

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

विषय: उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की  $209^{a}$  बैठक के खण्ड-अ मे लिए गए निर्णयों का सार I

Subject: Gist of decisions taken in the Part-A of the 209th OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप- समिति की 209<sup>वी</sup> बैठक दिनांक 19.07.2023 को आयोजित की गयी I उक्त बैठक की खण्ड-अ मे लिए गए निर्णयों का सार **अनुलग्नक – अ** के रूप मे संलग्न है I

The 209<sup>th</sup> meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 19.07.2023. The Gist of the decisions taken in Part-A of this meeting is enclosed as **Annexure-A**.

(ओमकिशोर) कार्यपालक अभियंता (प्रचालन)

सेवा में.

प्रचालन समन्वय उप- समिति के सभी सदस्य Ⅰ\_

<u>अनुलग्नक – अ/</u> Annexure-A

#### Gist of decisions taken in the Part-A of 209th OCC Meeting

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

Minutes of the 208<sup>th</sup> OCC meeting was issued on 11.07.2023. OCC confirmed the minutes.

#### Agenda No. 2: Power Supply Position (Provisional) for June 2023

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

#### Delhi

Delhi experienced cloudy weather condition and frequent rainfalls in the month of June 2023 so, peak demand and energy consumption was on lower side than expected.

#### Himachal Pradesh

The Anticipation in Energy Requirement as well as peak demand in respect of Himachal Pradesh for the month of June, 2023 came on the lower side due to early monsoon rains in the month of June, 2023.

#### **Punjab**

It is intimated that actual energy requirement is less as compared anticipated energy requirement because of decrease in the demand of Agriculture supply as well as other categories supply due to rainfall in the state of Punjab during the month of June, 2023.

#### Rajasthan

The Actual Energy requirement w.r.t. Anticipated Energy requirement for June, 2023 decreased by 9.6% due to early arrival of monsoon and sufficient rains during the month of June 2023 in Rajasthan state.

#### Haryana

The Anticipation in Energy Requirement as well as peak demand in respect of Haryana for the month of June, 2023 came on the lower side due to frequent rains in the month of June, 2023.

#### Agenda No. 3: Maintenance Programme of Generating units and Transmission Lines

 The maintenance programme of generating units and transmission lines for the month of August 2023 was deliberated in the meeting on 18.07.2023.

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

 The updated anticipated Power Supply Position for the month of August, 2023 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
CHANDIGARH	Availability	220	350	No Revision

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision	
	Requirement	220	420		
	Surplus / Shortfall	0	-70	submitted	
	% Surplus / Shortfall	0.0%	-16.7%		
	Availability	4923	6800		
DELLII	Requirement	3860	6800	40 14 00	
DELHI	Surplus / Shortfall	1063	0	18-Jul-23	
	% Surplus / Shortfall	27.5%	0.0%		
	Availability	9435	12132		
HARYANA	Requirement	7085	12742	19-Jul-23	
	Surplus / Shortfall	2350	-610	10 041 20	
	% Surplus / Shortfall	33.2%	-4.8%		
	Availability	1145	1725		
HIMACHAL	Requirement	1102	1744	11-Jul-23	
PRADESH	Surplus / Shortfall	43	-19	1 1-Jui-23	
	% Surplus / Shortfall	3.9%	-1.1%		
	Availability	2340	3490		
J&K and	Requirement	1690	2920	No Revision submitted	
LADAKH	Surplus / Shortfall	650	570		
	% Surplus / Shortfall	38.5%	19.5%		
	Availability	9500	12320		
PUNJAB	Requirement	6700	15280	18-Jul-23	
	Surplus / Shortfall	2800	-2960		
	% Surplus / Shortfall	41.8%	-19.4%		
	Availability	9570	18080		
RAJASTHAN	Requirement	8000	14200	18-Jul-23	
	Surplus / Shortfall	1570	3880		
	% Surplus / Shortfall	19.6%	27.3%		
	Availability	15624	27000		
UTTAR	Requirement	14880	27000	17-Jul-23	
PRADESH	Surplus / Shortfall	744	0	1. Jul 20	
	% Surplus / Shortfall	5.0%	0.0%		
	Availability	1440	2830		
UTTARAKHAND	Requirement	1510	2460	No Revision submitted	
	Surplus / Shortfall	-70	370		

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	% Surplus / Shortfall	-4.6%	15.0%	
	Availability	54197	78500	
NORTHERN	Requirement	45047	77400	
REGION	Surplus / Shortfall	9150	1100	
	% Surplus / Shortfall	20.3%	1.4%	

#### Agenda No. 5: Follow-up of issues from various OCC Meetings - Status update

- Updated status is enclosed as Annexure-A.I.
- In 209<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. 6. NR Islanding scheme

- In the meeting (209<sup>th</sup> OCC), AEE(SS) apprised forum that a meeting was conducted on 14.07.2023 with Delhi SLDC and DTL to deliberate on steady state analysis of PSSE basecase of Delhi islanding scheme.
- DTL representative informed forum that in the meeting held on 14.07.2023 there were some observation with respect to generators in case of excess generation during island formation. The revised Delhi Island is expected to survive only when the available generation is 300MW and in case of excess generation, generating units at Pragati and CCGT Bawana will act as per droop characteristics of governor. After the formation of Island, the restoration of the Delhi system will be done as per the Standard Operating Procedure. The SoP for restoration of the Delhi system will be shared with NRLDC by 31st July 2023 for finalization.
- DTL representative further informed that the load of Railways, Metro, Delhi International Airport Limited (DIAL) and Defense /MES establishment have not been included in the present islanding proposal due to limited generation of only 300MW, involvement of higher no. of elements to be tripped and high reactive power generation due to presence of large no of 220kV Underground Cables Ckts which will decrease the probability of formation of Island.
- OCC Forum in principle approved the revised Delhi islanding scheme and asked DTL to bring the scheme in upcoming NRPC meeting for final approval from the NRPC board.
- AEE(SS) apprised forum that draft report submitted by CPRI for Agra-Lalitpur Islanding scheme was deliberated in 206th OCC meeting and UPSLDC was asked to take up the issues discussed in the meeting with CPRI. In the meeting UPPTCL representative intimated forum that comments from CPRI has just been received.

UPSLDC requested to have physical meeting with the concerned stakeholders for finalization of draft report submitted by CPRI for Agra-Lalitpur Islanding scheme.

- Representative from UPPTCL apprised forum that with regard to Lucknow-Unchahar islanding scheme, the tender for procurement of UFR's for the aforesaid islanding scheme has been finalized and delivery of UFR has started. Further, he intimated that UFR installation will be completed in two months. MS, NRPC desired to have a physical meeting with the concerned officials to finalize the implementation timeline of Lucknow-Unchahar islanding scheme
- With regard to Pathankot-RSD islanding scheme, representative from Punjab SLDC apprised that testing/commissioning reports for the said islanding scheme has been shared on 19.07.2023 with NRPC Sect.. and NRLDC.
- Further, with regard to Patiala-Nabha Power Rajpura islanding scheme representative from Punjab informed that tendering is under process and expected timeline for implementation of the cited islanding scheme is December 2023.
- With regard to Kullu-Manali islanding scheme representative form HPSLDC apprised forum that Malana HEP has informed that the PFR testing work order has given to M/S Solvina pvt. Itd and it would be conducted in the lean season after 15<sup>th</sup> September. In the meeting, representative from HP Discom informed that they have communicated on 01<sup>st</sup> July 2023 to HPSLDC the approval of their management for the cited islanding scheme.
- With regard to Shimla-Solan islanding scheme representative from HPSLDC apprised forum that they have done correspondence with BHEL regarding switching of Bhaba HEP to automatic mode during the situation of islanding formation but no response has been received from BHEL till date. MS NRPC asked NRPC Sectt.. to also take up the matter with BHEL at their end.
- Representative from Rajasthan STU intimated forum that preparation of DPR is under finalization and would be shared shortly with NRPC Sectt. and NRLDC for Jodhpur-Barmer Rajwest and Suratgarh islanding scheme. Furher, he intimated that tentative timeline for implementation of cited islanding scheme is October 2023.

#### Decision of the OCC forum

 OCC Forum in principle approved the revised Delhi islanding scheme and asked DTL to bring the scheme in upcoming NRPC meeting for final approval from the NRPC board.

#### Agenda No. 7. 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> July 2023).
- Average coal stock position of generating stations in northern region, having critical stock, during first ten days of July 2023 is as follows:

Station	Capacity (MW)	PLF % (prev. months)	Normative Stock Reqd. (Days)	Actual Stock (Days)
TALWANDI SABO TPP	1980	70.80	25	3.7

 In the meeting, above mentioned generating station was requested to take adequate measures.

### Agenda No. 8. Declaration of high demand season and low demand season (Agenda by NRPC Sect..)

- In the meeting, NRPC representative apprised the forum that CERC has notified regulatory framework of differential tariff, applicable to thermal generating station, during peak and off-peak hours, during high demand season of three months and low demand season of remaining nine months in Tariff Regulations, 2019. The concerned RLDC has to declare high demand season and low demand season in region after consultation with stakeholders six months before any financial year.
- Forum was informed that based on the deliberations in 176<sup>th</sup> OCC meeting, it was decided that peak season be decided after considering average NR consumption data of all months for previous five years.

Year	April	May	June	July	August	September
2019	30147	37338	41624	41377	39153	38422
2020	22290	30905	37782	41309	39527	40958
2021	30391	32109	39393	45180	44175	36878
2022	38566	43463	46083	47240	46450	46040
2023	33583	39086	44429	46650*	48630*	45220*
Average	30995	36580	41862	44351	43587	41504

<sup>\*</sup> Demand data as per CEA's LGBR report for FY 2023-24.

 Forum decided that June-July-August shall be considered as high demand season for NR for FY 2023-24.

#### Decision of the OCC forum

 Forum decided that June-July-August shall be considered as high demand season for NR for FY 2023-24.

### Agenda No. 9. Electricity generation Program for the year FY 2024-25 (Agenda by NRPC Sect..)

- In the meeting, NRPC representative apprised the forum that Central Electricity Authority vide its letter dated 11.07.2023 (copy attached as Annexure-A.III of agenda) has sought certain (details enclosed in the cited letter) information from generating utilities of the country for the preparation of electricity generation program for the year 2024-25.
- Further he also apprised that GM Division, CEA vide their letter dated 18.07.2023 has also sought information about month-wise data of energy requirement and peak demand for FY 2024-25.
- Forum asked all NR generating units to kindly submit the requisite information in the prescribed format by email to <a href="mailto:seo-nrpc@nic.in">seo-nrpc@nic.in</a> by 20<sup>th</sup> August 2023.

## Agenda No. 10. Proposed SPS for 400/220 kV ICTs at RVPN's 400kV GSS Bhilwara and 400kV GSS Hindaun (Agenda by RVPN)

- RVPN representative presented to the fourm the proposed SPS for 1X315 MVA + 1X500MVA, 400/220 kV ICTs at 400kV GSS Bhilwara and 2X315MVA, 400/220 kV ICTs at 400kV GSS Hindaun.
- On the cited matter, NRLDC asked RVPN to submit with them the base case for the proposed SPS at RVPN's 400kV GSS Bhilwara and 400kV GSS Hindaun and upon examination of same they would communicate its observation to RVPN.

#### Decision of the OCC forum

 Forum asked RVPN to submit the base case for the proposed SPS at RVPN's 400kV GSS Bhilwara and 400kV GSS Hindaun to NRLDC for its examination and thereafter the matter can be further deliberated in the next OCC meeting.

# Agenda No. 11. Shutdown on 400kV Bhinmal Zerda & 400kV Bhinmal Kankroli Line for making bypass arrangement at LILO point of 400 KV Kankroli-Bhinmal-Zerda TL Agenda by Powergrid NR-1)

- In the meeting, NRPC representative informed forum that the matter has already been deliberated in the outage meeting of 209<sup>th</sup> OCC held on 18.07.2023.
- He further informed that in the outage meeting, the shutdown of 400kV Bhinmal Zerda & 400kV Bhinmal Kankroli Line for said work has been conditionally approved subject to revival of 400kV Bhadla(RS)- Bikaner (RS) D/C lines.
- Rajasthan SLDC highlighted that in the previous OCC meeting (i.e. 208<sup>th</sup> OCC) forum asked Powergrid that reconductoring work of 400kV Kankroli Jodhpur S/C Transmission Line may be planned after the month of September when wind generation is minimum.
- NRLDC mentioned that after making bypass arrangement at LILO point of 400 KV Kankroli-Bhinmal-Zerda Transmission Line and revival of all 400kV lines from Bhadla end, peak loading on 400kV Kankroli Jodhpur S/C Transmission Line will be 717 MW with ISGS full RE generation and full Rajasthan solar and 2000 MW wind generation and in case of tripping of 400kV Kankani-Merta S/C transmission line, to keep system n-1 compliant peak loading on 400kV Kankroli Jodhpur S/C Transmission Line will be around 820 MW.
- In both the cases, CTU replied that loading will be below the thermal rating of the line.

#### Decision of the OCC forum

 Forum agreed to the shutdown of 400kV Bhinmal Zerda & 400kV Bhinmal Kankroli Line subject to revival of all 400kV lines from Bhadla end which are presently out.

Table Agenda No.1: Revised SPS Scheme for Anpara Complex (Agenda by UPSLDC)

- In the meeting, UPSLDC representative informed forum that as per the deliberations held in the 208<sup>th</sup> OCC meeting on the cited matter, comments have been received from NRLDC and SPS is found to be in order. Further following are the observation of NRLDC on the cited SPS scheme
  - In case of Tripping of 765kV Anpara C-Unnao line OR 765 kV Obra C- Unnao line OR 765 kV Anpara D-Obra C line, no backing down by SPS is required. However, to keep the system further n-1 compliant in case of tripping of any of the above lines, UP SLDC has to restrict loading of remaining 765kV lines at Unnao below 1280 MW by suitable generation backdown at Anpara/Obra complex
- Revised SPS scheme for Anpara Complex is attached at Annexure-A.II.
- OCC forum approved the revised SPS scheme Anpara Complex.

#### Decision of the OCC forum

• Forum approved the revised SPS scheme for Anpara complex.

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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.		networks is enclosed in
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 various states / UT:  © CHANDIGARH © DELHI © HARYANA © HP © J&K and LADAKH © PUNJAB © RAJASTHAN © UP © UTTARAKHAND All States/UTs are status on monthly ba	Sep-2019 Jun-2023 May-2023 Jun-2023 Not Available May-2023 Jun-2023 Jun-2023 Jun-2023 May-2023 requested to update
3	Healthiness of defence mechanism: Self-certification	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".  In compliance of NPC decision, NR states/constituents agreed to raise the AUFR settings by 0.2 Hz in 47th TCC/49th NRPC meetings.	various states / UTs  CHANDIGARH DELHI HARYANA HP J&K and LADAKH PUNJAB RAJASTHAN UP UTTARAKHAND BBMB All States/UTs are rupdate status for homonthly basis for is quartely basis for status: CHANDIGARH DELHI HARYANA HP J&K and LADAKH PUNJAB RAJASTHAN UP UP UTTARAKHAND BBMB	Not Available Mar-2023 Jun-2023 May-2023 Not Available Jun-2023 Mar-2023 Jun-2023 Jun-2023 Jun-2023 requested to ealthiness of UFRs on slanding schemes and on

List of FGD   Installation visco-vis installation   Property   Installation   Property   Installation   Property   Installation   Property   Installation   Property   Propert											
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© UTTARAKHAND Mar-23  J&K and Ladakh and Chandigarh are requested to submit the requisite data w.e.f. April 2018 as per the billed data information in the given format  The variable charges of all generating units in the Region  The variable charges detail for different generating units are available on the MERIT Order Portal.  The status of ADMS implementation in NR, which is mandated in clause 5.4.2 (d) of EGC by SLDC/SEB/DISCOMS is presented in the following table:  The status of ADMS implementation in NR, which is mandated in clause 5.4.2 (d) of EGC by SLDC/SEB/DISCOMS is presented in the following table:  □ DELHI Fully implemented □ HARYANA Scheme not implemented □ PUNJAB Scheme implementation. Likely completion schedule is 15.08.2023. □ UP Scheme implemented by									0	KA JASTHAN	
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											schedule is 15.08.2023.
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	1										NPCIL only

8	Reactive compensation at 220 kV/ 400 kV level at 15 substations									
	State / Utility	Substation	Reactor	Status						
i	POWERGRID	Kurukshetra	500 MVAr TCR	Anticipated commissioning: Jul'23						
ii	DTL	Peeragarhi	1x50 MVAr at 220 kV	Anticipated commissioning: Jul'23						
iii	DTL	Harsh Vihar	2x50 MVAr at 220 kV	2x50 MVAR Reactor at Harsh Vihar has been commissioned on dated 31th March 2023.						
iv	DTL	Mundka	1x125 MVAr at 400 kV & 1x25 MVAr at 220 kV	Scheme is under revision.						
V	DTL	Bamnauli	2x25 MVAr at 220 kV	Bay work awarded to M/s. Ethos. Bay work is completed. 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 completed. 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 - 1x125 MVAR Reactor at Dhuri has been commissioned on dated 30th March 2023. 220kV Reactors - 1x25 MVAR Reactor at Dhuri has been commissioned on dated 27th January 2023.						
ix	PUNJAB	Nakodar	1x25 MVAr at 220 kV	1x25 MVAR Reactor at Nakodar has been commissioned on dated 13th February 2023.						
Х	PTCUL	Kashipur	1x125 MVAR at 400 kV	Price bid has been opened and is under evaluation. Retendered in Jan'23						
xi	RAJASTHAN	Aka1	1x25 MVAr	1x25 MVAR Reactor at Akal has been commissioned on dated 25th July' 2022.						

xii	RAJASTHAN	Bikaner	1x25 MVAr	1x25 MVAR Reactor at Bikaner has been commissioned on dated 24th June 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.

<u>-</u>	Sown Stroam network	by State utilities from ISTS	2 Station:			Annexure-A-I.I
. U	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 Μ\/Δ Samba	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	Network to be planned for 2 bays.	Jun'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 end of Jun'2023. Updated in 207th 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 Wannoh	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 M\/Δ 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	MVA Kurukshetra	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	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	31.07.2023	Due to ROW issue work was delayd.Updated in 209th OCC by UPPTCL
		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 Sub-station	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 bays	-	HPPTCL to update the status.
				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,	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	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 220 kV Bhiwani (PG) - Isherwal (HVPNL) D/c line.	Dec'23	Issue related to ROW as intimated in 208th 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.
	400/220kV	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.	Substation	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.
	400/220kV	Commissioned: 6	Utilized: 0	HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Kala Amb S/s      HPPTCL has planned one no. of	Sep'23	Updated in 208th OCC by HPPTCL
12	Kala Amb GIS (TBCB)	Total: 6	Unutilized: 6	220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Giri S/s	-	HPPTCL to update the status.
				Network to be planned for 2 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.	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 Sohna-Rangla Rajpur at Roj Ka Meo line at 400kV Sohna Road	Jan'24	Updated in 208th OCC by HVPNL
14	400/220kV Sohna Road Sub-station	Commissioned: 8 Total: 8	Utilized: 4 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.  Status:- Earlier 02 nos 220 kV line bays were to be utilized for the 220 kV GIS S/Stn. Sec-77, Gurugram but due to denotification of land of the 220 kV GIS S/Stn. Sec-77 the said substation is now going to be dismantled and a new substation is proposed at Sec-75A, Gurugram. Now, these 02 no. 220 kV line bays may be utilized at 220 kV GIS S/Stn Sec-75A, Gurugram.
				220kV D/C line from Prithla to Harfali with LILO of one circuit at 220kV Meerpur Kurali	31.03.2024	Updated in 205th OCC by HVPNL
	400/000LV/ D::H.I.	Commissioned: 8	Utilized: 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	400/220kV Prithla Sub-station	Aprroved: 2 Total: 10	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
		Commissioned: 6	Utilized: 2	• 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-
16	400/220kV Sonepat	Under Implementation:2	Unutilized: 4			254/Xen(WB) Dated 24.02.2023. Now pending work will be caried
	Sub-station	Total: 8	Under			out by HVPNL/ Departmentely

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. Status: 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	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	25.08.2023	Lucknow -Kanduni, 220 kV D/C line expected energization date Aug'23 updated by UPPTCL in 209th 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	31.07.2023	Gorakhpur(PG)- Maharajganj, 220 kV D/C line expected energization date is 31.07.2023 updated by UPPTCL in 209th 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	Dec'23	SCDA System & PLCC work pending at 220 KV S/stn. Rajokheri Updated in 209th 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
		Total: 10	Utilized: 2	Panchkula – Raiwali 220kV D/c line	Commissioned	Updated in 194th OCC by HVPNL
25	Sub-station Li us cc Pe	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	31.07.2023	Route survey/tender under process. Updated in 209th 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)	15.08.2023	Route survey/tender under process. Work expected to be completed by 15th August 2023. Updated in 208th 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
	Bahardurgarh S/s	Commissioned: 4 Approved: 4 Total: 8	Utilized:2 Unutilized: 2	LILO of 220 kV Nunamajra- Daultabad S/c line at 400 kV Bahadurgarh PGCIL	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.
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 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
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 2 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	Commissioned	Saharanpur(PG)-Devband D/c line (Energization date: 20.04.2023) updated by UPPTCL in 207th OCC
34	400/220kV, Wagoora	Commissioned: 10 Total: 10	Utilized: 6 Unutilized: 4	Network to be planned for 4 bays	-	PDD, J&K to update the status.
35	400/220kV, Ludhiana	Commissioned: 9 Total: 9	Utilized: 8 Unutilized: 1	Network to be planned for 1 bay	Work completed but pending for FTC.	Direct circuit from 220 kV Lalton Kalan to Dhandari Kalan to be diverted to 400 kV PGCIL Ludhiana. Work completed but pending for first time charging.Updated in 209th OCC by PSTCL.

SI.	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.

# **FGD Status**

# Updated status of FGD related data submission

NTPC (27.02.2023)			
	MEJA Stage-I		
	RIHAND STPS		
S	INGRAULI STPS		
	TANDA Stage-I		
	TANDA Stage-II		
U	JNCHAHAR TPS		
<b>UPRVUNL (17.05.20</b>	023)		
	ANPARA TPS		
HA	RDUAGANJ TPS		
	OBRA TPS		
	PARICHHA TPS		

**PSPCL (16.02.2023)** GGSSTP, Ropar GH TPS (LEH.MOH.) **RRVUNL (09.07.2023)** 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: 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 U#2 (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)

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: 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)

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#5 (Target: 31-12-2026), GGSSTP, Ropar U#6 (Target: 30-12-2026)

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)
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), KALISINDH TPS U#1 (Target: 28-02-2025), KALISINDH TPS U#2 (Target: 28-02-2025)
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)
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#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)

Date: - [8 | 07 | 2023

### उत्तर प्रदेश राज्य भार प्रेषण केन्द्र

उं०प्र०पॉवर ट्रांसिमशन कारपोरेशन लि० (उत्तर प्रदेश सरकार का उपक्रम) यू०पी०एस०एल०डी०सी० परिसर, विभूति खण्ड—।। गोमती नगर, लखनऊ—226010 ई—मेल: cepso@upsldc.org

sera@upsldc.org



### U.P. State Load Despatch Centre

U.P. Power Transmission Corporation Ltd. (A U.P. Govt. Undertaking)
UPSLDC Complex, Vibhuti Khand – II
Gomti Nagar, Lucknow- 226010

E-mail: cepso@upsldc.org sera@upsldc.org

No 2728 /SE(R&A) /EE-II /SPS

Member Secretary, NRPC, 18 – A, SJSS Marg, Katwaria Sarai, New Delhi, 110016.

# Subject: Regarding the inclusion of "Revised SPS Scheme for Anpara Complex" in the Agenda of 209th OCC meeting.

It is to inform that revised SPS scheme for Anpara Complex was discussed in 208<sup>th</sup> OCC meeting of NRPC. In the meeting UPSLDC was asked to submit the base case for the proposed SPS with NRLDC for its examination. Accordingly UPSLDC submitted PSS/E base case and SPS scheme to NRLDC and NRPC via email on 20 June, 2023. It is also mentioned that NRLDC has examined the revised SPS scheme for Anpara Complex and provided its comment (copy enclosed).

It is therefore, requested that revised SPS scheme for Anpara Complex may be included in the agenda of 209<sup>th</sup> OCC meeting of NRPC so that the same may be discussed and approved.

Encl: As above.

No

WSuperintending Engineer (R&A)

Date: -

2023

O /SE(R&A) /EE-II /SPS

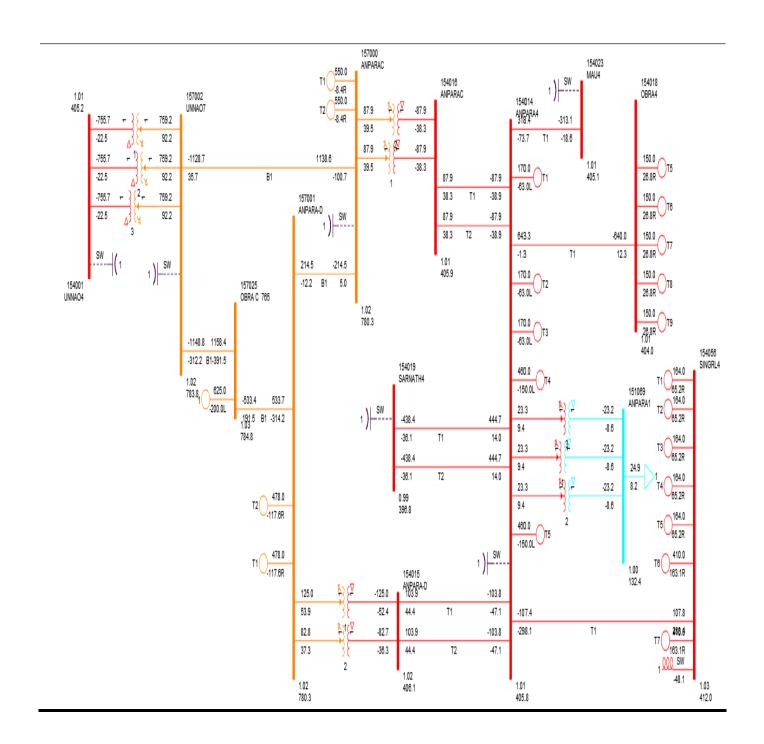
Copy forwarded to following via email for information and necessary action:-

- 1. Director, UPSLDC, Vibhuti Khand II, Gomti Nagar, Lucknow.
- 2. Chief Engineer (PSO), UPSLDC, Vibhuti Khand II, Gomti Nagar, Lucknow.

Superintending Engineer (R&A)

### **Revision of SPS scheme for Anpara Complex**

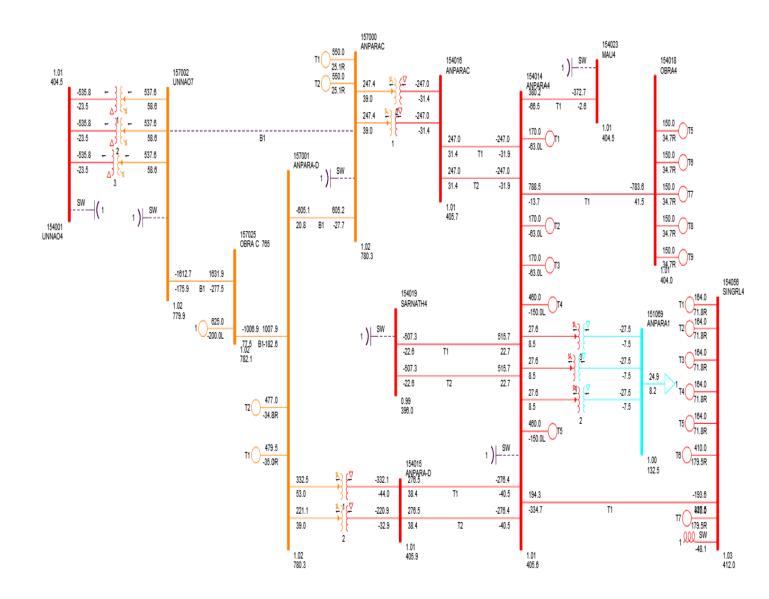
Following the LILO of 765kV Anpara D-Unnao line at Obra C TPS and in view of synchronization of 1x660 MW Unit at Obra-C TPS, existing system protection scheme for safe evacuation of power from Anpara Complex, needs to be revised.



### **Single Contingency**

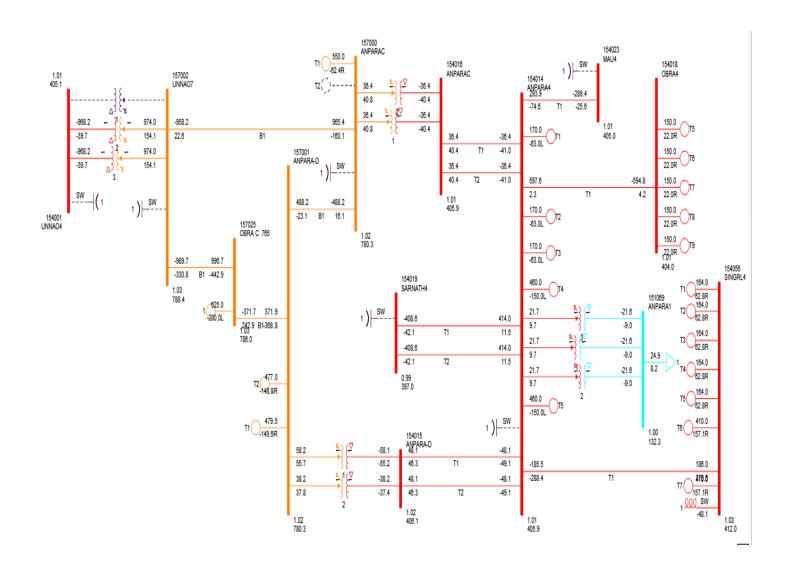
### 1. Tripping of 765kV Anpara C-Unnao line OR 765 kV Obra C- Unnao line OR 765 kV Anpara D-Obra C line

**Action:** - No automatic back down or tripping of unit is required. However, as a standard operating procedure control room operator shall take immediate action to keep the loading of remaining 765 KV lines at Unnao end below 1280 MW so that system remains N-1 Compliant.



#### 2. Tripping of one ICT of 1000 MVA at 765 kV substation Unnao

**Action:** - Tripping of one unit either from Obra CTPS or Anpara CTPS or Anpara DTPS on rotation basis if antecedent loading on 765kV Anpara C-Unnao line is more than 1050 MW. After tripping of one ICT at 765 kV Substation Unnao, backing down is required at Obra CTPS, Anpara C TPS, Anpara DTPS till loading of each ICT is below 950 MW.



### **Multiple contingencies**

1. Tripping of 2x 1000 MVA ICT at 765 kV substation Unnao.

**Action:** - Tripping of one unit each at Obra CTPS, Anpara CTPS and Anpara DTPS and tripping of 765 kV Obra C –Unnao line. In case any of the unit is under shutdown at aforementioned plants, tripping command shall not be issued to that plant.

- 2. Tripping of 765kV Anpara C-Unnao AND 765 kV Anpara D-Obra C line simultaneously.
  - **Action 1-** Tripping of one unit each at Anpara CTPS and Anpara DTPS if antecedent loading on 765kV Anpara C-Unnao line is more than 1100 MW.
  - **Action 2-** Tripping of one unit either from Anpara CTPS OR Anpara DTPS on rotation basis if antecedent loading on 765kV Anpara C-Unnao line is more than 950 MW.
- 3. Tripping of 765kV Anpara C-Unnao AND 765 KV Obra C-Unnao line simultaneously OR Tripping of 3 x 1000 MVA ICT at 765 KV substation Unnao.
  - **Action 1-** Tripping of one unit each at Obra CTPS, Anpara CTPS and Anpara DTPS if antecedent loading on 765kV Anpara C-Unnao line is more than 1100 MW.
  - **Action 2-** Tripping of total 2 units to be selected from two of three plants namely Obra CTPS, Anpara CTPS and Anpara DTPS on rotation basis if antecedent loading on 765kV Anpara C-Unnao line is more than 1000 MW.
  - **Action 3-** Tripping of 1 unit to be selected from one of three plants namely Obra CTPS, Anpara CTPS and Anpara DTPS on rotation basis if antecedent loading on 765kV Anpara C-Unnao line is more than 900 MW.