MINUTES

OF

171st OCC Meeting

Date: 25.09.2020

Eastern Regional Power Committee

14, Golf Club Road, Tollygunge

Kolkata: 700033

Eastern Regional Power Committee

Minutes of 171st OCC Meeting held on 25th September 2020

PART A

Item No. A.1: Confirmation of minutes of 170th OCC meeting of ERPC held on 27.07.2020.

The minutes of 170th OCC meeting were uploaded in ERPC website and circulated vide letter dated 04.09.2020 to all the constituents.

Members may confirm the minutes of 170th OCC meeting.

Deliberation in the meeting

Members confirmed the minutes of 170th OCC meeting.

PART B: ITEMS FOR DISCUSSION

Item No. B.1 Declaration of high demand / low demand season for 2021-22----ERLDC.

Regulation 42 of CERC (Terms and Conditions of Tariff) Regulations, 2019, pertaining to computation and payment of capacity charge for thermal generating stations, contains the following provisions:

"The capacity charge shall be recovered under two segments of the year, i.e. High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off Peak Hours of the month"

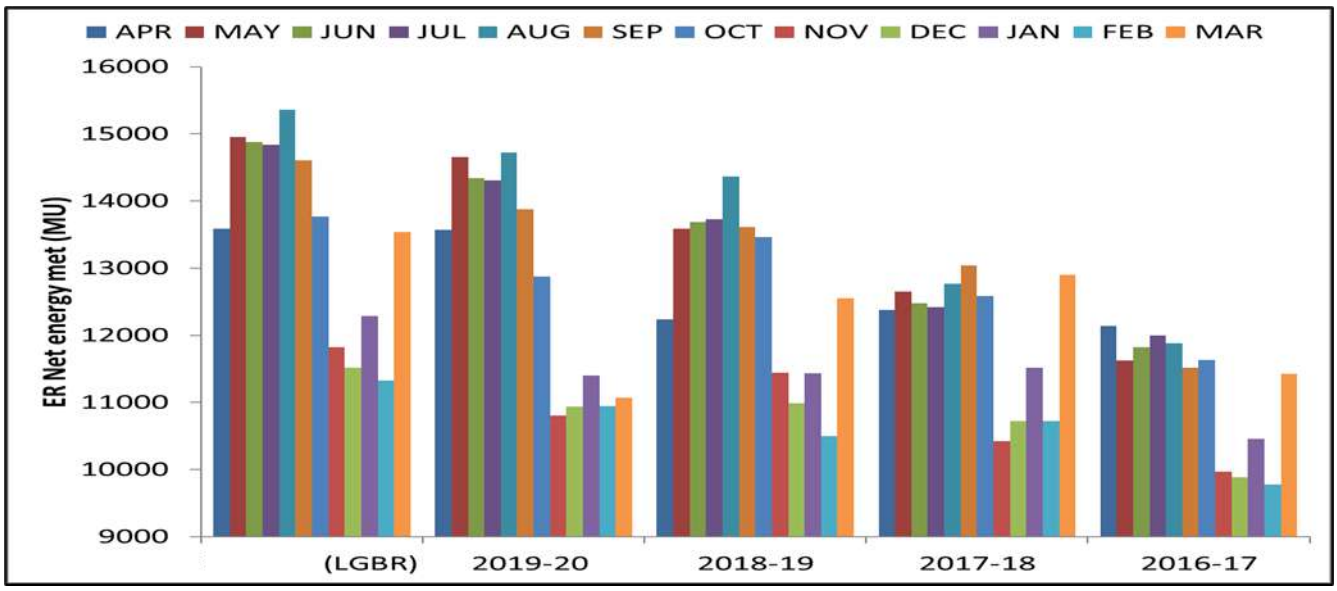
"The number of hours of "Peak" and "Off-Peak" periods during a day shall be four and twenty, respectively. The hours of Peak and Off-Peak periods during a day shall be declared by the concerned RLDC at least a week in advance. The High Demand Season (period of three months, consecutive or otherwise) and Low Demand Season (period of remaining nine months, consecutive or otherwise) in a region shall be declared by the concerned RLDC, at least six months in advance:

Provided that RLDC, after duly considering the comments of the concerned stakeholders, shall declare Peak Hours and High Demand Season in such a way as to coincide with the majority of the Peak Hours and High Demand Season of the region to the maximum extent possible"

An exercise has been done for identification of high demand season for Eastern Region for 2021-22 (as per draft LGBR for 2020-21), 2019-20, 2018-19, 2017-18 and 2016-17. The months with the highest net energy met in Eastern Region are as below:

Year	Highest demand met
2020-21 (LGBR)	AUG, MAY, JUN
2019-20	AUG, MAY, JUN
2018-19	AUG, JUL, JUN
2017-18	SEP, MAR, AUG
2016-17	APR, JUL, AUG

Variation of energy consumption during various months of the year is shown below:



Ranking of the months based on energy consumption is given below:

Month	2020-21	2019-20	2018-19	2017-18	2016-17
APR	7	6	8	8	**1**
MAY	**2**	**2**	5	4	6
JUN	**3**	**3**	**3**	6	4
JUL	4	4	**2**	7	**2**
AUG	**1**	**1**	**1**	**3**	**3**
SEP	5	5	4	**1**	7
OCT	6	7	6	5	5
NOV	10	12	9	12	10
DEC	11	11	11	10	11
JAN	9	8	10	9	9
FEB	12	10	12	11	12
MAR	8	9	7	**2**	8

Based on the detailed analysis, it is observed that net energy met by Eastern Region is high in the months of August, May and June. **Therefore, the month of August, May and June are selected as high demand season for the year of 2021-22 for the Eastern Regional Grid.**

In the 170th OCC Meeting, ERLDC gave a presentation on selection of high demand season for the year 2021-22. The presentation is enclosed as Annexure-B16.1 of 170th OCC Minutes document.

Thereafter OCC advised all the states and generators to go through the details and submit their comments to ERPC and ERLDC within 15 days. OCC decided to discuss the issue in next OCC meeting to finalise the high demand season.

All the states and generators may give their comments.

Deliberation in the meeting

ERLDC informed that they have identified two scenarios for declaration of high demand season for 2021-22. In the first scenario with consideration of the hydro generation the high demand season was coming as May, June and August. On the other hand, in the second scenario without hydro generation the high demand season is coming out as the months of April, May and June.

ERPC Secretariat and ERLDC opined that the above declaration of high demand season is basically when the Eastern Region needs high thermal generation and the availability of thermal generation is important when hydro generation is less in the Grid. Therefore, it would be desirable to declare April, May and June months as the high demand season for 2021-22.

Thereafter Odisha informed that due to high ambient & peak summer requirement they have considered April, May, and June as the peak demand season for their state.

West Bengal informed that they have considered May, June, and August as the peak season demand.

*After detailed deliberation, OCC agreed to declare the months of **April, May and June** as High Demand Season for 2021-22 considering the demand pattern of the Eastern Region.*

Item No. B.2 Data for preparation Load Generation Balance Report (LGBR) of ER for the year 2021-22

As per the IEGC, RPC Secretariat is responsible for finalization of the Annual Load Generation Balance Report (LGBR) for Peak as well as Off-peak scenarios and the annual outage plan for the respective region

To facilitate the preparation of LGBR of Eastern Region by ERPC Secretariat within the schedule period, the following data/information for the year **2021-22** in respect of the constituents/utilities of Eastern Region is urgently required:

i) The unit wise and station wise monthly energy generation proposed from existing units during 2021-22 (thermal/hydro/RES).
ii) Annual maintenance program for each of the generating units (thermal and hydro both).
iii) Generating units under R&M / long outage indicating date of outage and reasons of outage and expected date of return (thermal and hydro both).
iv) Partial and forced outage figures (in %) of generating units for the last 3 years.
v) Month wise peak demand (MW) – restricted and unrestricted peak demand.
vi) Month wise off-peak demand (MW).
vii) Month wise energy requirement (in MU).
viii) Month wise & source wise power (both MU & MW) purchase and/or sale plan.
ix) Schedule of commissioning of new generating units during 2021-22 and unit-wise monthly generation program (in MU).
x) Allocation of power from new generating units.
xi) Month wise and annual planned outage of transmission system (Transmission lines 220kV and above / ICTs / Reactors/ other elements.

Information may please also be submitted in the form of soft copy through email (mail ID: mserpc-power@nic.in **/ ereb_cea@yahoo.co.in**).

Members may furnish the above data.

Deliberation in the meeting

OCC advised all the constituents to provide the relevant data as mentioned in the agenda to ERPC Secretariat through email (mail ID: mserpc-power@nic.in / ereb_cea@yahoo.co.in) latest by 31st Oct 2020.

Item No. B.3 Power supply position during Durga Puja, 2020.

The Hon'ble Minister, Department of Power & Non-Conventional Energy Sources, Govt. of West Bengal has convened a meeting on 24.09.2020 regarding Action Plan for meeting the power demand during the Durga Puja festival, 2020 i.e. the period from 21.10.2020 (Maha Sasthi) to 26.10.2020 (Maha Dashami).

ERPC has assessed the expected Availability vis-à-vis projected Demand for West Bengal as well as Eastern Region during the above period. The details are given in the **Annexure-B.3.1 to B.3.3**.

Members may kindly note and comply.

Deliberation in the meeting

The house was informed that the matter has already been discussed in the meeting with the Hon'ble Minister, Department of Power & Non-Conventional Energy Sources, Govt. of West Bengal.

Further OCC advised all the utilities to go through the data given in the above annexures and ensure the availability of reliable power to meet the Puja demand.

Item No. B.4 Outage of important transmission system.

1. 400/220 KV GIS Darbhanga (DMTCL)--Bihar

BSPTCL vide letter dated 10th August 2020 informed that temporary shutdown of 400/220 KV Darbhanga Substation was availed on 28.07.2020 at 11:29 am owing to rising water level and vulnerable situation of the Substation. This is to inform that because of this outage, all associated transmission lines of BSPTCL were out resulting in loss of approx. 200 MW of load. They are facing hardship and difficulties due to non-adequate availability of power in the adjoining areas. This is causing growing resentment in the public. As such, earliest restoration of the Substation is of utmost importance for BSPTCL.

Therefore, it is requested to take early action towards restoration of the Substation through dewatering of the area, if possible. Also, it is requested to make sound arrangement in the Grid by ensuring all safety and emergency restoration measures to avoid repetition of such type of situation in future.

In 170th OCC Meeting, DMTCL informed that 400/220 KV Darbhanga Substation was restored on 10th Aug 2020.

Thereafter, OCC expressed serious concern over flooding of 400/220 KV Darbhanga substation. OCC then advised DMTCL to take all the precautionary actions to avoid such incidences in future.

DMTCL further informed that they are interacting with Powergrid to initiate mitigation plans to avoid such incidences in future. They are planning to lift the critical panels of their S/s up by 200-300 mm so that water does not come inside the panels. DMTCL is also planning to build a wall surrounding the sub-station to avoid entering of the water into the substation.

Thereafter, OCC advised DMTCL to communicate their mitigation plan to ERPC and ERLDC.

DMTCL in a letter dated 1st Sep 2020 attached as **Annexure B.4.1** informed that they would take up viable and necessary actions within their reasonable capacity to minimize the risk of such incidents in future.

DMTCL may update.

Deliberation in the meeting

DMTCL informed that they have send their representatives to Balia and Lucknow substations of Powergrid wherein similar kind of situations had been dealt with. Accordingly, they have come up with a set of action plans which include construction of RCC wall around the substation, fitting of NRV's in the drainage systems, Plinth protection inside substation and lifting of battery & DG sets from the floor by 300mm.

DMTCL further informed that their action plans would be implemented by end of November 2020.

OCC advised DMTCL to take necessary action at the earliest to prevent such type of incidences in future.

2. 400 kV Barh-Motihari D/C and 400 kV Barh-Gorakhpur D/C lines.

Eastern Region Power Committee (ERPC) letter dated 21.11.2019, a six month restoration time starting from the zero date of 15.12.2019 was granted to DMTCL to restore the 400 kV D/C Barh-Motihari-Gorakhpur Lines by re-erecting 6 towers on pile foundations following the washing away of four towers on account of heavy water discharge and change in course of Gandak river last monsoon season.

DMTCL vide its letter dated 21st May 2020 informed that due to the severe impact of COVID 19 Pandemic as well as other Force Majeure events such as unseasonal heavy rains which ultimately affected the pace of DMTCL transmission line restoration work progress and requested for a suitable extension in terms of timelines for completion of restoration work.

To appraise DMTCL challenges, issues, work progress and current position related to restoration work, a consolidated presentation was submitted.

In 168th OCC meeting, DMTCL informed that due to the severe impact of COVID 19 Pandemic as well as other Force Majeure events such as unseasonal heavy rains, the progress of DMTCL transmission line restoration work got affected. DMTCL shared a detailed presentation on the work progress.

DMTCL further added that if weather conditions would be favorable then the work would have been completed by 15th July 2020.

Thereafter OCC advised DMTCL to complete the restoration work at the earliest and advised DMTCL to share the details of work progress on weekly basis to ERPC.

In 169th OCC Meeting DMTCL informed that because of bad weather conditions and high-water level in Gandak river they are getting less working hours to carry out the tower erection works. Therefore, the restoration works of 400 kV Barh-Motihari D/C and 400 kV Barh-Gorakhpur D/C lines are getting delayed. DMTCL further added that ERS of 400kV Barh-Motihari S/C line which had been used to restore the line on temporary basis was also washed out because of the heavy water flow. They informed that they are working hard to restore 400kV Barh-Motihari S/C line on permanent towers and the line would be restored within two days provided the water level recedes and they get the opportunity to work.

Thereafter OCC advised DMTCL to complete the restoration work at the earliest.

Thereafter, DMTCL also informed that the 400kV Darbhanga (DMTCL) S/s may get flooded as the water level in river Ganges has reached the highest level of last 30 years.

To this issue ERLDC opined that a bypass arrangement should be planned at 400kV Darbhanga (DMTCL) S/s so that the 400kV Kishanganj-Darbhanga-Muzaffarpur link could be kept in service in case of flooding of the substation.

OCC then advised DMTCL to interact with the respective transmission utilities for possibilities of making bypass arrangement at 400kV Darbhanga (DMTCL) S/s and submit the details to ERPC and ERLDC.

Further, OCC decided that a separate meeting with the concerned utilities may be convened to discuss the issue of bypass arrangement at 400kV Darbhanga (DMTCL) S/s in after receiving the preliminary details from DMTCL.

Thereafter DMTCL in a mail dated 13.08.2020 informed that despite extreme weather conditions, unprecedented discharge from the Valmiki dam, resulting floods, and high-water currents, their team at site has been able to complete the erection of tower location 27/0 mid-stream of Gandak river and has also completed the stringing of Barh-Motihari line (single ckt. single conductor per phase) on 07.08.2020. Post receiving required clearances, the line has been successfully charged on **08.08.2020** and power flow to the northern region of Bihar has been resumed.

Further DMTCL informed that they have submitted the details of restoration work and the issues/ challenges which impacted the restoration work progress which was annexed in 170th OCC Agenda document.

In the 170th OCC Meeting, DMTCL informed that since the water discharge is very high in the area where work is to be carried out, the work has to be stopped temporarily. They would be able to start the work only after receding of the water level in the area. They further informed that they would be able to restore lines by Mar 2021.

Thereafter, OCC expressed serious concern over delay in permanent restoration of 400 kV Barh-Motihari D/C and 400 kV Barh-Gorakhpur D/C lines and advised DMTCL to put all efforts to restore the line on permanent towers at the earliest.

DMTCL in a letter dated 10th Sep 2020 informed about the progress of the restoration process achieved so far. The latest details of restoration work submitted by DMTCL are given in **Annexure B.4.2**.

DMTCL may update about the progress of restoration work.

Deliberation in the meeting

ERLDC requested DMTCL to bring one more circuit of 400kV Barh-Motihari so that reliable supply could be maintained at Motihari S/s.

DMTCL informed that they require 10 working days to restore the 2nd circuit of 400kV Barh-Motihari but because of heavy water in the river they are unable to start the work. DMTCL added that the line would be restored within 10 days as and when they get the opportunity to work.

DMTCL further informed that permanent restoration of 400 kV D/C Barh-Motihari-Gorakhpur Lines would take 5 months from the date of start of work after receding of the water level.

OCC advised DMTCL to put all out efforts to restore the line on permanent towers at the earliest.

Item No. B.5 Ramping issues of MTPS-II KBUNL –KBUNL.

MTPS – II, KBUNL informed the issues faced under ramping requirements @ minimum 1% per min effective since 1st Apr-20 and deduction of RoE thereof. Even after checking of ramping Capabilities of MTPS - II & fine tuning the system & auto-loops to maintain the ramping capability as per requirement of regulation & grid security, following are the observations hampering our ramping performance as well as machine health.

1. No. of blocks -Scheduled Ramp (%) > 1% are very high about (18%) that is 1/5th of the total blocks in a day. As per report attached, KBUNL No. of Scheduled Ramp > 1% are 491 & 530 in Apr-20 & May-20 respectively which is even more than twice that of NTPC Talcher Kaniha (180-274 no /month). No. of Scheduled Ramp > 1% reduced in the month of June-20 & July-20, however, remain in the range of 220-237 no. It has been observed that between 01-Sept -20 to 07-sept 2020, No. of Scheduled Ramp > 1% increased drastically & received Ramps >1% are 117 in first week of Sept -20 itself that is around 19%.

2. There are large No. of blocks having ramp rate > 1% with consecutive blocks ramp up/down scheduling (Direction change). No. of such cases in Apr-20 & May-20 are about 28 % of total blocks having Scheduled Ramp > 1%. In Sept-20 first week, No. of such cases are about 32 % that is every third block of scheduled ramping having given with opposite sign ramps & as such no frequency aberration observed during such huge up & down ramp being scheduled. There are few cases in a day where such type of scheduling (consecutive blocks ramp up/ Ramp down) are more that 50% in a day for e.g.11.04.2020 (B17-B32) , 29.05.2020 (B69-B90) , 08.06.2020 (B59-B77) , 22.08.2020 (B77-B92) , 02.09.2020 (B40-B56) , 05.09.2020 (B38-B47) & 06.09.2020 (B4-B15). Detailed data is attached including the screenshots in **Annexure B.5**.

Ramping ≥1% in one direction for a sustainable period to accommodate the renewable's in Grid but often change in ramping direction in consecutive blocks is not desirable to generating machines barring some occasional emergency requirement. Often/block-to-block cyclic ramping is needlessly stressing our generating unit, as it is very difficult for mechanical systems of the unit to manage change in electrical system of the grid, this severely increasing the stress on Boiler and Turbine & shortening the useful life of key components /equipment of generating unit.

3. Block-to-block cyclic ramping is mainly due to Scheduling under SCED, which is given in the preceding block itself to the achieving block that's to in last 2-3 minutes of preceding block remains unit control Engr. clueless till last minute about ramping the load in same direction or opposite direction. In this situation, to achieve the desired scheduled ramp, Important auto loops are being taken in manual mode causing to large deviation in parameters affecting components of generation unit having Mid-term to Long-term effects.

4. In certain blocks, first block ramp was given only (say) +0.2% from ZERO RAMP RATE and then +1.0%, that defeats the sole purpose of 1st ramp block given provision of achieving 0.5% Ramp when SRR = >1%. Clarification required for assessment of blocks as per guidelines issued for assessment of ramping capability of thermal Interstate generating stations (ISGS). "For the blocks where the scheduled ramp in preceding block was zero, or in the opposing direction, if the ramp in actual generation is greater than or equal to 50% of scheduled ramp rate, that block shall be counted in to have achieved scheduled ramp rate in that block"

In View of the above, issues may be taken up with appropriate authorities and apprise the difficulties faced by Generating stations in lieu of achieving Ramping Capabilities vis a vis reduction in RoE.

Members May discuss.

Deliberation in the meeting

NTPC explained the issues being faced and requested to review the ramping procedure.

ERPC Secretariat informed that the issue has already been communicated to CERC during the interaction meeting of CERC with the Member Secretaries.

ERLDC informed that NLDC is in process of reviewing the ramping procedure and the issues raised by NTPC would be forwarded to NLDC for the scrutiny and suitable revision in the procedure.

Item No. B.6 Declaration of less DC during peak hours by ISGS generators –ERLDC

As per IEGC clause 6.4.17, ISGS are mandated not to declare less DC (Declared Capacity) during peak hour compare to other hours of the day. IEGC clause 6.4.17 is as follows.

Quote

While making or revising its declaration of capability, except in case of Run off the River (with up to three-hour pondage) hydro stations, the ISGS shall ensure that the declared capability during peak hours is not less than that during other hours. However, exception to this rule shall be allowed in case of tripping/resynchronization of units because of forced outage of units.

Unquote

However, it has been observed that several ISGS NTPC thermal plants reduce their declared peak hour DC during real time just before approaching peak hour. Number instances NTPC generating station reduced their declared capacity during peak hour which is less compare to plants off-peak hour DC during period of 1st August to 16th September 2020 is mentioned below.

Plant	KHSTPP II	KHSTPP I	TSTPP I	DARLIPALLY	FSTPP I & II	FSTPP III
No of occasions	5	3	11	4	3	2

NTPC may respond.

Deliberation in the meeting

ERLDC informed that as per regulation NTPC stations should not declare less DC during peak hours until and unless there is tripping of unit, but they had received repeated requests from NTPC side to reduce DC during peak hours.

NTPC Farakka informed that they always try to maintain constant DC throughout the day. Only in some limited occasions they had gone for DC revisions due to some equipment failures. Moreover, they had requested for DC revisions during both peak and off-peak hours.

NTPC Talcher informed that they are getting low quality wet coal due to heavy rains in August and September as a result they are unable to maintain the DC. NTPC Talcher added that this problem would remain for another 1 month i.e. till October end. They had requested for DC revision during both peak and off-peak hours.

After detailed deliberation, OCC advised NTPC to take necessary action to avoid DC revision during peak hours. OCC also advised ERLDC to give the event wise details to NTPC so that NTPC could clarify the reasons for DC revisions.

Item No. B.7 Maintenance of 66KV bay Equipments at Melli S/s End i.r.o 66KV Kalimpong (WBSETCL) – Melli (Sikkim) S/C Ckt. --WBSETCL

SLDC West Bengal vide letter dated 16th Sep 2020 informed that, Kalimpong town is a district Head Qtr. Where power supply is maintained from 66KV WBSETCL Kalimpong S/s. In case of any contingency in respect of 66KV Chalsa – Kalimpong S/C line, power supply of this important district Head Qtr. Gets fully depended on Melli (Sikkim) source. During such contingency, availability of Melli source has been found to be very much unreliable / unstable due to frequent outage of age old CKT breaker at Melli end in most of the recent past occasions resulting interruption of power supply at Kalimpong district Head Qtr. So, to improve power situation at Kalimpong, WBSETCL authority proposes to undertake the responsibility of maintenance / replacement of the associated problematic 66KV Kalimpong Bay equipments at Melli end at own cost.

WBSETCL and Sikkim may discuss.

Deliberation in the meeting

WBSETCL proposed to undertake the responsibility of maintenance / replacement of the associated bay equipment at their own cost.

Sikkim informed that the Melli end bay is under the jurisdiction of E&P Department, Sikkim so the work related to the replacement / maintenance works at this sub-station end shall be undertaken by Sikkim. However, if WBSETCL desires, they can extend the financial support to Sikkim for replacement/maintenance of bay equipments at Melli end.

It was decided that a separate meeting shall be convened by ERPC with Sikkim and WBSETCL to resolve the issue.

Item No. B.8 Updating Operating procedure of Eastern Region, 2020–ERLDC.

The Operating Procedure of every region must be updated and revised annually by the concerned RLDC, in compliance to section 5.1(f) of the IEGC. Accordingly, ERLDC vide email dated 14th July 2020 circulated the draft Operating Procedure of Eastern Region to all regional entities of Eastern Region for their valuable suggestions and observations. The procedure is finalized and uploaded at ERLDC website by 20-07-2020, taking into consideration comments received till 18-07-20.

In 169th OCC Meeting, OCC advised all the constituents to go through the operating procedure and submit their comments, if any to ERLDC within a week.

Thereafter, ERLDC informed that they have received some observations/comments regarding Updated Operating Procedure of Eastern Region. The points are given in the tabular format:

Sl. No	Item Sl. No	Description	Brief Remarks (Details data wise details will be shared shortly)
01.	3.2.1 & 3.2.2	Voltage control	Band must be mentioned at which Reactors will be put into service and when it will be withdrawn. Rajarhat B/R switching history will be provided as reference.
02.	5.0	Outage Procedure	Already after several discussion the

			outage procedure has been finalized in 162nd OCC. However, the proposed procedure is not matching with the finalized one. Details will be provided.
03.	6.6	Charging procedure	In point 5, there is a proposal for constitution of committee. As per previous experiences, it is very difficult for synchronization with different members from cross verticals and will delay the activity only.
04.	6.7	FTC procedure/documents	a. RIO certificate is asked from respective licensee. In B5 format every licensee is already certifying the same, then why it is asked again. b. Necessary protection setting confirmation is already provided in B2 formats. Detail protection settings not required. c. Details specification of equipment's is purely, licensee prerogative as all licensee is procuring as per CEA standard clause. Further detailing is not required.
05.	6.7.3.1	Installation of SEM	For other generators/IPP/ISGS, SEM will be handed over by POWERGRID but all necessary installation and further maintenance like time drifting etc to be done by respective generators/licensee only. May be included.
06.	7.4.4.3	Patrolling Report	Details of tripping findings will be shared as it is already in place, if any tripping occurred. However, patrolling report is a licensee specific format and will not be possible to submit in any specific format as mentioned.

Observations/comments in this regard received from Powergrid is enclosed as Annexure-B.9 of 170th OCC Agenda document.

In 170th OCC Meeting, ERLDC informed that they have received comments from Powergrid only.

OCC then advised all the constituents to go through the given procedure and give their comments by 1st week of September 2020. OCC thereafter decided to discuss the procedure in a separate meeting with all the constituents.

Members may confirm.

Deliberation in the meeting

It was informed that there have been a lot of changes in the revised Operating Procedure compared to the existing operating procedure which could not be deliberated in the OCC meeting precisely.

Therefore, OCC decided to form a committee comprising of BSPTCL, DVC, OPTCL, WBSETCL, ERPC, ERLDC, CTU (Powergrid) and NTPC so that it can deliberated in detail by the committee and the Operating Procedures could be finalized. The final operating procedure would be placed in the OCC Meeting for approval of the OCC forum.

OCC advised all the utilities to follow the existing operating procedure till finalization of the revised operating procedure.

Item No. B.9 Additional agenda.

1. **Metering issues related to LILO of the 132 KV Rihand (Pipri UPPTCL) – Sonenagar (BSPTCL) at Nagaruntari TSS--JUSNL**

For the work of electrification of Garhwa Road – Chopan-Singrauli section, the power supply to overhead equipment must be fed from Nagaruntari Traction sub-station of Railway, which falls in the state of Jharkhand. The nearest 132 KV source in the state of Jharkhand is Garhwa Grid substation which is 45 Km away from Nagaruntari Railway traction Sub-station. As such feeding of Nagaruntari Railway Traction Sub-station from Garhwa Grid Sub-Station will involve lots of ROW issues and huge expenditure. There is 132 KV D/C Transmission line connected between Rihand (Pipri) of UPPTCL and sone Nagar GSS of BSPTCL which is 03 Km from Nagaruntari TSS which can be used for giving 132 KV supply to 132 KV Nagaruntari Railway traction Sub-station by making LILO arrangement from running transmission line. As ownership of above 132 KV line is with BSPTCL and Nagaruntari falls in the state of Jharkhand, permission and power allocation is required from Bihar State Power (Holding) Company Ltd. (BSPHCL). Railway may avail power through open access also.

Railway has made correspondence and meeting with JUSNL, UPPTCL and BSPTCL authorities. UPPTCL has given their no objection for construction of LILO from Ckt. -I of 132 KV Rihand – Sone Nagar Inter State Transmission Line vide letter no. 1622 dated ETD (M)/Traction dated 22.11.2014.

BSPTCL has also issued no objection for construction of LILO from Ckt. -I on 132 KV Rihand (Pipri) – Sone Nagar Inter State Transmission Line vide their letter no. 983 dated 17.02.2016.

JUSNL has already constructed above mentioned LILO as well as 132 KV bays in the TSS, Nagaruntari of Railway based on request by Railway and NOC by BSPTCL and UPPTCL. The complete LILO arrangement is ready for charging.

As per MOM dated 16.12.2015 and NOC of BSPTCL, approval of standing committee of Eastern Region is required before flow of power. On request of JUSNL through letter no. 652/ED (Operation)/CE/Tr. (O&M)/220/2015-16 dated 06.07.2020, CEA, New Delhi has conveyed in principle no objection for JUSNL to make LILO of the 132 KV Rihand (Pipri UPPTCL) – Sonenagar (BSPTCL) at Nagaruntari TSS. Also, this issue is to be discussed in 2nd meeting of Eastern Regional Power Committee (Transmission Planning) (ERPCTP) schedule to be held on 30.09.2020.

Members may discuss.

Deliberation in the meeting

JUSNL informed that SEMs needed to be installed at Nagaruntari TSS to bring the LILO arrangement into service.

ERLDC informed that a letter has already been issued to Powergrid ER-1 to provide two meters for the LILO arrangement.

Thereafter Powergrid informed that they have received the letter from ERLDC, and JUSNL can collect the meters from Powergrid Patna office.

JUSNL agreed to collect the SEMs and install at Nagaruntari TSS.

PART C: ITEMS FOR UPDATE

Item No. C.1: Status of UFRs healthiness installed in Eastern Region.

In the 170th OCC Meeting, CESC informed that they have submitted the UFR healthiness certificate on 07.08.2020.

OCC then advised all the constituents to communicate the status of UFRs healthiness to ERPC on monthly basis.

UFR healthiness certificate for August 2020 was received from WBSETCL in a letter dated 7th Sep 2020.

Members may update.

Deliberation in the meeting

It was informed that the UFR healthiness certificate received from DVC.

OCC further advised Odisha, Bihar and Jharkhand to send the healthiness certificate to ERPC Secretariat at the earliest.

Item No. C.2: Status of Islanding Schemes healthiness installed in Eastern Region.

At present, the following islanding schemes are in service:

1. CESC as a whole Islanding Scheme, CESC
2. BkTPS Islanding Scheme, WBPDCL
3. Tata Power Islanding Scheme, Haldia
4. Chandrapura TPS Islanding Scheme, DVC
5. Farakka Islanding Scheme, NTPC
6. Bandel Islanding Scheme, WBPDCL

In 108th OCC meeting, respective constituents agreed to certify that the islanding schemes under their control area are in service on monthly basis.

In 168th OCC meeting DVC informed that during the preliminary study they identified that the implementation of islanding scheme with Mejia units 7 and 8 was not possible therefore now they had considered Chandrapura unit 7 & 8 for the implementation of islanding scheme.

ERLDC advised DVC to submit at least a preliminary draft plan to ERPC and ERLDC.

In the 170th OCC Meeting, ERLDC informed that they will study the proposal of Islanding scheme given by DVC and thereafter they will give their comments.

Healthiness certificate for August 2020 has been received from NTPC, BkTPS, BTPS and Tata Power Islanding scheme.

Members may discuss.

Deliberation in the meeting

JUSNL confirmed that the PLCC of 220kV Farakka-Lalmatia is healthy and it is in service.

ERLDC informed that they have studied the Islanding scheme proposal of DVC and they need clarification on some issues related to the islanding scheme.

OCC advised ERLDC to forward their comments to DVC so that a separate meeting can be conducted between ERPC, ERLDC and DVC so that the Islanding scheme can be finalized.

Further ERLDC informed that from Kanti TPS they have received only AVR data but for Islanding scheme Governor data is also required.

OCC advised Kanti TPS to submit the relevant data to ERLDC at the earliest.

Item No. C.3: Primary Frequency Response Testing of Generating Units—POSOCO.

NLDC vide letter dated 10th August 2020, communicated a procedure to be considered for Commercial Settlement during onsite testing of generators for Primary Response of regional generating units.

In the 170th OCC Meeting, ERLDC informed that as per IEGC regulations, Primary Frequency Response Testing of generators is a mandatory activity. It was informed that for compliance of the above regulations, selection of the vendor has already been completed and all the generators including IPP's and ISGS's have been informed accordingly. ERLDC further informed that all the power stations of ER except TSTPS-Kaniha, Adhunik, BRBCL, NPGC, Teesta-V & Dikchu have placed their LOA with M/S Solvina.

ERLDC mentioned that generally the testing would be carried out in three steps of generation level for each of the generating unit. The subjected generating unit must maintain the schedule to the desired level of generation during the period of testing in all the 3 steps. For this the Generating Stations which are having multiple units while testing at a particular level of a unit, the total schedule of that station can be maintained by adjusting generation in the remaining units. For Generating Stations which are having only one functional unit, during testing can maintain their schedule by purchase or sale of power from Real Time Marketing. For hydro-generators the testing may preferably be done during the period of receding monsoon. Therefore, it was clarified that normal DSM charges would be applied during the period of testing.

After detailed deliberation, OCC felt that it is desirable to know the duration of the test and its possible impact on the scheduling to decide the commercial mechanism proposed in Annexure-B1.

ERLDC further informed that they are planning to hold a meeting with the testing agency, all regional generating stations and SLDC's wherein the testing procedure of all three steps viz. Full Load, 80% of Full Load and Technical Minimum would be discussed.

Thereafter OCC advised all the constituents to go through Annexure-B1 and submit their comments to ERPC within a week for finalization of commercial mechanism.

OCC also advised all the remaining ISGS and IPP generators to place the LOA and give a schedule of the test beforehand so that beneficiaries are informed in advance and the same can be discussed in the upcoming OCC Meetings.

On 10th Sep 2020, a meeting was held between ERPC, ERLDC, SLDC's and all regional generating stations wherein M/S Solvina gave a presentation on the details of Primary frequency response testing and the steps to be followed in the procedure.

Further all the members clarified their doubts and it was decided that the remaining generators who have not placed their LOA with M/S Solvina should place it at the earliest.

Members may discuss.

Deliberation in the meeting

It was informed that M/s Solvina gave a presentation on 10th Sep 2020 and explained the procedure. The presentation has been shared with the constituents.

It was also informed that this issue of commercial settlement mechanism has been discussed and finalized in the Commercial Committee Meeting held on 21st September 2020.

Further ERLDC informed that they have communicated to NTPC, Adhunik and BRBCL regarding placement of LOA with M/s Solvina.

Item No. C.4: Testing of primary frequency response of state generating units by third party agency--ERLDC

The Hon'ble Central Electricity Regulatory Commission (CERC), vide notification dated 12th April 2017, had notified Indian Electricity Grid Code (Fifth Amendment) Regulations, 2017. As per this notification, following provision has been added at the end of Regulation 5.2 (g) of Part 5 of the Principal Indian Electricity Grid Code (IEGC) Regulations: "Provided that periodic checkups by third party should be conducted at regular interval once in two years through independent agencies selected by RLDCs or SLDCs as the case may be. The cost of such tests shall be recovered by the RLDCs or SLDCs from the Generators. If deemed necessary by RLDCs/SLDCs, the test may be conducted more than once in two years."

In compliance of IEGC, process of testing of primary frequency response of regional generating units (eligible for RGMO as per IEGC section 5.2 (f)) has been started by POSOCO.

In the 170th OCC Meeting, ERLDC informed that as per the regulation, testing of primary frequency response of state generators by a third party is required to be undertaken by the respective SLDC's.

Thereafter, SLDC Odisha informed that they have not finalized a plan yet, but they will communicate the detailed plan to ERPC by 15th Sep 2020.

OCC then advised all the SLDC's to prepare an action plan for their state generators having capacity of 200 MW or more and submit the details to ERLDC and ERPC within a week.

All the concerned SLDC's may update the action plan for their state generators.

Deliberation in the meeting

OCC advised all the SLDC's to prepare the action plan for their state generators and submit the details to ERPC and ERLDC at the earliest.

Item No. C.5: Issues related to charging 400KV Meramundali – Bolangir (PG) line after availing the shutdown --- SLDC Odisha.

400KV Meramundali – Bolangir (PG) line availed shutdown on 12.08.2020 for replacement of 'Y' phase CVT at Meramundali end as per ERLDC approval No. ER-RQ 3597 Dt. 10.08.2020. On completion of shutdown work at the time of charging, ERLDC insisted for RIO inspection report. Further, ERLDC issued switch on code only after submission of an undertaking as follows:

"Y- Phase CVT inspection report from RIO will be submitted as early as possible and also any further equipment that will be replaced in future will be supported by proper inspection report from RIO prior to applying for switch on code".

Replacement of CT, PT, CVT, CB, LA isolator etc. is quite common in day to day maintenance. The prevailing COVID-19 pandemic situation synchronizing the visit of Electrical Inspectors with

maintenance work is quite difficult. So, obtaining inspection report of Electrical Inspector for maintenance of each of these elements is not practically feasible.

Therefore, it is requested to review the procedure of these elements to smoothly carry out maintenance work in the prevailing situation.

In the 170th OCC Meeting, SLDC Odisha explained that replacement of CT, PT, CVT, CB, LA isolator etc. is a day to day maintenance work and obtaining approval of Electrical Inspector would delay the charging of the line. SLDC, Odisha therefore requested to review the procedure.

Thereafter in the meeting, ERLDC informed that as per the Chief Electrical Inspectorate, CEA letter dated 26thDecember 2019 (copy enclosed as Annexure-B.10 of 170th OCC Minutes document), the replacement and upgradation work of substation equipment needs to be approved by Electrical Inspector. Therefore, ERLDC is insisting for Electrical Inspector clearance for any replacement work before charging the element.

Thereafter, SLDCs and Transmission utilities in the meeting opined that replacement of CT, PT, CVT, CB, LA isolator etc. is a regular maintenance work and such replacement works need to be completed within short time span to bring the transmission line into service. They explained that availing Electrical Inspector clearance would take time in this COVID-19 pandemic situation and it may create operational constraint for the transmission system. Constituents in the OCC Meeting requested ERPC Secretariat to take up the issue with Chief Electrical Inspectorate, CEA for seeking necessary clarifications and reviewal of procedure, if required to ensure removal of these operational bottlenecks. Further, Constituents also requested to follow the existing procedure till the clarification in this regard is received from Chief Electrical Inspectorate, CEA.

ERPC Secretariat agreed to take up the issue with Chief Electrical Inspectorate, CEA for seeking necessary clarifications.

Then OCC recommended ERLDC to follow the existing procedure till the clarification received from Chief Electrical Inspectorate, CEA.

ERPC in a letter dated 1st Sep 2020, written to the Chief Electrical Inspectorate (CEA), requested to issue necessary clarifications and guidelines to ERPC Secretariat in this regard for smooth operation of Eastern Regional Grid.

The Chief Electrical Inspectorate (CEA) in a letter dated 7th Sep 2020 informed that in time of Covid pandemic, CEI division/RIOs have been giving provisional approval to cases requiring urgent charging wherever physical inspection is not possible. The letter from CEA is given in **Annexure C.5**.

Members may note.

Deliberation in the meeting

*OCC advised all the utilities to follow the guidelines in **Annexure-C.5** issued by CEA.*

Item No. C.6: Transfer capability determination by the states.

Latest status of State ATC/TTC declared by states for the month of October-2020.

Sl No	State/Utility	TTC (MW)		RM(MW)		ATC Import (MW)		Remark
		Import	Export	Import	Export	Import	Export	
1	BSPTCL	6450	--	129	--	6321	--	Sep-20
2	JUSNL	1259	--	35	--	1224	--	Oct-20
3	DVC	1464	2870	63	50	1410	2820	Dec-20
4	OPTCL	2133	1051	83	61	2050	990	Sep-20
5	WBSETCL	4512	--	400	--	4112	--	Oct-20
6	Sikkim	295	--	2.5	--	292.5	--	Dec-19

Sikkim has stopped sending the TTC values as well as PSSE files.

Members may update.

Deliberation in the meeting

Sikkim informed that they have sent all the ATC/TTC details to ERLDC on 24th Sep 2020.

Bihar also informed that they have submitted the ATC/TTC details of October to December 2020 on 23rd Sep 2020 to ERLDC.

OCC advised all the SLDC's to compute ATC/TTC and submit the relevant information in time as it is important for smooth operation of the Grid.

Item No. C.7: Mock Black start exercises in Eastern Region – ERLDC.

Mock black start date for financial year 2019-20 is as follows:

Sl. No	Name of Hydro Station	Schedule	Tentative Date	Schedule	Tentative Date
		Test-I		Test-II	
1	U. Kolab	Last week of May, 2019	Done on 19th July 2019	Last Week of January 2020	28 March 2020
2	Maithon	1st week of June 2019	Taken up only after replacing the governing systems of the units	1st Week of February 2020	After June 2020
3	Rengali	2nd week of June 2019	Done on 27th June 2019	Last week of November 2020	Done on 17th January 2020
4	U. Indarvati	3rd week of June 2019	Done on 7th November 2019	2nd week of February 2020	March 2020
5	Subarnarekha	1st week of October 2019	Done 20th August 2019	1st week of January 2020	After Aug 2020
6	Balimela	3rd week of October 2019	Done on 17th July 2019	1st week of March 2020	*Done on 12th Feb 2020*
7	Teesta-V	2nd week of May 2019	Done on 28th Nov 2019	Last week of February 2020	
8	Chuzachen	Last Week of Dec 2019	Done on 5th December 2019	Last week of March 2020	

9	Burla	Last Week of June 2019	Done on 20th July 2019	Last week of February 2020	Done on 11th Feb 2020
10	TLDP-III	1st Week of June 2019	November-19	2nd Week of January 2020	
11	TLDP-IV	Last Week of June 2019	December-19	1st Week of February 2020	
12	Teesta-III	Last Week of Oct 2019		First Week of March 2020	
13	Jorthang	First Week of May 2019		First Week of Feb 2020	
14	Tasheding	2nd Week of May 2019		2nd Week of Feb 2020	
15	Dikchu	Sep 2019		3rd Week of Feb 2020	Attempted on 19th Feb 2020 but not Successful

In the 169th OCC Meeting, Odisha informed that they are planning to conduct the mock black start exercise for Burla and Rengali in Sept 2020. They further informed that because of COVID-19situations they were unable to carry out the black start exercise for Balimela HEP as per schedule in July 20 and they will conduct the same by Sep 2020.

In the 170th OCC Meeting, Odisha informed that they would carry out the mock black start exercise in the month of September 2020.

Members may update.

Deliberation in the meeting

It was informed that due to COVID-19 the schedule of mock black start exercise for 2020-21 could not be prepared. OCC then requested ERLDC to prepare the schedule so that it can be discussed in the next OCC meeting.

Further SLDC Odisha informed that they have planned to conduct the mock black start exercise for Burla and Balimela before Durga Puja.

Item No. C.8: Multiple outages of Isolators & Circuit Breakers at Ramchanderpur S/S (JUSNL)—ERLDC.

In the 169th OCC Meeting, Jharkhand informed that replacement of isolator and circuit breakers is in progress under PSDF project. They have applied for shutdown from 1st Aug for normalizing all the Breakers and Isolators.

Thereafter, ERLDC informed that they are not getting any information on healthiness of the elements as a result they are facing problem in real time operation.

OCC then advised SLDC, Jharkhand and other utilities to ensure availability of all elements in ISTS connected stations for secure and reliable system operation and inform about any outage of the elements in their substation to ERLDC at the earliest.

In the 170th OCC Meeting, JUSNL informed that the work would be completed by 30th Aug 2020.

JUSNL may update.

Deliberation in the meeting

JUSNL informed that they have replaced all the breakers of Joda line. They further informed that due to Covid-19 pandemic the work related to 220 KV PGCIL circuit-II has been deferred. The replacement work for 132 kV system is in progress.

OCC advised JUSNL to complete the work related to 220KV and 132KV system within the time frame and update the status to ERPC.

Item No. C.9: Prolonged outage of bays in Koderma (DVC) substation: ERLDC.

The main CB of 400 KV Koderma-Bokaro-2 at Koderma was out since 25.12.2019 due to damage in the double interrupter chamber and the line is charged through the tie CB with B/R-2. On 15.07.2020, due to leakage of oil pressure of the main CB of B/R-2, DVC requested emergency S/D of the line due to the unavailability of main CB. Tie CB of B/R-1 and Gaya-1 was also out since 22.10.2019 due to oil leakage from B-ph CT and problem in CB hydraulic mechanism. Such prolonged outages of breakers at such an important substation which has connectivity to ISTS system as well as generating station hamper the reliability and security of the system operation.

In 169th OCC Meeting, DVC mentioned that bays of the Gaya line are made available. Work has already been started for restoring the Koderma line bays and the same would be available by 2nd Aug 20.

In the 170th OCC Meeting, DVC informed that the main CB of 400kV Koderma-Bokaro line at Koderma has been charged since 2nd Aug 2020. Further DVC mentioned that tie CB of Gaya-1 will be made available by 31st Aug 2020.

DVC may update the status of restoration of Gaya bay.

Deliberation in the meeting

DVC informed that tie CB of Gaya-1 has been installed and it is expected to be charged on 26th Sep 2020.

Item No. C.10: Agenda of NTPC Talcher, Kaniha.

The Calibration of the energy meters (SEMs) at TSTPS premises is overdue (last calibration carried out between 19.09.2013 to 04.10.2013). This was pointed by various audit teams including Govt. auditors and was raised in OCC meetings. The annual audit report of Talcher-Solar CDM project for 2019-20 is kept abeyance only because of the above issue. Calibration of these meters (Solar meters in priority) to be carried out at the earliest.

In the 170th OCC Meeting, Powergrid ER-1 informed that currently they have a stock of 150 meters.

Thereafter, OCC advised NTPC Talcher to collect 8 nos. of SEM's from Powergrid Patna Office to replace the old SEMs.

NTPC may update.

Deliberation in the meeting

Powergrid Odisha informed that they have already send the energy meters to HVDC Talcher and NTPC would collect the SEMs from HVDC Talcher.

Item No. C.11: Finalization of procedure for PSS tuning of power plants -- ERLDC

Power System Stabilizer (PSS) tuning is an ongoing exercise in Eastern regional grid after observation of various low frequency oscillation from time to time in the grid. In line with this, OCC has decided that all generating plants in eastern region will submit their PSS tuning plan to ERLDC/ERPC and the test reports for validation.

Considering above and other technical and regulatory requirement of CEA and CERC PSS tuning is being done at different generating station, however at present no formal guideline is available for carrying out the same. Due to which it was observed that result shared by the generating units are not standardized and sometimes some tests are missed out.

To take care of the same a draft procedure for PSS tuning is prepared to be shared in the upcoming OCC Meeting. All are requested to go through it and give comments so that it can be finalized.

In 169th OCC Meeting, OCC advised all the generators to go through the draft procedure enclosed in Annexure-B9 of 169th OCC Minutes document and submit their comments to ERLDC within 15 days.

OCC then advised ERLDC to place this procedure in the separate meeting on RGMO wherein most of the generators are present in the meeting.

In the 170th OCC Meeting, ERLDC informed that as of now they have not received any comments.

OCC then advised all the generators to go through the procedure and submit their comments to ERLDC at the earliest.

ERLDC may update.

Deliberation in the meeting

ERLDC informed that they have not received any comments from any constituents.

OCC advised ERLDC to finalize the procedure and make it available in the ERLDC website.

Item No. C.12: Operationalizing Bus splitting at Biharshariff--ERLDC

Bus split arrangement at Biharshariff was already commissioned, however it was not put in service as split bus arrangement was causing uneven loading in 400/220 kV ICTs at Biharsariff. Thus, earlier it was decided that the same will be put in service after commissioning of 4th ICT at Biharsariff. After commissioning of 4th ICT simulation studies are carried out at ERLDC and same is also shared with Bihar SLDC. From the study it is observed that Bus-split at Biharshariff has no significant effect on loading of 400 KV lines but 400/220 KV ICT flows is getting significantly skewed.

- N-1 contingency of 500 MVA ICT-IV leads to 265 MW loading on ICT –II (315 MVA rating) where in base case without bus-split, total ICT loading at Biharshariff was 560 MW and Bihar demand 4650MW.
- If we consider summer peak case having 6000 MW Bihar demand with 660 MW Biharshariff ICTs loading, N-1 contingency of 500 MVA ICT-IV leads to 301 MW loading on ICT –II (315 MVA rating).

In 169th OCC Meeting, ERLDC informed that Bihar had submitted a report wherein Bihar agreed for the implementation of bus-split arrangement.

Further, ERLDC added that Bihar has to make load shedding scheme to avoid the tripping of 315 MVA ICT on overload during tripping of 500 MVA ICT.

Thereafter, OCC opined that depending on the power flows after putting the bus splitting scheme in service, the SPS scheme should be decided.

OCC then advised Powergrid to make necessary changes in protection settings for implementation of the bus-split arrangement and to coordinate with remote end sub-stations. OCC further, advised Powergrid to intimate a suitable date to ERLDC for putting the bus splitting scheme in service at Biharshariff.

In the 170th OCC Meeting, Powergrid informed that they have computed the protection settings for split mode operation and forwarded to their corporate office for review and comments. Powergrid added that they will update status as soon as they receive the information from their corporate office.

Members may update.

Deliberation in the meeting

ERLDC informed that Powergrid had confirmed that there is no requirement of putting a group-II settings for this bus splitting at the remote end substations of Powergrid.

ERLDC added that Bihar has to make a load shedding scheme to avoid the tripping of 315 MVA ICT on overload during tripping of 500 MVA ICT.
OCC advised SLDC, Bihar to prepare a plan for the load shedding scheme to avoid unwanted tripping of 315 MVA ICT and submit to ERPC and ERLDC. The scheme would be discussed in the upcoming PCC meeting.

OCC advised ERLDC to interact with Powergrid and finalize a date for implementation of the bus splitting scheme.

Item No. C.13: Constitution of a committee for independent verification of self-declarations and auditor's / accountant's certificates on random basis and in the case of complaints.

CEA vide letter dated 17th August 2020 informed that In pursuance of DPIIT order No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 regarding Public Procurement (Preference to Make in India), order 2017 (PPP-MII)-'clause 9(d)' and MoP Order No. 11/05/2018/Coord dated 28.07.2020-'clause 6', a Committee has been constituted for independent verification of self-declarations and auditor's/ accountant's certificates on random basis and in case of complaints. The composition of the Committee is given below:

Chairperson	Member (Planning), CEA
Member	Chief Engineer (PSETD), CEA
Member	Chief Engineer (HETD), CEA
Member	Chief Engineer (TETD), CEA
Member	Chief Engineer (DP&R), CEA
External Expert	As may be co-opted by CEA
Convener	Chief Engineer (R&D), CEA

In this regard, it is required to submit to this office the procurement wise details and self-declaration certificates submitted by the suppliers regarding local contents of the purchases.

Before furnishing the details to Verification Committee, the self-declarations certificate about local contents etc. may also be verified at your end and an analysis report of the same may be furnished.

Compliance report regarding cyber security/safety of the equipment/process to be rendered as safe to connect, regular safety audit certificates (as mentioned in the Annexure-III of the aforesaid MoP Order) based on the requirement of the tender issued by the procuring entity may also be furnished in respect of each purchases.

Also, procuring entities are requested to add a clause in their tender documents mentioning that the "*Self-declarations/ auditor's/ accountant's certificates submitted by the manufacturer/ supplier may be verified randomly by the committee constituted as per MoP Order 28-07-2020. In case of false documents/misrepresentation of the facts requisite action against such manufacturer/ supplier will be taken based on the recommendation of the Committee*."

The communication in this regard may be made with Ms. Sheetal Jain, Deputy Director, CEA, R K Puram, New Delhi 110066. Phone No. 011-26732286 Email **cerndcea@gmail.com**

In the 170th OCC Meeting, OCC advised all the constituents to submit the certificates provided by the suppliers and manufacturers to CEA through the given email.

All the constituents may update about the submission of certificates to the given Email.

Deliberation in the meeting

OCC advised all the constituents to submit the certificates provided by the suppliers and manufacturers to CEA through the given email within 15 days.

Item No. C.14: Request for data of the equipment/components to be included in Approved List of Model and Manufacturers (ALMM) Development of a Web Portal and creation of required fields in the Portal.

CEA vide mail communicated that MOP has brought out the Order No. 11/05/2018-Coord dated 23-07-2020 (Link for Order No. 11/05/2018-Coord dated 23-07-2020) mentioning creation of ALMM. As you are aware that a dynamic Web Portal is to be developed for ALMM. In this regard it is requested that equipment wise rating of all the equipments used in your Organization and their parameters that are considered mandatory (to be filled in the "respective fields" of the Portal) and are usually considered during the procurements/ tendering may be provided to this office in a tabulated form. These data will facilitate the creation of required 'data fields' in the Portal for easy accessibility and navigation.

Product wise Vendor details may also be given.

Kindly provide information on email: **cerndcea@gmail.com.**

In the 170th OCC Meeting, OCC advised all the constituents to communicate the list of equipments to CEA through the given email.

All the constituents may update about the submission of equipments list to the given Email.

Deliberation in the meeting

OCC advised all the constituents to communicate the list of equipments to CEA through the given email within 15 days.

Item No. C.15: Monthly Data on Category-wise consumption of electricity in States/UTs---CEA

1. CEA vide mail informed that Hon'ble MoSP(IC) has desired the month-wise category-wise consumption data in the various States/UTs from April,2019 to July, 2020. CEA requested all the concerned utilities of States to furnish the data at the earliest.

In 170th OCC Meeting, SLDC DVC informed that they had already provided the data vide mail on 11.08.2020 & 21.08.2020.

Thereafter SLDC Odisha, Bihar and Jharkhand agreed to submit the relevant details within three days.

SLDC West Bengal informed that currently they were not having the category wise data. They further informed that they would contact their distribution system and forward it to ERPC.

OCC then advised Sikkim to submit the relevant information to ERPC.

Members may update.

Deliberation in the meeting

SLDC Odisha, Bihar and Jharkhand agreed to submit the relevant details within fifteen days.
SLDC West Bengal informed that category wise data is not available with them and they have informed the distribution licensees regarding the same. They will forward the data as soon as they get it from the distribution licensees.

OCC then advised all the SLDC's to submit the data within 15 days.

2. CEA also informed that Hon'ble MoSP(IC) has also desired to know the reasons for the use of captive power plants by Industrial Consumers despite availability of adequate power in the country.

In the 170th OCC Meeting, OCC advised all the states to communicate the reasons regarding use of captive power plants by industrial consumers despite availability of power in the country to ERPC at the earliest.

Members may update.

Deliberation in the meeting

OCC advised all the states to communicate the reasons regarding use of captive power plants by industrial consumers despite availability of power in the country to ERPC at the earliest.

Item No. C.16: Integration of Power from Renewable Energy Zones (REZs)—POSOCO.

With regard to integration of REZs expected up to 2021-22 time-frame, the All India PSSE file with different scenarios is being prepared for assessing Inter-Regional adequacy of the grid and based on which system strengthening, if any, would be carried out.

In view of the above, 9 nos. of scenarios have been prepared. Load generation scenarios, results of the system studies for Scenario-4 (High RE), June 2021-22 Afternoon Peak, study assumptions & inputs considered have already been uploaded on CTU website. The said system studies are preliminary analysis of the system conditions based on the discussions held with CEA and POSOCO.

Further system studies for balance 8 nos. of scenarios is under-preparation and shall be finalized after receipt of comments/observations from the stakeholders. It is requested to forward comments/observations on the referred scenario, if any, latest by 26-06-2020.

Comments were received from POSOCO vide letter dated 25.06.2020. No comments were received from any other constituents of ER. Accordingly, the updated system studies incorporating observations received from POSOCO were carried out for all the 9 nos. of scenarios. The system studies along with observations received from POSOCO/constituents were also discussed with CEA and POSOCO in meeting held on 23.07.2020.

In view of above, Load generation scenarios, study assumptions & inputs considered, system studies and study analysis are attached as Annexure B.8 in 170th OCC Agenda document for comments/observations. It is requested to forward comments/observations on the above, if any, at the earliest.

In the 170th OCC Meeting, OCC advised all the utilities to go through the Annexure B.8 of 170th OCC Agenda document and communicate the comments regarding the findings of the study to ERPC and ERLDC so that the same can be forwarded to CTU.

Utilities may update their findings regarding the study.

Members may discuss.

Deliberation in the meeting

It was informed that the agenda would be discussed in 2nd ERPC(TP) meeting scheduled to be held on 30th September 2020.

Item No. C.17: ER Grid performance during August 2020.

The average and maximum consumption of Eastern Region and Max/Min Demand (MW), Energy Export for the month August – 2020 were as follows:

Average Consumption (Mu)	**Maximum Consumption(mu)/ Date**	**Maximum Demand (MW)**	**Minimum Demand (MW)**	**Schedule Export**	**Actual Export**
		Date/Time	**Date/Time**	**(Mu)**	**(Mu)**
466	502 MU 31-08-2020	23645 MW 18-07-2020 22:41	13806 MW 20-08-2020 15:54	3045	2860

ERLDC may present Performance of Eastern Regional Grid.

Deliberation in the meeting

*ERLDC gave a presentation on performance of Eastern regional Grid which is given in **Annexure C.17**.*

Members noted.

Item No. C.18: Performance primary frequency response of generating stations in Eastern Region for the event in the month of August 2020.

Frequency response characteristics (FRC) has been analyzed pan India for two events of sudden frequency change that occurred during the month of August 2020. The details of those events and the overall response of Eastern region have been summarized and given in **Annexure-C.18.1**.

Members may note and comply.

Deliberation in the meeting

*OCC advised all the Generators and SLDCs to go through the **Annexure C.18.1** and comply the observations.*

*ERLDC further informed that RGMO meeting with the states had already been conducted on 31st Aug 2020. The minutes of the meeting are given in **Annexure C.18.2**.*

ERLDC requested all the Generators and SLDCs to share the relevant data as soon as the event has occurred so that they can analyze the response of the Generators.

OCC advised West Bengal to nominate a nodal person for sharing the FRC related data with ERLDC.

PART D: OPERATIONAL PLANNING

Item No. D.1: Anticipated power supply position during October 2020.

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of October 2020 were prepared by ERPC Secretariat on the basis of LGBR for 2019-20 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc. is enclosed at **Annexure D1.**

Members may confirm.

Deliberation in the meeting

*Updated anticipated power supply for the month of October 2020 is given in **Annexure D1**.*

Item No. D.2: Shutdown proposal of transmission lines and generating units for the month of October 2020.

Generator shutdown for October 2020 is given below:

Proposed Maintenance Schedule of Thermal Generating Units of ER during 2020-21 in the month of Oct 20 (as finalised in draft LGBR meeting held on 06.12.2019)							
System	**Station**	**Unit**	**Capacity (MW)**	**Period**		**No. of Days**	**Reason**
				From	**To**		
DVC	DSTPS	2	500	06.09.20	11.10.20	11	COH
	BTPS-A	1	500	26.10.20	29.11.20	6	COH
ODISHA	Talcher TPS	4	60	13.09.20	22.10.20	40	AOH
		1	60	04.10.20	05.10.20	2	Short Shut Down
NTPC	TSTPS	2	500	26.10.20	09.12.20	6	COH
	KhSTPS	6	500	01.09.20	05.10.20	35	Boiler + HPT + IPT

DVC in a mail dated 21st Aug 2020 informed that the shutdown of DSTPS Unit-2 will be taken from 10.11.2020 to 19.12.2020 and shutdown of BTPS-A Unit-1 would be taken from 15.02.2021 to 21.03.2021.

NTPC Talcher in a letter dated 10th Sep 2020 informed that there is no shutdown program of Units in Oct 2020.

ERLDC may place the list of transmission lines shutdown discussed on 22nd September 2020.

Members may note.

Deliberation in the meeting

NTPC informed that NTPC Farakka unit-II was taken under emergency shutdown due to stator earth fault. NTPC also informed that they have planned for the annual overhauling along with rectification work therefore the unit would be under shutdown for 50 days.

*Approved list of transmission elements shutdown is enclosed at **Annexure-D2**.*

Item No. D3: Major Generating Units/Transmission Element outages/shutdown in ER Grid.

SL. No	Station	Agency	Unit No	Capacity	Reason(s)	Outage	
				MW		Date	Time
1	BARAUNI TPS	BSPHCL	7	110	RSD/LOW SYSTEM DEMAND	28-May-20	07:00
2	BOKARO'B'	DVC	3	210	DESYN ON LOW SYSTEM DEMAND	19-Jun-20	08:20
3	CHANDRAPURA TPS	DVC	3	130	TURBINE BLADE DAMAGE	30-Jul-17	00:00
4	KOLAGHAT	WBPDCL	1	210	POLLUTION PROBLEM	10-May-18	23:05
5	KOLAGHAT	WBPDCL	2	210	ESP FIELD MAINTENANCE	26-Dec-19	22:48
6	KOLAGHAT	WBPDCL	3	210	RSD/LOW SYSTEM DEMAND	13-Jun-20	15:15
7	KOLAGHAT	WBPDCL	4	210	RSD/ LOW SYSTEM DEMAND	15-Jul-20	17:17
8	KOLAGHAT	WBPDCL	6	210	RSD/LOW SYSTEM DEMAND	16-Jan-20	23:37
9	MEJIA TPS	DVC	3	210	RSD/LOW SYSTEM DEMAND	01-Aug-20	10:22
10	SANTALDIH TPS	WBPDCL	6	250	ANNUAL OVERHAULING	10-Sep-20	00:31
11	TTPS	NTPC	1	62.5	ANNUAL OVERHAULING	29-Aug-20	23:47
12	JITPL	JITPL	1	600	DUE TO BOTTOM ASH SCRAPPER PROBLEM	09-Sep-20	18:42
13	KBUNL	NTPC, BSPHCL	2	195	SHAFT VIBRATION HIGH	24-Jul-20	02:41
14	NABINAGAR(BRBCL)	NTPC	2	250	GENERATOR BEARING HIGH VIBRATION	12-Aug-20	02:20
15	BARAUNI TPS	BSPHCL	6	110	ELECTRICAL PROTECTION TRIP; PROBLEM IN BEARING GEAR MOTOR	25-Feb-20	06:56
16	IB.TPS	OPGC	2	210	ANNUAL OVERHAULING	01-Sep-20	23:58
17	OPGC3	OPGC	3	660	ASH EVACUATION PROBLEM	05-Sep-20	20:50
18	RTPS	DVC	2	600	LEAKAGE IN SUPERHEATER DRAIN VALVE	06-Sep-20	00:02

19	SAGARDIGHI	WBPDCL	2	300	AUXILLARY SUPPLY FAILED	18-Mar-20	12:20
20	U. KOLAB	OHPC	3	80	GUIDE BEARING TEMPERATURE HIGH	07-Jan-20	07:55
21	WARIA TPS	DVC	4	210	BOILER TUBE LEAKAGE	02-Mar-20	17:54

Generators/ constituents are requested to update the expected date of revival of the units.

Hydro Unit Outage report:

SL. No	Station	Agency	Unit No	Capacity	Reason(s)	Outage	
				MW		Date	Time
1	TEESTA STG III Hep	TUL	3	200	B-phase interrupter of 400kV side of Unit#3 GT got damaged	13-Sep-2020	18:06
2	BALIMELA HPS	OHPC	4	60	SPARKING IN PMG	02-Mar-2020	17:40
3	BALIMELA HPS	OHPC	6	60	HEAVY LEAKAGE IN ID VALVE	06-Sep-2020	09:53
4	U. KOLAB	OHPC	3	80	GUIDE BEARING TEMPERATURE HIGH	07-Jan-2020	07:55

It is seen that about 400 MW hydro capacities in Odisha is under forced outage / planned outage in the period of peak monsoon and therefore not available for providing the much-needed peaking support during evening peak. SLDC / OHPC may please indicate restoration plan of the units.

Line Long Outage Report:

SL NO	Transmission Element / ICT	Agency	Outage DATE	Reasons for Outage
1	400 KV IBEUL JHARSUGUDA D/C	IBEUL	29-04-2018	TOWER COLLAPSE AT LOC 44,45
2	220/132 KV 100 MVA ICT I AT LALMATIA	FSTPP/JUSNL	22-01-2019	Failure of HV side breaker
3	220 KV PANDIABILI - SAMANGARA D/C	OPTCL	03-05-2019	49 NOS OF TOWER COLLAPSED.AS REPORTED BY SLDC OPTCL, TOTAL 60 NOS OF TOWER IN BETWEEN 220KV PANDIABILI – SAMANGARA LINE IN WHICH 48 NOS TOWERS FULLY DAMAGED AND 12 NOS TOWERS PARTIALLY DAMAGED. WORK UNDER PROGRESS.

4	400 KV MOTIHARI(DMTCL)-GORAKHPUR-I	POWERGRID/DMTCL	13-08-2019	LINE SWITCHED OFF DUE TO ANTICIPATED TOWER COLLAPSE AT LOC 27/0(132) DUE TO CHANGE OF COURSE OF GANDAK RIVER.TOWER COLLAPSED REPORTED AT LOC 27/0(132) ON 15/08/19 AT 07:00 HRS. 400KV BARH -GORAKHPUR 1 CHARGED AT 18:57 HRS ON 05.02.20 AS INTERIM ARRANGEMENT BYPASSING LILO PORTION OF MOTIHARI.
5	400 KV MOTIHARI(DMTCL)-GORAKHPUR-II	POWERGRID/DMTCL	13-08-2019	Earlier reconfigured Barh - Gorakhpur # II again LILOED back at Motihari and the portion beyond Motihari shall be termed as 400 KV MOTIHARI(DMTCL)-GORAKHPUR-II
6	400 KV BARH-MOTIHARI(DMTCL) - I	POWERGRID/DMTCL	04-09-2019	TOWER COLLAPSE AT LOCATION 26/0 AND 25/5. 400KV BARH -GORAKHPUR 2 CHARGED AT 10:06 HRS ON 31.01.20 AS INTERIM ARRANGEMENT BYPASSING LILO PORTION OF MOTIHARI. 400KV BARH -GORAKHPUR 1 CHARGED AT 18:57 HRS ON 05.02.20 AS INTERIM ARRANGEMENT BYPASSING LILO PORTION OF MOTIHARI.
7	400 KV KOLAGHAT-NEW CHANDITALA	WBSETCL	25-04-2020	For connectivity in between 220KV KTPP-Howrah Ckt and 400KV KTPP-New Chanditala ckt. Part of line to be used at 220 KV to supply power to Howrah from Kolaghat
8	220/132 KV 100 MVA ICT 3 at Chandil	JUSNL	30-04-2020	ICT BURST AND DAMAGED AFTER FIRE REPORTED
9	132 KV NEW KISHANGANJ - BARSOI S/C	BSPTCL	02-07-2020	Out due to heavy soil erosion at loc no 140 and 141 by river Kankai. line charged as 132 KV Purnea (PG) - Barsoi w.e.f 21.07.20 at 19:05 Hrs temporarily by suitable jumper arrangement at the crossing point of 132 kV Kisanganj(New) - barsoi and 132 kV Purnea(PG) - Kisanganj (old).
10	132KV-PURNEA (PG)-KISHANGANJ(OLD) S/C	BSPTCL	02-07-2020	
11	400KV-KOLAGHAT-NEW CHANDITALA	WBSETCL	25-04-2020	S/D TAKEN FOR CONNECTIVITY BETWEEN 220KV KTPP-HOWRAH CKT

				AND 400KV KTPP-NEW CHANDITALA CKT
12	400KV/220KV 315 MVA ICT 4 AT RANGPO	PGCIL	20-08-2020	Hydrogen level increased to Alarming Value. Abnormal sound coming from ICT.
13	765KV-JHARSUGUDA-RAIPUR PS (DURG)-1	PGCIL	02-09-2020	Voltage Regulation
14	765KV-JHARSUGUDA-ANGUL-4	PGCIL	03-09-2020	Voltage Regulation
15	400KV-NEW PURNEA-GOKARNA	PGCIL	04-09-2020	To attend and avoid tower collapse situation due to continuous erosion due to flood in the river Ganga at tower loc no 1103
16	400KV-NEW PURNEA-FSTPP	PGCIL	04-09-2020	To attend and avoid tower collapse situation due to continuous erosion due to flood in the river Ganga at tower loc no 1103
17	220KV-DALTONGUNJ-GARWAH (NEW)-2	JUSNL	05-09-2020	DALTONGANJ: Y_N, 1.99 KA, 65.88 KM, LINE UNDER BREAKDOWN
18	220KV-PUSAULI-SAHUPURI-1	PGCIL	13-09-2020	Y-phase conductor found snapped around 9.6 km. Line under s/d.
19	220KV-NEW PURNEA-MADHEPURA-1	BSPTCL	15-09-2020	B_ph current missing at Madhepura. Line hand tripped

As per long outage list, most of the important grid elements, inter-state as well as intra-state, are under outage for long time due to tower collapse and other issues.

Transmission licensees/ Utilities are requested to update expected restoration date & work progress regarding restoration regularly to ERLDC/ERPC on monthly basis by 5th of each month so that status of restoration can be reviewed in OCC. Utilities are also requested to update outage of any elements within their substation premises like isolator/breaker to ERLDC/ERPC regularly.
(Reported as per Clause 5.2(e) of IEGC)

Members may update.

Deliberation in the meeting

DVC informed that Chandrapura Unit 3 was decommissioned.

OCC advised all the utilities to update the status of their generators and transmission lines to ERLDC at the earliest.

Item No. D.4 Commissioning of new units and transmission elements in Eastern Grid in the month of August 2020.

The details of new units/transmission elements commissioned in the month of August -2020 based on the inputs received from beneficiaries:

SL NO	Element Name	Owner	Charging Date	Charging Time
1	220 kV Daltonganj-Garhwa New I	JVUNL	16-08-2020	17:03:00
2	220 kV Daltonganj-Garhwa New II	JVUNL	16-08-2020	17:31:00

Members may update.

Deliberation in the meeting

Members noted.

Item No. D.5 UFR operation during the month of August 2020.

Frequency profile for the month is as follows:

Month	Max (Date/Time)	Min (Date/Time)	% Less IEGC Band	% Within IEGC Band	% More IEGC Band
August, 2020	50.23, 30-08-2020 14:44	49.6 31-08-2020 19:11	6.1	80.9	13

Hence, no report of operation of UFR has been received from any of the constituents.

Members may update.

Deliberation in the meeting

Members noted.

Meeting ended with vote of thanks to the Chair.

****

Annexure A

LIST OF ATTENDEES OF 171st OCC MEETING

SL NO.	NAME	DESIGNATION	ORGANISATION	PHONE NO.
1	ERPC, Kolkata	HOST	ERPC	
2	Shivam Asati	ASST. DIRECTOR-II	ERPC	
3	Abhinaba Basu	ASST. EXECUTIVE ENGINEER	BSPTCL	7033091492
4	S K Pradhan	ASST. DIRECTOR-I	ERPC	
5	Biplab Chaterjee		TATA POWER	9204857100
6	Yogesh Singla	DEPUTY GENERAL MANAGER	KBUNL	
7	Ashok Sarkar			
8	Amaresh Mallick	CHIEF GENERAL MANAGER	ERLDC, POSOCO	9436302720
9	P. P. Jena	ASST. DIRECTOR-I	ERPC	
10	B. B Bhoi		POSOCO	9432351830
11	Prakash Kumar Gupta	WBPDCL		
12	Banamali Mohanta			
13	Debajyoti Majumdar	MANAGER	POSOCO	9903593500
14	Sanjit Kumar Maharana		GRIDCO	
15	Saurabh Kumar		BRBCL	
16	Tushar Ranjan Mohapatra	MANAGER	ERLDC, POSOCO	
17	Adarsh Singh			
18	Prashant Senapathy	ASST. GENERAL MANAGER	GMR	8114918762
19	Surajit Banerjee		POSOCO	9433041823
20	Nishant Kumar Shankwar	MANAGER	DMTCL	7987210324
21	Rajdeep Bhattacharya	REGIONAL ENGINEER	BSPHCL, Kolkata	9830380689
22	Diptikanta Panda			
23	Laldhari Kumar		ERLDC, POSOCO	9831379478
24	Sanjay Kumar Singh			
25	Koushik Banerjee			
26	Shyamal Konar			
27	Alok Pratap Singh			
28	Chandan Kumar	MANAGER	ERLDC, POSOCO	9869251460
29	Pravat Ranjan jena			
30	Chandan Mallick	Dy. Mgr	ERLDC, POSOCO	
31	Nimish Seth			
32	Pkd			
33	Surajit Banerjee		ERLDC, POSOCO	9433041823
34	Faisal Ahmed			
35	Sanjaya Kumar Mishra			
36	Saurav Sahay	Chief Manager	ERLDC, POSOCO	
37	Nimisha Kumari		BSPTCL	7763817773
38	RTAMC		ER-II	
39	Karikalchozan M	ASST. GENERAL MANAGER	NTPC	
40	SLDC, DVC		DVC	
41	Sunil Kumar Sharma		NTPC ER-I	
42	Ashimananda Pal			
43	Arnab Mitra			
44	D.K Jain	EXECUTIVE DIRECTOR	ERLDC, POSOCO	
45	Chaterjee Biplab		TATA POWER	9204857100
46	Raj Protim Kundu		ERLDC, POSOCO	
47	Prasant Senapthy	ASST. GENERAL MANAGER	GMR	8114918762
48	Raj Kishore Mandal		NTPC	9431600132
49	Gagan Kumar	EXECUTIVE ENGINEER	SLDC, BSPTCL	7992486100
50	Shaibal Ghosh	DY. MANAGER	ERLDC, POSOCO	8584072079
51	Jogesh Chandra Patra		TSTPS NTPC	
52	Arunava Sengupta			
53	Sanjaya Kumar Sharma		DVC	9434539432
54	R S Talukdar			
55	Lenin Bodigadla	EXECUTIVE ENGINEER	ERPC	
56	Rajesh Kumar	Dy. CHIEF ENGINEER	DVC	9434480578
57	Akhouri A Prasad	ASST. GENERAL MANAGER	BRBCL	9425293583
58	M K Das		GRIDCO	
59	CGM OPTCL	CHIEF GENERAL MANAGER	OPTCL	
60	Abhijit Chakraborty	Dy. CHIEF ENGINEER	DVC	8670221267
61	Dibyendu Bhattacharya			
62	Swaruphari Chandan			
63	Partha	CHIEF MANAGER	POWERGRID	9434748263
64	Pravas Kumar Das			
65	Preetam Banerjee			
66	Mohanty A. K		OHPC	
67	P Raghunath			
68	Vijayananda Selmetty			

EASTERN REGIONAL POWER COMMITTEE Annexure B.3.1

EXECUTIVE SUMMARY

LOAD MANAGEMENT OF WEST BENGAL DURING ALL THE PUJA DAYS
21.10.2020 TO 26.10.2020 (PANCHAMI TO DASHMI)

(All figures in net MW)

SYSTEM	21.10.2020 (PANCHAMI) WEDNESDAY	22.10.2020 (SASTHI) THURSDAY	23.10.2020 (SAPTAMI) FRIDAY	24.10.2020 (ASTAMI) SATURDAY	25.10.2020 (NAVMI) SUNDAY	26.10.2020 (DASMI) MONDAY
	PEAK	PEAK	PEAK	PEAK	PEAK	PEAK
WBSEDCL GEN.	1250	1250	1250	1250	1250	1250
WBPDCL+DPL GEN.	3435	3435	3435	3435	3435	3435
CESC GEN.	1330	1330	1330	1330	1330	1330
(Inc. HEL)						
Total	***6015***	***6015***	***6015***	***6015***	***6015***	***6015***
C. SECTOR +IPP	2055	2055	2055	2055	2055	2055
Import from CPP	105	105	105	105	105	105
TOTAL AVAILABILITY	**8175**	**8175**	**8175**	**8175**	**8175**	**8175**
DEMAND OF WEST BENGAL (Inc. export)	**8000**	*** 8125**	**7028**	**6104**	**5928**	**6105**
Sur.(+)/Def.(-)	**175**	**50**	**1147**	**2071**	**2247**	**2070**
E.REGIONAL AVAILABILITY	**29029**	**29029**	**29029**	**29029**	**29029**	**29029**
E.REGIONAL DEMAND	**21890**	**21835**	**19954**	**18080**	**17809**	**18572**
Probable forced & partial outages @4%	**1161**	**1161**	**1161**	**1161**	**1161**	**1161**
E.REGIONAL Sur.(+)/Def.(-)	5978	6033	7914	9788	10059	9296

***** However, WBSETCL representative stated that their demand during Puja days would be 6610 MW in WBSETCL area and it would be 8414 MW in West Bengal area.

ANNEXURE-B.3.2

EASTERN REGIONAL POWER COMMITTEE
PUJA LOAD FORECAST '2020
DEMAND IN NET MW AND AT 50.0 HZ

		WEST BENGAL							
PUJA		WBSEDCL	CESC	TOTAL WEST	BSPHCL	JUVNL	DVC	ODISHA	15036
DAYS				BENGAL					
	MAX	6200	1800	8000	5315	1351	2853	4375	21890
PANCHMI									
21-Oct-20	MIN	4572	1059	5680	2945	892	2421	3381	16402
WEDNESDAY	AVG	5267	1457	6724	3916	1049	2588	3723	18064
	MAX	6365	1770	8125 *	5164	1415 **	2838	4330	21835
SASTHI									
22-Oct-20	MIN	4373	1079	5521	2847	918	2390	3374	16350
THURSDAY	AVG	5282	1462	6744	3839	1121	2613	3732	18119
	MAX	5730	1550	7028	4873	1294	2767	4050	19954
SAPTAMI									
23-Oct-20	MIN	4284	1089	5405	2520	913	2346	2991	14898
FRIDAY	AVG	4952	1329	6281	3673	1096	2545	3501	17167
	MAX	4765	1380	6104	4612	1141	2618	3500	18080
ASTAMI									
24-Oct-20	MIN	3422	1030	4481	2426	767	2287	2463	12916
SATURDAY	AVG	4087	1210	5298	3453	933	2428	2851	15036
	MAX	4628	1300	5928	4402	1244	2615	3537	17809
NAVAMI									
25-Oct-20	MIN	2850	938	4039	2284	631	2192	2382	12729
SUNDAY	AVG	3595	1114	4709	3231	906	2376	2872	14165
	MAX	4825	1280	6105	4757	1375	2727	3595	18572
DASHMI									
26-Oct-20	MIN	3324	876	4329	2471	899	2332	2576	13054
MONDAY	AVG	3864	1081	4946	3326	1053	2478	2974	14837

*** However, WBSETCL representative stated that their demand during Puja days would be 6610 MW in WBSETCL area and it would be 8414 MW in West Bengal area.**
**** Jharkhand representative stated that their maximum demand during Puja period would be 1540 MW during peak hours.**
If there would be rain, System demand may drop around 350/450 MW in WEST Bengal and Region as a whole around 1200 MW

ANNEXURE- B.3.3

EASTERN REGIONAL POWER COMMITTEE

Generation Availability During Puja-2020

Expected Peak Hours Generation										
			Gross MW				Net MW			
System	Plants	Unit Considered	Therm.	Hydro+RES	Import Captive	Total	Therm.	Hydro	Captive	Total
BSPHCL	BTPS	1X110+1X250	250							
	MTPS	2X110	100							
TOTAL			350	80	0	430	308	80	0	388
JUVNL	TTPS	2x210	380	100	60	540	323	100	60	483
DVC	BTPS-A	1X500	470							
	CTPS	2x250	475							
	DTPS	1X210	160							
	MTPS	4x210+2X250+2X500	2200							
	Durgapur STPS	2X500	950							
	Kodarma TPS	2X500	950							
	RTPS	2X600	855							
	TOTAL		6060	100	0	6160	5515	100	0	5615
ODISHA	IB TPS	2x210+2x660	1650							
	TTPS	4x60+2x110	410							
	TOTAL		2060	1450	900	4410	1875	1443	900	4217
WBPDCL	BTPS	2x60+1X215	200							
	STPS	2X250	500							
	KTPP	2x210	350							
	BkTPP	5x210	1050							
	Sag TPS	2X300+2X500	1320							
	DPL	1*300+1X250	400							
	TOTAL		3820		105	3925	3435	0	105	3540
WBSEDCL	(JAL.+RAMAM+TISTA)HPS+PPSP+TLDP		0	1250	0	1250	0	1250		1250
CESC	TTPS	4x60	0							
	STPS	2x67.5	100							
	B.BUDGE TPS	3x250	750							
	HEL	2X300	600							
	TOTAL		1450			1450	1330			1330
NTPC	FSTPP	3x200+3x500	1900							
	KhSTPP	4x210+3X500	2100							
	TSTPP	2x500	1000							
	TSTPS Stg-II		*150*							
	Barh STPS	2X660	*1260*							
	MTPS Stg-II	2X195	*350*							
	BRBCL	3X250	*700*							
	NSTPS	1X660	*600*							
	Daripali STPS	1X800	*800*							
	TOTAL		8860			8860	5988	*		5988
NHPC	RHPS	3x20		60		60		60		60
	Teesta HEP	3x170		510		510		510		510
IPP	MPL (U#1&2)	2X525	1000							
	APNRL (U#1,2)	2X270	480							
	GMR (2x350)	2X350	650							
	JITPL (2X600)	1X600	580							
	Total IPP TH		2710			2710	2480	0		2480
	CHUZACHEN (2x55)			100		100		100		100
	JORETHANG (2x48)			90		90		90		90
	TEESTA URJA St III (6x200)			1000		1000		1000		1000
	Tashinding (2x48.5)			90		90		90		90
	DICKCHU (2X48)			90		90		90		90
	Total IPP HY			1370		1370	0	1370		1370
Import from BHUTAN	Chu. HPS,BIR. Receipt	4X90		250		250		250		250
	KHPS	4X15		60		60		60		60
	Tala HEP	6X170		950		950		808		808
	Dagachu HPS	2X63		126		126		120		120
	Mangdechhu HEP	4X180		700		700		560		
TOTAL				2086		1386		1798		1238
GRAND TOTAL			25690	6306	1065	33061	21253	6710	1065	29029

* for Eastern Region only .

29029

West Bengal SHARE FROM ISGS

NTPC	PEAK	% SHARE
FSTPS	597	34.21%
KhSTPP	57	3.10%
TSTPP	96	10.13%
BarhTPS	0	0.00%
MTPS-Stg-II	26	9.64%
BRBCL	0	0.00%
NSTPS	0	0.00%
Darlipali STPS	120	15.59%
NHPC		
RHPS	17	28.34%
Teest HPS	122	23.98%
Bhutan		
CHPC	80	31.85%
KHEP	30	50.00%
THEP	309	38%
MHEP	180	32.14%
IPP		
MPL+Adh.+Mejia	422	
Gr.Total	2055	

Darbhanga-Motihari Transmission Company Limited

September 01, 2020

Ref. No.: DMTCL.REG.EXM.025.00.01092020

The Member Secretary (Act)
Eastern Region Power Committee
14, Golf Club Road, Tollygunge,
Kolkata-700033

Kind Attention: Shri Shyam Kejriwal

Subject : Grant of relief under the Force Majeure provisions of the TSA with reference to 1) completion of strengthening / restoration of Motihari LILO; 2) outage on account of floods at Darbhanga substation

Ref.:

1. DMTCL presentation in 168th OCC meeting held on June 17, 2020 seeking extension for the restoration work
2. DMTCL weekly update to ERPC on the restoration work progress and challenges faced at site in restoration work
3. DMTCL regular updates to ERPC and LTTC regarding progress of LILO section restoration work and challenges faced because of unseasonal rains pre-lockdown
4. DMTCL FM notice intimation no. DMTCL.REG.EXM.050.00.25.03.2020, dated March 25, 2020 – Country wide lockdown due to Covid-19 pandemic as well as unseasonal rains in region and subsequent updates
5. DMTCL request for seeking extension of restoration timeline under the lockdown restrictions of COVID-19 pandemic and other Force Majeure events through letter no. DMTCL.REG.EXM. 006.00.21052020, dated 21.05.2020;
6. DMTCL post lockdown intimations of restoration works at LILO section updating about pandemic as well as floods/ unprecedented discharge and progress achieved
7. DMTCL intimation no. DMTCL.REG.EXM.018.00.09082020 dated August 09, 2020 communication regarding charging of Barh-Motihari Line on Temporary basis
8. DMTCL FM notice – Darbhanga sub-station flooding, intimation no. DMTCL.REG.EXM.016.00. 03082020 dated August 03, 2020
9. DMTCL update on charging of Darbhanga sub-station intimation no. DMTCL.REG.EXM.023. 00.16082020 dated August 16, 2020
10. DMTCL FM presentation- Darbhanga flooding and subsequent restoration of sub-station in 170th OCC meeting held on August 27, 2020

Dear Sir,

With reference to our submission referred above and our presentations to the OCC of the ERPC on the subject over the last few months, we would like to draw your kind attention to the following summary on the Force Majeure events that impacted operations at DMTCL, and that of our requests above for relief under the Force Majeure provisions of the TSA:

1. **Impact of Force Majeure (pandemic and floods) on works related to strengthening / restoration of the Barh – Motihari – Gorakhpur LILO section**

- In the monsoon of 2019, the Motihari LILO section located on the banks of River Gandaki was impacted on account of river changing course and washing away **"four"** 400kV towers *(our presentations dated September 20, 2019 and October 24, 2019 to the ERPC*
- The Committee formed by the ERPC granted relief under the FM provisions of the TSA and required DMTCL to complete the strengthening / restoration works 6 towers *by June 14th, 2020 starting from December 15th, 2019 as zero date (site access to river locations is generally possible only after end November)*
- In the long term interest of asset integrity, DMTCL decided to strengthen **"twelve" towers" instead of the six proposed above** *(ten new taller towers on pile foundations plus two taller towers thereby strengthening the foundations with 160 piles; increasing the span and moving open cast foundations 2 Kms away from the river on the Gopalganj bank and 1 Km away from the Areraj bank)*
- In addition, as a prudent operator, just prior to Holi in March 2020, DMTCL voluntarily completed installation of a temporary evacuation arrangement using an ERS system *(single conductor, single circuit),* which enabled power flow, meeting the requirements of the region *(capacity to evacuate ~350MW)*
- By the time Lockdown was announced by the Government on account of the Covid-19 Pandemic, notwithstanding unseasonal rains since February 2020 in the region (as regularly intimated to ERPC through our notices), **DMTCL had managed to complete >65% of the work** *(copy of status update presented in 168th OCC of ERPC dated June 17, 2020 is attached – Annexure 1)*

  Sir, you will kindly note from all our updates that had it not been for the Pandemic and resulting Lockdown, we were on target to complete our Strengthening works ahead of schedule and before monsoon *(while ensuring temporary flow of power in the interim through ERS)*
- All works related to strengthening / restoration had to come to a standstill due to Pandemic related orders / guidelines received by the government
- A very detailed submission on the impact of the stoppage of work and subsequent Lockdown was submitted to the 168th OCC of ERPC on June 17, 2020 seeking relief under the FM provisions of the TSA and seeking grant of extension for completion of strengthening / restoration works *(copy attached as Annexure 1)*
- Apart from stoppage of work on the river banks and norms stipulated with respect to assembly and social distancing, labour could not be deployed to protect temporary islands associated with two towers (26/0 and 26/3) which were created mid-stream of the river to carry out pile works, which as a result got washed away by the river *(pictures attached as Annexure 2, submitted in the past to ERPC as part of regular updates)*
- In the first available opportunity after receiving permission from the government to restart work, notwithstanding innumerable challenges as detailed in our presentation to the ERPC dated June 17, 2020 and our regular updates, DMTCL recommenced construction activities in full compliance to MHA and other local government guidelines

- Notwithstanding significant additional costs associated with the Pandemic and lockdown (*apart from our decision to voluntarily implement ERS and strengthen six additional towers and incur material capex),* in order to make-up for lost time, DMTCL decided to move two towers, 26/0 and 26/3 *(whose islands were washed away during lockdown period)* to the river bank by replacing the towers procured with taller and special towers

- We managed to progress work during the Pandemic *(with full compliance to guidelines)* and by early June 2020 completed a major part of the civil works *(status submitted as of June 2020 is attached as Annexure 3)*

- From June 2020, the catchment areas of Gandaki river in Nepal and areas around our site have been lashed by unprecedented rains as well as unforeseen extent of water discharge from the Valmiki Barrage *(Discharge Data from mid-June to August 2020 is attached as Annexure 4)*

- As seen in the discharge data above, the amount of water that was discharged starting mid- June 2020 is unprecedented *(~150,000 cusecs in June to near to record highest of ~436,500 cusecs in July)* flooding the site completely and cutting off access from both the banks to the restoration site location which is continue till date

- This resulted in serious disruption and losses to DMTCL's construction activities and resulted in washing away six poles of the ERS system (stopping power flow), three Truck Mounted rigs, several tower material, conductor and other construction material and access roads

- The impact of severity and intensity of floods in the region and its impact on the grid was also recognized by our LTTC, BSPTCL, vide its notice to the general public in local newspapers (Annexure 5)

  Sir, you will kindly note that had it not been for the lockdown / Pandemic, strengthening / restoration works would not have got pushed to the monsoon during which it is extremely dangerous to work on the river under normal monsoon conditions, leave alone this year whereby the risk was further aggravated on account of Pandemic as well as unprecedented floods and resulting water currents

- We have issued suitable FM notices on the subject in line with the terms contained in the TSA and kept the LTTCs and ERPC's updated regularly

- Notwithstanding the pandemic, heavy rains, thunderstorms, severe floods, lack of roads access, high water currents, etc., DMTCL team worked tirelessly in close coordination with our LTTC, BSPTCL, to meet our fundamental obligation of restarting power supply with stringent safety protocols and compliance to government's covid norms / restrictions

- Within a month after the ERS got washed away **on August 8, 2020, DMTCL completed all works related to piles, tower erection (27/0) and stringing of a single conductor arrangement (~350MW capacity) mid-stream and re-established flow of power to the North Bihar region**

- As soon as water currents reduce and site becomes accessible, in consultation with BSPTCL and ERLDC, we propose to string one more 400kV single conductor circuit either on Barh or Gorakhpur lines to ensure that the system has enough redundancy, while we complete other works associated with the strengthening activity

- We would like to draw your attention to the fact that locations 26/0 and 26/3 which we had moved to the river bank are currently under water (see pictures attached as Annexure 6) and has around 6-8 m of water depth along with high water current making it impossible to commence civil works on pending pile foundations

- The current status of work completed, and balance works are attached as Annexure 7. We expect site access to be re-established fully by end November based on past experience of Gandaki Stretch wherein we have to work. The impact on our site locations because of floods, river course, etc., will be known after water levels reduce by November. Road access to the locations including to the river locations will have to be re-established. Our teams are on stand-by at site and we will be able to finalize the construction methodology and commence work as soon as site access is established, with due safety assessment, and water currents / water depth reduce

- We expect to start at the first available opportunity in early December and will target to finish all remaining works including the river locations *(plus re-stringing and restoring the temporary lines and shut-downs required thereof)* by April 15th (Annexure 9) as an outer deadline (*pending which power flow will be maintained through the arrangement we have put in place)*

  Sir, you will kindly note that this work was pushed to monsoon only because of the pandemic during which it is dangerous to pursue work. We will start work in the first available opportunity and complete work at the earliest irrespective of the deadline above

- Based on the summary above (as detailed in our regular notices, intimations, presentations and updates referred above), we request you to kindly grant us relief under the Force Majeure provisions of the TSA, grant us extension till April 15th, 2021 (Annexure 9) to complete strengthening / restorations works and issue Availability Certificates for the extended period

  - We are given to understand from media reports that the Ministry of Power has recognized the disruption on account of Covid-19 Pandemic and issued suitable orders granting extension of time for completion of inter-state transmission projects by five months (refer Annexure 8)

  - Other ministries of the union government have also granted relief to projects under construction across sectors including Renewable Energy

  - We were constrained from progressing work starting June 2020 given the risks / challenges to human life and equipment associated with working in the river and by the additional Force Majeure event involving unprecedented water discharge and floods in the region *(as recognized by our LTTC, BSPTCL as well in their notice to the general public (Annexure 5)*

  - Moreover, currently Bihar is experiencing huge increase in Covid cases and lot of restrictions w.r.t guidelines of MHA & State of Bihar as well as the resistance from locals on deployments of skilled task force to be bought from outside will be a continuous challenge in completing work.

- As highlighted by us through our regular submissions, you will kindly note that any delay in receiving Availability certificates with consideration to Force Majeure will have serious impact on the viability of the project and its economics, which is already reeling under severe pressure on account of the additional capex associated with strengthening 12 towers, losses incurred during flooding, cost overruns on account of the pandemic, etc. Given the absence of full Availability certificate from June

14th, 2020 one of the ratings agencies has already put the debt instruments of DMTCL under "**Credit Watch with Negative Implications**", which can have serious implications on lender covenants for the project. Shortfall in cash flows will also impact our O&M activities and constrain our ability to seamlessly fund all the activities

In keeping with the foregoing, we request you to kindly grant us extension for completion of strengthening works till April 15th with December 1st as zero date, with consideration to the Pandemic *(5 months from June 14th)* as well as the time during which is not possible to work in the region / river areas owing to very heavy monsoon, river currents and floods (standstill period as kindly recognized by the ERPC in the past), and issue the Availability Certificate for the interim extension period

2. Impact of Force Majeure (floods) on Darbhanga Substation

A copy of the presentation made to the ERPC in the recent OCC dated August 27th, 2020 on the impact of floods in Darbhanga Substation is also attached for your ready reference. Notwithstanding the severity (the attached advertisement from BSPTCL in slide 12 acknowledges this impact as well), our team managed to bring the substation back on-line in the shortest possible time. **We request you to kindly review the same, grant us relief and issue the Availability Certificate recognising the impact of the Force majeure event. As apprised by us during OCC meeting dated 24th Aug 2020, we will take up necessary and viable actions within our reasonable capacity to minimize the risk of such incidents in future jointly with support solicited from other stakeholders in the substation such as Alipurdwar Transmission Ltd. and PGCIL.**

We would request kind consideration to our request for FM relief at the earliest. Receipt of relief urgently will be a great source of encouragement to DMTCL as we go about building a stable, strong and world class asset, while helping us meet our financial obligations and limited impact to project economics.

Thanking you,

Sincerely,
For Darbhanga Motihari Transmission Company Ltd.

Authorized Signatory

Enclosures:

1. Annexure I – Enclosure 1_Page 1 to 49
2. Annexure 2 – Enclosure 1_Page 50 to 56
3. Annexure 3 – Enclosure 1_Page 57
4. Annexure 4 – Enclosure 1_Page 58
5. Annexure 5 - Enclosure 1_Page 59
6. Annexure 6 – Enclosure 1_Page 60
7. Annexure 7 – Enclosure 1_Page 61
8. Annexure 8 – Enclosure 1_Page 62
9. Annexure 9- Enclosure 2_Separate Attachment

Annexure B.4.2

Weekly Update - DMTCL LILO restoration status

by Darbhanga-Motihari Transmission Company Limited

1st October 2020

Weekly update (25th to 30th September 2020)

- **Current status of Temporary arrangement** – Power flow upto ~360 MW to North Bihar region through temporary restored Barh-Motihari line

- **Status of Permanent restoration**

  - Owing to heavy discharge of water from Valmiki barrage in Gandak river the restoration site is still inundated with water and inaccessible, therefore work cannot be resumed at restoration site. The discharge in last week of September-20 was highest compare to discharge in previous years during this period of monsoon season *(Valmiki barrage discharge graph in slide 4 and Newspaper coverage of Increasing water level in river – Slide 5-7 for reference)*. Also, due to uneven discharge from Valmiki barrage, the Gopalganj side bank of Gandak river are cutting, owing to which the tower loc 26/3 and 26/0 is now completely in water.

  - Our teams have tried to access the tower locations on Areraj side of bank to appraise the situation on foot via access roads which are still submerged in water. *(Site pic attached in slide 8-9 for ref)*

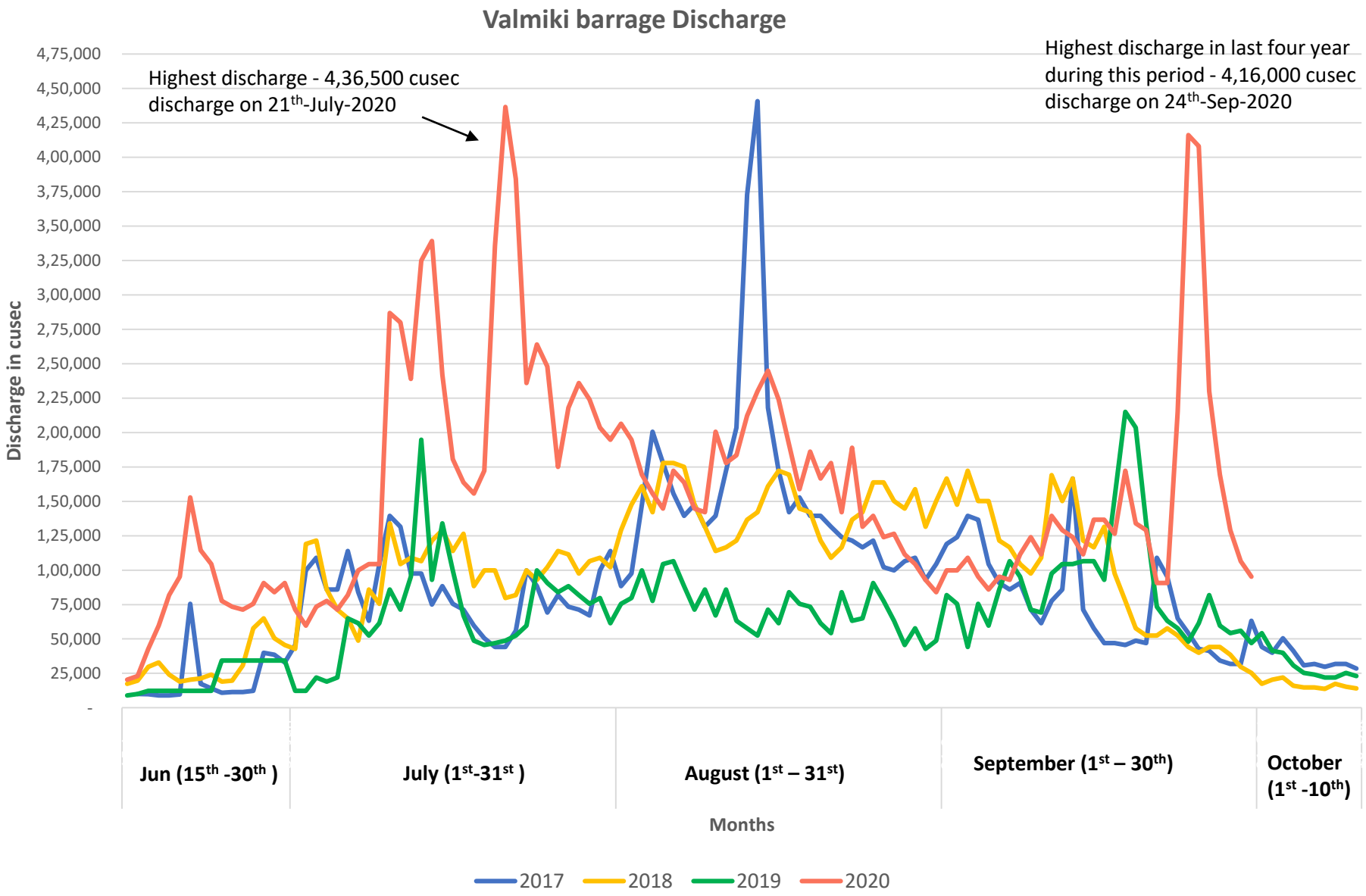
  - In addition to above, lockdown in the containment zones in across country has been extended till 31st-October-2020 and all the guidelines issued by Ministry of Home Affairs (MHA) for 'unlock 5' are applicable

  - Site teams are keeping an eye on the situation at site and work for permanent restoration of the transmission lines will be taken up under suitable condition after monsoon period with revised execution strategy based on the new geography of river

Current status of restoration work

Tower No.	Current Status	Remarks
Barh-Motihari Line		
25/1 (G)	Completed	…..
25/2 (G)	Completed	…..
25/3 (G)	Completed	…..
26/0 (G)	Moved from river to land; 16/20 piles completed	No work progress due to increased water level of Gandak river resulting in complete flooding of site area
26/3 (A)	All 16 piles and 4 pile cap completed	Tower erection and Stringing after charging of Motihari Gorakhpur Circuit
26/4 (A)	All 4 legs completed	Same as above
Motihari-Gorakhpur Line		
26/1 (G)	All 16 piles, 4 Pile cap and chimney completed	No work progress due to increased water level of Gandak river resulting in complete flooding of site area
26/2 (G)	Completed	…..
26/3 (G)	Moved from river to land; 11 piles completed	No work progress due to increased water level of Gandak river resulting in complete flooding of site area
27/0 (R)	Completed	----
27/3 (A)	All 16 piles completed; 4 Pile cap completed	No work progress due to increased water level of Gandak river resulting in complete flooding of site area
27/4 (A)	Foundation completed	No work progress due to increased water level of Gandak river resulting in complete flooding of site area

Valmiki barrage Yearly Discharge data



Newspaper coverage increasing water level in Gandak river

पटना, शुक्रवार
25.09.2020
प्रभात खबर
04

चिंता. नेपाल में बारिश से गंडक का तेजी से बढ़ रहा जल स्तर, खतरे के निशान से एक मीटर ऊपर पहुंचा पानी

274 गांवों पर फिर मंडराने लगा बाढ़ का खतरा

आफत

संवाददाता, गोपालगंज

देवापुर में दोबारा बांध टूटने की आशंका से सहमे हैं ग्रामीण

प्रशासन अलर्ट, मजदूरों ने शुरू किया बांध बचाव कार्य

संवाददाता, बरौली

क्या कहते हैं अधिकारी

Prabhat Khabar, Patna - 25.09.2020

Newspaper coverage increasing water level in Gandak river

गोपालगंज प्रभात

पटना, शनिवार 26.09.2020 | प्रभात खबर | 06

बाढ़ का फिर अटैक. खतरे के निशान से डेढ़ मीटर ऊपर बह रही गंडक नदी

देवापुर में टूटा बांध, 50 से अधिक गांव जलमग्न

- डीएम व एसपी ने लिया हालात का जायजा, एनडीआरएफ की टुकड़ी तैनाती

संवाददाता, गोपालगंज

मंगुरहा में बाढ़ के पानी में बह गये छह लोग, ग्रामीणों ने पांच की बचायी जान

- सदर प्रखंड के जगदीप टोला के रहनेवाले दो सगे लोग

संवाददाता, गोपालगंज

बाढ़ के सितम से सहमे ग्रामीण, फिर सड़कों पर लगाने लगे तंबू

मांझा के गांवों में एक बार फिर घुसा बाढ़ का पानी, मची तबाही

Prabhat Khabar, Patna - 26.09.2020

Newspaper coverage increasing water level in Gandak river


पटना, सोमवार 28.09.2020 प्रभात खबर 06

त्रासदी. गंडक के जल स्तर में आने लगी कमी, अब भी खतरे के निशान से एक मीटर ऊपर बह रही नदी

गंडक का पानी फैलते ही गांवों में मचा त्राहिमाम

चिंता

Prabhat Khabar, Patna - 28.09.2020

Site pictures

Loc no. 26/0 BM Line

Access road to tower location submerged in water

Site pictures

Access road to site

Area near the tower locations inundated with water

sekura

Safe. Secure. Sustainable.

Thank You

Sekura Energy Ltd. Is a portfolio company of Edelweiss Infrastructure Yield Plus

DMTCL is a subsidiary of Sekura Energy Ltd.

The Management System of Sekura Energy Ltd. and DMTCL has been approved by Lloyd's Register to: ISO14001:2015, ISO 45001:2018

Report on Ramping Capability > 1% & issues faced by MTPS –II KBUNL as per existing ramping scheduling & Assessment

1. April-20 to Aug-20 – Monthly No of blocks Scheduled ramp rate >=1% & NO of sign changes Ramps in consecutive blocks.

Date	Total no of time blocks	No of time blocks where declared ramp up/down rate >=1%	Td/Tm	No of blocks Scheduled ramp rate >=1%	NO of sign changes Ramps consecutive blocks
	Tm	Td	Td/Tm	D	
Apr-20	2880	2880	1	491	137
May-20	2976	2976	1	530	142
Jun-20	2880	2880	1	438	105
Jul-20	2976	2976	1	237	17
Aug-20	2976	2976	1	220	54
Total	14688	14688	1	1916	455

2. 01-Sept-20 to 7-Sept-20 –Day Basis No of blocks Scheduled ramp rate >=1% & No. of sign changes Ramps in consecutive blocks.

	Total no of time blocks	No of time blocks where declared ramp up/down rate >=1%	Td/Tm	No of blocks Scheduled ramp rate >=1%	NO of sign changes Ramps consecutive blocks
Date	Tm	Td	Td/Tm	D	
01-09-2020	96	96	1	20	5
02-09-2020	96	96	1	27	8
03-09-2020	96	96	1	22	4
04-09-2020	96	96	1	10	4
05-09-2020	96	96	1	20	7
06-09-2020	96	96	1	14	8
07-09-2020	96	96	1	4	1
Total	672	672	1	117	37

3. Exceptional cases where such type of scheduling (consecutive blocks ramp up/down) are more that 50% in a day of total scheduled ramps >1%

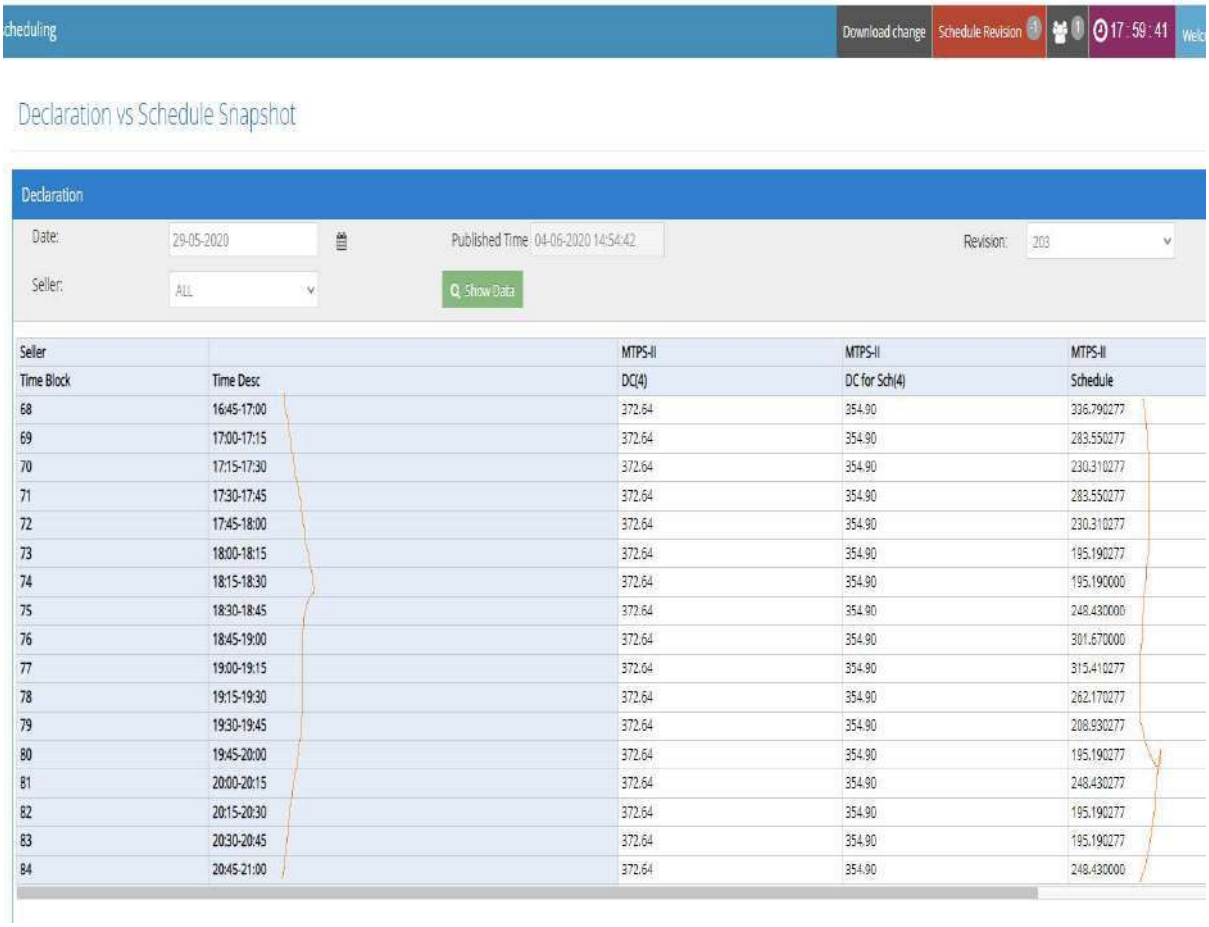
1. 11.04.2020 (B17-B32)
2. 29.05.2020 (B69-B90)
3. 08.06.2020 (B59-B77)
4. 22.08.2020 (B77-B92)
5. 02.09.2020 (B40-B56)
6. 05.09.2020 (B38-B47)
7. 06.09.2020 (B4-B15)

Screen Shot - 11.04.2020 (B17-B32)

Web Based Scheduling
Dec_FullSched(Ex-PP)
Date : 11-04-2020

Block No	From Hrs	To Hrs	Frequency	AVL_GIVEN MTPS-II (Ex-PP)	AVL_ACCEPTED MTPS-II (Ex-PP)	SCHED MTPS-II (Ex-PP)
13	03:00	03:15	49.96	372.64	363.77	177.455138
14	03:15	03:30	49.99	372.64	363.77	177.455138
15	03:30	03:45	50.01	372.64	363.77	177.455138
16	03:45	04:00	50.01	372.64	363.77	177.455138
17	04:00	04:15	49.98	372.64	363.77	150.835138
18	04:15	04:30	50.00	372.64	363.77	177.455138
19	04:30	04:45	49.94	372.64	363.77	150.835138
20	04:45	05:00	49.98	372.64	363.77	177.455138
21	05:00	05:15	49.94	372.64	363.77	177.455138
22	05:15	05:30	49.98	372.64	363.77	150.835138
23	05:30	05:45	49.91	372.64	363.77	177.455138
24	05:45	06:00	49.92	372.64	363.77	150.835138
25	06:00	06:15	49.94	372.64	363.77	124.215138
26	06:15	06:30	49.89	372.64	363.77	97.605138
27	06:30	06:45	50.07	372.64	363.77	124.225138
28	06:45	07:00	50.07	372.64	363.77	150.845138
29	07:00	07:15	50.05	372.64	363.77	177.455138
30	07:15	07:30	50.04	372.64	363.77	150.835138
31	07:30	07:45	50.06	372.64	363.77	124.215138
32	07:45	08:00	50.06	372.64	363.77	97.605138
33	08:00	08:15	50.03	372.64	363.77	97.605138
34	08:15	08:30	50.02	372.64	363.77	97.605138
35	08:30	08:45	50.01	372.64	363.77	97.6
36	08:45	09:00	50.02	372.64	363.77	97.6
37	09:00	09:15	49.99	372.64	363.77	97.6
38	09:15	09:30	50.05	372.64	363.77	97.6

Screen Shot - 29.05.2020 (B69-B90)



cheduling — Download change — Schedule Revision — 17 : 59 : 41

Declaration vs Schedule Snapshot

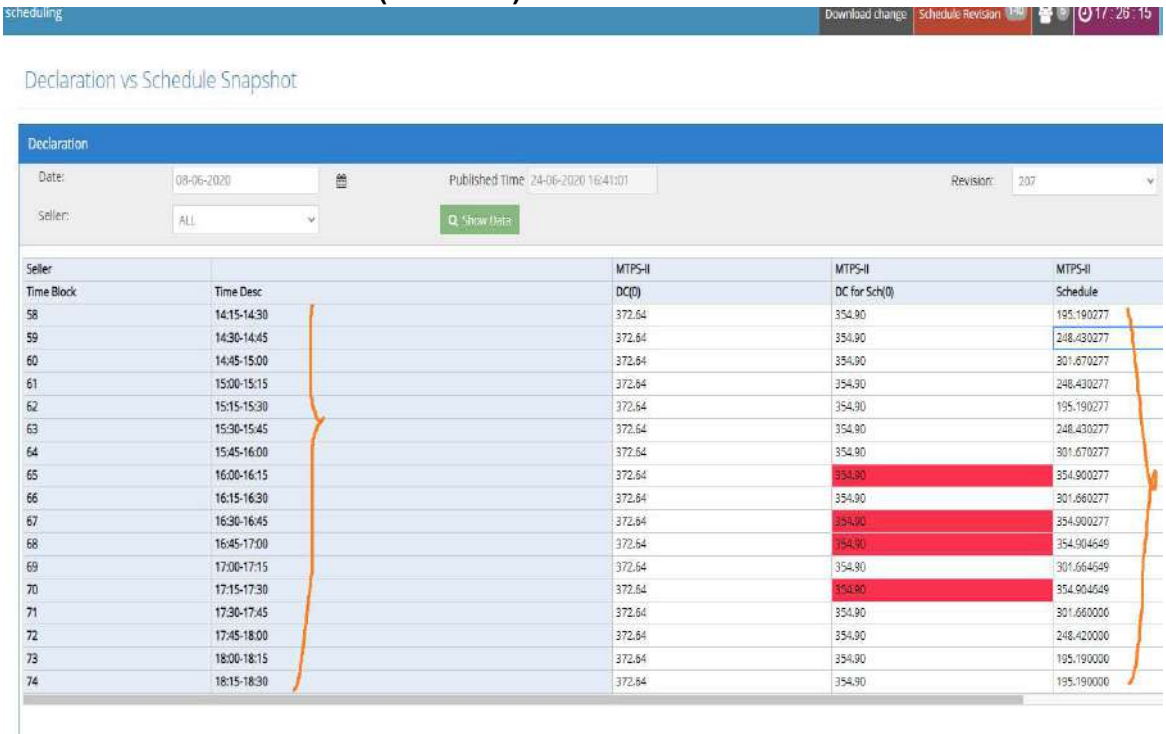
Declaration

Date: 29-05-2020 — Published Time: 04-06-2020 14:54:42 — Revision: 203

Seller: ALL — Show Data

Seller		MTPS-II	MTPS-II	MTPS-II
Time Block	Time Desc	DC(4)	DC for Sch(4)	Schedule
68	16:45-17:00	372.64	354.90	336.790277
69	17:00-17:15	372.64	354.90	283.550277
70	17:15-17:30	372.64	354.90	230.310277
71	17:30-17:45	372.64	354.90	283.550277
72	17:45-18:00	372.64	354.90	230.310277
73	18:00-18:15	372.64	354.90	195.190277
74	18:15-18:30	372.64	354.90	195.190000
75	18:30-18:45	372.64	354.90	248.430000
76	18:45-19:00	372.64	354.90	301.670000
77	19:00-19:15	372.64	354.90	315.410277
78	19:15-19:30	372.64	354.90	262.170277
79	19:30-19:45	372.64	354.90	208.930277
80	19:45-20:00	372.64	354.90	195.190277
81	20:00-20:15	372.64	354.90	248.430277
82	20:15-20:30	372.64	354.90	195.190277
83	20:30-20:45	372.64	354.90	195.190277
84	20:45-21:00	372.64	354.90	248.430000

Screen Shot - 08.06.2020 (B59-B77)



scheduling — Download change — Schedule Revision — 17 : 26 : 15

Declaration vs Schedule Snapshot

Declaration

Date: 08-06-2020 — Published Time: 24-06-2020 16:41:01 — Revision: 207

Seller: ALL — Show Data

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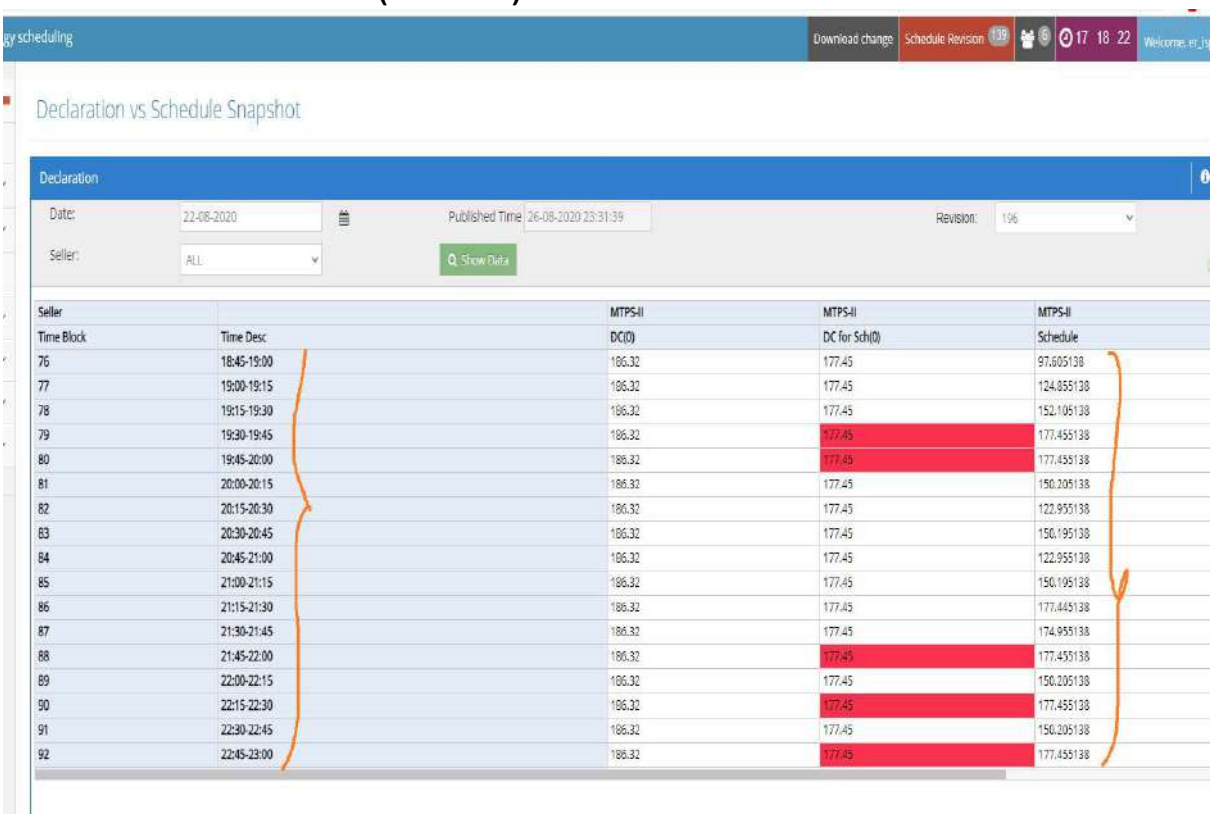
58	14:15-14:30	372.64	354.90	195.190277
59	14:30-14:45	372.64	354.90	248.430277
60	14:45-15:00	372.64	354.90	301.670277
61	15:00-15:15	372.64	354.90	248.430277
62	15:15-15:30	372.64	354.90	195.190277
63	15:30-15:45	372.64	354.90	248.430277
64	15:45-16:00	372.64	354.90	301.670277
65	16:00-16:15	372.64	354.90	354.900277
66	16:15-16:30	372.64	354.90	301.660277
67	16:30-16:45	372.64	354.90	354.900277
68	16:45-17:00	372.64	354.90	354.904649
69	17:00-17:15	372.64	354.90	301.664649
70	17:15-17:30	372.64	354.90	354.904649
71	17:30-17:45	372.64	354.90	301.660000
72	17:45-18:00	372.64	354.90	248.420000
73	18:00-18:15	372.64	354.90	195.190000
74	18:15-18:30	372.64	354.90	195.190000

Screen Shot - 22.08.2020 (B77-B92)



gy scheduling

Download change | Schedule Revision 139 | 17 18 22 | Welcome, er_is

Declaration vs Schedule Snapshot

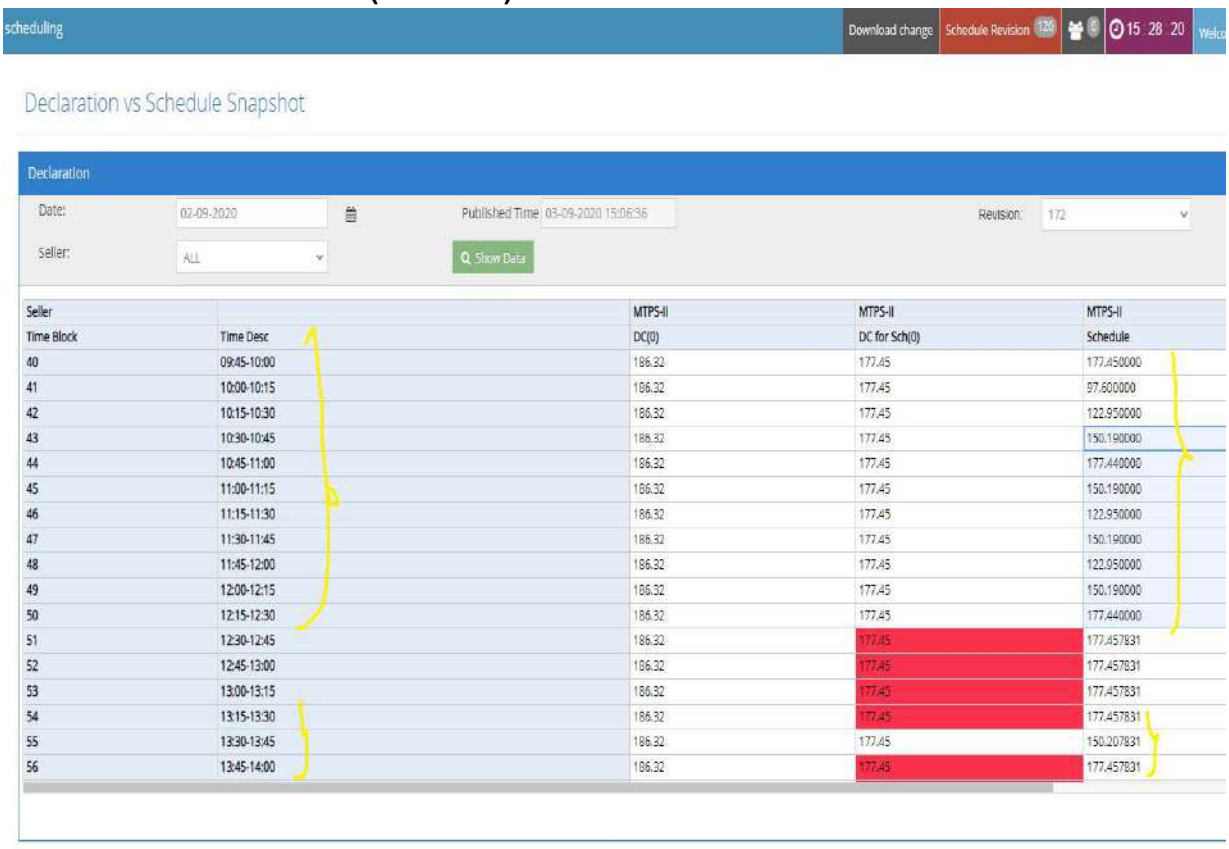
Declaration

Date: 22-08-2020 | Published Time 26-08-2020 23:31:39 | Revision: 196

Seller: ALL | Show Data

Seller		MTPS-II	MTPS-II	MTPS-II
Time Block	Time Desc	DC(0)	DC for Sch(0)	Schedule
76	18:45-19:00	186.32	177.45	97.605138
77	19:00-19:15	186.32	177.45	124.855138
78	19:15-19:30	186.32	177.45	152.105138
79	19:30-19:45	186.32	177.45	177.455138
80	19:45-20:00	186.32	177.45	177.455138
81	20:00-20:15	186.32	177.45	150.205138
82	20:15-20:30	186.32	177.45	122.955138
83	20:30-20:45	186.32	177.45	150.195138
84	20:45-21:00	186.32	177.45	122.955138
85	21:00-21:15	186.32	177.45	150.195138
86	21:15-21:30	186.32	177.45	177.445138
87	21:30-21:45	186.32	177.45	174.955138
88	21:45-22:00	186.32	177.45	177.455138
89	22:00-22:15	186.32	177.45	150.205138
90	22:15-22:30	186.32	177.45	177.455138
91	22:30-22:45	186.32	177.45	150.205138
92	22:45-23:00	186.32	177.45	177.455138

Screen Shot -02.09.2020 (B40-B56)



scheduling

Download change | Schedule Revision 120 | 15 28 20 | Welco

Declaration vs Schedule Snapshot

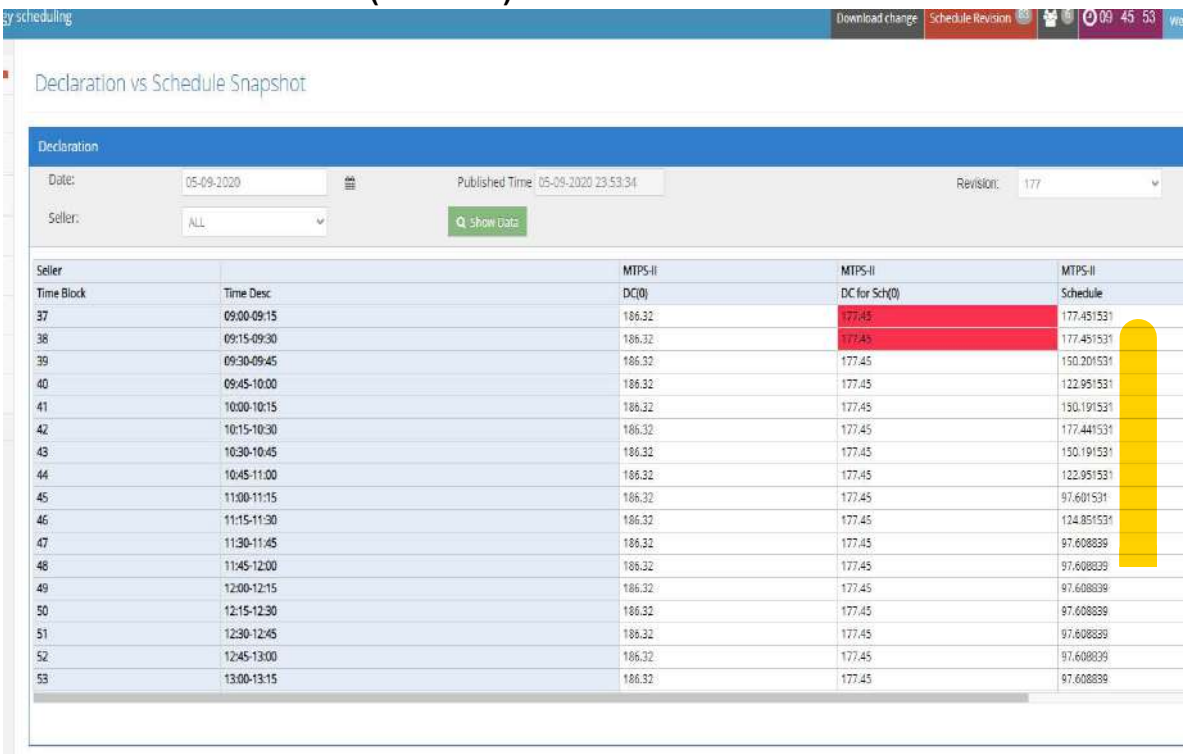
Declaration

Date: 02-09-2020 | Published Time 03-09-2020 15:06:36 | Revision: 172

Seller: ALL | Show Data

Seller		MTPS-II	MTPS-II	MTPS-II
Time Block	Time Desc	DC(0)	DC for Sch(0)	Schedule
40	09:45-10:00	186.32	177.45	177.450000
41	10:00-10:15	186.32	177.45	97.600000
42	10:15-10:30	186.32	177.45	122.950000
43	10:30-10:45	186.32	177.45	150.190000
44	10:45-11:00	186.32	177.45	177.440000
45	11:00-11:15	186.32	177.45	150.190000
46	11:15-11:30	186.32	177.45	122.950000
47	11:30-11:45	186.32	177.45	150.190000
48	11:45-12:00	186.32	177.45	122.950000
49	12:00-12:15	186.32	177.45	150.190000
50	12:15-12:30	186.32	177.45	177.440000
51	12:30-12:45	186.32	177.45	177.457831
52	12:45-13:00	186.32	177.45	177.457831
53	13:00-13:15	186.32	177.45	177.457831
54	13:15-13:30	186.32	177.45	177.457831
55	13:30-13:45	186.32	177.45	150.207831
56	13:45-14:00	186.32	177.45	177.457831

Screen Shot -05.09.2020 (B38-B47)



Declaration vs Schedule Snapshot

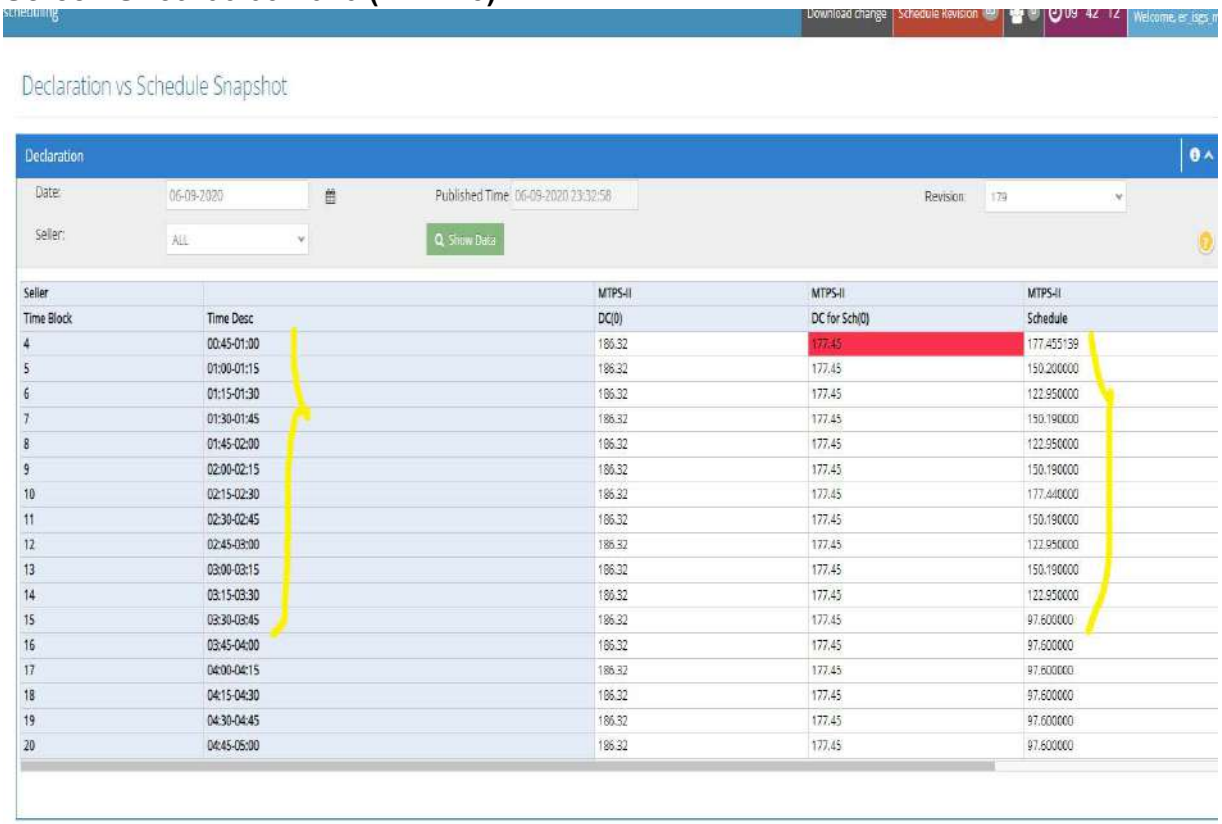
Declaration

Date: 05-09-2020 Published Time: 05-09-2020 23:53:34 Revision: 177

Seller: ALL Show Data

Seller		MTPS-II	MTPS-II	MTPS-II
Time Block	Time Desc	DC(0)	DC for Sch(0)	Schedule
37	09:00-09:15	186.32	177.45	177.451531
38	09:15-09:30	186.32	177.45	177.451531
39	09:30-09:45	186.32	177.45	150.201531
40	09:45-10:00	186.32	177.45	122.951531
41	10:00-10:15	186.32	177.45	150.191531
42	10:15-10:30	186.32	177.45	177.441531
43	10:30-10:45	186.32	177.45	150.191531
44	10:45-11:00	186.32	177.45	122.951531
45	11:00-11:15	186.32	177.45	97.601531
46	11:15-11:30	186.32	177.45	124.851531
47	11:30-11:45	186.32	177.45	97.608839
48	11:45-12:00	186.32	177.45	97.608839
49	12:00-12:15	186.32	177.45	97.608839
50	12:15-12:30	186.32	177.45	97.608839
51	12:30-12:45	186.32	177.45	97.608839
52	12:45-13:00	186.32	177.45	97.608839
53	13:00-13:15	186.32	177.45	97.608839

Screen Shot -06.09.2020 (B4-B15)



Declaration vs Schedule Snapshot

Declaration

Date: 06-09-2020 Published Time: 06-09-2020 23:32:58 Revision: 179

Seller: ALL Show Data

Seller		MTPS-II	MTPS-II	MTPS-II
Time Block	Time Desc	DC(0)	DC for Sch(0)	Schedule
4	00:45-01:00	186.32	177.45	177.455139
5	01:00-01:15	186.32	177.45	150.200000
6	01:15-01:30	186.32	177.45	122.950000
7	01:30-01:45	186.32	177.45	150.190000
8	01:45-02:00	186.32	177.45	122.950000
9	02:00-02:15	186.32	177.45	150.190000
10	02:15-02:30	186.32	177.45	177.440000
11	02:30-02:45	186.32	177.45	150.190000
12	02:45-03:00	186.32	177.45	122.950000
13	03:00-03:15	186.32	177.45	150.190000
14	03:15-03:30	186.32	177.45	122.950000
15	03:30-03:45	186.32	177.45	97.600000
16	03:45-04:00	186.32	177.45	97.600000
17	04:00-04:15	186.32	177.45	97.600000
18	04:15-04:30	186.32	177.45	97.600000
19	04:30-04:45	186.32	177.45	97.600000
20	04:45-05:00	186.32	177.45	97.600000

भारत सरकार/Govt. of India
विद्युत मंत्रालय/Ministry of Power
केन्द्रीय विद्युत प्राधिकरण/Central Electricity Authority
मुख्य विद्युत निरीक्षणालय प्रभाग/Chief Electrical Inspectorate Division
****

Sub: Mandatory inspection for replacement of sub-station equipment during regular maintenance-Reg.

Please refer to letter no. ERPC/MS/Operation/2020/4027-28 dated 01-09-2020 on the above subject, wherein, it is mentioned that during the 170th OCC meeting held on 24.08.2020, SLDCs and Transmission utilities opined that replacement of CT, PT, CVT, CB, LA, Isolator, etc. is a regular maintenance work and such replacement need to be completed within short time span to bring the transmission line into service and availing Electrical Inspector clearance would take time in this Covid-19 pandemic and may create operational constraint for the transmission system. So, necessary clarifications and guidelines for ERPC have been requested for the same for smooth operation of Eastern Regional Grid.

In this regard, it is submitted that CEA (Measures relating to safety and Electric Supply) regulations, 2010 was formed under Section 53 of Electricity Act, 2003 with the **consultation of State Governments** and its sub-section (a) clearly states that measures to be specified for: -
"*protecting the public (including the persons engaged in the generation, transmission or distribution or trading) from dangers arising from the generation, transmission or distribution or trading of electricity, or use of electricity supplied or installation,* ***maintenance*** *or use of any electric line or electrical plant;*"

Also, sub- rule 7(2) "Qualifications, Powers and Functions of Chief Electrical Inspector and Electrical Inspectors, Rules, 2006" *states that.* -

(2) Every supplier, consumer, owner and occupier ***shall afford all reasonable facilities*** *to any such Inspector to make such examinations and tests as may be necessary to satisfy himself as to* ***the due observance of the safety regulations as specified by the Authority under section 53 of the Act****. The Indian Electricity Rules, 1956 made under section 37 of the Indian Electricity Act, 1910 (now repealed) shall continue to be in force till the regulations under section 53 of the Act are made.*

Further, Sub regulation 43(2) of CEA (Measures relating to Safety and Electric Supply) regulations 2010 (as amended) states that:-

" Before making an application to the Electrical Inspector for permission to commence or recommence supply after an installation has been disconnected for six months and above at voltage exceeding notified voltage to any person, the supplier shall ensure that electric supply lines or apparatus of voltage exceeding

notified voltage belonging to him are placed in position, properly joined and duly completed and examined and the supply of electricity shall not be commenced by the supplier for installations of voltage needing inspection under these regulations unless the provisions of regulations 12 to 29, 33 to 35, 44 to 51 and 55 to 77 have been complied with and the approval in writing of the Electrical Inspector has been obtained by him:

Provided that the supplier may energise the aforesaid electric supply lines or apparatus for the purpose of tests specified in regulation 46."

and *Sub regulation 29*(1) of CEA (Measures relating to Safety and Electric Supply) regulations 2010 (as amended) states that :-

"No electrical installation work, including additions, alterations, repairs and adjustments to existing installations, except such replacement of lamps, fans, fuses, switches, domestic appliances of voltage not exceeding 250V and fittings as in no way alters its capacity or character, shall be carried out upon the premises of or on behalf of any consumer, supplier, owner or occupier for the purpose of supply to such consumer, supplier, owner or occupier except by an electrical contractor licensed in this behalf by the State Government and under the direct supervision of a person holding a certificate of competency and by a person holding a permit issued or recognised by the State Government.

Provided that in the case of works executed for or on behalf of the Central Government and in the case of installations in mines, oil fields and railways, the Central Government and in other cases the State Government, may, by notification in the Official Gazette, exempt on such conditions as it may impose, any such work described therein either generally or in the case of any specified class of consumers, suppliers, owners or occupiers."

In view of the above and to maintain the basic structure and spirit of Electricity Act, 2003 and rules and regulations made thereunder, maintenance, replacement and upgradation work of the utilities need to be approved by concerned Electrical Inspector.

Further in time of Covid pandemic, CEI division/RIOs have been giving provisional approval to cases requiring urgent charging wherever physical inspection is not possible.

This issues with the approval of Chief Engineer, CEI division.

(Rakesh Goyal)
Director

Member Secretary, ERPC, Tollygunj, Kolkatta-700033

CEI/1/4/2020/276 Dated: 07.09.2020

Power System Operation Corporation Ltd.

171st OCC Meeting

At ERPC, Kolkata

24th Sep, 2020

ER Grid Performances

ERLDC POSOCO

Highlights for the month of August-2020

Frequency Profile

Average Freq:- 50.0 Hz

Avg FVI: - 0.032

Lowest FVI:- 0.023

Max- 50.23 Hz on 30th August'20

Min- 49.60 Hz on 31st August'20

80.91% of the time freq was with in IEGC Band

Peak Demand*

ER: 23645 MW on 03rd August 2020 at 22:41 hrs

% Growth in Average Demand Met w.r.t. last year: (-)2.75%

BSPHCL : 6123 MW ; ON 03/08/20

JUVNL: 1552 MW; ON 02/08/20

DVC: 3083 MW; ON 03/08/20

GRIDCO: 4733 MW; ON 28/08/20

WB: 9161MW; ON 03/08/20

SIKKIM: 94 MW; ON 03/08/20

Energy met

Max. 502.4 MU on 31st Aug. *2020*

%Growth w.r.t. last year on Max energy : (-)2.02%

Avg. 466 MU in August *2020*

%Growth w.r.t. last year on Avg. energy : (-)1.87%

New Unit

NIL

Open Access

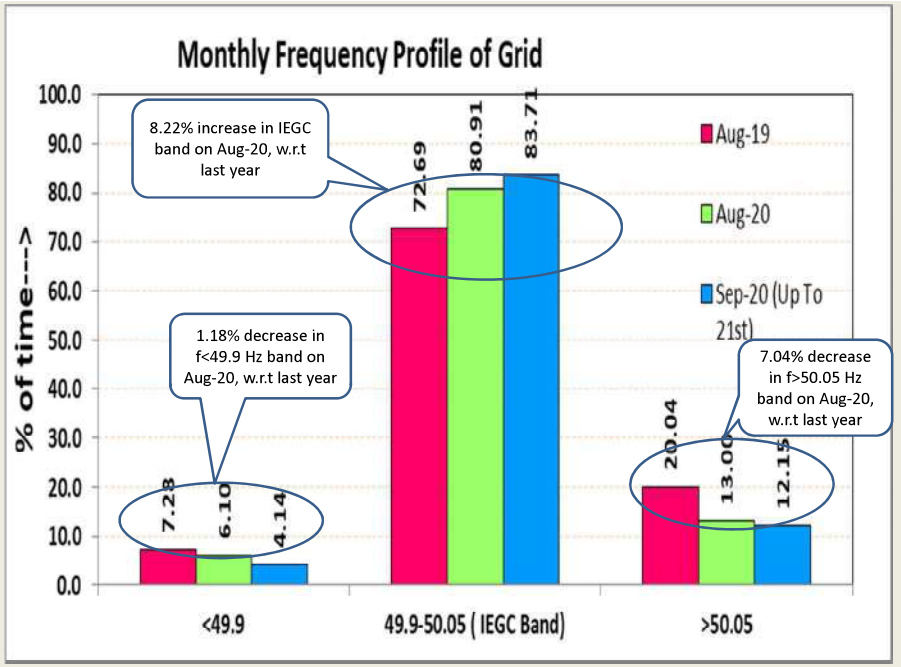
STOA transactions approved : 87 nos.

Energy Approved- 673.82 MUs

New Element addition during the month:

Monthly commissioning List of Transmission elements and generators:

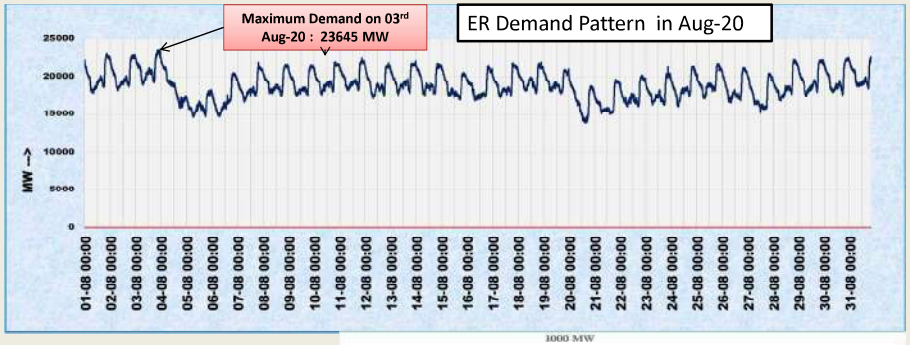
SL NO	Element Name	Owner	Charging Date	Charging Time	Remarks
1	220 kV Daltonganj-Garhwa- I	JUVNL	16/08/20	17:03	
2	220 kV Daltonganj-Garhwa -II	JUVNL	16/08/20	17:31	



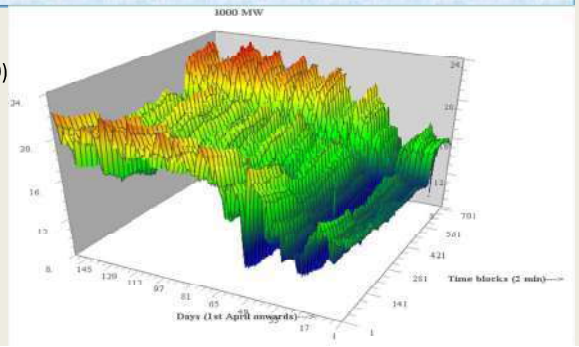
So Far Highest Demand					
Constitute	Demand (in MW)	Date	Time	Dmd met (MW) on 03rd August'20 (max dmd met day)	
				MW	Time
Bihar	6189	10-Sep-20	20:12	6123	22:45
DVC	3543	21-Dec-19	18:06	3083	20:31
Jharkhand	1692	14-Sep-20	19:51	1515	21:19
Odisha	5558	23-Aug-18	20:21	4165	21:12
Sikkim	193	24-Jan-20	18:28	94	18:56
W. Bengal	9546	27-May-19	23:31	9161	21:05
ER	23645	03-Aug-20	20:47	23645	22:41

So Far Highest Energy Consumption			
Constitute	Energy consumption (in MUs)	Date	Energy met on 03rd August'20 (max dmd met day)
Bihar	124.7	05-Sep-19	118.3
DVC	76.6	27-Apr-19	63.28
Jharkhand	30.6	15-Sep-20	27.39
Odisha	116.6	05-Oct-18	84
Sikkim	2.01	24-Jan-20	1.04
W. Bengal	206.2	18-Jul-19	179.77
ER	516.6	20-May-19	473.78

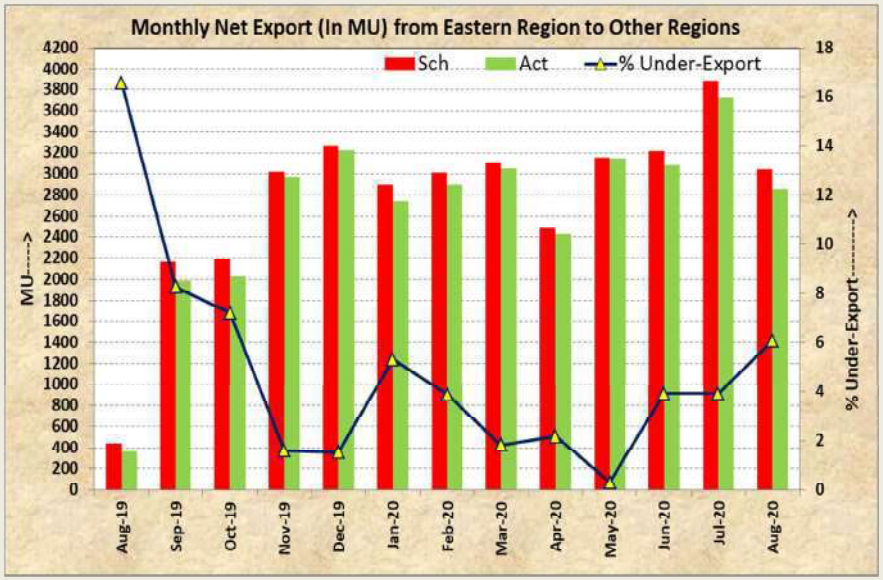
3D VIEW OF ER DEMAND PATTERN (APR-20 to AUG-20)

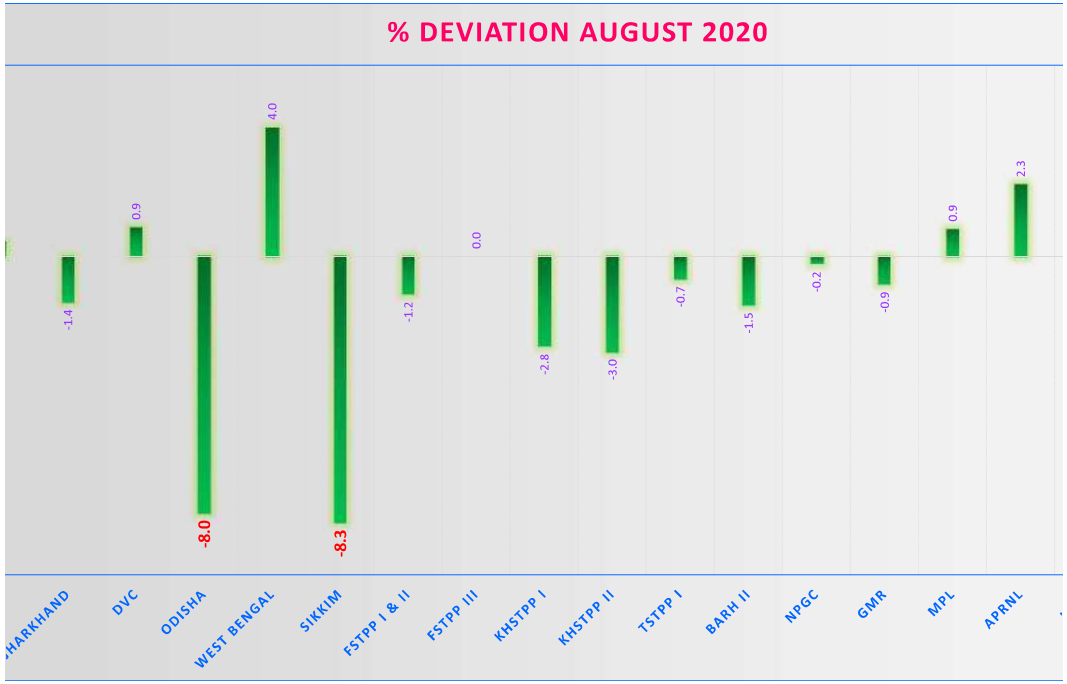


EASTERN REGION DEMAND
3D CURVES (APR'20-AUG'20)



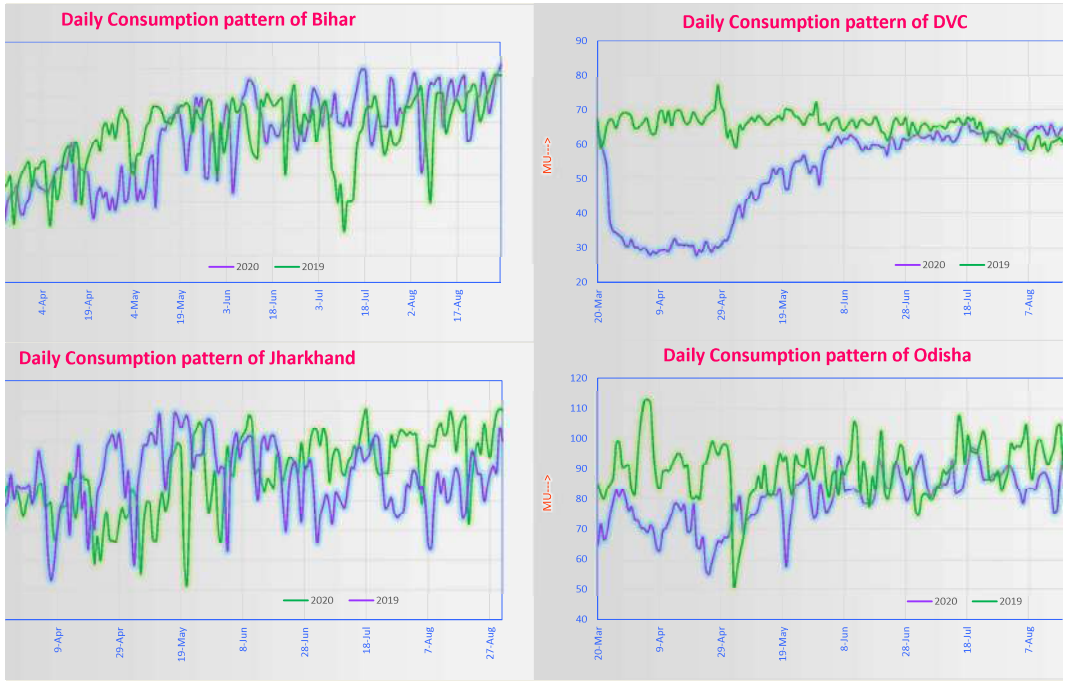
Over Drawl / Under Injection by ER Entities
Non-compliance of direction issued by SLDC

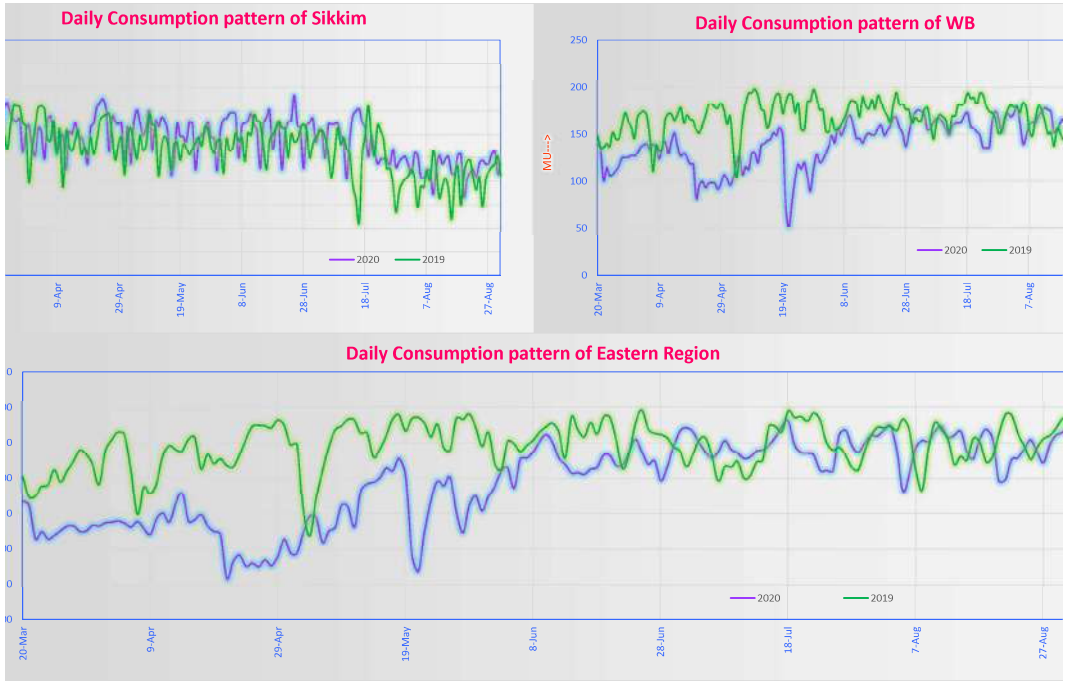


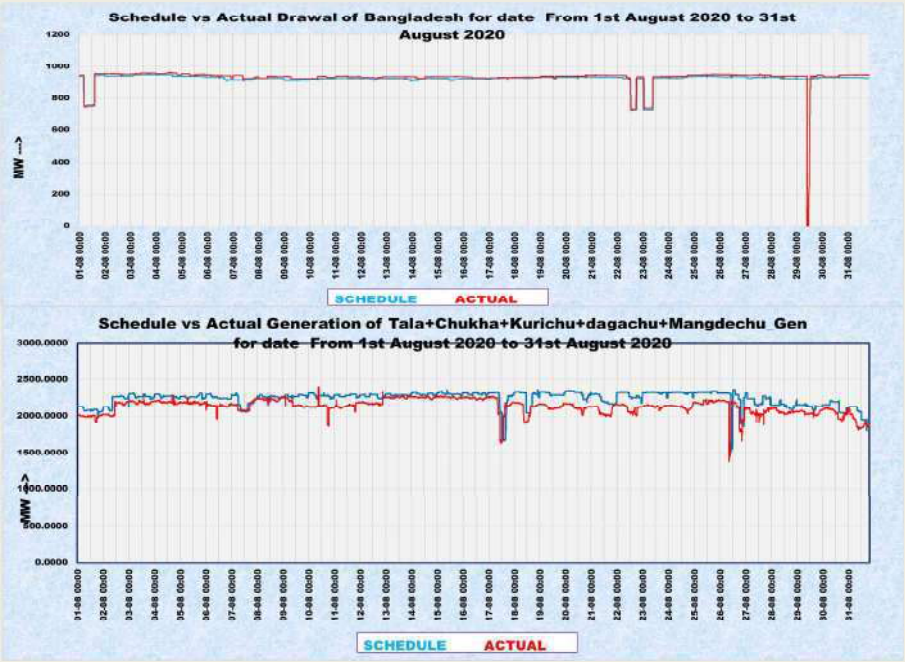


August 2020 Schedule vs Actual Status

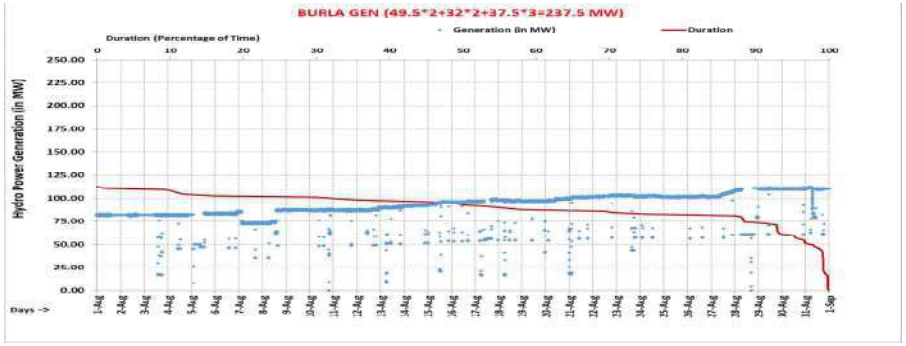
	Schedule (MU)	Actual (MU)	OD (MU)	Daily Avg OD (MU)	% Deviation
Bihar	3185	3200	15	0.5	0.5
Jharkhand	629	620	-9	-0.3	-1.4
DVC	-1206	-1195	11	0.4	0.9
Odisha	323	297	-26	-0.8	**-8.0**
West Bengal	1630	1696	66	2.1	4.0
Sikkim	36	33	-3	-0.1	**-8.3**
FSTPP I & II	593	586	-7	-0.2	-1.2
FSTPP III	218	216	-2	-0.1	0.0
KHSTPP I	283	275	-8	-0.3	-2.8
KHSTPP II	401	389	-12	-0.4	-3.0
TSTPP I	567	563	-4	-0.1	-0.7
BARH II	588	579	-9	-0.3	-1.5
NPGC	426	425	-1	0.0	-0.2
GMR	457	453	-4	-0.1	-0.9
MPL	466	470	4	0.1	0.9
APRNL	266	272	6	0.2	2.3
JITPL	392	391	-1	0.0	-0.3

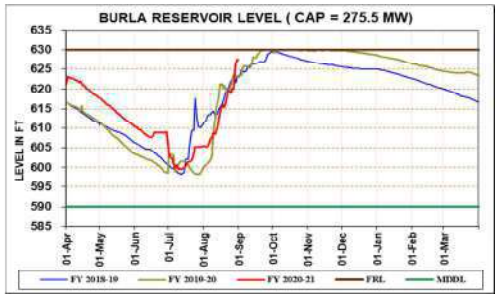




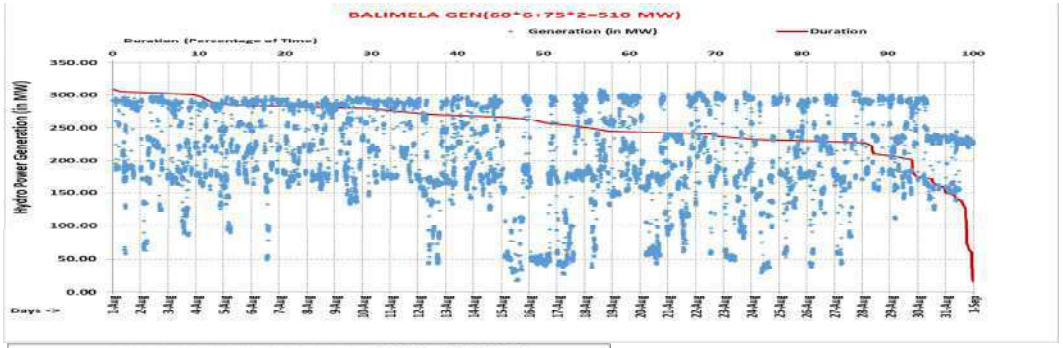


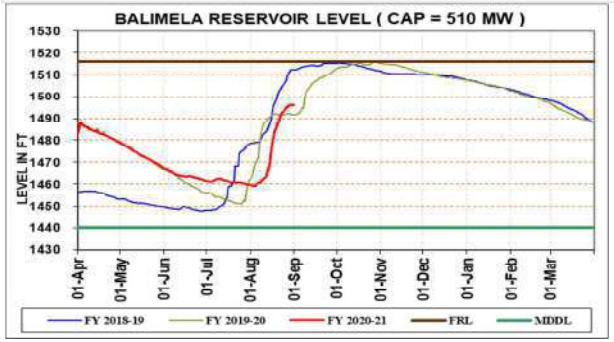
State Hydro Generators Performance



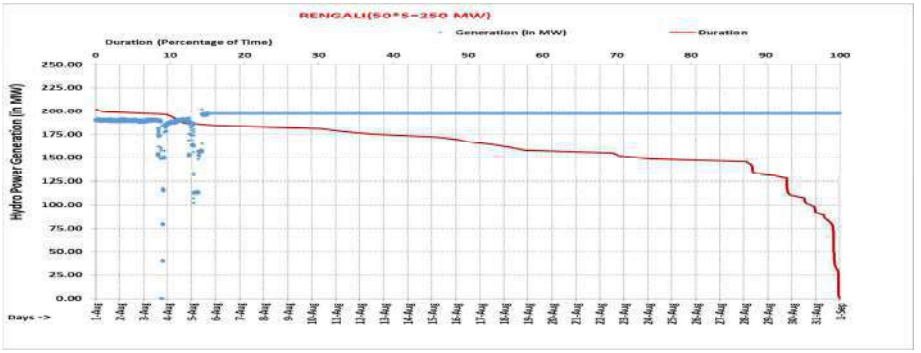


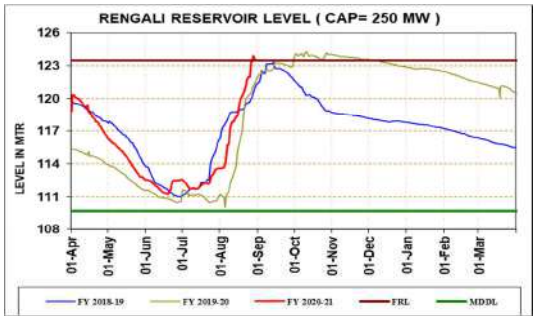
S.No	Unit No	Capacity	Reason(s)	Outage Date
1	1	49.5	R & M WORK	14-Mar-2018
2	5	37.5	R & M WORK	25-Oct-2016
3	6	37.5	R & M WORK	16-Oct-2015
4	7	37.5	ANNUAL MAINTENANCE	06-Dec-2019

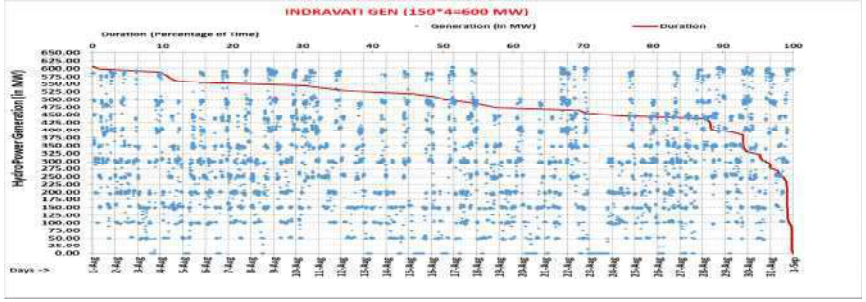


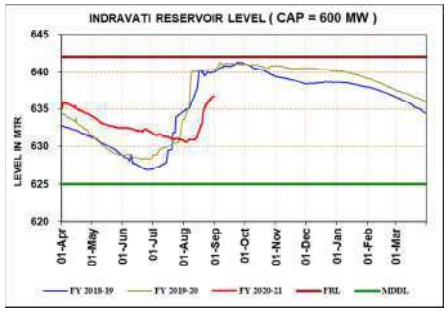


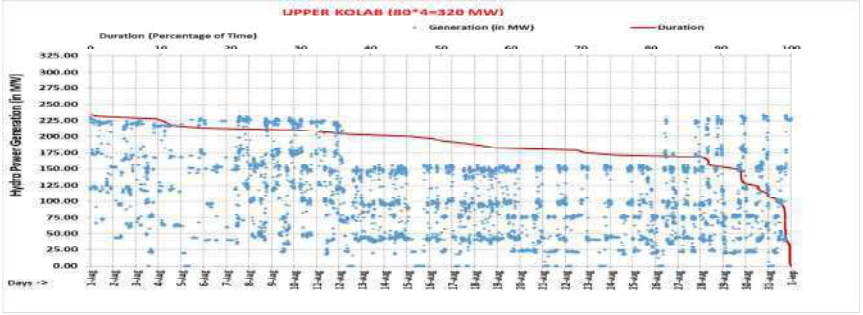
S.No	Unit No	Capacity	Reason(s)	Outage Date
1	1	60	R & M WORK	05-Aug-2016
2	2	60	R & M WORK	20-Nov-2017

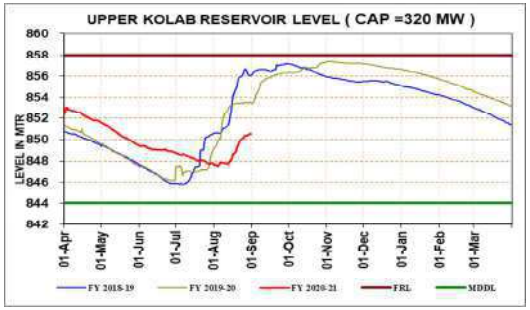


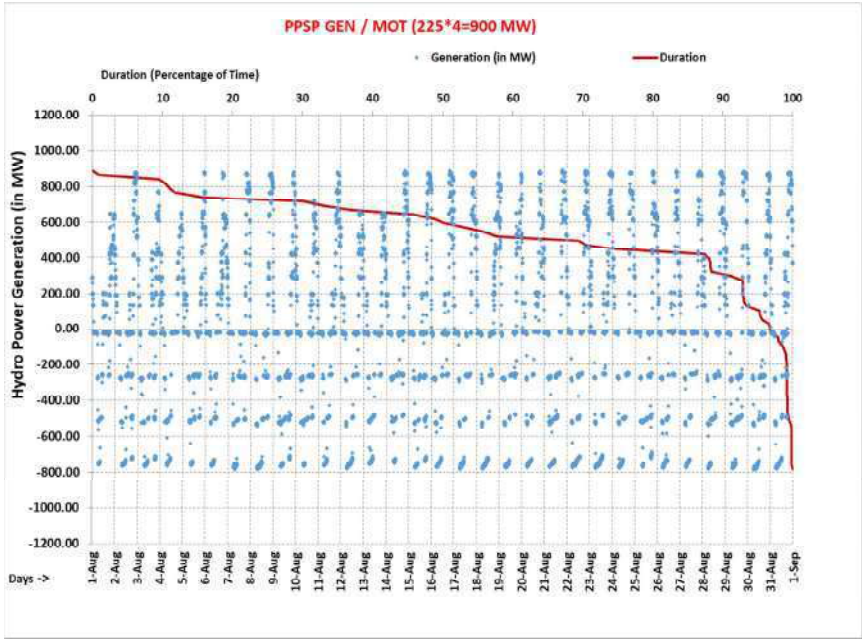


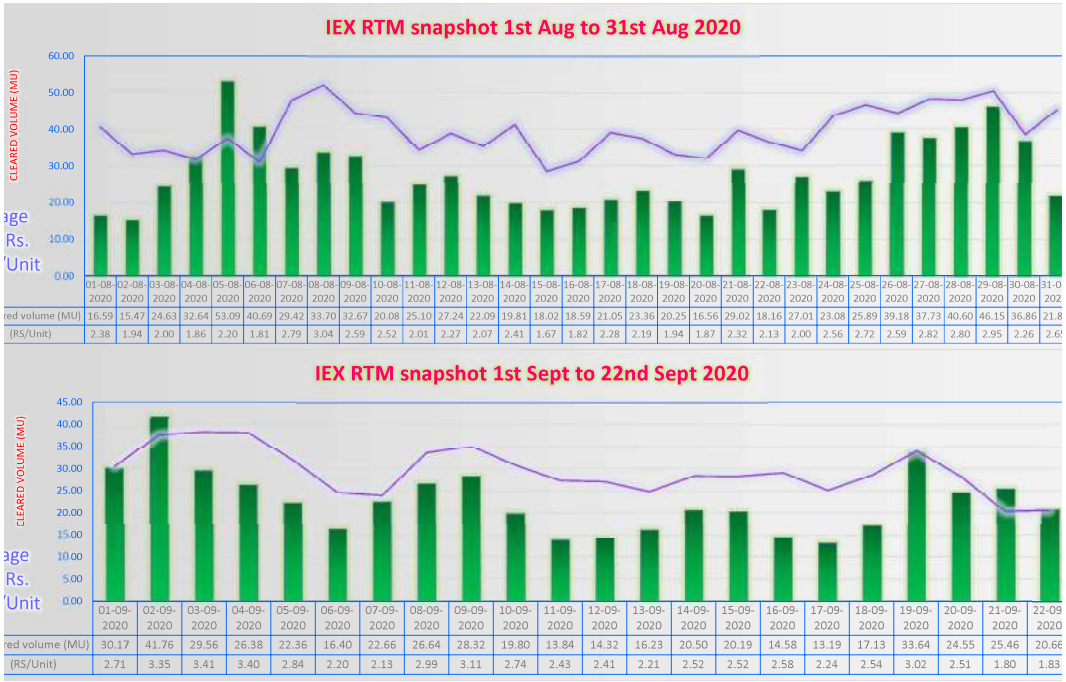






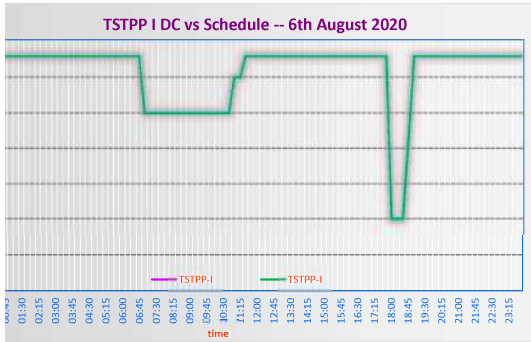


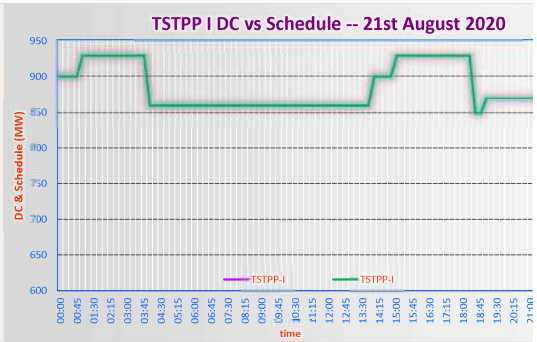


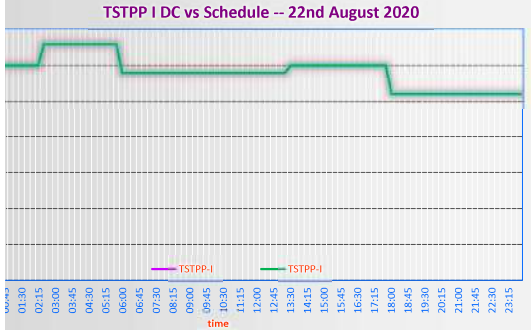


	01-08-2020	02-08-2020	03-08-2020	04-08-2020	05-08-2020	06-08-2020	07-08-2020	08-08-2020	09-08-2020	10-08-2020	11-08-2020	12-08-2020	13-08-2020	14-08-2020	15-08-2020	16-08-2020	17-08-2020	18-08-2020	19-08-2020	20-08-2020	21-08-2020	22-08-2020	23-08-2020	24-08-2020	25-08-2020	26-08-2020	27-08-2020	28-08-2020	29-08-2020	30-08-2020	31-08-2020
red volume (MU)	16.59	15.47	24.63	32.64	53.09	40.69	29.42	33.70	32.67	20.08	25.10	27.24	22.09	19.81	18.02	18.59	21.05	23.36	20.25	16.56	29.02	18.16	27.01	23.08	25.89	39.18	37.73	40.60	46.15	36.86	21.8
(RS/Unit)	2.38	1.94	2.00	1.86	2.20	1.81	2.79	3.04	2.59	2.52	2.01	2.27	2.07	2.41	1.67	1.82	2.28	2.19	1.94	1.87	2.32	2.13	2.00	2.56	2.72	2.59	2.82	2.80	2.95	2.26	2.6

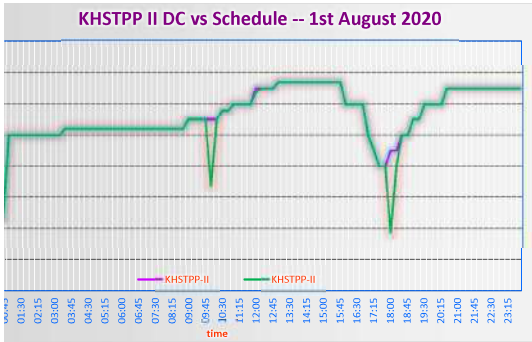
	01-09-2020	02-09-2020	03-09-2020	04-09-2020	05-09-2020	06-09-2020	07-09-2020	08-09-2020	09-09-2020	10-09-2020	11-09-2020	12-09-2020	13-09-2020	14-09-2020	15-09-2020	16-09-2020	17-09-2020	18-09-2020	19-09-2020	20-09-2020	21-09-2020	22-09-2020
red volume (MU)	30.17	41.76	29.56	26.38	22.36	16.40	22.66	26.64	28.32	19.80	13.84	14.32	16.23	20.50	20.19	14.58	13.19	17.13	33.64	24.55	25.46	20.66
(RS/Unit)	2.71	3.35	3.41	3.40	2.84	2.20	2.13	2.99	3.11	2.74	2.43	2.41	2.21	2.52	2.52	2.58	2.24	2.54	3.02	2.51	1.80	1.83

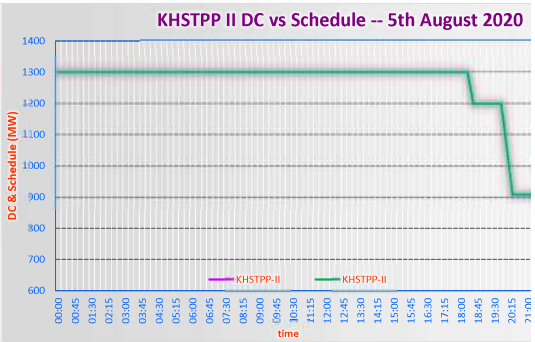


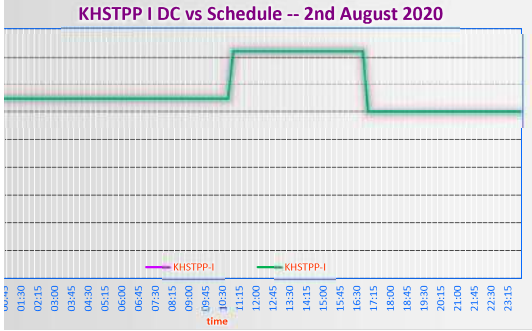




SL No	Date	ISGS Stations	BLOCKS with reduced DC	Reason
1	06-08-2020	TSTPP I	73-76	No reason prov
2	21-08-2020	TSTPP I	75-92	POOR COAL QU
3	22-08-2020	TSTPP I	73-92	POOR COAL QU
4	24-08-2020	TSTPP I	85-92	No reason prov
5	26-08-2020	TSTPP I	73-92	COAL QUALI
6	27-08-2020	TSTPP I	73-92	POOR COAL QU
7	28-08-2020	TSTPP I	85-92	POOR COAL QU
8	30-08-2020	TSTPP I	73-92	COAL QUALI
9	05-09-2020	TSTPP I	73-76	POOR COAL QU
10	07-09-2020	TSTPP I	73-92	POOR COAL QU
11	09-09-2020	TSTPP I	77-80	MILLING PROB

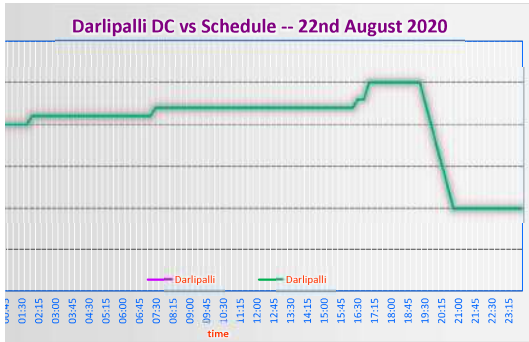


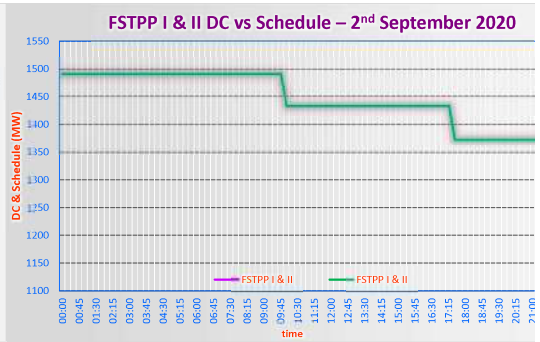


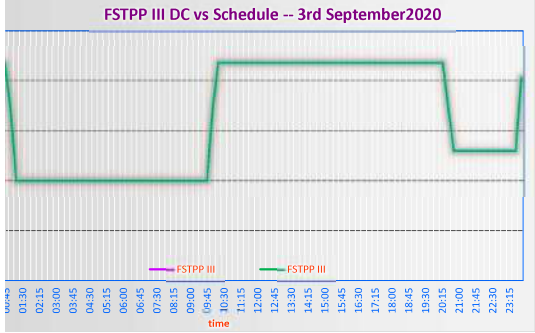


SL No	Date	ISGS Stations	BLOCKS with reduced DC	Reason
1	01-08-2020	KHSTPP II	73-92	No reason provide
2	03-08-2020	KHSTPP II	73-76	No reason provide
3	05-08-2020	KHSTPP II	75-80	No reason provide
4	25-08-2020	KHSTPP II	86	No reason provide
5	27-08-2020	KHSTPP II	63-83	No reason provide

SL No	Date	ISGS Stations	BLOCKS with reduced DC	Reason
1	02-08-2020	kHSTPP I	73-92	No reason provide
2	08-09-2020	kHSTPP I	75-77	U#4 MILL PROBLE
3	10-09-2021	kHSTPP I	73-76	No reason provide







SL No	Date	ISGS Stations	BLOCKS with reduced DC	Reason
1	02-09-2020	FSTPP I & II	73-92	poor coal quality
2	14-09-2020	FSTPP I & II	81-92	U#2 tripped at 18.26 hr
3	15-09-2020	FSTPP I & II	77-92	UNIT # 1 BOTTOM ASH DEASHING PROBLEM.
4	03-09-2020	FSTPP III	84-92	BOTTOM ASH DEASHING PROBLEM
5	11-09-2020	FSTPP III	73-92	WET COAL

SL No	Date	ISGS Stations	BLOCKS with reduced DC	Reason
1	21-08-2020	DARLIPALLY	73-96	No reason provided
2	22-08-2020	DARLIPALLY	84-92	No reason provided
3	06-09-2020	DARLIPALLY	73-92	No reason provided
4	12-09-2020	DARLIPALLY	73-88	No reason provided

THANK YOU

पावर सिस्टम ऑपरेशन करपोरेशन लिमिटेड
(भारत सरकार का उद्यम)
POWER SYSTEM OPERATION CORPORATION LIMITED
(A Government of India Enterprise)
Eastern Regional Load Despatch Centre: 14, Golf Club Road, Tollygunge, Kolkata-700 033.
CIN: U40105DL2009GOI188682
फ़ोन: 033- 24235755, 24174049 फैक्स : 033-24235809/5029 Website:www.erldc.org, Email ID- erldc@posoco.in

Date: 09-09-2020

Report on primary frequency response observed at generators in the Eastern Region for August 2020 events of sudden frequency change

Frequency response characteristics (FRC) have been analyzed pan India for two events of sudden frequency change that occurred in August 2020. The details of these events and the overall response of the Eastern region have been summarized in Table 1.

Table 1: Summary of the events and Frequency Response Characteristic (FRC) of the Eastern Region for the events

Event	Frequency Change	ER FRC
Event 1: On 06th August 2020 at 13:50:17:640 Hrs, 1348 MW generation loss at Rajasthan in NR.	**50.07 Hz to 49.96 Hz**. Later stabilized at 50.03 Hz.	**46 %**
Event 2: On 13th August 2020 at 07:03:05:480 hrs, 1200 MW generation loss at Jhakri in NR	**49.93 Hz to 49.82 Hz**. Later stabilized at 49.88 Hz.	**47 %**

Summary of the analysis of these events are given below:

1. **In spite of repeated reminders, generation end data (generation output in MW and frequency/speed measured at generator end) and FRCs are yet to be received from few regional generating stations (ISGS and IPP) and SLDCs respectively**. List of such regional generating stations/SLDCs is shown in **table 2**.
2. Based on data received from regional generating stations & SLDCs and SCADA data archived at ERLDC, regional generating stations' and state control areas' performance have been analyzed and summarized in **table 3.**
3. Based on data received from state generating stations & SLDCs, the performance of state generating stations has been analyzed and summarized in table 4.
4. Some thermal units were found to be running at higher than installed capacity causing their poor response and governor response margin was not available. This practice to be avoided and Governor Response Margin has not to be utilized in line with IEGC regulation.

Table 2: List of regional generating stations/SLDCs from which generation end data/FRC yet to be received (as per status on 08th September 2020)

Generating Station/ SLDC	Event 1	Event 2
JITPL	Data received	**Yet to be received**
Adhunik	**Yet to be received**	**Yet to be received**
Bihar SLDC	**Yet to be received**	**Yet to be received**
Jharkhand SLDC	**Yet to be received**	**Yet to be received**
WB SLDC	**Yet to be received**	**Yet to be received**

Table 3: performance of regional generating stations and state control areas for the events in August 2020*

Generating Station/ SLDC	Event 1	Event 2
NTPC Farakka	**Non-Satisfactory**	**Satisfactory** for unit 4 **Non-Satisfactory** for unit 5 and 6
NTPC Kahalgaon	**Non-Satisfactory** for stage 1 (around 40-70% of ideal response provided) **Satisfactory** for stage 2	**Non-satisfactory** for unit 1 and 2. Other units were not in service.
NTPC Talcher	**Non-Satisfactory**	Stage 2: **Satisfactory** Stage 1: **Non - Satisfactory**
NTPC Barh	**Non-Satisfactory** (Around 50 - 60% of ideal response was provided by both units)	**Non-Satisfactory** (Unit 1: 60%; Unit 2: 20% of ideal response)
NTPC Darlipalli	No unit was in service	No unit was in service
BRBCL	**Satisfactory**	**Non-Satisfactory**
NPGC Nabinagar	**Non-Satisfactory** (Around 50% of ideal response was provided)	**Non-Satisfactory** (Around 30% of ideal response was provided)
GMR	Unit 1: **Non-Satisfactory** Unit 2: **Satisfactory**	**Satisfactory**
JITPL	**Non-Satisfactory**	**Non-Satisfactory** (as per as per FRC calculation of ERLDC SCADA data)
MPL	**Non-Satisfactory** (Around 50 - 60% of ideal response was provided by both units)	**Non-Satisfactory** (Around 50 - 60% of ideal response was provided by both units)
Adhunik	**Satisfactory** (Around 84% of ideal response as per FRC calculation of ERLDC SCADA data)	**Non-Satisfactory** (Around 52% of ideal response as per FRC calculation of ERLDC SCADA data)
Teesta V HEP	Unit was being run at full capacity (trash accumulation in the Intake gate and high TRT level)	Unit was being run at more than installed capacity.
Teesta III HEP	No margin was available	No margin was available
Dikchu HEP	No margin was available	No margin was available
Bihar SLDC	**Non-Satisfactory** (as per as per FRC calculation of ERLDC SCADA data)	**Non-Satisfactory** (as per as per FRC calculation of ERLDC SCADA data)
Jharkhand SLDC	**Non-Satisfactory** (as per as per FRC calculation of ERLDC SCADA data)	**Satisfactory** (Around 170% of ideal response as per FRC calculation of ERLDC SCADA data)
DVC SLDC	**Satisfactory** (FRC was around 93% of ideal response)	**Non-Satisfactory** (FRC was around 29% of ideal response)
GRIDCO SLDC	**Satisfactory** (FRC was around 144% of ideal response as per ERLDC SCADA data)	**Non-Satisfactory** (FRC was around 32% of ideal response as per ERLDC SCADA data)
WB SLDC	**Non-Satisfactory** (as per as per FRC calculation of ERLDC SCADA data)	**Non-Satisfactory** (Around 47% of ideal response as per FRC calculation of ERLDC SCADA data)

***Response of the generating stations are shown in Annexure 1**

Table 4: performance of state generating stations for the events in August 2020 (Based on data received from SLDC/generating stations) **

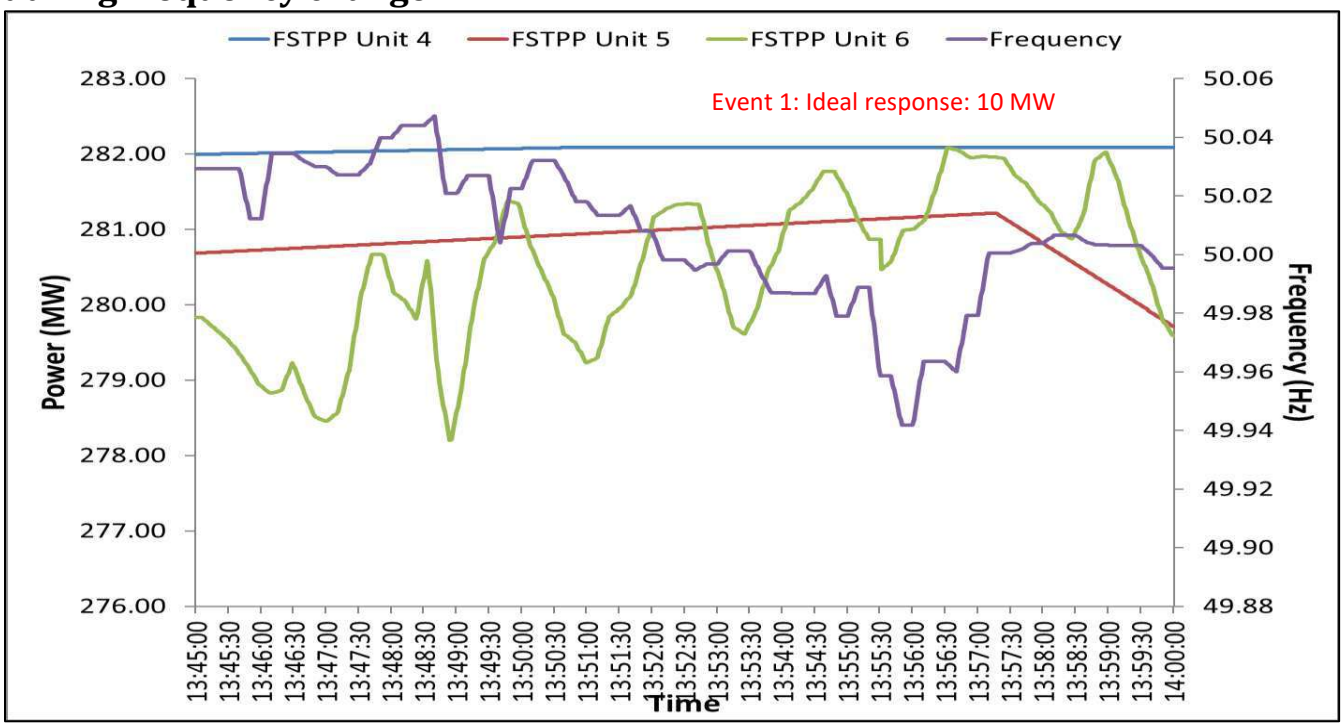
Generating Station	Event 1	Event 2	SLDC to respond
Koderma	**Non-Satisfactory** (Response was around 50 – 60% of ideal response)	**Non-Satisfactory** (Units were being run at I/C or more than I/C)	DVC SLDC
RTPS	**Non-Satisfactory**	**Unit 1: Satisfactory** **Unit 2: Non-Satisfactory**	
DSTPS (Andal)	**Satisfactory** Amount of response reduced within 1 min	**Non-Satisfactory**	
Mejia B	**Non-Satisfactory** (Response was around 50 – 60% of ideal response)	**Satisfactory**	
Mejia	**Non-Satisfactory**	**Non-Satisfactory**	
HEL	**Satisfactory** Response did not last for more than 1 min	**Satisfactory** (Unit 2 was being run at more than I/C)	WB SLDC
BBGS	**Non-Satisfactory,** Unit 3 was being run at more than I/C	**Satisfactory** for unit 1**, Non-Satisfactory** for others units**.** Unit 3 was being run at more than I/C	

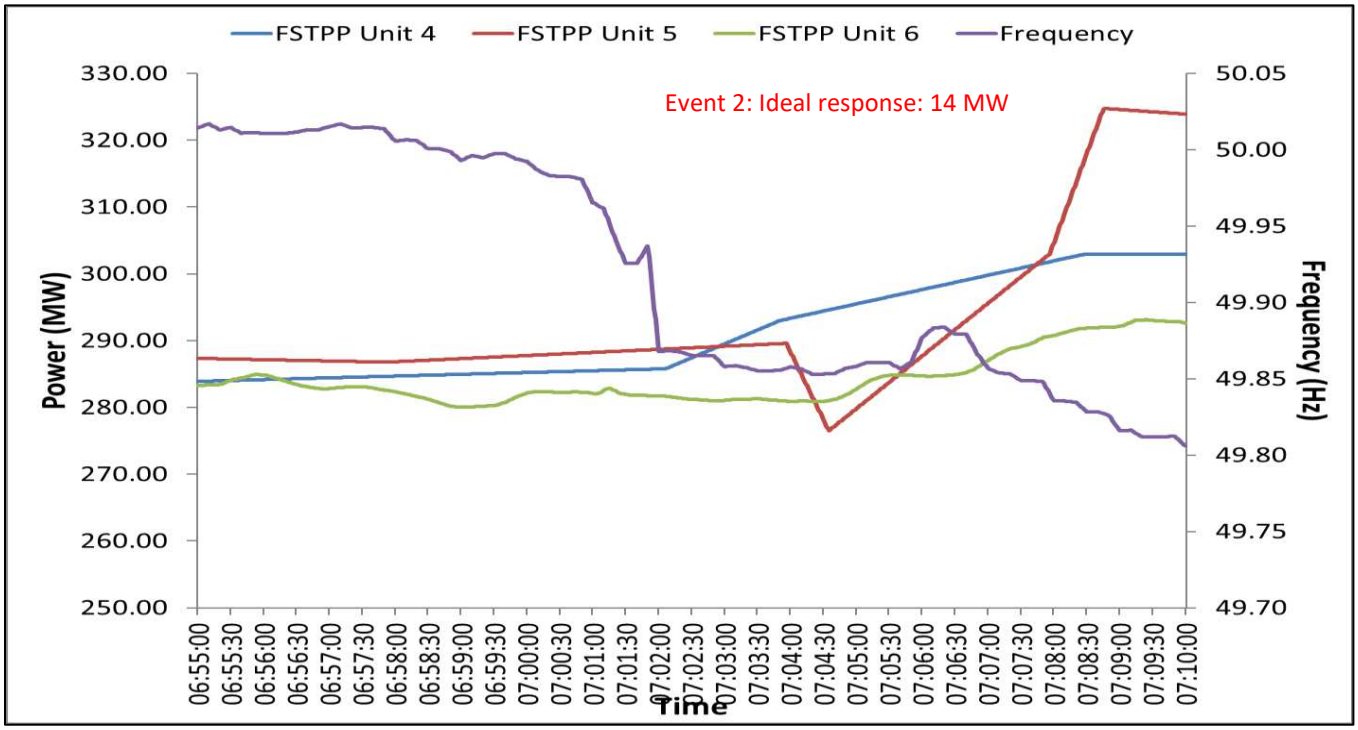
****Response of these generating stations are shown in Annexure 2**

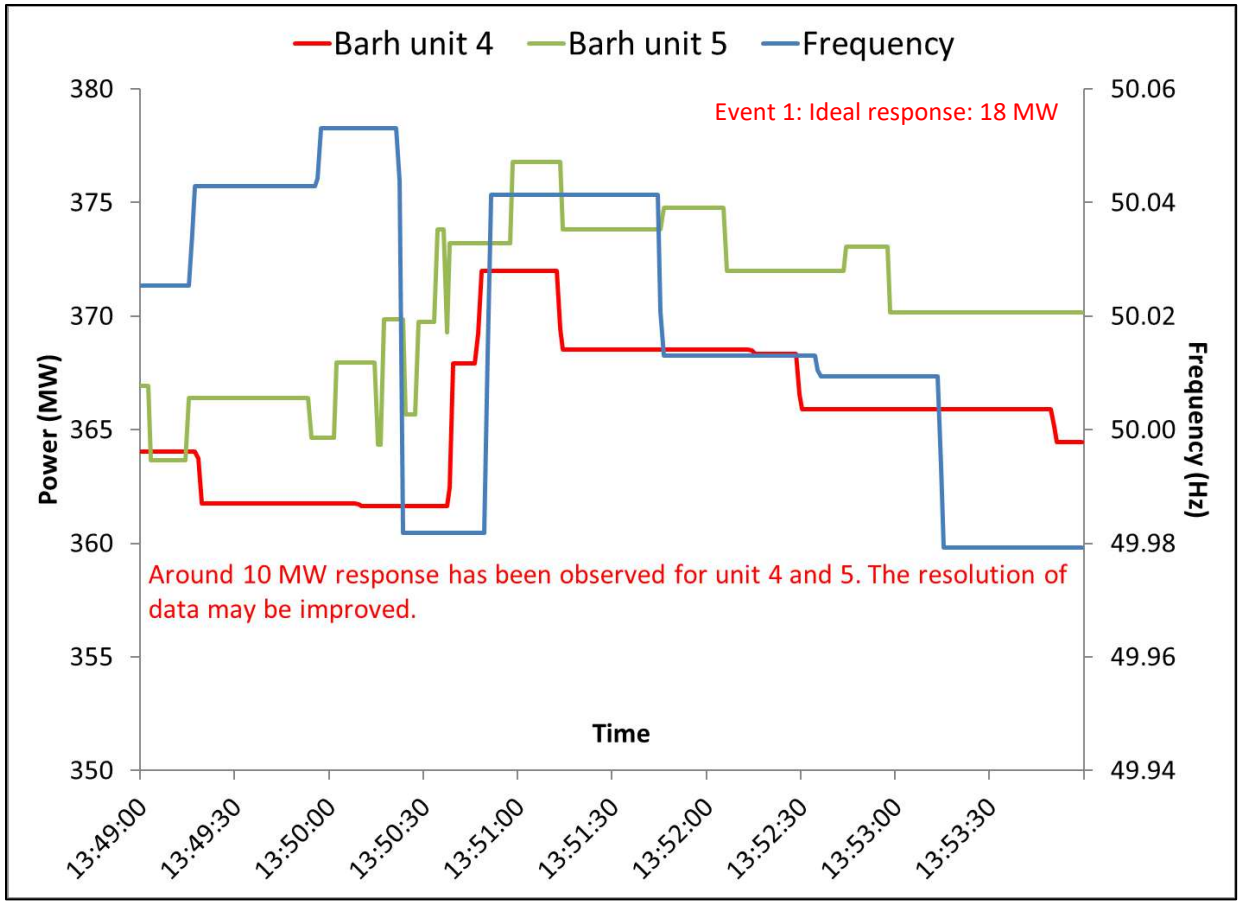
Remarks on the governor response observed at generating stations:

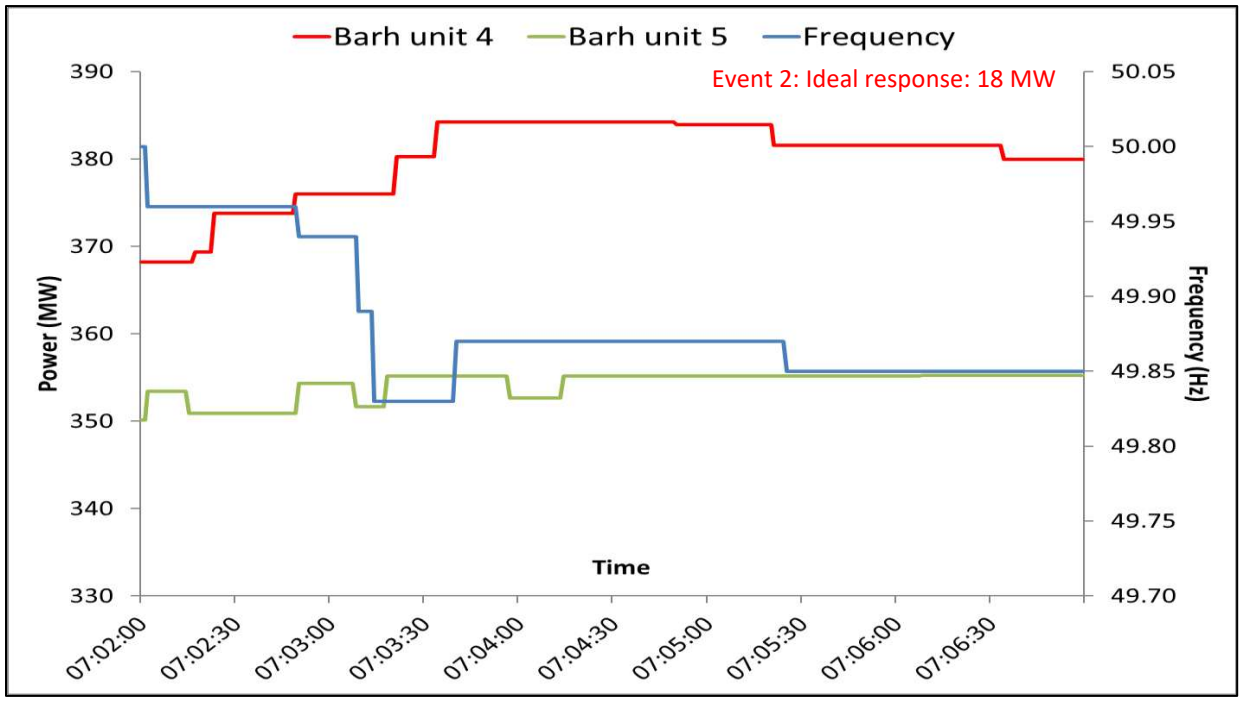
- **NTPC Barh**: Resolution of data shared during both events may be improved. **Data resolution issue has been intimated during previous events also.**
- **JITPL**: During event 1, Initial response was non-satisfactory and did not last for more than 10 seconds during event 1. Another response has been observed within 1 min. But second response was also non-satisfactory and did not last for more than 1 min. Generator end data for second event is yet to be received.
- **Talcher**: Duration of response provided by unit 5 during event 2 may be increased.
- **NPGC Nabinagar**: Response provided during event 1 was not stable. During event 2, response was stable but time taken to provide full response may be reduced.
- **GMR**: Time taken by unit 1 for providing full response during event 1 may be reduced.

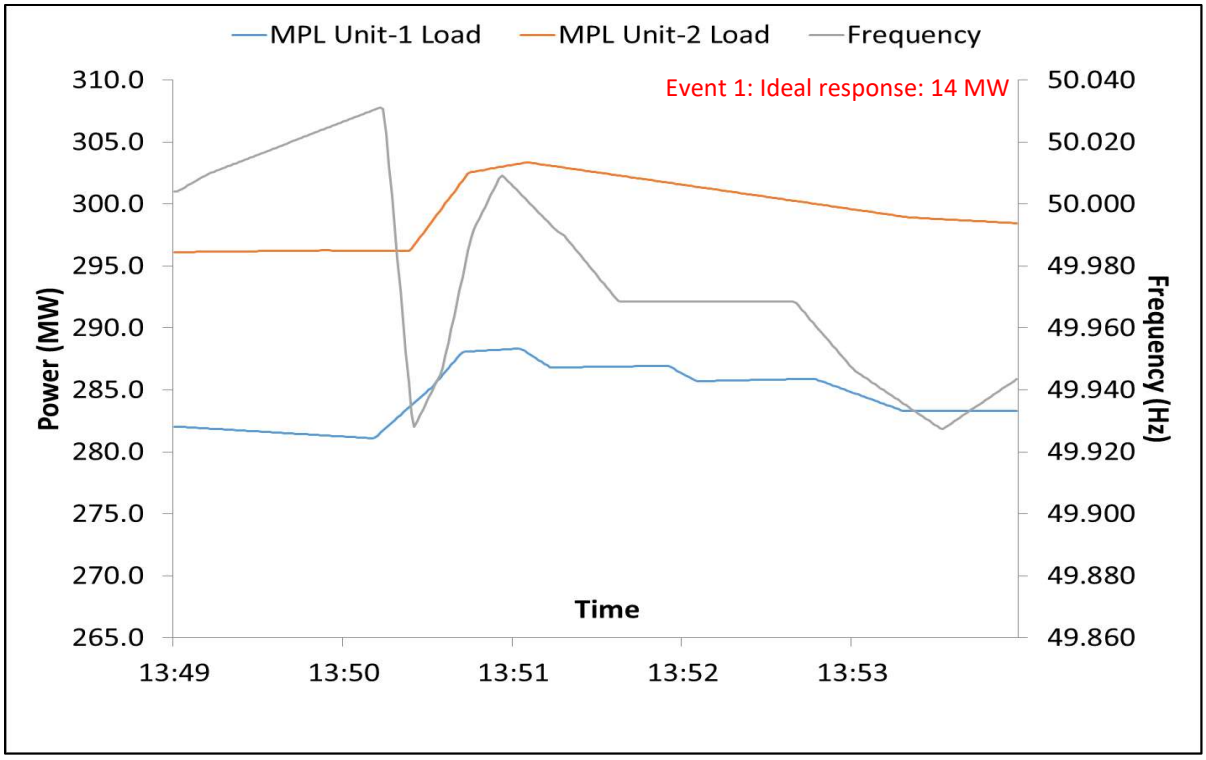
Annexure 1: Variation of generation of regional generating stations during frequency change

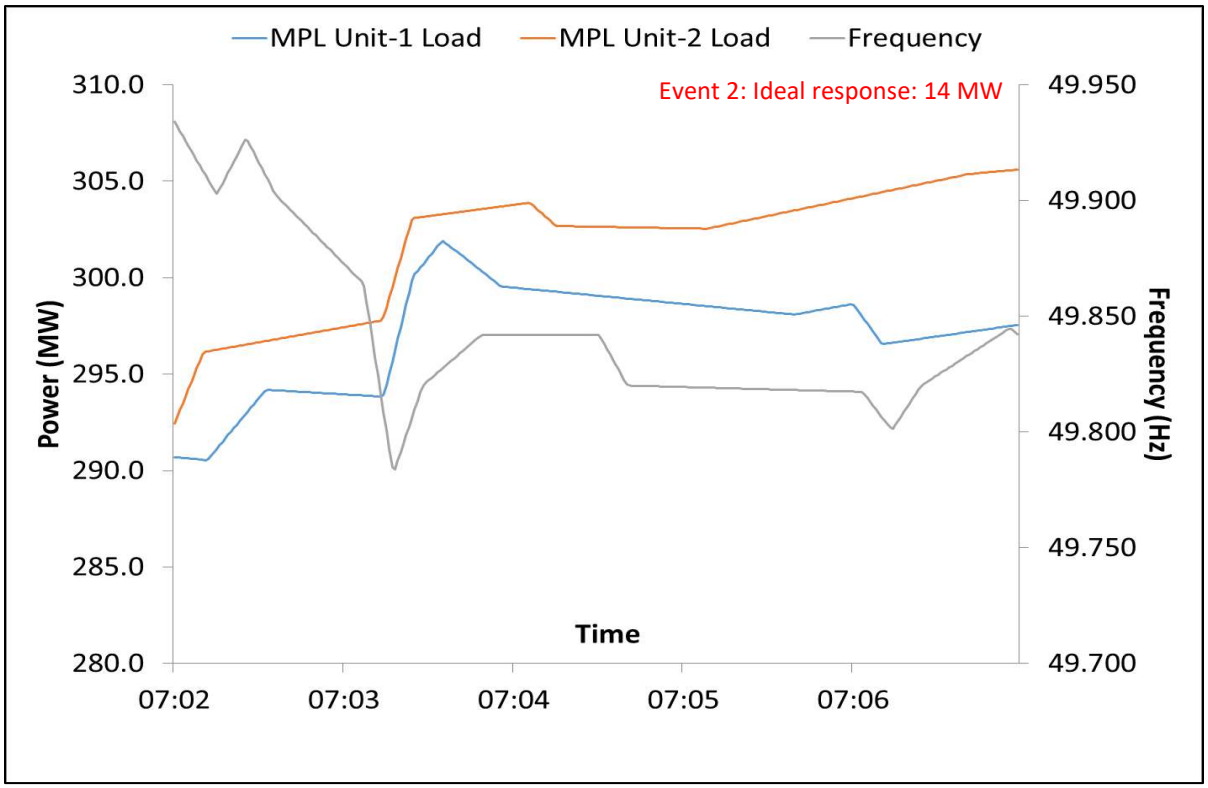


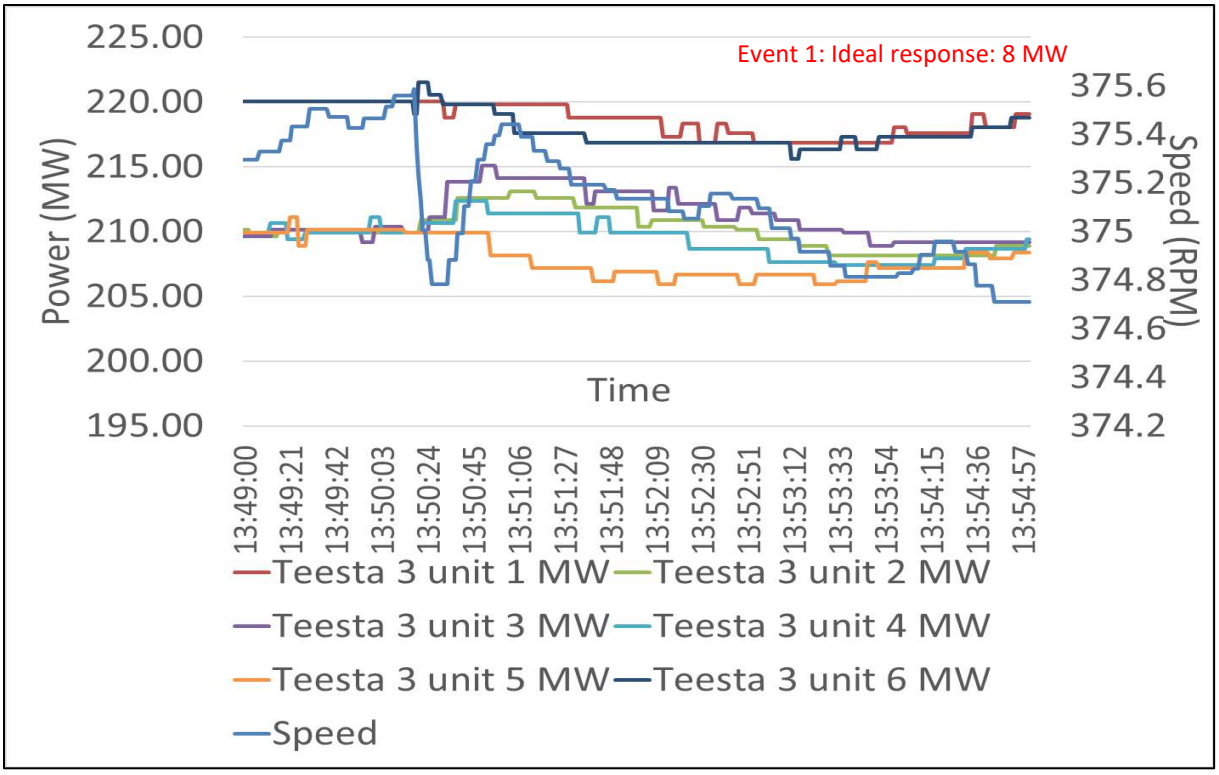


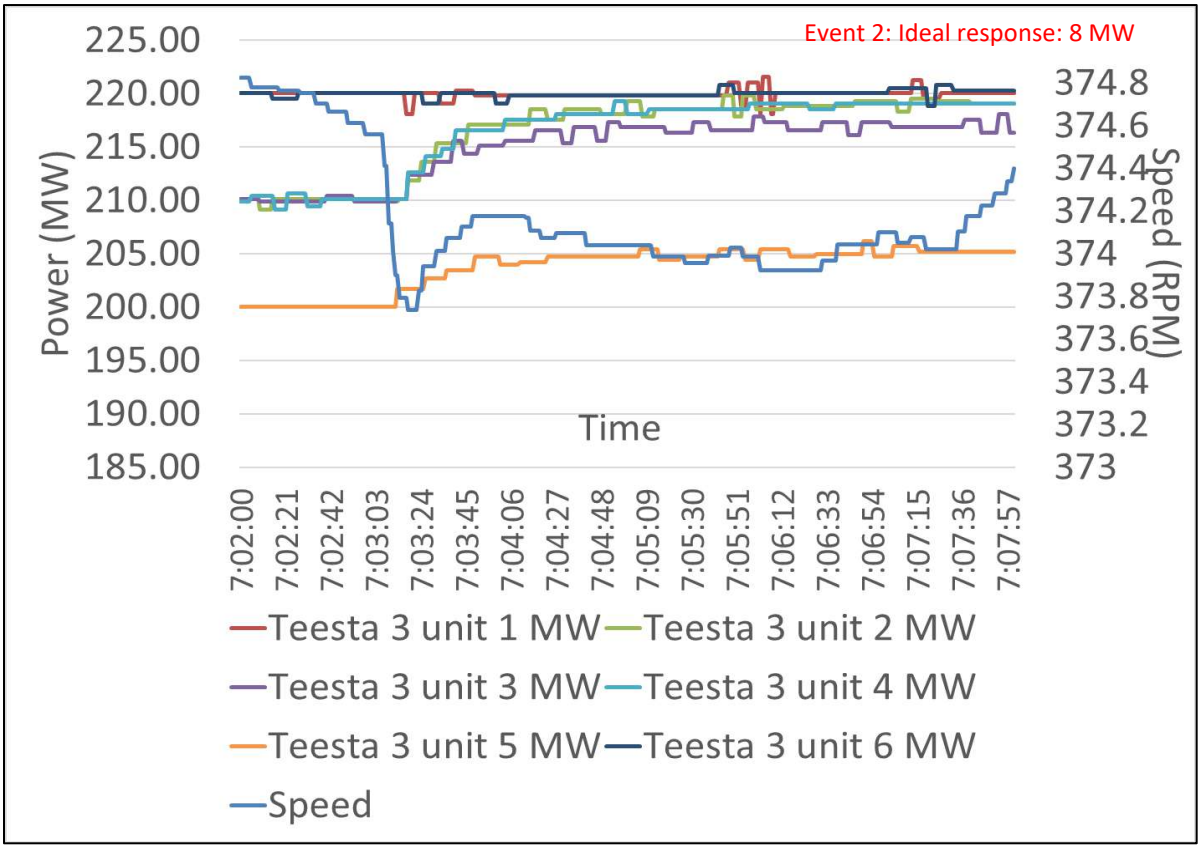

Barh unit 4
Barh unit 5
Frequency
Event 1: Ideal response: 18 MW
Around 10 MW response has been observed for unit 4 and 5. The resolution of data may be improved.
Power (MW)
Frequency (Hz)
Time
380
375
370
365
360
355
350
50.06
50.04
50.02
50.00
49.98
49.96
49.94
13:49:00
13:49:30
13:50:00
13:50:30
13:51:00
13:51:30
13:52:00
13:52:30
13:53:00
13:53:30

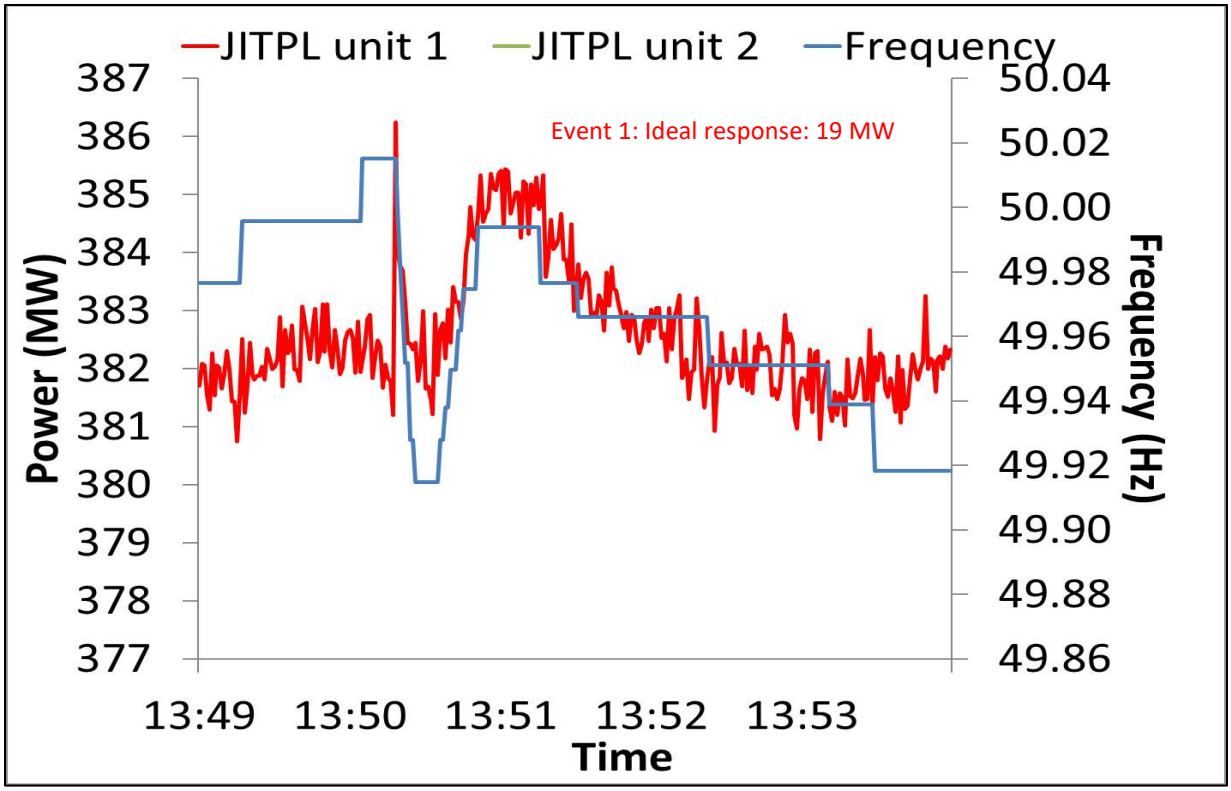

Barh unit 4
Barh unit 5
Frequency
Event 2: Ideal response: 18 MW
Power (MW)
Frequency (Hz)
Time
390
380
370
360
350
340
330
50.05
50.00
49.95
49.90
49.85
49.80
49.75
49.70
07:02:00
07:02:30
07:03:00
07:03:30
07:04:00
07:04:30
07:05:00
07:05:30
07:06:00
07:06:30

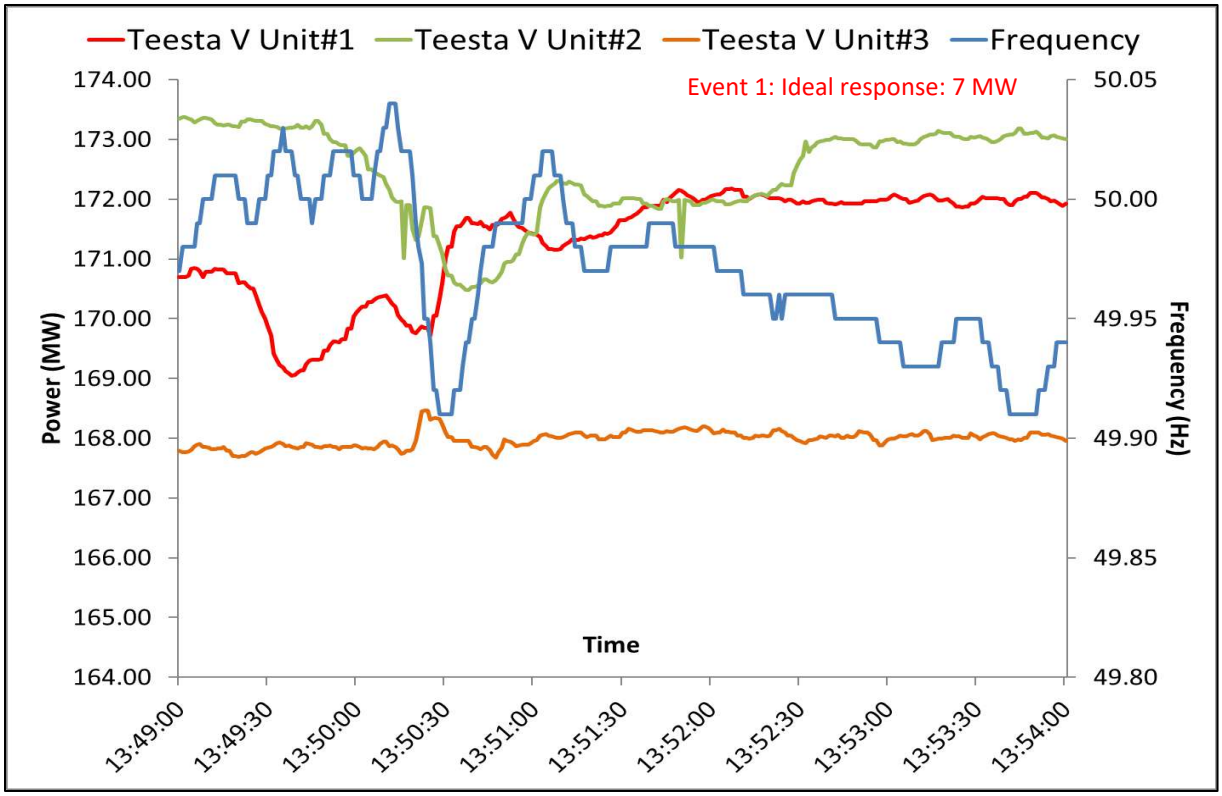

MPL Unit-1 Load
MPL Unit-2 Load
Frequency
Event 1: Ideal response: 14 MW
Power (MW)
Frequency (Hz)
Time
310.0
305.0
300.0
295.0
290.0
285.0
280.0
275.0
270.0
265.0
50.040
50.020
50.000
49.980
49.960
49.940
49.920
49.900
49.880
49.860
13:49
13:50
13:51
13:52
13:53


MPL Unit-1 Load
MPL Unit-2 Load
Frequency
Event 2: Ideal response: 14 MW
Power (MW)
Frequency (Hz)
Time
310.0
305.0
300.0
295.0
290.0
285.0
280.0
49.950
49.900
49.850
49.800
49.750
49.700
07:02
07:03
07:04
07:05
07:06


Event 1: Ideal response: 8 MW
Power (MW)
225.00
220.00
215.00
210.00
205.00
200.00
195.00
Speed (RPM)
375.6
375.4
375.2
375
374.8
374.6
374.4
374.2
Time
13:49:00
13:49:21
13:49:42
13:50:03
13:50:24
13:50:45
13:51:06
13:51:27
13:51:48
13:52:09
13:52:30
13:52:51
13:53:12
13:53:33
13:53:54
13:54:15
13:54:36
13:54:57
Teesta 3 unit 1 MW
Teesta 3 unit 2 MW
Teesta 3 unit 3 MW
Teesta 3 unit 4 MW
Teesta 3 unit 5 MW
Teesta 3 unit 6 MW
Speed


Event 2: Ideal response: 8 MW
Power (MW)
225.00
220.00
215.00
210.00
205.00
200.00
195.00
190.00
185.00
Speed (RPM)
374.8
374.6
374.4
374.2
374
373.8
373.6
373.4
373.2
373
Time
7:02:00
7:02:21
7:02:42
7:03:03
7:03:24
7:03:45
7:04:06
7:04:27
7:04:48
7:05:09
7:05:30
7:05:51
7:06:12
7:06:33
7:06:54
7:07:15
7:07:36
7:07:57
Teesta 3 unit 1 MW
Teesta 3 unit 2 MW
Teesta 3 unit 3 MW
Teesta 3 unit 4 MW
Teesta 3 unit 5 MW
Teesta 3 unit 6 MW
Speed


JITPL unit 1
JITPL unit 2
Frequency
Event 1: Ideal response: 19 MW
Power (MW)
Frequency (Hz)
387
386
385
384
383
382
381
380
379
378
377
50.04
50.02
50.00
49.98
49.96
49.94
49.92
49.90
49.88
49.86
13:49
13:50
13:51
13:52
13:53
Time


Teesta V Unit#1
Teesta V Unit#2
Teesta V Unit#3
Frequency
Event 1: Ideal response: 7 MW
Power (MW)
Frequency (Hz)
Time
174.00
173.00
172.00
171.00
170.00
169.00
168.00
167.00
166.00
165.00
164.00
50.05
50.00
49.95
49.90
49.85
49.80
13:49:00
13:49:30
13:50:00
13:50:30
13:51:00
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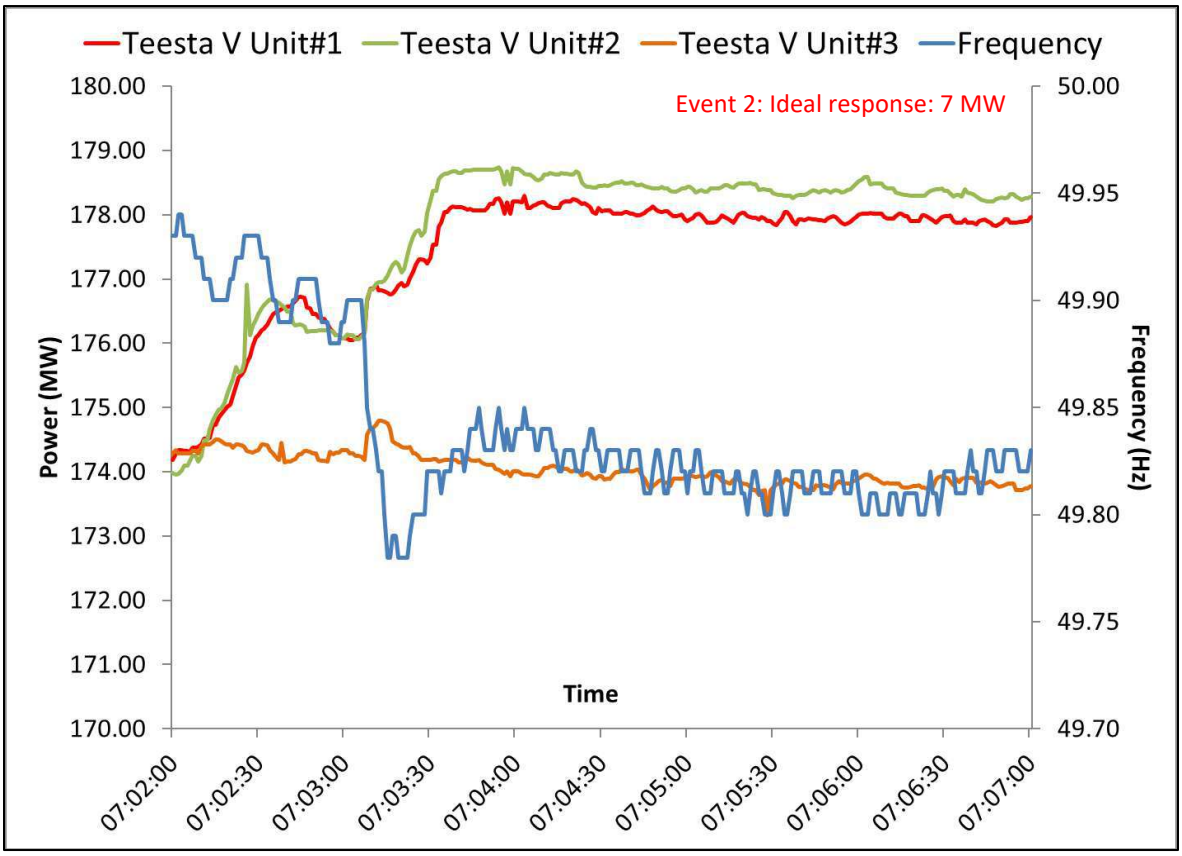
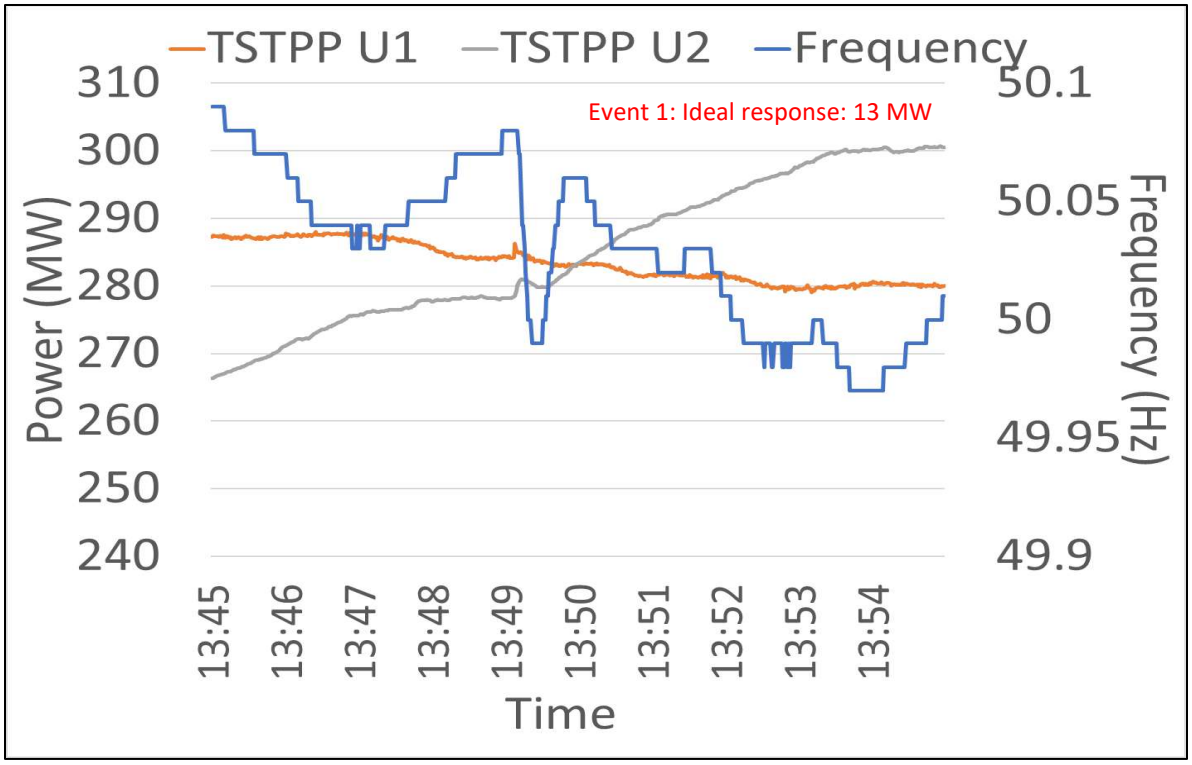
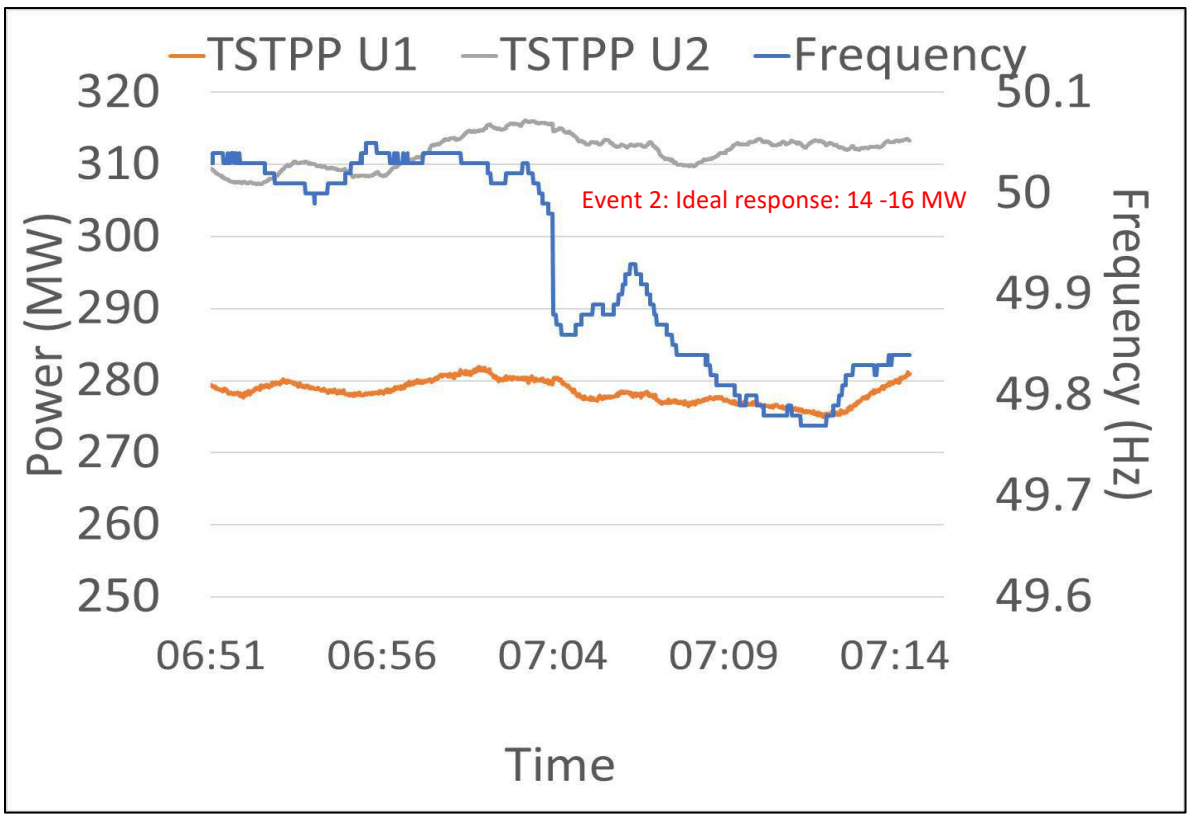
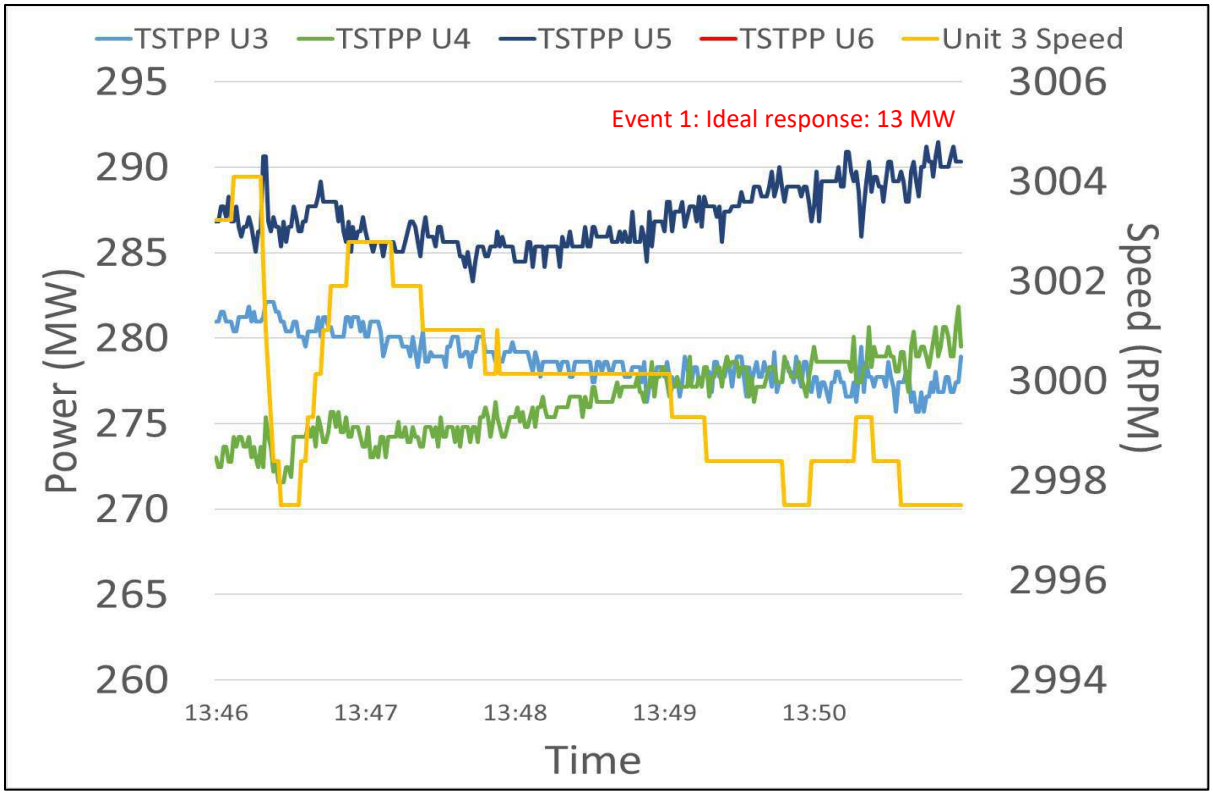
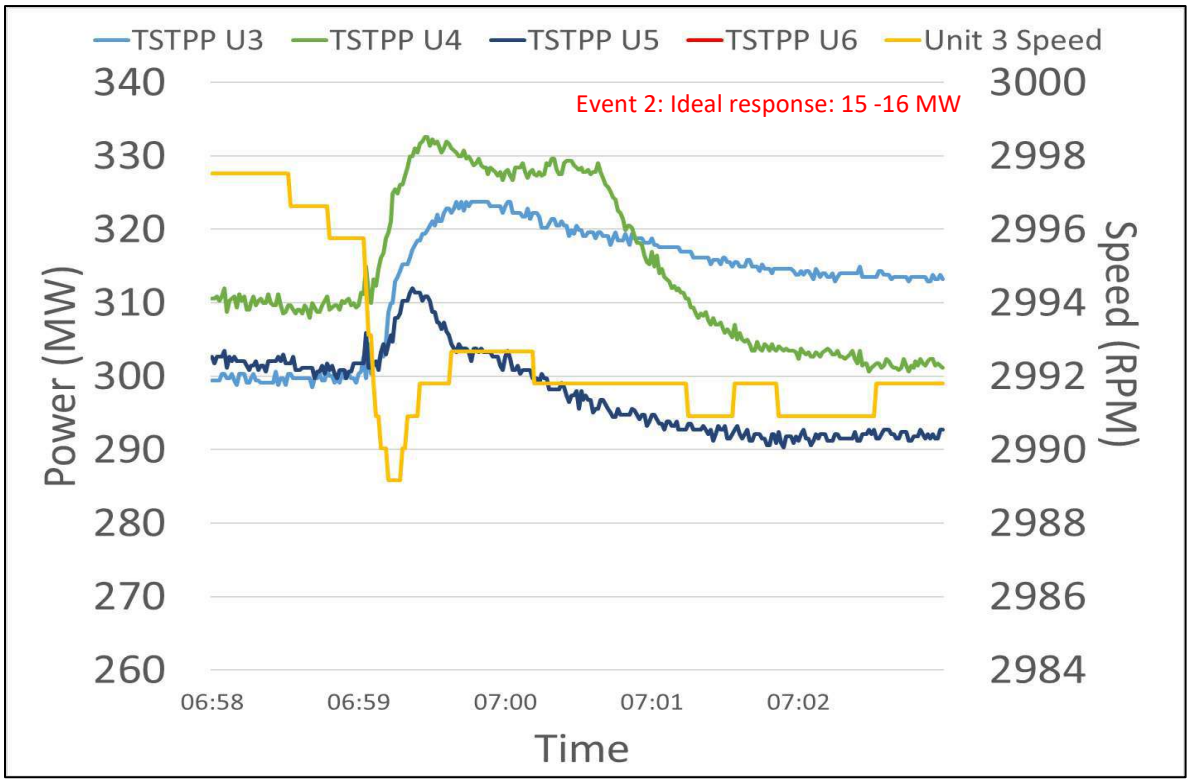
13:53:00
13:53:30
13:54:00

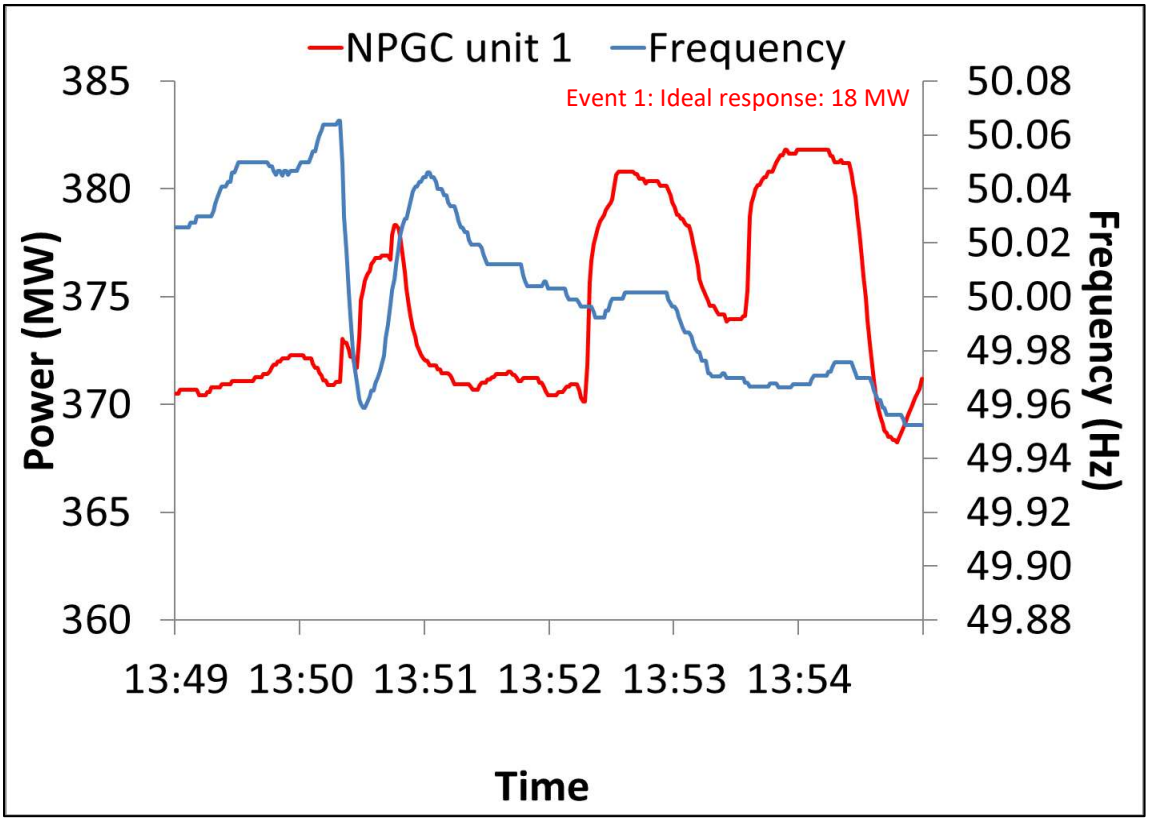

Teesta V Unit#1
Teesta V Unit#2
Teesta V Unit#3
Frequency
Event 2: Ideal response: 7 MW
Power (MW)
Frequency (Hz)
Time
180.00
179.00
178.00
177.00
176.00
175.00
174.00
173.00
172.00
171.00
170.00
50.00
49.95
49.90
49.85
49.80
49.75
49.70
07:02:00
07:02:30
07:03:00
07:03:30
07:04:00
07:04:30
07:05:00
07:05:30
07:06:00
07:06:30
07:07:00

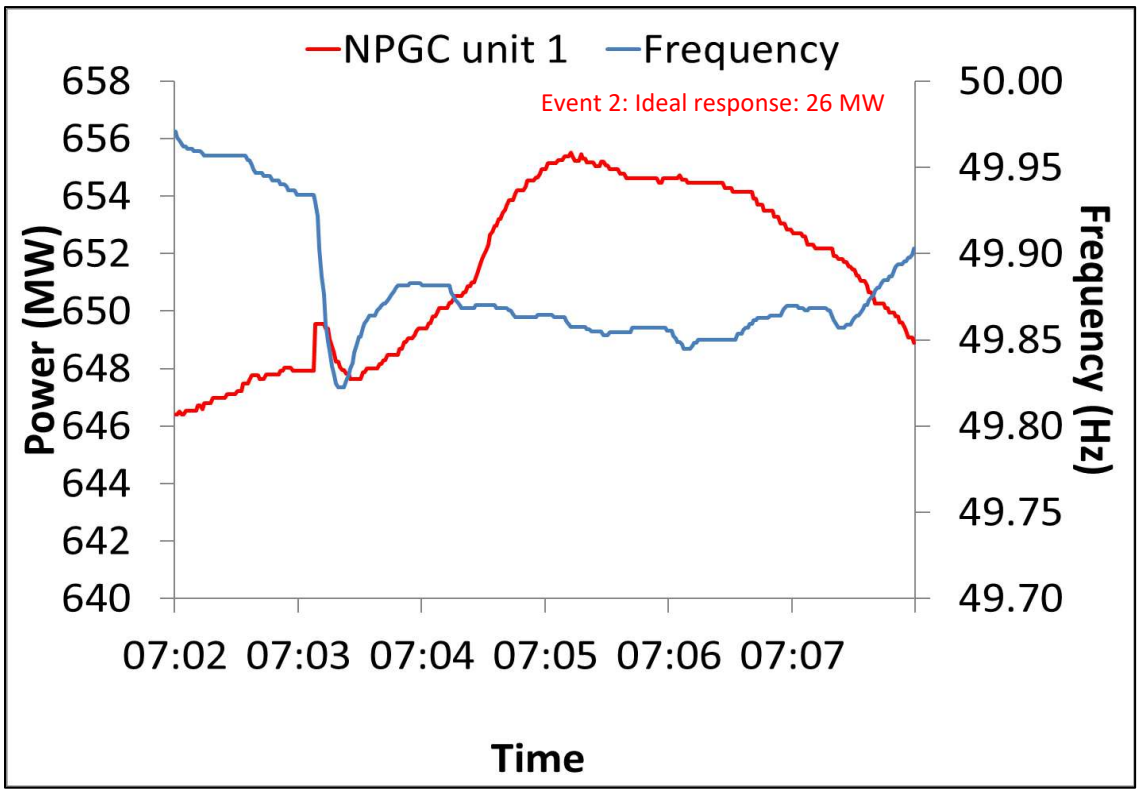

TSTPP U1
TSTPP U2
Frequency
Event 1: Ideal response: 13 MW
Power (MW)
Frequency (Hz)
310
300
290
280
270
260
250
240
50.1
50.05
50
49.95
49.9
13:45
13:46
13:47
13:48
13:49
13:50
13:51
13:52
13:53
13:54
Time

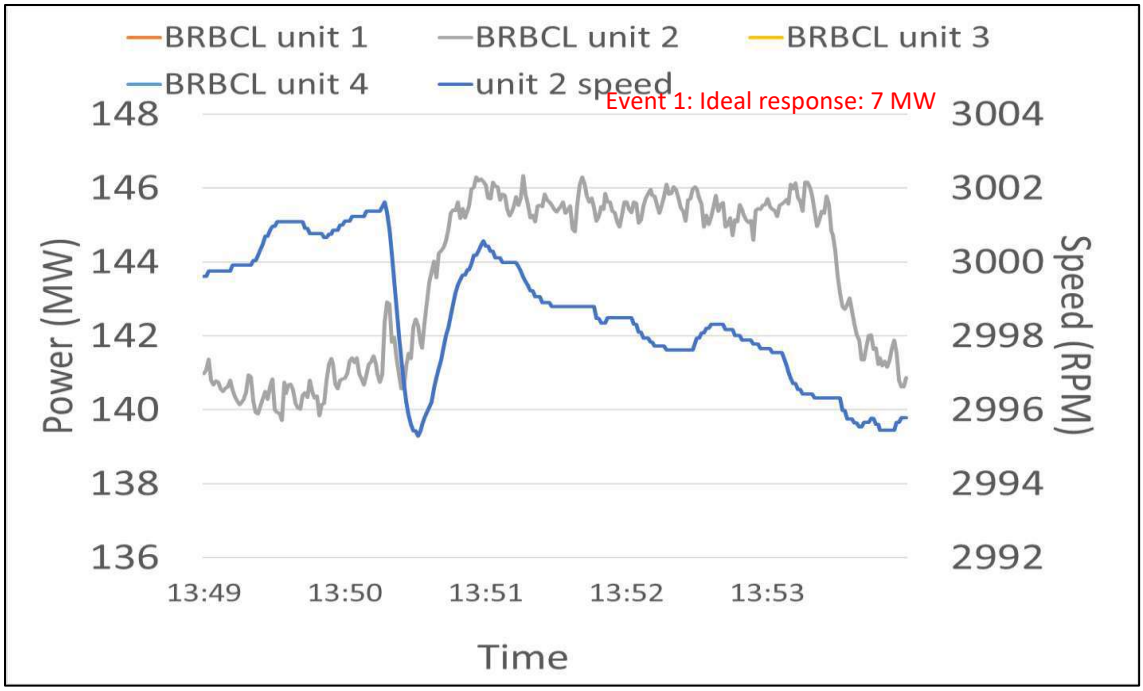

TSTPP U1
TSTPP U2
Frequency
Event 2: Ideal response: 14 -16 MW
Power (MW)
Frequency (Hz)
320
310
300
290
280
270
260
250
50.1
50
49.9
49.8
49.7
49.6
06:51
06:56
07:04
07:09
07:14
Time

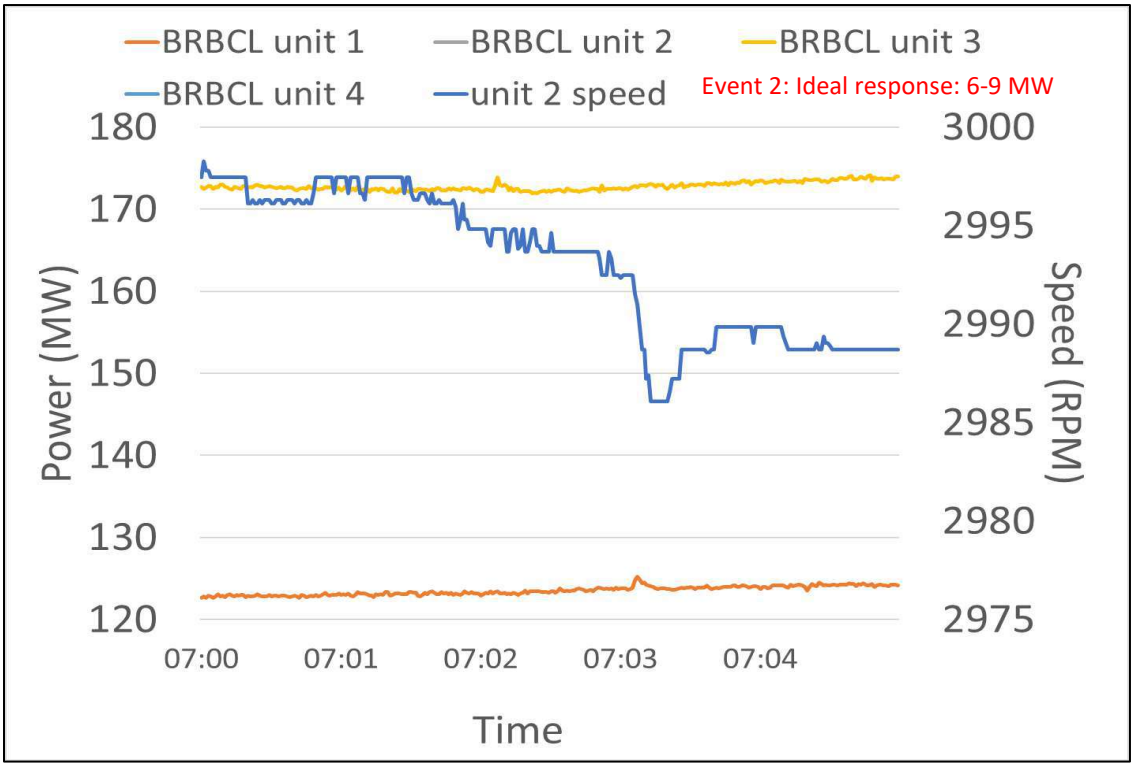

TSTPP U3
TSTPP U4
TSTPP U5
TSTPP U6
Unit 3 Speed
Event 1: Ideal response: 13 MW
Power (MW)
Speed (RPM)
295
290
285
280
275
270
265
260
3006
3004
3002
3000
2998
2996
2994
13:46
13:47
13:48
13:49
13:50
Time

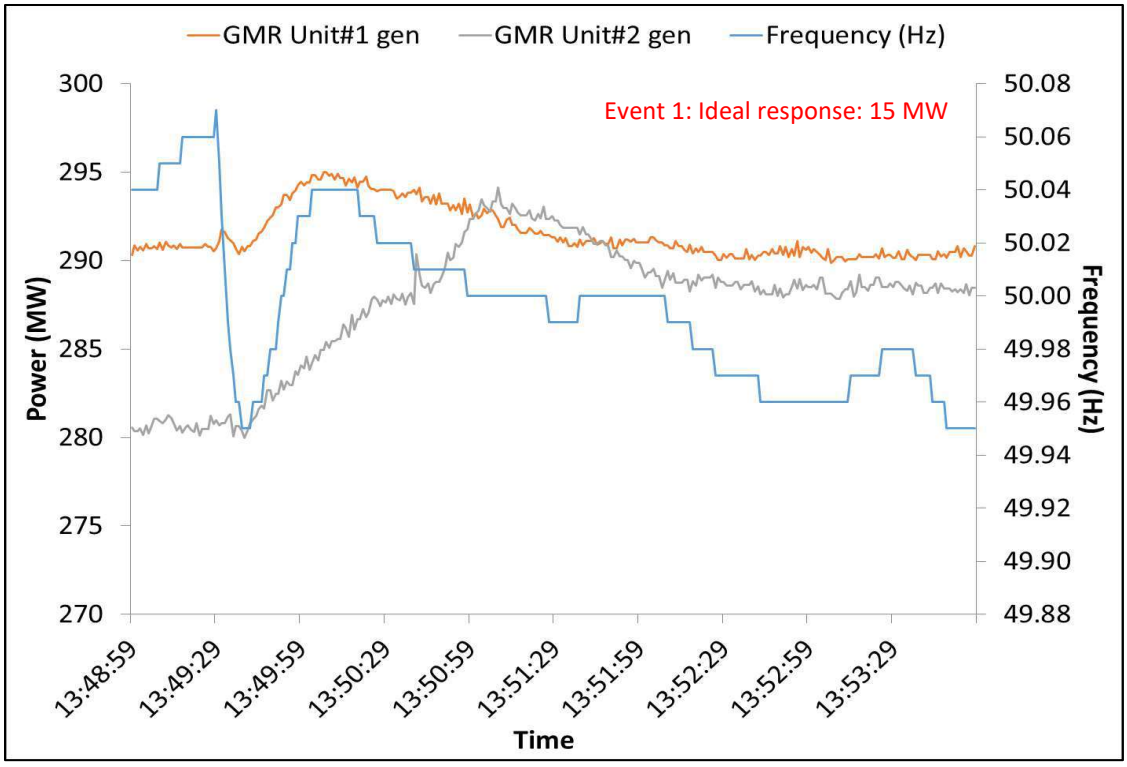

TSTPP U3
TSTPP U4
TSTPP U5
TSTPP U6
Unit 3 Speed
Event 2: Ideal response: 15 -16 MW
Power (MW)
Speed (RPM)
340
330
320
310
300
290
280
270
260
3000
2998
2996
2994
2992
2990
2988
2986
2984
06:58
06:59
07:00
07:01
07:02
Time

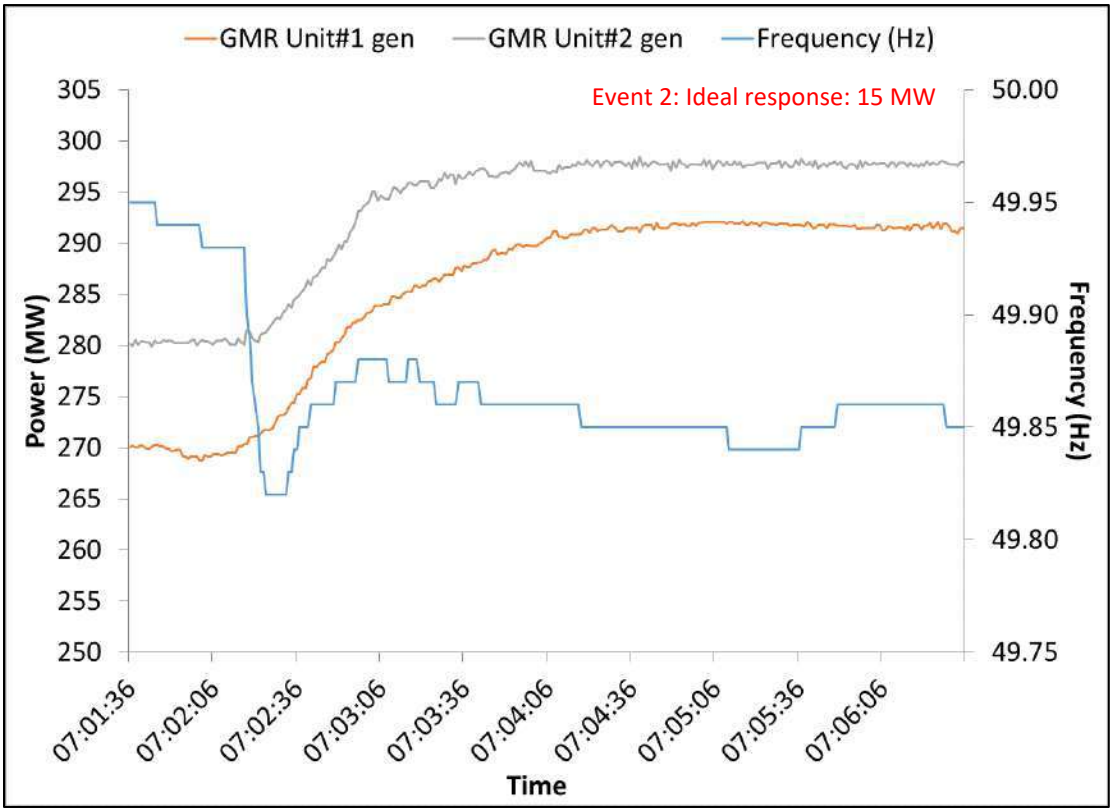

NPGC unit 1
Frequency
Event 1: Ideal response: 18 MW
385
380
375
370
365
360
Power (MW)
50.08
50.06
50.04
50.02
50.00
49.98
49.96
49.94
49.92
49.90
49.88
Frequency (Hz)
13:49 13:50 13:51 13:52 13:53 13:54
Time

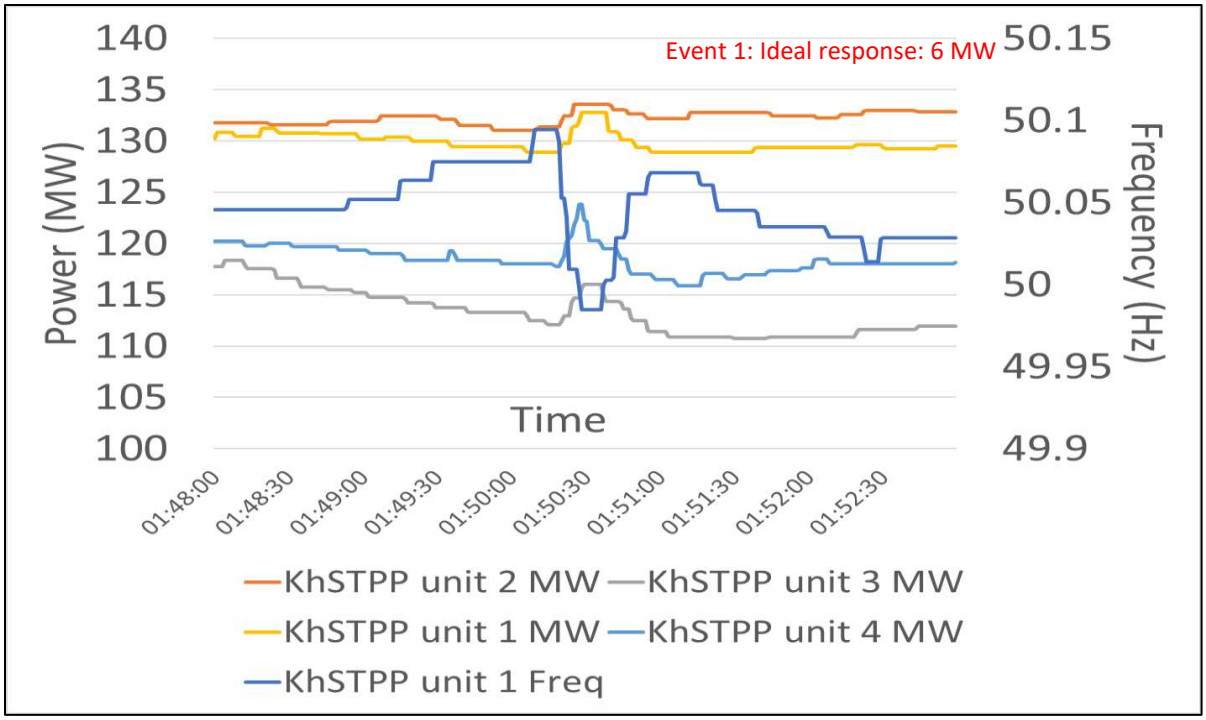

NPGC unit 1
Frequency
Event 2: Ideal response: 26 MW
658
656
654
652
650
648
646
644
642
640
Power (MW)
50.00
49.95
49.90
49.85
49.80
49.75
49.70
Frequency (Hz)
07:02 07:03 07:04 07:05 07:06 07:07
Time

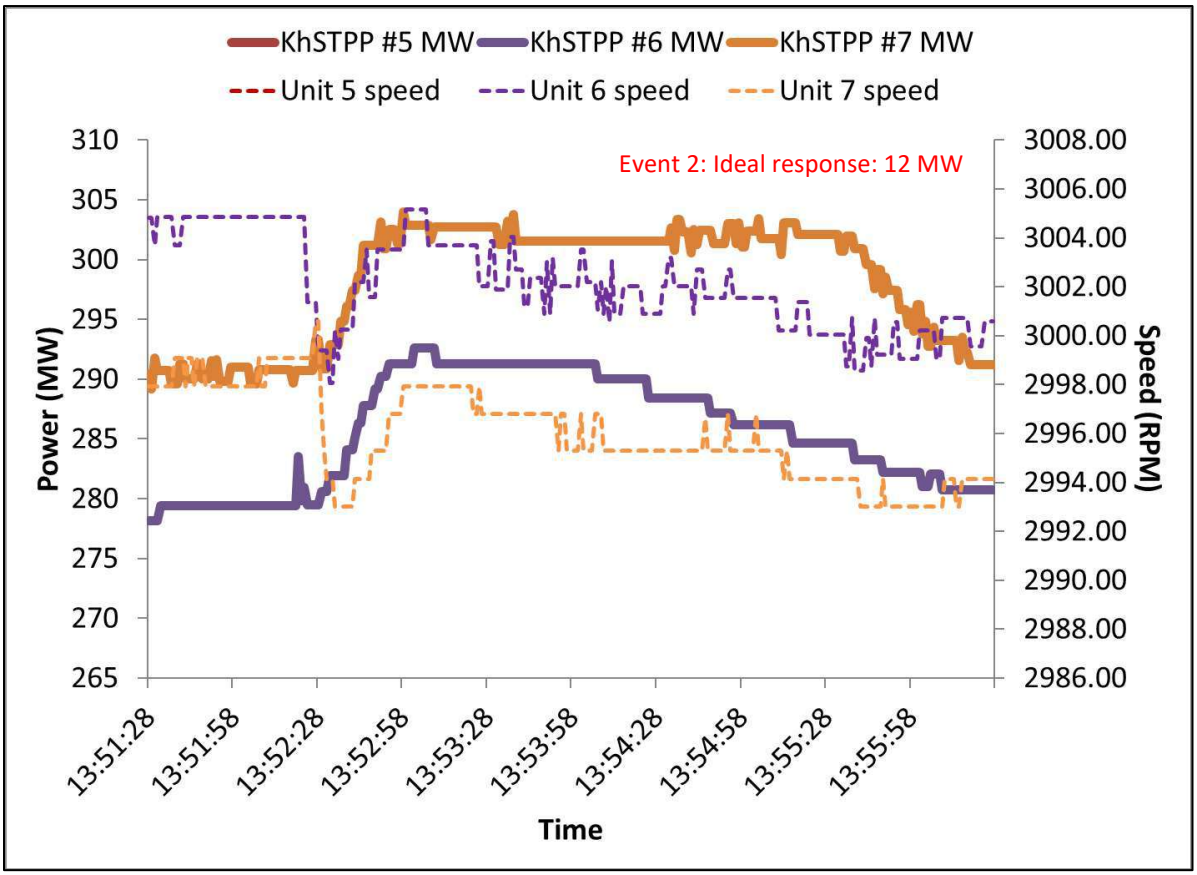

BRBCL unit 1
BRBCL unit 2
BRBCL unit 3
BRBCL unit 4
unit 2 speed
Event 1: Ideal response: 7 MW
148
146
144
142
140
138
136
Power (MW)
3004
3002
3000
2998
2996
2994
2992
Speed (RPM)
13:49
13:50
13:51
13:52
13:53
Time

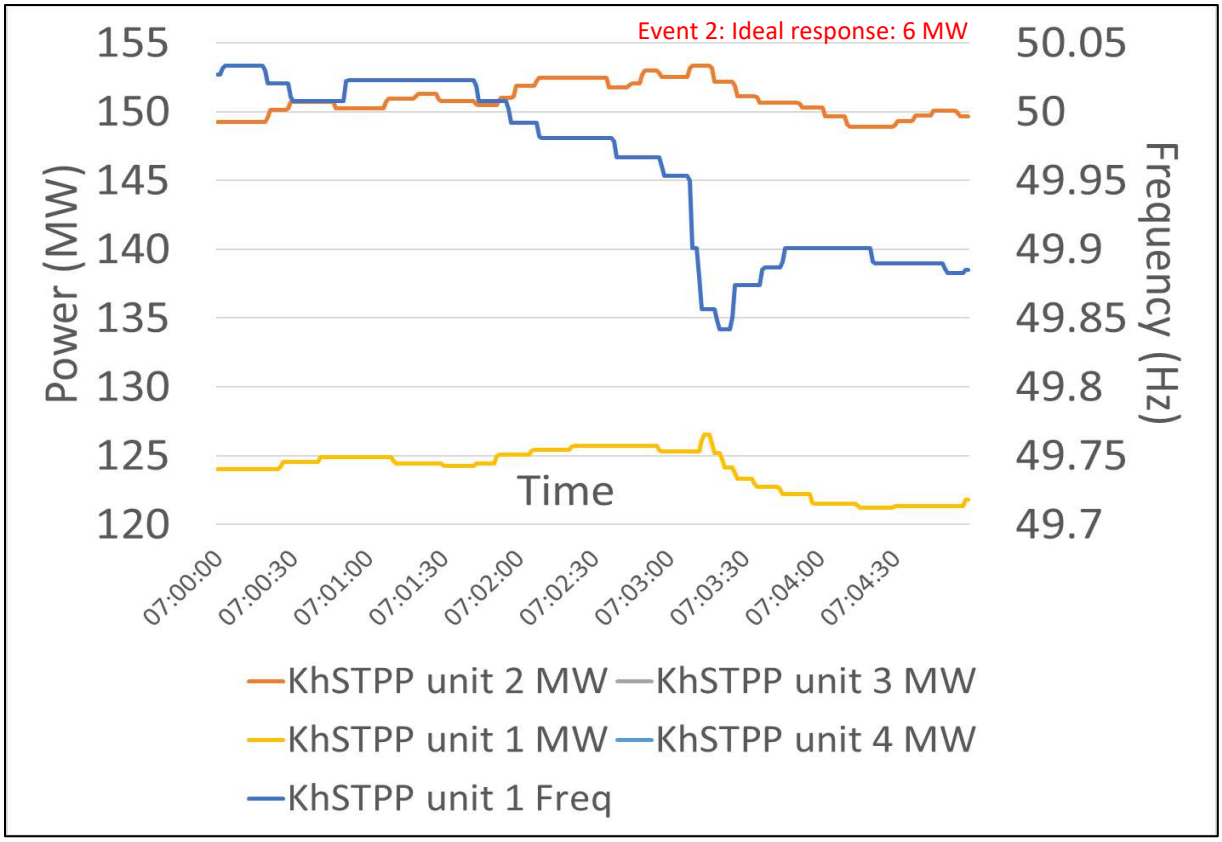

BRBCL unit 1
BRBCL unit 2
BRBCL unit 3
BRBCL unit 4
unit 2 speed
Event 2: Ideal response: 6-9 MW
180
170
160
150
140
130
120
Power (MW)
3000
2995
2990
2985
2980
2975
Speed (RPM)
07:00
07:01
07:02
07:03
07:04
Time


GMR Unit#1 gen
GMR Unit#2 gen
Frequency (Hz)
Event 1: Ideal response: 15 MW
Power (MW)
Frequency (Hz)
Time
300
295
290
285
280
275
270
50.08
50.06
50.04
50.02
50.00
49.98
49.96
49.94
49.92
49.90
49.88
13:48:59
13:49:29
13:49:59
13:50:29
13:50:59
13:51:29
13:51:59
13:52:29
13:52:59
13:53:29

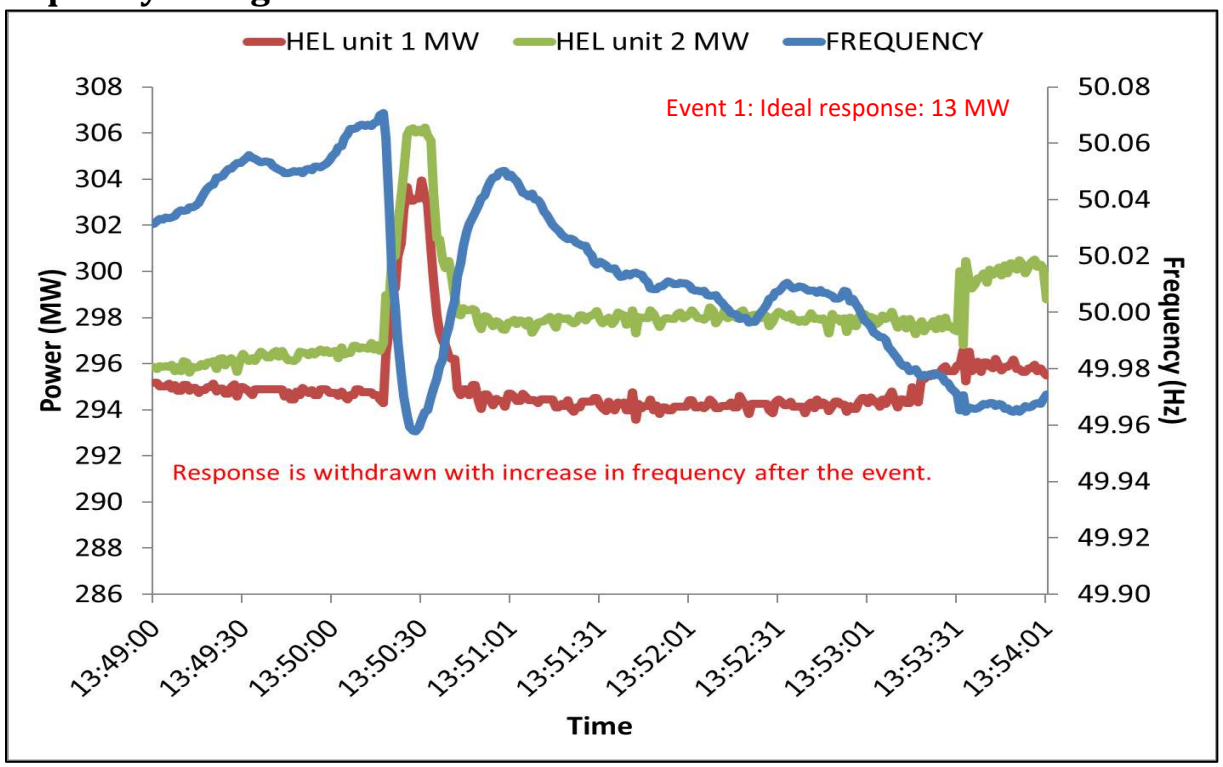

GMR Unit#1 gen
GMR Unit#2 gen
Frequency (Hz)
Event 2: Ideal response: 15 MW
Power (MW)
Frequency (Hz)
Time
305
300
295
290
285
280
275
270
265
260
255
250
50.00
49.95
49.90
49.85
49.80
49.75
07:01:36
07:02:06
07:02:36
07:03:06
07:03:36
07:04:06
07:04:36
07:05:06
07:05:36
07:06:06

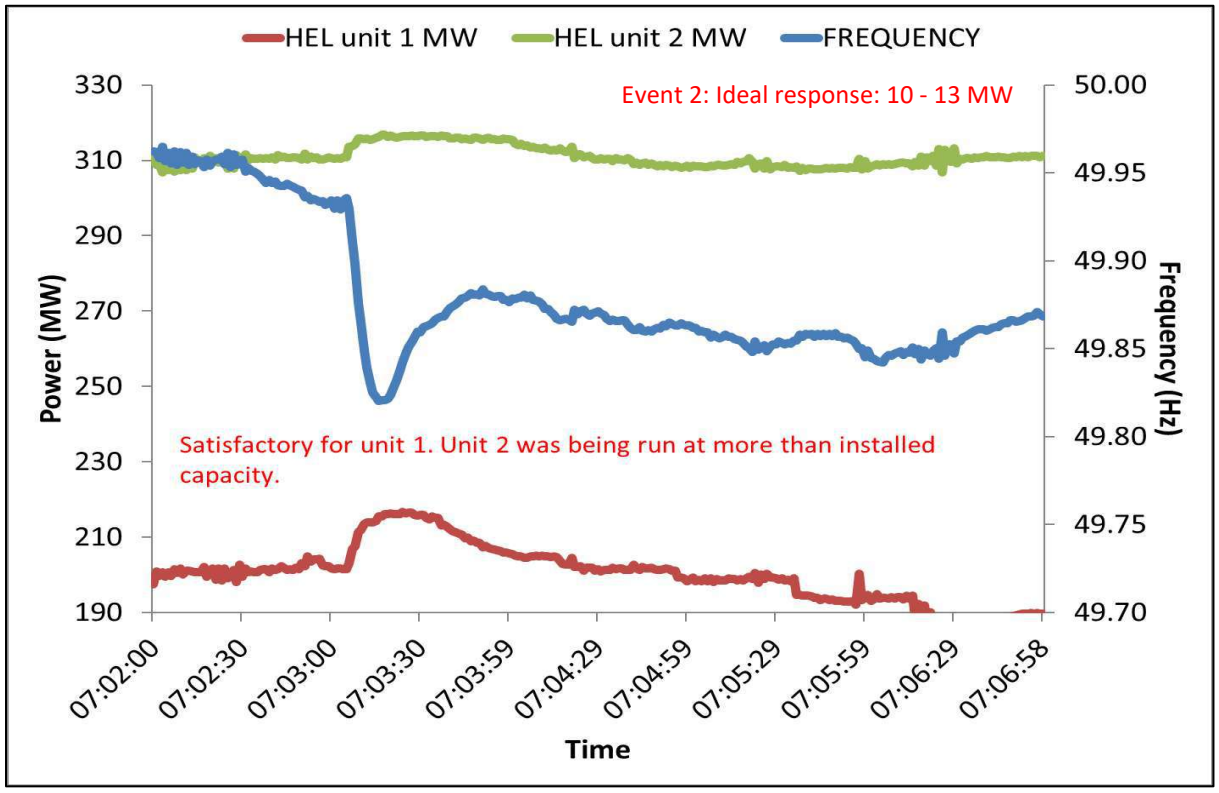

Event 1: Ideal response: 6 MW
Power (MW)
Frequency (Hz)
Time
140
135
130
125
120
115
110
105
100
50.15
50.1
50.05
50
49.95
49.9
01:48:00
01:48:30
01:49:00
01:49:30
01:50:00
01:50:30
01:51:00
01:51:30
01:52:00
01:52:30
KhSTPP unit 2 MW
KhSTPP unit 3 MW
KhSTPP unit 1 MW
KhSTPP unit 4 MW
KhSTPP unit 1 Freq

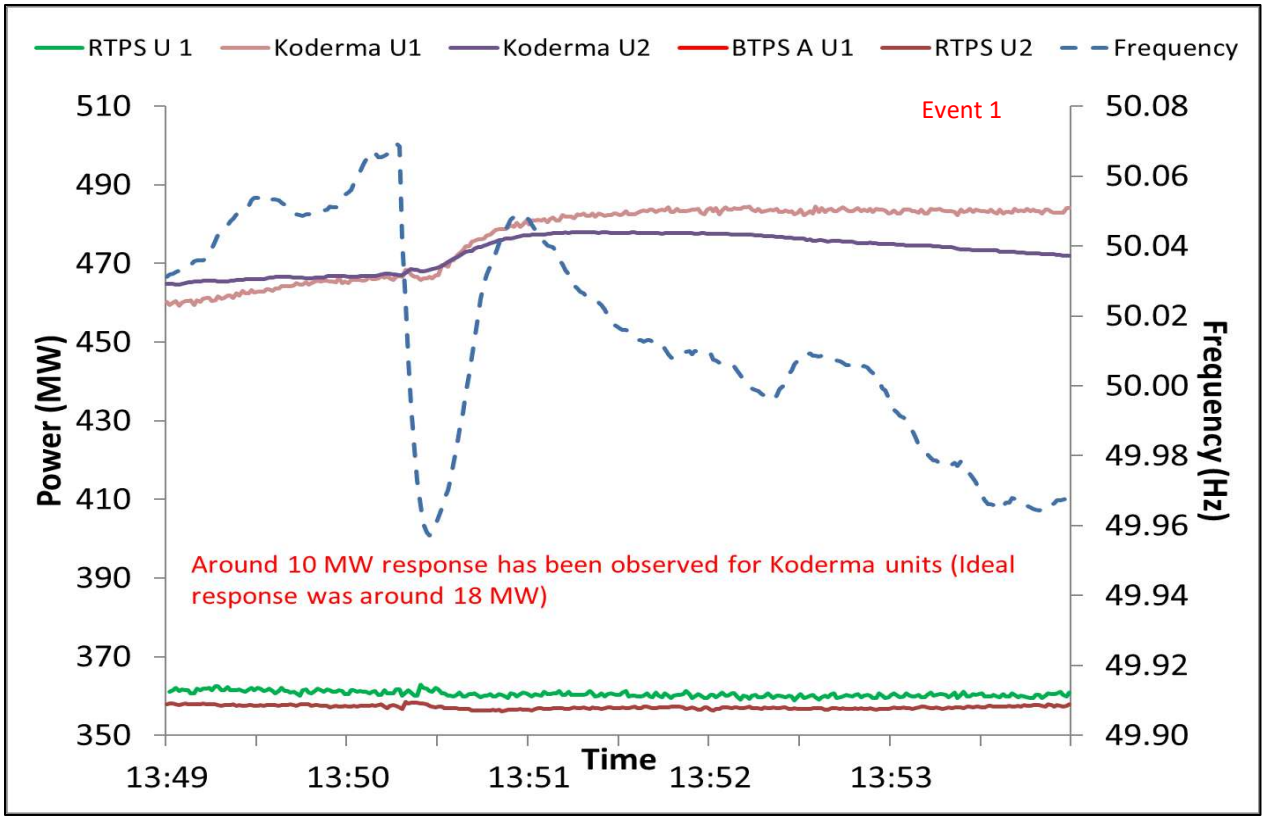

KhSTPP #5 MW
KhSTPP #6 MW
KhSTPP #7 MW
Unit 5 speed
Unit 6 speed
Unit 7 speed
Event 2: Ideal response: 12 MW
Power (MW)
Speed (RPM)
Time
310
305
300
295
290
285
280
275
270
265
3008.00
3006.00
3004.00
3002.00
3000.00
2998.00
2996.00
2994.00
2992.00
2990.00
2988.00
2986.00
13:51:28
13:51:58
13:52:28
13:52:58
13:53:28
13:53:58
13:54:28
13:54:58
13:55:28
13:55:58

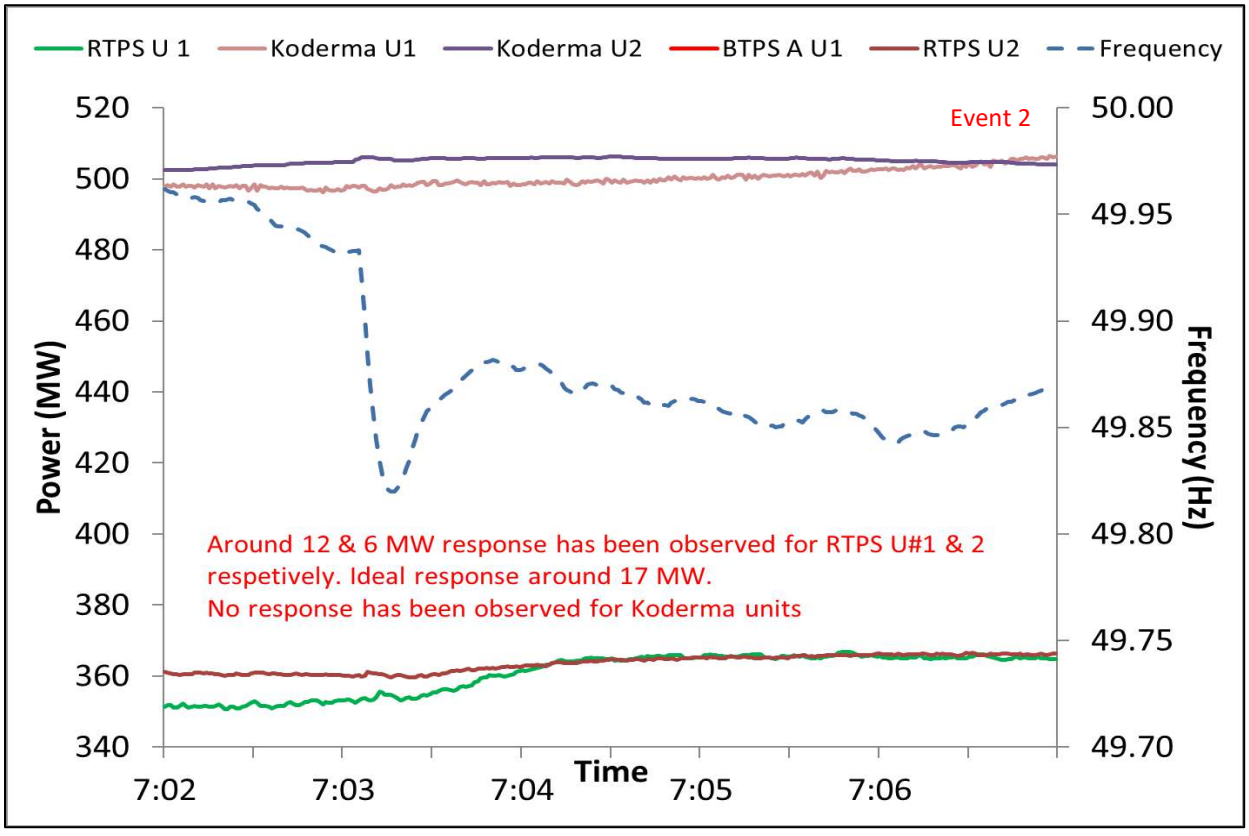

Event 2: Ideal response: 6 MW
155
150
145
140
135
130
125
120
Power (MW)
50.05
50
49.95
49.9
49.85
49.8
49.75
49.7
Frequency (Hz)
Time
07:00:00
07:00:30
07:01:00
07:01:30
07:02:00
07:02:30
07:03:00
07:03:30
07:04:00
07:04:30
KhSTPP unit 2 MW
KhSTPP unit 3 MW
KhSTPP unit 1 MW
KhSTPP unit 4 MW
KhSTPP unit 1 Freq

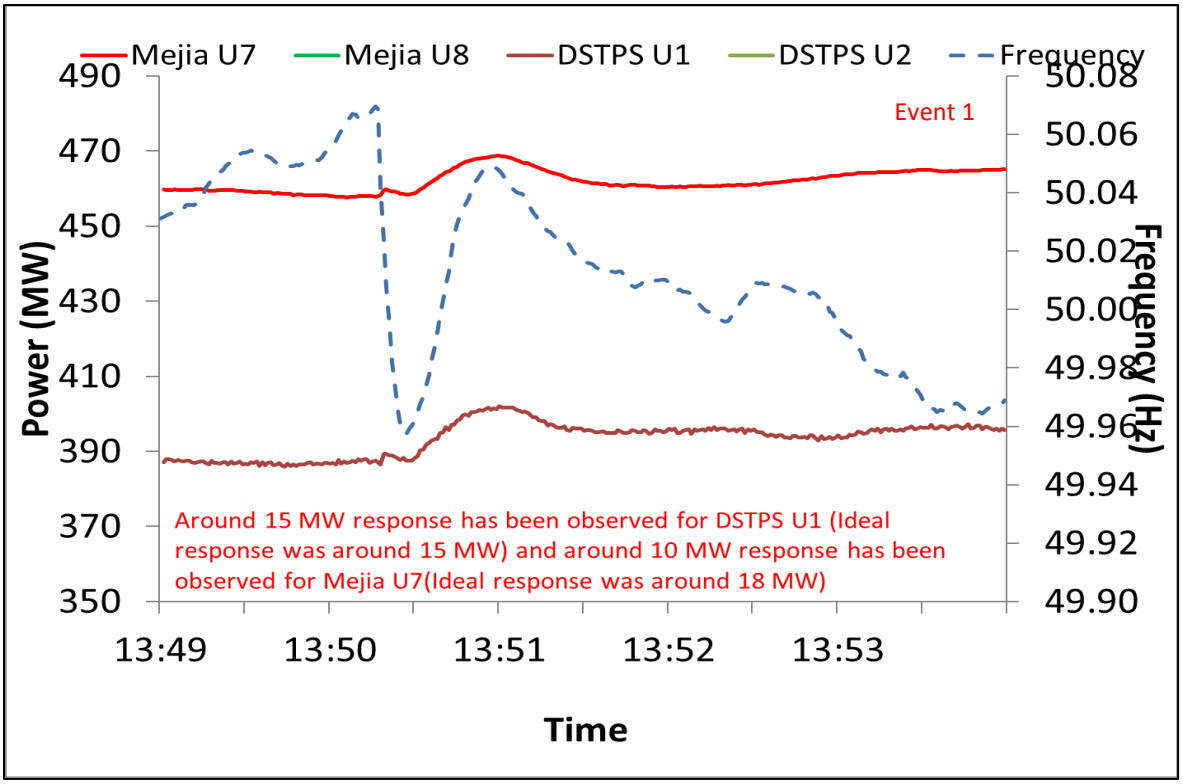
Annexure 2: Variation of generation of state generating stations during frequency change

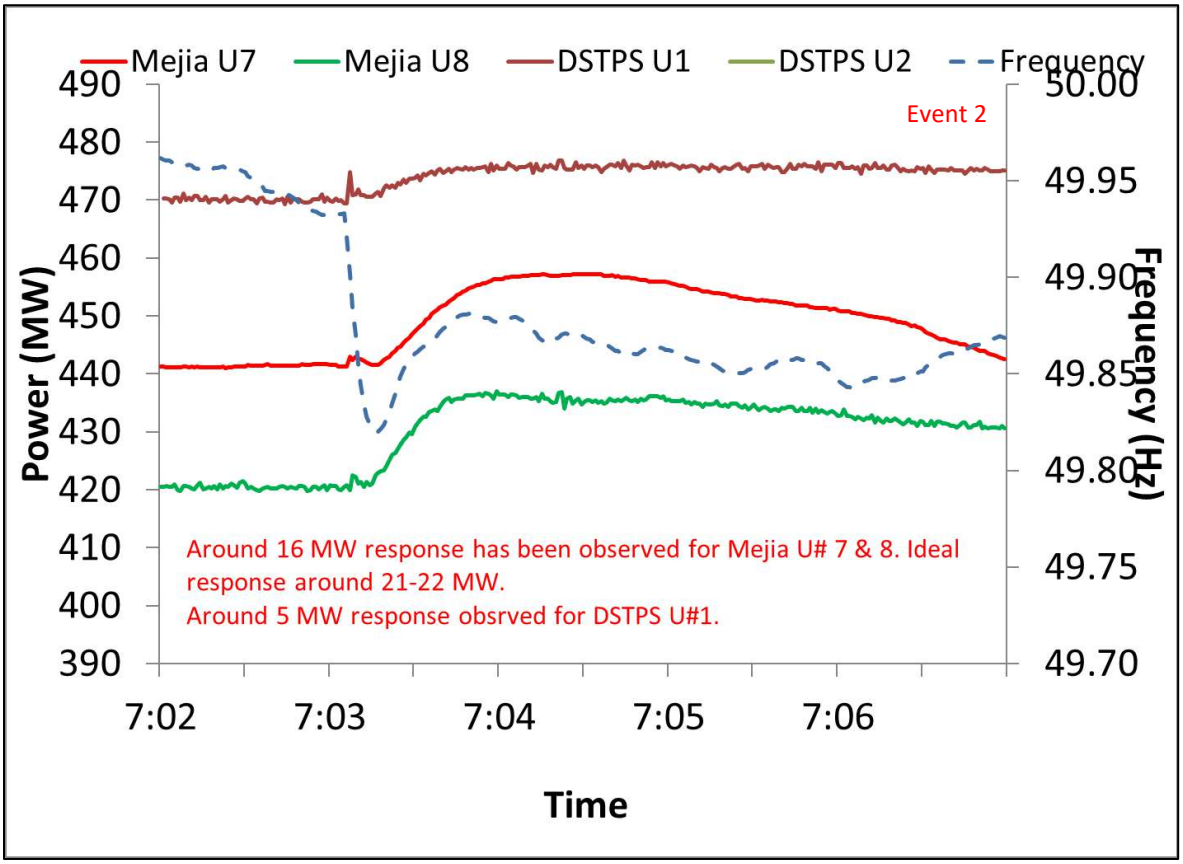


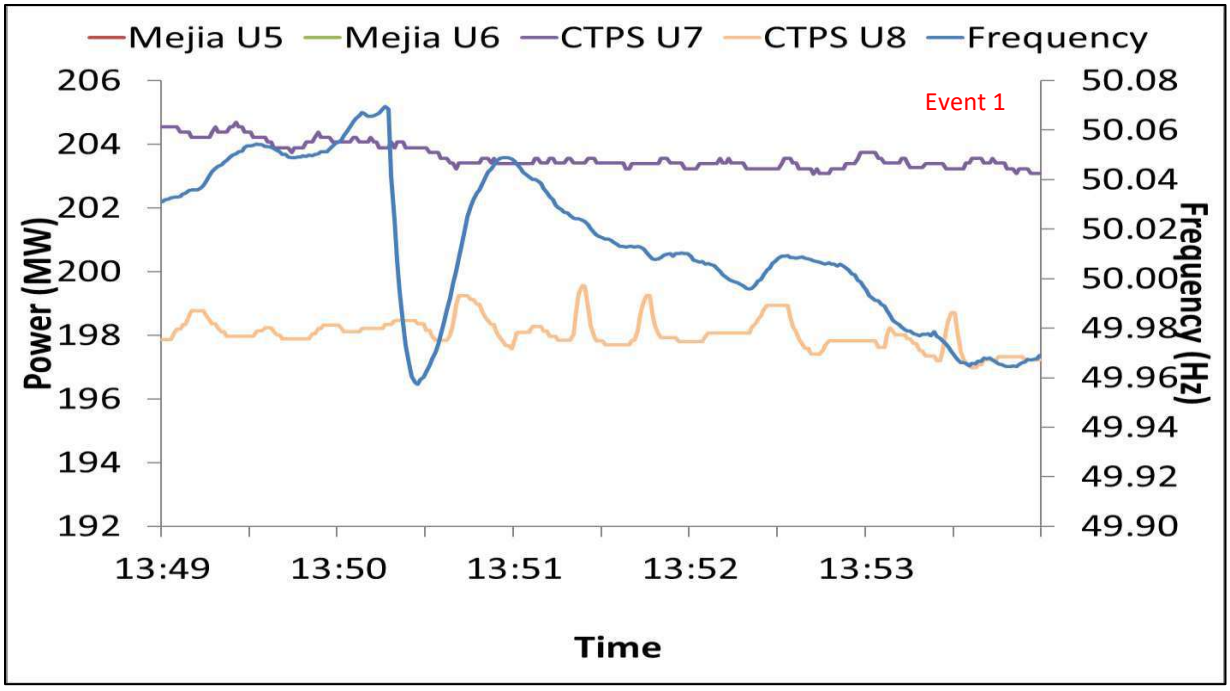


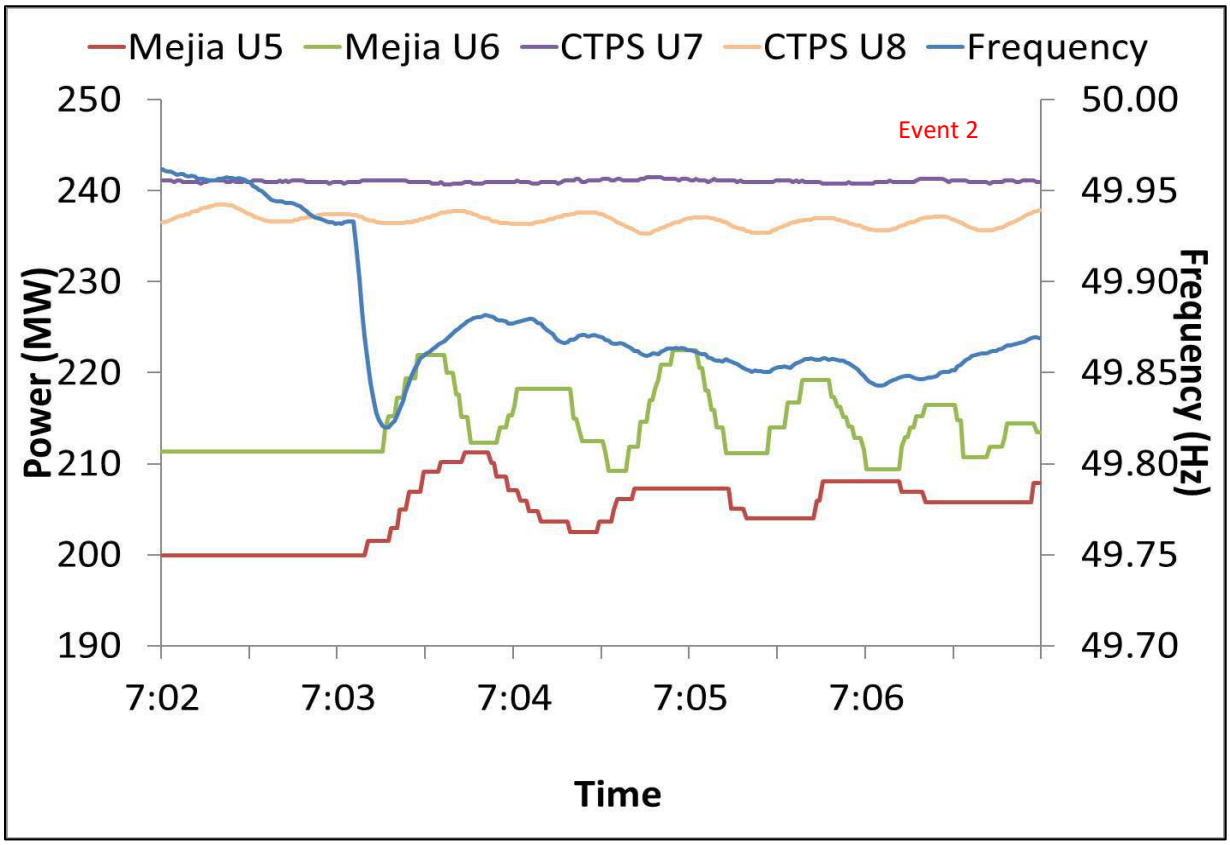

RTPS U 1
Koderma U1
Koderma U2
BTPS A U1
RTPS U2
Frequency
Event 1
Power (MW)
Frequency (Hz)
Time
510
490
470
450
430
410
390
370
350
50.08
50.06
50.04
50.02
50.00
49.98
49.96
49.94
49.92
49.90
13:49
13:50
13:51
13:52
13:53
Around 10 MW response has been observed for Koderma units (Ideal response was around 18 MW)

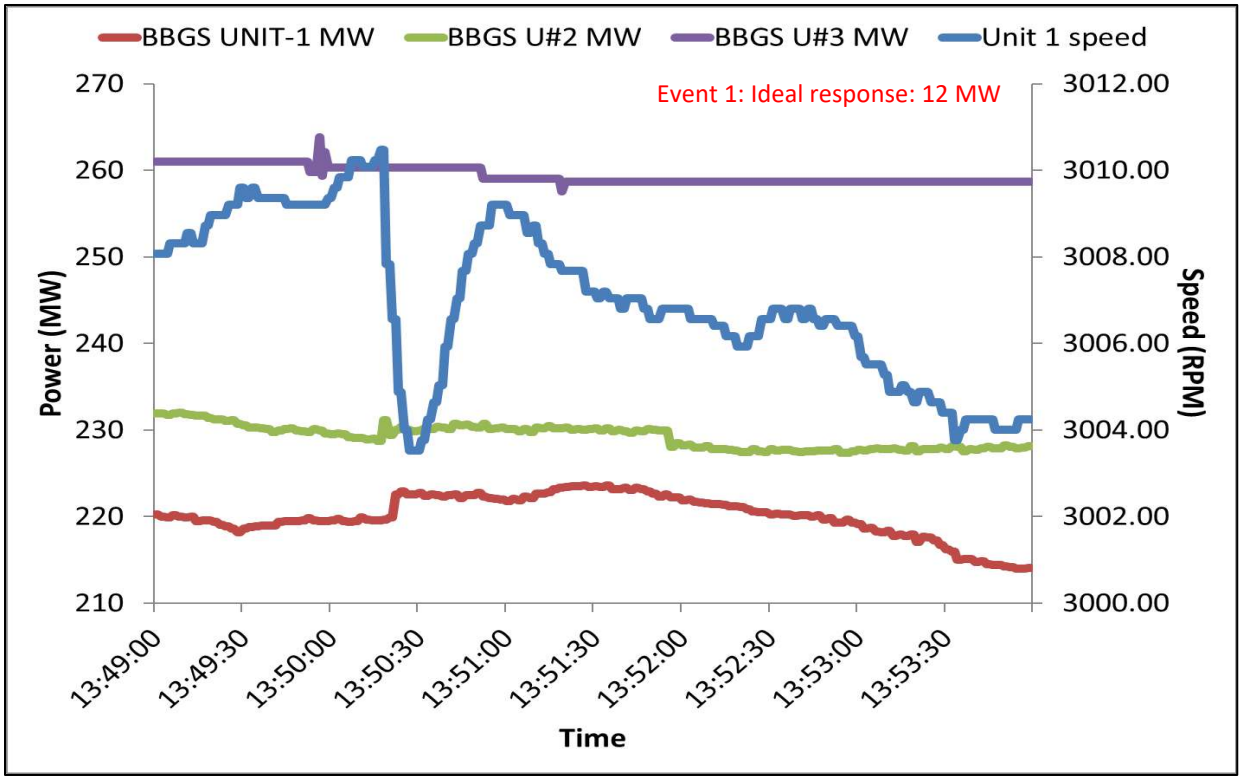

RTPS U 1
Koderma U1
Koderma U2
BTPS A U1
RTPS U2
Frequency
Event 2
Power (MW)
Frequency (Hz)
Time
520
500
480
460
440
420
400
380
360
340
50.00
49.95
49.90
49.85
49.80
49.75
49.70
7:02
7:03
7:04
7:05
7:06
Around 12 & 6 MW response has been observed for RTPS U#1 & 2 respetively. Ideal response around 17 MW.
No response has been observed for Koderma units

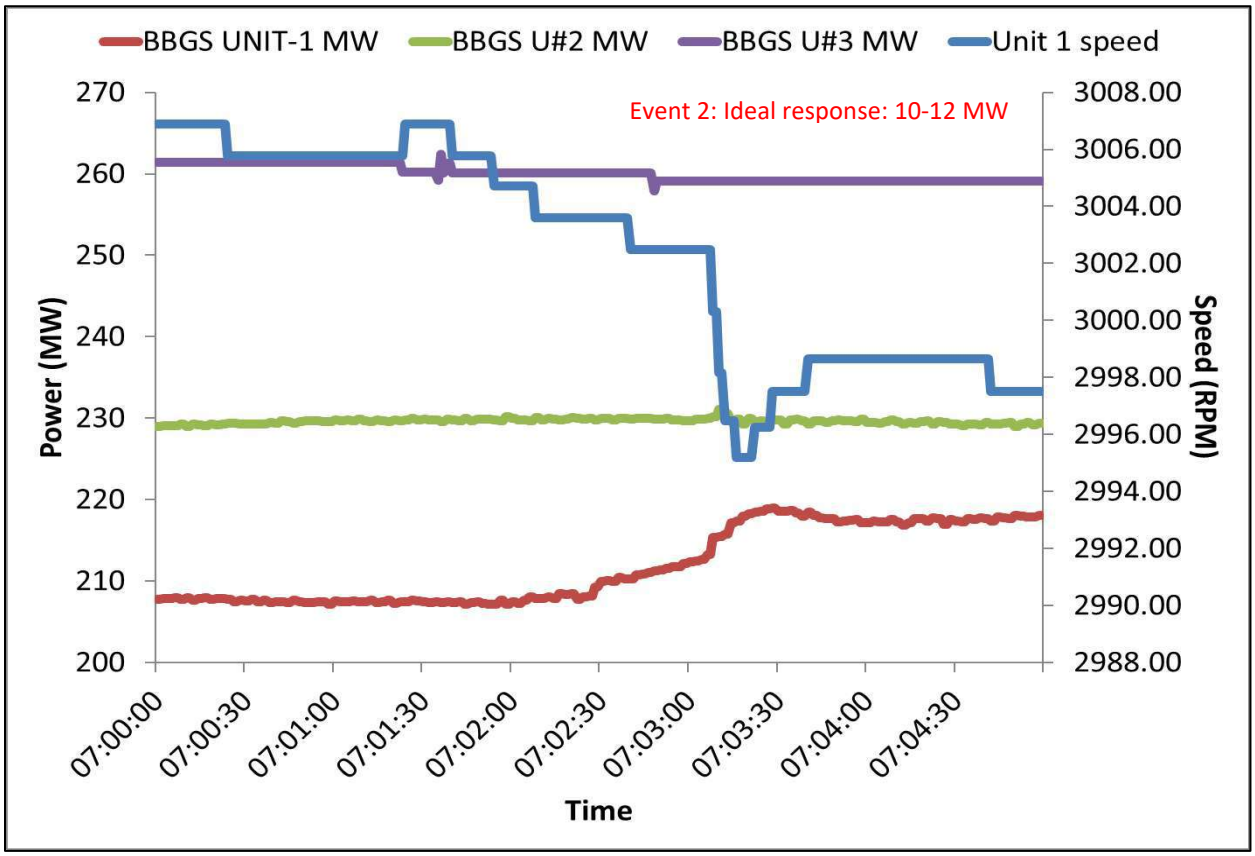

Mejia U7
Mejia U8
DSTPS U1
DSTPS U2
Frequency
Event 1
Power (MW)
Frequency (Hz)
490
470
450
430
410
390
370
350
50.08
50.06
50.04
50.02
50.00
49.98
49.96
49.94
49.92
49.90
13:49
13:50
13:51
13:52
13:53
Time
Around 15 MW response has been observed for DSTPS U1 (Ideal response was around 15 MW) and around 10 MW response has been observed for Mejia U7(Ideal response was around 18 MW)

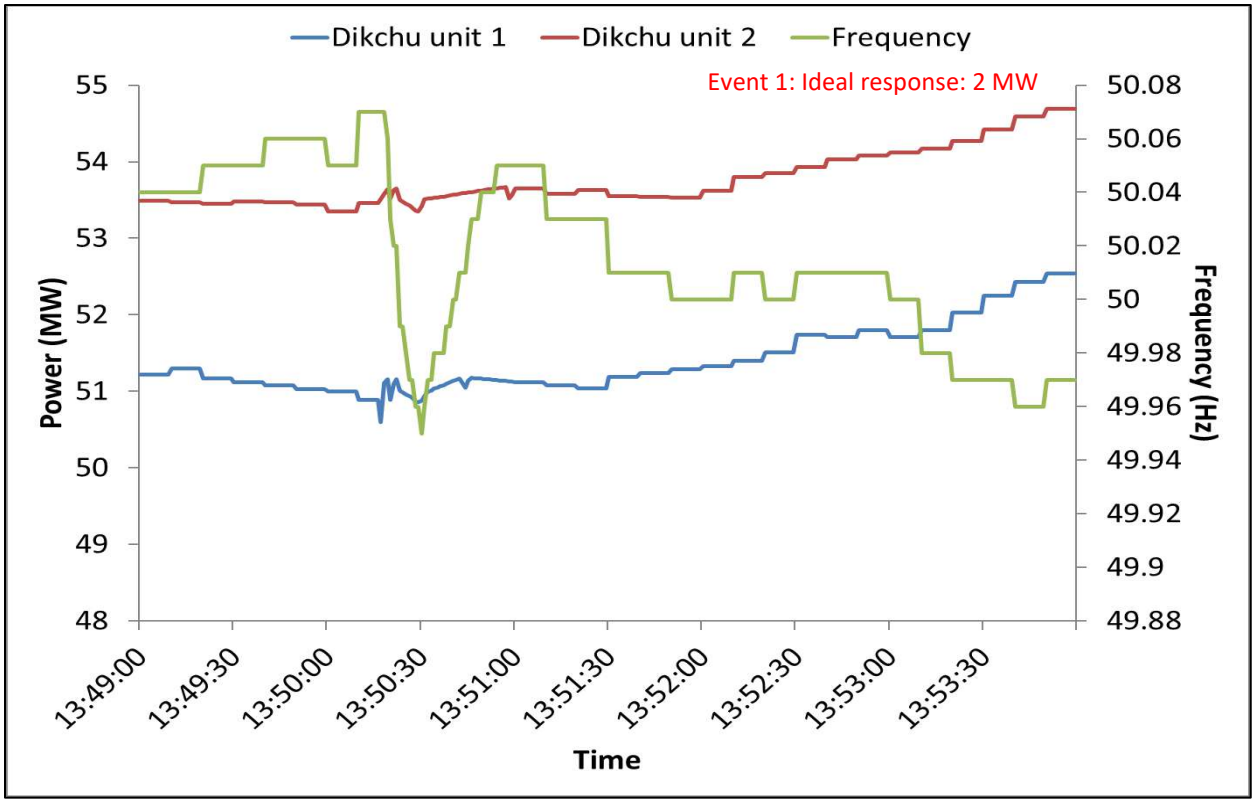

Mejia U7
Mejia U8
DSTPS U1
DSTPS U2
Frequency
Event 2
Power (MW)
Frequency (Hz)
490
480
470
460
450
440
430
420
410
400
390
50.00
49.95
49.90
49.85
49.80
49.75
49.70
7:02
7:03
7:04
7:05
7:06
Time
Around 16 MW response has been observed for Mejia U# 7 & 8. Ideal response around 21-22 MW.
Around 5 MW response obsrved for DSTPS U#1.

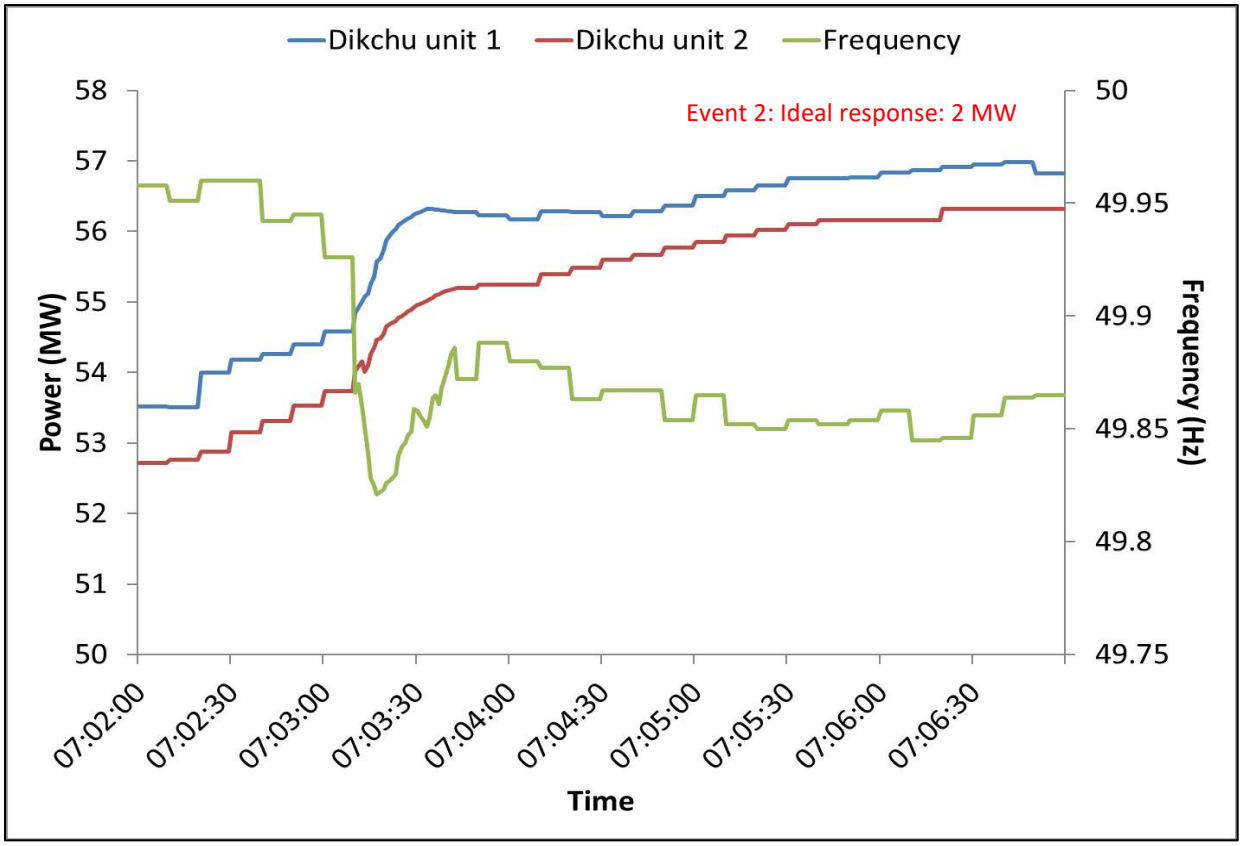

Mejia U5
Mejia U6
CTPS U7
CTPS U8
Frequency
Event 1
206
204
202
200
198
196
194
192
50.08
50.06
50.04
50.02
50.00
49.98
49.96
49.94
49.92
49.90
Power (MW)
Frequency (Hz)
13:49
13:50
13:51
13:52
13:53
Time


Mejia U5
Mejia U6
CTPS U7
CTPS U8
Frequency
Event 2
250
240
230
220
210
200
190
50.00
49.95
49.90
49.85
49.80
49.75
49.70
Power (MW)
Frequency (Hz)
7:02
7:03
7:04
7:05
7:06
Time


BBGS UNIT-1 MW
BBGS U#2 MW
BBGS U#3 MW
Unit 1 speed
Event 1: Ideal response: 12 MW
Power (MW)
Speed (RPM)
Time
270
260
250
240
230
220
210
3012.00
3010.00
3008.00
3006.00
3004.00
3002.00
3000.00
13:49:00
13:49:30
13:50:00
13:50:30
13:51:00
13:51:30
13:52:00
13:52:30
13:53:00
13:53:30


BBGS UNIT-1 MW
BBGS U#2 MW
BBGS U#3 MW
Unit 1 speed
Event 2: Ideal response: 10-12 MW
Power (MW)
Speed (RPM)
Time
270
260
250
240
230
220
210
200
3008.00
3006.00
3004.00
3002.00
3000.00
2998.00
2996.00
2994.00
2992.00
2990.00
2988.00
07:00:00
07:00:30
07:01:00
07:01:30
07:02:00
07:02:30
07:03:00
07:03:30
07:04:00
07:04:30


Dikchu unit 1
Dikchu unit 2
Frequency
Event 1: Ideal response: 2 MW
Power (MW)
Frequency (Hz)
Time
55
54
53
52
51
50
49
48
50.08
50.06
50.04
50.02
50
49.98
49.96
49.94
49.92
49.9
49.88
13:49:00
13:49:30
13:50:00
13:50:30
13:51:00
13:51:30
13:52:00
13:52:30
13:53:00
13:53:30


Dikchu unit 1
Dikchu unit 2
Frequency
Event 2: Ideal response: 2 MW
Power (MW)
Frequency (Hz)
Time
58
57
56
55
54
53
52
51
50
50
49.95
49.9
49.85
49.8
49.75
07:02:00
07:02:30
07:03:00
07:03:30
07:04:00
07:04:30
07:05:00
07:05:30
07:06:00
07:06:30

Annexure 3: FRC shared by DVC SLDC

Event 1:

S No	Pariculars	Dimension	DVC Interchange
1	Actual Net Interchange before the Event (13:50:20)	MW	-1573
2	Actual Net Interchange after the Event (13:51:30)	MW	-1640
3	Change in Net Interchange (2 - 1)	MW	-67.0
4	Generation Loss (+) / Load Throw off (-) during the Event	MW	0.0
5	Control Area Response (3 - 4)	MW	-67.0
6	Frequency before the Event	HZ	50.07
7	Frequency after the Event	HZ	50.03
8a	Change in Frequency (7 - 6)	HZ	-0.043
8	Effective change in Frequency considering RGMO *	HZ	-0.043
9	Frequency Response Characteristic (5 / 8)	MW/HZ	1569
10	Net System Demand met before the Event	MW	2420
11	Internal Generation before the Event (10 - 1)	MW	3993
12	Ideal load response assuming 4% per Hz (0.04*Row 10)	MW/Hz	96.8
13	Ideal generator response assuming 5% droop…….40% per Hz (40% of Row 11)	MW/Hz	1597.1
14	Composite ideal response (12 + 13)	MW/Hz	1693.9
15	Percentage of ideal response {(9/14)x100}	%	92.6%

Event 2:

S No	Pariculars	Dimension	DVC Interchange
1	Actual Net Interchange before the Event (07:03:10)	MW	-1817
2	Actual Net Interchange after the Event (07:03:50)	MW	-1859
3	Change in Net Interchange (2 - 1)	MW	-42.3
4	Generation Loss (+) / Load Throw off (-) during the Event	MW	0.0
5	Control Area Response (3 - 4)	MW	-42.3
6	Frequency before the Event	HZ	49.93
7	Frequency after the Event	HZ	49.86
8a	Change in Frequency (7 - 6)	HZ	-0.076
8	Effective change in Frequency considering RGMO *	HZ	-0.076
9	Frequency Response Characteristic (5 / 8)	MW/HZ	555
10	Net System Demand met before the Event	MW	2730
11	Internal Generation before the Event (10 - 1)	MW	4547
12	Ideal load response assuming 4% per Hz (0.04*Row 10)	MW/Hz	109.2
13	Ideal generator response assuming 5% droop…….40% per Hz (40% of Row 11)	MW/Hz	1818.7
14	Composite ideal response (12 + 13)	MW/Hz	1927.9
15	Percentage of ideal response {(9/14)x100}	%	28.8%

Annexure 4: FRC shared by GRIDCO SLDC

Event 1:

Frequency Response Characteristic Calculation in GRIDCO control area										
On 22nd July 2020 at 12:49:18.800 hrs, 1402 MW solar generation loss at Bhadla in NR										
S No	Paricular s	Dimension	Balimela	Burla	Rengali	Indravati	Upper Kolab	IBTPS	IBTPS Stage 2	GRIDCO Interchange
1	Actual Net Interchange before the Event (13:51:10)	MW	-49	-47	-199	0	-40	-283	-624	505
2	Actual Net Interchange after the Event (13:54:00)	MW	-53	-47	-199	0	-40	-280	-624	531
3	Change in Net Interchange (2 - 1)	MW	-3.2	0.1	0.4	0.0	-0.1	3.2	0.0	25.5
4	Generation Loss (+) / Load Throw off (-) during the Event	MW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Control Area Response (3 - 4)	MW	-3.2	0.1	0.4	0.0	-0.1	3.2	0.0	25.5
6	Frequency before the Event	HZ	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99
7	Frequency after the Event	HZ	49.94	49.94	49.94	49.94	49.94	49.94	49.94	49.94
8a	Change in Frequency (7 - 6)	HZ	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.050
8	Effective change in Frequency considering RGMO *	HZ	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.050
9	Frequency Response Characteristic (5 / 8)	MW/HZ	64	-2	-9	0	2	-64	0	-509
10	Net System Demand met before the Event	MW	0	0	0	0	0	0	0	3257
11	Internal Generation before the Event (10 - 1)	MW	49	47	199	0	40	283	624	2752
12	Ideal load response assuming 4% per Hz (0.04*Row 10)	MW/Hz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	130.3
13	Ideal generator response assuming 5% droop.....40% per Hz (40% of Row 11)	MW/Hz	19.7	18.8	79.7	0.0	16.1	113.2	249.5	1100.7
14	Composite ideal response (12 + 13)	MW/Hz	19.7	18.8	79.7	0.0	16.1	113.2	249.5	1231.0
15	Percentage of ideal response {(9/14)x100}	%	322.1%	-8.5%	-11.0%	0.0%	13.7%	-56.4%	0.2%	-41.4%

As per ERLDC SCADA data, FRC of GRIDCO was 144% of ideal response. GRIDCO may review FRC calculation process.

Event 2:

Frequency Response Characteristic Calculation in GRIDCO control area										
On 13th August 2020 at 07:03:05:480 hrs, 1200 MW wind generation loss occurred at Jhakri, Karcham and Rampur in NR. It led to the frequency drop from 49.93 Hz to 49.82 Hz at nadir point										
S No	Paricular s	Dimension	Balimela	Burla	Rengali	Indravati	Upper Kolab	IBTPS	IBTPS Stage 2	GRIDCO Interchange
1	Actual Net Interchange before the Event (07:02:50)	MW	-193	-61	-155	0	-145	-307	-592	549
2	Actual Net Interchange after the Event (07:03:30)	MW	-201	-61	-154	0	-145	-304	-589	566
3	Change in Net Interchange (2 - 1)	MW	-8.0	0.4	0.3	0.0	0.2	3.1	2.9	16.8
4	Generation Loss (+) / Load Throw off (-) during the Event	MW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Control Area Response (3 - 4)	MW	-8.0	0.4	0.3	0.0	0.2	3.1	2.9	16.8
6	Frequency before the Event	HZ	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99
7	Frequency after the Event	HZ	49.86	49.86	49.86	49.86	49.86	49.86	49.86	49.86
8a	Change in Frequency (7 - 6)	HZ	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.130
8	Effective change in Frequency considering RGMO *	HZ	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.13	-0.130
9	Frequency Response Characteristic (5 / 8)	MW/HZ	62	-3	-3	0	-2	-24	-22	-130
10	Net System Demand met before the Event	MW	0	0	0	0	0	0	0	3536
11	Internal Generation before the Event (10 - 1)	MW	193	61	155	0	145	307	592	2987
12	Ideal load response assuming 4% per Hz (0.04*Row 10)	MW/Hz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	141.4
13	Ideal generator response assuming 5% droop.....40% per Hz (40% of Row 11)	MW/Hz	77.1	24.4	61.8	0.0	58.1	122.8	236.7	1194.8
14	Composite ideal response (12 + 13)	MW/Hz	77.1	24.4	61.8	0.0	58.1	122.8	236.7	1336.2
15	Percentage of ideal response {(9/14)x100}	%	80.2%	-11.3%	-4.4%	0.0%	-3.0%	-19.2%	-9.3%	-9.7%

As per ERLDC SCADA data, FRC of GRIDCO was 32% of ideal response. GRIDCO may review FRC calculation process.

MoM of Meeting to Discuss the Governor Response of State Control Area Generating units and Frequency Response Characteristics of SLDC in Eastern Region on 31st Aug 2020

A meeting to discuss and deliberate on the performance of governor response of generator within state control area of Eastern regions and IPPs generating power plants of the Eastern Region, was organized by ERPC in coordination with ERLDC on 31st Aug 2020. The meeting started with a welcome address by ERPC and ERLDC in which the importance of frequency control and compliance of the relevant regulatory stipulations by the generators was highlighted. Further, the governor testing to check primary response which has to be completed for all generators mandated to provide frequency response was also briefed to participants. This was followed by the initiation of discussions on the subject matter by Manager (SS), ERLDC where he focussed on the issues and concerns of system operators on the performance of state control area generators for the event of sudden frequency change, that occurred during the months of May – August 2020.

After this, ERLDC took up the performance of each State control area generating plant for the six frequency events which occurred from May – August 2020. and based on the MoM of the last Meeting on RGMO held on 31st Jan 2019. The summary of the discussions with generators is provided in the attached table.

In addition to the above, a few other issues were also deliberated during the meeting which is as follows:

1. Generators were advised to improve their RGMO logic and its fine-tuning to detect sudden frequency change beyond 0.03 Hz, maintaining the Frequency Response for at least 5 minutes thereafter, and subsequent withdrawal of response with a rate of 1% per minute.
2. It was strictly advised to all the generating plants not to operate their units in Valve Wide open (VWO) mode as this reduces the margin for primary frequency response from the generators.
3. From the DCS data received from many generating stations, it is observed that the response variables (plant output MW and speed (RPM)/Frequency (Hz)) is not updating as expected due to improper setting in the DCS system. It was decided that all generating plants would explore all possibilities for providing DCS data of better resolution and accuracy by changing the logic implemented for the update of data in their DCS system.
4. For all future frequency events, after receiving intimation from ERLDC, all generating plants will collect their DCS data, analyze their Units' response, calculate the % response and find out the reason for any inadequate response. The analysis will also be submitted to ERLDC.

5. Generators which were running on overloaded condition were advised that primary frequency margin is mandatory to be kept in view frequency control and suitable action may kindly be taken by respective SLDC and generators.
6. RGMO cannot be made out by the generating plants without providing adequate information to respective SLDC and RLDC in lien with IEGC along with possible restoration time with adequate justification.

The meeting ended with a vote of thanks from ERPC and all generators assured to take corrective action as discussed during this meeting. ERLDC's presentation is given in Annexure I. Presentation by Respective generating plants are attached as Annexure-II.

Table 1: Generator Primary Frequency Response and Meeting Discussion

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
West Bengal			
Budge Budge 1 & 2	Units are under FGMO with Manual intervention. However, units are generating above its full capacity for catering to the utility load. **CESC was advised that as per IEGC, the margin for primary response has to be kept in the units.**	• Units are run in overload condition to supply Kolkata city load during morning peak hours so during the events in the morning hours response is not observed. • The Governor valve is being kept in throttle operation most of the time for the last 7 days. • Coal quality also impacts the VWO that's why coal blending has been improved to reduce such issues. • ROCOF has been calculated for various events it is observed that for the most prominent event it is more than 0.01 Hz/sec.	ERLDC intimated CESC that VWO operation has to be avoided and units should not be run in the overloaded condition so that the primary frequency margin is not being utilised for grid reliability.
Budge Budge 3	CESC informed that there was an error in the RGMO logic, which has been corrected and further fine-tuning is required. **CESC intimated that fine-tuning of RGMO logic would be done with OEM during next overhauling**	Same as Unit 1 & 2	• DCS data for unit 3 needs to be improved and higher resolution data is required for analysis. The same may kindly be explored by CESC while submitting the data to ERLDC/ERPC. • On VWO and Overload operation: Same as above for Unit 1 & 2.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
HEL Unit 1 & 2	Overall Response was good adequate and sustaining.	• HEL shared their performance for various events and it was found to be quite satisfactory and most of the occasions providing 100 % or above the ideal response.	**Experience shared by HEL on how they have achieved good performance :** • The throttle pressure is maintained so to provide the higher gain to governor response during frequency events. • The boiler is run rated pressure mode rather than in sliding pressure mode and helped in providing a better response. • Even at 60 % load, they are maintaining the rated pressure which is helping in response and helping in the overall efficiency of the plants.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
Kolaghat 1, 2, 3, 4 ,5 & 6	All units of Kolaghat are having Hydro-mechanical governor and so cannot be run in RGMO. It was informed that all the units are kept in FGMO with Manual intervention. WBPDCL was advised that CERC hasn't exempted any generator from FGMO/RGMO. Manual intervention is for LMZ units and for units that cannot be run with RGMO, they can opt for FGMO.	• It was intimated to them that they have to take exemption from CERC on this subject. The Governor's response is not proper. KTPS intimated that the hydraulic governor cannot operate in FGMO. • R&M activities have been planned for the EHG system for Unit 5 & 6 and its CAPEX approval is taken. R & M activities will be planned accordingly for replacement. • WBPDCL corporate office to inform the R&M activities plan to ERLDC/ERPC.	• It was intimated to KTPS that they should adopt free governor mode of operation (FGMO) if RGMO is not there. ERLDC informed WBPDCL that the Hydraulic governor can run directly in FGMO however KTPS is not running that and thus violating the CERC regulation. • KTPS to detect large frequency fall and provide FGMO with manual intervention as an intermediary mode. KTPS should prepare a frequency rise/fall detection tool to respond to such events. • WBPDCL Corporate office to provide the details of complete R&M activities.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
Sagardighi 1,2,3,4	WBPDCL will analyze the reason for no response and submit the same along with an action plan to ERLDC/ERPC by 4th Feb 2019.	• In some occasions, Unit 1, 3 & 4 are generating above its capacities and not leaving a margin for primary frequency response to non-performance. **It was informed that this is a non-compliance of IGEC for frequency response and is to be avoided all the time and WBPDCL & West Bengal SLDC have to look into this matter and take appropriate action to maintain the primary frequency reserve margin.** • Unit 1 is providing response but it is getting withdrawn within the next 10 seconds and not sustaining at all. It should be properly tuned so that after response, it is withdrawn at 1 % ramp rate. • Units should not be running in VWO operation and a proper pressure margin is to be kept to provide a response. **At the lower generation, the response is delayed which may be due to non-maintenance of throttle pressure and VWO operation.**	• DCS system replacement status to be shared by WBPDCL. • Fine Tuning of RGMO will be completed by Nov 2020 for all the units. • The boiler control loop will be tuned to maintain pressure for providing frequency response. WBPDCL has intimated that they will not run in VWO mode as well not over generate above its capacities. **WBPDCL and Sagardighi can take the help of DVC and HEL whose performance is way better than any other unit.**

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
Bakreswar 1,2,3,4,5	For Unit 1, 2, 3 and 4 RGMO has been kept in service. While due to the Boiler issue, the RGMO of Unit 5 has been kept out of service. WBPDCL will analyze the reason for no response and submit the same along with an action plan to ERLDC/ERPC by 4th Feb 2019. The DCS system will be replaced in 2020-21 (Unit#2), 2023-24 (unit#1), 2022-23 (Unit#3).	• Bakreswar shared their performance details via email. • It is observed that response is there however it is instantaneous most of the time and not adequate. • This indicates the VWO mode operation.	• WBPDCL and Bakreswar can take help of DVC and HEL whose performance is way better than any other units.
Santaldih 5 & 6	RGMO is kept out of service. RGMO for unit 6 can be taken in service while for unit 5 it will be decided after unit overhauling. WBPDCL will inform ERLDC/ERPC regarding the action plan by 4th Feb 2019.	Units are kept in FGMO mode since April 2020. Presently response is restricted now to 5 MW and will be subsequently increased to 7.5 MW, 10 MW, and then 12.5 MW up to December 2020.	**STPS was advised to ensure full response up to its capability in line with IEGC.**
Bandel Unit 5	The vibration issue was being faced in the turbine.	• The turbine has tripped on 23 occasions due to vibration after its overhauling in Dec 2018. • The governor's response is there however it's not sustaining and its response is quite less (5-15 % of ideal response). • RGMO prepared Logic is if frequency change is more than 0.03 Hz/sec and continues for 1 second then RGMO will activate and provide a sustained response for 3 min and then withdrawn. However, it could not be tested due to unit tripping on the vibration issue. The logic has been tested offline.	• After rectification of the vibration issue, the RGMO logic needs to be implemented in compliance with IEGC and fines tuned for an adequate response. • ERLDC informed WBPDCL to check the RGMO logic for the events shared and how its performance is there so that when the logic is implemented, similar performance is achieved.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
DPL 7, 8	DPL intimated that fine-tuning of RGMO logic is required. DPL will be submitting the action plan by 5/2/19. No Plan was submitted by DPL.	DPL did not Participate in the meeting. WBPDCL has also not shared the details on behalf of DPL. West Bengal SLDC also did not participate during the meeting.	Both DPL and West Bengal SLDC are strictly advised to ensure grid code compliance and share the relevant data and performance of the governor of the units.
PPSP Unit 1-4	No details have been shared by PPSP to ERLDC /ERPC.	PPSP Representative has also not participated in the meeting and no response was shared by West Bengal SLDC. During Meeting ERLDC elaborated that non-sharing of information on frequency response is a direct violation of IEGC by West Bengal SLDC and WBSEDCL.	Both WESEDCL and West Bengal SLDC are strictly advised to ensure grid code compliance and share the relevant data and performance of the governor of the units.
DVC			
Mejia (1, 2 ,3, 4) 4 X 210 MW	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds. The fine-tuning of RGMO is required.	DVC intimated the following : • Mejia Unit 3 also shows an instant response which is immediately withdrawn. Here also Unit governor tuning and maintaining sufficient throttle pressure is required. • Mejia Unit 4 was running with a valve wide open condition. Capital overhauling of the unit is scheduled in November 2020 and it is expected that after overhauling satisfactory response of RGMO will be observed. However, if required further tuning will be done	• DCS data for units 3 & 4 has a low resolution which needs to be improved for governor response analysis. • Both units RGMO logic to be tuned with non-operation in VWO and maintaining the throttle pressure to ensure governor response.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
Mejia A (5 & 6)	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds. The fine-tuning of RGMO is required.	Mejia Unit 5 and 6 are good response (80-100 %) however, the response is cyclical which needs further fine-tuning of logic. DCS data of these units have low resolution and need to be improved to analyze such events and unit performance.	• Both units RGMO logic to be tuned so that cyclical nature response may be avoided. • DCS data for units 5 & 6 has a low resolution which needs to be improved for governor response analysis.
Mejia B (7 & 8) -DVC	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds. The fine-tuning of RGMO is required.	• The performance of both is way better with 50-150 % of the ideal response. During a higher generation near to full load or at lower load its performance is reducing. This is due to the valve getting wide open and non-maintenance of sufficient pressure.	Both units' governor's performance is good. These need continuous assessment and improvement. At a higher load, sufficient pressure is required to be maintained so that there is good response is observed.
Koderma 1 & 2 -DVC	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds. Unit 1: It is operated with the valve wide open due to issues with boiler pressure. Unit 2: Similar to Unit 1 but has been attended during overhauling. Fine-tuning of RGMO logic is required.	• The performance of both is way better with 50-100 % of the ideal response. During a higher generation near to full load, its performance is reducing. This is due to the valve getting wide open at a higher load. • DVC intimated that for both units further tuning of Sliding Pressure Setpoint is in progress for a satisfactory response during various load operations.	DVC to continue monitoring progress and share the lessons learned to all utilities during the next RGMO meeting. Both units are performing well with satisfactory performance.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
Chandrapura B (1 & 2) -DVC	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds. CTPS explained that the inadequate response could be due to several reasons. However, when asked about event wise details and similar issues observed in all DVC units, DVC explained that they will provide the details after internal discussion.	• Data shared by CTPS B do not have a proper resolution so analysis frequency response from the data is difficult. • CTPS has shared that their response is less than 25 % of ideal response on most of the occasion and they will implement the RGMO logic developed for MTPS and DSTPS for their units during the next shutdown to improve the performance.	• CTPS B should try to increase the data resolution in DCS to capture such events. They can check plots shared by other power plants and how better events can be analyzed with high-resolution data. • During the next shutdown, it is not clear whether its AOH or any tripping events. The RGMO logic implementation should be done at earliest.
Bokaro A 500 MW	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds.	Based on submitted details, it is observed 1. When the unit is running above 490 MW, the response is not there. 2. In lower generation response is observed but limited to 35-40 %. DVC intimated that due to full load generation valve was getting wide open causing poor response and they have tuned the sliding pressure curve for that.	The response of the unit should be in line with IEGC even at full load or part load capacity. DVC is advised to tune the governor operation and do not go for VWO operation.
Bokaro B Unit 3 210 MW	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds.	No details were shared during the meeting.	It is suggested that RGMO logic inline with other DVC units may also be implemented here.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
DSTPS Unit 1 & 2	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds.	• The performance of Unit 1 is better with 50-85 % of ideal response. During higher generation near to full load, its performance is reducing. • The performance of Unit 2 is lower with up to 25-50 % of the ideal response. • DVC intimated that for Unit 1 further tuning of Sliding Pressure Setpoint is in progress for a satisfactory response during various load operations. • For unit 2, DVC intimated that its Capital Overhauling is due and its lower response due to the problem of maintaining high MS pressure may be resolved after O/H.	• Units Governor performance has improved significantly and they are providing sustained performance and reduction in line with IEGC as per improved RGMO logic implemented by DVC. For 500 MW units, such performance sets as a good lesson for all BHEL make units for the eastern region. Other generators should use the expertise of DVC. • DVC to continue monitoring progress and share the lessons learned to all utilities during the next RGMO meeting.
RTPS Unit 1 & 2	The response has been observed in units however, it did not sustain and was withdrawn within 10-15 seconds.	• The Governor response in the tune of 10-30 % of ideal response is observed but it's not sustaining. • DVC intimated that tuning of control loops was done but further tuning is required. The units are Chinese units and support of OEM M/s SEC is required.	DVC to fine-tune the governor's response with the support of the vendor. The vendor needs to be explained the RGMO logic along with FGMO so that it can be tuned accordingly.
Waria (DTPS) Unit 4 210 MW	No Response has been observed.	The unit is out of service.	RGMO logic to be implemented when the unit is brought back in service in line with IEGC.
Orissa			

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
Balimela (1-6 : 60 MW, &-8 : 75 MW) **Indravati (4 X 150 MW)** **Upper Kolab (4 x 80 MW)** **Rengali (5 X 50 MW)**	Most of the units have not responded for the events. OHPC intimated that they have kept all the units in FGMO with Manual intervention. The record for manual intervention and response during the events, criteria for manual intervention were not presented during the meeting. OHPC to submit the operational philosophy, Reason for keeping FGMO with manual intervention for all units, Criteria of initiating the manual intervention and proper records of Manual intervention and obtained response to ERLDC/ERPC.	• OHPC intimated that they do not have data recording facilities for units. Units are under FGMO. • Based on data available at ERLDC, the response of units is found to be inadequate. • No data on unit response has been shared during the meeting. OHPC was advised to get the data from their DCS and share the calculated response for units. • Status of unavailability of DCS to be shared with ERLDC/ERPC.	• Orissa SLDC and OHPC have to share the unit wise response for the various events. • OHPC to ensure RGMO implementation on its units or FGMO operation. No controller should restrict the governor's response of the Hydro units during FGMO and it should operate as per its droop. • DCS with data extraction facility at generator sites are a must and needs to be implemented to ensure. • SCADA data of switchyard can also be utilized for unit response and SLDC need to explore that till DCS are in place. • SLDC Orissa to share the performance of Unit wise response using SCADA data available at their end for each unit.
IBTPS 1, 2	RGMO response could not be analyzed due to the absence of data. IBTPS intimated that RGMO is in service. OPGC to submit the details of response for IBTPS units for validating the FGMO operation during the events by 4th Feb 2018.	The poor response has been observed so far. The RGMO needs fine-tuning for better performance in line with IEGC.	OPGC should take the help of DVC and HEL for proper implementation of RGMO on its units at earliest and calculate the Governor's response.

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
IBTPS 3 & 4 (OPGC)	The unit was not COD at the time of the meeting.	The poor response has been observed so far. The RGMO needs fine-tuning for better performance in line with IEGC.	OPGC should take the help of DVC and HEL for proper implementation of RGMO on its units at earliest and calculate the Governor's response.
GMR Unit 3	GMR will fine-tune and improve the logic for detection of frequency event and Response will be analyzed during the next frequency event to find whether any improvement has taken place	RGMO gets automatically disabled Tech min of 55 % which has been rectified by GMR and set at 35 % now. SO, now the RGMO response will be there even if the unit is running at a Technical minimum. Further, for units 1 & 2 Control Logic problem in providing auto-response was there, but now the same has been rectified. One particular valve in HP the turbine was getting stuck. Unit 3 does not have such a problem. So, now the RGMO response will be there even if the unit is running at a Technical minimum.	GMR to update on the performance of Unit 3 during recent events to ERLDC/ERPC. They need to submit Response of Unit 3 along with Unit 1 & 2 to ERLDC as well as SLDC Orissa.
Sterlite Unit 1, 2, 3 and 4 (4 X 600 MW)	No details have been shared.	No representative was present from Sterlite during the meeting.	Orissa SLDC may clarify whether the Sterlite is State generators under IPP or CPP.
Jharkhand			

Generating Power Plants	Mom of 31st Jan 2019	Discussion on 31st Aug 2020	Status on Course of Action and Future work
Tenughat Unit 1 & 2	TTPS intimated that Unit 1 is having a new DCS (Nov'16) so data retrieval is possible as will be submitted. The unit earlier was running at de-rated power (160 MW) due to issues. Presently Unit overhauling has been completed however, it is kept out. Unit 2 is having old DCS and the unit is under RGMO.	During the meeting, SLDC intimated that TTPS is not providing details of RGMO operation and unit performance to SLDC even after so many intimations.	• TTPS is advised not to violate IEGC and adhere to the compliance of RGMO response along with compliance of the sharing of governor response with SDLC and RLDC. • One letter has also been shared by Jharkhand SLDC and the same should be taken in spirit for sharing of details by TTPS.
Subarnrekha 2 X 65 MW	Data not available.	JUSNL to check SCADA data availability and run plant in FGMO mode.	Jharkhand SLDC must ensure SCADA data availability and response monitoring for this plant
Bihar			
Barauni TPS Unit 8 250 MW	No detail was shared.	Bihar SLDC and NTPC to ensure proper RGMO implementation at the plant and share the governor's response with ERLDC.	Bihar SLDC to share the governor's performance for this unit for various events.

ANNEXURE D1

ANTICIPATED POWER SUPPLY POSITION FOR THE MONTH OF OCT-20

SL.NO		PARTICULARS	PEAK DEMAND IN MW	ENERGY IN MU
1		BIHAR		
	i)	NET MAX DEMAND	5515	3125
	ii)	NET POWER AVAILABILITY - Own	300	272
	iii)	Central Sector+Bi-Lateral	4950	2533
	iv)	SURPLUS(+)/DEFICIT(-)	-265	-319
2		JHARKHAND		
	i)	NET MAXIMUM DEMAND	1540	850
	ii)	NET POWER AVAILABILITY - Own Source	450	233
	iii)	Central Sector+Bi-Lateral+IPP	1086	635
	iv)	SURPLUS(+)/DEFICIT(-)	-04	18
3		DVC		
	i)	NET MAXIMUM DEMAND	2945	1920
	ii)	NET POWER AVAILABILITY - Own Source	5345	3505
	iii)	Central Sector+MPL	528	331
	iv)	Bi- lateral export by DVC	2500	1115
	v)	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	428	800
4		ODISHA		
	i)	NET MAXIMUM DEMAND	4100	3315
	ii)	NET POWER AVAILABILITY - Own Source	3100	2451
	iii)	Central Sector	1000	1347
	iv)	SURPLUS(+)/DEFICIT(-)	0	483
5		WEST BENGAL		
5.1		WBSEDCL		
	i)	NET MAXIMUM DEMAND	6600	3480
	ii)	IPCL DEMAND	0	62
	iii)	TOTAL WBSEDCL's Energy Requirement (incl.B'Desh+Sikkim+IPCL)	6600	3698
	iv)	NET POWER AVAILABILITY - Own Source	4824	2811
	v)	Contribution from DPL	465	334
	vi)	Central Sector+Bi-lateral+IPP&CPP+TLDP	2855	1822
	vii)	EXPORT (TO B'DESH & SIKKIM)	0	156
	viii)	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	1544	1268
5.2		CESC		
	i)	NET MAXIMUM DEMAND	1980	970
	ii)	NET POWER AVAILABILITY - Own Source	780	523
	iii)	FROM OTHER SOURCE (INCL. IPP/CPP-29-30 MU/M)	0	118
	iv)	IMPORT FROM HEL	540	329
	v)	TOTAL AVAILABILITY OF CESC	1320	970
	vi)	SURPLUS(+)/DEFICIT(-)	-660	0
6		WEST BENGAL (WBSEDCL+DPL+CESC) (excluding DVC's supply to WBSEDCL's command area)		
	i)	NET MAXIMUM DEMAND	9458	4512
	ii)	NET POWER AVAILABILITY - Own Source	6039	3668
	iii)	CS SHARE+BILATERAL+IPP/CPP+TLDP+HEL	4105	2269
	iv)	SURPLUS(+)/DEFICIT(-) BEFORE WBSEDCL'S EXP.	686	1424
	v)	SURPLUS(+)/DEFICIT(-) AFTER WBSEDCL'S EXP.	686	1268
7		SIKKIM		
	i)	NET MAXIMUM DEMAND	110	50
	ii)	NET POWER AVAILABILITY - Own Source	8	3
		- Central Sector	184	118
	iii)	SURPLUS(+)/DEFICIT(-)	81	71
8		EASTERN REGION		
	i)	NET MAXIMUM DEMAND	25037	13772
	ii)	BILATERAL EXPORT BY DVC	2500	1115
	iii)	EXPORT BY WBSEDCL	0	156
	iv)	NET TOTAL POWER AVAILABILITY OF ER (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL)	28501	17363
	v)	ENERGY SURPLUS(+)/DEFICIT(-) OF ER AFTER EXPORT (v = iv - i -ii - iii)	964	2321

ERLDC, KOLKATA											
TRANSMISSION ELEMENTS OUTAGE APPROVED(BAYS) IN 171ST (SEPT 2020) OCC MEETING OF ERPC											
		FROM		TO							
SI	NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S.D availing agency	Reason	Remarks from Indenting Agencies	SUBJECT TO CONSENT FROM AGENCY	POST MEETING COMMENTS OF ERLDC
1	400KV Main bay Bay of Bongaigaon -1 at Binaguri	01 October 2020	09:00	31 October 2020	17:00	OCB	POWERGRID,ER-II	Upgradation of 412 Bay under ERSS-XX			Tie and Main bay of Tie bay and at least two complete dia should be available
2	400V Tie bay Sagardighi -1 & Future at Durgapur	01 October 2020	09:00	01 October 2020	17:30	ODB	POWERGRID,ER-II	AMP works			Both Main bay of Tie bay and at least two complete dia should be available
3	400 KV Keonjhar- Talcher # 2 Tie Bay (Bay No-402) at Rengali	01 October 2020	09:00	01 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP & Isolator alignment work and interlock checking			Both Main bay of Tie bay and at least two complete dia should be available
4	400kV ICT-1& BR-1 Tie bay (411) at Jamshedpur	01 October 2020	9:30	01 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
5	220 kV Main Bay of ICT-2 (206-52)	01 October 2020	10:00	01 October 2020	18:00	ODB	POWERGRID ER-I	CB AMP work			Tie and Main bay of Tie bay and at least two complete dia should be available
6	BSF MUZAFFARPUR-2 TIE BAY 402 AT BIHARSHARIF	02 October 2020	10:00	02 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
7	220kV BUS COUPLER BAY (207) at Keonjhar	03 October 2020	09:00	06 October 2020	17:00	OCB	Keonjhar	Rectification of CB: found DCRM problem. (Shutdown will be taken if not availed in SEPT)			
8	20952- 160MVA ICT I Main Bay at Baripada	03 October 2020	09:00	03 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
9	BSF PURNEA- 2 MAIN BAY 404 AT BIHARSHARIF	03 October 2020	10:00	03 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
10	Tie Bay of 400kV siliguri-2 & ICT-1 (405-52)	03 October 2020	10:00	03 October 2020	18:00	ODB	POWERGRID ER-I	CB, CT AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
11	40252- Tie Bay of Keonjhar line & 315MVA ICT I at Baripada	04 October 2020	09:00	04 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			Both Main bay of Tie bay and at least two complete dia should be available
12	BSF BALIA 2 MAIN BAY 407 AT BIHARSHARIF	04 October 2020	10:00	04 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
13	400KV Main Bay of Sagardighi -Durgapur-1 at Durgapur	05 October 2020	09:00	05 October 2020	17:30	ODB	POWERGRID,ER-II	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
14	AMP of 10C05.B BAY (POLE- 1 TIE BAY) at Kaniha	05 October 2020	07:30	05 October 2020	17:00	OCB	ER-II/Odisha/HVDC Talcher	Annual maintenance of 10C05.B BAY (POLE- 1 TIE BAY)C bay equipment. POLE -I SHALL REMAIN IN SERVICE THROUGH MAIN BAY (10C05-A)			Both Main bay of Tie bay and at least two complete dia should be available
15	400 KV Talcher # 2 Main Bay (Bay No-403) at Rengali	05 October 2020	09:00	05 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
16	220KV RANCHI-CHANDIL-I Main Bay (202) AT RANCHI	05 October 2020	10:00	05 October 2020	17:00	ODB	POWERGRID ER-I	BAY AMP, DURING S/D LINE WILL REMAIN CHARGED THROUGH TBC			Tie and Main bay of Tie bay and at least two complete dia should be available

17	400kV Adhunik-2 line Tie bay (422) at Jamshedpur	05 October 2020	9:30	05 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
18	BAY-401 - 400KV MAIN BAY OF BANKA-BIHARSHARIF CKT-I AT BANKA	05 October 2020	10:00	05 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
19	Tie bay (408)of 400 kv NRNC-RNC CKT-2 & 765/400, 1500 MVA kv ICT-2 AT NEW RANCHI.	05 October 2020	9:00	05 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	Both Main bay of Tie bay and at least two complete dia should be available
20	400 KV Tie bay of North side Convt. Trafo and AC Filter North side (CWD10Q50) at Pusauli	05 October 2020	9:00	05 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
21	BSF BALIA 2 TIE BAY 408 AT BIHARSHARIF	05 October 2020	10:00	05 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
22	400kV Nabinagar2 Main Bay_407 at PATNA	05 October 2020	9:30	05 October 2020	17:30	ODB	POWERGRID ER-I	AMP work			Tie and Main bay of Tie bay and at least two complete dia should be available
23	400kV Nabinagar2 Main Bay(407) AT PATNA	05 October 2020	09:30	05 October 2020	17:30	ODB	POWERGRID ER-I	AMP work			Tie and Main bay of Tie bay and at least two complete dia should be available
24	ICT 3Bay BARH	05 October 2020	9:00	10 October 2020	18:00	OCB	NTPC BARH	Annual maintenance of ICT 3 Bay equipments			
25	400KV Main bay of kishanganj-1 at Binaguri	06 October 2020	09:00	06 October 2020	17:00	ODB	POWERGRID,ER-II	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
26	BAY NO 420 - TIE BAY FOR 400 KV Rorkela-Ranchi #2 & Rorkela-Sundargarh # 3 at Rourkela	06 October 2020	09:00	06 October 2020	17:00	ODB	ER-II/ODISHA/ROURKELA	AMP WORKS			Both Main bay of Tie bay and at least two complete dia should be available
27	210 bay- 160MVA ICT#2 main bay at Baripada	06 October 2020	09:00	06 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
28	400 Kv Talcher # 1 Main Bay (Bay No-404) at Rengali	06 October 2020	09:00	06 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
29	400 kv Mendhasal -Pandiabili-1 main bay at Mendhasal sub-station.	06 October 2020	09:00:00	06 October 2020	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	Timing & CRM test of CB and tan delta & cap test of CT.			Tie and Main bay of Tie bay and at least two complete dia should be available
30	220KV RANCHI-HATIA-I MAIN BAY (206) AT RANCHI	06 October 2020	10:00	06 October 2020	17:30	ODB	POWERGRID ER-I	BAY AMP. AFTER COMPLETION OF LINE BAY AMP (AT 14:00HRS) LINE WILL BE CHARGED THROUGH TBC.			Tie and Main bay of Tie bay and at least two complete dia should be available
31	400kV Adhunik-2 line Main Bay (423) at Jamshedpur	06 October 2020	9:30	06 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
32	BAY-404 - 400KV MAIN BAY OF BANKA-BIHARSHARIF CKT-II AT BANKA	06 October 2020	10:00	06 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
33	MAIN BAY OF 400KV CBSA JSR 1(401) AT CHAIBASA	06 October 2020	9:30	06 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
34	Main bay (410) of 125 MVAR B/R-1 AT NEW RANCHI	06 October 2020	9:00	06 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available

35	400 KV Main bay of North side Converter Transformer (CWD10Q51) at Pusauli	06 October 2020	9:00	06 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
36	BSF SASASARAM-2 MAIN BAY 409 AT BIHARSHARIF	06 October 2020	10:00	06 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
37	Main bay of 400 kV LKR-BSF Line-1 at Lakhisarai	06 October 2020	10:00	06 October 2020	14:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
38	400KV Tie bay kishanganj-1 & Bus Reactor-1 at Binaguri	07 October 2020	09:00	07 October 2020	17:00	ODB	POWERGRID,ER-II	AMP works			Both Main bay of Tie bay and at least two complete dia should be available
39	220kV TURMUNGA FUTURE LINE- I BAY (204) at Keonjhar	07 October 2020	09:00	07 October 2020	17:00	ODB	Keonjhar	Rectification of CB: found timing mismatch. (Shutdown will be taken if not availed in SEPT)			
40	Bay No 202 - 220 KV Bus Coupler at Rourkela	07 October 2020	09:00	07 October 2020	17:00	ODB	ER-II/ODISHA/ROURKELA	AMP WORKS			
41	400 Kv Talcher # 1 Tie Bay (Bay No-406) at Rengali	07 October 2020	09:00	07 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP & Isolator alignment work and interlock checking			Both Main bay of Tie bay and at least two complete dia should be available
42	400 kv Mendhasal -Pandiabili-2 main bay at Mendhasal sub-station.	07 October 2020	09:00:00	07 October 2020	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	Timing & CRM test of CB and tan delta & cap test of CT.			Tie and Main bay of Tie bay and at least two complete dia should be available
43	220KV TBC BAY (207) AT RANCHI	07 October 2020	10:00	07 October 2020	17:00	ODB	POWERGRID ER-I	NO OUTAGE BAY AMP			
44	400kV Adhunik-1 line Main Bay (424) at Jamshedpur	07 October 2020	9:30	07 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
45	BAY-407 - 400KV MAIN BAY OF BANKA-KAHALGAON CKT-I AT BANKA	07 October 2020	10:00	07 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
46	TIE BAY OF 400KV CBSA JSR 1(402) AT CHAIBASA	07 October 2020	9:30	07 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
47	Main bay (703) of 765/400 kv, 1500MVA ICT-1 AT NEW RANCHI	07 October 2020	9:00	08 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
48	400 KV Tie bay of East side Convt. Trafo and AC Filter East side (CWD50Q50) at Pusauli	07 October 2020	9:00	07 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
49	ICT 3 TIE BAY 411 AT BIHARSHARIF	07 October 2020	10:00	07 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
50	400kV Kishanganj2 main bay_404 at PATNA	07 October 2020	9:30	07 October 2020	17:30	ODB	POWERGRID ER-I	AMP work			Tie and Main bay of Tie bay and at least two complete dia should be available
51	Main Bay of 400kV Siliguri-2 (404-52)	07 October 2020	10:00	07 October 2020	18:00	ODB	POWERGRID ER-I	CB, CT AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
52	400kV Kishanganj2 main bay(404) AT PATNA	07 October 2020	09:30	07 October 2020	17:30	ODB	POWERGRID ER-I	AMP work			Tie and Main bay of Tie bay and at least two complete dia should be available

53	400KV Main Bay FILTER-1 at Alipurduar	08 October 2020	09:00	08 October 2020	18:00	ODB	POWERGRID,ER-II	Bay AMP Work			Tie and Main bay of Tie bay and at least two complete dia should be available
54	220kV Keonjhar-Ranki Line-II BAY(206) at Keonjhar	08 October 2020	09:00	08 October 2020	17:00	ODB	Keonjhar	Rectification of CB: found timing mismatch. (Shutdown will be taken if not availed in SEPT)			
55	Bay No 205 - 220 KV TRANSFER BUS COUPLER BAY at Rourkela	08 October 2020	09:00	08 October 2020	17:00	ODB	ER-II/ODISHA/ROURKE	AMP WORKS			
56	20252- 220KV Balasore line II Main Bay at Baripada	08 October 2020	09:00	08 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
57	400 KV tie bay of Mendhasal-Pandiabili -1 & Mendhasal Pandiabili -2 at Mendhasal sub-station.	08 October 2020	09:00:00	08 October 2020	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	Timing & CRM test of CB and tan delta & cap test of CT.			Both Main bay of Tie bay and at least two complete dia should be available
58	220KV Hatia-3 MAIN BAY (204) AT RANCHI	08 October 2020	10:00	08 October 2020	17:30	ODB	POWERGRID ER-I	BAY AMP. AFTER COMPLETION OF LINE BAY AMP (AT 14:00HRS) LINE WILL BE CHARGED THROUGH TBC.			Tie and Main bay of Tie bay and at least two complete dia should be available
59	400kV Adhunik-1 line Tie bay (425) at Jamshedpur	08 October 2020	9:30	08 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
60	BAY-410 - 400KV MAIN BAY OF BANKA-KAHALGAON CKT-II AT BANKA	08 October 2020	10:00	08 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
61	MAIN BAY OF 315 MVA ICT1 1(403) AT CHAIBASA	08 October 2020	9:30	08 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
62	400 KV Main bay of East side Converter Transformer (CWD50Q51) at Pusauli	08 October 2020	9:00	08 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
63	BSF LKS-1 MAIN BAY 413 AT BIHARSHARIF	08 October 2020	10:00	08 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
64	Tie bay of 400 kV LKR-BSF Line-1 and 200 MVA ICT-1 at Lakhisarai	08 October 2020	10:00	08 October 2020	14:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
65	220 KV Bus Section bay at Durgapur	09 October 2020	09:00	09 October 2020	17:30	ODB	POWERGRID,ER-II	CB spring mechanism overhauling & AMP work	220KV Bus-1 & 2 shall remain in		
66	TBC BAY (201) at Keonjhar	09 October 2020	09:00	09 October 2020	17:00	ODB	Keonjhar	Re-checking of CRM			
67	400 KV ICT # 1 Main Bay (Bay No-407) at Rengali	09 October 2020	09:00	09 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP & Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
68	400kV ICT-3 Main Bay (427) at Jamshedpur	09 October 2020	9:30	09 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
69	MAIN BAY OF 315 MVA ICT2 1(406) AT CHAIBASA	09 October 2020	9:30	09 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
70	ICT 1 MAIN BAY 415 AT BIHARSHARIF	09 October 2020	10:00	09 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
71	703 Main bay of 765/400KV,1500MVA ICT-1 at Sundargarh	10 October 2020	09:00	13 October 2020	17:00	OCB	ER-II/Odisha/Sundargarh	SIEMENS Guide Valve Modification work by OEM Engineer		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available

72	Main bay 401 of 400kV Sundargarh-Raigarh ckt # 2 at Sundargarh	10 October 2020	08:00	10 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
73	40952- 400KV Jamshedpur line Main Bay at Baripada	10 October 2020	09:00	10 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
74	40152- 400KV Keonjhar line Main Bay at Baripada	11 October 2020	09:00	11 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
75	TIE 2 TIE BAY 423 AT BIHARSHARIF	11 October 2020	10:00	11 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
76	400KV Main Bay of Bidhan Nagar-Durgapur-1 at Durgapur	12 October 2020	09:00	12 October 2020	17:30	ODB	POWERGRID,ER-II	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
77	400kV Rajarhat-Farraka circuit with 400KV Main Bus Bar-1 and 80Mvar Line Reactor-1(Bay-405)	12 October 2020	09:00	13 October 2020	17:00	ODB	POWERGRID,ER-II	For modification of Bus bar logic in GIS for enhancing system reliability.			Tie and Main bay of Tie bay and at least two complete dia should be available
78	Tie Bay 402 of 400KV Sundargarh-Raigarh ckt-2 & 765/400KV,1500MVA ICT-1 at Sundargarh	12 October 2020	09:00	12 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP		NLDC	Both Main bay of Tie bay and at least two complete dia should be available
79	AMP of 10C03B.BAY (POLE-2 TIE BAY) at Kaniha	12 October 2020	07:30	12 October 2020	17:00	OCB	ER-II/Odisha/HVDC Talcher	Annual maintenance of 10C03B.BAY (POLE-2 TIE BAY) bay equipment. POLE -II SHALL REMAIN IN SERVICE THROUGH MAIN BAY (10C05-C)			Both Main bay of Tie bay and at least two complete dia should be available
80	400 KV ICT # 1 & 2 Tie Bay (Bay No-408) at Rengali	12 October 2020	09:00	12 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP & Isolator alignment work and interlock checking			Both Main bay of Tie bay and at least two complete dia should be available
81	400kV ICT-3 & Future Tie bay (428) at Jamshedpur	12 October 2020	9:30	12 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
82	BAY-402 - 400KV TIE BAY OF BANKA-BIHARSHARIF CKT-I & ICT-I AT BANKA	12 October 2020	10:00	12 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
83	Tie bay (705) of 765 KV NRNC-DMG CKT-1 & 765/400 KV, 1500 MVA ICT-2 AT NEW RANCHI	12 October 2020	9:00	13 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	Both Main bay of Tie bay and at least two complete dia should be available
84	400 KV Line Reactor bay of Allahabad north Side (CWL22) at Pusauli	12 October 2020	9:00	12 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			
85	ICT4 MAIN BAY 425 AT BIHARSHARIF	12 October 2020	10:00	12 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
86	MAIN BAY OF 400 KV SASARAM-DALTONGANJ-II AT DALTONGANJ	12 October 2020	10:00	12 October 2020	17:30	ODB	POWERGRID ER-I	AMP work.			Tie and Main bay of Tie bay and at least two complete dia should be available
87	400 KV MAIN BAY OF KISANGANJ-I AT NEW PURNEA	12 October 2020	09:00	12 October 2020	12:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
88	TIE BAY OF 400 KV KISANGANJ-I & MUZAFFARPUR-II AT NEW PURNEA	12 October 2020	12:00	12 October 2020	15:00	ODB	POWERGRID ER-I	CT Oil Sampling			Both Main bay of Tie bay and at least two complete dia should be available
89	MAIN BAY OF 400 KV MUZAFFARPUR-II AT NEW PURNEA	12 October 2020	03:00	12 October 2020	18:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
90	400KV Main bay of kishanganj-2 at Binaguri	13 October 2020	09:00	13 October 2020	17:00	ODB	POWERGRID,ER-II	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available

91	400KV Main Bay of ICT-2 at Durgapur	13 October 2020	09:00	13 October 2020	17:30	ODB	POWERGRID,ER-II	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
92	Main Bay-422 of 125 MVAR Bus Reactor-1 at Rourkela	13 October 2020	09:00	13 October 2020	17:00	ODB	ER-II/ODISHA/ROURKELA	AMP WORKS OF BUS REACTOR & REACTOR BAY			Tie and Main bay of Tie bay and at least two complete dia should be available
93	Main bay 403 of 765/400KV,1500MVA ICT-1 at Sundargarh	13 October 2020	09:00	13 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
94	400KV B/R-3 & MERAMUNDALI LINE-1 TIE BAY (405) at Angul	13 October 2020	09:00	13 October 2020	17:00	ODB	ER-II/Odisha/Angul SS	AMP			Both Main bay of Tie bay and at least two complete dia should be available
95	MAIN BAY OF RANCHI ROURKELA -I AT RANCHI	13 October 2020	10:00	13 October 2020	17:30	ODB	POWERGRID ER-I	BAY AMP. LINE WILL REMAIN CHARGE THROUGH TIE BAY			Tie and Main bay of Tie bay and at least two complete dia should be available
96	400kV Chaibasa-2 & Andal-1 line Tie bay (414) at Jamshedpur	13 October 2020	9:30	13 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
97	BAY-405 - 400KV TIE BAY OF BANKA-BIHARSHARIF CKT-II & ICT-II AT BANKA	13 October 2020	10:00	13 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
98	400 KV Tie bay of Daltonganj-1 and ICT-1 (CWD60Q50) at Pusauli	13 October 2020	9:00	13 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
99	ICT4 BSEB 220 kV BAY AT BIHARSHARIF	13 October 2020	10:00	13 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			
100	Main bay of 200 MVA ICT-1	13 October 2020	10:00	13 October 2020	14:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
101	400 KV MAIN BAY OF KISAGANJ-II AT NEW PURNEA	13 October 2020	12:00	13 October 2020	15:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
102	400 KV MAIN BAY OF MUZ-I AT NEW PURNEA	13 October 2020	03:00	13 October 2020	18:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
103	400KV Main Bay FILTER-2 at Alipurduar	14 October 2020	09:00	14 October 2020	18:00	ODB	POWERGRID,ER-II	Bay AMP Work			Tie and Main bay of Tie bay and at least two complete dia should be available
104	400KV Tie bayAlipurdwar-1 & Purnea-1 at Binaguri	14 October 2020	09:00	14 October 2020	17:00	ODB	POWERGRID,ER-II	AMP works			Both Main bay of Tie bay and at least two complete dia should be available
105	400KV ICT#2 Main Bay (403) at OHPC S/Y	14 October 2020	08:00	14 October 2020	17:00	ODB	ER-II/Odisha/Indravati	AMP works of 400KV ICT#2 Main Bay (403) at OHPC S/Y. During this shutdown Power flow from ICT#2 will be Interrupted. No Tie bay is in service at OHPC Yard.			Tie and Main bay of Tie bay and at least two complete dia should be available
106	220KV ICT#2 Main Bay (205) at OHPC S/Y	14 October 2020	08:00	14 October 2020	17:00	ODB	ER-II/Odisha/Indravati	AMP works of 220KV ICT#2 Main Bay (205) at OHPC S/Y. During this shutdown Power flow from ICT#2 will be Interrupted. No Transfer Bay is in service at OHPC Yard.			Tie and Main bay of Tie bay and at least two complete dia should be available
107	400 KV RORKELA-RANCHI # 1 LINE FOR AMP OF 428L BAY at Rourkela	14 October 2020	09:00	14 October 2020	17:00	ODB	ER-II/ODISHA/ROURKELA	AMP WORKS			
108	706 Main bay of 765/400KV,1500MVA ICT-2 at Sundargarh	14 October 2020	09:00	17 October 2020	17:00	OCB	ER-II/Odisha/Sundargarh	SIEMENS Guide Valve Modification work by OEM Engineer		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
109	Main Bay 413 of 400KV ,125MVAR BUS REACTOR-1 at Sundargarh	14 October 2020	09:00	14 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available

110	400 kV 407 main Bay of Baripada-Duburi line at Baripada	14 October 2020	09:00	15 October 2020	17:00	OCB	ER-II/Odisha/BARIPADA S/S	Gasket replacement			Tie and Main bay of Tie bay and at least two complete dia should be available
111	400KV MERAMUNDALI LINE-1 MAIN BAY (406) at Angul	14 October 2020	09:00	14 October 2020	17:00	ODB	ER-II/Odisha/Angul SS	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
112	400 KV ICT # 2 Main Bay (Bay No-410) at Rengali	14 October 2020	09:00	14 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP & Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
113	400kV Chiabasa-2 line Main Bay (413) at Jamshedpur	14 October 2020	9:30	14 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
114	BAY-408 - 400KV TIE BAY OF BANKA-KAHALGAON CKT-I & BR-I AT BANKA	14 October 2020	10:00	14 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
115	315 MVA ICT2 220KV SIDE BAY(206) AT CHAIBASA	14 October 2020	9:30	14 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			
116	Main bay (706) of 765/400 KV, 1500MVA ICT-2 AT NEW RANCHI	14 October 2020	9:00	15 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
117	BSF BNK 1 MAIN BAY 428 ATBIHARSHARIF	14 October 2020	10:00	14 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
118	TIE BAY OF 400 KV KISANGANJ-II & MUZAFFARPUR-I AT NEW PURNEA	14 October 2020	09:00	14 October 2020	12:00	ODB	POWERGRID ER-I	CT Oil Sampling			Both Main bay of Tie bay and at least two complete dia should be available
119	TIE BAY OF 400 KV BSF -I & GOKARNA LINE AT NEW PURNEA	14 October 2020	15:00	14 October 2020	18:00	ODB	POWERGRID ER-I	CT Oil Sampling			Both Main bay of Tie bay and at least two complete dia should be available
120	Main Bay NO 428 of 400 Kv Rourkela-Ranchi - 1 at Rourkela	15 October 2020	09:00	15 October 2020	17:00	ODB	ER-II/ODISHA/ROURKELA	AMP WORKS			Tie and Main bay of Tie bay and at least two complete dia should be available
121	Tie Bay 414 of 400KV ,125MVAR BUS REACTOR-1 & 400KV Sundargarh-Vedanta(Sterlite) ckt-1 at Sundargarh	15 October 2020	09:00	15 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			Both Main bay of Tie bay and at least two complete dia should be available
122	400KV ICT-2 MAIN BAY (407) at Angul	15 October 2020	09:00	15 October 2020	17:00	ODB	ER-II/Odisha/Angul SS	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
123	400 KV Indravati - BR # 1 Tie Bay (Bay No-411) at Rengali	15 October 2020	09:00	15 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For Isolator alignment work and interlock checking			Both Main bay of Tie bay and at least two complete dia should be available
124	TIE BAY 400KV RNC-RGP-3& B/R-I AT RANCHI	15 October 2020	10:00	15 October 2020	17:30	ODB	POWERGRID ER-I	TIE BAY AMP. LINE & B/R WILL REMAIN CHARGE THROUGH ITS MAIN BAY			Both Main bay of Tie bay and at least two complete dia should be available
125	BAY-411 - 400KV TIE BAY OF BANKA-KAHALGAON CKT-II & BR-II AT BANKA	15 October 2020	10:00	15 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
126	BSF _SAS 1 TIE BAY 420 AT BIHARSHARIF	15 October 2020	10:00	15 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
127	Main bay of 400 kV LKR-BSF Line-2 at Lakhisarai	15 October 2020	10:00	15 October 2020	14:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
128	400 KV MAIN BAY OF MALDA-II AT NEW PURNEA	15 October 2020	09:00	15 October 2020	12:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available

129	TIE BAY OF 400 KV MALDA-II &125 MVAR B/R-I AT NEW PURNEA	15 October 2020	12:00	15 October 2020	15:00	ODB	POWERGRID ER-I	CT Oil Sampling			Both Main bay of Tie bay and at least two complete dia should be available
130	400 KV MAIN BAY OF 125 MVAR B/R-I AT NEW PURNEA	15 October 2020	15:00	15 October 2020	18:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
131	Main Bay 415 of 400KV 400KV Sundargarh-Vedanta(Sterlite) ckt-1 at Sundargarh	16 October 2020	09:00	16 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
132	400 kV 408 Tie Bay of Baripada-Duburi & Baripada-Jamshedpur line at Baripada	16 October 2020	09:00	17 October 2020	17:00	OCB	ER-II/Odisha/BARIPADA S/S	Gasket replacement			Both Main bay of Tie bay and at least two complete dia should be available
133	400KV TALCHER LINE MAIN BAY (409) at Angul	16 October 2020	09:00	16 October 2020	17:00	ODB	ER-II/Odisha/Angul SS	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
134	400 KV Indravati Main Bay (Bay No-412) at Rengali	16 October 2020	09:00	16 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP & Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
135	400 KV MAIN BAY OF MALDA-I AT NEW PURNEA	16 October 2020	9:00	16 October 2020	12:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
136	TIE BAY OF 400 KV MALDA-I &125 MVAR B/R-II AT AT NEW PURNEA	16 October 2020	12:00	16 October 2020	15:00	ODB	POWERGRID ER-I	CT Oil Sampling			Both Main bay of Tie bay and at least two complete dia should be available
137	MAIN BAY OF 400 KV FARKKA AT NEW PURNEA	16 October 2020	15:00	16 October 2020	18:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
138	SHUTDOWN OF 400KV BUS COUPLER BAY (BAY NO.- 407) AT CHANDWA	16 October 2020	09:00	16 October 2020	18:00	ODB	POWERGRID ER-I	AMP OF CIRCUIT BREAKER, DUE POINT & PURITY CHECK OF SF6 GAS OF ALL GAS COMPARTMENT OF THE BAY			
139	Bay No 205 - 220 KV TRANSFER BUS at Rourkela	17 October 2020	09:00	17 October 2020	17:00	ODB	ER-II/ODISHA/ROURKELA	AMP WORKS			
140	Main Bay 416 of 400KV ,125MVAR BUS REACTOR-2 at Sundargarh	17 October 2020	09:00	17 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
141	400KV BR-2 MAIN BAY (410) at Angul	17 October 2020	09:00	17 October 2020	17:00	ODB	ER-II/Odisha/Angul SS	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
142	220 KV SIDE OF ICT-II BAY AT NEW PURNEA	17 October 2020	9:00	17 October 2020	12:00	ODB	POWERGRID ER-I	CT Oil Sampling			
143	MAIN BAY OF 400 KV GOKARNA AT NEW PURNEA	17 October 2020	12:00	17 October 2020	15:00	ODB	POWERGRID ER-I	CT Oil Sampling			Tie and Main bay of Tie bay and at least two complete dia should be available
144	TIE BAY OF 400 KV FARKKA & BIHARFARIF-II AT NEW PURNEA	17 October 2020	15:00	17 October 2020	18:00	ODB	POWERGRID ER-I	CT Oil Sampling			Both Main bay of Tie bay and at least two complete dia should be available
145	400 kV 410 main Bay of Baripada-Pandiabili line at Baripada	18 October 2020	09:00	19 October 2020	17:00	OCB	ER-II/Odisha/BARIPADA S/S	Gasket replacement			Tie and Main bay of Tie bay and at least two complete dia should be available
146	400KV Tie Bay of Durgapur - Jamshedpur-1 at Durgapur	19 October 2020	09:00	19 October 2020	17:30	ODB	POWERGRID,ER-II	AMP works			Both Main bay of Tie bay and at least two complete dia should be available
147	400kV Rajarhat-Goakarna circuit with 400KV Main Bus Bar-1 and 80Mvar Line Reactor-2(Bay-412)	19 October 2020	09:00	20 October 2020	17:00	ODB	POWERGRID,ER-II	For modification of Bus bar logic in GIS for enhancing system reliability.			Tie and Main bay of Tie bay and at least two complete dia should be available
148	721 Main bay of 765KV Sundargarh-Dharamjaygarh ckt-1 at Sundargarh	19 October 2020	09:00	22 October 2020	17:00	OCB	ER-II/Odisha/Sundargarh	SIEMENS Guide Valve Modification work by OEM Engineer		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available

149	Tie Bay 417 of 400KV ,125MVAR BUS REACTOR-2 & 400KV Sundargarh-Vedanta(Sterlite) ckt-2 at Sundargarh	19 October 2020	09:00	19 October 2020	17:00	OCB	ER-II/Odisha/Sundargarh	AMP			Both Main bay of Tie bay and at least two complete dia should be available
150	220 KV ICT # 1 Main Bay (Bay No-201) at Rengali	19 October 2020	09:00	19 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
151	400kV Andal-2 line Main Bay (416) at Jamshedpur	19 October 2020	9:30	19 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
152	400 kV side Main bay of 765/400kV ICT-4 (410) at Gaya	19 October 2020	9:00	19 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
153	400 KV Main Bay of Daltonganj-I (CWD60Q51) at Pusauli	19 October 2020	9:00	19 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
154	400 KV MAIN BAY OF 125 MVAR B/R-I AT NPRN	19 October 2020	9:30	19 October 2020	18:00	ODB	POWERGRID ER-I	CB MECHANISM BOX OVERHAULING			Tie and Main bay of Tie bay and at least two complete dia should be available
155	400KV Main Bay of Durgpaur - Jamshedpur-1 at Durgapur	20 October 2020	09:00	20 October 2020	17:30	ODB	POWERGRID,ER-II	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
156	Main Bay 418 of 400KV Sundargarh-Vedanta(Sterlite) ckt-2 at Sundargarh	20 October 2020	09:00	20 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			Tie and Main bay of Tie bay and at least two complete dia should be available
157	400 kV 411 Tie Bay of Baripada-Pandiabili & Baripada-TISCO line at Baripada	20 October 2020	09:00	21 October 2020	17:00	OCB	ER-II/Odisha/BARIPADA S/S	Gasket replacement			Both Main bay of Tie bay and at least two complete dia should be available
158	400kV Tata line Main Bay (419) at Jamshedpur	20 October 2020	9:30	20 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
159	Tie bay of 400 kV LKR-BSF Line-2 and 200 MVA ICT-2 at Lakhisarai	20 October 2020	10:00	20 October 2020	14:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
160	TIE BAY OF 400 KV KISANGANJ-II & MUZAFFARPUR-I AT NEW PURNEA	20 October 2020	9:30	20 October 2020	18:00	ODB	POWERGRID ER-I	CB MECHANISM BOX OVERHAULING			Both Main bay of Tie bay and at least two complete dia should be available
161	400KV Tie Bay of ICT-2 at Durgapur	21 October 2020	09:00	21 October 2020	17:30	ODB	POWERGRID,ER-II	AMP works			Both Main bay of Tie bay and at least two complete dia should be available
162	220 KV ICT # 2 Main Bay (Bay No-202) at Rengali	21 October 2020	09:00	21 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP & Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
163	400kV Baripada line Main Bay (418) at Jamshedpur	21 October 2020	9:30	21 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
164	400 kV side Main bay of 765/400kV ICT-1 (401) at Gaya	21 October 2020	9:00	21 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
165	L/R BAY OF 400 KV MUZAFFARPUR-II AT NEW PURNEA	21 October 2020	9:30	21 October 2020	18:00	ODB	POWERGRID ER-I	CB MECHANISM BOX OVERHAULING			
166	400KV Main Bay of 315 MVA ICT#2 at Subhasgram	22 October 2020	09:00	22 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 406 Bay	Only 406 Bay will be under Shutdown		Tie and Main bay of Tie bay and at least two complete dia should be available
167	10452- 160MVA ICT II Bay at Baripada	22 October 2020	09:00	22 October 2020	17:00	OCB	ER-II/Odisha/BARIPADA S/S	AMP works			

168	400 kV side Main bay of 765/400kV ICT-3 (407) at Gaya	22 October 2020	9:00	22 October 2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
169	Main bay of 200 MVA ICT-2 at Lakhisarai	22 October 2020	10:00	22 October 2020	14:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
170	TIE BAY OF 400 KV MALDA-II &125 MVAR B/R-I AT NEW PURNEA	22 October 2020	9:30	22 October 2020	18:00	ODB	POWERGRID ER-I	CB MECHANISM BOX OVERHAULING			Both Main bay of Tie bay and at least two complete dia should be available
171	400KV Main Bay of 500 MVA ICT#5 at Subhasgram	23 October 2020	09:00	23 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 415 Bay	Only 415 Bay will be under Shutdown		Tie and Main bay of Tie bay and at least two complete dia should be available
172	724 Main bay of 765KV Sundargarh-Dharamjaygarh ckt-2 at Sundargarh	23 October 2020	09:00	26 October 2020	17:00	OCB	ER-II/Odisha/Sundargarh	SIEMENS Guide Valve Modification work by OEM Engineer		NLDC	Tie and Main bay of Tie bay and at least two complete dia should be available
173	10152- 132KV Jaleswar Line Main bay at Baripada	23 October 2020	09:00	23 October 2020	17:00	OCB	ER-II/Odisha/BARIPADA S/S	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
174	220 KV Transfer Bus coupler Bay (Bay No-203) at Rengali	23 October 2020	09:00	23 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For Isolator alignment work and interlock checking			
175	400KV Main Bay of 400 KV Haldia Line#1 at Subhasgram	24 October 2020	09:00	24 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 416 Bay	Only 416 Bay will be under Shutdown		Tie and Main bay of Tie bay and at least two complete dia should be available
176	400 KV Main Bay of Rajarhat line at Subhasgram	25 October 2020	09:00	25 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 404 Bay	Only 404 Bay will be under Shutdown		Tie and Main bay of Tie bay and at least two complete dia should be available
177	400 KV Tie Bay of Rajarhat line and 315 MVA ICT#2 Bay at Subhasgram	26 October 2020	09:00	26 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 405 Bay	Only 405 Bay will be under Shutdown		Both Main bay of Tie bay and at least two complete dia should be available
178	400 KV Main Bay of Sagardighi line at Subhasgram	27 October 2020	09:00	27 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 401 Bay	Only 401 Bay will be under Shutdown		Tie and Main bay of Tie bay and at least two complete dia should be available
179	720 Tie Bay of 765KV Sundargarh-NTPC Darlipalli ckt-2 & 765KV Sundargarh-Dharamjaygarh ckt-1 at Sundargarh	27 October 2020	09:00	30 October 2020	17:00	OCB	ER-II/Odisha/Sundargarh	SIEMENS Guide Valve Modification work by OEM Engineer		NLDC	Both Main bay of Tie bay and at least two complete dia should be available
180	400 KV TIE BAY OF ICT-2 & BIHAR SHARIF#1 (CWD70Q50) at Pusauli	27 October 2020	9:00	27 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Both Main bay of Tie bay and at least two complete dia should be available
181	40KV Tie Bay of Sagardighi line and 315 MVA ICT#1 Bay at Subhasgram	28 October 2020	09:00	28 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 402 Bay	Only 402 Bay will be under Shutdown		Both Main bay of Tie bay and at least two complete dia should be available
182	125 MVAR B/R-II MAIN BAY(402) at Keonjhar	28 October 2020	09:00	28 October 2020	17:00	ODB	Keonjhar	AMP WORKS (FY 2020-21)			Tie and Main bay of Tie bay and at least two complete dia should be available
183	10352- 132KV Bhograi Line Main Bay at Baripada	28 October 2020	09:00	28 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			Tie and Main bay of Tie bay and at least two complete dia should be available
184	200 KV OPTCL # 1 Main Bay (Bay No-208) at Rengali	28 October 2020	09:00	28 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
185	400KV Tie Bay of Binaguri CKT-2 at Alipurduar	29 October 2020	10:00	29 October 2020	19:00	ODB	POWERGRID,ER-II	Bay AMP Work			Both Main bay of Tie bay and at least two complete dia should be available

186	125 MVAR B/R-II TIE BAY(40102) at Keonjhar	29 October 2020	09:00	29 October 2020	17:00	ODB	Keonjhar	AMP WORKS (FY 2020-21)			Both Main bay of Tie bay and at least two complete dia should be available
187	20852- 315MVA ICT I Bay at Baripada	29 October 2020	09:00	29 October 2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works			
188	500 MVA ICT-I 220 KV SIDE MAIN BAY 201- Bay at Pusauli	29 October 2020	9:00	29 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			Tie and Main bay of Tie bay and at least two complete dia should be available
189	200 KV OPTCL # 2 Main Bay (Bay No-207) at Rengali	30 October 2020	09:00	30 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For Isolator alignment work and interlock checking			Tie and Main bay of Tie bay and at least two complete dia should be available
190	400 KV 125 MVAR BR # 2 Tie Bay (Bay No-420) at Rengali	30 October 2020	09:00	30 October 2020	17:00	ODB	ER-II/Odisha/Rengali	For AMP Work			Both Main bay of Tie bay and at least two complete dia should be available
191	765 KV BUS REACTOR BAY (703)at Pusauli	31 October 2020	9:00	31 October 2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	

ERLDC, KOLKATA											
TRANSMISSION ELEMENTS OUTAGE APPROVED (EXCEPT BAY) IN 171ST(SEPT 2020) OCC MEETING OF ERPC											
		FROM		TO							
SI	NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S.D availing agency	Reason	Remarks from Indenting Agencies	SUBJECT TO CONSENT FROM AGENCY	Post Meeting Comments
1	A/R OF 400kV SASARAM-ALLAHABAD	03 October 2020	09:30	05 October 2020	18:00	ODB	POWERGRID NR-3	FOR OPGW INSTALLATION WORK		NLDC	NRPC approval would be required. Only three days proposed.Complete tentative plan should be shared.
2	A/R OF 400kV SASARAM-VARANASI	03 October 2020	09:30	05 October 2020	18:00	ODB	POWERGRID NR-3	FOR OPGW INSTALLATION WORK		NLDC	NRPC approval would be required. Only three days proposed. Complete tentative plan should be shared.
3	400 kV Maithon RB (MPL) - Ranchi D/C	26 September 2020	9:00	26 September 2020	17:00	ODB	POWERGRID ER-1	Strengthening of peaks of 400 kV Maithon RB (MPL) - Ranchi Ckt- 1 & 2 UNDER ULDC OPGW CONSTRUCTION package		MPL	May be availed when one unit of MPL is out of bar.MPL Generation restrictionto 850 MW
4	220/132 KV 160 MVA ICT-1 at Malda	26 September 2020	08:00	26 September 2020	17:00	OCB	POWERGRID,ER-II	Assesment for GIS bus duct for upgradation work under ERSS-XIII. ICT S/D required for finalisinsation of bus duct lay out.		WB	
5	400 kV Maithon RB (MPL) - Ranchi Ckt-2 & 400 kV MAITHON- MAITHON RB (MPL) Ckt-1	27 September 2020	9:00	27 September 2020	17:00	ODB	POWERGRID ER-1	OPGW Installation between Loc. no. 3 of MTN RB-RNC Ckt-2 and Loc. no. 91 of MTN- MTN RB Ckt-1 UNDER ULDC OPGW CONSTRUCTION package		MPL	May be availed when one unit of MPL is out of bar.TTC revision required
6	400 kV Maithon- Maithon RB (MPL) D/C	28 September 2020	9:00	28 September 2020	17:00	ODB	POWERGRID ER-1	Peak to Peak Crossing over of OPGW of MTN RB-RNC line at Loc. no. 91 of MTN- MTN RB Ckt-1 & Ckt-2 UNDER ULDC OPGW CONSTRUCTION package		MPL	May be availed when one unit of MPL is out of bar.MPL Generation restrictionto 850 MW
7	400 kV Maithon RB (MPL) - Ranchi Ckt-2 & 400 kV MAITHON- MAITHON RB (MPL) Ckt-2	29 September 2020	9:00	29 September 2020	17:00	ODB	POWERGRID ER-1	OPGW Termination between Loc. no. 92 of MTN-MTN RB Ckt-2 and Gantry tower of MTN RB- RNC Ckt-2 UNDER ULDC OPGW CONSTRUCTION package		MPL	May be availed when one unit of MPL is out of bar.TTC revision required
8	Jeerat- Rajarhat(PG) 220 KV Ckt 1	01 October 2020	07:00	01 October 2020	15:00	ODB	WB	Maintenance Work			
9	50MVA ICT-I at Gangtok	01 October 2020	09:00	01-10-2020	15:00	ODB	POWERGRID,ER-II	Relay retrofitting		SIKKIM	
10	400KV BINAGURI-RANGPO-1 line	01 October 2020	09:00	31-10-2020	18:00	OCB	POWERGRID,ER-II	Dismentalling of ACSR Conductor & re-stringing with HTLS Conductor			May be availed after1st Nov 2020.SPS status may be reviewed
11	400KV BINAGURI-RANGPO-2 line	01 October 2020	09:00	31-10-2020	18:00	OCB	POWERGRID,ER-II	Dismentalling of ACSR Conductor & re-stringing with HTLS Conductor			May be availed after1st Nov 2020.SPS status may be reviewed
12	400KV Maithon-Durgapur-1 Line	01 October 2020	09:30	03-10-2020	17:00	ODB	POWERGRID,ER-II	Bay upgradation work under ERSS-XVII.			Deatiled work plan and schedule may be submitted
13	A/R in non-auto mode in 400KV TeestaIII-Kishanganj TL	01 October 2020	07:00	31-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work			After high hydro
14	A/R in non-auto mode in 400KV Malda-Farakka-II	01 October 2020	07:00	31-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work			

15	A/R in non-auto mode in 132KV Rangpo-Chuzachen-I & II	01 October 2020	07:00	31-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work		Chuzachen	May be availed after1st Nov 2020
16	A/R in non-auto mode in 400KV Maithon-Jamshedpur TL	01 October 2020	07:00	31-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work			
17	A/R in non-auto mode in 400KV Mejia-Jamshedpur TL	01 October 2020	07:00	31-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work		DVC	
18	800kV HVDC APD - BNC Pole 1	01 October 2020	08:00	10-10-2020	18:00	OCB	POWERGRID,NER	Earthwire stringing of 5 Km length between section from Loc.. 452 to 457 and Loc.585 - 594 which could not be attended during commisioning phase , due to severe Law and order situation.	Existing system Improvement Related Shudown	NLDC	Reason should be elaborated if possible supporting proof may be submitted. Further, only Pole shutdonw or line shutdonw also required. NERPC and NRPC approval required. Not to be clubbed with Binaguri-Bongaigaon D/C outage
19	80MVAR B/R-I at Keonjhar	01 October 2020	09:00	01-10-2020	17:00	ODB	Keonjhar	CSD tuning (Shutdown will be taken if not availed in SEPT)			
20	315 MVA ICT#2 at Rourkela	01 October 2020	09:00	15-10-2020	17:00	OCB	ER-II/ODISHA/ROURKELA	Erection works related to Parallelling of ICTs		GRIDCO	Approved earlier, but not availed
21	A/R to be in non automode of 400KV Sundargarh-Raigarh Ckt #1&3	01 October 2020	08:00	15-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	For PID Testing of Porcelain Insulator. Only Auto reclose		NLDC	
22	765KV BUS-I(AIS) at Sundargarh	01 October 2020	08:00	01-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP		NLDC	
23	3 X 166.7 MVA COUPLING TRANSFORMER at Jeypore	01 October 2020	09:00	01-10-2020	13:00	ODB	ER-II/Odisha /Jeypore	Unit change over of Coup. Transformer			Availibilty of STATCOM will be affected as it will remain out of service
24	315MVA, ICT-2 at Bolangir	01 October 2020	09:00	09-10-2020	17:00	OCB	ER-II/Odisha/Balangir	Internal inspection and Bushings lead connection checking due to rise in fault gases.		GRIDCO	Approved earlier but not availed
25	A/R to be in non automode of 400 kV Baripada-Duburi Line	01 October 2020	07:00	31-10-2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN REGION FIBRE OPTIC EXPANSION PROJECT (Additional Requirement)"		GRIDCO	
26	A/R to be in non automode of 400 kV Dubur-Pandiabili Line	01 October 2020	07:00	31-10-2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN REGION FIBRE OPTIC EXPANSION PROJECT (Additional Requirement)"		GRIDCO	
27	A/R to be in non automode of 400 kV Pandiabili-Mendhasal Ckt 2	01 October 2020	07:00	31-10-2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN REGION FIBRE OPTIC EXPANSION PROJECT (Additional Requirement)"		GRIDCO	
28	A/R to be in non automode of 400 kV Angul-GMR Ckt 1	01 October 2020	07:00	31-10-2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN REGION FIBRE OPTIC EXPANSION PROJECT (Reliable Requirement)		GRIDCO	
29	A/R to be in non automode of 400 kV Angul-JITPL Ckt 1	01 October 2020	07:00	31-10-2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN REGION FIBRE OPTIC EXPANSION PROJECT (Reliable Requirement)			
30	A/R to be in non automode of 400k kV Angul-GMR Ckt 2	01 October 2020	07:00	31-10-2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN		GRIDCO	

31	A/R to be in non automode of 400 kV Angul-JITPL Ckt 2	01 October 2020	07:00	31-10-2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN REGION FIBRE OPTIC EXPANSION PROJECT (Reliable Requirement)			
32	A/R to be in non automode of 765 kV Angul-Srikakulam Ckt 1	01 October 2020	07:00	31 October 2020	17:00	ODB	ER-II/Odisha	Line Auto-reclose switch is to be kept in Non-auto mode For stringing of OPGW under "EASTERN		NLDC	
33	765 kV New Ranchi-Dharamjaygarh CKT-I	01 October 2020	8:00	03-10-2020	17:00	ODB	POWERGRID ER-I	For Tower Strengthening work executed .For Tower Strengthning work Total towers = 166; Completed- Nil.		NLDC	
34	400kV ICT2 at Biharsharif SS	01 October 2020	10:00	05-10-2020	18:00	OCB	POWERGRID ER-I	Bushing replacement 03 no. 400 kV and no. 01 220 kV		BSEB	Subject to BSEB Consent
35	400KV Maithon - Gaya-I	01 October 2020	8:00	03-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer insulator.			
36	A/R of 400KV Maithon - Gaya-II	01 October 2020	8:00	03-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kVMaithon-Gaya-I			
37	220 KV ARA-NADOKHAR-I	01 October 2020	9:00	06-10-2020	17:00	OCB	BGCL	For LILO work and shorting arrangement at Deadend tower		BSEB	Detail daigram, scheme approval for LILO duly approved in any comepetent forum will be required.
38	A/R OF 400 KV BIHARSHARIF-KODERMA-II	01 October 2020	8:00	31-10-2020	18:00	ODB	POWERGRID ER-I	FOR OPGW INSTALLATION WORK		DVC	
39	A/R OF 400 KV BARH-MOTIHARI-II	01 October 2020	8:00	31-10-2020	18:00	ODB	POWERGRID ER-I	FOR OPGW INSTALLATION WORK			
40	A/R OF MOTIHARI GORAKHPUR II	01 October 2020	09:00	31-10-2020	17:30	ODB	POWERGRID ER-I	OPGW INSTALLATION WORK		NLDC	
41	765kV SASARAM-FATEHPUR	01 October 2020	09:30	01-10-2020	18:00	ODB	POWERGRID NR-3	S/D required for AMP and Tightening of 110 X 3=330MVAR Sararam Line Reactor, AMP of Line Side Equipments and rectification of Shutdown nature Defect like Jumper tightening, Missing member replacement and other related works.by associated TLM's		NLDC	May be clubbed with ICT SD at Sasaram
42	220kV Rengali-Kaniha fdr	01 October 2020	08:00	08-10-2020	17:00	OCB	Rengali P.H.	Replacement of CVT and LA of the fdr at Rengali P.H. end			Deatiled work plan and schedule may be submitted
43	400 KV PATNA-BARH-I AT NTPC BARH	01 October 2020	10:00	01-10-2020	13:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK			
44	400 KV PATNA-BARH-II AT NTPC BARH	01 October 2020	14:00	01-10-2020	17:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK			
45	220 KV Alipurduar- Alipurduar(PG) Ckt 1	02 October 2020	07:00	02 October 2020	15:00	ODB	WB	Pre Puja Line Mtc, jumper tightening, tree trimming			
46	A/R of 400 KV Tala-Binaguri-I	02 October 2020	08:30	10-10-2020	17:30	ODB	POWERGRID,ER-II	A/R recloser relay put into Non auto mode for performing the PID test of Insulators		NLDC	

47	400 KV D/C Arambag - Kolaghat, Arambag - Durgapur TL (WBSETCL)	02 October 2020	08:00	03-10-2020	17:00	ODB	POWERGRID,ER-II	Stringing b/w AP 31/0 to 32/0 of 765 KV D/C Medinipur-Jeerat TL Over existing 400 KV D/C Arambag - Kolaghat, Arambag - Durgapur TL (WBSETCL)		WB	It Seems Arambad New Chanditala SD is required, along with Kolaghat ckt, may be allowed other 400 kV lines should be available,
48	ICT-I (3x 105 MVA) at Jeypore	02 October 2020	######	02-10-2020	17:00	ODB	ER-II/Odisha /Jeypore	For changing ICT-I combination form Unit-I,II, IV to Unit-I , III & IV for charging Unit-III & Retrofitting works of Overcurrent, REF, Earth Fault Relay		NLDC	SRPC consnet required, ATC revision to be done
49	160 MVA ICT II at Baripada	02 October 2020	09:00	02-10-2020	17:00	ODB	ER-II/Odisha/BARIPADA S/S	AMP works		GRIDCO	
50	220KV GAYA-BODHGAYA-Ckt 1 LINE	02 October 2020	9:00	02-10-2020	13:00	ODB	POWERGRID ER-I	LINE MAINTENANCE.		BSEB	Subject to BSEB Consent
51	A/R OF 220KV GAYA-BODHGAYA-Ckt 2 LINE	02 October 2020	9:00	02-10-2020	13:00	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF 220KV GAYA-BODHGAYA-Ckt 1 LINE		BSEB	Subject to BSEB Consent
52	400 KV PATNA-BARH-III AT NTPC BARH	02 October 2020	10:00	01-10-2020	13:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK			
53	400 KV PATNA-BARH-IV AT NTPC BARH	02 October 2020	14:00	02-10-2020	17:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK			
54	Kharagpur- KTPP 400 KV Ckt 1	03 October 2020	05:00	03 October 2020	14:00	ODB	WB	Route Clearance			
55	Alipurduar- Alipurduar(PG) 220 KV Ckt 2	03 October 2020	07:00	03 October 2020	15:00	ODB	WB	Pre Puja Line Mtc, jumper tightening, tree trimming			
56	Kharagpur- KTPP 400 KV Ckt 1	03 October 2020	05:00	03 October 2020	14:00	ODB	WB	Route Clearance			
57	220kV Alipurduar-Salakati II	03 October 2020	08:00	03-10-2020	16:00	ODB	POWERGRID,NER	Replacement of R phase CVT. SD requisitioned by NER	Existing system Improvement Related Shudown	NLDC	Appropriate expalinantion may be given on how the requisite work will led to exisiting system improvement
58	765KV BUS-II(AIS) at Sundargarh	03 October 2020	08:00	03-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP		NLDC	
59	220kV Jeypore-Jayanagar-2 line	03 October 2020	10:00	03-10-2020	17:00:00	ODB	ER-II/Odisha /Jeypore	AMP Work of 220kV Jeypore-Jayanagar-2 Line		NLDC/GRIDCO	The outage shpuld be clubbed with outage of Odisha for the same line
60	220 Kv DMTCL(Darbhang)-New Samastipur S/C T/L	03 October 2020	09:00	04-10-2020	16:00	ODB	BSPTCL	For tree pruning and jumper tightening work	New Samastipur will avail power from Begusarai. No load restriction		
61	400kV Bus Bar 1 at PATNA	03 October 2020	9:30	03-10-2020	17:30	ODB	POWERGRID ER-I	AMP work		BSEB	Tripping of other bus will lead to outage of Kishanganj-DC
62	132kV Baripada- Baripada PG line	03 October 2020	08:00	03-10-2020	16:00	ODB	OPTCL	Annual Maintenance of 132/33kV Grid Sub-station, Baripada	Baripada will avail P/S from Balasore		

63	A/R in non auto mode in 220KV Dalkhola-Kishanganj D/C TL	04 October 2020	07:00	12-10-2020	18:00	ODB	POWERGRID,ER-II	For diamonding arrangement for earthwire in 400KV Teesta3-Kishanganj TL in the section T-312/2 to T-312/3 with 220KV Dalkhola-Kishanganj D/C TL & 220KV Siliguri-Kishanganj D/C TL			Detail scketch may be given
64	A/R in non auto mode in 220KV Siliguri-Kishanganj D/C TL	04 October 2020	07:00	12-10-2020	18:00	ODB	POWERGRID,ER-II	For diamonding arrangement for earthwire in 400KV Teesta3-Kishanganj TL in the section T-312/2 to T-312/3 with 220KV Dalkhola-Kishanganj D/C TL & 220KV Siliguri-Kishanganj D/C TL			Detail scketch may be given
65	220 Kv Muz(PG)-Hazipur D/C T/L	04 October 2020	10:30	04-10-2020	14:30	ODB	BSPTCL	For overhead crossing of U/C 220 KV Muz(PG)-Goraul D/c T/L	Hazipur will avail restricted power from BTPS		Darbhanga Side Link of MTPS Should be avilable
66	500 MVA ICT4 at Biharsharif SS	04 October 2020	10:00	04-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		BSEB	Subject to BSEB Consent
67	400KV Maithon - Gaya-I	04 October 2020	8:00	06-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer			
68	A/R of 400KV Maithon - Gaya-II	04 October 2020	8:00	06-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kVMaithon-Gaya-I			
69	400 KV KAHALGAON-BARH-I	04 October 2020	10:00	02-10-2020	13:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK			
70	400 KV KAHALGAON-BARH-II	04 October 2020	15:00	04-10-2020	15:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK			
71	Jeerat- New Chanditala 400 KV Ckt	05 October 2020	06:00	05 October 2020	15:00	ODB	WB	Maintenance of 400 KV bay of N.Chanditala			
72	400 KV Main Bus-I at Jeerat	05 October 2020	06:00	05 October 2020	15:00	ODB	WB	Maintenance of Main Bus I side isolators			
73	Rajarhat(PG)-Gokarna 400 KV Ckt & bay	05 October 2020	06:00	05 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			Purnea/Farakka Gokerno Should be available, Gokarno to be made radial at 220 kV level
74	Kharagpur- Baripada 400 KV Ckt	05 October 2020	06:00	05 October 2020	16:00	ODB	WB	Route Clearance			
75	Kharagpur- KTPP 400 KV Ckt 2	05 October 2020	05:00	05 October 2020	14:00	ODB	WB	Route Clearance			
76	400 KV Main Bus-II at Kharagpur	05 October 2020	07:00	05 October 2020	16:00	ODB	WB	Maintenance Work			
77	KLC-Subhasgram(PG) 220 KV S/C	05 October 2020	08:00	05 October 2020	16:00	ODB	WB	Pre Puja Mtc. & Testing work			
78	400KV BUS-1 BRBCL	05 October 2020	9:00hrs	06 October 2020	17:00 hrs	ODB	BRBCL	STRINGING & BUS ISOLATOR ERECTION WORK FOR BAY-404 AS REQUESTED BY NPGCL(BUS WILL BE CHARGED IN EVENING ON 05.10.2020 AT 17.00 HRS & AGAIN S/D WILL BE TAKEN ON 06.10.2020)		BSEB/Railway	Deferred till December
79	50MVA ICT-II at Gangtok	05 October 2020	09:00	05-10-2020	15:00	ODB	POWERGRID,ER-II	Relay retrofitting		Sikkim	

80	132 kv Rangpo-Chuzachen Line -1	05 October 2020	09:00	05-10-2020	17:00	ODB	POWERGRID,ER-II	AMP Works		Chuzachen	
81	400KV BINAGURI-Kishanganj Ckt-1	05 October 2020	09:00	05-10-2020	17:00	ODB	POWERGRID,ER-II	Replacement and retrofitting of distance relay (Distance and Auto reclosure)			
82	400 KV Binaguri-Malbase	05 October 2020	09:00	10-10-2020	18:00	ODB	POWERGRID,ER-II	Porcelain insulator replacement with CLR in major Crossing		NLDC	
83	220KV Siliguri-Kishanganj-1 line	05 October 2020	09:00	25-10-2020	18:00	ODB	POWERGRID,ER-II	Diversion of 220kV Siliguri-Kishanganj TL due to construction of Islampur Bypass by NHAI near to Dalkhola. Due to heavy rain fall in august the area is completely water logged and can be accesssed properly in October only. Accordingly the S/D deferred till first week of October-2020.			Outage will be attributed to PGCIL as its a deposit nature of work
84	220KV Siliguri-Kishanganj-2 line	05 October 2020	09:00	25-10-2020	18:00	ODB	POWERGRID,ER-II	Diversion of 220kV Siliguri-Kishanganj TL due to construction of Islampur Bypass by NHAI near to Dalkhola. Due to heavy rain fall in august the area is completely water logged and can be accesssed properly in October only. Accordingly the S/D deferred till first week of October-2020.			Outage will be attributed to PGCIL as its a deposit nature of work
85	400KV Berhampore Bheramara-1	05 October 2020	09:00	05-10-2020	17:00	ODB	POWERGRID,ER-II	Relay Maintenance and Line Bay AMP		NLDC	Bangladesh Power to be restricted to 850 MW
86	400KV Bus-3 at Maithon	05 October 2020	09:30	05-10-2020	17:00	ODB	POWERGRID,ER-II	Bay upgradation work under ERSS-XVII.		DVC	
87	400 KV Maithon-Mejia-2 Line	05 October 2020	09:00	05-10-2020	17:00	ODB	POWERGRID,ER-II	Replacement of insulators damaged by miscreant		DVC	
88	A/R of 400 KV Maithon-Mejia-1 Line	05 October 2020	09:00	05-10-2020	17:00	ODB	POWERGRID,ER-II	To be kept in Non-Auto mode for insulator replacement work in alternate CKT		DVC	
89	400KV Durgapur -Jamshedpur S/c	05 October 2020	09:00	05-10-2020	17:30	ODB	POWERGRID,ER-II	S/D for for rectification of shutdown nature defects and broken insulator replacement.			
90	400KV ,125MVAR BUS REACTOR-1 at Sundargarh	05 October 2020	09:00	05-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			
91	765KV Sundargarh-Angul Ckt #4	05 October 2020	08:00	05-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	TL Maint & Jumper replacement at Loc 430		NLDC	
92	63MVAr Bus Reactor at Jeypore	05 October 2020	09:00	23-10-2020	17:00	OCB	ER-II/Odisha /Jeypore	Overhauling of 63MVAr Bus Reactor for arresting oil leakage			
93	400kV DSTPS-Jamshedpur Ckt#2	05 October 2020	08:30	05-10-2020	17:00	ODB	S/Y Maintenance, DSTPS, DVC	Line Maintenance Activities incl. Bay hardware connector tightness & replacement (if any).		DVC	
94	220kV Jamshedpur-Jindal Tie	05 October 2020	09:00	05-10-2020	17:30	ODB	GOMD-III, Jamshedpur, DVC	Disc insulator replacement work at loc no. 85		GRIDCO	Jamsedpur Bokaro and Joda Jindal Should be available
95	220 KV DMTCL(Darbhanga)-Laukahi D/C T/L	05 October 2020	07:00	13-10-2020	15:00	ODB	BSPTCL	For Jumper tightening work work	Laukahi will avail power from Madhepura.		

96	220 KV Kishangan(PG)-Kishanganj ckt 3	05 October 2020	09:00	06-10-2020	16:00	ODB	BSPTCL	For jumper tightening work	There will be no any load restriction as 03 Nos of 220 Kv tr line will remain in service.		
97	220 KV Kishangan(PG)-Kishanganj ckt 4	05 October 2020	09:00	06-10-2020	16:00	ODB	BSPTCL	For jumper tightening work	There will be no any load restriction as 03 Nos of 220 Kv tr line will remain in service.		
98	400 KV D/C KAHAGAON-LAKHISARAI CKT 1	05 October 2020	8:00	05-10-2020	18:00	ODB	POWERGRID ER-I	Replacement of flash over at loc.no. 119 & 217.A/R OF CKT-II WILL PUT IN NON AUTO MODE DURING S/D.			
99	A/R OF 400 KV D/C KAHAGAON-LAKHISARAI CKT 2	05 October 2020	8:00	05-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the S/D of 400 KV D/C KAHAGAON-LAKHISARI CKT 1			
100	400 KV Gaya -Nabinagar Ckt-1	05 October 2020	9:00	08-10-2020	18:00	OCB	POWERGRID ER-I	For Charging of LILO Chandauti Substation.A/R OF CKT-II WILL PUT IN NON AUTO MODE DURING S/D.			
101	400 KV Gaya -Nabinagar Ckt-2	05 October 2020	9:00	08-10-2020	18:00	OCB	POWERGRID ER-I	For Charging of LILO Chandauti Substation.A/R OF CKT-I WILL PUT IN NON AUTO MODE DURING S/D.			
102	766 kV New Ranchi-Dharamjaygarh CKT-I	05 October 2020	9:00	10-10-2020	18:00	ODB	POWERGRID ER-I	For Tower Strengthening work executed .For Tower Strengthning work Total towers = 166; Completed- Nil		NLDC	
103	220kV Bus -1 at New Purnea S/s	05 October 2020	10:00	05-10-2020	18:00	ODB	POWERGRID ER-I	AMP work		BSEB	Subject to BSEB Consent
104	ICT 3 BARH	05 October 2020	9:00	10-10-2020	18:00	OCB	NTPC BARH	Annual maintenance of ICT 3			
105	400 KV BARH-MOTIHARI-I	05 October 2020	10:00	05-10-2020	13:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK		NLDC	
106	400 KV BARH-MOTIHARI-II	05 October 2020	14:00	05-10-2020	17:00	ODB	POWERGRID ER-I UNDER PILOT PROJECT OF RLDC	FOR INSTALLING MAIN SEM METER AND CHECK METER UNDER 5 MINUTE METERING TIME BLOCK			
107	220kV Jayanagar-PGCIL ckt-I	05 October 2020	10:00	05-10-2020	16:00	ODB	OPTCL	Replacement of old backup relay by new Siemens make numerical backup relay and preventive maintenance of jumper drops and isolators at Jayanagar end		NLDC/GRIDCO	SRPC consent required
108	400KV Binaguri - Bongaigaon D/C (Twin) Line (POWERGRID)	05 October 2020	06:00	08 October 2020	18:00	ODB	POWERGRID,ER-II	Stringing at crossing between Loc. No. 11/0 - 12/0 of Jigmeling line and loc. No. 273-274 of Binaguri - Bongaigaon Line		**NLDC**	**May be avoided during Pole outage**
109	New Town AAIII- Subhashgram(PG) 220 KV Ckt	06 October 2020	08:00	06 October 2020	16:00	ODB	WB	Pre puja Mtc.,Testing, Trimming, Jumper checking			
110	Farakka (PG)-Gokarna 400 KV Ckt & bay	06 October 2020	06:00	06 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			Rajarhat Gokarno Should be available, Gokarno to be made radial at 220 kV level

111	Kharagpur- Baripada 400 KV Ckt	06 October 2020	06:00	06 October 2020	16:00	ODB	WB	Route Clearance			
112	Kharagpur- KTPP 400 KV Ckt 2	06 October 2020	05:00	06 October 2020	14:00	ODB	WB	Route Clearance			
113	400 KV Main Bus-II at Kharagpur	06 October 2020	07:00	06 October 2020	16:00	ODB	WB	Maintenance Work			
114	220KV New Melli-Rangpo Line	06 October 2020	10:00	06-10-2020	17:00	ODB	POWERGRID,ER-II	SF6 Gas Filling in G9 (Y-Ph) Compartment of Bay 207,AMP works			
115	400 kV D/C FARAKKA BERHAMPORE CKT-2	06 October 2020	09:00	06-10-2020	17:00	ODB	POWERGRID,ER-II	Rectification of shut down nature defects in various locations in Transmission line.			
116	400KV BUS-II at Malda	06 October 2020	08:00	07-10-2020	17:00	OCB	POWERGRID,ER-II	ERSS-XVII-B Constructional work (400KV TBC)		WB	
117	500 MVA ICT-1 at Maithon	06 October 2020	10:00	06-10-2020	12:00	ODB	POWERGRID,ER-II	CT oil sampling as per norms		DVC/JSEB	
118	400KV Maithon-RTPS Line	06 October 2020	09:30	06-10-2020	17:00	ODB	POWERGRID,ER-II	Line Bay AMP works		DVC	
119	315 MVA ICT-1 at Durgapur	06 October 2020	09:00	06-10-2020	17:00	ODB	POWERGRID,ER-II	REF relay retrofitting works	315 MVA ICT-2 & 3 shall remains in Service.	DVC	
120	400kV Rajarhat-Subhashgram circuit with 400KV Main Bus Bar-1	06 October 2020	09:00	07-10-2020	17:00	ODB	POWERGRID,ER-II	For modification of Bus bar logic in GIS for enhancing system reliability.		WB	
121	400 KV Main Bus-I at Subhasgram	06 October 2020	09:00	10-10-2020	17:00	ODB	POWERGRID,ER-II	For dismantalling of old 407 Bay Bus Isoltor and installation & commissioing of new 407 Bay Bus isolator under ERSS - XVIII Project.	400 KV Main Bus-1 will be unde Shutdown.	WB	
122	400kV Alipurduar- Siliguri line CKT-1	06 October 2020	08:00	06-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification		NLDC	May be avoided during Pole outage
123	A/R of 400kV Alipurduar- Siliguri line CKT-2	06 October 2020	08:00	06-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.		NLDC	
124	ICT-2 Transformer at TSTPP	06 October 2020	08:00	09-10-2020	18:00	OCB	NTPC TACHER	ICT Oil leakage attending and AMP Jobs of transformer and 400KV/220KV bays	Requires ICT-2 shut down		
125	400KV Indravati-Rengali S/C Line	06 October 2020	09:00	06-10-2020	17:00	ODB	ER-II/Odisha/Indravati	For opening of Isolator(40389R) & Jumper of 50MVAR LR to replace R-PH Bushing of 50MVAR LR, since LR is non switchable one.		NLDC	Gazuwaka may be restricted to 350 MW
126	50MVAR Line Reactor at Indravati	06 October 2020	09:00	09-10-2020	17:00	OCB	ER-II/Odisha/Indravati	For Replacement of R-ph Bushing of 50MVAR LR, Leakage arresting, Filteration of oil, Settlement of oil & Testing.			
127	400KV ,125MVAR BUS REACTOR-2 at Sundargarh	06 October 2020	09:00	06-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	AMP			
128	400kV RTPS-Ranchi PG CkT#2	06 October 2020	09:00	06-10-2020	18:00	ODB	GOMD-VII, Ramgarh, DVC	In view of preventive maintenance of 400kV DVC (RTPS)- PGCIL (RANCHI) ckt- 2&3 (L#408 & 407) . For Hardware checking, jumper tightening if required and checking of earthings.			

129	132 Kv Rajgir-Barhi S/C T/L	06 October 2020	09:00	08-10-2020	16:00	ODB	BSPTCL	For line and bay maintenance work	Consent from SLDC DVC will be required.Line is charged on no load	DVC	
130	133 Kv Nalanda-Barhi S/C T/L	06 October 2020	09:00	08-10-2020	16:00	ODB	BSPTCL	For line and bay maintenance work	Consent from SLDC DVC will be required.Line is charged on no load	DVC	
131	220 KV RANCHI-HATIA-I LINE AT RANCHI	06 October 2020	10:00	06-10-2020	14:00	ODB	POWERGRID ER-I	Line bay AMP.		JSEB	
132	400 KV BIHARSHARIFF-BALLIA (PG) CKT-1	06 October 2020	8:00	06-10-2020	18:00	ODB	POWERGRID ER-I	REPLACEMENT OF FLASHED INSULATORS LOC 396, 397		NLDC	
133	A/R of 400 KV BIHARSHARIFF-BALLIA (PG) CKT-2	06 October 2020	8:00	06-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE S/D WORK ON 400 KV BIHARSHARIF - BALIA-1		NLDC	
134	132 kV Ara Dumraon	06 October 2020	9:00	06-10-2020	17:30	ODB	ARA SS, POWERGRID ER-I	AMP at Ara SS, POWERGRID end.		BSEB	Subject to BSEB Consent
135	220kV Bus -2 at New Purnea S/s	06 October 2020	10:00	06-10-2020	18:00	ODB	POWERGRID ER-I	AMP work		BSEB	Subject to BSEB Consent
136	220kV Jayanagar-PGCIL ckt-II	06 October 2020	10:00	06-10-2020	16:00	ODB	OPTCL	Replacement of old backup relay by new Siemens make numerical backup relay and preventive maintenance of jumper drops and isolators at Jayanagar end		NLDC	The ouatge to be planned in tandem with PG Odisha Project.Gazuwaka to be restricted to 350 MW
137	Jeerat- SGTPP 400 KV Ckt	07 October 2020	06:00	07 October 2020	15:00	ODB	WB	Maintenance of 400 KV bay of SGTPP			
138	400 KV Main Bus-II at Jeerat	07 October 2020	06:00	07 October 2020	15:00	ODB	WB	Maintenance of Main Bus II side isolators			
139	New Town AAIII- Rajarhat(PG) 220 KV Ckt 1	07 October 2020	08:00	07 October 2020	16:00	ODB	WB	Pre puja Mtc.,Testing, Trimming, Jumper checking			
140	400KV Bus Transfer bay at Gokarna	07 October 2020	06:00	07 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			
141	KTPP- Kharagpur 400 KV Ckt 1	07 October 2020	07:00	07 October 2020	15:00	ODB	WB	Route Clearance			
142	400 KV Main Bus-II at Kharagpur	07 October 2020	07:00	07 October 2020	16:00	ODB	WB	Maintenance Work			
143	Malda- Malda(PGCIL) 132 KV Ckt 1	07 October 2020	08:00	07 October 2020	15:00	ODB	WB	Route Clearance & Pre puja Mtc. Work			
144	132 BUS sectionalizer -1 at Rangpo	07 October 2020	09:00	07-10-2020	17:00	ODB	POWERGRID,ER-II	AMP Works (OCC approved ,But ERLDC not Given S/D)			
145	400KV Berhampore Bheramara-2	07 October 2020	09:00	07-10-2020	17:00	ODB	POWERGRID,ER-II	Relay Maintenance and Line Bay AMP		NLDC	Bangladesh Power to be restricted to 850 MW
146	500MVA ICT-2 at Maithon	07 October 2020	09:30	07-10-2020	17:00	ODB	POWERGRID,ER-II	Fine Tuning of CSD and AMP Works		DVC/JSEB	
147	50MVAR & 125MVAR Bus Reactor -1 & 2 at Durgapur	07 October 2020	09:00	07-10-2020	17:00	ODB	POWERGRID,ER-II	REF relay retrofitting works	125MVAR Bus Reactor -3&4 Shall remain in Service		

148	400 KV S/C Sagardighi - Jeerat TL	07 October 2020	08:00	08-10-2020	17:00	ODB	POWERGRID,ER-II	Stringing b/w AP 138/0 to AP139/0 of 765 KV D/C Medinipur-Jeerat TL Over existing 400 KV S/C Sagardighi - Jeerat TL		WB	
149	400kV Alipurduar- Siliguri line CKT-1	07 October 2020	08:00	07-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.		NLDC	May be avoided during Pole outage
150	400kV Alipurduar- Siliguri line CKT-2	07 October 2020	08:00	07-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification		NLDC	May be avoided during Pole outage
151	400kV RTPS-Ranchi PG CkT#3	07 October 2020	09:00	07-10-2020	18:00	ODB	GOMD-VII, Ramgarh, DVC	In view of preventive maintenance of 400kV DVC (RTPS)- PGCIL (RANCHI) ckt- 2&3 (L#408 & 407) . For Hardware checking, jumper tightening if required and checking of earthings.			
152	220 KV Kishangan(PG)-Kishanganj ckt 1	07 October 2020	09:00	08-10-2020	16:00	ODB	BSPTCL	For jumper tightening work	There will be no any load restriction as 02 Nos of 220 Kv tr line will remain in service.		
153	220 KV Kishangan(PG)-Kishanganj ckt 2	07 October 2020	09:00	08-10-2020	16:00	ODB	BSPTCL	For jumper tightening work	There will be no any load restriction as 02 Nos of 220 Kv tr line will remain in service.		
154	400 KV KAHALGAON-BANKA CKT 1	07 October 2020	8:00	07-10-2020	18:00	ODB	POWERGRID ER-I	Replacement of flash over Insulator at loc.no. 21.A/R OF CKT-II WILL PUT IN NON AUTO MODE DURING S/D.			
155	A/R OF 400 KV KAHALGAON-BANKA CKT 2	07 October 2020	8:00	07-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the S/D of 400 KV D/C KAHALGAON-BANKA CKT 1			
156	400 KV BIHARSHARIFF-BALLIA (PG) CKT-2	07 October 2020	08:00	07-10-2020	18:00	ODB	POWERGRID ER-I	REPLACEMENT OF FLASHED INSULATORS LOC 382, 383		NLDC	
157	A/R OF 400 KV BIHARSHARIFF-BALLIA (PG) CKT-1	07 October 2020	08:00	07-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE S/D WORK ON 400 KV BIHARSHARIF - BALIA-2		NLDC	
158	400kV Koderma - Bokaro-I	07 October 2020	8:00	12-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer insulator.		DVC	
159	A/R of 400kV Koderma - Bokaro-II	07 October 2020	8:00	12-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kV Koderma - Bokarao-I		DVC	
160	400kV Bus-I, 400kV Meramundali-Duburi ckt-I, 400kV Meramundali-Mendhasal ckt-II and 315MVA ICT-I at Meramundali	07 October 2020	07:00	07-10-2020	17:00	ODB	OPTCL	Tightening of all the bus isolator clamps and repair/replacement of jumpers at Meramundali end	400kV Meramundali-Duburi ckt-I and 400kV Meramundali-Mendhasal ckt-II are in same dia and charged through 400kV Bus-I. There is no tie breaker arrangement in 315MVA ICT-I at Meramundali		
161	Jeerat- Rajarhat(PG) 220 KV Ckt 2	08 October 2020	07:00	08 October 2020	15:00	ODB	WB	Maintenance Work			
162	80 MVAR Bus Reactor bay at Gokarna	08 October 2020	06:00	08 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			

163	Dalkhola(WB)-Baisi 132 KV Ckt	08 October 2020	09:00	08 October 2020	14:00	ODB	WB	Pre puja Maintenance Work		BSEB	Subject to BSEB Consent
164	Arambagh- KTPP 400 KV Ckt	08 October 2020	05:00	08 October 2020	14:00	ODB	WB	Route Clearance			
165	400 KV Main Bus-II at Kharagpur	08 October 2020	07:00	08 October 2020	16:00	ODB	WB	Maintenance Work			
166	Malda- Malda(PGCIL) 132 KV Ckt 2	08 October 2020	08:00	08 October 2020	15:00	ODB	WB	Route Clearance & Pre puja Mtc. Work			
167	400KV BUS-2 BRBCL	08 October 2020	9:00hrs	09 October 2020	17:00 hrs	ODB	BRBCL	STRINGING & BUS ISOLATOR ERECTION WORK FOR BAY-406 AS REQUESTED BY NPGCL(BUS WILL BE CHARGED IN EVENING ON 08.10.2020 AT 17.00 HRS & AGAIN) S/D WILL BE TAKEN ON 09.10.2020)		BSEB/RAILWAY	Deferred till December
168	400KV Bus#1 at Binaguri	08 October 2020	09:00	08-10-2020	17:00	ODB	POWERGRID,ER-II	Bus CVT replacement		NLDC/WB	
169	132KV Siliguri-NJP line	08 October 2020	10:00	08-10-2020	17:00	ODB	POWERGRID,ER-II	AMP work		WB	
170	400KV BUS-I at Malda	08 October 2020	08:00	09-10-2020	17:00	OCB	POWERGRID,ER-II	ERSS-XVII-B Constructional work (400KV TBC)		WB	
171	400KV Maithon-Mejia-3 Line	08 October 2020	09:30	08-10-2020	17:00	ODB	POWERGRID,ER-II	Replacement of insulators damaged by miscreant		DVC	
172	A/R of 400KV Mejia-Jamshedpur Line	08 October 2020	09:30	08-10-2020	17:00	ODB	POWERGRID,ER-II	To be kept in Non-Auto mode for insulator replacement work in alternate CKT			
173	315 MVA ICT-2 at Durgapur	08 October 2020	09:00	08-10-2020	17:00	ODB	POWERGRID,ER-II	REF relay retrofitting works	315 MVA ICT-1 & 3 shall remains in Service.	DVC	
174	400kV Alipurduar- Siliguri line CKT-1	08 October 2020	08:00	08-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification		NLDC	May be avoided during Pole outage
175	A/R of 400kV Alipurduar- Siliguri line CKT-2	08 October 2020	08:00	08-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.			
176	765/400KV, 3*500MVA ICT-3 at Angul	08 October 2020	09:00	08-10-2020	17:00	ODB	ER-II/Odisha/Angul SS	AMP			
177	400kV DSTPS-Jamshedpur Ckt#1	08 October 2020	08:30	08-10-2020	17:00	ODB	S/Y Maintenance, DSTPS, DVC	Line Maintenance Activities incl. Bay hardware connector tightness & replacement (if any).			Other lines from Andal Should be available, shutdown may be clubbed with PGCIL Shutdown
178	400 kV Kh- Barh # 2	08 October 2020	09:00	09-10-2020	18:00	OCB	NTPC KAHELGAON	Bay maintenance & testing			

179	220KV RANCHI-HATIA-3 AT RANCHI	08 October 2020	10:00	08-10-2020	14:00	ODB	POWERGRID ER-I	Line bay AMP.		JSEB	
180	400 KV KAHALGAON-BANKA CKT 2	08 October 2020	8:00	08-10-2020	18:00	ODB	POWERGRID ER-I	Replacement of flash over Insulator at loc.no. 20. A/R OF CKT-I WILL PUT IN NON AUTO MODE DURING S/D.			
181	A/R OF 400 KV KAHALGAON-BANKA CKT 1	08 October 2020	8:00	08-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the S/D of 400 KV D/C KAHALGAON-BANKA CKT 2			
182	500MVA ICT2_409T at PATNA	08 October 2020	9:30	08-10-2020	18:00	ODB	POWERGRID ER-I	Online DGA installation and commissioning.		BSEB	Subject to BSEB Consent
183	220kV Rengali-Rengali PG ckt-I	08 October 2020	07:00	09-10-2020	17:00	ODB	OPTCL	Annual Maintenance of 220/33KV Grid S/S, Rengali			
184	220kV Rengali-Rengali PG ckt-II	08 October 2020	07:00	09-10-2020	17:00	ODB	OPTCL	Annual Maintenance of 220/33KV Grid S/S, Rengali			
185	400 kV Farakka-Kahalgaon#4	08 October 2020	09:00	09-10-2020	17:00	OCB	NTPC FARAKKA	Annual testing of CB,CT			
186	Jeerat- Rajarhat(PG) 400 KV Ckt	09 October 2020	06:00	09 October 2020	15:00	ODB	WB	Maintenance of 400 KV bay of Rajarhat(PG)			
187	400 KV Main Bus-I at Jeerat	09 October 2020	06:00	09 October 2020	15:00	ODB	WB	Maintenance of Main Bus I side isolators			
188	New Town AAIII- Rajarhat(PG) 220 KV Ckt 2	09 October 2020	08:00	09 October 2020	16:00	ODB	WB	Pre puja Mtc.,Testing, Trimming, Jumper checking			
189	315MVA ICT-1 AND HV+IV bay at Gokarna	09 October 2020	06:00	09 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			
190	Dalkhola(WB)-Dalkhola(PG) 220 KV Ckt 1	09 October 2020	08:00	09 October 2020	16:00	ODB	WB	Pre puja Maintenance Work			
191	Arambagh- KTPP 400 KV Ckt	09 October 2020	05:00	09 October 2020	14:00	ODB	WB	Route Clearance			
192	STPS-Chandil 220 KV S/C	09 October 2020	06:00	09 October 2020	15:00	ODB	WB	CT replacement under PSDF scheme (SAS) at STPS.		JSEB	ELECTRICAL INSIPECTOR CERTIFICATE OR UNDERTAKING WILL BE REQUIRED BEFORE CHARGING OF ANY NEW ELECTRICAL INSTALLATION.
193	132 kV Rangit-Rammam Line	09 October 2020	09:30	09-10-2020	16:30	ODB	POWERGRID,ER-II	Sag Correction due to Hill Sinking area at Loc 73-74		WB	
194	400KV BUS SECTIONALISER-2 at Alipurduar	09 October 2020	09:00	09-10-2020	18:00	ODB	POWERGRID,ER-II	Bay AMP Work		NLDC	
195	220 KV Alipurduar - Birpara Ckt I	09 October 2020	06:00	10-10-2020	18:00	ODB	POWERGRID,ER-II	Insulator replacement at railway crossing as railway block is easily available in this period			
196	400KV Berhampore-Sagardighi-1	09 October 2020	09:00	09-10-2020	17:00	ODB	POWERGRID,ER-II	Relay Maintenance and Line Bay AMP and line maintenance		WB	
197	400kV Maithon-Durgapur-2 line	09 October 2020	09:30	10-10-2020	17:00	ODB	POWERGRID,ER-II	Internal inspection/Overhauling of interrupter of 400kV CB of Main Bay.			

198	400kV Rajarhat-Jeerat circuit with 400KV Main Bus Bar-1	09 October 2020	09:00	10-10-2020	17:00	ODB	POWERGRID,ER-II	For modification of Bus bar logic in GIS for enhancing system reliability.		WB	
199	400 KV S/C Arambag - Durgapur TL (WBSETCL)	09 October 2020	08:00	10-10-2020	17:00	ODB	POWERGRID,ER-II	Stringing b/w AP 33/0 to 34/0 of 765 KV D/C Medinipur-Jeerat TL Over existing 400 KV S/C		WB	
200	A/R OF 400kV Alipurduar- Siliguri line CKT-1	09 October 2020	08:00	09-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.		NLDC	
201	400kV Alipurduar- Siliguri line CKT-2	09 October 2020	08:00	09-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification		NLDC	
202	400KV Indravati-Rengali S/C Line	09 October 2020	15:00	09-10-2020	17:00	ODB	ER-II/Odisha/Indravati	For connnecting Jumpers & closing of Isolator(40389R) of 50MVAR LR after completion of Bushing replacement works and taking into sevice the 50MVAR LR, since LR is non switchable one.		NLDC	Gazuwaka may be restricted to 350 MW
203	765 KV DHARAMJAY GARH Line-II AT NEW RANCHI	09 October 2020	9:00	09-10-2020	17:00	ODB	POWERGRID ER-I	COMMISSIONING OF SPARE REACTOR UNDER ERSS XX		NLDC	
204	400 KV Bus 1 AT MOTIHARAI	09 October 2020	08:00	10-10-2020	18:00	OCB	POWERGRID ER-I	Interconnection AND HV Testing of Extension Bus (By POWERGRID)to existing Bus (DMTCL)		BSEB	Subject to BSEB Consent
205	400kV Meramundali-Lapanga ckt-I	09 October 2020	07:00	09-10-2020	17:00	ODB	OPTCL	Repair of line and tie isolator drops of the fdr at Meramundali end	400kV Meramundali-Lapanga ckt-II will remain in service		
206	133 kV Rangit-Rammam Line	10 October 2020	09:30	10-10-2020	17:00	ODB	POWERGRID,ER-II	Sag Correction due to Hill Sinking area at Loc 30-31		WB	
207	400KV Bus#2 at Binaguri	10 October 2020	09:00	10-10-2020	17:00	ODB	POWERGRID,ER-II	Upgradation of 412 Bay, Bus isolator jumper removal for Bus isolator replacement & Bus CVT replacement		NLDC/WB	
208	400 kV S/C FARAKKA-RAJARHAT	10 October 2020	09:00	10-10-2020	17:00	ODB	POWERGRID,ER-II	Rectification of shut down nature defects in various locations in Transmission line.		WB	
209	765KV BUS REACTOR #1 (3*110MVAR) at Angul	10 October 2020	09:00	10-10-2020	14:00	ODB	ER-II/Odisha/Angul SS	Taking Spare Reactor inplace of R-Ph (Spare rotation)		NLDC	
210	220kV Jamshedpur-Jindal Tie	10 October 2020	09:00	10-10-2020	17:30	ODB	GOMD-III, Jamshedpur, DVC	Disc insulator replacement work at loc no. 158		GRIDCO	Jamsedpur Bokaro and Joda Jindal Should be available
211	400 KV Maithon -Gaya Ckt 2	10 October 2020	9:00	15-10-2020	18:00	OCB	POWERGRID ER-I	Reconductoring of HTLS CONDUCTOR Middle R phase twin conductor (837 mtr span) between Tower no 40 1nd 41 Multi Ckt Tower DUE TO SLIPPING STEEL JOINT DUE TO HEAVY CYCLONE. A/R OF CKT-I WILL PUT IN NON AUTO MODE DURING S/D.			

212	A/R of 400 KV Gaya-Maithon-I	10 October 2020	9:00	15-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF400 KV GAYA-MAITHON I			
213	400 KV Gaya-Koderma Ckt-1	10 October 2020	9:00	15-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE THE SHUTDOWN OF 400 KV MAITHON GAYA CKT-II FOR REPLACEMENT OF THE HTLS CONDUCTOR.		DVC	
214	A/R of 400 KV Gaya-Koderma Ckt-2	10 October 2020	9:00	15-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF400 KV GAYA-MAITHON II			
215	BUS REACTOR 4 AT BIHARSHARIF	10 October 2020	10:00	10-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK			
216	315 MVA ICT -III at LAKHISARAI	10 October 2020	9:30	10-10-2020	17:30	ODB	POWERGRID ER-I	Final tuning of Main bay CSD under ERSS XX		BSEB	Subject to BSEB Consent
217	220 KV ARA-NADOKHAR-II	10 October 2020	9:00	10-10-2020	17:00	ODB	BGCL	For removing shorting arrangement and charging of line through Dumraon New GIS .			Detail scketch required
218	Dalkhola(WB)-Dalkhola(PG) 220 KV Ckt 2	10 October 2020	08:00	10-10-2020	16:00	ODB	WB	Pre puja Maintenance Work			
219	STPS-Chandil 220 KV S/C	10 October 2020	06:00	10-10-2020	15:00	ODB	WB	CT replacement under PSDF scheme (SAS) at STPS.		JSEB	ELECTRICAL INSIPECTOR CERTIFICATE OR UNDERTAKING WILL BE REQUIRED BEFORE CHARGING OF ANY NEW ELECTRICAL INSTALLATION.
220	400 KV Binaguri-Tala line-4	11 October 2020	09:00	13-10-2020	18:00	ODB	POWERGRID,ER-II	Porcelain insulator replacement with CLR in major Crossing		NLDC	
221	315MVA ICT#3 at Subhasgram	11 October 2020	09:00	11-10-2020	17:00	ODB	POWERGRID,ER-II	For Bay Stability test under ERSS-XVIII Project.	315 MVA ICT#3 will be under Shutdown.	WB	
222	220 Kv Muz(PG)-MTPS D/C T/L	11 October 2020	10:30	11-10-2020	14:30	ODB	BSPTCL	For overhead crossing of U/C 220 KV Muz(PG)-Goraul D/c T/L	MTPS may avail power from Motipur		Details required
223	315 MVA ICT -III at LAKHISARAI	11 October 2020	9:30	11-10-2020	17:30	ODB	POWERGRID ER-I	Final tuning of Main bay CSD under ERSS XX		BSEB	Subject to BSEB Consent
224	400 kV Bus 2 AT MOTIHARAI	11 October 2020	08:00	12-10-2020	18:00	OCB	POWERGRID ER-I	Interconnection AND HV Testing of Extension Bus (By POWERGRID)to existing Bus (DMTCL)		BSEB	Subject to BSEB Consent
225	Jeerat- BKTPP 400 KV Ckt	12 October 2020	06:00	12 October 2020	15:00	ODB	WB	Maintenance of 400 KV bay of BKTPP			
226	400 KV Main Bus-II at Jeerat	12 October 2020	06:00	12 October 2020	15:00	ODB	WB	Maintenance of Main Bus II side isolators			
227	315MVA ICT-2 AND HV+IV bay at Gkarna	12 October 2020	06:00	12 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			
228	Kharagpur- New Chanditala 400 KV Ckt 1	12 October 2020	06:00	12 October 2020	16:00	ODB	WB	Route Clearance			
229	400 KV Main Bus-I at Kharagpur	12 October 2020	07:00	12 October 2020	16:00	ODB	WB	Maintenance Work			
230	STPS-Chandil 220 KV S/C	12 October 2020	06:00	12 October 2020	15:00	ODB	WB	CT replacement under PSDF scheme (SAS) at STPS.		JSEB	
231	Kurseong-Rangit NHPC 132 KV S/C	12 October 2020	09:00	12 October 2020	16:00	ODB	WB	Tree trimming & jumper tightening			
232	66 KV Gangtok-Lagyap (LLHP) Line	12 October 2020	09:00	12-10-2020	18:00	ODB	POWERGRID,ER-II	For Annual AMP Works (Relay Retrofitting)		SIKKIM	

233	132 kv Rangpo-Gangtok line-1	12 October 2020	09:00	12-10-2020	17:00	ODB	POWERGRID,ER-II	Line maintenance Works		SIKKIM	
234	A/R of 400 KV Tala-Binaguri-II	12 October 2020	08:30	17 October 2020	17:30	ODB	POWERGRID,ER-II	A/R recloser relay put into Non auto mode for performing the PID test of Insulators		NLDC	
235	400KV BINAGURI-Kishanganj Ckt-2	12 October 2020	09:00	12-10-2020	17:00	ODB	POWERGRID,ER-II	Replacement and retrofitting of distance relay (Distance and Auto reclosure)			
236	400KV Berhampore-Sagardighi-2	12 October 2020	09:00	12-10-2020	17:00	ODB	POWERGRID,ER-II	Relay Maintenance and Line Bay AMP		WB	
237	400KV Andal-Jamshedpur Ckt-1	12 October 2020	09:00	12-10-2020	17:30	ODB	POWERGRID,ER-II	S/D for for rectification of shutdown nature defects and broken insulator replacement by miscreants.		DVC	
238	Tapping point of 400 KV D/C MID-KGP-CHANDITALA LILO LINE-(TL-56/0 &55/0)-	12 October 2020	00:00	19-10-2020	07:12	OCB	POWERGRID,ER-II	LILO Line tapping of 400KV Medinipur - Kharagpur & Medinipur Chanditala (Powergrid Line to WBSETCL line) Trans. Line	Tapping of LILO line from Medinipur 765/400KV S/S to 400KV Kharagpur -	WB	Detail daigram, scheme approval for LILO duly approved in any comepetent forum will be required.
239	315MVA ICT#4 at Subhasgram	12 October 2020	09:00	12-10-2020	17:00	ODB	POWERGRID,ER-II	OSR Canopy Installation	315 MVA ICT#4 will be under Shutdown.	WB	
240	400KV TSTPS -Rengali 2	12 October 2020	08:00	15-10-2020	18:00	OCB	NTPC TACHER	For Line CT -2nos replacement and AMP jobs	400 KV TSTPS- Rengali # 2 line will be under shut down		
241	765 kV New Ranchi-Dharamjaygarh CKT-I	12 October 2020	8:00	17-10-2020	17:00	ODB	POWERGRID ER-I	For Tower Strengthening work executed.For Tower Strengthning work Total towers = 166; Completed- Nil		NLDC	
242	315 MVA ICT -III at LAKHISARAI	12 October 2020	9:30	12-10-2020	12:00	ODB	POWERGRID ER-I	Final commissioning of DIGITAL RTCC panel under ERSS XX		BSEB	Subject to BSEB Consent
243	200 MVA ICT -I at LAKHISARAI	12 October 2020	12:00	12-10-2020	15:00	ODB	POWERGRID ER-I	Final commissioning of DIGITAL RTCC panel under ERSS XX		BSEB	Subject to BSEB Consent
244	200 MVA ICT -II at LAKHISARAI	12 October 2020	15:00	12-10-2020	17:30	ODB	POWERGRID ER-I	Final commissioning of DIGITAL RTCC panel under ERSS XX		BSEB	Subject to BSEB Consent
245	220 kV Dalkhola-2 line AT KISHANGANJ	12 October 2020	8:30	12-10-2020	18:00	ODB	POWERGRID ER-I	AMP work.			Other Line should be available decision on bus coupler may be taken on D-3 day depending on LGBR
246	**220KV MUZ-DHALKEBAR (Nepal) -1 & 2 Line at Muzaffarpur**	12 October 2020	**08:00**	17-10-2020	**19:00**	**OCB**	**POWERGRID ER-I**	**DE-STRINGING & RE-STRINING OF ONE SPAN OF 400KV LINE NEAR BY MUZAFFARPUR SUBSTATION. PLCC & DPC ERECTION, TESTING & COMMISSIO. FOTE PANEL SHIFTING & LINE TESTING ETC.**		**NLDC**	**Subject to approval of Nepal. Sketch to be provided**
247	400KV MAIN BUS-1 & 400KV B/C bay at Gokarna	13 October 2020	06:00	13 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			
248	400 KV Main Bus-I at Kharagpur	13 October 2020	07:00	13 October 2020	16:00	ODB	WB	Maintenance Work			
249	Kurseong-Rangit NHPC 132 KV S/C	13 October 2020	09:00	13 October 2020	16:00	ODB	WB	Tree trimming & jumper tightening			
250	132 kv Rangpo-Gangtok line-2	13 October 2020	09:00	13-10-2020	17:00	ODB	POWERGRID,ER-II	AMP& Line maintenance Works		SIKKIM	
251	400/220kV 315 MVAICT -3 at Rangpo	13 October 2020	09:00	18-10-2020	17:00	OCB	POWERGRID,ER-II	For rectification of SF6 gas leakage repair work,			
252	220KV Bus-II at Malda	13 October 2020	08:00	13-10-2020	17:00	ODB	POWERGRID,ER-II	ERSS-XVII-B Constructional work(ICT-III Jumper removal)		WB	Bus coupler at Dalkhola shall be opned
253	400KV Maithon - Right Bank-1	13 October 2020	09:00	13-10-2020	17:00	ODB	POWERGRID,ER-II	Replacement of insulators damaged by miscreant		MPL	

254	A/R of 400KV Maithon - Right Bank-2	13 October 2020	09:00	13-10-2020	17:00	ODB	POWERGRID,ER-II	To be kept in Non-Auto mode for insulator replacement work in alternate CKT			
255	220 KV D/C Arambag - Damjur TL (WBSETCL)	13 October 2020	08:00	15-10-2020	17:00	ODB	POWERGRID,ER-II	Stringing b/w AP 35/0 to 36/0 of 765 KV D/C Medinipur-Jeerat TL Over existing 220 KV D/C Arambag - Damjur TL		WB	
256	220 KV S/C Arambag - Rishra TL (WBSETCL)	13 October 2020	08:00	15-10-2020	17:00	ODB	POWERGRID,ER-II	Stringing b/w AP 36/0 to 37/0 of 765 KV D/C Medinipur-Jeerat TL Over existing 220 KV S/C Arambag - Rishra TL		WB	
257	400KV Sundargarh-Raigarh Ckt #2	13 October 2020	08:00	13-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	TL Maint work		NLDC	
258	400KV RANCHI -ROURKELA-I	13 October 2020	10:00	13-10-2020	18:00	ODB	POWERGRID ER-I	LOC:72 & 134 FLASHED INSULATOR REPLACEMENT, A/R WILL IN NON AUTO MODE OF CKT-II DURING S/D TIME.			
259	A/R OF 400 KV RANCHI-ROURKELA-II	13 October 2020	10:00	13-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF 400 KV RANCHI-ROURKELA-I			
260	132 kV Main Bus	13 October 2020	9:00	13-10-2020	17:30	ODB	ARA SS, POWERGRID ER-I	AMP at Ara SS, POWERGRID end.		BSEB	Subject to BSEB Consent
261	400kV Koderma - Bokaro-II	13 October 2020	8:00	18-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer insulator.		DVC	
262	A/R of 400kV Koderma - Bokaro-I	13 October 2020	8:00	18-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kV Koderma - Bokarao-II		DVC	
263	132 KV Bus 1 AT MOTIHARI	13 October 2020	08:00	13-10-2020	18:00	OCB	POWERGRID ER-I	Interconnection AND HV Testing of Extension Bus (By POWERGRID)to existing Bus (DMTCL)		BSEB	Subject to BSEB Consent
264	400 KV BARH PATNA LINE # 3	13 October 2020	9:00	14-10-2020	18:00	OCB	NTPC BARH	For Auto Reclose relay testing & Other testing and Annual maintenance of Bay equipments.			
265	400KV MAIN BUS-1 & 400KV B/C bay at Gokarna	14 October 2020	06:00	14 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			
266	Kharagpur- New Chanditala 400 KV Ckt 2	14 October 2020	06:00	14 October 2020	16:00	ODB	WB	Route Clearance			
267	Kurseong-Siliguri(PG) 132 KV S/C	14 October 2020	09:00	14 October 2020	16:00	ODB	WB	Tree trimming & jumper tightening			
268	66 KV Gangtok-Tadong Line	14 October 2020	09:00	14 October 2020	18:00	ODB	POWERGRID,ER-II	For Annual AMP Works (CT Tan delta, CB DCRM and Timing)		SIKKIM	
269	220KV Siliguri Binaguri Ckt-1	14 October 2020	10:00	14 October 2020	17:00	ODB	POWERGRID,ER-II	AMP work			
270	400KV Bus-II at Malda	14 October 2020	08:00	14 October 2020	17:00	ODB	POWERGRID,ER-II	ERSS-XVII-B Constructional work(ICT-III Jumper removal)		WB	
271	220KV Maithon Kalyaneswari-1	14 October 2020	09:30	14 October 2020	17:00	ODB	POWERGRID,ER-II	Bay AMP works		DVC	
272	315 MVA ICT-3 at Durgapur	14 October 2020	09:00	16 October 2020	17:00	ODB	POWERGRID,ER-II	Oil Flow Pump replacement works with oil drain & oil and one bay CT replace work. filtration.	315 MVA ICT-1 & 2 shall remains in Service.	DVC	
273	400KV Andal -Jamshedpur ckt-2	14 October 2020	09:00	14 October 2020	17:30	ODB	POWERGRID,ER-II	S/D for for rectification of shutdown nature defects and broken insulator replacement by miscreants.		DVC	

274	100 MVAR Bus Reactor at 400/220/132 KV WBSETCL Jeerat	14 October 2020	09:00	14 October 2020	17:00	ODB	POWERGRID,ER-II	AMP of 100 MVAR Bus Reactor	100 MVAR Bus Reactor will be under Shutdown	WB	
275	800KV HVDC APD- AGRA Pole-1	14 October 2020	08:00	14 October 2020	18:00	ODB	POWERGRID,ER-II	Rectification of S/D nature of activities in Altagram area (loc. 1288- 1294) which is unattended since commissioning of line due to severe ROW problem		NLDC	Reason should be elaborated if possible supporting proof may be submitted. Further, only Pole shutdonw or line shutdonw also required. NERPC and NRPC approval required. Not to be clubbed with Binaguri-Bongaigaon D/C outage
276	400/220KV ICT#2 at Indravati	14 October 2020	08:00	14 October 2020	17:00	ODB	ER-II/Odisha/Indravati	AMP works of ICT#2. Checking of the Aircell of conservator Tank. During this shutdown Power flow from ICT#2 will be Interrupted.		GRIDCO	After revival of ICT-I at Indravati
277	400KV Sundargarh-Raigarh Ckt #3 & 400KV Sundargarh-Raigarh Ckt #4	14 October 2020	08:00	14 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	TL Maint work & Jumper clearance at Loc. 49 of Ckt-IV. Shut down of both ckt require together due to MC tower.		NLDC	require assesment of bus coupling at Jharsuguda
278	220 kV BSPTCL-1 line AT KISHANGANJ	14 October 2020	8:30	14 October 2020	18:00	ODB	POWERGRID ER-I	AMP work.		BSEB	Subject to BSEB Consent
279	132 KV Bus 2 AT MOTIHARI	14 October 2020	08:00	14 October 2020	18:00	OCB	POWERGRID ER-I	Interconnection AND HV Testing of Extension Bus (By POWERGRID)to existing Bus (DMTCL)		BSEB	Subject to BSEB Consent
280	**400 KV Muzaffarpur- Purnea line-1 at Muzaffarpur**	14 October 2020	**09:00**	14 October 2020	**18:00**	**ODB**	**POWERGRID ER-I**	**AMP WORK**		**NLDC**	Line-1 and HVDC BNC-AGRA and most of the other 400 kv Lines from Purnea and Kishanganj Should be available
281	400kV Bus-II at Meramundali	14 October 2020	07:00	14 October 2020	17:00	ODB	OPTCL	Replacement of Bus-II isolator of 400kV Meramundali-Duburi ckt-II and checking tighteness of bus isolator clamps of including Bus CVT & Bus PI	All the feeders shall remain charged through 400kV Bus -I		
282	400KV MAIN BUS-2 & 400KV B/C bay at Gokarna	15 October 2020	06:00	15 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			
283	Kurseong-Siliguri(PG) 132 KV S/C	15 October 2020	09:00	15 October 2020	16:00	ODB	WB	Tree trimming & jumper tightening			
284	132KV Siliguri-Kursoeng line	15 October 2020	09:00	15 October 2020	17:00	ODB	POWERGRID,ER-II	Identified defect liquidation & jumper Tightening			
285	400KV Maithon - Right Bank-2	15 October 2020	09:00	15 October 2020	17:00	ODB	POWERGRID,ER-II	Replacement of insulators damaged by miscreant		MPL	
286	A/R of 400KV Maithon - Right Bank-1	15 October 2020	09:00	15 October 2020	17:00	ODB	POWERGRID,ER-II	To be kept in Non-Auto mode for insulator replacement work in alternate CKT			
287	A/R in non-auto mode in 400KV Andal-Jamshedpur-I	15 October 2020	07:00	25 October 2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work			
288	800KV HVDC APD- AGRA Pole-2	15 October 2020	08:00	15 October 2020	18:00	ODB	POWERGRID,ER-II	Rectification of S/D nature of activities in Altagram area (loc. 1288- 1294) which is unattended since commissioning of line due to severe ROW problem		NLDC	Reason should be elaborated if possible supporting proof may be submitted. Further, only Pole shutdonw or line shutdonw also required. NERPC and NRPC approval required. Not to be clubbed with Binaguri-Bongaigaon D/C outage
289	400KV Sundargarh-Rourkela Ckt #3 & 400KV Sundargarh-Rourkela Ckt #4	15 October 2020	08:00	15 October 2020	17:00	ODB	ER-II/Odisha/Sundargarh	TL Maint work & Jumper replacement at Loc. 59 of Ckt-IV. Shut down of both ckt require together due to MC tower.			require assesment of bus coupling at Jharsuguda

290	220kV Jamshedpur-Jindal Tie	15 October 2020	09:00	17 October 2020	17:30	OCB	GOMD-III, Jamshedpur, DVC	Replacement of PCT s, Wave Trap and CVT under PSDF work		GRIDCO	ELECTRICAL INSIPECTOR CERTIFICATE OR UNDERTAKING WILL BE REQUIRED BEFORE CHARGING OF ANY NEW ELECTRICAL INSTALLATION.
291	400 kV Kh- Banka # 1	15 October 2020	09:00	16 October 2020	18:00	OCB	NTPC KAHELGAON	Bay maintenance & testing			
292	400/220kV ICT-3 at Jamshedpur	15 October 2020	9:30	15 October 2020	17:30	ODB	POWERGRID ER-I	FOR AMP WORK			
293	132kV Baripada PG-Jaleswar Ckt-I	15 October 2020	08:00	15 October 2020	16:00	ODB	OPTCL	Jumper tightness checking and annual maintenance at Jaleswar end	Jaleswar will avail P/S from Bhograi end		
294	400KV MAIN BUS-2 & 400KV B/C bay at Gokarna	16 October 2020	06:00	16 October 2020	15:00	ODB	WB	Pre puja Maintenance Work			
295	132 kv Rangpo-Melli	16 October 2020	09:00	16-10-2020	17:00	ODB	POWERGRID,ER-II	AMP		SIKKIM	
296	125MVAR BUS REACTOR-2 AT ALIPURDUAR	16 October 2020	09:00	16-10-2020	18:00	ODB	POWERGRID,ER-II	AMP Work			
297	220 KV Alipurduar - Birpara Ckt II	16 October 2020	06:00	17 October 2020	18:00	ODB	POWERGRID,ER-II	Insulator replacement at railway crossing as railway block is easily available in this period			
298	132KV Kursoeng-Rangit line	16 October 2020	09:00	16-10-2020	17:00	ODB	POWERGRID,ER-II	Identified defect liquidation & jumper Tightening		WB	
299	400 kV S/C FARAKKA-DURGAPUR-I	16 October 2020	09:00	16-10-2020	17:00	ODB	POWERGRID,ER-II	Rectification of shut down nature defects in various locations in Transmission line.			
300	220KV Maithon-Dumka-1	16 October 2020	09:30	16-10-2020	17:00	ODB	POWERGRID,ER-II	Bay AMP works		JSEB	
301	125 MVAR Bus Reactor at Subhasgram	16 October 2020	09:00	18-10-2020	17:00	OCB	POWERGRID,ER-II	Replacement of defective turrect CT terminal board of 125 MVAR Bus Reactor.	125 MVAR Bus Reactor will be under shutdown		
302	315 MVA ICT#1 at Rourkela	16 October 2020	09:00	31-10-2020	17:00	OCB	ER-II/ODISHA/ROURKELA	Erection works related to Parallelling of ICTs		GRIDCO	
303	765KV Sundargarh-Angul Ckt #2	16 October 2020	08:00	16-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	TL Maint work		NLDC	
304	A/R to be in non automode of 400KV Sundargarh-Raigarh Ckt #2&4	16 October 2020	08:00	31-10-2020	17:00	ODB	ER-II/Odisha/Sundargarh	For PID Testing of Porcelain Insulator. Only Auto reclose		NLDC	
305	400kV Ranchi-Rourkela # 2 line	16 October 2020	9:30	16-10-2020	17:30	ODB	POWERGRID ER-I	Flashed Insulator replacement work. A/R OF CKT-I WILL PUT IN NON AUTO MODE DURING S/D.			
306	400 KV North Bus-2 at Pusauli	16 October 2020	9:00	16-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	
307	400 KV Bus 1 AT DARBHANGA	16 October 2020	08:00	17-10-2020	18:00	OCB	POWERGRID ER-I	Interconnection AND HV Testing of Extension Bus (By POWERGRID)to existing Bus (DMTCL)		NLDC/BSEB	
308	315MVA ICT-III at Mendhasal	16 October 2020	10:00	16-10-2020	17:00	ODB	OPTCL	Condition monitoring	315MVA ICT-I & II will remain in service		

309	132kv Rangpo-Chuzachen line-2	17 October 2020	09:00	17-10-2020	17:00	ODB	POWERGRID,ER-II	AMP		chuzachen	
310	220KV Maithon-Dumka-2	17 October 2020	09:30	17-10-2020	17:00	ODB	POWERGRID,ER-II	Bay AMP works		JSEB	
311	400KV Muzaffarpur 2 Line at Biharsharif	17 October 2020	10:00	17-10-2020	18:00	ODB	POWERGRID ER-I	FOR REPLACEMENT OF FLASHED INSULATOR			
312	A/R OF 400KV Muzaffarpur1 Line at Biharsharif	17 October 2020	10:00	17-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE SHUTDOWN OF PARALLEL CKT			
313	500 MVA ICT4 at Biharsharif SS	18 October 2020	10:00	19-10-2020	18:00	ODB	POWERGRID ER-I	CSD Commissioning work under main and tie bay project head ERSS-XX		BSEB	Subject to BSEB Consent
314	400kV Muzaffarpur 1 Line at Biharsharif	18 October 2020	10:00	18-10-2020	18:00	ODB	POWERGRID ER-I	FOR REPLACEMENT OF FLASHED INSULATOR			
315	A/R OF 400kV Muzaffarpur 2 Line at Biharsharif	18 October 2020	10:00	18-10-2020	18:00	ODB	POWERGRID ER-1	TO FACILITATE SHUTDOWN OF PARALLEL CKT			
316	400 kv Bus 2 AT DARBHANGA	18 October 2020	08:00	19-10-2020	18:00	OCB	POWERGRID ER-I	Interconnection AND HV Testing of Extension Bus (By POWERGRID)to existing Bus (DMTCL)		NLDC/BSEB	
317	400 KV Muzaffarpur- Darbhanga line-2 at Muzaffarpur	19 October 2020	08:00	21 October 2020	19:00	ODB	POWERGRID ER-I	STRINING OF ONE SPAN OF 400 KV MUZAFFARPUR-DHALKEBAR LINE & LINE BAY AMP WORK.			
318	400KV Rangpo-Teesta-v Ckt-1	19 October 2020	09:00	19-10-2020	17:00	ODB	POWERGRID,ER-II	AMP & line Works		TEESTA-V	May be availed when one out of the three units will go for overhauling
319	A/R of 400 KV Tala-Binaguri-III	19 October 2020	08:30	24 October 2020	17:30	ODB	POWERGRID,ER-II	A/R recloser relay put into Non auto mode for performing the PID test of Insulators		NLDC	
320	132KV Siliguri-Melli line	19 October 2020	09:00	20-10-2020	17:00	ODB	POWERGRID,ER-II	Identified defect liquidation & jumper Tightening		SIKKIM	
321	400KV Bus-3 at Maithon	19 October 2020	09:30	19-10-2020	17:00	ODB	POWERGRID,ER-II	Reconnection of Bus isolators of 400KV Main bay of Durgapur#1 Main bay under ERSS-XVII		DVC	
322	400KV Maithon-Kahalgaon-2 Line	19 October 2020	09:30	19-10-2020	17:00	ODB	POWERGRID,ER-II	Retrofitting of REF Relay and Line CT replacement work			RIO CERTIFICATE OR UNDERTAKING WILL BE REQUIRED BEFORE CHARGING OF ANY NEW ELECTRICAL INSTALLATION.
323	220 KV Main Bus-2 at Subhasgram	19 October 2020	09:00	19-10-2020	17:00	ODB	POWERGRID,ER-II	AMP of 220 KV Main Bus-2	220 KV Main Bus-2 will be unde Shutdown.	WB	
324	765/400KV, 1500MVA ICT-2 AT NEW RANCHI	19 October 2020	9:00	19-10-2020	17:00	ODB	POWERGRID ER-I	SPARE ICT SWITCHING		NLDC	
325	220 kV BSPTCL-2 line AT KISHANGANJ	19 October 2020	8:30	19-10-2020	18:00	ODB	POWERGRID ER-I	AMP work.		BSEB	Subject to BSEB Consent
326	400kV Koderma - Gaya-I	19 October 2020	8:00	21-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer insulator.		DVC	
327	A/R of 400 KV Koderma - Gaya-II	19 October 2020	8:00	21-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kV Koderma - Gaya-I		DVC	
328	220 kv BSF(PG)-BSF ICT 1	20 October 2020	09:00	20 October 2020	14:00	ODB	BSPTCL	For changing the electromechanical relays with numerical relays	BSF will avail power from available ICT at BSF(PG).No load restriction		
329	400KV Buscoupler at Rangpo	20 October 2020	09:00	20-10-2020	17:00	ODB	POWERGRID,ER-II	AMP Works			All elements at Rangpo Should be available may be post pond during reconductoring work
330	400KV Maithon-Kahalgaon-1 Line	20 October 2020	09:00	21-10-2020	17:00	ODB	POWERGRID,ER-II	Balance Bay upgradation work under ERSS_XVII			

331	400KV Maithon-Jamshedpur TL	20 October 2020	07:00	25-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work in section with old/damaged earthwire			
332	A/R in non-auto mode in 400KV Andal-Jamshedpur-II	20 October 2020	07:00	31-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work		DVC	
333	220 KV Main Bus-1 at Subhasgram	20 October 2020	09:00	20-10-2020	17:00	ODB	POWERGRID,ER-II	AMP of 220 KV Main Bus-1	220 KV Main Bus-1 will be unde Shutdown.	WB	
334	400 KV ROURKELA-SUNDARGARH#2 LINE	20 October 2020	09:00	20-10-2020	17:00	ODB	ER-II/ODISHA/ROURKELA	LINE MAINTENANCE WORKS			
335	400 KV East Bus-2 at Pusauli	20 October 2020	9:00	20-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	
336	A/R OF 400 KV RANCHI-MAITHON(RB)-II	20 October 2020	8:00	31 October 2020	18:00	ODB	POWERGRID ER-I	FOR OPGW INSTALLATION WORK			
337	220 kv BSF(PG)-BSF ICT 2	21 October 2020	09:00	21 October 2020	14:00	ODB	BSPTCL	For changing the electromechanical relays with numerical relays	BSF will avail power from available ICT at BSF(PG).No load restriction		
338	400KV Rangpo-Binguri -2	21 October 2020	09:00	21-10-2020	17:00	ODB	POWERGRID,ER-II	AMP Works			May be clubbed with reconductoring work
339	400KV Rangpo-Teesta-v Ckt-2	21 October 2020	09:00	28-10-2020	17:00	OCB	POWERGRID,ER-II	For rectification of SF6 gas leakage repair work,		TEESTA-V	May be availed when one out of the three units will go for overhauling
340	400 KV Main Bus-2 at Subhasgram	21 October 2020	09:00	21-10-2020	17:00	ODB	POWERGRID,ER-II	AMP of 400 KV Main Bus-2	400 KV Main Bus-2 will be unde Shutdown.	WB	
341	400 KV ROURKELA-SUNDARGARH#4 LINE	21 October 2020	09:00	21-10-2020	17:00	ODB	ER-II/ODISHA/ROURKELA	LINE MAINTENANCE WORKS			
342	765KV 240MVAR Bus Reactor -2 at Sundargarh	21 October 2020	09:30	21-10-2020	12:30	ODB	ER-II/Odisha/Sundargarh	Spare change over work		NLDC	
343	400 KV East Bus-1 at Pusauli	21 October 2020	9:00	21-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	
344	765/400 KV ICT AT PUSAULI	21 October 2020	9:00	21-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE S/D OF 400 KV EAST BUS-I		NLDC	Sketch to be provided. Why ICT shutdowns required. May be clubbed with 765KV Bus and Sasaram-Fatehpur sd.
345	400 kV BUS 1 at Biharsharif Substation	21 October 2020	10:00	25-10-2020	18:00	OCB	POWERGRID ER-I	For numerical Bus Bar Commissioning work under ERSS XX		BSEB	Subject to BSEB Consent
346	765/400KV,1500MVA ,ICT-1 at Sundargarh	22 October 2020	09:30	22-10-2020	12:30	ODB	ER-II/Odisha/Sundargarh	Spare change over work		NLDC	
347	400KV Balangir-Jeypore S/c line	22 October 2020	09:00	31-10-2020	17:00	OCB	ER-II/Odisha/Balangir	Dismantling of 2 nos. existing towers, installation of 3nos. New towers under existing line and stringing of 4 nos. span for line diversion work due to construction of new Balangir-Khurda Rail Line under East Cost Railway at Balangir		NLDC	Gazuwaka to be restricted to 350 MW
348	400KV Line Reactor 80MVAR at Meramundali end	22 October 2020	09:00	22-10-2020	17:00	ODB	ER-II/Odisha/Angul SS	AMP		GRIDCO	
349	400 KV BIHARSHARIF-LAKHISARAI-I	22 October 2020	10:00	22-10-2020	13:00	ODB	POWERGRID ER-I	FOR REPLACEMENT OF FLASHED INSULATOR			

350	A/R OF 400 KV BIHARSHARIF-LAKHISARAI-II	22 October 2020	10:00	22-10-2020	13:00	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF 400 KV BIHARSHARIF-LAKHISARAI-I.			
351	400kV Koderma - Gaya-II	22 October 2020	8:00	24-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer insulator.		DVC	
352	A/R of 400 KV Koderma - Gaya-I	22 October 2020	8:00	24-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kV Koderma - Gaya-II		DVC	
353	220/132 kV 100 MVA ICT -1 at Rangpo	24 October 2020	09:00	28-10-2020	17:00	OCB	POWERGRID,ER-II	For rectification of SF6 gas leakage repair work,			
354	315 MVA ICT-2 at Jeypore	24 October 2020	######	29-10-2020	17:00	ODB	ER-II/Odisha /Jeypore	For LA, Transformer Bushing erection of New ICT-4 under SPML Package near ICT-2 area due to low clearance between new Gantry & existing 220kV Jumper of ICT-2 (Outage to be booked under Construction Head)		NLDC/GRIDCO	Gazuwaka to be reduced to 350 MW
355	400 KV BIHARSHARIF-SASARAM-I	25 October 2020	10:00	25-10-2020	18:00	ODB	POWERGRID ER-I	FOR REPLACEMENT OF FLASHED INSULATOR			
356	A/R OF 400 KV BIHARSHARIF-SASARAM-II	25 October 2020	10:00	25-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF 400 KV BIHARSHARIF-SASARAM-I.			
357	400kV Koderma - Biharsarif-I	25 October 2020	8:00	27-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer insulator.		DVC	
358	A/R of 400kV Koderma - Biharsarif-II	25 October 2020	8:00	27-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kV Koderma - Biharsarif-I		DVC	
359	A/R of 400 KV Tala-Binaguri-IV	26 October 2020	08:30	31 October 2020	17:30	ODB	POWERGRID,ER-II	A/R recloser relay put into Non auto mode for performing the PID test of Insulators		NLDC	
360	400KV Mejia-Jamshedpur TL	26 October 2020	07:00	31-10-2020	18:00	ODB	POWERGRID,ER-II	For OPGW installation Work in section with old/damaged earthwire		DVC	
361	315 MVA ICT I at Baripada	26 October 2020	09:00	26-10-2020	17:00	OCB	ER-II/Odisha/BARIPADA S/S	AMP works		GRIDCO	
362	400 KV North Bus-1 at Pusauli	26 October 2020	9:00	26-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	
363	400 kV BUS 2 at Biharsharif Substation	26 October 2020	10:00	30-10-2020	18:00	OCB	POWERGRID ER-I	For numerical Bus Bar Commissioning work under ERSS XX		BSEB	Subject to BSEB Consent
364	400kV Purnea-Biharsharif line CKT-1	27 October 2020	08:00	27-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification			
365	A/R of 400kV Purnea-Biharsharif line CKT-2	27 October 2020	08:00	27-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.			
366	400 KV ROURKELA-SUNDARGARH#1 LINE	27 October 2020	09:00	27-10-2020	17:00	ODB	ER-II/ODISHA/ROURKELA	LINE MAINTENANCE WORKS			
367	A/R OF 400KV RANCHI- MAITHAN (RB)-2	27 October 2020	9:30	27-10-2020	17:30	ODB	POWERGRID ER-I	FLASHED INSULATOR REPLACEMENT AT LOC: 300 .A/R WILL IN NON AUTO OF CKT-I DURING S/D.			

368	A/R OF 400 KV RANCHI-MAITHON(RB)-I	27 October 2020	9:30	27-10-2020	17:30	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF 400 KV RANCHI-MAITHON(RB)-II			
369	220 kV BSPTCL-3 line AT KISHANGANJ	27 October 2020	8:30	27-10-2020	18:00	ODB	POWERGRID ER-I	AMP work.		BSEB	Subject to BSEB Consent
370	A/R of 400kV Purnea-Biharsharif line CKT-1	28 October 2020	08:00	28-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.			
371	400kV Purnea-Biharsharif line CKT-2	28 October 2020	08:00	28-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification			
372	400 KV ROURKELA-SUNDARGARH#3 LINE	28 October 2020	09:00	28-10-2020	17:00	ODB	ER-II/ODISHA/ROURKELA	LINE MAINTENANCE WORKS			
373	765 kV New Ranchi-Dharamjaygarh CKT-II	28 October 2020	8:00	31-10-2020	17:00	ODB	POWERGRID ER-I	For Tower Strengthening work executed ,For Tower Strengthning work Total towers = 35; Completed- Nil		NLDC	
374	220 kV Bus 1 at Pusauli	28 October 2020	9:00	28-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		BSEB	Subject to BSEB Consent
375	400kV Koderma - Biharsarif-II	28 October 2020	8:00	31-10-2020	18:00	ODB	POWERGRID ER-I	For changing porcelain insulator by polymer insulator.		DVC	
376	A/R of 400kV Koderma - Biharsarif-I	28 October 2020	8:00	31-10-2020	18:00	ODB	POWERGRID ER-I	TO facilitate the s/d of 400kV Koderma - Biharsarif-II		DVC	
377	400 KV S/C Sagardighi - Jeerat TL	29 October 2020	08:00	30-10-2020	17:00	ODB	POWERGRID,ER-II	Stringing b/w AP 149/0 to AP150/0 of 765 KV D/C Medinipur-Jeerat TL Over existing 400 KV S/C Sagardighi - Jeerat TL (PGCIL)		WB	
378	400 KV Jeerat Sagardighi Line	29 October 2020	09:00	29-10-2020	17:00	ODB	POWERGRID,ER-II	A/R relay Retrofitting and Testing in 400 KV Jeerat Sagardighi Line at Jeerat end.	400 KV Jeerat Sagardighi Line will be under Shutdown on daily basis.	WB	
379	400kV Purnea-Biharsharif line CKT-1	29 October 2020	08:00	29-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification			
380	A/R of 400kV Purnea-Biharsharif line CKT-2	29 October 2020	08:00	29-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.			
381	400 KV RANCHI-SIPAT-I	29 October 2020	9:00	29-10-2020	18:00	ODB	POWERGRID ER-I	LOC 1079:- Flashed Insulator Replacement.A/R OF CKT-II WILL PUT IN NON AUTO MODE DURING S/D.		NLDC	
382	A/R OF 400 KV RANCHI-SIPAT-I	29 October 2020	9:00	29-10-2020	18:00	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF 400 KV RANCHI-SIPAT-I		NLDC	
383	220 KV Alipurduar - Salakati 1 &2	30 October 2020	06:00	31 October 2020	18:00	ODB	POWERGRID,ER-II	Replacement of earth wire between section 425-426		NLDC	
384	400 KV Rajarhat Jeerat Line	30 October 2020	09:00	30-10-2020	17:00	ODB	POWERGRID,ER-II	Main-1 Distance Relay Replacement at Jeerat end.	400 KV Rajarhat Jeerat Line will be under Shutdown on daily basis.	WB	

385	A/R OF 400kV Purnea-Biharsharif line CKT-1	30 October 2020	08:00	30-10-2020	18:00	Daily Basis	ENICL	A/R in Non Auto Mode for Helical installation & SD defect rectification.			
386	400kV Purnea-Biharsharif line CKT-2	30 October 2020	08:00	30-10-2020	18:00	Daily Basis	ENICL	Helical installation & SD defect rectification			
387	400kV Chaibasa-Rourkela # 2 line	30 October 2020	9:30	30-10-2020	17:30	ODB	POWERGRID ER-I	Flashed insulator replacement. A/R OF CKT-I WILL PUT IN NON AUTO MODE DURING S/D.			
388	A/R OF 400kV Chaibasa-Rourkela-I	30 October 2020	9:30	30-10-2020	17:30	ODB	POWERGRID ER-I	TO FACILITATE THE S/D OF 400 KV CHAIBASA-ROURKELA-II			
389	765 KV, 3 X 80MVAR B/R-II AT NEW RANCHI	30 October 2020	9:00	30-10-2020	17:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	
390	765 KV BUS-1 at Pusauli	30 October 2020	9:00	30-10-2020	18:00	ODB	POWERGRID ER-I	FOR AMP WORK		NLDC	May be availed. Should be clubbed with East Bus-1,Ict and Line at Pusauli
391	220 kV Dalkhola-1 line AT KISHANGANJ	30 October 2020	8:30	30-10-2020	18:00	ODB	POWERGRID ER-I	AMP work.			
392	765KV Angul-Srikakulam Line-1 along with 240MVAR LR at Angul	31 October 2020	08:00	31 October 2020	17:00	ODB	ER-II/Odisha/Angul	Line Maintenance Work and Line reactor AMP		NLDC	