

भारत सरकार Hira 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 188^{वी} बैठक के खण्ड-अ मे लिए गए निर्णयों का सार।

Subject: Gist of decisions taken in the Part-A of 188th OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप- समिति की 188^{वी} बैठक दिनांक 22.10.2021 को आयोजित की गयी। उक्त बैठक की खण्ड-अ मे लिए गए निर्णयों का सार **अनुलग्नक – अ** के रूप मे संलग्न है।

188th meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 22.10.2021. The Gist of the decisions taken in Part-A of this meeting is enclosed as **Annexure-A**.

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(सौमित्र मजूमदार) अधीक्षण अभियंता (प्रचालन)

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

Gist of decisions taken in the Part-A of 188th OCC Meeting

Agenda No. 1: Confirmation of Minutes

Minutes of 187th OCC meeting was issued on 12.10.2021. OCC confirmed the minutes.

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

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

Delhi

The demand of Delhi has not picked up in Sept-2021 because of rainy weather throughout the September month.

Punjab

Actual energy/demand was less as compared to anticipated energy/demand due to good rainfall during month of September 2021.

Haryana

Consumption and Demand of Haryana state remained lower than anticipated due to regular / more than anticipated rain forecasted during September - 2021

Rajasthan

The Energy consumption & Peak demand decreased by 20.6% & 14% respectively w.r.t. Anticipated Energy requirement & Peak demand for Sept-2021 due to wide spread rains in the state during the month of September' 2021.

Uttar Pradesh

Actual energy consumption and demand met was lower than anticipated due to wide spread rain in the state during the month of September 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 September 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 November 2021 was deliberated in the meeting on 21.10.2021.

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

• The updated anticipated Power Supply Position for November 2021 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	Availability	110	260	
OLIANDIO A DI I	Requirement	100	210	No revision
CHANDIGARH	Surplus / Shortfall	10	50	submitted
	% Surplus / Shortfall	10.0%	23.8%	
	Availability	3237	4904	
	Requirement	1950	3800	21-Oct-21
DELHI	Surplus / Shortfall	1287	1104	
	% Surplus / Shortfall	66.0%	29.1%	
	Availability	4390	9590	
	Requirement	3750	6700	20-Oct-21
HARYANA	Surplus / Shortfall	640	2890	20 000 21
	% Surplus / Shortfall	17.1%	43.1%	
	Availability	850	1762	
HIMACHAL	Requirement	858	1742	12-Oct-21
PRADESH	Surplus / Shortfall	-8	20	
	% Surplus / Shortfall	-1.0%	1.1%	
	Availability	1070	3740	
1017 1 1 4 D 4 17 1	Requirement	1630	2550	No revision
J&K and LADAKH	Surplus / Shortfall	-560	1190	submitted
	% Surplus / Shortfall	-34.4%	46.7%	
	Availability	4700	9210	
5,00,00	Requirement	4870	6200	22-Oct-21
PUNJAB	Surplus / Shortfall	-170	3010	
	% Surplus / Shortfall	-3.5%	48.5%	
	Availability	7770	17910	
RAJASTHAN	Requirement	7880	13500	21-Oct-21
	Surplus / Shortfall	-110	4410	

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	% Surplus / Shortfall	-1.4%	32.7%	
	Availability	8400	17000	
UTTAR	Requirement	8100	17000	12 Oct 21
PRADESH	Surplus / Shortfall	300	0	13-Oct-21
	% Surplus / Shortfall	3.7%	0.0%	
	Availability	981	1890	
UTTARAKHAND	Requirement	1020	1950	07-Oct-21
UTTAKAKHAND	Surplus / Shortfall	-39	-60	
	% Surplus / Shortfall	-3.8%	-3.1%	
	Availability	31508	61700	
NORTHERN	Requirement	30158	50000	
REGION	Surplus / Shortfall	1350	11700	
	% Surplus / Shortfall	4.5%	23.4%	

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	Aug-2021
Haryana	Apr-2018	Aug -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. 7: 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.

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 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 meeting (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.

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

- It was apprised that 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 during Apr'21 – Aug'21. The implemented as well as proposed Islanding Schemes of NR have been categorized in two categories and the same was mentioned in agenda also.
- In 187th OCC, it was decided that respective state would submit MIS report before every OCC meeting so that same may be discussed. It was also highlighted that MoP has agreed for PSDF funding for implementation of islanding schemes and states were requested to prepare and submit DFR for the same.
- The current status of Islanding schemes of NR is attached as Annexure-A.II.
- A sample DPR on implementation of Islanding scheme for PSDF funding has been already circulated vide email dated 07.10.2021. States can refer sample DPR, if PSDF funding is needed for implementation of Islanding schemes. In case PSDF funding is needed, it is requested to expedite the preparation of DPR on implementation of Islanding. A meeting was also held by Honourable 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.
- In view of the above, states were requested to update the status of DPR, if PSDF funding is needed.
- A Standard Operating Procedure for Islanding schemes has been issued by NPC, CEA which was enclosed as Annexure-A.III of agenda. Utilities were requested to refer and submit SOP for every Islanding scheme in their control area.
- MS, NRPC opined that once COVID situation improves, a team of NRPC/NRLDC may visit Delhi SLDC for assessing implementation of Islanding Scheme.

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 October 2021).

Agenda No.11. Declaration of high demand season and low demand season

• In the meeting, NRPC representative apprised the forum that CERC has notified regulatory framework of differential tariff, applicable to thermal generating station, during peak and off-peak hours, during high demand season of three months and low demand season of remaining nine months in Tariff Regulations, 2019. The concerned RLDC has to declare high demand season and low demand season in region after consultation with stakeholders six months before any financial year.

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- Further, forum was informed that based on the deliberations in 176th OCC meeting, it was decided that peak season be decided after considering average NR consumption data of all months for previous five years.
- Forum was apprised that in the same manner, energy demand data has been compiled from CEA website (data for Sep'21 has been taken from format-28) and is as under:

Year	May	Jun	Jul	Aug	Sep
2017	33900	33672	36168	36792	34454
2018	35206	37624	38331	38567	33405
2019	37338	41624	41377	39153	38422
2020	30905	37782	41309	39527	40958
2021	32109	39393	45180	44175	36658
Average	33892	38019	40473	39643	36779

 Forum decided that June-July-August shall be considered as high demand season for NR for FY 2022-23.

Agenda No. 12. Proposal to implement additional protection in 220KV lines at NAPS (Agenda by NAPS)

- NAPS vide email dated 06.10.2021 submitted that on 11.08.2021 at 13:25 hrs, both units (NAPS-1 and NAPS-2) had tripped subsequent to isolation of NAPS switchyard from grid due to fault caused by R-phase CVT of 220kV Line-1(Narora-Sambhal). In view of above incident, matter was discussed with designer, NPCIL, Mumbai and additional protection for the 220kV lines has been suggested.
- Representative from NAPS also given a presentation of event occurred on 11.08.2021.
- Forum decided that the matter shall be referred to protection sub-committee group for scrutiny and comment on the proposed scheme.

Agenda No. 13. Charging of 400/220 kV Jauljibi substation without 220 kV, 25 MVAR Bus Reactor. (Agenda by NR-3/POWERGRID)

- NR-3/POWERGIRD presented the matter before the forum and requested for permission to be granted to charge the 400/220 kV Jauljibi S/s without 220 kV bus reactor.
- CTU representative informed the forum that based on their study, no significant impact is coming on the system as the reactor is of 25 MVAR only.
- NRLDC reprehensive suggested that a written communication may be sought by POWERGRID from BRO about the expected timeline of the repair of road from Dhauliganga to Jauljibi.
- Subsequently, forum granted permission to charge the 400/220 kV Jauljibi S/s without 220 kV, 25 MVAR bus reactor.

Agenda No. 14. Report Preventive maintenance of interface metering CTs and CVTs under STU ownership. (Agenda by ARPL)

• NRPC representative enquired the ARPL to quote the incident when they have faced such issue of non-cooperation form STU/DISCOM side in NR.

- On this, ARPL representative stated that they are about to approach for same and have no record for such non-cooperation in NR. But, in general, it takes rigorous efforts to follow up with STU/DISCOM for preventive maintenance of interface metering CTs and CVTs.
- Forum decided that ARPL shall send a formal request to STU/DISCOM in this regard and subsequently if required the matter may be taken up in the commercial subcommittee meeting.

Agenda No. 15 (additional agenda) Frequent Tripping of JPL-Dhanonda 400KV line-l & II are tripping frequently

- Mahatma Gandhi Thermal Power Plant (MGTPP) of Jhajjar Power Limited (JPL), Haryana has submitted that JPL to Dhanonda 400KV line-I & II are tripping frequently due to PLCC Channel faults since long i.e., from April 2020. In addition to this, the PLCC speech channels of Dhanonda line-I & II are not in service at present and the hot line communication between JPL and Dhanonda substation is not through.
- The matter was taken up in 184th OCC meeting also, but there is no resolution from HVPN Dhanonda end till date.
- At present, PLCC channel-2 of both the lines i.e., Dhanonda line-I & II are in bypass condition and lines are running with one PLCC channel only. Now in the event of failure of only healthy PLCC channel-1, it may lead to switching off of 400kV line permanently, as line can't be taken in service with PLCC channel. This situation may hamper power evacuation from our JPL plant. With non-working of speech channels, communication in emergency condition will not be available.
- In the 184th OCC meeting, forum decided that Generation and Transmission utility may co-ordinate for cross-checking of protection settings.
- In the meeting (188th OCC), HVPN representative informed that they have procured the PLCC card and the same shall be replaced. Therefore, this problem will automatically get solved within a month.

Agenda No. 16 (additional agenda) Tanda-Basti line (220 KV) tripping on unbalanced loading (Agenda by NTPC)

- NRPC representative apprised that in 186th OCC meeting, UP representative stated that there is a Railway TSS in Govindgarh and there are 3 lines feeding it. When, other two lines are in open situation, and any train passes, then due to unbalanced load, Tanda-Basti line trips. It has never tripped due to heavy load/ peak load. He also added that 400 kV Sultanpur-Basti is operational. Gonda line LILO will be done from Basti. 500 MVA transformer is under commissioning at Basti and load will come latest by Oct, 2021. Then, this issue of tripping will automatically get resolved.
- In the 188th OCC meeting, NTPC representative informed that instances of 220KV Tanda-Basti line tripping on Broken Conductor Protection occurred in recent past. Each time it is observed that there is no actual open conductor fault, instead there is a large, unbalanced loading pattern among 3 phases. Hence, relay sensed open conductor protection operating condition (Negative phase sequence component of current above

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- the limit w.r.t. Positive sequence component) and giving trip command, causing 3 pole tripping of breaker at Tanda end.
- UP representative informed that commissioning of the system as discussed in 186th OCC will come latest by 30.11.2021.

Agenda No. 17 (additional agenda) Deemed availability of outage of Transmission lines due to tripping caused by kite thread / flying (Agenda by POWERGRID)

- NRPC representative stated that the agenda was discussed in 187th OCC.
- In 187th OCC meeting, MS, NRPC stated that in past under CERC performance regulations, those incidents which were beyond the control of licensee have been considered. On similar lines, he suggested that deemed availability may be given for 2 hours each for 2 trippings per month for 4 months in a year, subject to proper documentation and verification. NRLDC representative suggested that time stamping on photographs may be ensured for documentary evidence. The forum agreed with the aforementioned suggestions.
- This time, POWERGIRD has requested vide email dtd 13.10.2021 to review the decisions of 187th OCC particularly for POWERGRID.
- POWERGRID has submitted that conformity of the house to consider line tripping associated by kite thread under "Forced Majeure" and suggestions by MS-NRPC are certainly helpful in view of the problem faced/ factual position presented by many transmission licensees.
- However, it may be reviewed for more practicality and smooth implementation in consideration of following;
 - POWERGRID having largest network of >330 lines in the region, mostly passing through close proximity of capital and other big cities is more prone to face such incidents.
 - There had been around 39 nos. confirmed trippings of POWERGRID lines, spread in nine months of last one year from Oct'20 to Sept'21.
- Being forced majeure event, any such tripping due to Kite thread should be considered
 as per actual, subject to submission of supporting data/ picture as agreed, without
 restricting it in few months. Restoration time in most of the cases had been around two
 hours and may be considered accordingly.
- MS, NRPC stated that considering the large network of POWERGRID, decisions of 187th OCC may be partially modified and now 24 trippings per year may be considered deemed available for POWERGRID. For other transmission licensees, it is same as decided in 187th OCC i.e., 2 hours each for 2 trippings per month for 4 months in a year.

Agenda No. 18 (additional agenda) Streamlining of RLDC FTC Procedure and Software Modification (Agenda by POWERGRID)

NRPC representative apprised the forum that the matter was discussed in 187th OCC.

- In 187th OCC meeting, in-charge, NRLDC stated that FTC formalities have been developed for streamlined and uniform procedure across all regions. Documents over email or any other medium may not be accepted as there is already a well-established system.
- POWERGRID requested that documents uploaded by them shall have time tagging for reference. NRLDC consented for the same.
- Now, POWERGIRD has requested vide email dtd 13.10.2021 to review the decisions of 187th OCC and has submitted that all FTC data required for internal processing of NRLDC shall be submitted in Format B1-B4 along with undertaking as in Format B-5. The CEA safety Certificate may be submitted subsequently for final charging clearance from NRLDC.
- POWERGRID representative stated that CEA certificates like CEA safety clearance, and PTCC clearance takes more time for issuance and these certificates are not useful for NRLDC in task of scrutinizing technical details. He, requested that these certificates may be permitted to submit in later stage for sake of saving time in FTC clearance.
- NRLDC representative did not agree with POWEGRID's request.
- MS, NRPC opined that CEA certificates like CEA safety clearance, and PTCC clearance etc. may be allowed to be submitted in later stage.

Follow up issues from previous OCC meetings

	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 do mentioned in Annexu		
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.	O DELHI HARYANA HP J&K and LADAKH PUNJAB RAJASTHAN UP	/ UTs: Sep-2019 Aug-2021 Apr-2021 Mar-2021 Not Available Mar-2021 Sep-2021 Sep-2021 Sep-2021 equested to	
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".	 ○ DELHI ○ HARYANA ○ HP ○ J&K and LADAKH ○ PUNJAB ○ RAJASTHAN ○ UP ○ UTTARAKHAND 	/ UTs: Not Available Mar-2021 Sep-2021 Sep-2021 Not Available Mar-2021 Jun-2021 Sep-2021 Mar-2021 Sep-2021 Sep-2021 equested to	
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 inform (month) from states under: O HARYANA O PUNJAB O RAJASTHAN O UP	/ utilities is as Feb-2021 Sep-2021 Oct-2021 Sep-2021 May-2021 re enclosed as are requested to us of FGD	
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			V/ 400 kV level at 15 su	
	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.
Х	PTCUL	Kashipur	1x125 MVAR at 400 kV	Already submitted to PSDF. On hold due to policy decision
хi	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 Nov' 2021.
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 Nov' 2021.
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 Nov' 2021.

xiv	RAJASTHAN	Barmer & others	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	Agreement signed on dt. 22.06.2020. Grant of Ist Installment received on dt.19.02.21. Technical bid opened on 22.10.2021

SI. 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	Commissioning of ICT Commissioning of Bays Jun/Sep'14	Shajahnapur- Azimpur D/C line		Connected to load on 28.07.2021
			·	LILO of 220kV Shajahanpur - Sitapur at Shajahanpur PG	Dec'21	Updated in 188th OCC
2	Hamirpur 400/220 kV 2x 315 MVA S/s (Augmentation by 3x105 MVA ICT)	nos to be utilized	Commissioning of ICT 1st -Dec'13 2nd - Mar'14 3rd - Mar'19 Commissioning of Bays 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	Sep'21	Work order was placed on dt. 13.04.2020 to M/s A to Z Ltd. Works start on dt. 4.12.2020. S/S-32/32, T/E-31/32 (T/E at 27 no. location is pending due to Rajasthan High Court stay), T/S-2.09/8.122 km completed. Targeted to be completed by June'2021.
4	Bhiwani 400/220kV S/s	6 nos. of 220kV bays	Commissioned (date not available)	220kV Bhiwani (PG) - Isherwal (HVPNL) D/c Iine	Dec'21	Delayed due to RoW issue
5	400/220kV Tughlakabad GIS	10Nos. of 220kV bays	not available)	RK Puram – Tughlakabad (UG Cable) 220kv D/c line Masjid Mor – Tughlakabad 220kv D/c line	Jul'22 Mar'22	PO for supply and ETC of D/C UG cable awarded. 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 **PSPCL (22.10.2021) RIHAND STPS** GGSSTP, Ropar SINGRAULI STPS GH TPS (LEH.MOH.) TANDA Stage-I **RRVUNL (14.10.2021)** TANDA Stage-II **CHHABRA SCPP UNCHAHAR TPS CHHABRA TPP UPRVUNL (20.10.2021)** KALISINDH TPS **ANPARA TPS KOTA TPS** HARDUAGANJ TPS **SURATGARH SCTPS OBRA TPS SURATGARH TPS** PARICHHA 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

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)

NTPC

L&T Power Development Ltd (Nabha)	Nabha TPP (Rajpura TPP) U#1 (Target: 30-04-2021), Nabha TPP (Rajpura TPP) U#2 (Target: 28-02-2021) — 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	ROSA TPP Ph-I U#1 (Target: 31-12-2024), ROSA TPP Ph-I U#2 (Target: 31-12-2024), ROSA TPP Ph-I
Company	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), KALISINDH TPS U#1 (Target: 31-12-2024), KALISINDH TPS U#2 (Target: 31-12-2024)
Talwandi Sabo	TALWANDI SABO TPP U#1 (Target: 28-02-2021), TALWANDI SABO TPP U#2 (Target: 31-12-2020),
Power Ltd.	TALWANDI SABO TPP U#3 (Target: 31-10-2020) – 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: 30-06-2021), ANPARA TPS U#7 (Target: 30-04-2021), 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#4 (Target: 30-04-2022), PARICHHA TPS U#5 (Target: 28-02-2022), PARICHHA TPS U#6 (Target: 31-12-2021)

MIS Report for Status of Islanding Schemes

Implemented Schemes

SI. No.	Islanding Scheme	SLDC	Status	Submission of Self Certification of Healitheness	SOP	SCADA Display Page	Remarks
1	Delhi IS	Delhi	Implemented	-	No	Yes	List of officials in-charge and relays in Delhi IS submitted by DTL on 16.08.2021.
2	NAPS IS	UP	Implemented	Yes (08-10-2021)	Yes	Yes	-
3	RAPS IS	Rajasthan	Implemented	16-Aug-21	No	No	List of officials in-charge and relays in RAPP IS submitted by RVPN on 16.08.2021.

Under Ir	nplementation/ Newly P	roposed/Und	ler Discussion												
SI. No.	Islanding Scheme	SLDC	Status	DPR for PSDF funding (Required / Not Required)											
					Proposed	Study Actual	Desig Proposed	Actual	Appro Proposed		Procure Proposed	Actual	Proposed		- Remarks
1	Lucknow-Unchahar IS	UP	Under Implementation		-	-	-	-	-	-	-	,	-	-	UPSLDC has identified the load in co-ordination with UPPTCL. UPSLDC has requested STU to carry out studies on Unchahar Islanding scheme and provide timeline for implementation. No information has been received yet. In addition to this UPSLDC has created SCADA display of Islanding scheme.
2	Agra IS	UP	Newly Proposed		-	-	-	-	-	-	-	-	-	-	UPSLDC has carried out steady state analysis of proposed islanding and shared the findings with NRLDC. NRLDC responded stating that Island seems feasible as per dynamic analysis but UP may refer it to consultant. UPSLDC has requested STU to carry out studies on Newly Proposed Agra Islanding scheme and provide timeline for implementation. No information has been received vet.
3	Jodhpur-Barmer- Rajwest IS	Rajasthan	Newly Proposed	-	-	-	-	-	-	-	-	,	,	-	RRVPNL has submitted shceme to NRPC for consideration and approval vide letter dtd 22.10.2021. The same has been sent to NRLDC for comment.
	Patiala-Nabha Power Rajpura IS	Punjab	Newly Proposed	-	-	-	-	-	-	-	1	-	ı	-	
	Pathankot-RSD IS	Punjab	Newly Proposed	-	-	-	-	-	-	-	-	-	-	-	
6	Talwandi Sabo IS	Punjab	Newly Proposed	-	-	-	-	-	-	-	-	-	-	-	
7	Dehradun IS Jammu-Salal IS	Uttarakhand J &K	Newly Proposed Under Discussion	<u>-</u>	-	-	-	-	-	-	-	-	-	-	
	Suratgarh IS	Rajasthan	Under Discussion		-	-	-	-	-	-	-	-	-	-	RRVPNL has submitted shceme to NRPC for consideration and approval vide letter dtd 22.10.2021. The same has been sent to NRLDC for comment.
10	Chamba-Chamera IS	HP	Under Discussion	-	-	-	-	-	-	-		-	-	-	
11	Kangra-Chamba- Bairasuil IS	HP	Under Discussion	-	-	-	-	-	-	-	-	-	-	-	
12	Kullu-Dehar IS	HP	Under Discussion	-	-	-	-	-	-	-	-	-	-	-	
13	Butari-Jamsher-Verpal IS	Punjab	Under Discussion	-	-	-	-	-	-	-	-	-	-	-	
14	Kargil-Ladakh IS	Ladakh	Under Discussion	-	-	-	-	-	-	-	-	-	-		