



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/106/01/2021/11055-11096


दिनांक: 26.11.2021

विषय: उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 189^{वीं} बैठक के खण्ड-अ में लिए गए निर्णयों का सार ।

Subject: Gist of decisions taken in the Part-A of 189th OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप- समिति की 189^{वीं} बैठक दिनांक 23.11.2021 को आयोजित की गयी । उक्त बैठक की खण्ड-अ में लिए गए निर्णयों का सार **अनुलग्नक - अ** के रूप में संलग्न है ।

189th meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 23.11.2021. The Gist of the decisions taken in Part-A of this meeting is enclosed as **Annexure-A.**


26/11/2021.

(सौमित्र मजूमदार)
अधीक्षण अभियंता (प्रचालन)

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

Gist of decisions taken in the Part-A of 189th OCC Meeting

Agenda No. 1: Confirmation of Minutes

Minutes of 188th OCC meeting was issued on 09.11.2021. OCC confirmed the minutes.

Agenda No. 2.1: Supply Position (Provisional) for October 2021

Reasons submitted by states for significant deviation of actual demand from anticipated figures during the month of October 2021 are as under:

• **Delhi**

4925 MW was anticipated peak demand for Oct 2021. However, the actual peak demand met for Oct 2021 is 5391 MW. The variation between actual and anticipated peak demand is (+) 9.46 %. Peak demand met during the month of October in 2019 and 2020 was 4605 MW and 4820 MW respectively. In the month of October-2021, the demand was high as compared to previous years due to hot and humid weather.

• **Uttarakhand**

Actual energy/demand was higher as compared to anticipated energy/demand for the month of October,2021 due to cold weather conditions.

• **Rajasthan**

The Energy consumption & Peak Demand decreased by 10.1% & 6.2% respectively w.r.t. anticipated energy requirement & peak demand for Oct-2021 due to scheduled and unscheduled power cut in the state due to coal shortage during the month of October' 2021.

• **Himachal Pradesh**

The Anticipation in Energy requirement and peak demand in respect of Himachal Pradesh for the month of October,2021 came on higher side due to heavy rush of tourists & opening of all education institutes.

• **Uttar Pradesh**

Availability of power was less due to coal shortage and actual demand/energy consumption was lower due to unusual rains during the month of October 2021.

Agenda No. 2.2: Power Supply Position of NCR

The Sub-Committee was informed that the NCR Planning Board (NCRPB) is closely monitoring the power supply position of National Capital Region. Monthly power supply position for NCR till the month of October 2021 was enclosed in the agenda and same was discussed in the meeting.

No significant deviation in any of the states was observed.

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

- The maintenance programme of generating units and transmission lines for the month of December 2021 was deliberated in the meeting held on 22.11.2021.

- NR-1/PGCIL representative apprised the forum that Rihand Dadri HVDC Pole-1 is ready to charge from their side, but inspection by CEA Electrical Inspectorate is awaited.
- Following shutdown requests were also discussed in the OCC meeting:

POWERGRID NORTHERN REGION-II

SUBJECT :- SD REQUEST FOR TRANSMISSION ELEMENTS for 189 th OCC MEETING										
S.N.	Details of Transmission Element		Category of element	DURATION				Daily/Continuous	Reason	Decision of OCC
	Voltage level (KV)	NAME OF THE ELEMENT AND SUBSTATION		FROM		TO				
				DATE	TIME	DATE	TIME			
X-2 For construction activity										
2	400KV	400KV D/C Kalra Amb -Wangtoo	Circuit No - II	12/1/2021	07:00 Hrs.	12/5/2021	18:00 Hrs.	Daily	NON - AUTO MODE required for OPGW installation works under ULDC scheme.	approved
				12/11/2021	07:00 Hrs.	12/24/2021	18:00 Hrs.	Daily		approved
23	765KV	765KV Moga - Meerut	N/A	12/1/2021	07:00 Hrs.	12/3/2021	18:00 Hrs.	Daily	NON - AUTO MODE required for OPGW installation works under ULDC scheme.	approved
				12/6/2021	07:00 Hrs.	12/8/2021	18:00 Hrs.	Daily		approved
				12/13/2021	07:00 Hrs.	12/20/2021	18:00 Hrs.	Daily		approved
X-3 For O&M activity										
1	400kV	400kV Banala Amritsar TL	A	01.12.2021	09:00 HRS	31.12.2021	18:00 HRS	DAILY	For replacement of disc insulator with CLR polymer insulators on alternate day basis with non auto of 400KV Banala Hamirpur, Hamirpur Jalandhar & Jalandhar Amritsar	approved
2	400kV	400kV Banala Hamirpur TL	A	01.12.2021	09:00 HRS	31.12.2021	18:00 HRS	DAILY	For replacement of disc insulator with CLR polymer insulators on alternate day basis with non auto of Amritsar Banala	approved
3	400kV	400kV Hamirpur Jalandhar TL	A	01.12.2021	09:00 HRS	31.12.2021	18:00 HRS	DAILY	For replacement of disc insulator with CLR polymer insulators on alternate day basis with non auto of Amritsar Banala	approved
4	765KV	765KV Bikaner 1 Bay	A	01.12.2021	09:00 HRS	01.12.2021	1300 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
5	765KV	765KV BR Bay	A	01.12.2021	14:00 HRS	01.12.2021	1800 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
6	765KV	765KV Bikaner 1 BR1 Tie	A	02.12.2021	09:00 HRS	02.12.2021	1300 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
7	765KV	765KV Bikaner 2 Bay	A	02.12.2021	14:00 HRS	02.12.2021	1800 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
8	765KV	765KV BR Bay	A	03.12.2021	09:00 HRS	03.12.2021	1300 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
9	765KV	765KV Bikaner 2 BR 2 Tie	A	03.12.2021	14:00 HRS	03.12.2021	1800 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
10	765KV	765KV Meerut Bay	A	04.12.2021	09:00 HRS	04.12.2021	1300 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
11	765KV	765KV Meerut- ICT-1 Tie	A	04.12.2021	14:00 HRS	04.12.2021	1800 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
12	765KV	765KV ICT-I Bay	A	05.12.2021	09:00 HRS	05.12.2021	1300 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
13	765KV	765KV Bhiwani 1 Bay	A	05.12.2021	14:00 HRS	05.12.2021	1800 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
14	765KV	765KV Bhiwani-ICT-1 Tie	A	06.12.2021	09:00 HRS	06.12.2021	1300 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved
15	765KV	765KV ICT-II Bay	A	06.12.2021	14:00 HRS	06.12.2021	1800 Hrs	DAILY	For washing of Insulators in view of Huge pollution in the area	approved

Category A: Transmission elements at 400 kV and above.

Category B: Transmission elements at 132 kV and above level emanating from ISGS.

Category C: Transmission elements at 132 kV and above which are inter-regional in nature.

Agenda No. 4.1: Anticipated Power Supply Position in Northern Region for December 2021

- The updated anticipated Power Supply Position for December 2021 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
CHANDIGARH	Availability	110	230	No revision submitted
	Requirement	120	270	
	Surplus / Shortfall	-10	-40	
	% Surplus / Shortfall	-8.3%	-14.8%	
DELHI	Availability	3549	5250	22-Nov-21
	Requirement	2250	5250	
	Surplus / Shortfall	1299	0	

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	% Surplus / Shortfall	57.7%	0.0%	
HARYANA	Availability	4790	10770	No revision submitted
	Requirement	4160	7080	
	Surplus / Shortfall	630	3690	
	% Surplus / Shortfall	15.1%	52.1%	
HIMACHAL PRADESH	Availability	983	1870	11-Nov-21
	Requirement	968	1890	
	Surplus / Shortfall	15	-20	
	% Surplus / Shortfall	1.5%	-1.1%	
J&K and LADAKH	Availability	1030	3650	No revision submitted
	Requirement	2060	2920	
	Surplus / Shortfall	-1030	730	
	% Surplus / Shortfall	-50.0%	25.0%	
PUNJAB	Availability	4710	9280	22-Nov-21
	Requirement	3961	7220	
	Surplus / Shortfall	749	2060	
	% Surplus / Shortfall	18.9%	28.5%	
RAJASTHAN	Availability	8380	18710	No revision submitted
	Requirement	8370	14710	
	Surplus / Shortfall	10	4000	
	% Surplus / Shortfall	0.1%	27.2%	
UTTAR PRADESH	Availability	9610	18200	16-Nov-21
	Requirement	9145	18200	
	Surplus / Shortfall	465	0	
	% Surplus / Shortfall	5.1%	0.0%	
UTTARAKHAND	Availability	1197	2250	03-Nov-21
	Requirement	1178	2287	
	Surplus / Shortfall	19	-37	
	% Surplus / Shortfall	1.6%	-1.6%	
NORTHERN REGION	Availability	34358	64000	
	Requirement	32212	54600	
	Surplus / Shortfall	2146	9400	
	% Surplus / Shortfall	6.7%	17.2%	

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	Sep-2021
Haryana	Apr-2018	Sep-2021
Himachal Pradesh	Apr-2018	Aug-2021
Punjab	Apr-2018	Jul-2021
Rajasthan	Apr-2018	Aug-2021
Uttar Pradesh	Apr-2018	Jul-2021

- OCC forum again raised expressed concern on non-submission of energy breakup data by Uttarakhand, UTs of J&K & Ladakh, and Chandigarh despite repeated reminders.

Agenda No. 6: System Study for Capacitor requirement in NR for the year 2019-20

- OCC forum was intimated that NRPC in its 48th meeting decided that the study report for 2019-20 along with the guidelines for finding the capacitor requirement at 11/33 kV level in NR would be submitted by CPRI. Accordingly, CPRI have submitted the system study report on 24.02.2021 and thereafter same was shared with the constituent states. The recommended capacitor compensation, additionally required as per the report is 352MVar. The report has brought out the additional requirement of 137MVar and 215MVar compensation for Punjab and J&K respectively. Moreover, empirical relationship for capacitor requirement against voltage profile at 11 kV, based on two configurations has been worked out in the report.
- In the 45th TCC / 48th NRPC meeting, it was decided after the submission of report for 2019-20 and the guidelines, the same would be studied by the same sub-group who had earlier recommended for guidelines and foreclosure of the contract. Based on Committee's recommendations, NRPC Sectt. can process the pending bills of Rs. 14 lakhs (Rs. 2 + 12 Lakhs), excluding taxes along with foreclosure of the contract. Accordingly, submitted report needs to be examined by the Committee.
- In 181st OCC, forum decided that sub-group comprising of following officers would study the report and submit the recommendation report within two weeks:
- NRPC Sectt. asked comments/observations on the CPRI report from all the states via e-mail. Comment from Delhi was received. Rajasthan, HP, Punjab, Haryana had submitted NIL comment. Comment from rest of the members was not received.
- In the 182nd OCC meeting, forum decided that a video-conferencing meeting may be held by members of sub-group to finalize the comments latest by 30th April, 2021 and compiled comments may be sent to CPRI for necessary correction in the report.
- The meeting of sub-group was held on 03.05.21. In the meeting, sub-group members decided to get PSSE file from CPRI for better understanding, which was later shared with them.
- In 183rd OCC meeting, NRPC representative requested for any other comments on the CPRI report, if remaining, from any of the members. Sub-group committee member from Rajasthan stated that since the CPRI report is for the year 2019-20, old data needs to be collected and then values in the CPRI report would be checked. It was further intimated that around 2-3 days' time would be required for this task. Rajasthan

representative was requested to send their observation/comments via e-mail to NRPC Sectt. at the earliest. Forum decided that after receiving observations/comments from Rajasthan, the compiled observations/comments may be sent to CPRI so that necessary corrections may be done in the draft report.

- In 184th OCC, forum was apprised that compiled comments were mailed to CPRI vide email dated 28th May'21 with a request to submit the corrected report within two weeks' time.
- CPRI vide email dated 31st May'21 communicated that majority of comments are on the modeling of base case PSSE file. Since the file is given by NRPC and CPRI has not modeled it so they are not in position to make any comment on the accuracy & modeling of file.
- In 185th OCC, NRPC representative stated that CPRI has submitted on 28th June 2021 its point-wise reply on the observations of sub-group along with updated report. OCC forum decided that a video-conferencing meeting may be held within sub-group members and CPRI for further discussion on reply of CPRI.
- In 186th OCC, NRPC representative apprised the forum that in line with decisions of 185th OCC, a meeting was held on 06.08.2021 under the chairmanship of MS, NRPC through Video Conferencing. It was attended by members of the sub-group, CPRI representatives, and officials from NRPC Sectt & NRLDC.
- It was also stated that in the meeting dt. 06.08.2021, comments of the sub-group on the latest version of CPRI report were deliberated in detail. After weighing the merits of the original & revisions of the report, following were decided:
 - First Report submitted by CPRI in September, 2020 shall be considered as the reference report. CPRI confirmed that the base-case of 11.07.2018 at 00:45 hrs. received from NRPC Sectt has been used for preparing September, 2020 report.
 - Comments from all utilities and NRLDC on September 2020 report must be submitted to NRPC Sectt, latest by 24.08.2021.
 - NRPC Sectt, after examination, shall share with CPRI the compiled comments of the utilities and NRLDC, latest by 31.08.2021.
 - Thereafter, CPRI shall submit its reply on the compiled comments sent by NRPC Sectt, latest by 15.09.2021.
- It was further intimated that base case file (11.07.2018 00:45 hrs) and CPRI September 2020 report has been e-mailed to all sub-group members on 10.08.2021 requesting to submit comments/observations thereon latest by 24.08.2021.
- In the meeting (187th OCC), forum was apprised that although last date for submission of comments was 24.08.2021, NRPC Sectt. received comments from Himachal Pradesh, Punjab, Rajasthan, Delhi, and NRLDC vide mails dtd. 24.08.2021, 25.08.2021, 26.08.2021, 31.08.2021, and 03.09.2021 respectively. As the received comments were also on the base-case data, a meeting was held on 06.09.2021 among officers of NRPC Sectt, NRLDC and above four states for discussing comments before sending to CPRI. After detailed discussions, following were decided:

A. Himachal Pradesh:

- a) It was apprised by NRLDC that generation data of micro IPPs has not been modelled by them in base-case due to their small quantity. Further, Capacitor

at Baddi needs to be removed from base-case.

- b) HP was requested to submit within 3 days data regarding (11.07.2018 00:45 HRS):
 - i. Generation break-up along with details of micro IPPs.
 - ii. Capacitors at 132 kV level
 - iii. Nodes of major voltage profile mismatch
 - iv. Load factor of state (current scenario if data of past is not available)
- c) It was decided that after getting above data from HP, base-case will be tuned by NRLDC before sending to CPRI.

B. Punjab:

- a) All switched reactors/capacitors to be converted into fixed & net shunt capacitor value in the base-case to be corrected as per Punjab's comment.
- b) Punjab was requested to submit low voltage nodes (11.07.2018 00:45 HRS) within 3 days.
- c) Based on data from Punjab, initial tuning to be done by NRLDC for Q values of generators. CPRI may be required to do further tuning.

C. Rajasthan:

- a) Except low voltage points, power factor needs to be upgraded in the base-case.
- b) Rajasthan representative confirmed that most of the capacitors were off during the time for which modelling is done, so lumped capacitor at 132kV needs to be deleted.
- c) Rajasthan was requested to submit
 - i. List of bus-wise capacitors and their status (OFF/ON condition) on 11.07.2018 00:45 HRS.
 - ii. Voltage profile of generator buses.

D. Delhi:

- a) Delhi was requested to submit voltage profile of generator buses.

- It was decided that after receiving data from above four states, NRLDC will tune the base case initially and will also ensure that regional generators shall not absorb reactive power in the base-case and then base case will be sent to CPRI along with compiled comments.
- In 188th OCC, it was apprised that CPRI vide e-mail dtd. 23.09.2021, requested to send comments at the earliest.
- NRPC Sectt. vide e-mail dtd. 23.09.2021 apprised the CPRI that as per decisions of meeting dtd. 06.09.2021, tuning of base-case file is being done by NRLDC so that no new issue arises in future.
- CPRI vide e-mail dtd. 24.09.2021 has requested that any change in loading & generation profile will be a new base case and this will be a fresh study for new base case. It will require an extensive time and efforts. CPRI has requested to ensure that

load/generation profile in tuned PSSE should be same as was given to CPRI for PSSE base 11.7.2018 at 00.45.

- In view of CPRI's request, NRLDC was requested vide e-mail dtd. 24.09.2021 to halt tuning of base-case till further discussion.
- A meeting was held between NRPC Sectt. and NRLDC on 04.10.2021, wherein it was decided that without incorporating corrective comments of states, the report is not acceptable w.r.t drawing any conclusion on requirement of capacitor. Accordingly, NRLDC was requested vide e-mail dtd. 08.10.2021 to complete tuning of base-case at the earliest.
- NRLDC representative informed that tuned base-case will be submitted by NRLDC by 28.10.2021. It was decided that the same will be sent to CPRI for necessary correction in report.
- Tuned base-case has been received from NRLDC vide mail dtd 10.11.2021.
- In 189th OCC, NRPC representative apprised that tuned base-case along with comments of states will be sent to CPRI for necessary correction in the report.

Agenda No. 7: Automatic Demand Management System

- Forum was informed that as decided in the 175th OCC meeting, to conduct separate meeting with states, nominations are pending from PuVVNL, PVVNL, MVVNL, DVVNL, UPPTCL, UPCL, PTCUL, SLDC Uttarakhand, and J&K. They were requested on 01.03.2021 to submit nominations for the meeting.
- Meetings on ADMS implementation road map have been held with the officers of Haryana, Himachal Pradesh, Punjab and UP on 05.02.2021, 19.02.2021, 05.03.2021, and 14.07.2021 respectively. In these meetings, issues and apprehensions on ADMS were discussed along with vital aspects like addressing the commercial issues, basic architecture for scheme and funding possibilities for the scheme.
- As per the request of states for DPR of any state that has got PSDF support for ADMS, website link of PSDF Sectt. has been shared with Haryana, Himachal Pradesh, Punjab and Uttar Pradesh for accessing DPR. SLDCs were also requested to expedite the submission of pending nominations.
- In 186th OCC, In-charge, NRLDC stated that as per IEGC, implementation of ADMS is mandatory. It helps in reducing DSM charges also. States must take it seriously.
- MS, NRPC stated that non-implementation of ADMS by states is indistinguishably non-adherence to directions of CERC. He enquired from NRLDC whether POSOCO has made any communication with CERC regarding non-adherence of its deadline i.e. 31.06.2016. NRLDC representative stated that he would look into and inform in next meeting.
- NRPC representative added that initial deadline for ADMS implementation was 1st January 2011 as per para 5.4.2 (d) of IEGC. Later, CERC has taken suo-motu cognizance of non-implementation of ADMS by states and given 31.06.2016 as deadline vide its order dtd. 31.12.2015 in petition no. 5/SM/2014. Implementation deadline given by the statutory and regulatory body need to be complied by concerned SLDC / SEB / distribution licensee as per regulation no. 5.4.2 (a) & (b) of IEGC. Moreover, hand holding process for project proposal preparation in respect of four NR states has already been done by NRPC.

- Forum decided that NRLDC may file a report to CERC based on compiled status of ADMS implementation in states of Northern Region.
- In the 187th OCC, NRLDC representative quoted the texts of CERC order dtd. 31.12.2015 in petition no. 5/SM/2014. He apprised the status of ADMS implementation till 2015. Further, he requested the states to update the status so that NRLDC may file petition in CERC on the basis of compiled status.
- In the 188th OCC, NRLDC informed that it has not received comments from states in this matter. Accordingly, all SLDC/DISCOMs are requested to furnish the latest status of ADMS implementation in their respective control areas latest by 31st October 2021 to NRLDC. Status as received till 31.10.2021 would be reported to CERC by NRLDC.
- In the meeting (189th OCC), NRLDC informed that status of ADMS has been sent to CERC twice (Aug'16 and Sep'16) in the past. The same is recorded in MoM of 127th OCC also.
- NRLDC representative informed that CERC will be apprised again within next 10 days about the latest status of ADMS as per the updated information available with them.

Agenda No. 8: Follow-up of issues from various OCC Meetings - Status update

- Updated status is attached as ***Annexure-A.I.***

Agenda No. 9. NR Islanding scheme

- Based on the decisions taken in the meeting taken by Hon'ble Minister of State (IC) for Power and New & Renewable Energy on 28.12.2020, Islanding Schemes for NR have been continuously reviewed/discussed in various forums.
- In 187th OCC, it was decided that states shall submit MIS report before every OCC meeting so that same may be discussed. Format was circulated vide agenda of 187th OCC.
- It was also highlighted that MoP has agreed for PSDF funding for implementation of islanding schemes and states were requested to prepare and submit DPR for the same. Further, a sample DPR on implementation of Islanding scheme for PSDF funding has been already circulated vide email dated 07.10.2021 and requested to expedite the preparation of DPR.
- Utilities were requested to refer and submit SOP for every Islanding scheme in their control area.
- A meeting was also taken by Honorable Cabinet Minister (Power, New & Renewable Energy) on 07.10.2021 wherein emphasis was given on PSDF funding for Islanding schemes and DPR submission for the same. MoM has been issued and copy of the same was enclosed as Annexure-A.II of agenda.
- In the meeting (189th), NRPC representative highlighted the lack of progress on part of Punjab, Uttarakhand, Himachal, J&K, Ladakh.
- UP and Punjab representatives stated that they have sent the offer along with data to CPRI for study of Islanding Schemes.
- HP intimated that system study is under process at DISCOM end.
- Rajasthan SLDC assured the submission of RAPS SCADA display on the same day.

- NRLDC submitted that they use PSSE software for system study but Rajasthan has submitted details of Islands in MI Power Software, therefore, they are exploring whether they can use that file.
- MS, NRPC desired to know the reason for sending data to CPRI for system study. He stated that it may be done at state level itself.
- UP representative stated that they are not able to perform dynamic system study as it involves parameters like rotor inertia, hunting, etc.
- MS, NRPC expressed concern regarding apathy of states in implementation of Islanding Schemes. He stated that all SLDCs shall intimate the names of Islands for which system study from CPRI is required along with justification for the same by 30th Nov, 2021. He also set timeline of 30th Nov, 2021 for Delhi to submit SOP data. He stated that communication may be sent to RAPS for submission of SOP data at the earliest.

Agenda No.10. 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 November 2021).

Agenda No.11. Declaration of spell of heavy rain fall and heavy snowfall during the period of 23rd and 24th Oct 2021 as state specific Natural disaster under SDRF Norms (Agenda by NR-2/POWERGRID)

- NR-2 POWERGRID vide email dated 12.11.2021 submitted that there was spell of heavy rain fall and heavy snowfall during the period of 23rd and 24th Oct 2021 in Hilly terrain of Jammu and Kashmir and Department of Disaster management, Relief Rehabilitation and Reconstruction had declared it as STATE SPECIFIC NATURAL DISASTER under SDRF Norms for Udhampur, Kishtwar, Reasi, Samba, Kathua, Anantnag, Kulgam and Soplian Districts of J&K. Copy of order issues by Department of Disaster management, Relief Rehabilitation and Reconstruction UT of J&K attached as Annexure-A.III of the agenda.
- POWERGRID representative requested that in view of above, outages of elements on 23rd and 24th Oct'2021 in the area declared as Natural disaster may kindly be considered outage under natural calamity.
- NRPC representative stated that SDRF norms are for grant of relief to affected families/people in case of natural calamity. Declaration of state specific calamity on 23rd and 24th Oct 2021 in some districts of J&K signals that weather may be abnormal but it may not be directly implied in case of towers and transmission lines made of metal. It needs other substantial details to arrive on any conclusion.
- POWERGRID representative stated that 7 lines were affected, 1 tower is on ERS and 1 tower has collapsed. He added that CEA inspection has been done at site and report is awaited.
- MS, NRPC asked NR-2 POWERGRID to submit the copy of CEA's report for deciding further course of action.

Agenda No. 12. Modification in SPS for reliable evacuation of power from 400/220kV Chamera Pooling (Chamba) Substation required for evacuation of power from 180 MW Bajoli-Holi HEP in interim arrangement (Agenda by HPPTCL)

- NRPC representative apprised the proposed SPS scheme of HPPTCL.

- NRLDC representative stated that SPS scheme has been scrutinized and found to be in order and same has been intimated to HPPTCL also.
- The sub-committee concurred the modified SPS logic.

Agenda No. 13. Deemed availability of outage of Transmission lines for installation of Bird Diverter as per requirement of NGT (Agenda by NR-1/POWERGRID)

- NRPC representative stated that in the 183rd OCC meeting, POWERGRID brought agenda for considering the outage needed for installing Bird Diverters (under the NGT order) as deemed available.
- In 185th OCC, forum decided that since installation of bird diverters is being done on the direction of court and NGT, the number of outage days projected by POWERGRID for eleven lines (enclosed as Annexure-A-IV of 185th Agenda) may be considered as deemed available.
- POWERGRID vide letter dt. 02.11.2021 has submitted the details for installation of bird diverters in 2nd phase for consideration of deemed availability. The same was attached as Annexure-A.VII of agenda.
- MS, NRPC asked NR-1 representative whether there will be any other line remaining for installation of bird diverter after this 2nd phase.
- NR-1/POWERGRID representative apprised the forum that after installation of bird diverters as proposed in 2nd phase, there will be no other lines pending.
- Forum approved deemed availability for lines as attached in Annexure-A.VII of agenda.

Agenda No. 14. Installation of good quality bird flight diverter (BFD)

- NRPC representative stated that CEA has issued a letter dtd 10.11.2021 that they are getting various complaints on installation of poor-quality bird diverters. Sometimes disc of bird diverters are found strewn in land below transmission lines. It may be due to poor quality of product, inadequate design by manufacturer or improper installation.
- NRPC representative highlighted that CEA has issued technical specifications for bird diverter that may be complied by utilities for ensuring proper installation of bird diverters.
- MS, NRPC asked Powergrid to take cognisance of the CEA letter and ensure that technical specifications issued by CEA are complied during installation of bird diverters.

Agenda No. 15 Review of SPS for evacuation of generation of Lalitpur TPS (Agenda by UP SLDC)

- NRPC representative stated that UP SLDC vide letter dated 15.11.2021 has submitted the proposed revised logic for SPS for evacuation of Lalitpur TPS in view of commissioning of 765kV Fatehabad – Greater Noida line. UP SLDC has submitted the old & the proposed logic along with the comments of Lalitpur TPS and requested for the approval of the revised scheme (copy of letter is attached at Annexure-A.VIII of agenda).
- NRPC representative presented the matter and apprised the forum that scheme has been sent to NRLDC for comments.
- For Case-2 of proposed SPS, Lalitpur TPS representative requested that, instead of bringing one machine to house load condition, it is recommended to trip one selected

machine and the command block is not required. NRLDC representative consented for the same.

- For Case-3 of proposed SPS, Lalitpur TPS representative requested that 200 MW backing down may be done by automatic mode and 200 MW may be done by manual mode. NRLDC representative consented for the same.
- For Case-5 of proposed SPS, Lalitpur TPS representative requested that 200 MW backing down may be done by automatic mode and rest of backing down may be done by manual mode. NRLDC representative consented for the same.
- NRLDC representative added that Lalitpur TPS may be asked to revise the SPS in future if oscillation is observed.
- Lalitpur representative informed that PSS tuning for 1 unit has been done and they are doing for rest 2 units also.
- Forum approved the SPS with above discussion.

Table Agenda: By-passing the Kala Amb S/s by connecting Wangtoo line with Abdullapur Ckt-2 (agenda by NR-2/PGCIL)

- NRLDC stated that on 14th November 2021, 400KV Wangtoo (HPPTCL) - Kala Amb-1 was opened on voltage regulation, and thereafter charging attempt taken from Wangtoo end at 05:18hrs but line did not hold due to R-N Fault. After Detailed analysis, Internal Flashover was found in Gas zone 6 compartment of GIS duct from Line isolator to GIB bushing R Phase of 400KV Kala Amb -Wangtoo Line at Kala Amb Substation.
- NR-2 POWERGRID mentioned that the rectification of this fault will take approximately 15 days. It will not be possible to charge this line through this bay at Kala Amb substation and shall be out of service for the said period. In order to continue the evacuation of power of Karcham Wangtoo power house, NR-2 (PG) proposed to by-pass the Kala Amb S/s by connecting Wangtoo line with Abdullapur Ckt-2 Line at Gantry of Kala Amb Substation.
- Given the high loading of 400 kV Wangtoo_GIS - Sorang – Kala Amb line during peak hours (~800MW), forum approved the bypass arrangement as proposed by PG NR-2 in the interest of grid security subject to requisite change in protection setting by PG NR-2 and HP in coordination with NRLDC.

Follow up issues from previous OCC meetings

1	Sub-stations likely to be commissioned by next two years.	All the concerned states had been requested in past OCC meetings to submit the details of the downstream network associated specially with POWERGRID substations along with the action plan of their proposed / approved networks.	Status details of downstream networks mentioned 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: <table border="1"> <tr><td>⊙ CHANDIGARH</td><td>Sep-2019</td></tr> <tr><td>⊙ DELHI</td><td>Oct-2021</td></tr> <tr><td>⊙ HARYANA</td><td>Apr-2021</td></tr> <tr><td>⊙ HP</td><td>Mar-2021</td></tr> <tr><td>⊙ J&K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Aug-2021</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Oct-2021</td></tr> <tr><td>⊙ UP</td><td>Sep-2021</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Oct-2021</td></tr> </table> All States/UTs are requested to furnish updated status on monthly basis.	⊙ CHANDIGARH	Sep-2019	⊙ DELHI	Oct-2021	⊙ HARYANA	Apr-2021	⊙ HP	Mar-2021	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Aug-2021	⊙ RAJASTHAN	Oct-2021	⊙ UP	Sep-2021	⊙ UTTARAKHAND	Oct-2021		
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⊙ UP	Sep-2021																						
⊙ UTTARAKHAND	Oct-2021																						
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".	Data upto following months, received from various states / UTs: <table border="1"> <tr><td>⊙ CHANDIGARH</td><td>Not Available</td></tr> <tr><td>⊙ DELHI</td><td>Sep-2021</td></tr> <tr><td>⊙ HARYANA</td><td>Sep-2021</td></tr> <tr><td>⊙ HP</td><td>Oct-2021</td></tr> <tr><td>⊙ J&K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Mar-2021</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Sep-2021</td></tr> <tr><td>⊙ UP</td><td>Sep-2021</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Mar-2021</td></tr> <tr><td>⊙ BBMB</td><td>Sep-2021</td></tr> </table> All States/UTs are requested to furnish updated status on monthly basis.	⊙ CHANDIGARH	Not Available	⊙ DELHI	Sep-2021	⊙ HARYANA	Sep-2021	⊙ HP	Oct-2021	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Mar-2021	⊙ RAJASTHAN	Sep-2021	⊙ UP	Sep-2021	⊙ UTTARAKHAND	Mar-2021	⊙ BBMB	Sep-2021
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⊙ UTTARAKHAND	Mar-2021																						
⊙ BBMB	Sep-2021																						
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.	Status of the information submission (month) from states / utilities is as under: <table border="1"> <tr><td>⊙ HARYANA</td><td>Feb-2021</td></tr> <tr><td>⊙ PUNJAB</td><td>Sep-2021</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Oct-2021</td></tr> <tr><td>⊙ UP</td><td>Sep-2021</td></tr> <tr><td>⊙ NTPC</td><td>May-2021</td></tr> </table> FGD status details are enclosed as Annexure-A.I.II. All States/utilities are requested to furnish updated status of FGD installation progress on monthly basis.	⊙ HARYANA	Feb-2021	⊙ PUNJAB	Sep-2021	⊙ RAJASTHAN	Oct-2021	⊙ UP	Sep-2021	⊙ NTPC	May-2021										
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⊙ UP	Sep-2021																						
⊙ NTPC	May-2021																						
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 requested to submit daily data on MERIT Order Portal timely.																				

6	Reactive compensation at 220 kV/ 400 kV level at 15 substations			
	State / Utility	Substation	Reactor	Status
i	POWERGRID	Kurukshetra	500 MVar TCR	Anticipated commissioning: Dec' 2021 (delay due to pending supplies by GE)
ii	DTL	Peeragarhi	1x50 MVar at 220 kV	PO awarded to M/s Kanohar Electricals Ltd. Drawings approved and under stage inspection. GIS Bay is already available. Work expected to be completed by Dec.21
iii	DTL	Harsh Vihar	2x50 MVar at 220 kV	PO awarded to M/s Kanohar Electricals Ltd. Drawings approved and under stage inspection. GIS Bay is already available. Work expected to be completed by Dec.21
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	Already submitted to PSDF. On hold due to policy decision
xi	RAJASTHAN	Akal	1x25 MVar	LOA placed on dt. 4.1.2021. Agreement signed on dt. 8.02.2021. Case for 2nd installment would be forwarded to NLDC, POSOCO. The target date is Mar' 22.
xii	RAJASTHAN	Bikaner	1x25 MVar	LOA placed on dt. 4.1.2021. Agreement signed on dt. 8.02.2021. Case for 2nd installment would be forwarded to NLDC, POSOCO. The target date is Mar' 22.
xiii	RAJASTHAN	Suratgarh	1x25 MVar	LOA placed on dt. 4.1.2021. Agreement signed on dt. 8.02.2021. Case for 2nd installment would be forwarded to NLDC, POSOCO. The target date is Mar' 22.

xiv	RAJASTHAN	Barmer & others	13x25 MVar	Agreement signed on dt. 22.06.2020. Grant of Ist Installment received on dt.19.02.21. Technical bid opened on 22.10.2021
xv	RAJASTHAN	Jodhpur	1x125 MVar	Agreement signed on dt. 22.06.2020. Grant of Ist Installment received on dt.19.02.21. Technical bid opened on 22.10.2021

Sl. No.	Substation	Downstream network bays	Commissioning status of ICTs / Bays	Planned 220 kV system	Revised Target	Remarks
1	Shahjahanpur, 2x315 MVA 400/220 kV	4 Nos. of 220 kV bays to be utilized	<u>Commissioning of ICT</u> <u>Commissioning of Bays</u> Jun/Sep'14	Shahjahanpur-Azimpur D/C line		Connected to load on 28.07.2021
				LILO of 220kV Shahjahanpur - Sitapur at Shahjahanpur PG	Dec'21	Updated in 188th OCC
2	Hamirpur 400/220 kV 2x 315 MVA S/s (Augmentation by 3x105 MVA ICT)	2 nos. bays utilized under ISTS. Balance 6 nos to be utilized	<u>Commissioning of ICT</u> 1st -Dec'13 2nd - Mar'14 3rd - Mar'19 <u>Commissioning of Bays</u> 4 bays - Dec'13 2 bays - Mar'14 2 bays - Mar'19	220 kV D/C Hamirpur-Dehan line. Original schedule: Dec' 2020	Dec'21	Updated in 188th OCC
3	Sikar 400/220kV, 1x 315 MVA S/s	2 Nos. of 220 kV bays	Commissioned (date not available)	Not available	Dec'21	Work order was placed on dt. 13.04.2020 to M/s A to Z Ltd. Work started on dt. 4.12.2020. S/S-32/32, T/E-31/32 (T/E at 27 no. location was pending due to Rajasthan High Court stay), T/S- 7.62/8.122 km completed. Now the stay has been vacated and balance work started. Tentative date of completion of work / line charging is 31.12.2021.
4	Bhiwani 400/220kV S/s	6 nos. of 220kV bays	Commissioned (date not available)	220kV Bhiwani (PG) - Isherwal (HVPNL) D/c line	Mar'22	Delayed due to RoW issue
5	400/220kV Tughlakabad GIS	10Nos. of 220kV bays	Commissioned (date not available)	RK Puram – Tughlakabad (UG Cable) 220kv D/c line	Jul'22	PO for supply and ETC of D/C UG cable awarded.
				Masjid Mor – Tughlakabad 220kv D/c line	Mar'22	PO for supply and ETC of D/C UG cable awarded.
6	400/220kV Kala Amb GIS (TBCB)	6 Nos. of 220kV bays	Commissioned in Jul'2017	220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Kala Amb S/s	Dec'21	Details for utilizing remaining 4 bays is not available

FGD Status

Updated status of FGD related data submission

NTPC (16.06.2021)

MEJA Stage-I

RIHAND STPS

SINGRAULI STPS

TANDA Stage-I

TANDA Stage-II

UNCHAHAR TPS

UPRVUNL (22.11.2021)

ANPARA TPS

HARDUAGANJ TPS

OBRA TPS

PARICHHA TPS

PSPCL (22.11.2021)

GGSTP, Ropar

GH TPS (LEH.MOH.)

RRVUNL (14.10.2021)

CHHABRA SCPP

CHHABRA TPP

KALISINDH TPS

KOTA TPS

SURATGARH SCTPS

SURATGARH TPS

Updated status of FGD related data submission

Adani Power Ltd. (28.10.2021)

KAWAI TPS

**Lalitpur Power Gen. Co. Ltd.
(22.10.2021)**

Lalitpur TPS

**Lanco Anpara Power Ltd.
(22.10.2021)**

ANPARA-C TPS

**Rosa Power Supply Company
(22.10.2021)**

Rosa TPP Phase-I

**Prayagraj Power Generation
Company Ltd. (22.10.2021)**

Prayagraj TPP

APCPL (17.08.2021)

INDIRA GANDHI STPP

Pending submissions

GVK Power Ltd.

GOINDWAL SAHIB

HGPCL

PANIPAT TPS

RAJIV GANDHI TPS

YAMUNA NAGAR TPS

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: 31-12-2021), INDIRA GANDHI STPP U#2 (Target: 31-03-2022), INDIRA GANDHI STPP U#3 (Target: 30-06-2022)
GVK Power Ltd.	GOINDWAL SAHIB U#1 (Target: 30-04-2020), GOINDWAL SAHIB U#2 (Target: 29-02-2020) – initial target
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) – initial target

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: 30-04-2020), DADRI (NCTPP) U#6 (Target: 29-02-2020), RIHAND STPS U#1 (Target: 28-02-2022), RIHAND STPS U#2 (Target: 31-12-2021), 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: 31-08-2022), SINGRAULI STPS U#2 (Target: 31-08-2022), SINGRAULI STPS U#3 (Target: 31-08-2022), SINGRAULI STPS U#4 (Target: 31-08-2022), SINGRAULI STPS U#5 (Target: 31-08-2022), SINGRAULI STPS U#6 (Target: 31-08-2022), SINGRAULI STPS U#7 (Target: 31-08-2022), UNCHAHAR TPS U#1 (Target: 30-09-2023), UNCHAHAR TPS U#2 (Target: 30-09-2023), 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: 31-03-2023), MEJA Stage-I U#1 (Target: 31-03-2022), MEJA Stage-I U#2 (Target: 31-03-2022), TANDA Stage-I U#1 (Target:), TANDA Stage-I U#2 (Target:), TANDA Stage-II U#3 (Target: 31-12-2022), TANDA Stage-II U#4 (Target: 31-12-2022)
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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) – initial target
Lalitpur Power Gen. Company Ltd.	LALITPUR TPS U#1 (Target: 31-12-2024), LALITPUR TPS U#2 (Target: 30-09-2024), LALITPUR TPS U#3 (Target: 30-06-2024)
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: 31-12-2024), ROSA TPP Ph-I U#2 (Target: 31-12-2024), ROSA TPP Ph-I U#3 (Target: 31-12-2024), ROSA TPP Ph-I U#4 (Target: 31-12-2024)
RRVUNL	KOTA TPS U#5 (Target: 31-12-2022), KOTA TPS U#6 (Target: 31-12-2022), KOTA TPS U#7 (Target: 31-12-2022), SURATGARH TPS U#1 (Target: 31-12-2024), SURATGARH TPS U#2 (Target: 31-12-2024), SURATGARH TPS U#3 (Target: 31-12-2024), SURATGARH TPS U#4 (Target: 31-12-2024), SURATGARH TPS U#5 (Target: 31-12-2024), SURATGARH TPS U#6 (Target: 31-12-2024), SURATGARH SCTPS U#7 (Target: 31-12-2024), SURATGARH SCTPS U#8 (Target: 31-12-2024), CHHABRA TPP U#1 (Target: 31-12-2024), CHHABRA TPP U#2 (Target: 31-12-2024), CHHABRA TPP U#3 (Target: 31-12-2024), CHHABRA TPP U#4 (Target: 31-12-2024), CHHABRA SCPP U#5 (Target: 31-12-2024), CHHABRA SCPP U#6 (Target: 31-12-2024), KALISINDH TPS U#1 (Target: 31-12-2024), KALISINDH TPS U#2 (Target: 31-12-2024)
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) – initial target
UPRVUNL	ANPARA TPS U#1 (Target: 31-10-2022), ANPARA TPS U#2 (Target: 31-08-2022), ANPARA TPS U#3 (Target: 30-06-2022), ANPARA TPS U#4 (Target: 30-04-2022), ANPARA TPS U#5 (Target: 28-02-2022), ANPARA TPS U#6 (Target: 30-12-2021), ANPARA TPS U#7 (Target: 22-03-2021), HARDUAGANJ TPS U#8 (Target: 31-12-2021), HARDUAGANJ TPS U#9 (Target: 31-12-2021), OBRA TPS U#9 (Target: 31-08-2022), OBRA TPS U#10 (Target: 31-10-2022), OBRA TPS U#11 (Target: 31-12-2022), OBRA TPS U#12 (Target: 30-06-2022), OBRA TPS U#13 (Target: 30-04-2022), PARICHHA TPS U#3 (Target: 30-04-2022), PARICHHA TPS U#4 (Target: 30-04-2022), PARICHHA TPS U#5 (Target: 28-02-2022), PARICHHA TPS U#6 (Target: 31-12-2021)