

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

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विषय: उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 196^{वी} बैठक के खण्ड-अ मे लिए गए निर्णयों का सार।

Subject: Gist of decisions taken in the Part-A of 196th OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप- समिति की 196^{वी} बैठक दिनांक 22.06.2022 को आयोजित की गयी। उक्त बैठक की खण्ड-अ मे लिए गए निर्णयों का सार **अनुलग्नक – अ** के रूप मे संलग्न है।

196th meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 22.06.2022. The Gist of the decisions taken in Part-A of this meeting is enclosed as **Annexure-A**.

-sd-(सौमित्र मजूमदार) अधीक्षण अभियंता (प्रचालन)

सेवा में.

प्रचालन समन्वय उप- समिति के सभी सदस्य।

Gist of decisions taken in the Part-A of 196th OCC Meeting

Agenda No. 1: Confirmation of Minutes

Minutes of 195th OCC meeting was issued on 10.06.2022. OCC confirmed the minutes.

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

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

Delhi

The change in energy consumption is due to hot weather condition in month of May 2022.

Punjab

Actual maximum demand and actual energy requirement were more as compared to anticipated maximum demand and anticipated energy requirement respectively because of high demand of agricultural load and all other categories due to dry season and heavy temperature in the state of Punjab during month of May 2022.

Himachal Pradesh

The anticipation in energy requirement in respect of Himachal Pradesh for the month of May, 2022 came on the higher side due to a rise in demand which is attributable to the following:

- a. Increased temperature compared to last year.
- b. Dry weather
- c. Heavy inrush of tourists

Uttar Pradesh

Actual energy requirement was higher than anticipated due to high temperature; distribution network / supply not affected due to low wind speed and unusual absence of thunder storm/dust storm.

Uttarakhand

The reasons for significant deviation of actual demand and anticipated figures during the month of May 2022 was due to unusual hot and humid weather conditions, increase in demand in comparison to historical data.

Rajasthan

The eenergy consumption & peak ddemand increased by 11 % & 18.1 % respectively w.r.t. aanticipated eenergy requirement & aanticipated peak ddemand for May 2022 is because of unexpected load growth due to long spell of high heat wave in the state and overlapping of agriculture supply blocks in day hours for optimum utilization of state solar generation.

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 May 2022 was enclosed in the agenda and same was discussed in the meeting.

Agenda No. 4.1: Anticipated Power Supply Position in Northern Region for July 2022

• The updated anticipated Power Supply Position for July 2022 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision	
	Availability	200	430		
CHANDIGARH	Requirement	200	440	No Revision	
CHANDIGARH	Surplus / Shortfall	0	-10	submitted	
	% Surplus / Shortfall	0.0%	-2.3%		
	Availability	5076	8200		
	Requirement	4030	8200		
DELHI	Surplus / Shortfall	1046	0	21-Jun-22	
	% Surplus / Shortfall	25.9%	0.0%		
	Availability	5770	11700		
	Requirement	6991	12700	No Revision	
HARYANA	Surplus / Shortfall	-1221	-1000	submitted	
	% Surplus / Shortfall	-17.5%	-7.9%		
	Availability	1104	1700		
HIMACHAL	Requirement	1109	1727	08-Jun-22	
PRADESH	Surplus / Shortfall	-5	-27	00-Juli-22	
	% Surplus / Shortfall	-0.5%	-1.6%		
	Availability	2150	3550		
J&K and LADAKH	Requirement	1690	2610	No Revision	
JAK and LADAKH	Surplus / Shortfall	460	940	submitted	
	% Surplus / Shortfall	27.2%	36.0%		
	Availability	7650	14200		
DUNIAD	Requirement	8590	15320	21-Jun-22	
PUNJAB	Surplus / Shortfall	-940	-1120	21-Juli-22	
	% Surplus / Shortfall	-10.9%	-7.3%		
	Availability	9250	18050		
5.4.4.6.	Requirement	8630	14790	24 Jun 22	
RAJASTHAN	Surplus / Shortfall	620	3260	21-Jun-22	
	% Surplus / Shortfall	7.2%	22.0%		
	Availability	15810	26000		
UTTAR	Requirement	15500	26000	15-Jun-22	
PRADESH	Surplus / Shortfall	310	0	I J-JUII-ZZ	
	% Surplus / Shortfall	2.0%	0.0%		

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision	
	Availability	1333	2316		
	Requirement	1380	2350	05-Jun-22	
UTTARAKHAND	Surplus / Shortfall	-47	-34	00-Jun-22	
	% Surplus / Shortfall	-3.4%	-1.4%		
	Availability	48342	77600		
NORTHERN REGION	Requirement	47788	75800		
	Surplus / Shortfall	554	1800		
	% Surplus / Shortfall	1.2%	2.4%		

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	Mar-2022
Haryana	Apr-2018	Apr-2022
Himachal Pradesh	Apr-2018	Apr-2022
Punjab	Apr-2018	Mar-2022
Rajasthan	Apr-2018	Apr-2022
Uttar Pradesh	Apr-2018	Apr-2022
Uttarakhand	Apr-2018	Dec-2021

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

Agenda No. 6: 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 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 189th OCC, NRLDC informed that status of ADMS has been sent to CERC twice in the past (same is recorded in MoM of 127th OCC).
- NRLDC representative also informed that CERC will be apprised about the latest status
 of ADMS as per the updated information available with them.
- In the 190th OCC, NRLDC representative informed that vide letter dated 09.12.2021 (enclosed as Annexure-A.0 of minutes of 190th OCC), CERC has been apprised about the latest status of ADMS as per the updated information available with them.
- In the 192nd OCC, forum was intimated that no further update has been received on this
 matter. Rajasthan representative intimated that ADMS implementation schedule in their
 state has been extended till Dec'22 and this agenda may be continued in OCC meetings
 for monitoring the ADMS implementation schedule.
- In the 193rd OCC, Rajasthan representative informed that first trial is tentatively scheduled in May 2022.
- In the 194th OCC, Rajasthan representative reiterated its commitment for the 1st trials in May 2022. MS, NRPC asked representatives of other states to regularly update the status on ADMS implementation.
- In the 195th OCC, Rajasthan SLDC representative informed that in consultation with state STU, ADMS implementation schedule in their state has been extended till Dec'22.

In the meeting (196th OCC), Rajasthan SLDC representative informed that due to the power crisis, the scheduled trials could not be done. Likely completion schedule is 31.12.2022.

Agenda No. 7: Follow-up of issues from various OCC Meetings - Status update

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

Agenda No. 8. 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 held 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 is enclosed as Annexure-A.II of 189th OCC agenda.
- In the 189th OCC, 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.
- In the 190th OCC, NRPC representative informed that SOP data in respect of Delhi and RAPS have been received.
- UPSLDC vide letter dated 01.12.2021 has submitted the names of islands for which system study from CPRI is required. UPSLDC has highlighted, inter-alia, that involvement of long length 765kV line and high number of buses necessitates them to go for system study by CPRI. It has mentioned that SLDC/STU has no expertise in such studies and before doing any investment on the project, proper study is must for successful implementation and operation of Islands.

- HPSLDC vide letter dtd. 18.12.2021 has intimated that a meeting was held on 26.11.2021 between HPSLDC and HPSEBL wherein a team of officers from HPSLDC and HPSEBL has been formed to carry out transient study of all islands within a month.
- UPSLDC representative informed that CPRI has asked for some additional details and technical commercial offer would be provided to them by CPRI by 15th Jan 22.
- NRLDC representative informed that report received from Rajasthan regarding the Jodhpur-Barmer-Rajwest islanding scheme is in order and Rajasthan SLDC can proceed ahead. Further, NRLDC submitted that they use PSSE software for system study but Rajasthan has submitted details of Islands in MI Power Software, therefore, they are not able to access the file.
- Rajasthan SLDC representative informed that they have given the details in the hard copy of the load and generation to be considered for islanding scheme, and based on that have requested NRLDC to simulate it in PSSE software for validation. NRLDC representative agreed to the request of the Rajasthan SLDC.
- Uttarakhand SLDC representative informed that hydro stations near Dehradun are peaking stations and the proposed Dehradun islanding scheme appears to be infeasible. NRPC representative informed that some schemes in NR have been proposed by considering Hydro stations and Dehradun islanding scheme was proposed by the state SLDC itself in view of all factors. Thus, Uttarakhand SLDC shall immediately conduct study on the proposed Islanding Scheme having Khodri & Chibro units and provide status on the feasibility of scheme with supporting data so that same may be communicated to the Ministry.
- In 191st OCC, HPSLDC representative informed that they need further two weeks to submit the outcome of transient study of all islands. Uttarakhand representative informed that major hydro stations e.g. Chibro, Khodri etc at Dehradun Region in Yamuna valley are non-must run and peaking stations. Therefore, it is technically not feasible to implement Dehradun as an islanding scheme. However, nominations of nodal officers from various utilities (PTCUL, UJVN Ltd & UPCL) are being sought for the formation of internal committee for accessing the possibility of Dehradun as Islanding scheme and the report shall be submitted to NRPC Secretariat subsequently. Uttarakhand representative was asked to expedite the submission of feasibility study outcome.
- MS, NRPC stated that all constituents that have given their information about the planning of islanding scheme shall take up the work on top priority and submit the progress in time bound manner by submitting the updated MIS format every month.
- NRLDC representative informed that Rajasthan SLDC is modelling data on PSSE software and it is expected to be completed within one week. Thereafter, NRLDC will submit its comments on the same. Rajasthan representative consented for the same.
- UP and Punjab were asked to update the status of their study being done by CPRI. Both informed that there is no progress since last OCC and they are waiting for response from CPRI.

- In the 192nd OCC, UPSLDC informed that they have received techno-commercial offer from CPRI for both the islanding schemes of UP and accessing the inputs from CPRI they will be conveying a meeting in last week of February 2022.
- NRLDC representative informed modeling data on PSSE software received from Rajasthan has not been modeled for islanding scheme. Further, NRLDC representative asked Rajasthan SLDC to send their team next week for modeling the data on PSSE software.
- MS, NRPC asked Uttarakhand SLDC to expedite the study they are conducting to access the feasibility of Dehradun islanding scheme.
- NRPC representative informed that a meeting was convened by HPSLDC with officials of NRPC Sectt., NRLDC, HPSEBL, & HPPTCL on 11.02.2022. It was observed that system study work has been pending due to pre-occupation of the concerned resource. Therefore, it was decided that HPSLDC shall write letters to MDs of HPSEBL & HPPTCL.
 It was decided to review the status in another meeting in the first week of March 22. HPSLDC has written letter dt. 14.02.2022.
- Punjab SLDC also informed that they will be conveying a meeting with STU within a week to track the progress.
- In the 193rd OCC, NRPC representative informed forum that HPSLDC convened a
 meeting on 4th March 2022 wherein they presented the results of static and dynamic study
 conducted by them. NRLDC suggested that dynamic data used by HPSLDC is common
 data and it was decided that they will use data of particular generators and then apprise
 about the same.
- UPSLDC also convened a meeting on 7th March 2022 wherein they informed that CPRI
 has submitted the offer with a completion target of 5 months. It was also discussed that
 as there are two islanding schemes in UP control area hence it was suggested that CPRI
 may be asked to do it in 2 parts preferably 2.5 months each for both the islanding scheme.
- UPSLDC representative informed that CPRI would not be able to bifurcate the time separately for both the islanding scheme and acceptance is under consideration by the management.
- HPSLDC representative informed that they have communicated to all generators for providing dynamic data, and only reply from Karcham Wangtoo has been received from till date.
- Rajasthan representative informed that next week they will send their team to NRLDC for modelling the data on PSSE software.
- J&K representative informed that load has been identified and no further update. MS,
 NRPC asked J&K representative expedite the study work.
- Further, MS NRPC suggested that states shall coordinate with NRPC and NRLDC officials for carrying out the study.
- In the 194th OCC, Punjab representative informed that CPRI has asked for PSSE file for dynamic study which is being coordinated with NRLDC. STU has given timeline of 6 months for implementation after CPRI study.

- MS, NRPC along with NRLDC have desired that all states of northern region where islanding scheme is to be implemented shall convene meeting with the officials of NRPC and NRLDC wherein the study requirements can be discussed.
- OCC forum was of opinion that all generating units (especially 660MW units) shall make an effort to ensure successful household operations. UP representative was requested to expedite the implementation work of Unchahar-Lucknow Islanding scheme after analyzing load-generation balance and conducting steady state study.
- Further, OCC forum was of view that states shall go for implementation of islanding scheme after steady state study along with load generation balancing and dynamic study, if desired, may be carried out in later stage.
- In the 195th OCC, NRLDC representative intimated that steady state study for Rajasthan islanding scheme has been completed. It was decided that Rajasthan may go ahead for implementing the scheme.
- In the meeting (196th OCC), MS NRPC asked UP representative to take up the matter with CPRI for Agra islanding scheme and ask them to complete the work in one month time from the date of acceptance of offer by CPRI.
- UP representative informed that steady state study along with load generation balancing is complete for Unchahar-Lucknow Islanding scheme and the same would be submitted to NRLDC in one week time.
- Rajasthan representative informed that for Jodhpur-Barmer-Rajwest and Suratgarh islanding scheme work of DPR preparation is under progress and same would be submitted to NLDC to avail PSDF funding before next OCC meeting.
- MS, NRPC asked Uttarakhand representative to expedite the submission regarding the status on feasibility of the proposed Islanding scheme.
- MS NRPC asked Himachal Pradesh representative to coordinate with NRLDC officials to converge the study carried out by them.
- Further, MS NRPC also asked Punjab representative to coordinate with NRLDC officials in order to converge the steady state study carried out by them.

Agenda No. 9. 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 June 2022).

Agenda No. 10. Revised Islanding Schemes for the Rajasthan Atomic Power Station (RAPS-A & B) (Agenda by RRVPNL)

- RRVPNL representative presented the matter to the forum and submitted the revised islanding schemes for the Rajasthan Atomic Power Station (RAPS-A & B) due to changes in network topology.
- NRLDC representative mentioned that they will examine the revised islanding scheme and thereby submit its observation, within a week's time.

- Further, RRVPNL was requested to submit the changes in the configuration of transmission lines and load of the GSS for further analysis.
- Rajasthan representative intimated that ADMS will be implemented for its system by 31.12.2022.
- OCC was of view that scheme shall be implemented for minimum load and the scheme may initially be carried out for manual settings of block / operative operations (for taking care of load variation) and later on scheme can be migrated to automatic system after the implementation of ADMS system.
- OCC decided that after the final analysis of the revised islanding scheme, the same would be taken up for concurrence in the NRPC meeting.

Agenda No. 11. Review of planned outages proposed from 1st September 22 to 15th October 22 (Agenda by POSOCO)

- NRPC representative informed that POSOCO vide letter dated 08.06.2022 (copy enclosed as Annexure-A.IV. of agenda) has communicated the need to review the planned outages proposed from 1st September'22 to 15th October'22 to ensure bare minimum planned outage of thermal units in aforesaid months so that all India electricity demand in the upcoming months could be met without any constraint.
- OCC was of view that a LGBR sub-committee meeting may be conducted, wherein the planned outages proposed from 1st September'22 to 15th October'22 may be reviewed.
- Further, MS, NRPC was of opinion that GM Division, CEA may be invited as a special invite in the proposed LGBR meeting.

Agenda No.12. Reducing load on 400kV Tikrikalan-Bawana and 400kV Tikrikalan-Jhatikara Lines at 400kV S/Stn Tikrikalan (Erstwhile Mundka) (Agenda by DTL)

- DTL representative presented the matter to the forum and mentioned that peak load on 400kV lines associated with 400kV Tikrikalan is very high almost on daily basis. DTL representative requested OCC forum to review the optimal loading of 400kV lines in the region so that high loading of Tikrikalan to Jhatikara and Tikrikalan to Bawana lines may be addressed and reliability of 400kV Ring around NCT of Delhi may be improved.
- NRLDC representative stated that interconnector from DTL Bawana to PPCL Bawana is open from 01.06.2022 due to high fault level at Bawana sub-station and not due to line loading as reported by DTL representative. He further mentioned that there seems no issue of high loading as lines are Quad-Bersimis (2000MVA capacity).
- Further, NRLDC representative stated that with commissioning of already planned Narela ISTS S/s and Gopalpur S/s, loadings of 400kV Jhatikara-Mundka are likely to reduce.

Addl. Agenda No.13. Issue of Deemed Availability Certification for shutdowns availed by POWERGRID for shifting of transmission lines for NHAI Projects

NRPC representative presented the matter to the forum and communicated that recently a meeting was held by NRPC Sect with POWERGRID, NRLDC and CEA wherein it was decided that presently diversion cases of NHAI for the FY 2021-22 may be taken up first for the certification of deemed availability and it may be confirmed if beneficiaries are not affected due to these shutdowns.

- MS, NRPC was of view that beneficiaries may confirm by 30.06.2022 to seo-nrpc@nic.in
 whether they were affected or have faced any transmission constraint due to outages
 taken by POWERGRID for diversion cases related to NHAI from April, 2021 to September,
 2021 (copy of the outages attached as Annexure-AA.II of additional agenda).
- Further, MS, NRPC stated that if no comment is received from beneficiaries in regard to
 these outages within stipulated time, then it will be presumed that there was no restriction
 in regard to these outages and thereafter NRPC Sectt. would go ahead with the
 certification of these outages as provisionally deemed available.
- NRPC representative informed that outages taken by POWERGRID for diversion cases related to NHAI from January, 2022 to April, 2022 was already circulated to beneficiaries vide mail and despite reminder also, no observation from any beneficiary state for these outages is received. The forum was of the view that for the outages from January, 2022 to April, 2022 NRPC Sectt. shall go ahead with the certification of these outages as provisionally deemed available and certification process for remaining period of 2021-22 may be done after 30th June 2022.

Addl. Agenda No.14. Third party protection audit at PTCUL sub-stations (Agenda by PTCUL)

- PTCUL vide mail dated 20.06.2022 has intimated that they have submitted a DPR for renovation and up-gradation of protection system (stage-II) of various substations / switchyards in Uttarakhand under PSDF scheme to PSDF - NLDC secretariat through PUTCUL (the nodal agency under PSDF scheme of Uttarakhand state). This DPR covers upgradation of 02 nos. of 400 kV S/s and 08 nos. of 220 kV S/s, having served more than 10 years.
- PTCUL representative requested the OCC forum to constitute third party audit team for 400 kV / 220 kV S/s of Rishikesh / Haldwani, so that the desired Audit Report may be submitted to PSDF-NLDC for the approval of project.
- OCC forum was of view that two officers from NRLDC, POWERGRID (NR-2 & NR-3), UPPTCL/UPSLDC, THDC and PTCUL shall submit two nominations each for the said protection audit, latest by 27th June to NRPC Sectt.
- Moreover, it was decided that PTCUL/UJVNL shall submit the name and details of the coordinator for this activity and also the details (name, location, distance from Dehradun) of all sub-stations (to be audited), latest by 27th June to NRPC Sectt.
- OCC forum was of view that after receipt of nominations and S/s details, 5 groups (from different organization) may be formed for 2 S/s by NRPC Sectt so that each group may complete its activity within 5 days.

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 in Annexure-A.I.I.	networks is enclosed
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 from various states CHANDIGARH DELHI HARYANA HP J&K and LADAKH PUNJAB RAJASTHAN UP UTTARAKHAND All States/UTs are status on monthly be	Sep-2019 May-2022 Nov-2021 Jan-2022 Not Available Aug-2021 May-2022 Mar-2022 May-2022 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.	<pre></pre>	Not Available Mar-2022 Mar-2022 Not Available Mar-2022 Not Available Mar-2022 Mar-2022 Mar-2022 Mar-2022 requested to nealthiness of UFRs on islanding schemes and for the rest . Not Available Increased Increased Increased
		states/constituents agreed to raise the AUFR settings by 0.2 Hz	○ CHANDIGARH○ DELHI○ HARYANA	Increased Increased

_		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.	BBMB BBMB was requested to self certification reduces of 0.2 Hz is within one week. J&K requested to update increasing settings. Status of the information (month) from states under: HARYANA PUNJAB RAJASTHAN UP	An AUFR settings, K and LADAKH were status for of UFRs. mation submission / utilities is as Mar-2022 Jun-2022 Jun-2022 Jun-2022 Feb-2022 are enclosed as s are requested to 0 installation
	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 r submit daily data on Portal timely.	-

6	Reactive compen	sation at 220 kV/	400 kV level at 15 sub	stations
	State / Utility	Substation	Reactor	Status
i	POWERGRID	Kurukshetra	500 MVAr TCR	Anticipated commissioning: July 2022 (90% supplies received from GE and rest is expected by Feb'22)
ii	DTL	Peeragarhi	1x50 MVAr at 220 kV	PO awarded to M/s Kanohar Electricals Ltd. Drawings approved and under stage inspection (delay due to pending supply of reactor bushings). 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 stage inspection (delay due to pending supply of rector bushings). GIS Bay is already available.
iv	DTL	Mundka	1x125 MVAr at 400 kV & 1x25 MVAr at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec. 21. Reactor part tender is dropped and at present same is under revision.
V	DTL	Bamnauli	2x25 MVAr at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec. 21. Reactor part tender is dropped and at present same is under revision.
vi	DTL	Indraprastha	2x25 MVAr at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec. 21. Reactor part tender is dropped and at present same is under revision.
vii	DTL	Electric Lane	1x50 MVAr at 220 kV	Under Re-tendering due to Single Bid
viii	PUNJAB	Dhuri	1x125 MVAr at 400 kV & 1x25 MVAr at 220 kV	400kV Reactors - LOA issued on dated. 17.08.2021 and date of completion of project is 18 months from the date of LOA. 220kV Reactors - LOA issued on dated 19.07.2021 and date of completion of project is 18 months from the date of LOA.
ix	PUNJAB	Nakodar	1x25 MVAr at 220 kV	220kV Reactors - LOA issued on dated 19.07.2021 and date of completion of project is 18 months from the date of LOA.
X	PTCUL	Kashipur	1x125 MVAR at 400 kV	Price bid has been opened and is under evaluation

xi	RAJASTHAN	Akal	1x25 MVAr	LOA placed on dt. 4.1.2021. Agreement signed on dt. 8.02.2021. 2nd instalment has been received on dt. 30.07.2021. The erection work of 3 Reactors is under progress and shall be commissioned by 30.06.2022.
xii	RAJASTHAN	Bikaner	1x25 MVAr	LOA placed on dt. 4.1.2021. Agreement signed on dt. 8.02.2021. 2nd instalment has been received on dt. 30.07.2021. The erection work of 3 Reactors is under progress and shall be commissioned by 30.06.2022.
xiii	RAJASTHAN	Suratgarh	1x25 MVAr	LOA placed on dt. 4.1.2021. Agreement signed on dt. 8.02.2021. 2nd instalment has been received on dt. 30.07.2021. The erection work of 3 Reactors is under progress and shall be commissioned by 30.06.2022.
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. 07.04.2022 to M/s Kanohar Electricals Ltd.
XV	RAJASTHAN	Jodhpur	1x125 MVAr	Agreement signed on dt. 22.06.2020. Grant of Ist Instalment received on dt. 19.02.21 & work order placed on dt. 07.04.2022 to M/s Kanohar Electricals Ltd.

			<u> </u>	<u> </u>		Annexure-A-I.I
1. D	own Stream network I	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.	-	PDD, J&K to update the status.
		Commissioned: 6	Utilized: 2	• 220 kV New Wanpoh - Alusteng D/c Line	-	PDD, J&K to update the status.
2	400/220kV, 2x315 MVA New Wanpoh	Total: 6	Unutilized: 4	• 220 kV New Wanpoh - Mattan D/c Line	-	PDD, J&K to update the status.
3	400/220kV, 2x315 MVA Amargarh	Commissioned: 6 Total: 6	Utilized: 6 Unutilized: 2	• 220kV D/C line from 400/220kV Kunzar - 220/33kV Sheeri	-	PDD, J&K to update the status.
4	400/220kV, 2x500 MVA Kurukshetra (GIS)	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	220kV Bhadson (Kurukshetra) Ramana Ramani D/c line	-	HVPNL to update the status.
5	400/220 kV, 2x315 MVA Dehradun	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	Network to be planned for 4 bays	-	PTCUL to update the status.
		Commissioned: 6	Utilized: 3 Unutilized: 3	• 220 kV D/C Shahajahanpur (PG) - Gola line	Oct'22	Updated in 196th OCC by UPPTCL
6	Shahjahanpur, 2x315 MVA 400/220 kV	Approved/Under Implementation:1 Total: 7	(2 bays to be utilized shortly) Approved/Under Implementation:1	LILO of Sitapur – Shahjahanpur 220 kV SC line at Shahjahanpur (PG) – under commissioning	Oct'22	Updated in 196th OCC by UPPTCL.
7	Hamirpur 400/220 kV	Commissioned: 8	Utilized: 4 Unutilized: 4	• 220 kV Hamirpur-Dehan D/c	Mar'22	Updated in 192nd 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, 1x 315 MVA S/s	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	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	-	Issue related to ROW as intimated in 192nd OCC.HVPNL to update the status.
9	Bhiwani 400/220kV S/s	Commissioned: 6 Total: 6	Utilized: 0 Unutilized: 6	• 220 kV Bhiwani (PG) - Isherwal (HVPNL) D/c line.	-	Issue related to ROW as intimated in 192nd OCC.HVPNL to update the status.
				• 220 kV Bhiwani (PG) - Dadhibana (HVPNL) D/c line.	-	Issue related to ROW as intimated in 192nd OCC.HVPNL to update the status.
10	Jind 400/220kV S/s	Commissioned: 4 Approved:4 Total: 8	Utilized: 4 Unutilized: 0 Approved:4	LILO of both circuits of 220 kV Jind HVPNL to PTPS D/C line at 400 kV substation PGCIL Khatkar (Jind) with 0.5 sq inch ACSR conductor	-	HVPNL to update the status.
11	400/220kV Tughlakabad	Commissioned: 6 Under Implementation: 4	Unutilized: 0	• RK Puram – Tughlakabad (UG Cable) 220kV D/c line – March 2023.	-	DTL to update the status.
	GIS	Total: 10	Under Implementation:4	Masjid Mor – Tughlakabad 220kV D/c line.	-	DTL to update the status.
12	400/220kV Kala Amb GIS (TBCB)	Commissioned: 6 Total: 6	Utilized: 0 Unutilized: 6	HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Kala Amb S/s	Jan'23	Updated in 192nd OCC by HPPTCL
	,			Network to be planned for 4 bays	-	HPPTCL to update the status.
	400/2201/1/1/2-1	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.	-	HVPNL to update the status.
10	400/220kV Kadarpur					

SI.		Downstream network		Planned 220 kV system and	Revised	
No.	Substation	bays	Status of bays	Implementation status	Target	Remarks
13	Sub-station .	Total: 8	Unutilized: 8	• LILO of both circuits of 220KV Sector 65 - Pali D/C line at Kadarpur along with augmentation of balance 0.4 sq. inch ACSR conductor of 220 kV Kadarpur - Sector 65 D/C line with 0.4sq inch AL-59 conductor	-	HVPNL to update the status.
14	400/220kV Sohna	Commissioned: 8	Utilized: 0	LILO of both circuits of 220kV D/c Sector-69 - Roj Ka Meo line at 400kV Sohna Road	-	HVPNL to update the status.
	Road Sub-station	Total: 8	Unutilized: 8	LILO of both circuits of 220kV D/c Badshahpur-Sec77 line at 400kV Sohna Road	٠	HVPNL to update the status.
15	400/220kV Prithla Sub-station	Commissioned: 8	Utilized: 0 Unutilized: 8	LILO of both ckt of 220kV D/c Ranga Rajpur – Palwal line	-	HVPNL to update the status.
		Total: 8	Unutilizea: 8	• 220kV D/C for Sector78, Faridabad	-	HVPNL to update the status.
16	400/220kV Sonepat	Commissioned: 6 Under Implementation:2	Utilized: 2 Unutilized: 2	LILO of both circuits of 220kV Samalkha - Mohana line at Sonepat		HVPNL to update the status.
	Sub-station	Total: 8	Under Implementation:2	Sonepat - HSIISC Rai 220kV D/c line	Nov'22	Updated in 196th OCC by HVPNL
17	400/220kV Neemrana Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	LILO of Bhiwadi - Neemrana 220kV S/c line at Neemrana (PG)	Oct'22	In Tendering stage as updated in 192nd OCC by RVPNL.
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	-	PSTCL to update the status.
20	400/220kV Roorkee Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	Roorkee (PG)-Pirankaliyar 220kV D/c line	÷	PTCUL to update the status.
21	400/220kV Lucknow Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	Network to be planned for 4 bays	-	UPPTCL to update the status.
22	400/220kV Gorakhpur Sub-station	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	Network to be planned for 2 bays	-	UPPTCL to update the status.
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 4 bays	-	UPPTCL to update the status.
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	Aug'22	Updated in 196th OCC by HVPNL
				• Panchkula – Pinjore 220kV D/c line	31.12.2022	Updated in 194th OCC by HVPNL
		Commissioned: 8		Panchkula – Sector-32 220kV D/c line	31.12.2022	Updated in 194th OCC by HVPNL
		Under tender:2	Utilized: 2	Panchkula – Raiwali 220kV D/c line	Commissioned	Updated in 194th OCC by HVPNL
25		Total: 10 Out of these 10 nos. 220kV Line Bays, 2 bays would be used by the lines being constructed by POWERGRID (Chandigarh-2) and balance 8 nos. bays would be used by HVPNL	Unutilized: 4 Under Implementation:2	• Panchkula – Sadhaura 220kV D/c line: Sep'23	Sept'23	Updated in 194th OCC by HVPNL
		Commissioned:7	Utilized: 6	Amritsar – Patti 220kV S/c line	-	PSTCL to update the status.

SI.	Substation	Downstream network	Status of have	Planned 220 kV system and	Revised	Remarks
No.	Substation	bays	Status of bays	Implementation status	Target	Kemarks
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)	-	PSTCL to update the status.
27	400/220kV Bagpat S/s	Commissioned: 8 Total: 8	Utilized:6 Unutilized: 2	• Bagpat - Modipuram 220kV D/c line	-	UPPTCL to update the status.
28	400/220kV Bahardurgarh S/s	Commissioned: 4 Total: 4	Utilized:2 Unutilized: 2	Network to be planned for 2 bays.		HVPNL to update the status.
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
		0	LIEB- 1 0	Sohawal - Barabanki 220kV D/c line	-	UPPTCL to update the status.
30	400/220kV Sohawal	Commissioned: 8	Utilized: 2	Sohawal - New Tanda 220kV D/c line	-	UPPTCL to update the status.
	S/s	Total: 8	Unutilized: 6	Network to be planned for 2 bays	-	UPPTCL to update the status.
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	-	HVPNL to update the status
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	-	UPPTCL to update the status
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	-	PSTCL to update the status
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	-	HPPTCL to update the status
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	-	UPPTCL to update the status
38	400/220kV, Patiala	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	Network to be planned for 2 bays	-	PSTCL to update the status
2. E	stablishment of new 4	100/220kV substations in No	rthern Region:			
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	the lines being constru	0kV Line Bays, 4 nos. uliganga-2) would be used by loted by POWERGRID and ould be used by the lines	2x315	Feb'22		220kV Almora-Jauljibi line 220kV Brammah-Jauljibi line PTCUL to update the status of lines.
	being constructed by PTCOL.					

FGD Status

Updated status of FGD related data submission

NTPC (25.02.2022)

MEJA Stage-I (Updated by UP on 18.06.2022)

RIHAND STPS

SINGRAULI STPS

TANDA Stage-I

TANDA Stage-II

UNCHAHAR TPS

UPRVUNL (18.06.2022)

ANPARA TPS

HARDUAGANJ TPS

OBRA TPS

PARICHHA TPS

PSPCL (21.06.2022)

GGSSTP, Ropar

GH TPS (LEH.MOH.)

RRVUNL (10.06.2022)

CHHABRA SCPP

CHHABRA TPP

KALISINDH TPS

KOTA TPS

SURATGARH SCTPS

SURATGARH TPS

Updated status of FGD related data submission

Lalitpur Power Gen. Co. Ltd. (18.06.2022)

Lalitpur TPS

Lanco Anpara Power Ltd.

(18.06.2022)

ANPARA-C TPS

HGPCL (21.03.2022)

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. (18.06.2022)

Prayagraj TPP

APCPL (25.02.2022)

INDIRA GANDHI STPP

Pending submissions

GVK Power Ltd.

GOINDWAL SAHIB

NTPC

DADRI (NCTPP)

Talwandi Sabo Power Ltd.

TALWANDI SABO TPP

L&T Power Development Ltd.

Nabha TPP (Rajpura TPP)

Target Dates for FGD Commissioning (Utility-wise)

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

NTPC

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

L&T Power Development Ltd (Nabha)	Nabha TPP (Rajpura TPP) U#1 (Target: 30-04-2021), Nabha TPP (Rajpura TPP) U#2 (Target: 28-02-2021)
Lalitpur Power Gen. Company Ltd.	LALITPUR TPS U#1 (Target: 31-12-2024), 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 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)
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: 31-12-2024), 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), KALISINDH TPS U#1 (Target: 31-12-2024), KALISINDH TPS U#2 (Target: 31-12-2024), KALISINDH TPS U#2 (Target: 31-12-2024)
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#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)