0	Implementation:2	• Sonepat - Kharkhoda Pocket A 220kV D/c line	31.07.2024	Updated in 205th OCC by HVPNL. <b>Status:</b> The Possession of land for construction of 220KV S/Stn. Pocket-A i.e 6.33 Acres and for Pocket-B is 5.55 Acres has been taken over by HVPNL. Work order yet to be issued by O/o CE/PD&C, Panchkula for construction of 2 no. 220KV GIS S/Stn Pocket-A & Pocket-B.
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	Jun'23	Lucknow -Kanduni, 220 kV D/C line expected energization date Jun'23 updated by UPPTCL in 205th OCC due to sub-station commissioning delay     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	Apr'23	• Gorakhpur(PG)- Maharajganj, 220 kV D/C line expected energization date is 15.04.2023 updated by UPPCL in 205th 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	Jul'23	SCDA System work pending at 220 KV S/stn. Rajokheri Updated in 205th OCC by HVPNL
		Commissioned: 8		• Panchkula – Pinjore 220kV D/c line	Sep'23	Updated in 205th OCC by HVPNL
		Under tender:2		• Panchkula – Sector-32 220kV D/c line	Sep'23	Updated in 205th OCC by HVPNL
	400/00011/ D	Total: 10	Utilized: 2	• Panchkula – Raiwali 220kV D/c line	Commissioned	Updated in 194th OCC by HVPNL
25	Sub-station Line usec cons POV 2) ar	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	Unutilized: 4 Under Implementation:2	• Panchkula – Sadhaura 220kV D/c line: Sep'23	Jul'24	Updated in 205th OCC by HVPNL
		Commissioned:7	Utilized: 6	• 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.

SI. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
26	400/220kV Amritsar S/s	Approved in 50th NRPC- 1 no. Total: 8	Unutilized: 1 Approved in 50th NRPC- 1 no.	• 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
	400/220kV	Commissioned: 4 Utiliz		• LILO of 220 kV Nunamajra- Daultabad S/c line at 400 kV Bahadurgarh PGCIL	31.03.2024	Updated in 205th OCC by HVPNL. <b>Status:</b> Tentative route stands submitted by TS wing and accordingly BOQ has been submitted by design wing to contracts wing for award of work.
28				• Bahadurgarh - METL 220kV D/c line (Deposit work of M/s METL)	31.03.2024	Updated in 205th OCC by HVPNL. Status: Tentative route stands submitted by TS wing and accordingly BOQ has been submitted by design wing to contracts wing for award of work.
				• Bahadurgarh - Kharkhoda Pocket B 220kV D/c line	31.07.2024	
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
	400/220kV Sohawal S/s	Commissioned: 8 Utilized: 8 Total: 8		• Sohawal - Barabanki 220kV D/c line	Commissioned	Energization date: 14.04.2018 updated by UPPTCL in 196th OCC
			Litilized: 8	• Sohawal - New Tanda 220kV D/c line	Commissioned	Energization date: 28.05.2019 updated by UPPTCL in 196th OCC
30				• 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	-	Status:- 2nos bays are being utilised for 220 kV D/C Panchgaon (PGCIL)- Panchgaon Ckt-I & 220 kV D/C Panchagon (PGCIL)-Panchgaon Ckt-II, charged on dated 05.09.2022 & 20.10.2022 respectively. The 2nos bays may be utilised by HVPNL in future.
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	Mar'23	Saharanpur(PG)-Devband D/c line expected energization date last week of March'23 updated by UPPTCL in 205th 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	May'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 May 2023.Updated in 205th OCC by PSTCL.

SI. 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 5	atabliabment of new	100/220kV autotiona in N	authous Dogion			
2. E	Establishment of new 400/220kV substations in No					
SI. 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		<ul> <li>220kV Almora-Jauljibi line</li> <li>220kV Brammah-Jauljibi line</li> <li>PTCUL to update the status of lines.</li> </ul>

Annexure-A.I.II

# **FGD Status**

## Updated status of FGD related data submission

NTPC (27.02.2023)	
MEJA Stage-I	PSPCL (16.02.2023)
RIHAND STPS	GGSSTP, Ropar
SINGRAULI STPS	GH TPS (LEH.MOH.)
TANDA Stage-I	RRVUNL (16.03.2023)
TANDA Stage-II	CHHABRA SCPP
UNCHAHAR TPS	CHHABRA TPP
UPRVUNL (15.02.2023)	KALISINDH TPS
ANPARA TPS	ΚΟΤΑ ΤΡS
HARDUAGANJ TPS	SURATGARH SCTPS
OBRA TPS	SURATGARH TPS
PARICHHA TPS	

# Updated status of FGD related data submission

Lalitpur Power Gen. Co. Ltd. (17.10.2022)	Adani Power Ltd. (18.02.2022) KAWAI TPS
Lalitpur TPS	Rosa Power Supply Company
Lanco Anpara Power Ltd.	(18.06.2022)
(18.06.2022)	Rosa TPP Phase-I
ANPARA-C TPS	Prayagraj Power Generation
HGPCL (14.09.2022)	Company Ltd. (17.10.2022)
PANIPAT TPS	Prayagraj TPP
RAJIV GANDHI TPS	APCPL (25.02.2022)
YAMUNA NAGAR TPS	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: 31-01-2022), INDIRA GANDHI STPP U#2 (Target: 30-09-2023), INDIRA GANDHI STPP U#3 (Target: 30-06- 2023)
GVK Power Ltd. GOINDWAL SAHIB U#1 (Target: 30-04-2020), GOINDWAL SAHIB (Target: 29-02-2020)	
HGPCL	PANIPAT TPS U#6 (Target: 31-12-2022), PANIPAT TPS U#7 (Target: 31-12-2022), PANIPAT TPS U#8 (Target: 31-12-2022), RAJIV GANDHI TPS U#1 (Target: 31-12-2024), RAJIV GANDHI TPS U#2 (Target: 31-12-2024), YAMUNA NAGAR TPS U#1 (Target: 31-12-2024), YAMUNA NAGAR TPS U#2 (Target: 31-12-2024)

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: 31-03-2023), RIHAND STPS U#1 (Target: 31-10-2025), RIHAND STPS U#2 (Target: 30-06-2026), RIHAND STPS U#3 (Target: 31-12-2024), RIHAND STPS U#4 (Target: 31-03-2025), RIHAND STPS U#5 (Target: 30-06-2025), RIHAND STPS U#6 (Target: 31-10-2025), SINGRAULI STPS U#1 (Target: 31-12-2024), SINGRAULI STPS U#2 (Target: 31-12-2024), SINGRAULI STPS U#3 (Target: 31-12-2024), SINGRAULI STPS U#4 (Target: 31-12-2024), SINGRAULI STPS U#5 (Target: 31-03-2025), SINGRAULI STPS U#6 (Target: 31-06-2024), SINGRAULI STPS U#7 (Target: 31-03-2024), UNCHAHAR TPS U#1 (Target: 31-12-2023), UNCHAHAR TPS U#2 (Target: 31-12-2023), UNCHAHAR TPS U#3 (Target: 30-09-2023), UNCHAHAR TPS U#4 (Target: 30-09-2023), UNCHAHAR TPS U#5 (Target: 30-09-2023), UNCHAHAR TPS U#6 (Target: 31-08-2022), MEJA Stage-I U#1 (Target: 31-10-2023), MEJA Stage-I U#2 (Target: 30-06-2023), TANDA Stage-I U#3 (Target: ), TANDA Stage-I U#4 (Target: ), TANDA Stage-II U#3 (Target: 31-03-2023), TANDA Stage-II U#4 (Target: 30-09-2023)

### NTPC

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: 31-12-2026), GH TPS (LEH.MOH.) U#2 (Target: 31-12-2026), GH TPS (LEH.MOH.) U#3 (Target: 31-12-2026), GH TPS (LEH.MOH.) U#4 (Target: 31-12-2026), GGSSTP, Ropar U#3 (Target: 31-12- 2026), GGSSTP, Ropar U#4 (Target: 31-12-2026), GGSSTP, Ropar U#5 (Target: 31-12-2026), GGSSTP, Ropar U#6 (Target: 30-12-2026)

Rosa Power	
Supply	ROSA TPP Ph-I U#1 (Target: 31-12-2026), ROSA TPP Ph-I U#2 (Target: 31-12-2026), ROSA TPP Ph-I
Company	U#3 (Target: 31-12-2026), ROSA TPP Ph-I U#4 (Target: 31-12-2026)
RRVUNL	KOTA TPS U#5 (Target: 31-08-2024), KOTA TPS U#6 (Target: 31-08-2024), KOTA TPS U#7 (Target: 31- 08-2024), 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	TALWANDI SABO TPP U#1 (Target: 28-02-2021), TALWANDI SABO TPP U#2 (Target: 31-12-2020),
Power Ltd.	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)