Agenda

of

167th OCC Meeting

Date: 16.03.2020

Eastern Regional Power Committee

14, Golf Club Road, Tollygunge

Kolkata: 700 033

Eastern Regional Power Committee

Agenda of 167th OCC Meeting to be held on 16th March 2020 at ERPC Kolkata

Item no. 1: Confirmation of minutes of 166th OCC meeting of ERPC held on 20.02.2020

The minutes of 166 th OCC meeting were uploaded in ERPC website and circulated vide letter dated 04.03.2020 to all the constituents.

Members may confirm the minutes of 166th OCC meeting.

PART A: ER GRID PERFORMANCE

Item no. A1: ER Grid performance during February, 2020

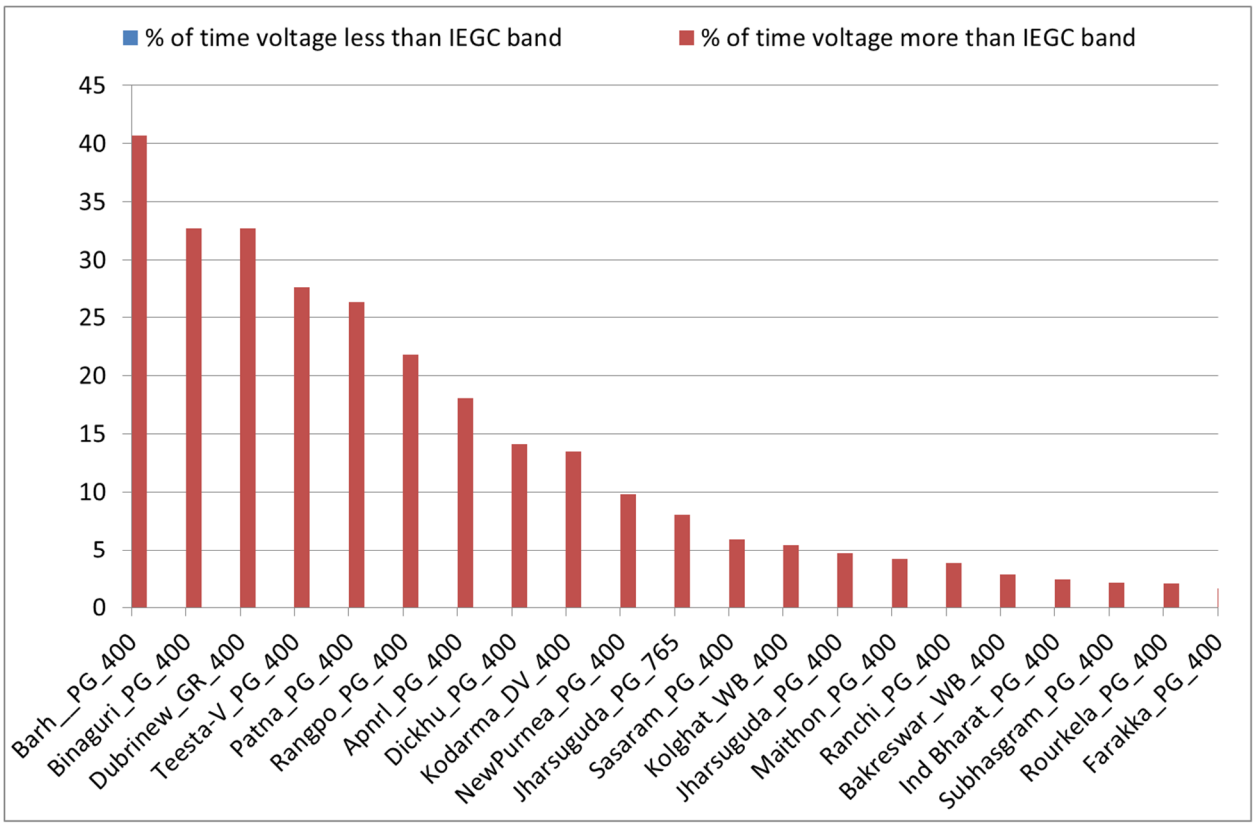
The average consumption of Eastern Region for February – 2020 was 363 Mu. Eastern Region energy consumption reached a monthly maximum of 379.2 Mu on 10th February – 2020. Total Export schedule of Eastern region for February – 2020 was 2863 Mu, whereas actual export was 2963 Mu.

ERLDC may present the performance of Eastern Regional Grid covering the followings:

1. **Frequency profile**
2. **Over drawal/under injection by ER Entities**
3. **Performance of Hydro Power Stations during peak hours**
4. **Performance of ISGS during RRAS**
5. **Reactive Power performance of Generators**
6. **Over Voltage issue in ER substations**

High voltage is observed at different nodes in Eastern Region during the month of Feb 2020. Some of the nodes where voltage is beyond IEGC upper limit for significant amount of time during the month of Feb 2020 are shown below.

It can be seen that many of the high voltage nodes such as Barh, APNRL, Kolaghat, Koderma etc. are generator nodes or close to generator node. As generators are not absorbing sufficient MVAr as per their capability curve is one of the reason for this sustained high voltage.



7. Restricted Governor /Free Governor Mode Operation of generators in ER

On 22nd February 2020, at 18:23:18 hrs 1134 MW generation loss occurred at Bara unit II & III in NR resulting frequency drop from 49.968 Hz to 49.905 Hz. FRC of the ER was 14% of ideal response as per tie line flow measured by ERLDC SCADA data. Despite of repeated reminders to generating stations, generation output data are yet to be received from Farakka STPP, KhSTPP, Talcher STPP, BRBCL, Barh STPP, NPGC and JITPL for this event. At the time of the event Dikchu HEP were not in service. Resolution of data received from APNRL is not adequate for analysis. As per the data available at ERLDC, response was satisfactory only for GMR and Teesta III HEP. After tuning of governors, few DVC generating units' such as DSTPS U#1, KTPS U#1 &2, Mejia U#7 & 8 showed satisfactory response during this event. Summary of the response observed is shown in following table.

Category	**Regional generating stations and state control area**
Satisfactory response	GMR, Teesta III HEP
Response has been observed but tuning required	Teesta V HEP and APNRL (Delayed response observed), DVC and WB (FRC is below satisfactory)
Non-Satisfactory response	FSTPP stage III, KhSTPP, TSTPP, Barh STPP, JITPL, Jharkhand and GRIDCO

Units were ramping up pior to the event	FSTPP stage I&II, MPL and BRBCL
Unit not available	Dikchu HEP

All the generating units and SLDCs are advised to share the reason for non-satisfactory response (whichever applicable) along with remedial action taken. All the regional genearing stations and SLDCs are requested to nominate one nodal person for sharing FRC related informations.

8. Severe Fluctuation in Voltage and Power in Jeypore -Gajuwaka Area (HVDC pole 1 tripped) observed on 31 Jan and 4th and 5th Feb 2020

Three events of severe nature have occurred near Jeypore and Gajuwaka Area where severe hunting has been observed in Power and Voltage and HVDC Gajuwaka Pole 1 has tripped.

The timing of the event is as follows:

1. 14:46hrs to 14:51hrs on 31-01-2020
2. 14:34hrs to 14:36hrs on 04-02-2020
3. 08:34hrs to 08:38hrs on 05-02-2020

In addition to the above, similar events have also been observed 17,18, 24 and 25th February 2020. Based on the significant data that has been received from HVDC, OPTCL,OPGC and PMU data at ERLDC, analysis has been carried out with the following observations.

Gajuwaka HVDC Bipole : Power order of HVDC has fluctuatied from 100 MW to 600 MW. Pole 1 has observed failiure of multiple thyristor on two occasions i.e. 3rd and 4th macrh 2020. Based on PMU data it was observed that the fault signature of pole tripping on thyristor failure and all these voltage dip are similar in nature

STATCOM at Jeypore : Response is observed due to the Voltage Varaiation during these events on multiple occasions.

Jeypore-Gajuwaka Line DR from Jeypore : 400 kv Jeypore-Gajuwaka D/C observed power swing on various occasions during these fluctuations and some of them entered in Zone 3. From the voltage and current plot, the normal fault type signature is not observed. Voltage waveform and current waveform are distorted unline during fault and harmonic content of 2nd and third harmonics is high. On some occasions FSC of these lines have bypassed at Gajuwaka end on Ferro-resonace.

OHPC Units : Units at Upper Kolab and Balimela have tripped on few occasions on the overall differential protection due to the jerk observed during these events.

OPTCL : No Fault in any transmission line or any frequenct Auto-reclosure events in any of the lines.

PGCIL Orissa : No Fault is any transmission lines.

Based on this, it is suspected that these fluctuation are not from the grid side and is due to HVDC. PGCIL is advised to kindly analyse the event further and submit the report.

Members may update.

PART B: ITEMS FOR DISCUSSION

Item No. B.1: Single User-credential for submission of schedule data for Inter-regional (IR) LTA/MTOA transactions---ERLDC

Real time market (RTM) is going to be implemented on all-India basis from 1st April, 2020 onwards. For RTM, available Inter Regional (IR) margin for each RTM delivery period needs to be calculated on real time basis and transactions need to in sync for all the time blocks.

Inter-Regional schedule prepared by the RLDC consists of ISGS, URS, LTA, MTOA, STOA and PX transctions. Presently Inter Regional (IR) schedule is prepared by each RLDC separately as per the data submitted by the utilities in RLDC WBES (Web Based Energy Scheduling) application. Since the computations are to be carried out on real time basis, mismatch between two separate entries by seller / buyer, if any, for various transactions need to be avoided.

It may kindly be noted that Regulation 6.4.14 of the Grid Code provides for mutually agreed schedules submission for all ISGS/ LTA/MTOA transctions. In view of above, it has been decided to streamline the scheduling process as below:

1. IR LTA/MTOA schedule data entry shall be done by one authorised entity at one RLDCWBES application.

2. Authorised entity for data submission shall be the "Applicant" of the LTA/MTOA transaction among buyer/ seller / applicant of that transaction. In case of no applicant for the LTA/MTOA, then Data submission right is issued to the buyer of the transaction.

3. The designated utility for data submission ("Applicant" of the LTA/MTOA) shall submit the schedule quantum which is mutually agreed quantum between Buyer and Seller utility at the RLDC in which applicant is registered.

4. Log in credential to the "Applicant" shall be issued by the RLDC in which "Applicant" is geographically located.

The modified Web Based Scheduling to accommodate above mentioned procedure is under development and shall be operationalised by 01st April, 2020.

Procedure of selection of authorized entity for LTA/MTOA transctions and Location of RLDC WBES in which schedule data to be submitted:

Transaction type	Punching Rights given to	Cases	Location of entry
Inter-Regional	Applicant	If Applicant is Seller	Seller Region WBES
		If Applicant is Buyer	Buyer Region WBES
Intra-Regional	Applicant	-	Region where transaction is taken place

Members may discuss.

Item No. B.2: Implementation of Automatic Demand Management Scheme (ADMS)- ERLDC

The latest status along with proposed logic as follows:

Sl No	State/Utility	Logic for ADMS operation	Implementation status/target	Proposed logic (if different from under implementation logic)
1	West Bengal	F <49.7 AND deviation > 12 % or 150 MW	Implemented on 25.11.16	F <49.9 AND deviation > 12 % or 150 MW
2	DVC	F <49.7 AND deviation > 12 % or 150 MW	Implemented on 17.06.2016	
3	Bihar	F <49.7 AND deviation > 12 % or 150 MW	They would place the order to Chemtrol for implementation.	F <49.9 AND deviation > 12 % or 150 MW
4	Jharkhand	1. System Frequency < 49.9 Hz AND deviation > 12 % or 25 MW 2. System Frequency < 49.9 Hz AND deviation > 12 % or 50 MW 3. System Frequency < 49.9 Hz AND deviation > 12 % or 75 MW	In service from 21st August 2019.	Condition 1: Block I feeders will be selected for load shedding Condition 2: Block I & II feeders will be selected for load shedding Condition 3: Block I, II & III feeders will be selected for load shedding
5	Odisha	1. System Frequency < 49.9 Hz 2. Odisha over-drawl > 150 MW 3. DISCOM over-drawl > (40 MW)	10 Months Sent for PSDF approval. It was informed that tender for the work has been floated.	Logic 2 and 3 is AND or OR, in case it is AND then ADMS may not operated when discom are in schedule but GRIDCO is overdrawing due to less generation at state embedded generators
6.	Sikkim			Sikkim informed that they have submitted a proposal to PSDF Committee for installation of OPGW cables which is under approval stage. Sikkim added that ADMS scheme would be implemented after installation of OPGW.

In 42nd TCC, Bihar informed that the testing of ADMS would be done by end of December 2019.

Odisha informed that ADMS would be implemented by May 2020.

Sikkim informed that installation of OPGW is in progress, ADMS would be implemented after the installation of OPGW & renovation of sub-station tentatively by 2020.

TCC advised Odisha and Sikkim to implement ADMS at the earliest.

After detailed deliberation, TCC opined that uniform logic and settings are to be implemented for all the states. TCC advised to discuss the issue in next OCC Meeting to formulate uniform logic and setting of ADMS.

In 165th OCC, Bihar informed that ADMS had been tested on 10th January 2020 but it was not successful.

ERLDC gave a presentation on the uniform logic. The proposed logic for ADMS operation is given below:

If frequency is less than 49.9 Hz for 3 minutes
and
Overdrwal/Under injection > 150 MW or 12 %

OCC advised all the states to go through the presentation and submit their comments to ERPC and ERLDC for finalization of ADMS logic.

In 166th OCC, OCC agreed to the ERLDC proposed logic.

OCC advised all the states to implement above logic in ADMS. It was also decided that the performance of the ADMS would be analyzed in monthly OCC Meetings if necessary, the logic would be reviewed.

Members may update.

Item No. B.3: Implementation of SPS to avoid overdrawal from Jamshedpur (DVC) S/s

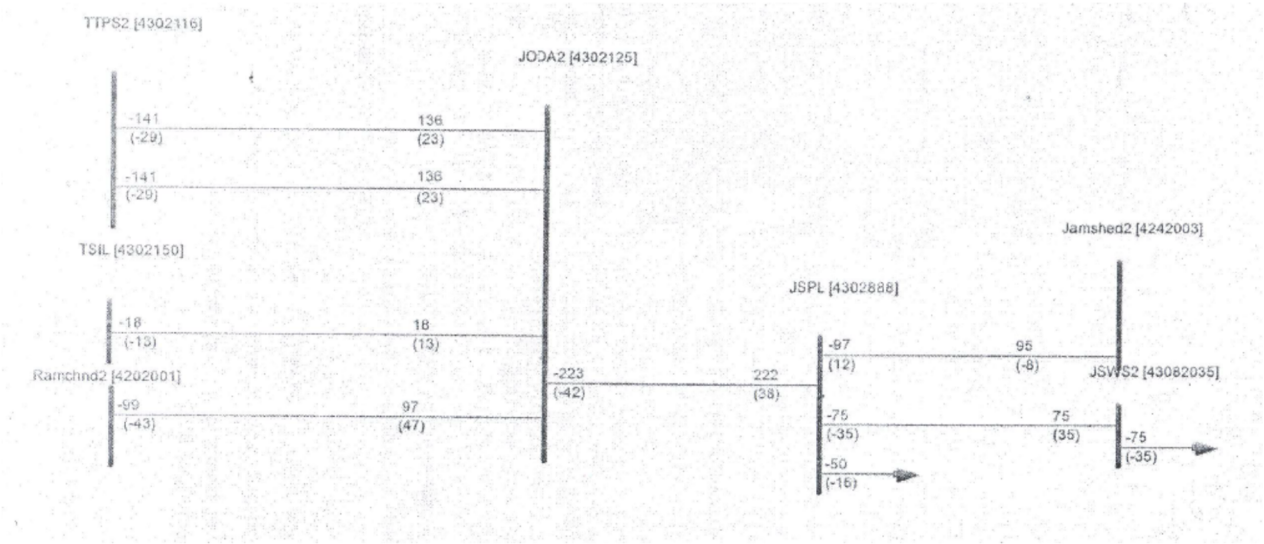
In 8th SSCM, OPTCL informed that they need power assistance of maximum 55 MW from 220kV Jamshedpur S/s, DVC to meet the load of JSPL during replacement work of the conductor of 220kV Joda-JSPL line.

DVC agreed to provide maximum 55 MW from 220kV Jamshedpur S/s during the conductor replacement work, however DVC requested to implement SPS to avoid over drawl from 220kV Jamshedpur S/s during any contingency in the system.

In 165th OCC, DVC requested to implement SPS to avoid over drawl from 220kV Jamshedpur S/s during any contingency in the system.

OCC advised OPTCL to give a requisition and other relevant details to DVC.

OCC decided to discuss the SPS in a separate meeting with all the concerned utilities.



Members may update.

Item No. B.4: Implementation of Automatic Generation Control in Eastern Region

In compliance to CERC's direction in order dated 06/12/2017 in petition no 79/RC/2017, AGC was commissioned in NTPC Barh on 01st August 2019 and operationalized since 23rd August, 2019.

Vide order dated 28th August 2019, CERC in Petition No.: 319/RC/2018 directed that all the ISGS stations whose tariff is determined or adopted by CERC shall be AGC-enabled and the ancillary services including secondary control through AGC be implemented as per the following direction:

I. All thermal ISGS stations with installed capacity of 200 MW and above and all hydro stations having capacity exceeding 25 MW excluding the Run-of-River Hydro Projects

irrespective of size of the generating station and whose tariff is determined or adopted by CERC are directed to install equipment at the unit control rooms for transferring the required data for AGC as per the requirement to be notified by NLDC. NLDC shall notify the said requirements within one month of this order.

II. All such ISGS stations whose tariff is determined or adopted by CERC shall have communication from the nearest wide band node to the RTU in the unit control room.

III. The Central Transmission Utility (CTU) is directed to have communication availability from NLDC/ RLDCs to the nearest wide band node/ switchyard for the generating stations in a redundant and alternate path ensuring route diversity and dual communication.

IV. The NLDC is also directed to commission the required communication infrastructure.

V. The expenditure as a result of compliance of the above directions may be claimed as per relevant regulations or provisions of the PPA.

VI. The NLDC is directed to monitor implementation of the above directions so that all the ISGS stations whose tariff is determined or adopted by CERC are AGC-enabled within six months of this order.

VII. The framework regarding compensation for AGC support and deviation charges as stipulated in the Commission's Order in Petition no. 79/RC/2017 dated 06.12.2017 shall apply to the five pilot projects as also to other ISGS as and when they are AGC enabled. This arrangement shall remain in place till the relevant regulations inter alia on compensation for AGC services are framed by the Commission.

VIII. NLDC/RLDCs are allowed to operate the AGC system for enabling the signals to the power plants at the earliest.

IX. All new thermal ISGS stations with installed capacity of 200 MW and above and hydro stations having capacity exceeding 25 MW excluding the Run-of-River Hydro Projects irrespective of size of the generating station and whose tariff is determined or adopted by CERC shall mandatorily have the capability to provide AGC support.

All concerned plants may please ensure taking necessary action for arranging the communication (through redundant and alternate paths) from the existing nearest wideband communication node to their unit control rooms through two fiber optic cables, in coordination with CTU. It may please be noted that all the ISGS stations whose tariff is determined by or adopted by CERC should be AGC-enabled before 28th February 2020, as per order of CERC.

A. Status of implementation of AGC for ISGS stations

Status of implementation as updated in 166th OCC Meeting and 5th TeST Meeting as follows:

Sl No	**Station**	**Status of Communication link from plant substation to PGCIL node**	**Status of communication system integration from unit to plant substation**	**Target date for implementation of AGC at plant**
1	Farakka STPS - I & II	Both links established	Pending	June 2020
2	Kahalgaon STPS - II	Both links established	Pending	June 2020
3	Barh STPS	Both links established	Installed	Running since August 2019
4	NPGC, Nabinagar	Links from Gaya and Patna has been established.	NPGC, Nabinagar informed that OPGW is available but end equipment need to be procured and installed to establish communication link from their station to NLDC. NTPC further informed that they have placed order for providing the end equipment.	June 2020

5	Maithon Power Limited	One link established. Other link, Ranchi-Maithon(RB) would complete by March, 2020.	In progress	1st week of March,2020
6	Talcher STPS - I	Both links established.		June 2020
7	Kahalgaon STPS - I	Both links established.	NTPC informed that they are approaching CERC for exemption.	
8	Nabinagar Thermal Power Project - BRBCL	Only one link Sasaram-Nabinagar OPGW installation is pending. It would take two years for completion.		June 2020
9	Darlipalli STPS	Communication established.	Integration is in progress	June 2020
10	Teesta - V	One link established		June 2020
11	Farakka STPS - III	Link established		June 2020
12	MTPS Stage – II (Kanti)	Link established		June 2020
13	Rangit HPS	One link established		June 2020

Note: OPGW from Barh to Gorakhpur is redundant path for ER to NR which would be completed by March, 2020.

B. Status of implementation of AGC as a pilot project in states

In 42nd TCC, DVC intimated that AGC shall be implemented in unit 7 and 8 of Mejia as per the given schedule by 31st July 2020.

Odisha informed that SLDC and OPGC will sit together and finalise the scheme.

WBPDCL informed that they have already collected offer from Siemens for implementation of AGC and they are awaiting the concurrence from SLDC.

SLDC, WB informed that they are not in a position to implement AGC unless a clear direction is given by WBERC. Further, implementation of intra state DSM is a prerequisite for implementation of AGC in the state.

It was decided to request CERC to include this as an issue in the Agenda for discussion in the meeting of Forum of Regulators.

Summary of status of implementation:

State	Station/Unit	Action plan
DVC	Mejia unit#7 &8	• NIT has been floated. • Order placement 30th March 2020 • Commissioning of AGC 31st July 2020
West Bengal	Unit-5 of Bakreswar TPP	SLDC, WB to establish the required hardware for generating AGC signal at SLDC.

Odisha	Unit#3 of OPGC	Joint meeting between SLDC, Odisha and OPGC was held wherein, it was decided to visit Barh, NTPC and NLDC to get acquainted with the AGC implementation and formulate a plan.

Members may update.

Item No. B.5: Outage of important transmission lines

1. 400 kV Kishenganj-Patna D/C lines:

In 162nd OCC, Powergrid informed that one circuit of 400 kV Kishenganj-Patna D/C line would be restored through ERS by December 2019. Powergrid added that permanent restoration of both the circuits of 400 kV Kishenganj-Patna D/C lines would be completed by March 2020.

MS, ERPC submitted that Powergrid had repeatedly changed their schedule of restoration of the line. He advisedPowergrid to give a report on restorationschedule committed till date in chronological order along with the reason for changing the scheduled dates.

He added that a Committee would visit the site once again in 2nd week of November 2019 to assess the situation.

In 163rd OCC, Powergrid informed that both circuits of 400 kV Kishenganj-Patna D/C line would be restored through ERS by December 2019. Powergrid added that permanent restoration of both the circuits of 400 kV Kishenganj-Patna D/C lines would be completed by March 2020.

Thereafter, Powergrid vide letter dated 3rd January 2020 informed that the temporary restoration of the line using ERS could not be completed due to pathetic condition of approach road, unprecedented cold weather condition and continued heavy water current in the Ganga river.

Powergrid added that restoration work is under progress in war footing basis and it is expected to be restored temporarily by 3rd/4th week of January 2020 however permanent restoration is expected to be completed by end of March 2020.

In 24th January 2020 meeting held at Patna, Powergrid informed that both circuits of 400 kV Kishenganj-Patna D/C line was restored through ERS on 22nd January 2020.

In 166th OCC, Powergrid informed that that permanent restoration of both the circuits of 400 kV Kishenganj-Patna D/C lines would be completed by April 2020.

Powergrid may update.

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

In 161st OCC, ERLDC informed that 400 KV Gorakhpur –Motihari(DMTCL) –D/C were out since 13/08/2019 on tower collapse at LOC 27/0 and 400 KV Barh–Motihari(DMTCL) –D/C were out since 04/09/2019 on tower collapse at LOC 26/0.

In 163rd OCC, OCC advised Powergrid to make direct connectivity i.e. 400 kV Barh- Gorahkpur D/C line, till restoration of the LILO portion of Motihari.
Powergrid agreed to make direct connectivity with Twin Moose conductor but DMTCL has to do the necessary destringing of the conductorof the LILO section with the original line to enable PGCIL to establish the direct connectivity.

OCC advised DMTCL to complete the destringing work at the earliest so that Powergrid could start the bypass arrangement.

In 164th OCC, Member Secretary, ERPC informed that a separate meeting with the concerned utilities would be conducted at Patna, Bihar in January 2020.

In 166th OCC, it was informed that one circuit of 400 KV Barh–Motihari(DMTCL) –D/C would be restored through ERS by end of February 2020.

ERLDC informed that shutdown requisition should be submitted by DMTCL in advance so that necessary approval from NR and NLDC can be taken in time.

Members may update.

Item No. B.6: Operationalizing Bus splitting at Biharsariff--ERLDC

Bus split arrangement at Biharsariff 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 commssiong 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 4650 MW.
- If we consider summer peak case having 5300 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 166th OCC, ERLDC informed that no network constraint had been observed during the simulation study.

OCC advised Bihar to check the demand considered for the simulation study and send their comments to ERLDC within a week, if any.

Members may discuss.

Item No. B.7: Fuel Gas Desulphurization (FGD) Implementation Plan for compliance to new environment norms for left out plants and the plants yet to be commissioned --CEA

CEA requested to provide the phasing plan for left out plants and the plants yet to be commissioned.

In 166th OCC, all the generating utilities were advised to update the status through mail to ERPC by 24th February 2020.

The relevant details were received from the following utilities:

- NTPC stations(except Darlipali STPP)
- DVC
- OPGC IB-II,
- CESC and HEL

The relevant details were not received from the following utilities:

- NTPC Darlipali STPP
- WBPDCL
- OPGC IB-I

- MPL
- JITPL
- GMR
- India Power TPP

The members are requested to furnish the updated implementation Plan for FGD in the ensuing TCC meeting scheduled to be held at Bhubneswar on 20.03.2020 and also to CEA (E-mail: cea-tmd@nic.in with a copy to ERPC (E-mail: mserpc-power@nic.in) .

Members may submit their plan of implementation.

Item No. B.8: Report of expert group to review India Electricity Grid Code(IEGC)--ERLDC

The Commission vide office order dated 28.5.2019 constituted an Expert Group to review "Indian Electricity Grid Code and other related issues" under the Chairmanship of Shri Rakesh Nath, Ex-Chairperson, CEA & Ex-Member (Tech) of APTEL with Shri A.S.Bakshi, Ex-Chairperson, CEA & Ex-Member, CERC, Shri Ravinder, Ex-Chairperson, CEA &ExChief (Engg.), CERC as Members and Shri S.C.Shrivastava, Chief (Engg.), CERC as Member, Convenor. The group co-opted Shri S.R.Narasimhan, Director (S.O), POSOCO and Shri Hemant Jain, Chief Engineer (G.M), CEA as Members of the Expert Group.

The Expert Group has finalized its recommendation as per comments received from various stake holder and several expert group meetings in the form of draft Indian Electricity Grid Code (IEGC), 2020, which is published in CERC website at the following link
http://cercind.gov.in/2020/reports/Final%20Report%20dated%2014.1.2020.pdf

In 165th OCC, members requested Member Secretary, ERPC to conduct a workshop on the draft Indian Electricity Grid Code (IEGC), 2020 for better understanding.

Member Secretary, ERPC agreed to conduct the workshop in February 2020.

As per the OCC decision, the workshop was conducted at ERPC on 13th February, 2020 wherein Shri S. R. Narasimhan, Director (SO), POSOCO gave a detailed presentation.

In the workshop, it was informed that all states may submit their comments on the draft Indian Electricity Grid Code (IEGC), 2020 for further discussion.

Members may discuss.

Item No. B.9: Review of implementation of PSDF approved projects of Eastern Region.

NLDC (POSOCO) being the Nodal Agency for PSDF schemes, is carrying out PSDF Secretariat function under directions of MoP. Recently NLDC is directed by MoP to disburse the PSDF sanctioned funds as early as possible as its non-utilization is being viewed seriously by MoP on various fora.

In view of the above, status review of the projects being executed under PSDF funding in Eastern Region, is required to be carried out on regular basis for expediting the projects.

All the constituents are requested to furnish/update the status of their respective project in every OCC and also requested to submit requisition for disbursement to NLDC at the earliest by 1st February 2020, so that amount may be released by 31stMarch 2020.

*In 166th OCC, Members updated the status as mentioned in **Annexure-B9**.*

Member Secretary, ERPC informed that there is no progress in some projects which are already granted fund from PSDF. Such projects would be scraped and the fund would be diverted to other projects. Therefore, he advised all the state utilities to accelerate the work.

Members may update.

Item No. B.10: Commissioning of 2 X 240MVAR LR of Mednipur Line at New Ranchi SS as Bus Reactor: Powergrid

2 nos of 765 kV Line bays along-with 240 MVAR switchable line reactors at New Ranchi SS for 765kV Ranchi-Medinipur line (Line under TBCB) under ERSS XVIII will be ready for charging by March, 2020. The schedule commissioning of the said Reactor is 01/08/2020. The 765kV New ranchi Mednipur D/C Line is anticipated to be ready for charging by June, 2020.

As per the voltage profile of 765kV Bus at New Ranchi SS for the month of February , 2020 (trend enclosed) the voltage of 765kV bus remains in the range of 780-790 KV. After taking the both 240 MVAR Line Reactors in service the voltage condition of 765KV Bus at New Ranchi will improve.

The said agenda was discussed in 42nd TCC/ERPC meeting and it it was opined that further discussion may be carried out in lower forum of ERPC before approval of the same. Ahead of schedule commissioning of the above assets may kindly be agreed considering the requirement of grid.

Powergrid may explain.

Item No. B.11: Testing and Calibration of Special Energy Meter: Powergrid

As per decision of 42nd TCC/ERPC and 41st CCM meeting, the testing and calibration of SEM to be carried out which are old and highly time drifted and accordingly the list of 314 SEM's have been also received from ERLDC.

Matter regarding testing & calibration and time drifting has been taken up with concerned vendors involved in testing and calibration. Vendors are ready for doing the testing however they are not ready to set right the time drifting as it is only possible through OEM i.e. L&T. The matter has also been taken up with OEM (M/s L&T), who have confirmed that the heavily time drifted meter shall required to be sent to factory for time correction.

In view of the above it is proposed that time drifting issue may be excluded from the scope of testing and calibration of SEMs. Bulk time drifting issue may be taken up separately.

Powergrid may explain.

Item No. B.12: Proposal for procurement of SEM on account of Bhutan.--Powergrid

In 166th OCC, DCD (data downloading device) used to download the energy meter data from SEM energy meter of 400kV Siliguri and 220kV Binaguri feeder has gone faulty because of which Malbase substation is not able to send the meter data to the concerned authority since 06.01.2020.

Powergrid informed that no spare DCDs are available.

After detailed discussion, it was decided that some DCDs are to be procured and kept as spares.

OCC advised Powergrid to prepare an estimate and send the details to ERPC Secretariat.

Thereafter, Powergrid informed that at present there are multiple connectivity exists between Bhutan & India (Jigmeling, Malbase, Tala & Chukha) from Eastern Region. At Bhutan side also, SEM installed as per POWERGRID TS & installed on behalf of PTC. During normal maintenance activity it is observed that due to different snag in the SEM or associated data collecting devices, the SEM data could not be received at ERLDC/NLDC.

The matter already discussed in 166th OCC Meeting held on 20 Feb 2020. In 166th OCC, it was recommended for procurement of few DCD's & SEM on account of different S/S of Bhutan, where SEMs are already installed on behalf of PTC.

The technology up-gradation had already taken place in SEM, therefore, it is better to migrate from old SEM where DCD is still required to new type SEM where data can be fetched by Laptop.

Based upon requirement of the SEM the said items will be handed over to Bhutan by POWERGRID on behalf of PTC. However, Installation & maintenance of all SEM & associated devices installed at Bhutan will be sole responsibility of concerned transmission licensee of Bhutan only. At present GENUS make is SEM is already available with Eastern Region and the same make is considered for Bhutan also and approximate cost of procurement of 20 nos SEMs shall be Rs. 3,19,166/- including GST.

Above SEM will be kept in stock at nearby POWERGRID S/S (Alipurduar/Binaguri) & based upon requirement generated at Bhutan it will be handed over on receipt of request through PTC. Necessary installation & maintenance to be taken care by Bhutan only. Cost to be recovered from PTC on one time reimbursement basis.

Powergrid may explain.

Item No. B.13: Auxiliary Power consumption by Powergrid-- GRIDCO

GRIDCO informed that in 163rd OCC Meeting, OCC advised Powergrid to file a petition before OERC for exemption of Security Deposit, Maximum charges, Meter rent etc.

GRIDCO added that Powergrid not yet approached OERC.

In 166th OCC, Powergrid informed that they are in process of filing the petition before OERC. The petition would be filed by end of February 2020.

Powergrid may update.

Item No. B.14: Shutdown of 220 kV Bus at 400/220/132kV Rangpo Substation-- Madhya Bharat Power Corporation Limited

Madhya Bharat Power Corporation Limited informed that they need shutdown of both 220kV Bus at 400/220/132kV Rangpo Substation for completing the testing and commissioning activities of their 220kV bays.

In 166th OCC, ERLDC informed that, the generation of Tashiding and Jorethang HEP would be affected during both 220kV Bus shutdown.

Representatives from Tashiding and Jorethang HEP were not available in the meeting.

After deliberation, OCC approved the single bus shutdown of 220kV Bus at 400/220/132kV Rangpo Substation from 25th February 2020 to 4th March 2020 as per shutdown request placed by Madhya Bharat Power Corporation Limited.

For the both bus shutdown, OCC decided to discuss the issue in a separate meeting with Madhya Bharat Power Corporation Limited, Shiga Energy, Powergrid ER-II, and ERLDC. The meeting would be held at 15:00 hrs on 26th February 2020 (tentatively).

*As per the OCC decision special meeting had been convened at ERPC on 26th February 2020. Minutes of the meeting are enclosed at **Annexure-B14**.*

Members may note.

Item No. B.15: Shutdown of 400kV Nabinagar-Sasaram D/C line and 400kV Sasaram-Daltonganj D/C line -- Powergrid

Powergrid vide letter dated 18th February requested for the shutdown of 400kV Nabinagar-Sasaram D/C line and 400kV Sasaram-Daltonganj D/C line. Letter is enclosed at **Annexure-B16.3**.

In 166th OCC, ERLDC informed that generation of BRBCL would be effected during the shutdown of 400kV Nabinagar-Sasaram D/C line.

After deliberation, OCC decided that the issue would be discussed in a separate meeting with the concerned utilities.

In line with OCC decision, a special meeting was convened at ERPC on 12th March 2020.

Members may note.

Item No. B.16: Additional agenda

PART C: ITEMS FOR UPDATE

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

UFR Healthiness Certification for the month of February 2020 has been received from OPTCL,CESC, WBSETCL, DVC, BSPTCL and JUSNL.

In 161st OCC, Bihar was advised to review the UFR feeders as per the revised system configuration and suggested to shift the UFRs to unimportant radial loads.

In 42nd TCC, BSPTCL informed that they had already replaced the defective UFR. BSPTCL added that they are in process of reviewing the UFR list.

In 166 th OCC Meeting BSPTCL informed that they are in process of reviewing the UFR list.

Bihar may update

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.

The healthiness certificate for Islanding Scheme for February, 2020 has been received from NTPC, West Bengal,JUSNL, WBPDCLand CESC.

In 163rd OCC,DVC informed that since all units of CTPS-A would be retired shortly, instead of Chandrapura TPS islanding scheme, they are planning to implement an islanding scheme with units 5 & 6 of Mejia TPS (old).

OCC advised DVC to submit the detailed draft plan of the islanding scheme to ERPC and ERLDC.

DVC may update.

A. Status of Islanding Scheme of IBTPS

Islanding schem of IBTPS was discussed and finalized in earlier OCC and PCC meeting, OPGC ensured that the islanding scheme will be in place within 6 months post finalization of scheme.

OPGC may update.

B. Status of Islanding Scheme of KBUNL

As the islanding Scheme discussion is not progressing , it is desired that one Meeting at ERPC or KBUNL may be called where the scheme finalization may be completed.

Members may discuss.

Item no. C.3: Healthiness of SPS existing in Eastern Region

The Status of healthiness certificate for February, 2020 is given below:

Sl. No.	Name of the SPS	Healthiness certificate received from	Healthiness certificate not received from
1.	*Talcher HVDC*	*NTPC,GMR,*	*JITPL, Powergrid,*
2.	SPS in CESC system	*CESC*	*Nil*

In 166th OCC Meeting Powergrid informed that they had submitted the healthiness certificate.

ED, ERLDC informed that SPS at Talcher to backing down the generation at JITPL, GMR and Talcher NTPC in case of HVDC tripping, may not be required with the present network condition. He suggested to review the SPS.

OCC suggested ERLDC to carry out a preliminary study and place the results in next OCC Meeting.

ERLDC may update.

Item no. C.4: Review of the PSS Tuning of Generators in Eastern Region --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. During last 4 years, 39 Units PSS have been tuned whose details are given at **Annexure-C4.1**. While the units where PSS have not been tuned in last three are given in **Annexure-C4.2**. It has been observed that utility such as OPGC, OHPC, WBSEDCL, NTPC, GMR and few others have yet not submitted their plan for PSS tuning to ERLDC/ERPC.

In view of the above, all generating utilities who have not yet submitted their PSS tuning plan are advised to submit the same to ERLDC/ERPC in compliance to CERC and CEA regulation on Power System stabilizer and associated tuning for reliability and security of the Grid.

OCC advised all the generating utilities to go through the Annexures and submit the plan for PSS tuning to ERPC and ERLDC.

Members may update.

Item no. C.5: Automatic Under Frequency Load Shedding (AUFLS) Scheme

In the 2nd meeting of NPC held on 16th July 2013, the following AUFLS scheme with 4 stages of frequency viz. 49.2 Hz, 49.0 Hz, 48.8 Hz & 48.6 Hz had been decided to implement in all the regions:

AUFLS	Frequency (Hz)	Load relief in MW					
		NR	WR	SR *	ER	NER	Total
Stage-I	**49.2**	2160	2060	2350	820	100	7490
Stage-II	**49.0**	2170	2070	2360	830	100	7530
Stage-III	**48.8**	2190	2080	2390	830	100	7590
Stage-IV	**48.6**	2200	2100	2400	840	100	7640
	Total (MW)	**8720**	**8310**	**9500**	**3320**	**400**	**30250**

*SR grid not integrated with NEW grid at that point of time.

The scheme had been implemented throughout the country.

In 7th NPC meeting held on 08thSeptember 2017, it was agreed that there is need for review of the quantum of load shedding. The RPCs were to deliberate on additional slabs of frequency as well as raising the set frequency for UFR operation and inform the outcome to NPC.

In 8thNPC meeting, held on 30.11.2018, members agreed for the AUFLS scheme with 4 stages and raising the frequency by 0.2 Hz viz. 49.4, 49.2, 49.0 & 48.8 Hz. It was further decided that the quantum for AUFLS would be reworked by NPC Secretariat considering the requirement of load shedding to increase the frequency to 50 Hz in each stage of AUFLS operation.

In 9th NPC meeting held on 22.11.2019, it was decided to implement the AUFLS scheme with 4 stages and raising the frequency by 0.2 Hz viz. 49.4, 49.2, 49.0 & 48.8 Hz by keeping the quantum for AUFLS same as decided in 2nd NPC Meeting. It was also decided that a committee with all RPCs and NLDC would study and review the required quantum for each slab of AUFLS and submit a report to NPC. Minutes of the meeting are awaited.

The total load quantum for ER constituents is given below:

Control Area	Stage –I (49.4 Hz) (MW)	Stage –II (49.2 Hz) (MW)	Stage–III (49.0Hz) (MW)	Stage–IV (48.8Hz) (MW)	Total Relief by Control Area
Bihar	98	99	99	101	397
Jharkhand	61	62	61	62	246
DVC	134	135.5	136	137	542.5
Odisha	181.5	183.5	184	186	735
WB & CESC	345.5	350	350	354	1399.5
Total	**820**	**830**	**830**	**840**	**3320**

In 42ndTCC, all the constituents were advised to implement the revised AUFLS scheme as per the NPC decision within a month and submit a report to ERPC Secretariat and ERLDC.

TCC decided to review the implementation status in the next OCC Meeting.

In 164th OCC, all the SLDCs and STUs were advised to implement the revised AUFLS scheme by 1st week of January 2020 and submit a report to ERPC Secretariat and ERLDC.

In 165th OCC, JUSNL informed that revised AUFLS scheme had been implemented in Jharkhand except at Lalmatia and Jamthara.

DVC, Bihar and Odisha agreed to implement the revised AUFLS scheme by 31st January 2020. WBSETCL and CESC agreed to implement the revised AUFLS scheme by 15th February 2020.

In 166th OCC, JUSNL informed that revised AUFLS scheme had been implemented in Jharkhand except at Latehar feeder.

Odisha, CESC, Bihar and DVC informed that revised AUFLS scheme had been implemented.

OCC advised JUSNL, CESC, Bihar and DVC submit the list of feeders along with the load.

Members may update.

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

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

Sl No	State / Utility	TTC import(MW)		RM(MW)		ATC Import (MW)		Remark
		Import	Export	Import	Export	Import	Export	
1	BSPTCL	5300	--	100	--	5200	--	Jan-20
2	JUSNL	1172	--	31	--	1141	--	Apr-20
3	DVC	1553	2799	65	51	1488	2748	May-20
4	OPTCL	3382	1386	84	61	3298	1325	May-20
5	WBSETCL	4010	--	400	--	3610	--	Feb-20
6	Sikkim	295	--	2.5	--	292.5	--	Dec-19

Members may update.

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	*January 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 ofJune 2019	Done on 7th November 2019	2nd week of February 2020	
5	Subarnarekha	1st week of October 2019	Done 20th August 2019	1st week of January 2020	March 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

Members may update.

Item no. C.8: Summary of Status Update on Previous agenda items in OCC

OCC	Agenda	Decision	Status Update
155	**C.22: Collection of modeling data from Renewable as well as conventional energy generators: ERLDC**	OCC advised all the constituents to submit the details of renewable power plants of 5 MW and above. 157th OCC advised all the SLDCs to submit the details to ERPC and ERLDC. Format along with an explanation for collection of Wind and Solar Data has been shared by ERLDC to all SLDC. *OCC advised Bihar, West Bengal and Orissa to submit the relevant details to ERLDC.*	
156	**Low frequency Oscillation at MTDC BNC-ALP-Agra**	OCC Advised ERTS-2 to submit the analysis report to ERLDC/ERPC 159th OCC Powergrid informed that the issue was referred to ABB, Sweden. *The report is yet to be received from ABB*	
156	**Item No. B.12: Status of Auto-Reclosure on Lines from Tala and Chukha Hydro Power Plant (Bhutan)**	DGPC informed that an Expert Committee was constituted to enable the autorecloser for transmission lines connected to Tala and Chuka hydro stations. The Committee had recommended for implementation of the autorecloser at Tala and Chuka. DGPC added that they are planning to implement the autorecloser scheme for the transmission lines connected at Chuka by May 2019. Based on the experience gained, they would implement the autorecloser scheme for the transmission lines connected at Tala. DGPC informed that they are implementing autorecloser at Tala also. The A/R isimplemented at Binaguri end and there have been various cases where successful A/R has occurred at Binaguri but due to no A/R	

		attempt Tala has a blackout in June 2019. In addition, in month of Aug also many times 400 kV lines successfully reclosed from Binaguri end. The experience on 220 kVChukha-Birpara in the form of successful A/R has been observed on 25th June 2019. DGPC has informed that after the deliberation in their group, they would be implementing the A/R at Tala by the end on August 2019. *DGPC informed that by Feb 2020 end, they will implement the A/R at Tala.*	

In 164th OCC, DGPC informed that they are still analyzing the performance of autorecloser at Chuka end.

OCC advised Bhutan representatives to submit the relevant details (DR and relay settings) of autorecloser at Chuka end to ERLDC. The issue would be placed in next PCC Meeting for fruitful discussion.

Members may update.

Item no. C.9: Submission of Renewable Generation data on daily basis West Bengal--ERLDC

West Bengal has total renewable installed capacity of 178.5 MW (65 MW solar, 95.5 MW small hydro, 16 MW biomass and 2 MW wind). Presently WBSETCL sends the renewable energy generation data in mu on monthly basis at around 20th of every month to MIS department. As per the monthly energy file of October-2019, total renewable generation was 28.559 MU, which comes to daily generation of around 0.9 MU. On November-2019 & December-2019 the daily generation figure is around 0.5 MU and 0.3 MU respectively. As this generation data is being sent as a consolidated monthly figure only, almost 20 days after end of each month, this significant quantum of daily generation is not being reflected in the daily PSP report prepared by ERLDC and sent to MOP, CEA and other higher authorities.

In view of this, in order to make the daily PSP report complete, WBSETCL is being advised to send daily MU figure of renewable generation plant-wise or total wind/solar by the end of each night-shift or by the next day.

SLDC, WBSETCL may deliberate

Item no. C.10: Monitoring of Next Six-Month New Element Integration in OCC and Its Update on Monthly Basis --ERLDC

It has been observed that many elements are getting interconnected into the system and beforehand details are not available with the system operator resulting in difficulty in carrying our operational planning activity. In view of this, as a regular agenda all ISTS and ISGS/IPP to update the OCC regarding any new elements at 220 kV and above which will be integrated in next six month with

the grid. For State Grid, SLDC will be submitting the details on behalf of its intrastate Generation and transmission system. The format is given below:

Transmission Elements	Agency/ Owner	Scheme (ERSS/ TBCB/ Standing Committee/State	Schedule Completion	Projected Month for Completion	Issue Being Faced

In previous several OCC, Transmission licensees and SLDCs are requested to submit RLDC/RPC following details on monthly basis

- List of transmission element /generators of State and ISTS licensees synchronised in the last month.
- List of transmission element /generators expected to be synchronised during next month or in near future

Some SLDCs are submitting the list of intrastate and interstate line on regular basis, however transmission element /generators expected to be synchronised during next month or in near future is not submitted by any SLSC/Transmission licensee to RLDC/RPC.

In 162nd OCC, OCC advised all the constituents, SLDCs and ISTS licensees to submit the details the list of transmission elements / generators already synchronized / charged in the previous month as well as those expected to be commissioned in the near future (as per the format specified) to ERLDC

In 163rd OCC, OCC advised all the constituents, SLDCs and ISTS licensees to submit the details to erldcprotection@posoco.co.in as per the format.

List of upcoming Transmission Element is received from Bihar and Jharkhand.

In 166 th OCC Meeting ERLDC informed that relevant details had been received from Powergrid ER-II.

OCC advised other concerned transmission licensees to submit the details to ERLDC at the earliest.

DVC, OPTCL , WBSETCL and Sikkim may update.

Item no. C.11: Reconductoring work of 400 kV Rangpo-Binaguri D/C lines

In 162nd OCC, Powergrid informed that SPS at Rangpo is ready and it can be put in service as and when required.

Powergrid explained that reconductoring work of both 400 kV Rangpo-Binaguri D/C lines would take 1 year time approximately and they are ready to take shutdown of both the circuits from 01.11.2019.

ED, ERLDC advised Powergrid to complete the reconductoring work of one circuit by end of February 2019. He added that after February 2019, shutdown of both lines is not possible in view of the likelihood of rise in hydro generation in Sikkim.

MS, ERPC submitted that there is a need for reviewing the progress of the work by field visit. In this regard a Committee shall be formed comprising the members from ERPC Secretariat, ERLDC, WBSETCL, PGCIL, TVTPL etc. The Committee will visit the site and check the preparedness of the work. Also, periodic inspection will be done to assess the progress of the work.

In 42nd TCC, Powergrid updated that reconductoring of 11 km of both the circuits out of 110 km line had been completed (9.3 km in West Bengal and 1.7 km in Sikkim).

Powergrid further informed that they are facing severe ROW issues in Sikkim and requested Power and Energy Department, Govt. of Sikkim to support in resolving the ROW issues.

Powergrid added that they are putting all the efforts to complete the reconductoring work of both 400 kV Rangpo-Binaguri D/C lines by April 2020.

TCC advised Powergrid to complete the work as per the schedule so that evacuation of hydro power from Sikkim would not get affected in the coming monsoon season.

TCC requested Sikkim to help Powergrid in resolving the ROW issues for smooth completion of the reconductoring work.

ERPC Secretariat informed that a Committee with members from ERPC Secretariat, WBSETCL, PGCIL, TVPTL has been formed to monitor the progress of the work and the Committee would visit the site in every two months.

PGCIL was requested to furnish the status of progress to ERPC Secretariat every month for discussion in the OCC meeting.

In 165th OCC, Powergrid updated that reconductoring of 14 km of both the circuits out of 110 km line had been completed.

Powergrid added that 70% of the line is in hilly area and reconductoring of the hilly area would be completed by April 2020. Rest of the reconductoring work would be carried out by taking single circuit shutdown.

In 166th OCC, Powergrid updated that reconductoring of 19 km of both the circuits out of 110 km line had been completed.

Powergrid may update.

Item no. C.12: Verification of transmission line parameter during shutdown--ERLDC

During the charging of any new transmission line, its owner provides corresponding line length, using that and standard per KM parameters as available CEA transmission planning criteria manual, R X & B parameter of the lines are determined and same is used in simulation studies. However such modeling may not be 100 % accurate representation of the line. Further for old lines the paramet may differ slightly due to increasing sag over time. Thus to take of same it is proposed that the transmission utility may carry out offline measurement of the line parameter during a planned shutdown of line. The measured value may be shared with ERLDC/ERPC.

Members may submit the details.

Item no. C.13: Sharing of test report after major annual overhauling of Powerplants--ERLDC

During major annual overhauling of Powerplants, many tests are conducted at the site level to accesses the healthiness of the unit and determine its characteristics. Some of these test reports are helpful in verifying and tunnnig of the offline simulation model of the generating unit. Thus it is proposed to submit some of the test reports like OCC, SCC, excitation step test, V-curve, etc. after such major overhauling to ERPC/ERLDC.

Members may submit the details.

Item no. C.14: Sharing of information/data after major retrofitting work of Powerplants--ERLDC

Some of the powerplants go through major retrofitting work, like change in excitation system, governor module etc. however, information of the same is not shared on regular basis. Thus it is proposed to submit details of such retrofication work along with relevant data to model the same in simulation software (as per already circulated format) whenever such retrofitting work is taken up.

Members may submit the details.

Item no. C.15: Submission of Thermal Loading of Transmission line and associated terminal equipment by ISTS licensee

Thermal Loading of Transmission line and associated terminal equipment is one of the most vital data which is utilized for Operation Purpose, calculation of ATC/TTC and various other studies. This information has to be submitted by the transmission utilities. However even after regular follow-up in past several OCC meetings, significant delay has been observed in submission. Status of submission of data upto first week of December 2019 is as follows:

Name of Utility	**Whether End Equipment Rating Submitted or Not?**
PGCIL ERTS-1 and ERTS-2	*Received from Powergrid ER-II.*
DMTCL	NA
POWERLINKS	NA
Sterlite (ENICL, OGPTL, PKTCL)	NA
TVPTL	NA
Alipurduar Transmission Limited	NA
Powerlink	NA
CBPTCL	NA
OPTCL	Submitted (Revised list given to OPTCL for submission)
WBSETCL	Submitted
BSPTCL	Submitted
DVC	Submitted
JUSNL	NA

Members may update.

Item no. C.16: Frequent tripping of 400 kV Meramandali-Mendasal-II--ERLDC

400 kV Meramandali-Mendasal-II was charged for first time on 28th Feb 2020. However, post charging of the line reliability of the same is very poor and within the span of 10 days it has tripped multiple number of times. Recent tripping of the line is listed below

SL NO	Element Name	Tripping Date	Tripping Time	Reason: Meeran	Reason: Mendhasal en	Revival Date	Revival Time
1	400KV-MEERAMUNDALI-MENDHASAL-II	01-03-2020	07:47	DT received at Meeramundali	Tripped from Meramundali end only	01-03-2020	09:02
2	400KV-MEERAMUNDALI-MENDHASAL-II	02-03-2020	13:27		R-N ,Z-1, 36KM, 6KA	03-03-2020	13:18
3	400KV-MEERAMUNDALI-MENDHASAL-II	06-03-2020	11:48	DT received at Meeramundali	Tripped from Meramundali end only	06-03-2020	12:23
4	400KV-MEERAMUNDALI-MENDHASAL-II	06-03-2020	13:29	DT received at Meeramundali		06-03-2020	14:03
5	400KV-MEERAMUNDALI-MENDHASAL-II	08-03-2020	13:40	RN,70.9KM, 3.82 KA	Z1,RN,43 KM, 3.7 KA	08-03-2020	18:51
6	400KV-MEERAMUNDALI-MENDHASAL-II	09-03-2020	13:17	R_N, 34 km	R-N, Z1, 74km, 3.34 KA	09-03-2020	18:20
7	400KV-MEERAMUNDALI-MENDHASAL-II	10-03-2020	13:01	R-N, 8.08 KA,35.6 km	R-N,72.5KM		

Such frequent tripping of EHV lines is detrimental for security of the grid as a whole.
OPTCL may explain the reason for such frequent tripping and place the steps taken to avoid the same in future.

OPTCL may explain.

PART D:: OPERATIONAL PLANNING

Item no. D.1: Anticipated power supply position during April 20

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of April 20were prepared by ERPC Secretariat on the basis ofLGBR for 2019-20 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc. presented in the meeting

Members may confirm.

Item no. D.2: Shutdown proposal of transmission lines and generating units for the month of April 20

Generator shutdown for April 20 presented in the meeting

ERLDC may place the list transmission line shutdown discussed on 12th March 2020 through VC.

400 kV Gaya Nabinagar D/C line on continuous basis from 25.03.20 to 03.04.20 for making LILO at upcoming Chandauti Sub-station (under TBCB)

Members may confirm.

Item no. D.3: Prolonged outage of Power System elements in Eastern Region as on 10-03-2020

(i) Thermal Generating units:

S.No	Station	Agency	Unit No	Capacity(MW)	Reason(s)	Outage (Date)
1	CHANDRAPURA TPS	DVC	3	130	TURBINE BLADE DAMAGE	30-Jul-2017
2	BANDEL TPS	WBPDCL	5	210	RSD/LOW SYSTEM DEMAND	05-Feb-2020
3	BURLA HPS/HIRAKUD I	OPTCL	5	37.5	R & M WORK	25-Oct-2016
4	KOLAGHAT	WBSETCL	1	210	POLLUTION CONTROL PROBLEM	10-May-2018
5	RTPS	DVC	2	600	RSD/LOW SYSTEM DEMAND	23-Feb-2020
6	KODERMA	DVC	2	500	Less Scheduled Demand due to Regulation imposed on Jharkhand	08-Mar-2020
7	MEJIA TPS	DVC	2	210	RSD/LOW SYSTEM DEMAND	05-Jan-2020
8	KOLAGHAT	WBSETCL	6	210	RSD/LOW SYSTEM DEMAND	16-Jan-2020
9	MUZAFFARPUR TPS	BSPHCL	2	110	RSD/LOW SYSTEM DEMAND	19-Oct-2019
10	TTPS	OHPC	6	110	Maintenance/ Annual Overhauling	26-Feb-2020
11	SAGARDIGHI	WBSETCL	3	500	ANNUAL OVERHAULING	19-Jan-2020
12	JITPL	JITPL	1	600	Problem in ID Fan	09-Mar-2020
13	JITPL	JITPL	2	600	PA fan #A Vibration running High	03-Mar-2020
14	DPL	WBPDCL	7	300	ASH HANDLING PROBLEM	04-Feb-2020
15	KOLAGHAT	WBSETCL	2	210	ESP field Maintenance	26-Dec-2019
16	BOKARO'B'	DVC	3	210	Problem in ash pond	12-Sep-2019
17	BARAUNI TPS	BSPHCL	6	110	ELECTRICAL PROTECTION TRIP	25-Feb-2020

18	KOLAGHAT	WBSETCL	3	210	BOTTOM ASH PROBLEM	24-Nov-2019
19	KOLAGHAT	WBSETCL	4	210	FURNACE DRAFT VERY HIGH	17-Nov-2019

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

(ii) Hydro Generating units:

S.No	Station	Agency	Unit No	Capacity(MW)	Reason(s)	Outage (Date)
1	BURLA HPS/HIRAKUD I	OPTCL	5	37.5	R & M WORK	25-Oct-2016
2	BURLA HPS/HIRAKUD I	OPTCL	6	37.5	R & M WORK	16-Oct-2015
3	BURLA HPS/HIRAKUD I	OPTCL	1	49.5	R & M WORK	14-Mar-2018
4	BURLA HPS/HIRAKUD I	OPTCL	7	37.5	ANNUAL MAINTENANCE	06-Dec-2019
5	BALIMELA HPS	OHPC	3	60	Annual Maintenance	02-Mar-2020
6	BALIMELA HPS	OHPC	1	60	R & M WORK	05-Aug-2016
7	BALIMELA HPS	OHPC	2	60	R & M WORK	20-Nov-2017
8	BALIMELA HPS	OHPC	4	60	Sparking in PMG	02-Mar-2020
9	U.KOLAB	OHPC	3	80	GUIDE BEARING TEMPERATURE HIGH	07-Jan-2020

It is seen that about 482 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.

(iii) Transmission elements

	Transmission Element / ICT	Agency	Outage From	Reasons for Outage
1	220 KV BALIMELA - U' SILERU	OPTCL / APSEB	10-03-2018	LINE ANTITHEFT CHARGED FROM UPPER SILERU END TO DEAD END TOWER OF BALIMELA AT 22:23 HRS ON 17.02.2020.
2	400 KV IBEUL JHARSUGUDA D/C	IBEUL	29-04-2018	TOWER COLLAPSE AT LOC 44,45
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	132 KV KhSTPP-KAHALGAON(BSPTCL)	BSPHCL	13-02-2020	RE-CONDUCTORING WORK BY BSPTCL

5	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 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.
6	400 KV MOTIHARI(DMTCL)-GORAKHPUR-II	POWERGRID/ DMTCL	13-08-2019	
7	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.
8	400 KV BARH-MOTIHARI(DMTCL) -II	POWERGRID/ DMTCL	04-09-2019	
9	400 KV BINAGURI-RANGPO-1	POWERGRID	01-11-2019	S/D AVAILED FOR RECONDUCTORING WORK TILL 31/03/2020
10	400 KV BINAGURI-RANGPO-2	POWERGRID	01-11-2019	S/D AVAILED FOR RECONDUCTORING WORK TILL 31/03/2020
11	400 KV TALA - BINAGURI -I	POWERGRID/ BHUTAN	06-02-2020	B-phase CB oil pressure High at Tala end and maintenance upto 18.03.2020
12	400 KV TALA - BINAGURI -II	POWERGRID/ BHUTAN	16-01-2020	Planned Maintenance work
13	400 KV PATNA BARH 2	POWERGRID	29-02-2020	VOLTAGE REGULATION AT PATNA
14	220KV-CHUKHA-BIRPARA-1	POWERGRID	01-03-2020	OPENED ON OVER VOLTAGE AT CHUKHA
16	765KV-JHARSUGUDA-ANGUL-3	POWERGRID	06-03-2020	VOLTAGE REGULATION AT JHARSGUDA
17	220KV-BUDHIPADAR-KORBA-3	POWERGRID	01-03-2020	CONTINUOUS S/D up to 10/03/20
18	400 BARH GORAKHPUR 2	POWERGRID	07-03-2020	FOR THE STRINGING AT GANDAK RIVER OF THE LILO SECTION ON ERS TOWERS
19	765 KV JHARSUGUDA-RAIPUR II	POWERGRID	08-03-2020	VOLTAGE REGULATION AT JHARSUGUDA
20	400 KV BINAGURI-ALIPURDUAR-4	POWERGRID	09-03-2020	VOLTAGE REGULATION AT BINAGURI
21	400 KV PATNA BARH 1	POWERGRID	09-03-2020	VOLTAGE REGULATION AT PATNA

(Reported as per Clause 5.2(e) of IEGC)

** Transmission licensees whose line were out due to tower collapse/ bend, may please update the detail restoration plan and as on date work progress status in OCC.

Also Monthly progress report to be submitted to ERLDC/ERPC till restoration of the element.

Members may update.

PART E::ITEMS FOR INFORMATION

The following agenda items are placed for information and necessary compliance:

Item No. E.1: Submission of data in MERIT Order portal--CEA

CEA vide mail dated 9th July 2019 informed that the MERIT Order portal had been launched on 23rd June, 2017 by Honourable Minister of Power. One of the most important advantages of "Merit" Portal is Transparent information dissemination pertaining to marginal variable cost and source wise purchase of electricity and indication of supply side reliability, adequacy, and cost of power procurement.

However, it has been observed that many of the states are not filling the data regularly and sometimes the data filled varies widely from the data available on the respective RLDCs daily reports.

It is requested that the states may be advised to fill the data regularly and check that correct data is filled on the MERIT Portal.

In 159th OCC, all the SLDCs were advised to fill the correct data in MERIT portal on regular basis.

Item No. E.2: Status of 1st Third Party Protection Audit:

The compliance status of 1st Third Party Protection Audit observations is as follows:

Name of Constituents	Total Observations	Complied	% of Compliance
Powergrid	54	46	85.19
NTPC	16	14	87.50
NHPC	1	1	100.00
DVC	40	26	65.00
WB	68	49	72.06
Odisha	59	42	71.19
JUSNL	34	25	73.53
BSPTCL	16	5	31.25
IPP (GMR, Sterlite and MPL)	5	5	100.00

** Pending observations of Powergridare related to PLCC problems at other end.*

The substation wise status of compliance are available at ERPC website (Observations include PLCC rectification/activation which needs a comprehensive plan).

In 118th OCC, all the constituents were advised to comply the pending observations at the earliest. All the STUs informed that most of the observations are related to funding from PSDF. DPRs have been submitted to PSDF committee.

Item No. E.3: Commissioning of new transmission elements in Eastern Region

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

SL NO	Element Name	Owner	Charging Date	Charging Time	Remarks
1	400kV Talcher Meeramundali 2	PGCIL	01-02-2020	20:36	Talcher to meeramundali 2 bypassing lilo at Angul

2	400/132kv, 200MVA ICT-2 at Kahalgaon	NTPC	10-02-2020	13:19	
3	63 MVAR Fixed Line Reactor of 400 kV N Prn – K'Ganj # I	PGCIL	15-02-2020	21:32	Converted from Non-Switchable to switchable L/R
4	400 KV Meramundali-Mendhasal II	OPTCL	29-02-2020	14:32	
5	132/33 KV 50MVA Tr#1 at Birpara 132 kv	WBSETCL	08-02-2020	18:50:00	
6	132 KV Gajole-Samsi ckt #1	WBSETCL	14-02-2020	14:48	R.L: 25.369 Km ACSR Panther
	133 KV Gajole-Samsi ckt #2	WBSETCL	15-02-2020	15:22	R.L: 25.369 Km ACSR Panther
7	132 KV Gajole-Raiganj #1	WBSETCL	15-02-2020	19:11	R.L: 57.20 KM ACSR Panther
8	132 KV Pass Bay for 132 KV Sonarpur-Behala#2 at Sonarpur	WBSETCL	22-02-2020	02:42	
9	132kv Sonarpur- Behala#2	WBSETCL	28.02.2020	10:42	LILOing of Kasba-Behala line
10	132/33 KV 50 MVA TR#1 at Jangipara 132 KV	WBSETCL	19-12-2019	16:30	
11	132 KV Saltlake AIS- Saltlake Stadium GIS	WBSETCL	07-02-2020	17:24	(R.L.: 4.7Km) XLPE U.G. Cable
12	132/33 Kv 80 MVA TR#1 Saltlake Stadium GIS	WBSETCL	07-02-2020	18:15	
13	132/33 Kv 80 MVA TR#2 Saltlake Stadium GIS	WBSETCL	07-02-2020	18:35	
14	132 kV Chandaka B - Mancheswar B feeder	OPTCL	26-02-2020	19:42	
15	2 x 40 MVA 132/33 kV Power Transformers ay GIS, Mancheswar-B.	OPTCL	28-02-2020	21:50	
16	220 kV Mendhasal- Bidanasi ckt - II	OPTCL	11-02-2020	20:32	
17	160 MVA, 220/132 kV Auto Transformer -I ll at Grid S/S Bolangir(New)	OPTCL	02-02-2020	14:07	
18	220 kV Balimela- Malkanagiri ckt - II	OPTCL	01-02-2020	16:16	

Item No. E.4: UFR operation during the month of February 2020

System frequency touched a maximum of 50.33 Hz at 18:03 hrs of 21/02/2020 and a minimum of 49.68 Hz at 06:13 hrs of 04/02/2020. Hence, no report of operation of UFR has been received from any of the constituents

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