

# Agenda for 162<sup>nd</sup> OCC Meeting

Date: 22.10.2019 Eastern Regional Power Committee 14, Golf Club Road, Tollygunge Kolkata: 700 033

## Agenda for 162<sup>nd</sup> OCC Meeting to be held on 22<sup>nd</sup> October, 2019 at ERPC, Kolkata

#### Item no. 1: Confirmation of minutes of 161<sup>st</sup> OCC meeting of ERPC held on 20.09.2019

The minutes of 161<sup>st</sup> OCC meeting were uploaded in ERPC website and circulated vide letter dated 01.10.2019 to all the constituents.

#### Members may confirm the minutes.

## PART A : ER GRID PERFORMANCE

#### Item no. A1: ER Grid performance during September, 2019

The average consumption of Eastern Region for September- 2019 was 450 Mu. Eastern Region energy consumption reached a monthly maximum of 489 Mu on 16<sup>th</sup> September - 2019. Total Export schedule of Eastern region for September- 2019 was 2162.9 Mu, whereas actual export was1984.3Mu.

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

#### Member may discuss.

# Item no. A2: Presentation on restoration of OPTCL transmission system after the cyclone FANI

In 161<sup>st</sup> OCC, OPTCL gave a brief presentation on devastation of OPTCL transmission system during FANI cyclone and the restoration of the transmission lines.

OCC advised OPTCL give a detailed presentation on restoration of OPTCL transmission system in next OCC Meeting for the benefit of other constituents.

#### Odisha may give a presentation.

## PART B: ITEMS FOR DISCUSSION

#### Item No. B.1: Operationalization of 400 kV Durgapur Bus Splitting Scheme

*The following decisions were taken in 161<sup>st</sup> OCC meeting:* 

- As suggested by ERLDC, all the ICTs at Durgapur PG shall be kept in service to meet the Puja demand.
- However, ERLDC shall take necessary decision on real time basis keeping in view the security and reliability of the grid.
- DVC shall carry out a detailed study on power flow pattern through the ICTs with present and future network condition and submit the details to ERPC and ERLDC for further deliberation.
- Separate meeting with representatives from Powergrid, CTU, DVC, WBSETCL, ERLDC and ERPC shall be convened at ERPC for further course of action.

#### Members may discuss.

#### Item No. B.2: Outage of important transmission lines

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

In 161<sup>st</sup> OCC, Powergrid informed that 400 kV Kishenganj-Patna D/C lines would be restored by end of March 2020.

#### 2. 400 kV Purnea-Biharshariff D/c lines:

In 161<sup>st</sup> OCC, ENCIL informed that they were planning for the permanent restoration of the line using special high-performance conductor (HPC with ACCC conductor) between tower AP46/9A and AP47/1. 400 kV Purnea-Biharshariff D/c would be restored by end of November 2019.

#### 3. 400 kV Barh-Motihari D/C and 400 kV Barh-Gorahkpur D/C lines

In 161<sup>st</sup> 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.

After detailed deliberation, it was emerged that once circuit of 400 KV Barh–Motihari(DMTCL) – D/C line could be restored as 400 KV Barh–Motihari(DMTCL) line and other circuit could be directly connected to Gorakhpur as 400 KV Barh-Gorakhpur line so that Barh STPS generation could be evacuated safely.

Subsequently it has been reported that on 7<sup>th</sup> Oct 2019 tower no 25/5 of Motihari-Barh got collapsed due to which temporary restoration of 400kV Barh-Motihari line as planned, now seems in-feasible.

Under the circumstances POWERGRID is requested to furnish a detailed plan for restoration of 400kV Barh – Gorakhpur D/C (by passing the LILO point) on urgent basis to maintain reliability of ER – NR inter regional corridor and safe evacuation of Barh STPS power.

#### Members may update.

#### Item No. B.3: Implementation of 400 kV Rangpo-Binaguri SPS Scheme for Contingent Measures --ERLDC

400 kV Rangpo-Kishanganj and 400 kV Teesta3-Kishanganj circuit from TVTPL have shown poor availability due to multiple forced outage over the last few months. Under such condition

400 kV Rangpo-Bingauri D/C with power flow limitation of 1700 MW had been used for evacuation of Sikkim Hydro complex. The old SPS on these lines in the mean time was used for 400kV Rangpo-Kishanganj line (with a different logic)to avoid loading of one Rangpo-Binaguri line beyond its thermal limit in the event of outage of the other circuit of Teesta III – Kisanganj. Last month during contingency of 400 kV Rangpo-Kishanganj and 400 kV Teesta3-Kishanganj Power from 400kV Rangpo towards Binaguri was evacuated in split-bus mode due to unavailability of old SPS at Rangpo. Subsequently, as a precautionary measure, to operate the system under contingency of 400 kV Rangpo-Kishanganj and 400 kV Teesta3-Kishanganj, SPS for Rangpo-Binguri line has been re-wired with bus coupled at Rangpo to evacuate 1700 MW power. The SPS will remain disabled in case the 400 kV Rangpo-Kishanganj S/C, 400 kV Teesta3-Kishanganj S/C and 400 kV Rangpo-Bingauri D/C are in service. The SPS will be enabled under contingency of both circuits of TVTPL.

In 161<sup>st</sup> OCC, Powergrid informed that SPS at Rangpo is ready and it can be put in service as and when required.

OCC decided to keep the SPS in standby mode and the SPS shall be in service under any outage of TVTPL lines.

#### Members may update.

# Item No. B.4: Evacuation of Dikchu HEP Generation during any Transmission Constraint--TUL

Teesta Urja Limited (TUL) vide letter dated 23<sup>rd</sup> September 2019 informed that LILO of one circuit of 400kV D/C Teesta III-Kishanganj line at Dikchu was allowed by CERC as an interim arrangement depending upon margin available in the transmission system. TUL added that the construction of permanent evacuation path for Dikchu HEP was not yet awarded.

TUL requested ERPC Secretariat to take up the issue of construction of permanent evacuation path for Dikchu HEP with Sneha Kinetic Power Projects Pvt. Ltd. TUL also requested to ensure evacuation Teesta III HEP generation over Dikchu HEP generation during any transmission constraint.

The issue was communicated to Dikchu vide letter dated 3<sup>rd</sup> October 2019 and Dikchu was advised to attend 162<sup>nd</sup> OCC Meeting.

#### Members may discuss.

## Item No. B.5: Data for preparation Load Generation Balance Report (LGBR) of ER for the year 2020-21

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 **2020-21** 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 2020-21 (thermal/hydro/RES).
- ii) Annual maintenance programme 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 2020-21 and unit-wise monthly generation programme (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 / erpcjha@yahoo.co.in).

In 161<sup>st</sup> OCC, all the utilities were advised to plan the load and generation properly for peak & off-peak of the year 2020-21 and submit the plan to ERPC.

NTPC requested to decide off peak months for better planning of their unit shutdown.

Based on the past few years data demand is less during November to March.

OCC advised NTPC to plan the overhauling of their units accordingly.

#### Members may furnish the above data.

#### Item No. B.6: Declaration of high demand / low demand season for 2020-21--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 2016-17, 2017-18, 2018-19 and 2019-20 (as per draft LGBR for 2019-20). The months with the highest net energy met in Eastern Region are as below:

Year	Months with highest net energy met
2016-17	April, July, August
2017-18	September, March, August
2018-19	August, July, June
2019-20 (LGBR)	August, September, July

Based on the detailed analysis, it is observed that net energy met by Eastern Region is high in the months of July, August and September. Therefore the months of July, August and

September are selected as high demand season for the year of 2020-21 for the Eastern Regional Grid and same has been posted in ERLDC's website as well as communicated to all SLDCs vide letter no ERLDC/SO/148-Op.Cor./2595-2602 dated 01<sup>st</sup> October 2019. As no comments have been received from any constituent till date, so July, August and September are selected as high demand season for the year of 2020-21 for Eastern Region.

#### Members may discuss.

#### Item No. B.7: Implementation of Automatic Generation Control in Eastern Region---ERLDC

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 01<sup>st</sup> August 2019 and operationalized since 23<sup>rd</sup> August, 2019.

Vide order dated 28<sup>th</sup> 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.

In 161<sup>st</sup> OCC, all the ISGS stations were advised to implement the AGC within 6 months as per the above CERC order.

NTPC informed that AGC had been successfully implemented at Barh Stage-II, NTPC. However some technical issues (like the net effective schedule (Base Schedule+AGC+RGMO) and ramp rates were crossing the technical limits of the generating units etc.) need to be addressed. Otherwise, this might hamper the healthiness of the units.

OCC decided to take up issue with NLDC and CERC for necessary action and advised NTPC to submit the details to ERPC and ERLDC.

#### Member may update.

#### Item No. B.8: Testing and Calibration of Special type Energy Meter--ERLDC

Availability Based Tariff, Interface Meters (Special Energy Meters) have been installed by CTU at the points of interconnection with Inter-State Transmission System (ISTS) for the purpose of energy accounting and billing. As per Central Electricity Authority (CEA) notification no. 502/70/CEA/DP & D dated 17.03.2006, all interface meters shall have to be tested at least once in five years using NABL accredited mobile laboratory or at any accredited laboratory. In this regard Clause 18(1) (b) of CEA (Installation and Operation of Meters) Regulations, 2006 state that:

#### Quote.....

All interface meters shall be tested at least once in five years. These meters shall also be tested whenever the energy and other quantities recorded by the meter are abnormal or inconsistent with electrically adjacent meters. Whenever there is unreasonable difference between the quantity recorded by interface meter and the corresponding value monitored at the billing center via communication network, the communication system and terminal equipment shall be tested and rectified. The meters may be tested using NABL accredited mobile laboratory or at any accredited laboratory and recalibrated if required at manufacturer's works.

.....Unquote

Presently, POWERGRID have installed about 1310 nos. of Special Energy meters of 0.2 class accuracy in 765/400/220/132kV substations at about 189nos of locations in Eastern Region covering states of Orissa, West Bengal, Sikkim, Bihar and Jharkhand.

Out of 1310 no of meters installed in ER, around 768 meters (all L&T make) at 157 locations are more than five years old. Moreover Testing and calibration of around 307 Interface meters in ER was last carried out in year 2013 i.e more than 6 years ago. A list of 140 no of meters which are severely drifted in time is already communicated to POWERGRID for replacement and accordingly, replacement work has started. In view of the above, remaining 628 meters may be tested and calibrated as per the provision of aforesaid regulation. Further Time correction of meters of drifted meters may also be done (under testing and calibration).

#### Members may discuss.

# Item No. B.9: Requirement of Bank details for sharing of net benefits accrued in National Pool Account towards SCED--ERLDC

Hon'ble Commission,vide order Petition No. 08/Sm/2019(Suo-Motu) dated 11th Sep'2019 has directed to share the net benefit accrued in the National Pool Account on account of SCED in the ratio of 50:50 between the SCED generator and the concerned beneficiaries on monthly basis. The relevant extract from order is quoted below:

Quote

".....share the net benefits accrued in the pool after adjusting compensation for part load operation of the generators in the ratio of 50:50 between the generators participating in SCED and the concerned beneficiaries / Discoms, on a monthly basis...."

Unquote

The benefits shall be shared in proportion of the scheduled energy from the SCED generator on monthly basis as per Regional Energy Account (REA). In this connection, it is required to share the bank details of all beneficiaries to POSOCO to facilitate payments to the beneficiaries on account of net benefits accrued in National Pool Account (SCED).

In this respect, NLDC communication along with format has been forwarded to all the beneficiaries on 25<sup>th</sup> Sepember'2019 and reminders are also given to the beneficiaries. Till date,

we have received communication from NVVN(Bangladesh), Bihar, Jharkhand, Gridco& POWERGRID(ER-2).

#### West Bengal, Sikkim, DVC & POWERGRID(ER-I) may update the status

#### Item No. B.10: Mock Blackstart and controlled separation exercise at Teesta III--ERLDC

As per IEGC each blackstart capable power plant needs to demonstrate its blackstart capability twice every year. Further as per the schedule the mock black start of Teesta-III is scheduled in the end of October 2019. Thus to carryout mock black start exercise with radial load of Bihar at Kishanganj and nearby substations a two steps procedure is proposed.

# Step-1:- Controlled separation of one running unit at Teesta-III with loads at Kishanganj (Bihar) for formation of Island

A controlled island will be formed in first step by taking some local load at 220 kV Kishanganj (Bihar), this requires bus split arrangement at Teesta-III, 400 kV/220 kV Kishanganj (PG) and 220 kV Kishanganj(Bihar). Once island is formed, system is expected to run in islanded mode for 15-20 minutes. After Tessta-III unit will be switched off resulting in collapse of island.

## Step-2:- Blackstart of one unit at Teesta-III and extension of power to Kishanganj ${\mathbb T}$

hen after tripping the machine blackstart needs to be initiated from DG set and after successful synchronisation of one of the unit power will be extended to the loads of already created island, the island may be operated with the loads for 15-20mins, before synchronising with grid at 400 kV Kishanganj(PG)

Teesta III is a pelton turbine so it may operate on any load. However, Minimum requirement of 20 MW has been known by telephonic conversation with station personnel.

#### Members may discuss.

c.

#### Item No. B.11: Non-commissioning of PMUs under URTDSM System--Powergrid

Under URTDSM project, 17 nos. PMUs could not be commissioned due to various reason as mentioned below:

- a. Bankruptcy/admin. issue : 2 PMUs (IPPS at Monnet & IndBharat)
- b. Non-availability of comn link : 5 PMUs (Sterlite IPP & JITPL IPP)
  - :2 PMUs at Tenughat
  - Substation not ready : 3 PMU at Patratu:

d. Non-confirmn by KhSTPS: 5 PMUs (As per prev SCADA meeting, NTPC to intimate about completion of CT-PT interfacing and subsequent arrangement of gate-pass for further Commissioning by GE)

Apart from the above, PMUs at Talcher STPS and TTPS were integrated but following works are pending which is to be completed by NTPC:

- a) Talcher STPS (5 PMU) Digital data interfacing pending. NTPC intimated that they will carry out the interfacing by their own. TSTPS,NTPC to convey the completion status.
- b) **TTPS (3 PMU)** Digital interfacing not done due to unavailability of points. TTPS,NTPC to take up the interfacing by their own for completion of the pending works.

In 24th SCADA O&M meeting held on 14.08.2019, NTPC intimated that they will take necessary action for completion of the pending works. But till date the work is pending. NTPC to convey completion status.

As there is no change in status even after long period of waiting, pending completion of above, POWERGRID may be given go-ahead for submitting tariff petition based on the supply and works carried out in actual.

#### Members may discuss.

#### Item No. B.12: Permission for OPGW laying in TLDP-NJP OPGW link under Fiber Optic Expansion Project (Additional Requirement)--Powergrid

In 27<sup>th</sup> ERPC meeting, OPGW laying on TLDP-NJP was approved based on advice of NLDC. Accordingly, tendering has been carried out and work order has been placed on party by POWERGRID. Tower schedule of 220KV TLDP-NJP TL has been provided by WBSETCL. However, they are yet to confirm towards the starting of work , permission of laying OPGW on 220KV TLDP-NJP TL & nomination of WBSETCL representative to issue the PTW.

The matter was also discussed in 24<sup>th</sup> SCADA O&M held on 14.08.2019 wherein WBSETCL intimated that they will look into the matter. But till date no response received from WBSETCL. WBSETCL to extend co-ordination in line with the agreement and approvals in ERPCs.

#### Members may discuss.

## Item No. B.13: Information regarding 'Upgradation of SCADA/RTUs/SAS in the Central sector stations and strengthening of OPGW network in Eastern Region' Project—Powergrid

In 39<sup>th</sup> ERPC meeting held on 17<sup>th</sup> November-2018, it was decided that-

a) Power Grid shall place a proposal before PSDF Committee for financing the above project from PSDF.

b) In case of non- availability of required funding from PSDF, the project shall be implemented by PowerGrid and the cost shall be recovered by Power Grid through tariff.

Accordingly POWERGRID applied for financing of the above project through PSDF vide letter no C/LD&C/PSDF/19-20/1 dated 22.07.2019. Subsequently, NLDC (nodal agency for PSDF) has intimated vide letter ref. NLDC-PSDF/TESG-51st meeting/2019-20/143 dated 18.09.2019 regarding non-availability of PSDF Fund for the above project. Hence, it may be kindly recorded that POWERGRID has already initiated the Placement of LOA and execution of the project through tariff basis.

#### Members may note.

# Item No. B.14: Early commissioning of 125MVAR Bus Reactor at Subhasgram and 500MVA ICT-III at Maithon—Powergrid

Under ERSS-XX package, both 500MVA ICT-III at Maithon and 125MVAR Bus Reactor at Subhasgram is suspected to be commissioning in april, 2020. However material received at both the site and also considering the requirement of the grid that it is prudent to adding reactor in Subhasgram with definitely be beneficiary for upcoming winter. Again it is evident that, if S/D provided, entire commissioning activity of the supplied ICT-III at Maiton can be finished before summer season.

As such considering the present load scenario in Subhasgram and Maithon and flexibility in system it is proposed, that ahead of schedule commissioning of the subject ICT-III at Maithon and 125MVAR Bus Reactor at Subhasgram S/S may be agreed.

#### Members may discuss

#### Item No. B.15: Utilization of old 50MVA ICT-IV at Malda SS—Powergrid

Under ERSS-XX package, 01 No 220/132 KV, 50 MVA ICT has been upgraded by 160 MVA ICT at Malda S/S. As off now the transformer is kept at respective S/S. If any constituents require the same the transformer may be refurbished for future use otherwise POWERGRID will decide alternatives. The old ICT was commissioned way back in 1995 and removed from service w.e.f 24.07.2019.

#### Members may discuss.

#### Item No. B.16: Replacement of old PLCC of ER--Powergrid

In Eastern Region, mostly the available links for 400 KV, 220 KV & 132 KV are either BPL or ABB make PLCC. As known to everybody, BPL make PLCC is obsolete and there are many mal operation history across the regions and almost in all constituents' area for PLCC itself.

For ABB make PLCC, also the old ETL-21 model first replaced by ETL-41 model in most places of POWERGRID however, it is observed that wherever the old PLCC panels are kept, due to problem of spare either the channels become unavailable or some maloperation takes place. Apart frommaloperation, signal strength also varies according to length of the line and many times tuning problem observed for conventional PLCC.

Recently M/S. ABB has produced a letter stating the End of Life for following products:-

ETL-4X
 ETL-8X.
 NSD-50.
 VFT Modem/NSK-5.
 NSD 70-C/D.
 st all the links are mos

As almost all the links are mostly populated by either old BPL (Model:-6515 or 9515) or ABB (ETL-21/41 & NSD-50), there are no option other than migration to upgraded DTPC (Digital Tele protection coupler). DTPC works through OPGW links & distance related issues also can be resolved, apart from support for ongoing spares. Related letter of M/S. ABB enclosed for reference.

For replacement from old PLCC to DTPC of different links, S/D is planned from November-19 to January-20 in phased manner. Details plan for each line will be submitted afterwards for further reference.

As this S/D is entirely planned for system improvement in view of obsolete technology, it is proposed consider the outages non-attributable to POWERGRID.

#### Members may discuss.

#### Item No. B.17: 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 September 2019 has been received from OPTCL, CESC, WBSETCL, DVC, BSPTCL and JUSNL.

#### Members may note.

#### UFR Inspection Report of BSPTCL substations on 22.08.2019:

The ERPC UFR inspection group visited 132/33kV Digha, 132/33kV Mithapur and 132/33kV Gaighat substations of BSPTCL for UFR Audit on 22.08.2019. The team physically inspected the feeders which are connected with UFRs at the above sub-stations. The report of the inspection is furnished below:

	NI 6.1				<b>—</b> ( )	
SI.	Name of the	Feeder	Voltage	Adopted	lested	UFR
No	substations	connected	rating	UFR	initiated	make
		with UFR	5	settina	frequency	
•			(k) ()	(ロー)	(U-)	
			(KV)	(HZ)	(ПZ)	
1		Pataliputra	22	49.0	49.0	AREVA
						Micom P127
		Excise Colony		49.2	-	RMS
2			33			2H34K2
	132/33kV	Diahal		40.0		
2	Digha	Digna-i	22	48.0	-	RIVIS
3	-					2H34K2
		Diaba-II		18.6	_	RMS
4		Digita-li	33	40.0	-	
_						2H34K2
-		Pesu-IV	22	48.8	48.8	AREVA
5	132/33k\/		33			Micom P142
	Mithanur	Posu-V/		18.8	18.8	
6	Milliapui	Fesu-v	33	40.0	40.0	
						MICOM P142
7	132/33kV	Saidpur	33	48.6	48.59	SEL-351A
'	Gaighat					
0	9.101	City Feeder	22	48.6	48.59	SEL-351A
0			- 33			

The above UFR setting were tested with help of Secondary injection Kit owned by BSPTCL. During the inspection, the followings were observed:

Substation	Observation
132/33 kV Digha	For 33 kV Pataliputra feeder, the UFR is provided with direct trip wiring and the relay tripped at desired frequency. For all other three feeders, The UFR relays were not working as the relays got burned due to some DC fault in substation. 33 kV Excise colony feeder consists of emergency loads like
	supply to Airport & Hospital etc.
132/33 kV Mithapur	The UFRs are provided with direct trip wiring and tripped at desired frequency.
	33 kV Pesu-V feeder was charged on no-load. It was found that
	the feeder was being used only in case of contingency.
132/33 kV Gaighat	The UFRs are provided with direct trip wiring and tripped at desired
	nequency

In 161<sup>st</sup> 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.

#### Bihar may explain.

#### 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 108<sup>th</sup> 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 September, 2019 has been received from CTPS, DVC,NTPC, West Bengal,JUSNL, WBPDCLand CESC.

#### Members may note.

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

The Status of healthiness certificate for September, 2019 is given below:	
I ne Status of nealthiness certificate for September, 2019 is given below:	

SI. 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

#### Members may update.

#### Item no. C.4: Implementation of Automatic Demand Management Scheme (ADMS)-ERLDC

SI 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	<ol> <li>System Frequency &lt;</li> <li>49.9 Hz AND deviation &gt;</li> <li>12 % or 25 MW</li> <li>System Frequency &lt;</li> <li>49.9 Hz AND deviation &gt;</li> <li>12 % or 50 MW</li> <li>System Frequency &lt;</li> <li>49.9 Hz AND deviation &gt;</li> <li>12 % or 75 MW</li> </ol>	In service from 21 <sup>st</sup> 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

The latest status along with proposed logic as follows:

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.	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 142<sup>nd</sup>OCC, it was opined that uniform logic should be implemented for all the states. OCC decided to review the logic of ADMS after implementation of the scheme by all the states.

In 160<sup>th</sup> OCC, BSPTCL informed that installation of ADMS had been completed and the testing would be done by 15<sup>th</sup> August 2019.

#### Members may update.

#### Item no. C.5: Review of the PSS Tuning of Generators in Eastern Region -- ERLDC

On 31<sup>st</sup> January 2019, PSS Tuning Meeting was held at ERPC. All generating utilities were advised to complete the PSS tuning of their plant at earliest for improvement of damping in the grid during transients. In addition, the tuning reports have also to be submitted to ERLDC/ERPC for their validation.

In line with this ERLDC has communicated to following utilities in view of the recent oscillation observed during various events:

Generating Power Plant	Remarks	Status of Action Plan to be informed to OCC
		DVC need to Give consolidated Plan. They have informed that it will be done during overhauling which will take a lot of time.
All Units of DVC Generating Plant	Oscillation Observed at DSTPS on 24 <sup>th</sup> April 2019 and other Oscillation events in the past.	ERLDC View :In compliance to IEGC and CEA regulation, It is desired that for the Units which are planned for AOH in next six month will be done during AOH and for the rest units also the PSS tuning to be taken up with the vendor and to be completed in six months itself.
Sikkim Hydro Complex (Teesta3, Teesta 5, Chujachen, Dikchu, Tashiding, Jorethang)	In view of Oscillation during the 16 <sup>th</sup> April 2019 events and changes in Network configuration in Sikkim hydro Complex with augmentation of lines	Teesta3: Oct 2019. Other Plants yet to send their details. ERLDC View: In view of Power swings and oscillation, all units are advised to go through PSS tuning in next three months.
MPL Plant	Due to Change in Network configuration dur to bus splitting at Maithon.	MPL Unit-2: 14th June-2019 in the AOH. MPL Unit-1: Planned in the AOH on Nov-2019.
APNRL Plant	Oscillation with Low Damping during transient and switching observed at the plant.	APNRL has intimated that they will undergo tuning during AOH. ERLDC View: It is observed that oscillation is severe at APNRL and they do not have any AOH in 2019-20 as per LGBR. So, APNRL is advised to comply with IEGC and CEA regulation on PSS tuning within next 3

		months.
Farakka NTPC Power Plant	With Augmentation of new lines and changes in network configuration with upcoming bus split at Kahalgaon.	NTPC has not yet submitted the details. ERLDC View: They have informed that they will do during AOH however compliance of IEGC and CEA regulation must be ensured atearliest and PSS tuning of All Units must be completed within next 3 months.
NPGC/BRBCL/KBUNL NTPC Power Plant	The new units have been commissioned however there are no details on the PSS tuning activity in line with Indian Electricity Grid Code and CEA Grid Connectivity Standards	BRBCL has submitted PSS tuning details only for Unit 2. For other units' details to be submitted by NTPC.

#### Members may update.

#### Item no. C.6: Update on status of telemetry

CERC vide order dated 28.02.2016 on Petition No. 007/SN/2014 directed NLDC and respective RLDCs to update the status of telemetry every month at their respective websites and take up the issue of persistent non-availability of data from Generating Stations/substations at RPC meetings for appropriate action.

Major issues are given below:

- i. Regarding frequent intermittent of real time SCADA data from Talcher STPS Stage 1 & 2, NTPC agreed to provide additional ports by November 2019.
- ii. Alternate path for Malda–Farakka OPGW link

In 159<sup>th</sup> OCC, ERLDC informed that PMU data available at ERLDC is intermittent due to communication issues and PMU data reporting from PDCs at SLDCs is also intermittent.

ERLDC opined that alternate OPGW link is required for reliable communication.

OCC advised Powergrid to take the necessary action to resolve the issue.

Non-Availability of SCADA data from Subarnarekha Hydro Power Station (one of the Black Start Capable station in Jharkhand)

#### Members may update.

#### Item no. C.7: Transfer capability determination by the states

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

SI	State/Ultility	TTC import(MW)		RM(MW)		ATC Im	port(MW)	Remark
No	State/Othinty	Import	Export	Import	Export	Import	Export	
1	BSPTCL	5300		100		5200		Oct-19
2	JUSNL	1024		28		996		Dec-19
3	DVC	1446	3358	63	50	1383	3308	Feb-20
4	OPTCL	2454		86		1468		Jan-20
5	WBSETCL	3732		400		3332		Oct-19
6	Sikkim	295		2.5		292.5		Dec-19

# As per the "Detailed Procedure for Relieving Congestion in Real Time Operation" Following has also been mandated for monitoring of Congestion in Real Time :

 As all SLDCs of Eastern region are now declaring ATC/TTC, so, now it would be desirable to have the display for Eastern region where ATC/TTC calculated by states will be monitored in real time with actual drawal. Status of ATC/TTC Weblinks maintained by SLDCs is given below :

SLDC	ATC/TTC Weblink		
Orissa	Dynamic Link for each month (Static Location for All		
	months ATC/TTC to be kept for easy access)		
Jharkhand	Web Link to be prepared by SLDC		
Sikkim	Web Link to be prepared by SLDC		

2. Utility wise present status of declaration of assumptions and LGBR used for ATC/TTC calculation and constraints in arriving at the TTC/ATC value based on the available online information are as follows:

SLDC	ATC/TTC Re	eview					
West Bengal	Constraints mentioned	and	Load/gen	Assumption	needs	to	be
Bihar	Constraints mentioned	and	Load/gen	Assumption	needs	to	be
Sikkim	Constraints mentioned	and	Load/gen	Assumption	needs	to	be

#### ERLDC may explain. Members may update.

#### Item no. C.8: Mock Black start exercises in Eastern Region - ERLDC

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

SI 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 19 <sup>th</sup> July 2019	Last Week of January 2020	
2	Maithon	1 <sup>st</sup> week of June 2019	Taken up only after replacing the governing systems of the units	1st Week of February 2020	
3	Rengali	2 <sup>nd</sup> week of June 2019	Done on 27 <sup>m</sup> June 2019	Last week of November 2020	
4	U. Indarvati	3 <sup>rd</sup> week ofJune 2019	Oct 2019	2nd week of February 2020	
5	Subarnarekha	1 <sup>st</sup> week of October 2019	Done 20 <sup>th</sup> August 2019	1st week of January 2020	
6	Balimela	3 <sup>rd</sup> week of October 2019	Done on 17 <sup>th</sup> July 2019	1st week of March 2020	Dec 2019
7	Teesta-V	2 <sup>nd</sup> week of May 2019	During winter	Last week of February 2020	
8	Chuzachen	Last Week of Dec 2019		Last week of February 2020	

9	Burla	Last Week of	Done on 20 <sup>m</sup>	Last week of	December 2019
		June 2019	July 2019	February 2020	
10	TLDP-III	1st Week of		2nd Week of	
		June 2019		January 2020	
11	TLDP-IV	Last Week of		1st Week of	
		June 2019		February 2020	
12	Teesta-III	Last Week of		First Week of	
		Oct 2019		March 2020	
13	Jorthang	First Week of		First Week of	
		May 2019		Feb 2020	
14	Tasheding	2nd Week of		2nd Week of	
		May 2019		Feb 2020	
15	Dikchu	Sep 2019		3rd Week of	
				Feb 2020	

#### Members may update.

#### Item no. C.9: Summary of Status Update on Previous agenda items in OCC

000	Agenda	Decision	Status Update
152	Item No. B3:	Powergrid informed that M/s	PMU for STATCOMS at Rourkela
	Installation of PMUs for	GE had agreed to supply	and Jeypore have been
	observation of the	and install of 4 no's PMUs	commissioned in Aug 2019. Status
	dynamic performance	for 4 STATCOMs in the	of PMU installation at Ranchi and
	of STATCOMs	Eastern Region within the	Kishanganj may kindly be apprised.
		quantity variation clause	
		under the existing URTDSM	
		Project.	
155	C.22: Collection of	OCC advised all the	157 <sup>th</sup> OCC advised all the SLDCs to
	modeling data from	constituents to submit the	submit the details to ERPC and
	Renewable as well as	details of renewable power	ERLDC.
	conventional energy	plants of 5 MW and above.	Format along with an explanation for
	generators: ERLDC		collection of Wind and Solar Data had
			been shared by ERLDC with all
			SLDCs.
			Bihar/ West Bengal and Orissa are
			having Solar Plant with more than 5
			MW capacity. However, details have
			not yet been received in terms of
			modeling data.
156	Low frequency	OCC Advised ERTS-2 to	159th OCC Powergrid informed that
	Oscillation at MTDC	submit the analysis report to	the issue was referred to ABB,
	BNC-ALP-Agra	ERLDC/ERPC	Sweden. The report is yet to be
			received from ABB.
			PGCIL may update on Report
			submission to OCC. In the present
			scenario of High Hydro, the stability
			of HVDC and its controller is of
			major importance. It may be noted
			that the issue is lying unresolved
			for the last several OCC meetings.
156	Item no. C.20: Updated	Bihar, Jharkhand, DVC,	Restoration procedure form Sikkim is
	Black Start and	West Bengal and Orissa	yet to be received. Mail has been given
	Restoration procedure	have submitted the updated	by ERLDC to SLDC for early
	of StateERLDC	restoration procedure.	submission.

156	Item No. B.12: Status of	DGPC informed that an	In 159 <sup>th</sup> OCC meeting DGPC informed
	Auto-Reclosure on	Expert Committee was	that they are implementing
	Lines from Tala and	constituted to enable the	autorecloser at Tala also. The A/R is
	Chukha Hydro Power	autorecloser for	implemented at Binaguri end and there
	Plant (Bhutan)	transmission	have been various cases where
		connected to Tala and	successful A/R has occurred at
		Chuka bydro stations The	Bingguri but due to non-
		Committee bad	implementation of A/P at Tala and a
		recommended for	hackout at the station occurred in
		implementation of the	lune 2010 In addition in month of
		autoroploper of Tolo and	
		Chuke	Aug also many times 400 kV mes
		Chuka.	successivity reclosed from binaguit
		DODO a data di thiati thias, ana	ena.
		DGPC added that they are	
		planning to implement the	Dimensional the form of evenessful A/D
		autorecloser scheme for the	Birpara in the form of successful A/R
		transmission lines	has been observed on 25" June 2019.
		connected at Chuka by May	
		2019. Based on the	DGPC has informed that after the
		experience gained, they	deliberation in their group, they would
		would implement the	be implementing the A/R at Tala by the
		autorecloser scheme for the	end on August 2019.
		transmission lines	
		connected at Tala.	DGPC may kindly appraise the
			status of A/R on lines from Tala and
			Malbase.
160	Bypassing	Powergrid informed that	As per POWERGRID email dated 16"
000	arrangement of LILO of	bypass arrangement would	September, the anticipated date for
	400kV Lines at Angul	be completed by end of	commissioning of the LILO by-pass
		August 2019.	arrangements at Angul SS is by end of
		OPTCL informed that 2nd	Oct'2019.
		circuit of 400kV	
		Meramundali-Mendhasal	POWERGRID may update the
		line would be commissioned	present status and take urgent
		by end of August 2019.	steps to expedite commissioning of
			the bypass arrangement. Delay in
			implementation of the arrangement
			is causing loss of operational
			flexibility besides subjecting the
			grid to the risk of high fault current.

#### Members may update.

#### Item no. C.10: 400 kV Split Bus operation of 400 kV Kahalgaon Substation -- ERLDC

In the 158th OCC meeting, Bus split operation of 400 kV Kahalgaon substation has been discussed. NTPC has informed that the 400 kV Bus split is ready for operationalization in all aspects. NTPC and PGCIL have informed that the group setting for revised protection setting has been implemented w.r.t. Bus split arrangement at remote ends. OCC decided to monitor the power flows after putting the Durgapur bus splitting in service and further decision on putting the Kahalgaon bus splitting scheme in operation would be reviewed in next OCC Meeting.

The Durgapur Bus split trial has been demonstrated in 159th and 160th OCC meeting and results and power flow was presented to the members. It was observed that there is no constraint on the 400 kV network during normal bus split operation of Durgapur substation.

With these experiences of 400 kV Durgapur Bus split, it is desired that 400 kV Kahalgaon Bus split may be operationalized.

In 161<sup>st</sup> OCC, NTPC has informed that the 400 kV Bus split is ready for operationalization at 400 kV Kahalgaon. But two ICTs are to be erected at 400 kV Kahalgaon and the ICTs are yet to be delivered.

NTPC requested other constituents to spare the ICTs temporarily for an interim arrangement at 400 kV Kahalgaon.

OCC advised NTPC to submit the details to ERPC and ERLDC.

#### Members may update.

Constituents	Constraint list	Issues based on ATC/TTC case submission by States	Action Plan by Utilities/S LDC
West Bengal, DVC	220 kV Waria-Bidhan Nagar D/C	N-1 Contingency	
CESC, PGCIL	220 kV Shubhasgram-EMSS D/C	N-1 Contingency	
WBSETCL, PGCIL	220 kV Newtown-Rajarhat D/C	N-1 Contingency	
WBSETCL	220 kV Howrah-New-Chanditala D/C	N-1 Contingency	
DVC, PGCIL	220 kV Durgapur (PG)-Parulia D/C	N-1 Contingency	
Jharkhand, PGCIL	220 kV Hatia-Ranchi D/C	N-1 Contingency	
Bihar	220 kV Mujaffarpur-Hazipur D/C	N-1 Contingency	
Bihar,PGCIL	220 kV Patna-Sipara T/C	N-1 Contingency	
Bihar,PGCIL	220 kV Khagaul-Sipara S/C	Overlaod of 220 kV Khagaul-Sipara	
Bihar	220 kV Bodhgaya-Gaya D/C	N-1 Contingency	
Bihar	220 kV Hazipur-Amnour D/C	N-1 Contingency	

Item no. C.11: Transmission Constraint in the 220 kV System in Eastern Region— ERLDC

All Utilities may kindly share their short term and long term action plans to handle the aforesaid insecure situations.

In 161<sup>st</sup> OCC, all the utilities were advised to share their short term and long term action plans to remove the constraint to ERLDC.

#### Members may update.

#### Item no. C.12: 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 TBCB/ Committee	(ERSS/ Standing e/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 161<sup>st</sup> OCC, all the constituents were advised to submit the details to ERLDC.

#### Members may update.

#### Item no. C.13: Finalization Outage Request and processing timeline--ERLDC

The procedure for timeline regarding submission of outage request till approval of the outage formulated by ERLDC has been circulated and discussed in 156<sup>th</sup> OCC meeting held at NTPC, Kahalgaon. The same had also been presented in 157<sup>th</sup> OCC meeting held at ERPC, Kolkata for beneficiary's comments/suggestion. The procedure mentioned through a flow chart in **Annexure-C13** may be approved and minute unless any modification/suggestion recommended.

In 158<sup>th</sup> OCC, all the constituents were advised to submit their comments on outage procedure within a week.

In 161<sup>st</sup> OCC it was informed that comments have been received only from Powergrid.

OCC advised all the other constituents to submit their comments to ERLDC at the earliest.

#### Members may decide.

## PART D:: OPERATIONAL PLANNING

#### Item no. D.1: Anticipated power supply position during November 19

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of November 19 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 at **Annexure-D.1**.

#### Members may confirm.

# Item no. D.2: Shutdown proposal of transmission lines and generating units for the month of November 19

Generator shutdown for November 19:

			Canacity	Period		No.	
System	Station	Unit	(MW)	-		of	Reason
			()	From	То	Days	
DVC	Mezia TPS	_					COH (Blr,Turb-
2+0		2	210	29.10.19	03.12.19	30	RLA,Gen.)
WBPDCL	Kolaghat TPS	2	210	01.08.19	31.03.20	30	R&M
		5	210	24.11.19	30.11.19	7	Boiler License renewal
		6	210	01.11.19	28.11.19	28	Boiler Overhauling
	Bandel TPS	5	215	12.11.19	18.11.19	7	Boiler License renewal
	BkTPS	3	210	01.11.19	10.11.19	7	Boiler License renewal
		1	210	16.11.19	05.12.19	15	Boiler Overhauling
	STPS	5	250	01.11.19	05.12.19	30	Capital Overhauling
CESC	BUDGE- BUDGE	1	250	10.11.19	14.11.19	5	Not Specified
		2	250	16.11.19	30.11.19	15	Not Specified
NTPC	KhSTPS	2	210	10.11.19	09.12.19	21	АОН
	FSTPS	3	200	04.11.19	18.12.19	27	Boiler acid cleaningDDCMIS R&M+HPT LPT
		6	500	01.11.19	05.12.19	30	Boiler +HPT LPT+IPT+GEN
	KUBNL, MTPS-II	3	195	15.11.19	20.12.19	16	LP rotor inspection,Boiler OH & Com.Modifi/NOX
	Barh	4	660	10.11.19	28.01.20	21	Boiler Modification
IPP	MPL	1	525	01.11.19	14.11.19	14	АОН

ERLDC may place the list transmission line shutdown discussed on  $18^{th}$  October 2019 through VC.

#### Members may confirm.

Agenda for 162<sup>nd</sup> OCC Meeting

#### Item no. D.3: Prolonged outage of Power System elements in Eastern Region

#### (i) Thermal Generating units:

S.No	Station	Location	Owner	Unit No	Capacity	Reason(s)	Outage
1	KOLAGHAT	WEST BENGAL	WBPDCL	1	210	POLLUTION CONTROL PROBLEM	10-May-18
2	CTPS	JHARKHAND	DVC	3	130	TURBINE BLADE DAMAGE	30-Jul-17
3	DSTPS	WEST BENGAL	DVC	1	500	ANNUAL OVERHAUL	26-Aug-19
4	MEJIA	WEST BENGAL	DVC	4	210	BOILER LICENSE RENEWAL	6-Sep-19
5	JITPL	ODISHA	JITPL	1	600	PA Fan Duct leakage	7-Jul-19
6	GMR	ODISHA	GMR	1	350	COAL SHORTAGE	13-Sep-19
7	KOLAGHAT	WEST BENGAL	WBPDCL	3	210	LOW DRUM LEVEL	15-Sep-19
8	KOLAGHAT	WEST BENGAL	WBPDCL	5	210	OVER VOLTAGE PROTECTION TRIP	1-0ct-19
9	SANTALDIH	WEST BENGAL	WBPDCL	6	250	FURNACE PRESSURE LOW	11-Oct-19
10	DPL	WEST BENGAL	WBPDCL	7	300	P A FAN PROBLEM	8-Oct-19
11	WARIA	WEST BENGAL	DVC	4	210	INITIALLY FLAME FAILURE /LATER ON COAL SHORTAGE	26-Sep-19
12	MEJIA B	WEST BENGAL	DVC	8	500	COAL SHORTAGE	1-0ct-19
13	MEJIA	JHARKHAND	DVC	2	210	COAL FEEDING PROBLEM	22-Sep-19
14	BOKARO B	JHARKHAND	DVC	3	210	PROBLEM IN ASH POND	12-Sep-19
15	CTPS	JHARKHAND	DVC	8	250	GENERATOR FIELD EXCITATION FAILURE	10-Oct-19
16	STERLITE	ODISHA	GRIDCO	2	600	DUE TO PROBLEM IN OLTC SYSTEM OF Unit Transformer	10-Apr-19

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

#### (ii) Hydro Generating units:

SI. No.	Station	Unit No.	Capacity (MW)	Reason (s) of outage	Outage date
1	Balimela	Unit- 1	60	Renovation & Modernization work (Planned)	05-08-2016

		Unit- 2	60	Renovation & modernization work (Planned).	20-11-2017
		Unit-4	60	Annual Maintenance	15-09-2019
		Unit-1	49.5	Turbine & Generator coupling cover water leakage (Forced)	14-03-2018
2	Burla	Unit-5	37.5	Renovation. Modernization & up rating work (Planned)	25-10-2016
		Unit-6	37.5	Renovation, Modernization & up rating work (Planned)	16-10-2016
3	Chiplima	Unit-3	24	Renovation & Modernization work (Planned)	15-10-2015
4	Rengali	Unit-2	50	Capital Maintenance (Planned)	12-12-2018

It is seen that about 379 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

SL N O	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 ON 17-04- 18
2	400 KV IBEUL JHARSUGUDA D/C	IBEUL	29-04-2018	TOWER COLLAPSE AT LOC 44,45
3	400KV NEW PURNEA- BIHARSARIFF(PG)-D/C	ENICL	10-08-2018	TOWER COLLAPSE AT LOC 47/0
4	400 KV PATNA KISHANGANJ- I	POWERGRI D	01-09-2018	TOWER COLLAPSE AT LOC 129. PILING DAMAGED
5	400 KV PATNA KISHANGANJ- II	POWERGRI D	06-07-2019	EMERGENCY HAND TRIPPED DUE TO FRUSTUM OF LOCATION NO: 129A/0 (A LEG) HAS BEEN EXPOSED ON SOIL EROSION.
6	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.
7	400/132 KV, ICT II (200 MVA) AT KAHALGAON	NTPC	02-08-2019	Y PHASE BUSHING BURSTED

8	400 KV MOTIHARI(DMTCL)- GORAKHPUR-I	POWERGRI D/DMTCL	13-08-2019	LINE SWITHED 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.
9	400 KV MOTIHARI(DMTCL)- GORAKHPUR-II	POWERGRI D/DMTCL	13-08-2019	LINE SWITHED 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.
10	400 KV BARH- MOTIHARI(DMTCL) -I	POWERGRI D/DMTCL	04-09-2019	TOWER COLLAPSE AT LOCATION 26/0 AND 25/5
11	400 KV BARH- MOTIHARI(DMTCL) -II	POWERGRI D/DMTCL	04-09-2019	TOWER COLLAPSE AT LOCATION 26/0 AND 25/5
12	FSC of 400kV Ranchi-Sipat DC at Ranchi end	POWERGRI D	07-09-2019	Due to faulty card. As per PGCIL, faulty card has been replaced in 2019.
13	FSC of 400kV Jeypore-Bolangir at Bolangir end	POWERGRI D	25-04-2019	Taken out by Powergrid asset management department

(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 9<sup>th</sup> 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 159<sup>th</sup> OCC, all the SLDCs were advised to fill the correct data in MERIT portal on regular basis.

#### Item No. E.2: Status of 1<sup>st</sup> Third Party Protection Audit:

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

The compliance status of 1<sup>st</sup> Third Party Protection Audit observations is as follows:

\* 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 118<sup>th</sup> 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 September-2019 based on the inputs received from beneficiaries

SL NO	Element Name	Owner	Charging Date	Chargin g Time	Remarks
1	400/220Kv 500 MVA ICT - 4 at Biharshariff	PGCIL	04-09-2019	18:00	FTC no load charged at 17:30hrs of 03/09/19

2	LILO of 220kV Arah- Sasaram(PG)-1 at Nadokhar	BSPTCL	08-09-2019	11:52	
3	400 kv tie bay of Kahalgaon 3 and Berhampur 1 at farakka	PGCIL	09-09-2019	12:50	Upgraded to 3000A
4	Mangdhechu U#3	MHPA	16-09-2019	12:30	
5	220kV Dumka-Govindpur-I	PGCIL	25-09-2019	17:35	
6	220kV Dumka-Govindpur- II	PGCIL	25-09-2019	17:35	
7	132kv Newtown AA3- Basirhat#2	WBSETC L	24-09-2019	20:24	D/C tower of route
8	132kv Newtown AA3-Basirhat#1	WBSETC L	27-09-2019	20:05	length 46.239 KM (ACSR panther)
9	132kv Ashoknagar-Basirhat#2	WBSETC L	28-09-2019	19:55	D/C tower of route
10	132kv Ashoknagar-Basirhat#1	WBSETC L	30-09-2019	16:45	Length 39.066 KM (ACSR panther)
11	160 MVA ICT IV at Malda	PGCIL	29-09-2019	11:14	
12	132kv Cochbehar-Dinhata line	WBSETC L	30-09-2019	16:15	LILO od 132kv
13	132kv Mathabhanga-Dinhata	WBSETC L	30-09-2019	16:16	Mathabhanga- Coachbihar-II

#### Item No. E.4: UFR operation during the month of September'19

System frequency touched a maximum of 50.27 Hz at08:04hrs of 05/09/19and a minimum of 49.62 Hz at 18:50hrs of 09/09/19& 18:44hrs of 18/09/19. Hence, no report of operation of UFR has been received from any of the constituents.

#### \*\*\*\*\*\*\*



#### ERLDC Shutdown approval process flow and time line-reg.

With the ever increase in transmission elements, the Grid is getting more secure and reliable. Still, outage of one element may affect severely to adjacent control area depending on system condition that area. Hence, planning and co-ordination between different control areas is absolute necessary. It has been seen that, due to lack of mutual consent/communication between two control area/license, outage of transmission elements are getting delayed or denied due to which monetary loss occurred as well as condition of that particular element worsen. ERLDC wants to draw the attention on the following points which are seen in Eastern constituents/license.

- 1. There is a shortage of designated outage coordinators in ER constituents /license. Sometimes proper communication is not possible with them.
- 2. E-mails are not reaching to them in time which is sent from ERLDC (particularly in GRIDCO case). Most of the time mails are seen when ERLDC inform them verbally.
- 3. It also leads to delayed consent thereby delaying the shutdown.
- 4. There is no substitute for the absence of outage co-ordination. Sometimes SLDC control room person are coordinating shutdown which is not a good practice. Progress tracking of any outage will be lost once shift change occurred.
- 5. Planned outages are being sent on holidays also which is very difficult to process.
- 6. We have seen that, in absence of competent authority (SLDC Hawarh and SLDC Patna for example), OCC approved shutdowns are also get cancelled.

#### To tackle all the above following suggestions may be considered:

- 1. Every Transmission license, generators and SLDCs must have dedicated outage cocoordinators and the contact information of all such co-coordinators shall be shared with all.
- 2. In absence of the designated outage co-coordinator, suitable substitute should be provided and the same shall be intimated to all.
- 3. All the indenting agencies are requested to communicate with their counterpart outage co-coordinator for smooth and speedy consent if it require.
- 4. Getting consent timely is very important. All the agencies, whose consent is required for a particular outage, are requested to adhere the time line given by ERLDC fails to which the outage will be cancelled or delayed accordingly.
- 5. All the agencies are requested to submit holiday list in their control area or any other contingencies well in advance to all.
- 6. All the agencies must provide their official as well as personal E-mail of their outage coordinators to ERLDC and ensure that checking of the both email are being done simultaneously.

Annexure-D.1

## Anticipated Power Supply Position for the month of Nov-19

	SI NO	P A R T I C U LA R S	PEAK DEMAND	ENERGY
	3L.NO		MW	MU
1		BIHAR		
	i)	NET MAX DEMAND	4875	2350
	11)	NET POWER AVAILABILITY- Own Source (including bilateral)	412	334
		- Central Sector	3948	1905
	iii)	SURPLUS(+)/DEFICIT(-)	-515	-111
2		JHARKHAND		
	i)	NET MAX DEMAND	1410	800
	ii)	NET POWER AVAILABILITY- Own Source (including bilateral)	341	160
		- Central Sector	818	412
	iii)	SURPLUS(+)/DEFICIT(-)	-251	-228
3		DVC		
-	i)	NET MAX DEMAND (OWN)	2925	1870
	ii)	NET POWER AVAILABILITY- Own Source	5311	2868
	,	- Central Sector	518	238
		Long term Di lateral (Evnert)	1446	1041
			1440	1041
	111)	SURPLUS(+)/DEFICIT(-)	1437	195
		ODISUA		
4	D)		4410	2025
	1)		461U	2835
	11)	INE I POWER AVAILABILITY- OWN SOURCE	3//8	1651
		- Central Sector	1483	708
	iii)	SURPLUS(+)/DEFICIT(-)	650	-476
5		WEST BENGAL		
5.1		WBSEDCL		
	i)	NET MAX DEMAND (OWN)	5770	2744
	ii)	CESC's DRAWAL	81	58
	iii)	TOTAL WBSEDCL'S DEMAND	5851	2802
	iv)	NET POWER AVAILABILITY- Own Source	4076	1591
	,	- Import from DPL	195	0
		- Central Sector	2115	1130
	V)	SUPPLUS(+) / DEFICIT(-)	535	-80
	vi)	EXPORT (TO B'DESH & SIKKIM)	325	-203
	VI)		525	-205
5 2		וסס		
5.4	i)		270	100
	1)		270	190
	11)		400	218
	111)	SURPLUS(+)/DEFICIT(-)	195	28
		0550		
5.5		CESC		
	1)	NET MAX DEMAND	1700	//5
	ii)	NET POWER AVAILABILITY - OWN SOURCE	700	364
		FROM HEL	540	311
		Import Requirement	460	100
	iii)	TOTAL AVAILABILITY	1700	775
	iv)	SURPLUS(+)/DEFICIT(-)	0	0
6		WEST BENGAL (WBSEDCL+DPL+CESC)		
		(excluding DVC's supply to WBSEDCL's command area)		
	i)	NET MAX DEMAND	7740	3709
	ii)	NET POWER AVAILABILITY- Own Source	5241	2174
		- Central Sector+Others	3115	1441
	iii)	SURPLUS(+)/DEFICIT(-)	616	-94
7		SIKKIM		
	i)	NET MAX DEMAND	125	61
	iĎ	NET POWER AVAILABILITY- Own Source	4	1
	,	- Central Sector+Others	168	72
	iii)	SURPLUS(+)/DEFICIT(-)	47	13
	,			
8		EASTERN REGION		
Ŭ		At 1 03 AS DIVERSITY FACTOR		
	a		21054	1160/
	"		21034	1024
			1440	1041
		EAFURI BY WESEUL	323	-203
			05107	110/4
	11)		25136	11964
			2010	100
	iii)	PEAK SURPLUS(+)/DEFICIT(-) OF ER	2310	-498
1		(11)-(1)		