



Agenda for **139th OCC Meeting**

Date: 27.11.2017
Eastern Regional Power Committee
14, Golf Club Road, Tollygunge
Kolkata: 700 033

Eastern Regional Power Committee

Agenda for 139th OCC Meeting to be held on 27th November, 2017 at ERPC, Kolkata

Item no. 1: Confirmation of minutes of 138th OCC meeting of ERPC held on 30.10.2017

The minutes of 138th OCC meeting were uploaded in ERPC website and circulated vide letter dated 08.11.2017 to all the constituents.

Members may confirm the minutes.

PART A : ER GRID PERFORMANCE

Item no. A1: ER Grid performance during October, 2017

The average consumption of Eastern Region for October - 2017 was 401 Mu. Eastern Region has achieved record maximum energy consumption of 440 Mu on 18th October-17. Total Export schedule of Eastern region for October - 2017 was 1425 Mu, whereas actual export was 1064 Mu.

ERLDC may present.

Item no. A2: Persistent over drawl by West Bengal and Odisha

It has been observed since few days, West Bengal is over drawing continuously to the tune of 4 to 5 mu per day with maximum deviation respect to schedule was in tune of 500 to 600 MW and Odisha is over drawing continuously to the tune of 3 to 4 mu per day with maximum deviation respect to schedule was in tune of 400 to 500 MW. Numbers of instructions/ violation messages/ Feeder opening intimations and warning messages for controlling over drawl were also issued to SLDC control room during real time operation to maintain their drawl within schedule. However, the response of West Bengal and Odisha were not commensurate with criticality of the situation. Further some instances have also been observed, where WBSEDCL operated PPSP under PUMP mode during overdrawl situation.

In 138th OCC, West Bengal overdrawl pattern for the October month was deliberated and opening of second level feeder for demand disconnection in case of continuous overdrawl was also discussed. West Bengal also informed that corrective measures and also arrangement of extra power will be done to mitigate such overdrawl. However, there was no substantial improvement noticed in real time operation.

ERLDC may present. WBSETCL and Odisha may explain.

Item no. A3: OPERATION OF HYDRO POWER PROJECTS IN PEAKING MODE

CEA vide letter dated 18.07.17 informed that POSOCO has carried out operational analysis of various hydro stations in the country and observed that despite 40.6 GW of peaking hydro capacity only about 33 GW peak generation is carried out on all India basis. According to POSOCO, this is on account of a number of hydro stations, particularly in state sector, which are not being operated in peaking mode. In order to examine the above observation, a Sub-committee has been constituted by the MoP under Chairperson, CEA with heads of POSOCO, NHPC, SJVN & THDC as members and Director (H), MoP as the Member Convenor. The Sub-Committee has held three meetings with the concerned hydro generating stations and concluded

that there is scope for about 2000 MW additional power generation from hydro stations during peak hours.

It has been desired by the Chairperson that the matter of utilization of hydro stations in peaking mode be made a regular agenda item for discussion at the monthly OCC meetings while discussing operational planning for the month ahead and analyzing the operation in the previous month.

In 135th OCC, ERLDC presented the performance in peaking mode for hydro generations in Eastern Region.

OCC decided to review the performance of hydro generators in peaking mode in monthly OCC meetings

ERLDC received daily hydro outage status report from SLDC, Odisha regularly. Daily outage reports from SLDC, WBSETCL & SLDC, JUSNL on daily basis to ERLDC is still pending. IPPs are also advised to send daily outage status report (Forced Outages) to ERLDC in case of outage of units at their respective stations.

ERLDC may present. SLDC, WBSETCL & JUSNL and IPPs may comply.

PART B: ITEMS FOR DISCUSSION

Item No. B.1: Commissioning of new transmission elements in Eastern Region

In 118th OCC, it was informed that the network diagram of eastern region needs to be updated on regular basis on account of commissioning of new elements in the CTU as well as STU networks.

OCC advised all the constituents to update the list of newly commissioned power system elements to OCC on monthly basis so that ERLDC/ERPC can update the network diagram on regular basis.

New Generators/Transmission Elements commissioned/charged during **October, 2017** as follows:

- 1) 220 KV New Melli-Tashiding ckt charged for the first time at 17:34 hrs of 12.10.17.
- 2) 500MVA ICT-II at Maithon (old 315MVA Replacement) charged for the first time at 18:42 hrs. of 13.10.17.
- 3) 132kV Motihari-Raxual-DC Charged for first time as follows:
 - a. Ckt-2 at 12:44 hrs. of 18.10.17
 - b. Ckt-1 at 12:31 hrs. of 20.10.17
- 4) 132kV GIS elements charged at Birpara (PG) SS as follows:
 - a. 160MVA ICT-I 132kV side Bay: 11:17 hrs. of 28.10.17
 - b. 160MVA ICT-II 132kV side Bay: 17:38 hrs. of 28.10.17
 - c. 132kV Birpara(PG)-Birpara(WB)-1 bay at Birpara(PG): 17:47 hrs. of 28.10.17
 - d. 132kV Birpara(PG)-Birpara(WB)-2 bay at Birpara(PG): 11:28 hrs. of 28.10.17
 - e. 132kV Bus coupler Bay: 15:09 hrs. of 29.10.17.
- 5) 220kV Tashiding-Rangpo charged for first time at 18:22 Hrs. of 30.10.17.

Constituents may update.

Item No. B.2: Checklist for submission of updated data for Protection Database

The network data in Protection Database needs to be updated on regular basis on account of commissioning of new elements in the CTU as well as STU networks. Accordingly, a checklist has been prepared which is enclosed in **Annexure-B2**.

All the constituents are requested to submit the checklist on monthly bases in every OCC/PCC meetings.

Constituents may update.

Item No. B.3: Status of projects funded under PSDF schemes

In the PSDF review meeting, it was advised to RPCs to monitor the status of all the projects funded by PSDF. Therefore, constituents are requested to update the status of projects which are being funded by PSDF in the desired format.

SN	Name of Constituent	Name of Project	Date of approval from PSDF	Target Date of Completion	PSDF grant approved (in Rs.)	Amount drawn till date (in Rs.)	Status as updated in 135 th OCC
1	WBSETCL	Renovation & up-gradation of protection system of 220 kV & 400 kV Substations in W. Bengal	31-12-14		120.67 Cr	11.04 Cr.	95 % Supply Completed
2		Transmission System improvement of WBSETCL	22-05-17				
3		Renovation & modernisation of transmission system for relieving congestion in Intra-State Transmission System.	22-05-17				
4		Installation of switchable reactor & shunt capacitors					
5	OPTCL	Renovation & Up-gradation of protection and control systems of Sub-stations in the State of Odisha in order to rectify protection related deficiencies.	10.05.15	10.05.17	162.5 Cr.	16.25 Cr + 8.91 Cr	Total contract awarded for Rs. 51.35 Cr
6	ERPC	Creation & Maintenance of web based protection database and desktop based protection calculation tool for Eastern Regional Grid	17.03.16		20 Cr.	4.94 Cr. + 9.88 Cr.	1) Hardware supplied and installed. 2) SAT completed for pilot state 3) Protection database management software (PDMS) put in live w.e.f. 30.03.17. 4) Training on PDMS organised at ERPC, Odisha, Bihar, WBSETCL, Jharkhand and DVC.
7	BSPTCL	Renovation and up-gradation of 220/132/33 KV GSS Biharsharif, Bodhgaya, Fatuha, Khagaul, Dehri -on-sone & 132/33 kV GSS Kataiya	11/5/2015	Feb'2017	64.22 crore	23.68 crore	Project is on going. Contract awarded for Rs.71.37 Cr till date.
8		Installation of capacitor bank at different 35 nos. of GSS under BSPTCL	5/9/2016		18.88 crore		Approved (triparty agreement among NLDC, Govt. of Bihar & BSPTCL is in under process)
9		Renovation & up-gradation of protection and control system of 12 nos. 132/33 KV GSS under BSPTCL.					Recommendation of appraisal committee is awaited. Estimated cost 54.69 crore.
10	DVC	Renovation and upgradation of control & protection system and replacement of Substation Equipment of 220/132/33 kV Ramgarh Substation			25.96		Tendering in process.

11		Renovation and upgradation of control & protection system including replacement of substation equipment at Parulia, Durgapur, Kalyaneshwari, Jamshedpur, Giridih, Barjora, Burnpur, Dhanbad and Burdwan Substation of DVC			140		Appraisal committee has recommended. It will be placed in next monitoring Committee meeting.
12	WBPDC	Implementation of Islanding scheme at Bandel Thermal Power Station			1.39 Cr		<i>Award placed to ABB. Material delivery by Dec, 17.</i>
13		Upgradation of Protection and SAS			26.09		Approved by Ministry of Power
14	OHPC	Renovation and up-gradation of protection and control system of 4 nos OHPC substations.			22.35 Cr		Tendering unde progress.
15	Powergrid	Installation of STATCOM in ER			160.28 Cr	63.028 Cr	work is in progress, eexpected to complete by June 2018
16a	ERPC	Training for Power System Engineers					<i>The proposal was approved by Appraisal Committee. The approval from MoP, GOI is awaited.</i>
16b		Training on Power market trading at NORD POOL Academy for Power System Engineers of Eastern Regional Constituents					

Respective constituents may update.

Item No. B.4: Status of UFRs healthiness installed in Eastern Region

UFR Healthiness Certification for the month of October, 2017 has been received from CESC, JUSNL, WBSETCL, DVC, and BSPTCL.

OPTCL may submit.

Item No. B.5: Healthiness of SPS existing in Eastern Region

GMR, JITPL, CESC, & NTPC (TSTPS) have submitted the healthiness certificate for the month of September, 2017.

In 136th OCC, members felt that healthiness certificate for SPS of 132 kV Muzaffarpur-Dhalkebar D/C line may also be submitted on monthly basis and advised Powergrid to submit the healthiness certificate in every OCC meeting.

In 138th OCC, ERLDC informed that Tashiding HEP is also included under Rangpo SPS, two units of Tashiding HEP will trip on actuation of SPS. However, it will be reviewed in coordination with other generators covered in the SPS.

Vedanta, Chuzachen and Powergrid may submit the healthiness certificate for October 2017.

Teesta-III, Jorethang & Dikchu may submit the healthiness certificate for Rangpo SPS as decided in special meeting of 21.06.2017.

Item No. B.6: Electricity Generation Targets for the year 2018-19 – CEA

The annual exercise of assessment and finalization of the generation targets and the planned maintenance schedules of the generating units for the year 2018-19 is being initiated by CEA. Although the generation performance of the various stations and their planned & unscheduled outages are regularly monitored in CEA but it is felt that a more realistic projection of month-wise generation in the coming year could be made by the respective Station Authorities.

While monitoring the generation performance during the current financial year, it has been observed that power utilities are facing the problem of loss of generation due to no / low schedules, high fuel costs and other technical and commercial and transmission etc. issues. Accordingly, it is requested that the following inputs may kindly be submitted to this office as per the enclosed **formats (given at Annexure-B.6)**:

- i) The unit wise yearly generation (with unit -wise monthly breakup) proposed during 2018-19 as per the format given along with the fuel availability, the anticipated loss of generation on account of various reasons such as grid constraint, low schedule/ reserve shut down due to high cost, poor quality coal/lignite etc, if any, may also be furnished (**Annex-I (1 to 5)**)
- ii) Utilities who have their Power Purchase Agreement (PPA) with various Discoms, Trader, States etc, details may be furnished in MW for Long, Medium and Short term to enable us to assess the expected generation for next year (**Annex – I (point no 6)**).
- iii) The details of coal linkage from coal agencies and availability of secondary fuel oil/gas/ liq fuel may also please be furnished (**Annex- I (point no 7 (a) and (b))**).
- iv) Production cost, Unit wise cost of generation and rate of sale of power may also be furnished. (**Annex – I (point 8)**)
- v) Details of unit-wise schedule of Planned Maintenance as approved by the respective RPCs (Regional Power Committees), unit-wise R&M planned to be carried out during 2018-19, may also be considered for deciding the generation targets (**Annex- II**).

The information may please be furnished electronically at the email address **targetopmcea@gmail.com, prathamkumar@gmail.com** with a copy to ERPC (e-mail: **mserpc-power@nic.in**).

For the convenience of the generating utilities, the input formats are also being made available at CEA website **<http://www.cea.nic.in>**. For any other query/ clarification any of the following officer may be approached.

1. Mr Pratham Kumar, Assistant Director, 011-26732666, Mob- 08252697842

*CEA vide letter dated 25th October 2017 informed that desired information from many generating stations have not been received till now. The list of such stations is enclosed at **Annexure-B6A**. MoP vide letter no. 5/1/2017-OM informed that Annual generation targets for 2018-19 is to be finalized by 15th December, 2017 and to avert any coal supply crisis during 2018-19, plant wise detailed plan needs to be prepared.*

In view of this, it is requested to furnish unit wise outage schedule of generating stations of your region for 2018-19 and month wise, state wise energy requirement for 2018-19 to this division by 15th November, 2017.

Members may furnish the above data at the earliest.

Item No. B.7: Data for preparation Load Generation Balance Report (LGBR) of ER for the year 2018-19

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 **2018-19** 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 2018-19 (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 2018-19 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 / pkderpc@gmail.com**).

Members may furnish the above data at the earliest.

Item No. B.8: Status of Islanding Schemes of Eastern Region

B.8.1. Status of commissioned Islanding Schemes 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

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

In 134th OCC, JUSNL was advised to submit the healthiness certificate of the UFR and PLCC system related to Farakka islanding scheme at their end.

The healthiness certificate for Islanding Scheme for September, 2017 has been received from CTPS, DVC, NTPC, JUSNL, BkTPS, Tata Power and CESC.

In 60th PCC NTPC was informed that protection equipment and CBs are very old at Lalmatia S/s which are the property of ECL. NTPC added that they are facing difficulty to maintain the Lalmatia S/s and 220kV Farakka-Lalmatia line with such old equipment.

OCC felt that Lalmatia S/s is covered under Farakka islanding scheme and ineffective protection/communication system at Lalmatia will be a concern for successful operation of Farakka islanding scheme.

OCC advised NTPC to submit the healthiness status of protection/communication equipment to ERPC and ERLDC. OCC also advised NTPC to pursue with ECL for further necessary action.

NTPC may place the details.

B.8.2. Bandel Islanding Scheme, WBPDC

As per the latest status available in PSDF web site the scheme was approved for an amount of Rs.1.39 crore by the Monitoring Committee on 10.04.2017.

In 134th OCC, WBPDC informed that MoP has issued the sanction letter for grant of PSDF.

In 135th OCC, WBPDC informed that order has been placed to ABB for implementation of Bandel islanding scheme.

In 137th OCC, WBPDC informed that the order has to be revised as per new GST guidelines.

WBPDC may update the latest status.

Item No. B.9: Controlling overdrawal of states by disconnection of radial feeders - ERLDC

In accordance with IEGC sections 5.4.2 (c) and 5.4.2 (f), feeders for disconnecting demand of every state in the order of their priority for switching off, were identified in the past. List of these feeders is given in **Annexure-B9**. However, with growth of network interconnection and load as well as change of load distribution (if any) during the intervening period, it is felt that the list needs reviewing.

All constituents are requested to furnish views regarding their respective identified feeders and indicate the expected load (average and peak) that would be disconnected by switching off the feeders, so that the list can be finalized at the earliest.

In 138th OCC, ERLDC informed that the feeders list needs to be reviewed in view of growth of network interconnection and change of load distribution.

SLDC, Bihar updated the feeders list as follows:

- 132kV Banka(PG)-Banka D/C line (60 MW)
- 132kV Banka(PG)-Sultanganj D/C line (80 MW)
- 132kV Ara(PG)-Jagdishpur S/C line (45 MW)

OCC advised all the other SLDCs to identify the suitable feeders to be disconnected during overdrawal of states and submit the details to ERLDC and ERPC.

Members may update.

Item No. B.10: Implementation of Automatic Demand Management Scheme (ADMS)- ERLDC

West Bengal SLDC vide letter dated 13-10-17 has informed that the scheme of automatic demand management within the control area, has been completed.

In 138th OCC, Jharkhand informed that they are interacting with M/s Chemtrol for implementation of the scheme.

Odisha informed that that they are at tendering stage.

Bihar informed that they have identified the feeders and they will submit the list by next OCC.

Members may update.

Item No. B.11: **Concerned members may update the latest status.**

B.11.1. Commissioning of 220 kV Patna-Sipara third ckt.

Major load of Capital city Patna is fed from 220 kV Sipara Substation, Further Sipara is connected with Khagaul as well as well as Fatuah at 220 kV level. These are also major load centers normally fed in radial mode from Patna (except Fatuah, which is usually supplied radially from Biharsharif). This causes very high loading of 220 kV Patna-Sipara D/C and it did not satisfy N-1 Contingency criteria for most of the time in last quarter.

The third circuit of 220kV Patna-Sipara line is expected to be commissioned soon, which will help in relieving the loading on other two lines. Further with commissioning of 220 kV Patna-Sipara T/C 220 kV Khagaul-Arrah-Pusauli loop may be kept close, which will help in improving system reliability and maintaining better voltage regulation in and around that area.

In view of above BSPTCL may expedite commissioning of 220 kV Patna-Sipara third ckt.

In 138th OCC, BSPTCL informed that the line will be commissioned within 15 days.

BSPTCL may update the latest status.

B.11.2. Repeated tripping of 220kV Chuka-Birpara D/c line

In 60th PCC, meeting Powergrid explained that the line is in lightning prone area. The line is getting tripped due to Insulator failures. Powergrid added that line insulators of part of the line which belongs to Powergrid have been replaced with polymer insulators. The insulator failures during lightning have been reduced. However, the line is getting tripped due to failure of porcelain insulators in 39.8 km stretch which belongs to Bhutan.

In 138th OCC, DGPC informed that BPC is the owner of part of the line which belongs to Bhutan. They have already replaced porcelain insulators of 7 to 8 towers with polymer insulators.

DGPC added that they will discuss the issue with BPC in their coordination meeting scheduled to be held in November 2017 and update the action plan in next OCC meeting.

DGPC may place their action plan.

B.11.3. Status of Installation of STATCOM in Eastern Region

In the 15th meeting of SCM it was agreed to install STATCOM in combination with mechanically switched Reactors (MSR) and Capacitors (MSC) and co-ordinated control mechanism of MSCs and MSRs at Ranchi, Rourkela, Jeypore and Kishanganj substations in Eastern Region.

The matter was again discussed in the 28th ERPC/TCC meeting held on 12th -13th September, 2014 at Goa, wherein, it was decided that POWERGRID may go ahead with implementation of the STATCOM project in Eastern Region with debt – equity ratio of 70:30 funding. The debt part should be refunded through PSDF and Equity Component (30%) to be funded by POWERGRID to be recovered through regulated tariff mechanism. CTU should initiate the process of availing fund from PSDF.

In 137th OCC, Powergrid updated the status as follows:

SI No	Location /Sub-Station of POWERGRID in ER	STATCOM - Dynamic Shunt Controller (MVar)	Mechanically Switched Compensation Sl. (MVar)		Latest status
			Reactor (MSR)	Capacitor (MSC)	
1	Rourkela	±300	2x125		<i>Expected to complete by Mar 2018</i>

2	Kishanganj	±200	2x125		<i>Expected to complete by June 2018</i>
3	Ranchi(New)	±300	2x125		<i>Expected to complete by April 2018</i>
4	Jeypore	±200	2x125	2x125	<i>Expected to complete by June 2018</i>

Powergrid may update.

B.11.4. Bus Splitting of Powergrid Sub-stations

As per decision of Standing Committee of ER CTU was entrusted to do Bus splitting at Maithon, Durgapur & Biharsariff S/Ss or ER. The latest status on the same are:

- 400 kV Maithon ---Completed
- 400 kV Durgapur--Completed
- 400 kV Biharshariff— Completed

OCC advised ERLDC to operationalize the bus splitting scheme at Maithon in coordination with NLDC and Powergrid.

ERLDC may update.

B.11.5. Bus Splitting of Kahalgaon STPS Stage I&II, NTPC

In 24th ERPC meeting held on 27.04.2013, ERPC advised NTPC to go ahead with the bus-splitting scheme as it is a technical requirement for safe, secure operation of the grid.

In 32nd TCC, NTPC informed that they are going ahead with the implementation of Bus Splitting of Kahalgaon STPS Stage I&II and the implementation is expected to be completed by December, 2018.

In 126th OCC, NTPC has given the present status as follows:

- 400/132kV Switchyard package - bid opened on 14.03.16. Awarded on 04.05.2016.
- Site levelling – Site levelling work has been completed.
- Transformer package and Shunt reactor– have been awarded.

In 35th TCC, NTPC informed that the work is in progress as per the schedule and the bus splitting will be completed by December, 2018.

In 138th OCC, NTPC informed that the bus splitting will be implemented by December, 2018.

NTPC may update.

B.11.6. 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG), Keonjhar & Pandiabil S/s

PGCIL has already commissioned the 2x315MVA 400/220kV Bolangir S/s by LILoing of 400kV Meramandali-Jeypore S/C line and 400/220 kV Keonjhar S/s with an objective of supplying power from ER grid to its adjoining areas in Odisha.

In last OCC, OPTCL updated the completion schedule of inter-connecting system as follows:

Sl. No.	Name of the transmission line	Completion schedule
1.	2x315MVA 400/220kV Bolangir S/s	
a.	LILo of one circuit of Sadeipalli-Kesinga 220 kV D/C line at Bolangir S/S	<i>Only 7 towers left (Severe ROW problem). By Mar, 2018.</i>
2.	400/220 kV Keonjhar S/S	

a.	Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line	By Mar, 2018.
b.	Keonjhar (PG)-Turumunga(OPTCL) 220kV D/C line	By 2019.
3.	400/220kV Pandiabil Grid S/s:	
a.	Pratapsasan(OPTCL)-Pandiabil(PG) 220 kV D/C line	By Mar, 2018.

OPTCL may update.

B.11.7. 220 kV inter-connecting lines of JUSNL with 2x315 MVA, 400/220 kV sub-stations at Chaibasa, Daltonganj & Dhanbad

In last OCC, JUSNL updated the latest status as follows:

Sl. No.	Name of the transmission line	Completion schedule
1.	Chaibasa 400/220kV S/s	
a.	Chaibasa (JUSNL) – Ramchandrapur (JUSNL) 220kV D/c	<i>Bays at Ramchandrapur switchyard are not yet ready and the line is idle-charged from Chaibasa(JUSNL)</i>
2.	Daltonganj 400/220/132kV S/s:	
a.	Daltonganj (POWERGRID) – Latehar 220kV D/c	By Dec, 2017.
b.	Daltonganj (POWERGRID) – Garhwa 220kV D/c	May, 2018
c.	Daltonganj (POWERGRID) – Daltonganj (JUSNL) 132kV D/c	Dec, 2018
d.	Daltonganj (POWERGRID) – Chatarpur/Lesliganj 132kV D/c	Matching with S/s
3.	Dhanbad 400/220 kV S/s: Awarded under TBCB	
a.	Dhanbad – Dhanbad (Govindpur) (JUSNL) 220kV D/c	Matching with S/s

JUSNL may update.

B.11.8. 220 kV inter-connecting lines of WBSETCL with 400/220 kV, 2x315 MVA Alipurduar & 2x500 MVA Rajarhat sub-stations

In last OCC, WBSETCL updated the latest status as follows:

Sl. No.	Name of the transmission line	Completion schedule
1.	2x315MVA, 400/220kV Alipurduar sub-station	
a.	Alipurduar (POWERGRID) – Alipurduar (WBSETCL) 220kV D/c (<i>Twin moose</i>)	Nov, 2017
2.	2x500MVA, 400/220kV Rajarhat ---	
a.	Rajarhat-N. Town-3 (WBSETCL) 220 kV D/C line	Matching
b.	Rajarhat-N. Town-2 (WBSETCL) 220 kV D/C line	June, 2018
c.	Rajarhat- Barasat (WBSETCL) 220 kV D/C line	June, 2018

WBSETCL may update.

Item No. B.12: BSPTCL Agenda

1. Erection and commissioning of 02 nos. of 220 kV line bays at KBUNL

Despite of several requests and reminders, KBUNL is not taking up this work seriously and it appears that the initiatives of KBUNL for construction of bay, which is essential for making available second circuit with Samastipur(New) and Motipur are far from satisfactory and the work is yet to start. Presently 220 KV KBUNL- Samastipur (new) (D/C) & 220 KV KBUNL - Motipur (D/C) tr. lines have only one 220 KV bays each at KBUNL end since long & due to this one circuit each from KBUNL to Samastipur (new) & KBUNL to Motipur remain unutilised. Due to unavailability of these bays at KBUNL end, BSPTCL is facing difficulties for synchronising 220 KV line at KBUNL and also unable to shift loading of Biharsharif(PG)-Begusarai D/C T/L on MTPS for off loading of Biharsharif(PG) ICTs and in case of any contingency occurs at

DMTCL(D)-Motipur D/C T/L, MTPS-Motipur S/C T/L also tripped at overloading. It is evident that the transmission infrastructure developed by BSPTCL in North Bihar could not be fully utilized causing limitations in power flow as well as power interruption.

The unavailability of bays at KBUNL is affecting the evacuation of power from KBUNL (Generating Station 2*110 MW+2*195MW). So, keeping these lines in loop at KBUNL will enhance the quality, reliability and stability of system.

KBUNL may begin the construction and complete commissioning of 2nd bay in minimum possible time in order to avoid crisis arisen due to unforeseen outage of Biharsharif(PG) and DMTCL(Darbhanga).

As such target dates for the start and completion of the above works may kindly be got ensured from KBUNL.

In 138th OCC, KBUNL informed that tender has been floated and the work will be awarded in November 2017. The work will be completed by March 2018.

KBUNL may update.

2. Loading of 220 kV Sasaram (PG)-Sahupuri (UP,NR) line

220 kV Sasaram (PG)-Sahupuri (NR,UP) line (completely owned by BSPTCL) is about 40 years old and its loading remains continuously more than 240 MW during peak hours and about 200 MW during off peak hours. Such loading may damage the line and also it causes low voltage problem in GSS connected to Sasaram (PG), hence causing load restriction in BSPTCL system.

SLDC, Patna daily requests RLDC to restrict the drawl maximum upto 180 MW only through the said transmission line. Also this agenda item was discussed In 133rd OCC meeting, OCC is hereby again requested to restrict the drawal upto 180 MW only in order to avoid overloading of ICTs at Gaya (PG) end by improving the sharing of 220 KV power to Dehri from Sasaram(PG) (especially during peak hours).

The issue has been communicated to NRPC vide letter dated 7th November 2017.

BSPTCL may update.

Item No. B.13: Third Party Protection Audit & Inspection of Under Frequency Relays (UFR)

1. 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	37	68.52
NTPC	16	14	87.50
NHPC	1	1	100.00
DVC	40	26	65.00
WB	68	27	39.71
Odisha	59	38	64.41
JUSNL	34	21	61.76
BSPTCL	16	5	31.25
IPP (GMR, Sterlite and MPL)	5	5	100.00

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.

OCC advised all specially JUSNL and BSPTCL to send the revised DPRs at the earliest after clarifying the queries if any.

Members may comply.

2. Schedule for 2nd Third Party Protection Audit:

Sl No	Proposed Date	Substation
1	Dec, 2017	400kV Baripada (PG)
2		400kV Jaypore (PG)
3		220kV Jeynagar (OPTCL)
4		400kV Indravati (PG)
5		400kV Indravati (OHPC)
6	Jan, 2018	400kV Bolangir (PG)
7		400kV Rengali (PG)
8		220kV Theruvali (OPTCL)

The 2nd third party protection audit observations of competed substations are available in the ERPC website in important documents.

PCC advised all the constituents to comply the observations at the earliest.

Members may decide the dates.

Item No. B.14: Furnishing of data for Merit Order Web Portal – CEA

During the Power Minister's Conference held on 3rd and 4th May 2017, at New Delhi, it was decided to develop a web portal/mobile app in about a month's time with a view to having transparency in Merit order scheduling & dispatch and ensuring most economic system operation.

In the conference Hon'ble Union Minister for Power requested all the States/UTs to submit the requisite data to CEA immediately.

On this regard, it is to inform that POSOCO has developed the facility for online uploading of monthly & daily data related to Merit Order Dispatch Portal, by the SLDCs. NLDC (POSOCO) has already communicated via email to all the SLDCs, their respective User IDs & Passwords and the procedure for online filling & uploading of data. All the SLDCs to start submitting the above data to NLDC online immediately.

In case of any doubt / clarification, Shri Harish Kr Rathour (NLDC) may be contacted at his Mobile No.9873918443. The procedure for online uploading of data for the portal is available in ERPC website.

Subsequently, CEA vide mail dated 4th July 2017 informed that for the ease of user, import from excel (in a predefined format) facility have also been implemented. Users are requested to follow following steps to upload data through excel:

- 1) Login to MERIT web portal (www.meritindia.in/login).
- 2) Select any date and click on "GO" button. After this, list of all station will be visible for that date with other information's, if already filled.

- 3) Click on "Export Data in Excel" to export the file in excel. ***This would be a template file which is to be used for uploading the data.***
 - a. Once you do not have any changes in the list of plants, this file can be used for data uploading and on daily basis user need not to download excel format again.
 - b. In case updation in list of station is required (State owned stations), same can be modified through monthly page. At present this feature is disabled and very shortly it will be enabled.
 - c. Initial two row has station ID and name of station, which should not be disturbed and data will be uploaded based on these only. Any changes in it may lead to wrong data uploading.
 - d. User can select any file name to save and upload the data.
 - e. Once you filled data click on "If you have data ready in Excel, CLICK HERE to upload", select date for which you want to upload data, browse for the desired file and click on UPLOAD.
 - f. If entire file has not been uploaded, you will get the file which will show list of stations not uploaded.
- 4) If new station to be added for state, user can add through monthly data upload pages. Once, it has added new EXCEL template to be downloaded again in order to fill data for new station.
- 5) User who wants to fill data directly through web-portal, would now have option to sort based on the various fields, which will help in filling data. Users who wants to fill on-line need not to click on "If you have data ready in Excel, CLICK HERE to upload", they only select the date and simply click on "GO" button.

After submission of data, user can check directly on www.meritindia.in. It is once again requested to all to fill the monthly data (variable and fixed cost) because all visualization in first page is based on variable costs of the plants. In case of any doubt / clarification, Shri Harish Kr Rathour (NLDC) may be contacted at his Mobile No.9873918443.

Members may comply.

Item No. B.15: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

The activity of the preparation of Crisis Management Plan for countering the cyber attacks and its implementation including the Mock Drills, audits etc. is being monitored by CEA regularly in line with crisis management plant of Ministry of Power. Power Utilities (including generation, transmission & distribution utilities) of eastern region are to furnish regularly the updated status to on the same to Chief Engineer, Distribution Planning & Development Division, CEA.

NTPC communicated their activity of the preparation of Crisis Management Plan for countering the cyber attacks vide letter dated 2nd August, 2013.

In 113th OCC, Member Secretary informed that during interaction with consultants of Grid Study Committee, NLDC agreed that they will plan for conducting workshops on crisis management plan for Cyber Security and few workshops will also be held in Eastern Region.

CESC vide letter dated 22.08.15 had furnished their status of the preparation of Crisis Management Plan (CMP) for Cyber attacks in their system.

Members may note.

Item No. B.16: Certification through BIS as per IS 18001:2007 to all generating/ transmission units.

In 84th OCC meeting all constituents were requested to interact with BIS with intimation to ERPC and get certified as per CEA direction.

As per the information received from the constituents the following generators certified with IS 18001:

- All NTPC stations in Eastern Region
- Teesta, NHPC
- All OHPC generating units
- All CESC generating units
- All units of WBPDC
- DGPC units

Members may note and update the status.

Item No. B.17: Data of Peak Demand – Submission of hourly power cut data

The peak demand met figure calculated by CEA is a part of the monthly Power Supply Position Report prepared by CEA, based on the data provided by five Regional Power committees (RPCs), who in turn collect the data from State / UTs and RLDCs. As per the present methodology being adopted for calculation of States /Regional peak demand met, the figure of peak demand met at any time in the month is taken as peak demand met for the month. For all India monthly peak demand met, the sum of five regional peaks met, which may occur at different points of time is taken.

The above methodology has been reviewed and it has been decided with the approval of Chairperson, CEA that Peak demand Met and Peak Demand in the country should be based on hourly all India demand data. The matter was taken up with POSOCO for getting the hourly data of peak demand met for each month in respect of all the regions in the country in the first week of following month and they have assured to furnish the same. To calculate the demand, data of hourly scheduled and unscheduled power-cuts / load shedding is also required, which is not available with POSOCO.

It is, therefore, requested that hourly figures of scheduled/ unscheduled power cuts/load shedding data may be collected from States / UTs and the same may be sent to CEA every month as per above schedule in the enclosed format, in spread sheet, so that hourly figures of peak demand can be calculated and incorporated in Power Supply Position report.

This data for a month may kindly be sent in the first week of each month, along with PSP data, starting from the data for the month of February, 2015. The format for sending the data of hourly scheduled and unscheduled power-cuts / load shedding has already been circulated.

In 110th OCC meeting, OCC advised all the concerned utilities (BSPTCL, JUSNL, OPTCL, WBSETCL & Sikkim) to send the data of hourly scheduled and unscheduled power-cuts / load shedding by mail to mserpc-power@nic.in latest by first week of each month.

OCC advised all constituents to submit the data also to ERLDC (erldcprotection@gmail.com).

Members may note.

Item No. B.18: Long outage of important transmission elements

a) 400 kv Barh – Motihari D/C

400 kV Barh – Motihari – D/C were out since 14th Aug, 2017 as 24 numbers of towers were submerged in Gandak River due to flood like situation. Right Now Motihari is drawing radial power from Gorakhpur S/S of Northern region through 400 kV Gorakhpur – Motihari D/C. Due to outage of 400 kV Barh - Motihari D/C, one inter regional link between Eastern and Northern region was out, which need to be restored with utmost priority to maintain all India reliable and safe power system operation.

In 138th OCC, It was informed that work for dismantling of bulged towers and establishment of ERSS tower of Barh-Motihari 400kV Line has just been started . As the location is not easily approachable, it would take 2 to 3 weeks to restore power flow through the line.

DMTCL vide letter dated 7th November 2017 informed that the line will be restored using ERS tower and submitted the schedule as follows:

400 kV Barh – Motihari line 1	by 7 th December 2017
400 kV Barh – Motihari line 2	by 24 th December 2017

DMTCL requested to consider the outage as deemed available as the lines were taken under shutdown due to Natural Calamity.

DMTCL may update. Members may discuss.

b) Bus Reactor at Jamshedpur

50 MVAR Bus Reactor at Jamshepur was out since 05th June, 2017 for commissioning and replacement of new 125 MVAR Bus Reactor-II. As per earlier communication expected date of commissioning of the 125 MVAR Bus Reactor-II was 30th Aug, 2017. In addition to this one more 125 MVAR Bus Reactor – III was also expected to commission during the month of September. Till date the status of the progress of commissioning work of new reactors is not updated from ER – I Power Grid side. Considering the voltage pattern at Jamshedpur S/s, which was on higher side most of the time during the day and would be deteriorate more with the onset of winter season, priority for the restoration of the Bus Reactors at Jamshedpur is utmost important.

In 138th OCC, Powergrid informed that both the reactors will be commissioned within 15 days.

Power Grid may update.

Item No. B.19: Shifting of communication links for PMUs reporting to ERLDC--ERLDC

Presently, PMUs locations at Farakka, Talcher, Jamshedpur, Ranchi, Binaguri, Durgapur, Rourkela & Jeypore are reporting through Alcatel Mux using E1 – Ethernet convertor at both end. In case of fibre cut between Kasba to ERLDC, all the 8 nos PMUs data stopped reporting to ERLDC (happened on 16/May/2017 from 04:25 Hrs to 12:49 Hrs). There is no redundant path provided for these communication links. So, it is requested POWERGRID to shift these PMUs' communication path / equipment so that the protection path of ULDC network would be used and this type of outage could be avoided. Communication link for Patna PMU is taken from PowerTel. It is also requested to POWERGRID that communication path may also be shifted for Patna PMU so that PowerTel communication could be removed.

In 134th OCC, ERLDC informed that work is not yet completed.

Powergrid informed that 8 PMUs communication system have been shifted to ULDC network.

OCC advised ERLDC to send the details of requirement to Powergrid.

Accordingly, ERLDC has sent the detailed requirement for shifting of communication link to POWERGRID ULDC on 14-07-2017.

In 135th OCC, Powergrid agreed to complete the work within a month.

In 137th OCC, ERLDC placed the updated status as follows:

S/N	Location	Station type	Communicatio channel
1	Binaguri	400/220KV Substation	Shifted to POWERGRID ULDC wideband on 16 June,2017
2	Biharshariff	400/220KV Substation	Shifted to POWERGRID ULDC wideband on 24th November ,2015
3	Patna (ER1)	400/220KV Substation	2 MBPS PDT link from Patna to ERLDC , Kolkata
4	Farakka (NTPC)	400 kV Generating Station.	E1 link
5	Ranchi (ER1)	400/220KV Substation	E1 link
6	Rourkela	400/220KV Substation	Shifted on 01-09-2017 (was in progress on 136 th OCC meeting).
7	Talcher (NTPC)	400 kV Generating Station.	E1 link
8	Jeypore (Odissa pj.)	400/220KV Substation	E1 link
9	Durgapur	400/220KV Substation	Shifted on 30-08-2017 (was in progress on 136 th OCC meeting).
10	Jamshedpur (ER1)	400/220KV Substation	E1 link
11	Sasaram	765/400/220 kV SubStation	Shifted to POWERGRID ULDC wideband on 24th November ,2015
12	Rengali	400/220KV Substation	Shifted to POWERGRID ULDC wideband on 17 April,2017

Powergrid agreed to complete the work at the earliest.

It was informed that Farrakka PMU (SEL Make) is now reporting to ERLDC over newly commissioned ULDC communication network.

PGCIL may update.

Item No. B.20: 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.

In 120th OCC, ERLDC informed that every month they were updating the status and posting at ERLDC website.

138th OCC advised all the respective constituents to ensure the availability of telemetry data to ERLDC.

ERLDC may present.

a) Frequent failure of JITPL data to ERLDC:

Real time SCADA data from JITPL is frequently failing (May-17: 24% & June-17 (up to 18th): 62%). It was observed that

- Microwave terminal equipment at Talcher HVDC end is getting hanged quite frequently causing failure of real time data to ERLDC.
- The direct line from JITPL to Angul 765/400 kV pooling station is available but real time SCADA data is yet to be diverted through this path.

- The voice connectivity from JITPL to ERLDC is yet to be provided / integrated with Hot Line Voice Communication installed by M/s Orange.

In 136th OCC, JITPL informed that presently they are communicating ERLDC with a radio link, which is an interim arrangement and is not reliable and they are trying hard to maintain it. However, they had planned to make PLCC system operational for uninterruptable communication to ERLDC. But Powergrid is not allowing them to shift NSK modem of PLCC system from Bolangir(PG) S/s which is the property of JITPL.

JITPL added that they were in process of settling the commercial issues with Powergrid and requested Powergrid to cooperate.

OCC took serious note of the issue and felt Powergrid should not interrupt in establishing the proper communication system for SCADA/telemetry data to ERLDC. OCC felt that Powergrid should not take up commercial issue by staking the grid security and advised Powergrid to take up the commercial issue separately.

In 36th TCC, Powergrid agreed to allow JITPL to shift their PLCC modem from Bolangir S/s within a week.

JITPL informed that they will shift the modem within a week and they will commission the communication system in another 10 days subject to availability of OEM (ABB) engineers.

TCC advised JITPL to shift the modem as decided and update the status in forthcoming OCC meeting scheduled to be held on 21st September 2017.

In 137th OCC, JITPL informed that they have shifted the PLCC modem from Bolangir to Angul and they will commission the communication system by 15th October 2017.

In 138th OCC, ERLDC informed that JITPL data through PLCC is not yet restored.

JITPL may update.

Item No. B.21: Sustain Under-injection by ISGS generators during RRAS—ERLDC

During July and August 2017, NLDC triggered RRAS UP for ISGSs generators of Easter Region on several occasions. However it is observed that some of the ISGS failed to maintain their generation as per schedule and continuous under-injection was observed during the above mentioned period.

As per section 5.4 of Detailed Operating procedure of RRAS, "The continuity of the RRAS shall be ensured by the RRAS provider over the period of the despatch". However, this was continuously violated by ISGS stations of ER.

As per clause 9.13 of Detailed Operating procedure of RRAS

Quote -

Sustained failure, i.e. failure to provide the RRAS (barring unit tripping) by RRAS Provider(s) more than three (3) times during a month shall be brought to the notice of the CERC

- Unquote

Detailed performance of ER ISGS from RRAS point of view would be presented during the meeting.

ISGSs are therefore requested to exercise due care while declaring their respective DCs, so that actual generation as per the total schedule issued, can be maintained by them.

In 136th OCC, ERLDC presented the performance of the RRAS provider generators during July & August 2017 and informed that in real time Barh, FSTPP stage I & II and KhSTPP stage I & II generators were failed to maintain their generation as per schedule.

OCC advised NTPC to follow the RRAS schedule strictly.

OCC advised ERLDC to monitor the status for one week and even if there is no improvement, the action may be initiated as per the provisions of IEGC. Further, OCC advised ERLDC to place the status in next OCC meeting.

In 137th OCC, ERLDC informed that in real time FSTPP stage I & II are not maintaining their generation as per schedule and continuously under generating. KhSTPP stage II generators need improvement.

NTPC informed that they are implementing alarm system to alert the operator during RRAS initiation and it will improve the performance.

In 138th OCC, ERLDC informed that in real time FSTPP stage I & II are not maintaining their generation as per schedule and continuously under generating. KhSTPP stage II generators need improvement.

ERLDC may update.

Item No. B.22: Need for expediting reactors at Subhashgram, Jamshedpur and Behrampur 400KV substations and adequate absorption of reactive power by power stations

Voltage of the following substations was above the allowable upper limit of 420kV for significant duration during October and November 2017:

Sub-station	% Duration >420kV October-17	% Duration >420kV November-17 (upto 19-11-17)
Jamshedpur	99	100
Baharampur	32	49
Subhasgram	25	37
Arambag	92	100
Farakka STPS	27	57
Barh STPS	100	76
Sagardighi TPS	20	21
PPSP	26	44
HEL	20	33

Further, one circuit of the following D/C lines is being frequently switched off to control high voltage during off-peak:

- 400kV Kharagpur – N. Chanditala
- 400kV Kharagpur – Kolaghat
- 400kV N. PPSP – Arambag
- 400kv Alipurduar - Bongaigaon
- 220kV Madhepura – N. Purnea

Therefore, Farakka, SgTPS, PPSP, Barh, HEL are requested to maximize reactive power absorption by their respective generating units. PGCIL may endeavour to commission the 50 MVAR line reactor at Subhasgram end of 400kV SgTPS – Subhasgram line, 2nd 125 MVAR bus reactor along with 50 MVAR old bus reactor which was out for commissioning work at Jamshedpur and new 125MVAR bus reactor at Baharampur at the earliest.

In 138th OCC, Powergrid informed that work order for Reactor at Subashgram is yet to be awarded. Two reactors at Jamshedpur will be commissioned within 15 days. Reactor of Behrampur will be delivered by January 2018.

Members may discuss.

Item No. B.23: Status of state owned units under long outage --ERLDC

Numbers of units of state sector were decommissioned during recent days/months. As per the letter received from DVC on date 08th August, 2017, CTPC U#2, BTPS U#1&2 are under the process of de-commissioning as they have crossed their useful life and compliance of prevailing pollution norms is not feasible and CTPS U#1 is already de-commissioned.

Members may update.

Item No. B.24: Delineation of O&M responsibilities of various assets of the ISTS--ERLDC

With opening up of transmission sector for private participation and rapid addition of new ISTS elements through TBCB route, multiple transmission licensees are now involved, in so far as ownership and maintenance of the regional ISTS is concerned. A single transmission line may be partly owned by one licensee and partly by the other, while the bay equipment, panels etc. at each of the ends may be owned / maintained by two different transmission licensees. In the above backdrop, as the apex body to ensure integrated operation of the regional power system, it becomes essential for RLDCs to be accurately aware of the scope of responsibilities of each of the licensees, in order to discharge its responsibilities in a smooth and efficient manner.

A list of transmission elements in Eastern Region together with their ownerships as per information available with ERLDC is enclosed at **Annexure-B24**. It is requested to kindly go through the list and indicate the agencies responsible for maintenance of line, ensuring real time data, furnishing relay indication, DR etc. in respect of each of the elements and inform ERLDC wherever necessary updating / correction is required to be incorporated.

In 137th OCC, all the constituents were advised to update the status as given in the annexure and send it to ERPC and ERLDC within a week.

Powergrid ER-I & ER-II have submitted the details.

Members may update.

Item No. B.25: Transfer capability determination by the states -- Agenda by NPC

In order to ensure, safe and secure operation of the grid, the states should carry out the power system study for operational planning and power transfer capability through their respective transmission links with the rest of the grid.

It was decided in the NPC meeting that to begin with, power system study for assessment of operational limits / power transfer capability for each state will be done by the concerned RLDC in association with concerned SLDC. Monthly TTC /ATC will be uploaded by the SLDCs at their respective websites and also communicated to concerned RLDC & NLDC subsequently.

ATC/TTC declared by states for the month of November-2017 is given below:

Sl No	State/Utility	TTC import(MW)	RM(MW)	ATC (Import) MW
1	BSPTCL	4665	145	4520
2	JUSNL	980	60	920
3	DVC	377	52	325
4	OPTCL	1822	81	1741
5	WBSETCL	4100	300	3800
6	Sikkim			

In 138th OCC, ERLDC informed that the network data should be updated regularly on monthly for realistic calculation of ATC, TTC figures. A procedure has been made as follows:

- *Updated Base case of Previous month both for peak and off peak case to be circulated by ERLDC by 2nd day of every month*
- *States have to update their network changes in the same case circulated by ERLDC till date and then load the LGBR of the upcoming month*
- *Updated case and calculated TTC of the upcoming month to be sent to the ERLDC by 10th of the current month*

OCC advised all the SLDCs to update the network as per the above procedure.

Members may update.

Item No. B.26: Installation of PMUs in Eastern Region under URTDSM project

LOA for installation of PMUs in Eastern Region under URTDSM project was awarded to M/s Alstom on 15th January 2014. The contract has to be completed in all respect within 24 months from the award. The status of implementation may be informed since PMU data is very much important to real time shift operator for analyzing the security of the grid.

OCC advised Powergrid to submit a report on latest status of implementation and advised to update the status on every OCC.

In 131st OCC, Powergrid submitted the latest status of PMU installation.

The updated status as furnished in 132nd OCC by Powergrid is given at **Annexure-B.26**.

POWERGRID may update the status.

Item No. B.27: Status of Disturbance Recorder, Stand alone Event Logger and Time Synchronization equipment.

The status of DR/EL and GPS as updated in previous OCCs is enclosed at **Annexure-B.27**.

Constituents are also requested to furnish their list of new DR/EL which are not included in the list.

Teesta Urja Limited vide letter dated 8th September 2017 informed that Disturbance Recorder, Stand alone Event Logger and Time Synchronization equipments are available at Teesta III HEP.

Members may update.

Item No. B.28: Status of Emergency Restoration System (ERS Towers) for Eastern Region constituents

CEA vide letter dated 21.07.2017 requested to send the status of state-wise availability of ERS towers and requirement of ERS towers.

In 136th OCC, MS, ERPC informed that CEA vide letter dated 21.07.2017 has sought the latest status on ERS. Therefore, OCC advised all constituents to send the updated status to ERPC secretariat vide mail (mserpc-power@nic.in).

*Latest status is enclosed at **Annexure- B.28**.*

In 138th OCC, WBSETCL informed that they are having total 10 ERS towers, 5 at Arambagh and 5 at Gokharno.

Members may update the latest status.

Item No. B.29: Time correction of SEMs in Eastern Region – Replacement of heavily drifted SEMs

The issue was discussed in 35th TCC/ERPC meetings and it was felt that the meters with severe drift greater than 10 min need to be replaced first and if replacement is done with Genus then readings are to be collected manually using Laptop till interfacing with AMR is completed.

35th ERPC advised Powergrid to replace the 10% of the heavily drifted SEMs with new Genus make meters and monitor the performance of the Genus meters. Powergrid should present this performance before constituents and subsequently the decision on replacement of the other time drifted meters will be taken up.

In 133^d OCC, Powergrid informed that 22 meters were replaced except Purnea. ERLDC informed that the performance of 22 newly installed meters are satisfactory and suggested that all other meters can be replaced.

OCC advised Powergrid to replace next 10% of heavily drifted meters as per the list.

In 137th OCC, Powergrid informed that out of 23 meters time correction has been done for 6 meters and 8 SEMs have been replaced. Rest will be replaced subjected to availability of shutdown.

In 138th OCC, Powergrid informed that 09 SEMs are yet to be replaced.

Further OCC decided to hold the replacement of SEMs till interfacing of Genus meters with AMR is resolved.

So far in Phase-II, 12 Meters has been replaced and Time Correction for 06 meters has been done. Details of meter to be replaced is as follows:

List of drifted meters to be replaced in Phase-II				
SNO	LOCATION	METER SNO	FEEDER NAME	Region
1	MUZAFFARPUR(PG)	NP-5074-A	400 KV MUZAFFARPUR (PG)-GORAKHPUR(NR)-1	ER-I
2	MUZAFFARPUR(PG)	NP-9981-A	400 KV MUZAFFARPUR (PG)-GORAKHPUR(NR)-2	ER-I
3	RANCHI(PG)	NP-5835-A	400 KV RANCHI-SIPAT-1 (WR)	ER-I
4	RANCHI(PG)	NP-5836-A	400 KV RANCHI-SIPAT-2 (WR)	ER-I
5	RANCHI NEW(PG)	NP-7847-A	765 KV RANCHI NEW -DHARAMJAYGARH-1	ER-I
6	RANCHI NEW(PG)	NP-8753-A	765 KV RANCHI NEW -DHARAMJAYGARH-2	ER-I
7	MEJIA(DVC)	NP-5226-A	MEJIA END OF MAITHON(PG)-1	ER-II
8	MEJIA(DVC)	NP-5227-A	MEJIA END OF MAITHON(PG)-2	ER-II
9	BINAGURI(PG)	NP-5884-A	BINAGURI END OF BONGAIGAON (NER)-1	ER-II
10	BINAGURI(PG)	NP-5885-A	BINAGURI END OF BONGAIGAON (NER)-2	ER-II
11	ROURKELLA(PG)	NP-5933-A	ROURKELLA END OF TARKERA (GRIDCO)-2	ER-II
12	KHARAGPUR(PG)	NP-7563-A	400 KV KHARAGPUR -BARIPADA(PG)	ER-II
13	MPL	NP-7970-A	MAITHON RB END OF RANCHI (PG)-1 (MAIN)	ER-II
14	MPL	NP-7971-A	MAITHON RB END OF RANCHI (PG)-2 (MAIN)	ER-II
15	MPL	NP-7564-A	MAITHON RB END OF MAITHON (PG)-1 (MAIN)	ER-II
16	MPL	NP-6518-A	MAITHON RB END OF MAITHON (PG)-2 (MAIN)	ER-II
17	STERLITE	NP-7572-A	400 KV STERLITE - RAIGARH(WR)-II(MAIN)	ER-II
18	STERLITE	NP-7372-A	400 KV STERLITE - ROURKELLA(PG)-II(MAIN)	ER-II
19	ROURKELLA(PG)	NP-5928-A	400 KV ROURKELLA(PG)-RAIGARH(WR)	ER-II
20	MIRAMUNDALI(OPTCL)	NP-5977-A	400 KV MIRAMUNDALI-ANGUL-1	ER-II
21	MIRAMUNDALI(OPTCL)	NP-5976-A	400 KV MIRAMUNDALI-ANGUL-2	ER-II
22	SUNDERGARH(PG)	NP-7634-A	765 KV SUNDERGARH-DHARAMJAYGARH-1	ER-II
23	SUNDERGARH(PG)	NP-7638-A	765 KV SUNDERGARH-DHARAMJAYGARH-2	ER-II

Powergrid/ ERLDC may update.

Item No. B.30: Meter related Issues-ERLDC

Due to the meter related issues of following locations energy accounting and its validation is being affected.

Issue	Location	Meter No	Line	Responsibility	Problem Since	Present Status
Non receipt of Data	1. NPGC	NP-1282-A NP-1287-A	132 KV Rihand & Sonnagar	BSPTCL	More than 3 month	Not Received. Status is same
	2. Raxaul, Betia, Motihari	ER-1227-A, ER-1173-A, ER-1250-A ER-1245-A ER-1248-A ER-1249-A	132 KV Motihari DMTCL	BSPTCL	Charging of Line	Status is same
Installat ion of Check/S tandby meter	1.Subhashgram(WB)		220 KV Subhasgram(PG) D/C	WBSETCL/PG CIL	Charging of Line	As informed by PGCIL, Meter is available at Subashgram and the same to be collected by WBSETCL and to be put into service.
	2. New Town(CESC)		220 KV Subhasgram(PG) S/C	WBSETCL/PG CIL	Charging of Line	
	3. Bantala(CESC)		220 KV Subhasgram(PG) S/C	WBSETCL/PG CIL	Charging of Line	
	4. EM Bypass(CESC)		220 KV Subhasgram(PG) D/C	WBSETCL/PG CIL	Charging of Line	Meter already connected but time synchronisation yet to be done. SEM data is not received by ERLDC

In 138th OCC , BSPTCL agreed to take appropriate action for sending the data of NPGC, However NPGC end data is not received by ERLDC.

Meter at WBSETCL/CESC end for New Town, Bantala and Subhasgram is yet to be installed.

PGCIL/BSPTCL/WBSETCL/may please further update the status.

Item No. B.31: Integration of Genus Make meter in AMR-- ERLDC

In Eastern Region, order for procurement of 965 no of SEM's was placed with M/s Genus Power. First Lot of the meters have already been delivered by Genus and 24 meters of Genus make meter has been installed in different substation in ER. Issue of Integration of Genus make meters in AMR system was discussed in different fora of ERPC since March,17.In 36th ERPC meeting Powergrid informed that a meeting will be held on 20th September 2017 wherein the interfacing issues would be resolved by M/s TCS and M/s Genus.

In 137th OCC, Powergrid informed that a meeting will be held at RHQ Kolkata on 25th September 2017 wherein the interfacing issues would be discussed and resolved by M/s TCS and M/s Genus.

In 25th September 2017 meeting, it was agreed by all concerned that GENUS will implement the required changes at meter level within 15th October 2017 to resolve the pending issues related to Integration of Genus meter with AMR.

In 138th OCC, Powergrid informed that integration of Genus meters with AMR is pending because time block identification problem. This problem will be resolved through software by TCS on payment basis within 15 days.

Powergrid may please update the status.

Item No. B.32: Accounting of Tertiary Loading Arrangement at PGCIL s/station in ER

Auxiliary consumption of PGCIL EHV AC sub stations are usually met from HT feeders of the state Discom. In few substations of PGCIL, auxiliary consumption is met through tertiary winding (as alternate supply for reliability).

In 35th CCM, It was decided that the drawal of auxiliary power from tertiary winding by Powergrid substations would be treated as state drawl for inter-regional accounting. Powergrid and the states would make back to back commercial arrangements for this power. ERLDC requested Powergrid to submit the requisite information such as meter no, CTR, PTR, etc in respect of those meters and also make meter readings available ontime.

In 138th OCC, ERLDC informed that they are not getting the data of Biharshariff and Rengali.

Powergrid informed that SEMs are to be replaced at Biharshariff and Rengali. They will replace the SEMs and send the data.

It was also decided that the energy through Tertiary as state drawal and the meter reading will be sent to ERPC with immediate effect.

Accordingly Tertiary drawl of PGCIL S/s has been added to the respective state drawl wef 23.10.17.

Status of meter details and receipt of their data at ERLDC from Powergrid ER-I, ER-II and Odisha project is as below:

List of PGCIL substation with Tertiary Loading in ER & Odhisa Project								
ER-I								
S. No	S/Station	Loc ID	Meter No	Make	CTR	PTR	Remarks	Data Receipt
1	Banka	ES-88	NP-7458-A	L&T	50	33000/110		Yes
2	Lakhisarai	ES-94	NP-8870-A	L&T	50	33000/110		Yes
3	New Ranchi(765)	ES-87	NP-8752-A	L&T	50	33000/110		Yes
4	New Purnea	ES-98	NP-5249-A	L&T	50	33000/110		Yes
5	Patna	ES-89	ER-1285-A	Genus	50	33000/110		Yes
6	Pusauli	ET-06	NP-8646-A	L&T	50	33000/110		Yes
7	Muzaffarpur	ET-02	NP-5231-A	L&T	1000	415/110		Yes
9	Kishanganj	ES-90	NP-8876-A	L&T	50	33000/110		Yes
11	Ara(220)	ES-99	NP-8893-A	L&T	50	33000/110		Yes
12	Chaibasa	ET-15	ER-1254-A	Genus	50	33000/110		Yes
13	Ranchi(400/220)	ET-14	ER-1251-A	Genus	50	33000/110		Yes
14	Jamshedpur	ET-20	ER-1259-A	Genus	50	33000/110		Yes
15	Gaya(765)	EM-99	ER-1263-A	Genus	50	33000/110		Yes
16	Biharshariff	ET-01	NP-2355-A	SECURE	1000	415/110		No
ER-II & Odhisa Project								
1	Angul	ES-95	NP-5942-A	L&T	1000	415/110		Yes
2	Pandiabili	ES-39	NP-7462-A	L&T	1000	415/110		Yes
3	Rangpo (33 kv TRF)	ES-96	NP-7940-A	L&T	1000	415/110		Yes
4	Rangpo (11 KV AUX TRF)	ES-97	NP-7941-A	L&T	1000	415/110		Yes
5	Sundergarh	ES-93	ER-1019-A	Genus	50	33000/110		Yes
6	Maithon	ET-07	NP-7934-A	L&T	1000	415/110		Yes
7	Baripada	EM-69	NP-5909-A	L&T	1200	400/110		Yes
8	Durgapur	ET-04	NP-6024-B	L&T	200	400/110		Yes
9	Keonjhar	ET-11	NP-7921-A	L&T	50	33000/110		Yes
10	Subhashgram	ET-12	ER-1105-A	Genus	1000	415/110		Yes
13	Jeypore	ET-10	NP-5965-A	L&T	20	430/110		Yes
11	Bolangir	ET-03	NP-7951-A	L&T	1000	415/110		Yes
12	Rengali	ET-05	ER-1020-A	Genus	1000	415/110		Yes

Since Darbhanga and Motihari DMTCL S/S Tertiary is also loaded, Meters at Tertiary Tr/f of above s/s is required to be installed and Drawl should be accounted in BSPHCL net drawl.

ERLDC and Powergrid/DMTCL may update.

Item No. B.33: Requirement of data from AMR for SEM Vs SCADA Comparison -- ERLDC

In Eastern Region, AMR is already implemented and successfully running. Provision of getting various reports like Load Curve, NPC report, time drift report, maximum & minimum flow reports etc already exist.

However, report of 15 minute tie line data from AMR is also required to be made available so that the same could be utilised for developing comparison / error checking for SCADA. ERLDC is planning to develop SCADA Vs SEM comparison report which can identify the error in SCADA or time drift in SEM. The same is planned to develop considering the view for improvement of the system. Accordingly, the concern will take necessary action to validate the SCADA / SEM.

In view of the above, it is requested to POWERGRID to take up the matter with TCS for implementation of the same.

In 137th OCC, Powergrid requested ERLDC to share the format and they will interact with TCS for implementation.

In 138th OCC, Powergrid informed that they have interacted with TCS and TCS is asking about the details of lines for which the data is required.

ERLDC informed that they required all tie line SEM data to be available at ERLDC.

Powergrid may update.

Item No. B.34: Mock Black start exercises in Eastern Region – ERLDC

i) The status of black start exercises

The tentative schedule of black-start exercises for F.Y 2017-18 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, 2017	30 th May 2017	Last Week of January2018	
2	Maithon	1stweek of June 2017	Completed on 04.04.17	1stWeek of February2018	
3	Rengali	2ndweek of June 2017	Done on 29.06.2017	Last week of November 2017	
4	U. Indarvati	3rdweek of June 2017	November 2017	2ndweek of February2018	
5	Subarnarekha	1stweek of October 2017	Done on 14 th October 2017	1stweek of January2018	
6	Balimela	3rdweek of October 2017	November 2017	1stweek of March 2018	
7	Teesta-V	2ndweek of Nov 2017		Last week of February2018	
8	Chuzachen	Last Week of May2017	May, 2017	January2018	
9	Burla	Last Week of June 2017	Dec, 2017	Last week of February2018	

10	TLDP-III	1stWeek of June 2017	November 2017	2ndWeek of January2018	
11	TLDP-IV	Last Week of June 2017	After Mansoon	1stWeek of February2018	
12	Teesta-III		December 2017		

Members may update.

Testing of DG sets meant for Black start

Test run report of DG sets for blackstart has been received only from Odisha hydro units. The test run reports of other machines may be sent to erldc.cal@gmail.com and erldcoutage@gmail.com.

Constituents may kindly ensure compliance.

Item No. B.35: Restricted Governor /Free Governor Mode Operation of generators in ER

CERC vide their letter dated 05-06-17 desired to know the present status of RGMO/FGMO response of all eligible thermal and hydro units. Accordingly ERLDC vide letter no.ERLDC/SS/FGMO/2017 dated 07-06-17 requested all concerned power stations and SLDCs to provide updated status of FGMO/ RGMO of units under their control.

*The latest status of the RGMO/FGMO of ER generators is enclosed in **Annexure-B35**.*

Analysis of governor response for the following events:

- (1) On 25th October 2017, at 19:33 hrs, Due to loss of evacuation lines, Unit-I & II at TPCIL(660 MW each) in southern region got tripped.
- (2) On 30.10.17, at 21:37 Hrs, 400 KV TPCIL-Nellore PS ckt-1 tripped due to failure of Station transformer LA, Ckt-2 was under maintenance. Due to Loss of evacuation path generation loss of 1260 MW occurred.

Members may update. ERLDC my present.

Item No. B.36: Ratification of projected Demand and generation for POC transmission charges and loss calculations for Q4(2017-18)

The projected Demand and Generation of ER constituents to be considered in the base case for POC transmission charge and loss calculations for Q4 (Jan 18-March18) are attached at **Annexure-B36** for ratification by the constituents.

Members may kindly go through and confirm.

Item No. B.37: Reactive Power performance of Generators and optimisation of Transformer tap

Generating stations have been monitored for certain sample dates in the month of October,17.

Power Plant	Max and Min Voltage observed for Oct 17 (KV)	Date for monitoring (Oct 17)
Farakka STPS	424, 410	21,22
Khalgaon STPS	433, 408	30,31
Talcher STPS	413, 402	20,21
Teesta	413,398	27,29

Bakreshwar TPS	411, 391	10, 21
Kolaghat TPS	429, 400	21,22
Sagardighi TPS	424, 406	21,22
MPL	422, 409	1,20
Mejia-B	425, 412	1,20
DSTPS	428, 415	1,20
Adhunik TPS	427, 410	20,21
Barh	434, 420	1,21
JITPL	419, 408	2,7
GMR	417, 406	2,7
HEL	428,392	9,21
Kodarma	423, 408	1,14

ERLDC may present the reactive performance.

a) Schedule for reactive capability tests

The following was status of regarding reactive capability testing:

- Adhunik TPS(both units) –Yet to be confirmed by Adhunik
- JITPL(both units) – After the emergent inspection of OEM(BHEL)*
- Barh TPS – November 2017*
- Raghunatpur – by December 2017*
- GMR (Three units)
- Haldia TPS –Done in October 2017

Members may update.

Item No. B.38: Non Payment of dues--Powergrid-Odisha

- JITPL:** Rs. 1.67 Crore from M/s JITPL (Rs. 1.12 Crore towards bay maintenance + Rs. 52.38 Lakh towards interest charges + Rs. 2.36 Lakh towards project consultancy)
- GMR:**Rs.37.99 Lakh is due from M/s GMR towards Bay maintenance charges
- Ind-Bharath Energy(Utkal) Ltd(IBEUL):** Rs.74.16746 Lakh is due from M/s Ind-Bharath (Utkal) Energy Limited towards Bay maintenance and Interest charges.

Item No. B.39: Recovery of loss due to schedule revision during flooding of Kishanganj S/S of PGCIL-Teesta Urja Ltd.

Due to flooding at Kishanganj S/S of PGCIL, the IEX schedule of Teesta-III HEP and other Projects was directed to be revised from 10:00 hours to 24:00, hours on 13.08.2017. However, vide subsequent communications, the curtailment of schedule was initially directed to start from 10.00 hrs , which got changed to 10.30 hrs and again to 10.00 a.m. However, the IEX schedule which had got curtailed from 10.30 hrs could not get revised to 10.00 hrs leading to the Teesta-III (and other Projects) being penalized under DSM for two time blocks from 10.00 hrs to 10.30 hrs.

It is requested to deliberate the matter so as to facilitate recovery of such loss to the Generators."

Members may discuss.

Item No. B.40: Revision of final schedule of Dikchu HEP and revocation of UI penalty inflicted on 13.08.2017- Dikchu

On 13.08.2017, Dikchu was advised by ERLDC through mail and phone to back down the generation to Zero w.e.f 10:00 hrs, 13.08.2017, as all STOA & collective transactions were cancelled due to flooded condition at Kishanganj S/s. Dikchu plant was shut down promptly within 10:01 hrs.

The final schedule of Dikchu HEP was revised to Zero w.e.f 10:30 hrs by NLDC. The consequence was that as per final generation schedule data, although Dikchu was able to generate 96 MW in between 10:00 hrs to 10:30 hrs, Dikchu generation was Zero in real time incurring heavy UI penalization.

It is requested to consider the merit of the incidence and accord consent in revision of the final schedule of 13.08.2017 from 10:00hrs to 10:30 hrs to Zero in respect of Dikchu HEP.

Members may discuss.

PART C:: OPERATIONAL PLANNING

Item no. C.1: Anticipated power supply position during December'17

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of December'17 were prepared by ERPC Secretariat on the basis of Provisional LGBR for 2015-16 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc. is at **Annexure-C.1**.

Members may confirm.

Item no. C.2: Shutdown proposal of transmission lines and generating units for the month of December'17

Members may finalize the Shutdown proposals of transmission lines and generating stations for the month of December 17 as placed at **Annexure-C.2**.

- Teesta V Unit #1 shutdown from 1st December 2017 to 21st December 2017 for Annual Maint.
- Teesta V Unit #2 shutdown from 23rd December 2017 to 12th January 2018 for Annual Maint.
- *TSTPS stage-I unit #1 shutdown from 24th November 2017 for 30days.*

ERLDC may place the transmission line shutdown. Members may confirm.

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

(i) Thermal Generating units:

Sr. No	Generating Station	Unit Number	Capacity (MW)	Reasons For Outage	Outage Date
1	MPL	1	525	OVER HAULING	27-Oct-17
2	KAHALGAON	1	210	OVER HAULING	15-Nov-17
3	VEDANTA	2	600	MAINTENANCE	28-Jun-17
4	ADHUNIK	2	270	GENERATOR VIBRATION	7-Sep-17
5	JITPL	2	600	HEAVY BONNET LEAKAGE FROM EMERGENCY BOILER DRAIN VALVE	9-Nov-17
6	KOLAGHAT	6	210	STATOR EARTH FAULT	11-Jun-17
7	MEJIA	5	250	PRESENT PROBLEM IS IN BARRING GEAR	22-Sep-17
8	MEJIA B	8	500	VIBRATION PROBLEM IN BEARING ,turbine blade damage	7-Aug-17
9	SANTALDIH	5	210	ROTOR EARTH FAULT	30-Apr-17
10	BAKRESWAR	3	210	BOILER TUBE LEAKAGE	20-Nov-17
11	DPL	7	300	MAINTENANCE WORK	20-Oct-17
12	KBUNL STG II	2	195	COOLING WATER PROBLEM	3-Nov-17
13	KBUNL STG II	1	195	COOLING WATER PROBLEM	17-Nov-17
14	RAGHUNATHPUR	1	600	COAL SHORTAGE	14-Nov-17
15	MEJIA	1	210	COAL SHORTAGE	31-Oct-17
16	BAKRESWAR	4	210	COAL SHORTAGE	13-Nov-17
17	SAGARDIGHI	4	500	COAL SHORTAGE	9-Nov-17

18	SAGARDIGHI	2	300	BOILER TUBE LEAKAGE	16-Nov-17
19	BOKARO B	3	210	COAL SHORTAGE	2-Oct-17
20	GMR	3	350	COAL SHORTAGE	21-Nov-17

(ii) Hydro Generating units:

Sr. No	Generating Station	UNIT NO	CAP(MW)	REASONS FOR OUTAGE	OUTAGE DATE
1	BURLA	5	37.5	R & M WORK	25.10.2016
2	BURLA	6	37.5	R & M WORK	16.10.2015
3	CHIPLIMA	3	24	R & M WORK	15.10.2015
4	BALIMELA	1	60	R & M WORK	05.08.2016
5	U.KOLAB	2	80	Repair of MIV & Draft tube gate leakage	28.05.2017
6	RENGALI	5	50	Hoist gate problem	21.03.2017
7	RENGALI	1	50	Stator Earth fault	08.09.2017

(iii) Transmission elements

Transmission Element / ICT	Agency	Outage Date	Reasons for Outage
220 KV BALIMELA - U' SILERU	OPTCL / APSEB	27.04.15	LINE IDLE CHARGED FROM UPPER SILERU END AT 12:42 HRS OF 25.01.17
400KV MOTIHARI-BARH-I & II	DMTCL	14.08.17	24 NO OF TOWERS IN GANDAK RIVER WHERE WATER LEVEL IS HIGH
220 ALIPURDUAR SALAKATI D/C	POWERGRID	17.11.17	TOWER BENDING IN LOCATION 196
220 KV BUDHIPADAR KORBA- I	POWERGRID	1.11.17	MULTI CKT TOWER ERECTION AND DIVERSION WORK FROM LOC 29 to 40

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

Members may update.

Item no. C.4: Status of commissioning of generating station and transmission elements

New generating units:

S.No.	Power Plant	Plant Size	Expected date

New transmission elements:

SI No.	Name of Element	Expected date
1	400kV Rajarhat-Purnea D/C (with LILO of one circuit each at Farakka and Gokarno)	
2	Augmentation of 400kV Farakka-Malda D/C with HTLS conductor	
3	400kV Ind-Bharath-Jharsuguda D/C	
4	400kV Talcher-Bramhapur-Gazuwaka D/C	
5	400kv Talcher-Rourkella(2 nd D/C-Quad)	
6	400kV Sterlite-Jharsuguda D/C	
7	765kv Anugul-Srikakulum D/C	
8	400kV Sasaram-Daltonganj D/C & Daltonganj S/Stn	
9	400 kV Ranchi-Raghunathpur D/C	
10	220 kV TLDP-IV – NJP ckt-2	
11	220 kV Bidhansai-Cuttack D/C	
12	220kV Gola- Ranchi	

Members may update.

PART D:: OTHER ISSUES

Item no. D.1: UFR operation during the month of October'17

System frequency touched a maximum of 50.20 Hz at 13:02 Hrs of 10/10/17 and a minimum of 49.65 Hz at 18:10 Hrs of 13/10/17. Hence, no report of operation of UFR has been received from any of the constituents.

Members may note.

Item no. D.2: Non-compliance of directions issued by SLDC

Vide clause no 5.5.1.(c)(h) of IEGC, non-compliance of SLDC directions by SEB/Distribution licenses/bulk consumers to curtail overdrawal are to be reported to ERLDC for incorporating the same in weekly report to be prepared and published by ERLDC.

All SLDCs are to inform ERLDC the instances of non-compliance of SLDC directions by SEB/Distribution licenses/bulk consumers to curtail overdrawal, within two days after the day of operation.

No report from any constituent has yet received. Hence, ERLDC would be considering 'Nil' report for all constituents for October'17.

Members may note.

Item no. D.3: Grid incidences during the month of October, 2017

Sr No	GD/GI	Date	Time	S/S involved	Summary	Load loss (MW)	Gen loss (MW)
1	GD-I	12/10/2017	12:55	Teesta V	At 12:55 hrs, Y-N fault occurred at 400 kv Teesta - Rangpo - II. The line tripped from Rangpo. B/C at Teesta tripped due to E/F protection resulting tripping of unit III due to loss of evacuation path. (Relay Indication at Teesta: Y-N , Z-1 , F/D- 18 KM , F/C - 4.5 KA)	0	170
2	GD-I	13/10/2017	14:39	Teesta III	400 kV Teesta III - Rangpo S/C tripped due to Y-B fault resulting tripping of unit I, III, IV, V & VI at Teesta III and running unit at Dikchu. Relay indication: Y-B, Z-I, 29.4 km from Teesta III, F/C 4.16 kA, 3.22 kA. (Loss of generation at Teesta III: 0.1299 MU)	0	750
3	GD-I	17/10/2017	10:23	Chandaka	220 kV Mendasal - Chandaka Q/C tripped due to fault in 220 kV Mendasal - Chandaka - I resulting power failure at Chandaka end. Power was extended to Chandaka by charging circuit II	230	0

4	GD-I	18/10/2017	18:19	Purnea	At 18:19 hrs, 132 KV Purnea(PG) - Purnea(BSPTCL) T/C tripped (from PG end only) due to failure of B phase jumper of line isolator at Bihar end. Total power failure occurred at 132 /33KV Purnea S/S (BSPTCL).	200	0
5	GD-I	19/10/2017	11:55	Dikchu	At 11:55 hrs , 400 KV Teesta III Dikchu S/C tripped on Y-B-N fault resulting loss of unit II at Dikchu	0	58
6	GD-I	20/10/2017	23:53	Madhepura	Total power failure occurred at Madhepura, Saharsa, Sonebarsa and Udaikishanganj after tripping of 220 kV Purnea - Madhepura D/C due to Y-N fault.	124	0
7	GD-I	26/10/2017	09:22	Sultanganj	Total power failure occurred at Sultanganj, Tarapur and Part of Munger after tripping of 132 kV Banka – Sultanganj D/C in R-N fault (Relay Indication: Ckt II: R-N, F/C 2.19 kA, 41.27 km from Banka, Ckt I: R-N, 2.8 kA, 31.62 km from Banka).	32	0
8	GD-I	26/10/2017	12:02	Teesta III	At 12:02 hrs, 400 kV Teesta III – Dikchu S/C along with all running units at Teesta III tripped on O/V (as reported by Teesta III) at Teesta III end. Running unit (U#1) at Dikchu tripped due to loss of evacuation path.	0	460
9	GD-I	27/10/2017	13:17	Teesta III	At 13:17 hrs, 400 kV Teesta III – Dikchu S/C along with all running units at Teesta III tripped due to DC earth fault (as reported by Teesta III) at Teesta III end. Running unit (U#1) at Dikchu tripped due to loss of evacuation path.	0	850

Members may note.

Item no. D.4: Reporting of voltage deviation indices (VDI) for select S/Stns in ER

ERLDC submitted the Voltage Deviation Index (VDI) of selected 400 kV Sub-stations for October, 2017 of Eastern Region which is enclosed at **Annexure- D.4.**

Members may note.

Item no. D.5: Additional agenda

Checklist for Submission of new transmission elements for updation in Protection Database

NAME OF ORGANISATION:
FOR THE MONTH OF:

SUBSTATION DETAIL:

SI No	DETAILS OF ELEMENTS	DATA TYPE	Status of Submission (Y/N)	Remarks
1	TRANSMISSION LINE	LINE LENGTH, CONDUCTOR TYPE, VOLTAGE GRADE		
2	POWER TRANSFORMER	NAMEPLATE DETAILS		
3	GENERATOR	TECHNICAL PARAMETERS		
4	CURRENT TRANSFORMER	NAMEPLATE DETAILS		
5	VOLTAGE TRANSFORMER	NAMEPLATE DETAILS		
6	RELAY DATA	MAKE, MODEL and FEEDER NAME		
7	RELAY SETTINGS	NUMERICAL RELAYS: CSV or XML file extracted from Relay ELECTROMECHANICAL RELAYS: SNAPSHOT of RELAY		
8	REACTOR	NAMEPLATE DETAILS		
9	CAPACITOR	NAMEPLATE DETAILS		
9	UPDATED SLD			

SIGNATURE:
NAME OF REPRESENTATIVE:
DESIGNATION:
CONTACT:
E-MAIL ID:

Station name

Organisation

Annex-I (1 of 2)

Unit wise yearly generation Program for the year 2018-19

1. Contact Details

Sr. no	Name	Designation	email	Phone no.	Fax. no.
1					
2					

2. Units existing on 31.03.2017

Unit No.	Capacity (MW)	Date of commissioning	2017-18 generation details (MU)				2018-19 generation details (MU)			Remarks
			Program for 2017-18	Total Anticipated Gen for Sept 17 to March 18 (MU)	Total Anticipated Gen for 2017-18 (MU)	Reason for low generation (if any)	Anticipated maximum Generation capability (MU)	Anticipated Generation (MU)	Reason for variation from Maximum Capability	

3. Units Commissioned during 2017-18

Unit No.	Capacity (MW)	Date of commissioning	2017-18 generation details (MU)				2018-19 generation details (MU)			Remarks
			Program for 2017-18	Total Anticipated Gen for Sept 17 to March 18 (MU)	Total Anticipated Gen for 2017-18 (MU)	Reason for low generation (if any)	Anticipated maximum Generation capability (MU)	Anticipated Generation (MU)	Reason for variation from Maximum Capability	

4. Units likely to be commissioned during 2018-19

Unit No.	Capacity (MW)	Expected date of commissioning	Expected Generation 2018-19 (MU)	Remarks

Note: Please furnish the month-wise break-up of yearly generation in a separate Sheet keeping the similar format.

5. Loss of Generation due to Grid Constraints/ Low schedules /fuel related issues during 2017-18

Annex-I (2 of 2)

Transmission Constraints/ power evacuation problems/ low schedule/high fuel cost

S No.	Details of the Constraint	Loss so far (Apr'17-Aug'17)		during 2017-18	
				Anticipated Period of constraint	Anticipated loss of generation (MU)

6. PPA details

Capacity (MW)	With DISCOM			With State Trading Cos.				With PTC / other trading cos.				Untied (MW)
	State of Discom	Quantum (MW)	Duration (Yrs)	Quantum (MW)	b/b PPA with Discom (name of Discom)	quantum of b/b PPA in MW	Duration of b/b PPA (Years)	Quantum (MW)	b/b PPA with Discom (name of Discom)	quantum of b/b PPA in MW	Duration of b/b PPA (Years)	

7(a)Coal Linkage for coal based plants

Unit No	Domestic linkage (MT)	Source	PLF from this coal linkage during the year (%)

7(b)Gas availability for gas based stations

Varoius sources	Figures in MMSCMD	PLF from this gas availability during the year (%)

8. Cost of Generation:

Unit No	Cost of Gen. (Paise/kwh)	Rate of Sale of Power (Paise/kwh)

Planned maintenance Schedules including R&M activities

A) R&M of Units likely to be completed during 2017-18 & 2018-19

Station name	Unit No.	Capacity (MW)	R&M Schedule	
			From date	To date

B) Annual Overhaul/ Boiler overhaul

Station name	Unit No.	Capacity (MW)	AOH Schedule	
			From date	To date

C) Capital Overhaul

Station name	Unit No.	Capacity (MW)	COH Schedule	
			From date	To date

D) Other maintenance if not included above such as PG tests (new units) and Boiler inspection

Station name	Unit No.	Capacity (MW)	Schedule		Reason
			From date	To date	

Annexure-B6.A

Generation Target 2018-19

Region	State	SECTOR	Fuel	Name of Utility	NAME OF THE STATION	Monitored Capacity as on 31.07.2017 MW
ER	BIHAR	CENTRAL	COAL	BRBCL	NABI NAGAR TPP	500
ER	BIHAR	CENTRAL	COAL	K.B.U.N.L	MUZAFFARPUR TPS	610
ER	BIHAR	CENTRAL	COAL	NPGCPL	NEW NABI NAGAR TPP	0
ER	BIHAR	STATE	COAL	BSEB	BARAUNI TPS	210
ER	JHARKHAND	CENTRAL	COAL	PVUNL	PATRATU TPS	455
ER	JHARKHAND	PVT	COAL	ADHUNIK	MAHADEV PRASAD STPP	540
ER	ORISSA	PVT	COAL	IBPIL	UTKAL TPP(IND BARATH)	350
ER	ORISSA	PVT	COAL	ICCL	ICCL (IMFA) IMP	0
ER	ORISSA	PVT	COAL	JITPL	DERANG TPP	1200
ER	ORISSA	PVT	COAL	NALCO	NALCO IMP	0
ER	ORISSA	PVT	COAL	SEL	STERLITE TPP	600
ER	WEST BENGAL	PVT	COAL	IEL	INDIA POWER TPP (HALDIA)	150
ER	ANDAMAN NICOBAR	STATE	DIESEL	A&N ADM	AND. NICOBAR DG	40.05
ER	WEST BENGAL	STATE	HIGH SPEED DIESEL	WBPDC	KASBA GT (Liq.)	40

Annexure-B9

Bihar

Priority	Feeders/ICTs	Point of Disconnection
1	400/220 kV 315 MVA ICT at Biharsariff	400 kV Biharsariff PG
2	132 kV Arrah (PG)- Arrah (BSPHCL)	132 kV Arrah PG
3	132 kV Purnea(PG)-Purnea(BSPHCL)	132 kV Purnea PG

Jharkhand

Priority	Feeders/ICTs	Point of Disconnection
1	One 400/220 kV 315 MVA ICT Jamsedpur	400 kV Jamsedpur
2	220 kV Ranchi(PG)-Chandil(JUVNL)	220 kV Ranchi-PG

DVC

Priority	Feeders/ICTs	Point of Disconnection
1	220 kV Maithon (PG)-Kalyaneswari	220 kV Maithon-PG
2	220 kV Parulia (PG)-Parulia (DVC)	220 kV Parulia PG
3	220 kV Maithon (PG)-Dhanbad (DVC)	220 kV Maithon-PG

Odisha

Priority	Feeders/ICTs	Point of Disconnection
1	220 kV Rengali(PG)-Rengali(OPTCL)	220 kV Rengali-PG
2	220/132 kV Baripada 160 MVA ICT	220 kV Baripada-PG
3	220 kV Baripada(PG)-Balsore (Odisha)	220 kV Baripada-PG

West Bengal

Priority	Feeders/ICTs	Point of Disconnection
1	220 kV Dalkohla (PG)-Dalkohla(WB)	220 kV Dalkohla-PG
2	132 kV Malda (PG)-Malda(WB)	132 kV Malda-PG
3	220 kV Subhasgram(PG)- Subhashgram(WB)	220 kV Subhasgram PG

OWNERSHIP DETAILS							Annexure-B24			
SL. NO	TIE-LINE	LINE OWNED BY	FROM END				TO END			
			Bay equip Ownership	Responsibility of maintaining bay eqp.	Responsibility of ensuring Real Time data	Responsibility of sending RI/DR/EL	Bay equip Ownership	Responsibility of maintaining bay eqp.	Responsibility of ensuring Real Time data	Responsibility of sending RI/DR/EL
A) 765 KV LINES										
1	GAYA-VARANASI	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
2	GAYA-BALIA	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
3	PUSAULI-FATEHPUR	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
4	RANCHI(NEW)-DHARAMJAYGARH	POWERGRID	POWERGRID(ER)				POWERGRID(WR)			
5	JHARSUGUDA-DHRAMJAYGARH	POWERGRID	POWERGRID(ER)				POWERGRID(WR)			
6	ANGUL-SRIKAKULAM	POWERGRID	POWERGRID(ER)				POWERGRID(SR)			
7	ANGUL-JHARSUGUDA	POWERGRID	POWERGRID				POWERGRID			
B) 400 KV LINES										
7	MUZZFARPUR-GOROKHPUR	POWERLINKS	POWERGRID(ER)				POWERGRID(NR)			
8	PATNA-BALIA	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
9	BIHARSHARIFF-BALIA	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
10	BIHARSHARIFF-VARANASI	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
	BARH-MOTIHARI	L(LILO)	POWERGRID(ER)				DMTCL			
	MOTIHARI-GOROKHPUR	L(LILO)	DMTCL				POWERGRID(NR)			
12	SASARAM(N) -SARNATH	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
14	SASARAM(N) -ALLAHABAD	POWERGRID	POWERGRID(ER)				POWERGRID(NR)			
15	BINAGURI-BONGAIGAON-I, II	POWERGRID	POWERGRID(ER)				POWERGRID(NER)			
16	AILPURDUAR-BONGAIGAON-I, II	PGCIL(LILO)	POWERGRID(ER)				POWERGRID(NER)			
20	TEESTA V-RANGPO	POWERGRID	NHPC				POWERGRID			
21	SEL-RAIGARH	POWERGRID & SEL	SEL				POWERGRID(WR)			
22	JHRASUGUDA-IBEUL	IBEUL	POWERGRID				IBEUL			
23	JHRASUGUDA-RAIGARH	IBEUL	POWERGRID(ER)				POWERGRID(WR)			
24	ROURKELA-RAIGARH	POWERGRID	POWERGRID(ER)				POWERGRID(WR)			
25	ROURKELA-SEL	POWERGRID & SEL	POWERGRID				SEL			
26	RANCHI -SIPAT	POWERGRID	POWERGRID(ER)				POWERGRID(WR)			
28	FARAKKA-BEHRAMPUR	POWERGRID	NTPC				POWERGRID			
29	FARAKKA-SAGARDIGHI	POWERGRID	NTPC				WBPDC			
30	FARAKKA - MALDA	POWERGRID	NTPC				POWERGRID			
31	FARAKKA - PARULIA	POWERGRID	NTPC				POWERGRID			
32	KAHALGAON -BANKA	POWERGRID	NTPC				POWERGRID			
34	SAGARDIGHI-BEHRAMPUR	POWERGRID	WBPDC				POWERGRID			
35	SAGARDIGHI-SUBHASGRAM	POWERGRID	WBPDC				POWERGRID			
36	SAGARDIGHI-PARULIA	WBSETCL	WBPDC				POWERGRID(ER)			
38	JEERAT-SUBHASGRAM	POWERGRID	WBSETCL				POWERGRID			
39	SUBHASGRAM(PG)-HALDIA	HEL	POWERGRID				HEL			
40	PARULIA-BIDHANAGAR	WBSETCL	POWERGRID				WBSETCL			
41	KHARAGPUR-BARIPADA	WBSETCL & OPTCL	WBSETCL				POWERGRID(ER)			
45	DSTPS - JAMSHEDPUR	POWERGRID	DVC				POWERGRID			
46	KODERMA-BIHARSARIFF	POWERGRID	DVC				POWERGRID			
51	RAGUNATHPUR-MAITHON	POWERGRID	DVC				POWERGRID			
52	JAMSEDPUR-AHUNIK	APNRL	POWERGRID				APNRL			
53	JAMSHEDPUR-TISCO	POWERGRID	DVC				POWERGRID			
55	JEYPORE-GAZUWAKA	POWERGRID	POWERGRID(ER)				POWERGRID(SR)			

58	INDRAVATI-INDRAVATI	OPTCL	POWERGRID(ER)				OPTCL			
59	TSTPP-MERAMUNDALI	POWERGRID	NTPC				OPTCL			
61	BARIPADA-NEW DUBURI	POWERGRID	POWERGRID(ER)				OPTCL			
62	MENDHASAL-NEW DUBURI	OPTCL	POWERGRID(ER)				OPTCL			
64	TSTPP - RENGALI	POWERGRID	NTPC				POWERGRID			
65	KHARAGPUR-CHAIBASA	PKTCL	WBSETCL				POWERGRID			
66	MENDHASAL-PANDIABILI	POWERGRID	OPTCL				POWERGRID			
67	BARIPADA - PANDIABILI	POWERGRID	WBSETCL				POWERGRID			
	NEW RANCHI-NEW PPSP	PKTCL	POWERGRID				WBSETCL			
71	FARAKKA-GOKARNO	POWERGRID	NTPC				WBSETCL			
72	DIKCHU-TEESTA-III	SKPPL+TPTL	DIKCHU				TEESTA-III			
73	RANGPO-TEESTA-III	POWERGRID+TPTL	POWERGRID				TEESTA-III			
2	BANKA-BIHARSARIFF	POWERGRID	POWERGRID				POWERGRID			
3	LAKHISARAI-BIHARSARIFF	POWERGRID	POWERGRID				POWERGRID			
4	KAHALGAON -LAKHISARAI	POWERGRID	NTPC				POWERGRID			
5	BIHARSHARIFF-PURNEA	ENICL	POWERGRID				POWERGRID			
6	MAITHON-GAYA	POWERGRID	POWERGRID				POWERGRID			
7	KAHALGAON -BARH	POWERGRID	NTPC				NTPC			
8	BARH -PATNA	POWERGRID	NTPC				POWERGRID			
9	PATNA- KISHANGANJ	POWERGRID	POWERGRID				POWERGRID			
10	PURNEA - BINAGURI I & II	POWERGRID	POWERGRID				POWERGRID			
11	PURNEA-KISHANGANJ	POWERGRID	POWERGRID				POWERGRID			
12	BINAGURI-KISHANGANJ	POWERGRID	POWERGRID				POWERGRID			
13	PURNEA - MUZAFFARPUR	POWERLINKS	POWERGRID				POWERGRID			
14	BIHARSHARIFF-MUZAFFARPUR	POWERGRID	POWERGRID				POWERGRID			
15	BIHARSHARIFF- PUSAULI	POWERGRID	POWERGRID				POWERGRID			
16	FARAKKA - KAHALGAON I & II	POWERGRID	NTPC				NTPC			
17	FARAKKA-KAHALGAON III & IV	POWERGRID	NTPC				NTPC			
18	BOKARO-KODERMA	POWERGRID	DVC				DVC			
19	MALDA - PURNEA	POWERGRID	POWERGRID				POWERGRID			
20	MERAMUNDALI - MENDASAL	OPTCL	OPTCL				OPTCL			
21	RENGALI-KEONJHAR	OPTCL	POWERGRID				OPTCL			
22	KEONJHAR- BARIPADA	OPTCL	POWERGRID				POWERGRID			
23	JEYPORE - INDRAVATI	POWERGRID	POWERGRID				POWERGRID			
24	INDRAVATI - RENGALI	POWERGRID	POWERGRID				POWERGRID			
25	TSTPP - ROURKELA	POWERGRID	NTPC				POWERGRID			
26	ROURKELA- JHARSIGUDA	POWERGRID	POWERGRID				POWERGRID			
27	JAMSHEDPUR - CHAIBASA	POWERGRID	POWERGRID				POWERGRID			
28	CHAIBASA- ROURKELA	POWERGRID	POWERGRID				POWERGRID			
29	KTPS - CHANDITALA	WBSETCL	WBPDC				WBSETCL			
29	CHANDITALA - JEERAT	WBSETCL	WBSETCL				WBSETCL			
30	BAKRESWAR - JEERAT	WBSETCL	WBPDC				WBSETCL			
31	BAKRESWAR - ARAMBAGH	WBSETCL	WBPDC				WBSETCL			
	NEW PPSP - ARAMBAGH	WBSETCL	WBSETCL				WBSETCL			
	NEW PPSP - PPSP	WBSETCL	WBSETCL				WBSEDCL			
33	PPSP - BIDHANAGAR	WBSEDCL	WBPDC				WBSETCL			
34	KTPS - ARAMBAGH	WBSETCL	WBPDC				WBSETCL			
35	KTPS-KHARGPUR	WBSETCL	WBPDC				WBSETCL			
36	KTPS-KHARGPUR	WBSETCL	WBPDC				WBSETCL			
37	PARULIA - JAMSHEDPUR	POWERGRID	POWERGRID				POWERGRID			
38	MAITHON - JAMSHEDPUR	POWERGRID	POWERGRID				POWERGRID			
39	MAITHON - RANCHI	POWERGRID	POWERGRID				POWERGRID			
40	DSTPS-RAGHUNATHPUR I & II	DVC	DVC				DVC			
41	JAMSHEDPUR-BARIPADA	POWERGRID	POWERGRID				POWERGRID			
42	RANCHI-RANCHI NEW	POWERGRID	POWERGRID				POWERGRID			
43	RANCHI-ROURKELA-I&II	POWERGRID	POWERGRID				POWERGRID			
44	BINAGURI-RANGPO	POWERGRID	POWERGRID				POWERGRID			

45	NEW RANCHI-CHANDWA	POWERGRID	POWERGRID				POWERGRID			
46	GAYA- CHANDWA	POWERGRID	POWERGRID				POWERGRID			
47	AILPURDUAR-BINAGURI-I,II	PGCIL(LILO)	POWERGRID(ER)				POWERGRID(ER)			
48	MUZZAFFARPUR-DARBHANGA	DMTCL	POWERGRID(ER)				DMTCL			
49	SEL- MEERAMANDALI	POWERLINKS	SEL				OPTCL			
50	BARIPADA-PANDIABILI	POWERGRID	POWERGRID				POWERGRID			
51	MEERAMUNDALI- NEW DUBURI	POWERGRID	OPTCL				POWERGRID			
C) 220 KV LINES										
74	PATNA-SIPARA	BSPHCL	POWEGRID				BSPHCL			
76	PUSUALI-SAHUPURI	BSPHCL & UPPCL	POWERGRID				UPPCL			
78	PATNA-KHAGUAL	BSPHCL	POWERGRID				BSPHCL			
80	NEW SASARAM- ARRAH	POWERGRID	BSPHCL				POWERGRID			
81	BODHGAYA-GAYA(PG)	BSPHCL & PG	BSPHCL				POWERGRID			
82	DEHRI-GAYA(PG)	BSPHCL & PG	BSPHCL				POWERGRID			
83	MUZZFARPUR-KANTI	POWERLINKS	POWERGRID				BSPHCL			
84	MUZZAFFARPUR-HAZIPUR-I & II	BSPTCL	POWERGRID				BSPTCL			
87	BALIMELA-U.SILLERU	APTRANSCO	OPTCL				APTRANSCO			
88	JINDAL-JAMSHEDPUR	OPTCL & DVC	OPTCL				DVC			
89	JODA-RAMCHANDRAPUR	OPTCL & JUSNL	OPTCL				JUSNL			
90	BUDHIPADAR-KORBA II & III	OPTCL & CSEB	OPTCL				CHATTISGARH			
91	BUDHIPADAR-RAIGARH I	POWERGRID	OPTCL				CHATTISGARH			
92	TSTPP-MERAMUNDALI	OPTCL	NTPC				OPTCL			
93	TSTPP-RENGALI HPS	OPTCL	NTPC				OPTCL			
94	BISRA(PG)-TARKERA(OPTCL)	OPTCL	POWERGRID				OPTCL			
95	JEYPORE(PG)-JAYNAGAR(OPTCL)	OPTCL	POWERGRID				OPTCL			
96	TSTPP-TALCHER	OPTCL	NTPC				OPTCL			
97	FARAKKA-LALMATIA	ECL	NTPC				NTPC			
98	RENGALI-RENGALI	OPTCL	POWERGRID				OPTCL			
99	BARIPADA-BALASORE	OPTCL	POWERGRID				OPTCL			
100	MAITHON(PG)-K'SWARI(DVC)	DVC	POWERGRID				DVC			
102	CHANDIL-SANTALDIH	WBSETCL & JUSNL	JUSNL				WBSETCL			
103	RANCHI-HATIA	JUSNL	POWERGRID				JUSNL			
105	TENUGHAT-BIHARSHARIF	BSPHCL & JUSNL	JUSNL				BSPHCL			
106	JAMSHEDPUR-RAMCHANDRAPUR	-POWERGRID	POWERGRID				JUSNL			
107	MAITHON(PG)-DHANBAD(DVC)	DVC	POWERGRID				DVC			
108	PARULIA(PG)-PARULIA(DVC)	DVC	POWERGRID				DVC			
109	WARIA-BIDHANNAGAR	DVC & WBSETCL	DVC				WBSETCL			
112	SUBH'GRM(PG) - NEWTOWN	WBSETCL	POWERGRID				WBSETCL			
113	SUBH'GRM(PG) - SUBH'GRM (WB)	WBSETCL	POWERGRID				WBSETCL			
114	SUBH'GRM(PG) - EMSS(CESC)	CESC	POWERGRID				CESC			
115	SUBH'GRM(PG) - BANTALA	WBSETCL	POWERGRID				WBSETCL			
118	BIRPARA- CHUKHA	POWERGRID	POWERGRID				POWERGRID			
119	BIRPARA-MALBASE	POWERGRID	POWERGRID				POWERGRID			
120	ALIPURDUAR-SALAKATI	POWERGRID	POWERGRID(ER)				POWERGRID(NER)			
122	NEW MELLI- JIHEP	DANS	POWERGRID				DANS			
124	DARBHANGA-MOTIPUR	BSPTCL	DMTCL				BSPTCL			
125	DARBHANGA-SAMASTIPUR(UJIYARPUR)	BSPTCL	DMTCL				BSPTCL			
127	BOLANGIR-KATAPALLI	OPTCL	POWERGRID				OPTCL			
128	BOLANGIR-SADHEPALLI	OPTCL	POWERGRID				OPTCL			
129	PANDIABILI-ATRI	OPTCL	POWERGRID				OPTCL			
130	PANDIABILI-SAMANGARA	OPTCL	POWERGRID				OPTCL			
52	BIHARSHARIFF-FATUAH	BSPHCL	BSPHCL				BSPHCL			
53	BIHARSHARIFF-BODHAGYA	BSPHCL	BSPHCL				BSPHCL			
54	BIHARSHARIFF-BEGUSARAI	BSPHCL	BSPHCL				BSPHCL			
55	MTPS-BEGUSARAI	BSPHCL	BSPHCL				BSPHCL			
56	MTPS-DARBHANGA	BSPHCL	BSPHCL				BSPHCL			
57	MTPS-GOPALGANJ	BSPHCL	BSPHCL				BSPHCL			

58	SASARAM-ARRAH	POWERGRID	POWERGRID				POWERGRID			
60	WARIA-PARULIA	DVC	DVC				DVC			
61	WARIA-MEJIA	DVC	DVC				DVC			
62	CTPS A-DHANBAD	DVC	DVC				DVC			
63	CTPS B-DHANBAD	DVC	DVC				DVC			
64	DHANBAD-GIRIDIH	DVC	DVC				DVC			
65	BOKARO-JAMSHEDPUR	DVC	DVC				DVC			
66	KASBA-EMBYPASS	CESC	WBSETCL				CESC			
67	KASBA-SUBHASGRAM(WB)	WBSETCL	WBSETCL				WBSETCL			
69	BOKARO-CTPS B	DVC	DVC				DVC			
70	KALYANESHWARI-MEJIA	DVC	DVC				DVC			
71	KALYANESHWARI-BURNPUR	DVC	DVC				DVC			
72	BURNPUR-MEJIA	DVC	DVC				DVC			
73	MEJIA-MUCHIPARA	DVC	DVC				DVC			
74	MEJIA-BARJORA	DVC	DVC				DVC			
75	PARULIA-MUCHIPARA	DVC	DVC				DVC			
76	BOKARO-RAMGARH	DVC	DVC				DVC			
77	PTPS -TENUGHAT	JUSNL	JUSNL				TVNL			
78	PATRATU-HATIA	JUSNL	JUSNL				JUSNL			
79	CHANDIL-RAMCHANDRAPUR	JUSNL	JUSNL				JUSNL			
80	JEYANAGAR-U.KOLAB	OPTCL	OPTCL				OHPC			
81	MERAMUNDALI-NALCO	OPTCL	NTPC				NALCO			
82	MERAMUNDALI - BIDANASI	OPTCL	OPTCL				OPTCL			
83	MERAMUNDALI - DUBURI(OLD)	OPTCL	OPTCL				OPTCL			
84	KATAPALLI-BUDHIPADAR	OPTCL	OPTCL				OPTCL			
85	IBTPS - BUDHIPADAR	OPTCL	OPGC				OPTCL			
86	TARKERA-BUDHIPADAR	OPTCL	OPTCL				OPTCL			
87	TARKERA-CHANDIPOSH	OPTCL	OPTCL				OPTCL			
88	TARKERA-BARKOT	OPTCL	OPTCL				OPTCL			
89	RENGALI-CHANDIPOSH	OPTCL	OPTCL				OPTCL			
90	RENGALI-BARKOT	OPTCL	OPTCL				OPTCL			
91	U. KOLAB-THERUVALI	OPTCL	OHPC				OPTCL			
92	U. KOLAB-JAYANAGAR	OPTCL	OHPC				OPTCL			
93	BALIMELA-JEYNAGAR	OPTCL	OHPC				OPTCL			
94	TALCHER-MERAMUNDALI	OPTCL	NTPC				OPTCL			
95	MERAMUNDALI - BHANJNAGAR	OPTCL	OPTCL				OPTCL			
96	MENDHASAL -BHANJNAGAR	OPTCL	OPTCL				OPTCL			
97	MENDHASAL - NAYAGARH	OPTCL	OPTCL				OPTCL			
98	NAYAGARH - BHANJNAGAR	OPTCL	OPTCL				OPTCL			
99	THERUVALLI - BHANJNAGAR	OPTCL	OPTCL				OPTCL			
100	THERUVALLI - LAXMIPUR	OPTCL	OPTCL				OPTCL			
101	THERUVALLI - NARENDRAPUR	OPTCL	OPTCL				OPTCL			
102	MENDHASAL - NARENDRAPUR	OPTCL	OPTCL				OPTCL			
103	MENDHASAL - CHANDAKA	OPTCL	OPTCL				OPTCL			
104	JAYANAGAR - LAXMIPUR	OPTCL	OPTCL				OPTCL			
105	UIHEP-THERUVALI	OPTCL	OHPC				OPTCL			
106	KTPS-HOWRAH	WBSETCL	WBPDC				WBSETCL			
107	BISHNUPUR-SANTALDIH	WBSETCL	WBSETCL				WBPDC			
108	SANTALDIH-BIDHANNAGR	WBSETCL	WBDPCL				WBSETCL			
109	BIDHANNAGAR-DPL	WBSETCL	WBSETCL				DPL			
110	BIDHANNAGAR-BAKRESWAR	WBSETCL	WBSETCL				WBPDC			
111	SATGACHIA-BAKRESWAR	WBSETCL	WBSETCL				WBPDC			
112	KHARAGPUR- MIDNAPORE I&II	WBSETCL	WBSETCL				WBSETCL			
113	ARAMBAGH- MIDNAPORE	WBSETCL	WBSETCL				WBSETCL			
114	ARAMBAGH-N.BISHNUPUR	WBSETCL	WBSETCL				WBSETCL			
115	ARAMBAGH- DOMJUR	WBSETCL	WBSETCL				WBSETCL			
116	ARAMBAGH- RISHRA	WBSETCL	WBPDC				WBSETCL			
117	JEERAT-NEWTOWN	WBSETCL	WBSETCL				WBSETCL			
118	JEERAT-SATGACHIA	WBSETCL	WBPDC				WBSETCL			
119	SATGACHIA-KRISHNANAGAR	WBSETCL	WBPDC				WBSETCL			
120	BAKRESWAR-SADAIPUR	WBSETCL	WBPDC				WBSETCL			
120	SADAIPUR-GOKARNO	WBSETCL	WBPDC				WBSETCL			

121	GOKARNO-SAGARDIGHI	WBSETCL	WBSETCL				WBPDC			
122	GOKARNO-KRISHNANAGAR	WBSETCL	WBSETCL				WBPDC			
123	SUBHASGRAM (WB)- LAKHIKANTPUR	WBSETCL	WBSETCL				WBSETCL			
124	DALKHOLA-PURNEA	POWERGRID	WBSETCL				WBSETCL			
125	BIRPARA-BINAGURI	POWERGRID	POWERGRID				POWERGRID			
	BINAGURI-SILIGURI	POWERGRID	POWERGRID				POWERGRID			
126	JEERAT-KASBA	WBSETCL	WBPDC				WBSETCL			
127	JEERAT- DHARAMPUR	WBSETCL	WBPDC				WBSETCL			
128	DHARAMPUR- RISHRA	WBSETCL	WBPDC				WBSETCL			
	SILIGURI-KISHANGANJ	POWERGRID	POWERGRID				POWERGRID			
129	DALKHOLA-KISHANGANJ	POWERGRID	POWERGRID				POWERGRID			
130	DALKHOLA-MALDA	POWERGRID	POWERGRID				POWERGRID			
131	RANGPOO- NEW MELLI	POWERGRID	POWERGRID				POWERGRID			
132	ALIPURDUAR-BIRPARA	POWERGRID	POWERGRID(ER)				POWERGRID(ER)			

C) 132 KV LINES

		Cross Border Power Trans. Ltd.								
131	MUZZAFARPUR- DHALKEBAR		POWERGRID				NEPAL			
132	BARHI - B'SHARIFF	BSPHCL & DVC	DVC				BSPHCL			
133	BARHI-RAJGIR	BSPHCL & DVC	DVC				BSPHCL			
134	DEOGHAR-SULTANGANJ	BSPTCL & JUSNL	JUSNL				BSPHCL			
135	KAHALGAON-KAHALGAON	POWERGRID	BSPHCL				NTPC			
136	ARRAH-ARRAH	POWERGRID	BSPHCL				POWERGRID			
137	DUMRAON-ARRAH	POWERGRID	BSPHCL				POWERGRID			
138	PURNEA(PG)-PURNEA(BS)	BSPHCL	BSPHCL				POWERGRID			
139	PURNEA(PG)-KISANGANJ	BSPHCL	BSPHCL				POWERGRID			
140	DEHRI--PUSUALI	POWERGRID	BSPHCL				POWERGRID			
141	KARMANASA--PUSUALI	POWERGRID	BSPHCL				POWERGRID			
142	KARMANASA-SAHUPURI	BSPHCL & UPPCL	BSPHCL				UPPCL			
143	KARMANASA-CHANDAUJI	BSPHCL & UPPCL	BSPHCL				UPPCL			
144	SONENAGAR - RIHAND	BSPHCL & UPPCL	BSPHCL				UPPCL			
145	MAITHON-JAMTARA	DVC & JUSNL	DVC				JUSNL			
146	KHARAGPUR-KHARAGPUR	DVC	DVC				WBSETCL			
147	KOLAGHAT-KOLAGHAT	DVC	DVC				WBSETCL			
148	MACHKUND-VIZAG	APTRANSCO	OPTCL				APTRANSCO			
149	JODA-KENDPOSI	OPTCL & JUSNL	OPTCL				JUSNL			
150	BARIPADA-BANGIRIPOSI	OPTCL	POWERGRID				OPTCL			
151	BARIPADA-BARIPADA	OPTCL	POWERGRID				OPTCL			
152	GARWA-SONENAGAR	BSPHCL & JUSNL	JUSNL				BSPHCL			
153	LALMATIA-SABOUR	BSPHCL & JUSNL	JUSNL				BSPHCL			
154	CHANDIL-MANIQUE	JUSNL & DVC	JUSNL				DVC			
155	PATRATU-PATRATU	JUSNL & DVC	JUSNL				DVC			
156	GARWA-RIHAND	JUSNL & UPPCL	JUSNL				UPPCL			
157	RANGIT-RAMMAM	POWERGRID	NHPC				WBSETCL			
158	KAHALGAON-SABOUR	POWERGRID	NTPC				BSPHCL			
159	KAHALGAON-LALMATIA	POWERGRID	NTPC				JUSNL			
160	BIRPARA-BIRPARA	WBSETCL	POWERGRID				WBSETCL			
161	MALDA-MALDA	WBSETCL	POWERGRID				WBSETCL			
162	SILIGURI-NBU	WBSETCL	POWERGRID				WBSETCL			
	SILIGURI - NJP	WBSETCL	POWERGRID				WBSETCL			
163	RANGIT -SAGBARI	SIKKIM	NHPC				SIKKIM			
164	ARHA-JAGDISHPUR	BSPHCL	POWERGRID				BSPHCL			
165	RANGIT-RANGPO	POWERGRID	NHPC				POWERGRID			
166	RANGIT-KURSEONG	POWERGRID	NHPC				WBSETCL			
167	RANGIT-SAGBARI	SIKKIM	NHPC				SIKKIM			
168	CHUJACHEN-GANGTOK	POWERGRID & GATI	GATI INFRA				POWERGRID			
169	BANKA-SABOUR	BSPTCL	POWERGRID				BSPTCL			
170	BANKA-BANKA	BSPTCL	POWERGRID				BSPTCL			

171	RANGPO-CHUJACHEN	GATI INFRA	POWERGRID				GATI INFRA			
172	NJP-MELLI	POWERGRID	POWERGRID				SIKKIM			
173	RANGPO- MELLI	POWERGRID+GATI INFRA	POWERGRID				SIKKIM			
174	NJP-MELLI	POWERGRID	POWERGRID				SIKKIM			
175	LAKHISARAI - JAMAUI	BSPHCL	POWERGRID				BSPHCL			
176	RANGIT - RABANGLA	POWERGRID	NHPC				SIKKIM			
177	KALINGPONG-MELLI	WBSETCL & SIKKIM	WBSETCL				SIKKIM			
178	BANKA-SULTANGUNJ	BSPTCL	POWERGRID				BSPTCL			

S.No	Region	State	Sub-Station	Owner/ Utility	S/S type	PMU	TOTAL PANEL QTY	PMU Delivery status	Cable Delivery status	Erection	Cable laying	CT/PT/DI termination	Commiss ioning	Integration	SAT	Remarks
			78			286	175	73	61	51	45	40	40	24	37	
1	ER-II	West Bengal	Arambagh	WBSETCL	CR	3	1	Yes	Yes	done	done	pending	pending	Pending	pending	CT/ PT/ DI interfacing pending due to permission issue.
2	ER-II	West Bengal	BAKRESHWAR TPS	WBSETCL	CR	4	1	Yes	Yes	done	pending	pending	pending	Pending	pending	Panel erected. Cable laying pending due to permission issue.
3	ER-II	West Bengal	Bidhannagar	WBSETCL	CR	3	1	Yes	Yes	done	done	pending	pending	Pending	pending	Panel erected. Cable laying and termination at PMU panel completed. CT/ PT/ DI interfacing pending due to permission issue.
4	ER-II	West Bengal	JEERAT	WBSETCL	CR	2	1	Yes	Yes	done	done	done	done	done	pending	SAT pending as customer didn't agree to witness SAT.
5	ER-II	West Bengal	Kolaghat TPS	WBSETCL	CR	4	1	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	
6	ER-II	West Bengal	KASBA	WBSETCL	CR	3	1	Yes	Yes	done	done	done	done	done	pending	SAT pending as customer didn't agree to witness SAT.
7	ER-II	DVC	DSTPS	DVC	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
8	ER-II	DVC	Kodarma TPS	DVC	CR	3	1	Yes	Yes	done	done	done	done	Pending	done	Communication panel does not exist.
9	ER-II	DVC	MEJIA-B	DVC	CR	2	1	Yes	Yes	done	done	done	done	done	done	Integrated on 07.12.2016
10	ER-II	DVC	Maithon RB TPS	DVC	CR	2	1	Yes	Yes	pending	pending	pending	pending	Pending	pending	Work started on 04.07.2016. Panel shifted. Team demobilised due to access issue and panel location issue.
11	ER-II	DVC	Raghunathpur TPS	DVC	CR	3	1	Yes	Yes	done	done	done	done	Pending	done	Communication link was not available during work.
12	ER-II	DVC	MEJIA	DVC	CR	5	2	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs. Will be integrated on Mar 2017.
13	ER-II	DVC	Bokaro	DVC	CR	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.06.2016
14	ER-II	DVC	CTPS(Chanderpura)	DVC	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs. Will be integrated on Mar 2017.
15	Odisha	Orissa	Budhipadar	OPTCL	CR	0	0	No	No	N/A	N/A	N/A	N/A	N/A	N/A	BOQ not finalized.
16	Odisha	Orissa	MENDHASAL	OPTCL	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	OPTCL is not providing CT/ PT connection for Meeramundali-2 feeder.
17	Odisha	Orissa	MERAMANDALI	OPTCL	CR	6	2	Yes	Yes	done	under progress	pending	pending	Pending	pending	
18	Odisha	Orissa	RENGALI	OPTCL	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Integration delayed because CAT-6 cable is faulty.
19	Odisha	Orissa	U.KOLAB	OPTCL	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	
20	Odisha	Orissa	BALIMELA(H)	OPTCL	CR	3	1	Yes	Yes	done	done	partially done	pending	Pending	done	OPTCL denied to provide DC connection. CT/PT/DI interfacing pending due to permission issue.
21	ER-II	West Bengal	Durgapur	Powergrid	CR	5	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 30.05.2016.
22	ER-II	West Bengal	FARRAKA	NTPC	CR	5	2	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	
23	Odisha	Orissa	Indrawati	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
24	Odisha	Orissa	Indrawati HPS	OPTCL	CR	1	1	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	OPTCL denied to provide DC connection.
25	Odisha	Orissa	JEYPORE	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
26	ER-II	West Bengal	MAITHON	Powergrid	CR	7	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 21.06.2016.
27	ER-II	West Bengal	MALDA	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.06.2016
28	Odisha	Orissa	Rengali	Powergrid	Kiosk	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 04.05.2016
29	Odisha	Orissa	ROURKELA	Powergrid	Kiosk	5	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 21.04.2016
30	ER-II	West Bengal	Binaguri	Powergrid	CR	7	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 28.07.2016
31	ER-II	West Bengal	SUBHASHGRAM	Powergrid	Kiosk	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 22.06.2016
32	Odisha	Orissa	Baripada	Powergrid	CR	3	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 30.01.2017.
33	Odisha	Orissa	Bolangir	Powergrid	CR+Kiosk	2	3	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
34	Odisha	Orissa	ANGUL	Powergrid	Kiosk	10	11	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.03.2017.

PMU Installation and commissioning status of ER as on 20.04.2017

S.No	Region	State	Sub-Station	Owner/ Utility	S/S type	PMU	TOTAL PANEL QTY	PMU Delivery status	Cable Delivery status	Erection	Cable laying	CT/PT/DI termination	Commiss ioning	Integration	SAT	Remarks
35	Odisha	Orissa	Keonjhar	Powergrid	CR	2	3	Yes	Yes	done	done	done	done	done	done	PMU integrated on 18.01.2017.
36	Odisha	Orissa	Jharsuguda	Powergrid	Kiosk	8	9	Yes	Yes	done	done	done	done	done	done	PMU integrated on 29.07.2016
37	Odisha	Orissa	GMR	GMR	Kiosk	3	4	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	
38	ER-II	Sikkim	RANGPO	Powergrid	CR	4	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs. Will be integrated on Mar 2017.
39	ER-II	West Bengal	Baharampur	Powergrid	CR	2	3	Yes	Yes	done	done	done	done	done	done	PMU integrated on 10.05.2016
40	ER-II	West Bengal	Birpara	Powergrid	CR	4	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 15.07.2016.
41	ER-II	DVC	CTPS B	DVC	CR	3	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
42	ER-II	DVC	KALYANESWARI	DVC	CR	4	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 02.01.2017.
43	ER-II	DVC	PARULIA	DVC	CR	5	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 21.02.2017.
44	ER-II	West Bengal	Purulia PSP	WBSETCL	CR	2	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
45	ER-II	Jharkhand	Bokaro TPS	DVC	CR	1	1	Yes	Yes	done	pending	pending	pending	Pending	pending	
46	ER-II	West Bengal	Durgapur TPS	DVC	CR	3	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
47	Odisha	Orissa	TTPS(Talcher)	OPTCL	CR	3	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
48	Odisha	Orissa	TALCHER	NTPC	CR	5	2	No	No	N/A	N/A	N/A	N/A	N/A	N/A	NTPC is not allowing to deliver mterial.
49	ER-II	Sikkim	TEESTA	Powergrid	CR	1	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
50	Odisha	Orissa	Uttara	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	Pending	pending	Communication link from s/s to ERLDC and NTAMC to be provided by PGCIL.
51	Odisha	Orissa	Jindal	JITPL	CR	2	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
52	Odisha	Orissa	Monnet	Monnet	CR	1	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
53	Odisha	Orissa	Strelite	Strelite	CR	3	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
54	Odisha	Orissa	Ind barath	Ind barath	Kiosk	1	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
55	ER-II	Sikkim	New Melli	Powergrid	CR	0	0	No	No	N/A	N/A	N/A	N/A	N/A	N/A	BOQ not finalized.
56	ER-II	Sikkim	TT Pool	Powergrid	CR	0	0	No	No	N/A	N/A	N/A	N/A	N/A	N/A	BOQ not finalized.
57	ER-II	West Bengal	Alipurduar	Powergrid	CR	6	7	Yes	Yes	partially done	partially done	pending	pending	Pending	pending	Work started on 22.12.2016. 4 PMU panels and network panel installed. Rest 2 PMU panels could not be erected because location not finalised. Cable laying and termination at PMU panel completed for 6 feeders. CT/PT interfacing pending due to unavailability of shutdown. PGCIL is asking to take DI points from field, which is not in scope. Work is held up. Team demobilised.
58	ER-II	West Bengal	Rajarhat	Powergrid	CR	2	1	Yes	Yes	done	pending	pending	pending	Pending	pending	Work withheld due to localite agitation issue.
59	ER-I	Jharkhand	JAMSHEDPUR	Powergrid	CR	6	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 14.02.2017
60	ER-I	BIHAR	Kahalgaoon(KHSTPP)	NTPC	CR	6	2	Yes	Yes	done	done	pending	pending	Pending	pending	Work withheld due to gate pass issue.
61	ER-I	BIHAR	Purnea	Powergrid	CR	6	2	Yes	Yes	done	done	pending	pending	done	pending	PMU integrated on 13.04.2017
62	ER-I	BIHAR	PATNA	Powergrid	Kiosk	6	7	Yes	Yes	done	done	done	done	done	done	PMU integrated on 11.04.2017
63	ER-I	Jharkhand	RANCHI	Powergrid	Kiosk	12	13	Yes	Yes	done	under progress	pending	pending	Pending	pending	
64	ER-I	BIHAR	SASARAM(Pusauli)	Powergrid	CR+Kiosk	9	3	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	
65	ER-I	BIHAR	BARH	NTPC	CR	4	1	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	
66	ER-I	BIHAR	LakhiSarai	Powergrid	Kiosk	4	5	Yes	Yes	done	done	done	done	Pending	done	SAT completed. PMU not integrated because FO cable was not delivered due to road permit issue.
67	ER-I	BIHAR	BANKA	Powergrid	Kiosk	4	5	Yes	Yes	done	done	done	done	Pending	pending	SAT pending. PMU not integrated because switch was not delivered to site. Switch in transit.

PMU Installation and commissioning status of ER as on 20.04.2017

S.No	Region	State	Sub-Station	Owner/ Utility	S/S type	PMU	TOTAL PANEL QTY	PMU Delivery status	Cable Delivery status	Erection	Cable laying	CT/PT/DI termination	Commiss ioning	Integration	SAT	Remarks
68	ER-I	Jharkhand	Chaibasa	Powergrid	Kiosk	4	5	Yes	Yes	done	under progress	pending	pending	Pending	pending	
69	ER-I	BIHAR	765kv Gaya	Powergrid	Kiosk	11	12	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.02.2017
70	ER-I	Jharkhand	765/400kV Ranchi (N)	Powergrid	Kiosk	8	9	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.02.2017
71	ER-I	Bihar	Biharshariff	Powergrid	CR	9	3	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	
72	ER-I	Bihar	MUZAFFAPUR	Powergrid	CR	5	2	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
73	ER-I	Jharkhand	Daltonganj	Powergrid	Kiosk	2	3	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	Road permit for Switch is pending.
74	ER-I	Bihar	Kishanganj (karandegh)	Powergrid	CR	4	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mts.
75	ER-I	Jharkhand	Jharkhand Pool (Chandrapur)	Powergrid	Kiosk	4	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mts.
76	ER-I	Jharkhand	Patratu	Jharkhand	CR	3	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
77	ER-I	Jharkhand	Tenughat	Jharkhand	CR	2	1	Yes	No	N/A	N/A	N/A	N/A	N/A	N/A	
78	ER-I	Bihar	Barauni PP	Bihar	CR	0	0	No	No	N/A	N/A	N/A	N/A	N/A	N/A	BOQ not finalized.

ER PMU site activity Summary:

Sl. No.	Region	Utility	As per approved BOQ		Supplied		Installed		Commissioned		Integrated to ERLDC/ SLD	
			No. of Substations	No. of PMU	S/S	PMU	S/S	PMU	S/S	PMU	S/S	PMU
1	ER-I	Powergrid	15	94	15	94	11	69	8	47	5	37
2	ER-I	NTPC	2	10	2	10	1	6	0	0	0	0
3	ER-I	Jharkhand	2	5	2	5	0	0	0	0	0	0
4	ER-I	Bihar	1	0	0	0	0	0	0	0	0	0
	ER-I	Total	20	109	19	109	12	75	8	47	5	37
1	ER-II	Powergrid	13	42	11	42	10	39	8	33	7	29
2	ER-II	NTPC	1	5	1	5	0	0	0	0	0	0
3	ER-II	DVC	13	37	13	37	10	29	9	28	4	13
4	ER-II	WBSETCL	7	21	7	21	5	15	2	5	2	5
	ER-II	Total	34	105	32	105	25	83	19	66	13	47
1	Odisha	Powergrid	10	38	10	38	10	38	10	38	6	30
2	Odisha	OPTCL	8	19	6	16	5	15	3	6	0	0
3	Odisha	NTPC	1	5	1	5	0	0	0	0	0	0
4	Odisha	IPP	5	10	5	10	0	0	0	0	0	0
	Odisha	Total	24	72	22	69	15	53	13	44	6	30
	ER	Total	78	286	73	283	52	211	40	157	24	114

Status of PDS system Installation and commissioning at ER as on 20.04.2017

Sl. No.	Site Name	Work Progress
1	ERLDC	Installed, powered up, functioning and integrated with DVC, WBSETCL and OPTCL PDS system.
2	Backup-NLDC	POSOCO did not provide space for PDS system installation.
3	SLDC, Maithon	Installed, powered up, functioning and integrated with ERLDC PDS system.
4	SLDC, Bhubaneswar	Installed, powered up, functioning and integrated with ERLDC PDS system.
5	SLDC, Howrah (WBSETCL)	Installed, powered up, functioning and integrated with ERLDC PDS system.

AVAILABILITY STATUS OF EVENT LOGGER, DISTURBANCE RECORDER & GPS

Sl. NO	Substation	Protection & Control System						Remarks
		Availability			Time Synchronization			
		EL	DR	GPS	Relay	DR	EL	
1	Subhasgram	Yes	Yes	Yes	Yes	Yes	Yes	
2	Maithon	Yes	Yes	Yes	Yes	Yes	Yes	
3	Durgapur	Yes	Yes	Yes	Yes	Yes	Yes	
4	Malda	Yes	Yes	Yes	Yes	Yes	Yes	
5	Dalkhola	Yes	Yes	Yes	Yes	Yes	Yes	
6	Siliguri	Yes	Yes	Yes	Yes	Yes	Yes	
7	Binaguri	Yes	Yes	Yes	Yes	Yes	Yes	
8	Birpara	Yes	Yes	Yes	Yes	Yes	Yes	
9	Gangtok	Yes	Yes	Yes	Yes	Yes	Yes	
10	Baripada	Yes	Yes	Yes	Yes	Yes	Yes	
11	Rengali	Yes	Yes	Yes	Yes	Yes	No	New EL would be implemented in BCU under NTAMC project by March'2015
12	Indravati (PGCIL)	Yes	Yes	Yes	Yes	Yes	No	EL is old one(model-PERM 200), provision for time synchronisation is not available. New EL would be implemented in BCU under NTAMC project by March'2015
13	Jeypore	Yes	Yes	Yes	Yes	Yes	Yes	EL is old and not working satisfactorily. New EL would be implemented in BCU under NTAMC project by March, 2015
14	Talcher	Yes	Yes	Yes	Yes	Yes	Yes	
15	Rourkela	Yes	Yes	Yes	Yes	Yes	Yes	
16	Bolangir	Yes	Yes	Yes	Yes	Yes	Yes	
17	Patna	Yes	Yes	Yes	Yes	Yes	Yes	
18	Ranchi	Yes	Yes	Yes	Yes	Yes	Yes	
19	Muzaffarpur	Yes	Yes	Yes	Yes	Yes	Yes	
20	Jamshedpur	Yes	Yes	Yes	Yes	Yes	Yes	
21	New Purnea	Yes	Yes	Yes	Yes	Yes	Yes	
22	Gaya	Yes	Yes	Yes	Yes	Yes	Yes	
23	Banka	Yes	Yes	Yes	Yes	Yes	Yes	
24	Biharsariif	Yes	Yes	Yes	Yes	Yes	Yes	
25	Barh	Yes	Yes	Yes	Yes	Yes	Yes	
26	Sagardighi	No	Yes	Yes	Yes	Yes	No	EL is under process of restoration with help from OEM, China
27	Kahalgaon	Yes	Yes	Yes	Yes	Yes	Yes	
28	Farakka	Yes	Yes	No	No	No	No	Time synchronization available for Farakka-Kahalgaon line-III & IV. The same will be implemented in rest of the lines by December, 2014.
29	Meramundali	Defunct	Yes	Yes	Yes	Yes	Yes	
30	Tisco	Yes	Yes	Yes	Yes	Yes	Yes	
31	Bidhannagar	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical

								relays. GPS will be put in service by January, 2015.
32	Indravati (OHPC)	Yes	Faulty	No	No	No	No	Time synchronization will be done by Feb, 2015. ICT-I feeders using DR & EL available in Numerical relays. 400 kV ICT-II feeder is being maintained by PGCIL, Mukhiguda. Status may confirm from PGCIL
33	Kharagpur	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical relays.
34	DSTPS	Yes	Yes	Yes	Yes	Yes	Yes	
35	Sterlite	Yes	Yes	Yes	Yes	Yes	Yes	
36	Mejia 'B'	Yes	Yes	Yes	Yes	Yes	Yes	
37	Mendhasal	Defunct	Yes	Yes	Yes	Yes	No	EL will be restored by March, 2015.
38	Arambagh	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical relays
39	Jeerat	No	Yes	No	No	No	No	Using DR & EL available in Numerical relays. Procurement of new GPS is in progress.
40	Bakreswar	Yes	Yes	Yes	Yes	Yes	Yes	
41	GMR	Yes	Yes	Yes	Yes	Yes	Yes	
42	Maithon RB	Yes	Yes	Yes	Yes	Yes	Yes	
43	Raghunathpur	Yes	Yes	Yes	Yes	Yes	Yes	
44	Kolaghat	Yes	Yes	Yes	Yes	Yes	Yes	
45	Teesta V	Yes	Yes	Yes	Yes	Yes	Yes	
46	Koderma	Yes	Yes	Yes	Yes	Yes	Yes	
47	Sasaram	Yes	Yes	Yes	Yes	Yes	Yes	
48	Rangpo	Yes	Yes	Yes	Yes	Yes	Yes	
49	Adhunik	Yes	Yes	Yes	Yes	Yes	Yes	
50	JITPL	Yes	Yes	Yes	Yes	Yes	Yes	
51	765kV Angul	Yes	Yes	Yes	Yes	Yes	Yes	
52	Chuzachen	Yes	Yes	Yes	No	Yes	Yes	
53	New Ranchi 765kV	Yes	Yes	Yes	Yes	Yes	Yes	
54	Lakhisarai	Yes	Yes	Yes	Yes	Yes	Yes	
55	Chaibasa							
56	765kV Jharsuguda	Yes	Yes	Yes	Yes	Yes	Yes	All are in working condition. However a dedicated DR for 765KV Lines; make TESLA is not working. M/s Siemens has assured to commission the same by 31.01.15
57	Beharampur	Yes	Yes	Yes	Yes	Yes	Yes	
58	Keonjhar	Yes	Yes	Yes	Yes	Yes	Yes	

Eastern Regional Power Committee

The status of ERS towers in Eastern Region as updated in OCC meetings is given below:

- 1) ERS towers available in Powergrid S/s is as given below:

Sl. No.	Name of S/S	No. of ERS towers available	ERS towers in use
1	Durgapur, ER-II	1 Set (8 towers)	
2	Rourkela, ER-II	3 towers incomplete shape	
3	ER-I (located at Jamshedpur)	15 towers (10 nos Tension tower and 5 nos suspension tower)	

- 2) The present status of ERS towers in OPTCL system is as follows:

- 220 kV ERS towers: 42 nos located at Mancheswar, Chatrapur & Budhipadar
- 400 kV ERS towers: 2 nos located at Mancheswar.
- 12 nos. of new 400 kV ERS towers have been recieved.

- Another, 16 nos of 400 kV towers accompanied with 6 sets of T&P are required which is under
- process

- 3) WBSETCL informed that they have placed order for 2 sets of ERS towers on 31.10.2014 and expected by June, 2015.
- 4) The 25th ERPC meeting held on 21.09.2014, the board concurred to the proposal of procurement of four sets of ERS and it was also informed that, the proposed four sets of ERS will be kept at Sikkim, Siliguri, Ranchi and Gaya and will be used by all constituents of ER during emergencies.

Powergrid informed that four sets of ERS for Eastern Region will be procured.

- 5) DVC informed that they are in process of procuring two (2) sets of 400 kV ERS towers.

Availability of Emergency Restoration System in BSPTCL system

Sl. No.	Type	Quantity	Remarks
1	Tension ERS Tower	12	New
2	Suspension ERS Tower	20	New
3	Old ERS Tower	10	1 no. is defective
Total		42	

Note:-

- As informed in ERS meeting held on 10-11-2014 taken by Member (Power System), CEA; **2 sets (12 tension & 20 suspension) of ERS towers had been procured and is currently available in our system** (as mentioned in above table with remarks “New”).
- Same ERS tower is used in both 220 Kv and 132 kV circuits.

Details of stations/Units required to operate under RGMO/FGMO as per IEGC							Whether operating under RGMO	indicate in case of status is not available
Name of State	Type	Name of Utility	Sector (CS/SS/Private)	Name of Station	Name of Stage/ Unit	Installed capacity (MW)		
JHARKHAND	Thermal	TVNL	SS	Tenughat	1	210	No	Difficulties in implementing RGMO & exemption not
			SS		2	210	No	
	Hydro	JSEB	SS	Subarnrekha	1	65	Yes	
			SS		2	65	Yes	
WEST BENGAL	Thermal	WBPDC	SS	Bandel TPS	1	82.5	No	
			SS		2	82.5	No	
			SS		3	82.5	No	
			SS		4	82.5	No	
			SS		5	210	No	
			SS	Santalidih	5	250	No	Unit#6 could not be implemented because of some technical problem
			SS		6	250	No	
			SS	Kolaghat	1	210	No	Nil
			SS		2	210	No	Nil
			SS		3	210	No	Nil
			SS		4	210	No	Nil
			SS		5	210	No	Nil
			SS		6	210	No	Nil
			SS	Bakreshwar	1	210	Yes	
			SS		2	210	Yes	
			SS		3	210	Yes	
			SS		4	210	Yes	
			SS		5	210	Yes	
			SS	Sagardighi	1	300	No	Without OEM support it is not possible to put in FGMO/RGMO. At present OEM support is not
			SS		2	300	No	
	Hydro		SS	PPSP	1	225	Yes	In 134th OCC WBPDC informed that the units are in RGMO/FGMO mode
			SS		2	225	Yes	
			SS		3	225	Yes	
			SS		4	225	Yes	
	Thermal	CESC	SS	Budge-Budge	1	250	Yes	
			SS		2	250	Yes	
			SS		3	250	Yes	
			SS	Haldia	1	300	Yes	
			SS		2	300	Yes	
	Thermal	DPL	SS	DPL	7	300	Yes	
Orissa		OPGC	SS	IB TPS	1	210	No	Not adequate response in RGMO
			SS		2	210	No	
	Hydro	OHPC	SS	Burla	1	49.5	No	
			SS		2	49.5	No	
			SS		3	32	No	
			SS		4	32	No	
			SS		5	37.5	No	
			SS		6	37.5	No	
			SS		7	37.5	No	
			SS	Balimela	1	60	No	
			SS		2	60	No	
			SS		3	60	No	
			SS		4	60	No	
			SS		5	60	No	
			SS		6	60	No	
			SS		7	75	No	
			SS	Rengali	8	75	No	
			SS		1	50	No	
			SS		2	50	No	
			SS		3	50	No	
			SS		4	50	No	
			SS		5	50	No	
			SS	Upper Kolab	1	80	No	
			SS		2	80	No	
			SS		3	80	No	
			SS		4	80	No	
			SS		1	150	No	

			SS	Indravati	2	150	No			
			SS		3	150	No			
			SS		4	150	No			
			64							
Central Sector	Thermal	DVC	CS	Bokaro-A	1	500	No	RGMO will be service once the unit comes in CMC mode of operation. It will be done shortly in presence of BHEL experts.		
			CS	Bokaro-B	1	210	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.		
			CS		2	210	No			
			CS		3	210	No			
			CS	CTPS	2	140	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.		
			CS		3	140	No			
			CS		7	250	Yes			
			CS	8	250	Yes				
			CS	DTPS	4	210	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.		
			CS	Mejia	1	210	No	Not possible due to non availability of Electro		
			CS		2	210	No			
			CS		3	210	No	Action has been initiated to put in RGMO, but testing is not yet completed.		
			CS		4	210	Yes			
			CS		5	250	Yes			
			CS		6	250	Yes			
			CS	Mejia - B	7	500	Yes			
			CS		8	500	Yes			
			CS	DSTPS	1	500	Yes			
			CS		2	500	Yes			
			CS	KODERMA	1	500	Yes			
			CS		2	500	Yes			
			CS	RTPS	1	600	Yes			
			CS		2	600	Yes			
			CS	Panchet	1	40	No	RGMO mode of operation would not be possible for		
			CS		2	40	No			
			Thermal	NTPC	CS	Farakka STPP-I	1	200	Yes	
					CS		2	200	Yes	
					CS		3	200	Yes	
					CS	Farakka STPP-II	1	500	Yes	
					CS		2	500	Yes	
					CS	Farakka-U#6		500	Yes	Kept in RGMO mode from April, 2014
					CS	Kahalgoan STPP	1	210	Yes	
					CS		2	210	Yes	
					CS		3	210	Yes	
					CS		4	210	Yes	
	CS	5			500		Yes			
	CS	6			500		Yes			
	CS	7			500		Yes			
	CS	Talcher STPP Stg-I			1	500	Yes			
	CS				2	500	Yes			
	CS	Barh			5	660	Yes			
	CS	Barh			6	660	Yes			
	Hydro	NHPC	CS	Teesta HEP	1	170	Yes			
			CS		2	170	Yes			
			CS		3	170	Yes			
			45							
Thermal	IPP	PS	Maithon RB TPP	1	525	Yes				
		PS		2	525	Yes				
		PS	Sterlite	1	600	Yes				
		PS		2	600	Yes				
		PS		3	600	Yes				
		PS		4	600	Yes				
		PS	Adhunik Power	1	270	Yes				
		PS		2	270	Yes				

IPP

Hydro	IPP	PS	JLHEP	1	48	No	(RoR project with 3 hours pondage)
		PS		2	48	No	
		PS	Chujachen HEP	1	49.5	No	(RoR project with 3 hours pondage)
		PS		2	49.5	No	
		PS	Teesta Urja	1	200	No	could be put in RGMO mode but because of transmission evacuation constraint RGMO/FGMO is disabled
		PS		2	200	No	
		PS		3	200	No	
		PS		4	200	No	
		PS		5	200	No	
		PS		6	200	No	
		PS	Dikchu	1	48	No	(RoR project with 3 hours pondage)
		PS		2	48	No	

Annexure-B36

Generation Projection (Jan 2018 - Mar 2018)																	
				Generation declared Commercial from 1st Apr '17 to 30th Sep'17					Generation declared/expected to be declared Commercial from 1st Oct'17 to 31st Dec'17								
Sl. No.	Entities	Region	Projections based on 3 Years Data	Bus Name	Unit No.	Installed Capacity	Gen. considered	Sub Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Sub Total	TOTAL	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Projected Generation before normalization w.r.t projected All India Peak Demand
			(MW)			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)	(MW)			(MW)
1	West Bengal	ER	5065											5065			5065
2	Odisha	ER	2884											2884	As per data given by GRIDCO	3144	3144
3	Bihar	ER	153											153			153
4	Jharkhand	ER	444											444			444
5	Sikkim	ER	0											0			0
6	Chujachan	ER	94											94	As per data given by Chuzachen	110	110
7	DVC	ER	3975											3975	As per data given by DVC	4087	4087
	Durgapur Steel	ER															
	Koderma TPP	ER															
	Bokaro TPS	ER															
	Raghunathpur	ER															
8	MPL	ER	1022											1022	As per last quarter	990	990
9	Teesta V	ER	541											541	As per NHPC	510	510
10	Kahalgaoon	ER	2196											2196	As per NTPC	2178	2178
11	Farakka	ER	1928											1928	As per NTPC	1968	1968
12	Talcher	ER	976											976			976
13	Rangit	ER	64											64	As per NHPC	60	60
14	Adhunik Power	ER	506											506			506
15	Barh	ER	1274											1274	As per NTPC	1057	1057
16	Kamalanga TPP (GMR)	ER	678											678			678
17	JITPL	ER	839											839			839
18	Jorethang	ER	63											63			63
19	Bhutan	ER	327											327			327

Generation Projection (Jan 2018 - Mar 2018)																	
				Generation declared Commercial from 1st Apr '17 to 30th Sep'17					Generation declared/expected to be declared Commercial from 1st Oct'17 to 31st Dec'17								
Sl. No.	Entities	Region	Projections based on 3 Years Data	Bus Name	Unit No.	Installed Capacity	Gen. considered	Sub Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Sub Total	TOTAL	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Projected Generation before normalization w.r.t projected All India Peak Demand
			(MW)			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)	(MW)			(MW)
20	Teesta-III	ER		Teesta-III	1	200	158	950						950			950
		ER		Teesta-III	2	200	158										
		ER		Teesta-III	3	200	158										
		ER		Teesta-III	4	200	158										
		ER		Teesta-III	5	200	158										
		ER		Teesta-III	6	200	158										
21	Dikchu HEP	ER							Dikchu	1	48	38	76	76			76
		ER							Dikchu	2	48	38					
22	Nabinagar BRBCL	ER		Nabinagar BRBCL	1	230	151	151	Nabinagar BRBCL	2	230	151	151	301			301
	TOTAL		23028					1101					227	24356			24483

Note:

- Projections are based on monthly maximum injection in the last 3 years from actual metered data.
- Generation forecast has been done based on the following criteria
 - If there is an increasing trend then last year average generation has been considered
 - Otherwise average of past three year average generation has been considered
- In case of new generators where past data was not available following has been assumed
 - 0.80 plf for hydro generators
 - 0.7 plf for thermal generators.
 - 0.3 plf for gas stations

DEMAND FORECAST USING PAST 3 YEARS DATA (Jan 2018 - Mar 2018)															
										1	2	3	4	Data given by DICs	Comments
	2014-15			2015-16			2016-17								
	Jan-15	Feb-15	Mar-15	Jan-16	Feb-16	Mar-16	Jan-17	Feb-17	Mar-17	2014-15 Average	2015-16 Average	2016-17 Average	Projected Demand for (Jan 2018 - Mar 2018) before normalization		
Bihar	2,602	2,830	2,874	3,484	3,278	3,419	3,535	3,543	3,715	2,769	3,394	3,598	4,082		
DVC	2,467	2,320	2,393	2,421	2,381	2,473	2,457	2,570	2,663	2,393	2,425	2,563	2,631	2960	As per data given by DVC
Jharkhand	1,018	1,016	1,007	1,117	1,102	1,153	1,121	1,165	1,148	1,014	1,124	1,145	1,225		
Odisha	3,364	3,525	3,892	3,739	3,931	4,091	3,896	3,847	3,989	3,594	3,920	3,911	4,125	4002	As per data given by GRIDCO
West Bengal	6,317	6,721	7,332	6,240	6,858	7,443	6,078	7,036	7,840	6,790	6,847	6,985	7,069		
Sikkim	83	83	77	109	109	109	91	91	91	81	109	91	104		

Notes

1. Projections are based on the past 3 years' monthly Peak Demand Met data available on the website of CEA
2. The above projections are being done for financial year 2017-2018 (Q4) i.e. January 2018 to March 2018
3. Projections are being done based on the forecast function available in MS Office Excel
4. CEA Reports can be accessed from the following links:
http://www.cea.nic.in/reports/monthly/powersupply/2017/psp_peak-03.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2017/psp_peak-02.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2017/psp_peak-01.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2016/psp_peak-01.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2016/psp_peak-02.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2016/psp_peak-03.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-03.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-02.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-01.pdf

**Anticipated Power Supply Position for the month of
Dec-17**

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
1	BIHAR		
i)	NET MAX DEMAND	3800	2200
ii)	NET POWER AVAILABILITY- Own Source (including bilateral)	341	163
	- Central Sector	2647	1537
iii)	SURPLUS(+)/DEFICIT(-)	-812	-500
2	JHARKHAND		
i)	NET MAX DEMAND	1250	800
ii)	NET POWER AVAILABILITY- Own Source (including bilateral)	410	269
	- Central Sector	501	285
iii)	SURPLUS(+)/DEFICIT(-)	-339	-246
3	DVC		
i)	NET MAX DEMAND (OWN)	2760	1712
ii)	NET POWER AVAILABILITY- Own Source	4774	2689
	- Central Sector	439	300
	Long term Bi-lateral (Export)	1300	967
iii)	SURPLUS(+)/DEFICIT(-)	1153	310
4	ORISSA		
i)	NET MAX DEMAND	4000	2418
ii)	NET POWER AVAILABILITY- Own Source	3117	1676
	- Central Sector	1037	644
iii)	SURPLUS(+)/DEFICIT(-)	154	-98
5	WEST BENGAL		
5.1	WBSEDCL		
i)	NET MAX DEMAND (OWN)	5315	2649
ii)	CESC's DRAWAL	0	0
iii)	TOTAL WBSEDCL's DEMAND	5315	2649
iv)	NET POWER AVAILABILITY- Own Source	3663	1813
	- Import from DPL	63	0
	- Central Sector	1739	1046
v)	SURPLUS(+)/DEFICIT(-)	151	210
vi)	EXPORT (TO B'DESH & SIKKIM)	10	7
5.2	DPL		
i)	NET MAX DEMAND	235	181
ii)	NET POWER AVAILABILITY	298	132
iii)	SURPLUS(+)/DEFICIT(-)	63	-49
5.3	CESC		
i)	NET MAX DEMAND	1590	733
ii)	NET POWER AVAILABILITY - OWN SOURCE	670	384
	FROM HEL	530	339
	FROM CPL/PCBL	0	0
	Import Requirement	390	30
iii)	TOTAL AVAILABILITY	1590	753
iv)	SURPLUS(+)/DEFICIT(-)	0	20
6	WEST BENGAL (WBSEDCL+DPL+CESC) (excluding DVC's supply to WBSEDCL's command area)		
i)	NET MAX DEMAND	7140	3563
ii)	NET POWER AVAILABILITY- Own Source	4631	2330
	- Central Sector+Others	2659	1385
iii)	SURPLUS(+)/DEFICIT(-)	151	151
7	SIKKIM		
i)	NET MAX DEMAND	90	38
ii)	NET POWER AVAILABILITY- Own Source	3	2
	- Central Sector+Others	82	51
iii)	SURPLUS(+)/DEFICIT(-)	-5	14
8	EASTERN REGION		
	At 1.03 AS DIVERSITY FACTOR		
i)	NET MAX DEMAND	18486	10731
	Long term Bi-lateral by DVC	1300	967
	EXPORT BY WBSEDCL	10	7
ii)	NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	20641	11330
iii)	PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	846	-375

Proposed Maintenance Schedule of Thermal Generating Units of ER during December, 2017
(as finalised in LGBR meeting)

System	Station	Unit	Size (MW)	Period		No. of Days	Reason
				From	To		
ODISHA WBPDC	MTPS	1	210	01.12.17	17.12.17	17	Burner Replacement
		8	500	24.12.17	08.01.18	16	Burner Replacement
	TTPS	6*	110	03.12.17	22.12.17	20	Boiler Overhaul
	KTPS	5	210	17.12.17	23.12.17	7	Boiler License
	Bandel TPS	5**	210	01.12.17	30.12.17	30	Boiler Overhauling
	Sagarighi	2	300	01.12.17	05.01.18	36	Capital Overhauling
CESC	BUDGE- BUDGE	1	250	19.12.17	08.01.18	21	Not Specified
	TITAGAR	1	60	05.12.17	08.12.17	4	Not Specified
	H	3	60	13.12.17	03.01.18	22	Not Specified
DPL	DPPS	7	300	15.12.17	31.12.17	17	Boiler License Renewal

पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड
(भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED
(A Government of India Enterprise)



पूर्वी क्षेत्रीय भार प्रेषण केन्द्र, 14, गोल्फ क्लब रोड, टॉलियगुंज, कोलकाता - 700 033
दूरभाष : 033 2423 5867/5875, फैक्स : 033 2423 5809/5704/5029, ई-मेल : erldc@posoco.in / www.erldc.org
EASTERN REGIONAL LOAD DESPATCH CENTRE, 14, Golf Club Road, Tollygunge, Kolkata - 700 033
Tel. : 033 2423 5867/5875, Fax : 033 2423 5809/5704/5029, E-mail : erldc@posoco.in / www.erldc.org

ERLDC/SS & MIS/2017/VDI/4617

Date: 01-11-17

To,

Member Secretary
Eastern Regional Power Committee
14, Golf Club Road, Kolkata – 33

Sub: Reporting of voltage deviation indices (VDI) for selected Substations in ER, for October 2017.

विषय: October 2017 के लिए पूर्वी क्षेत्र में चयनित सबस्टेशन के लिए वोल्टेज विचलन सूचकांक (VDI) की रिपोर्टिंग

Sir/ महोदय,

Enclosed please find VDI for selected 765 & 400kV buses of Eastern Region, computed for the month of October, 2017, for deliberation in next OOC meeting of ERPC.

संलग्न ERPC की अगली OCC बैठक में विचार विमर्श के लिए, October, 2017 के लिए गणना की गई पूर्वी क्षेत्र के चयनित 765 और 400 केवी बसों के लिए VDI को दूँदें।

आपको धन्यवाद,

आपका विश्वस्त / Yours faithfully,

(पी मुखोपाध्याय) / (P Mukhopadhyay)
कार्यकारी निदेशक/ Executive Director

VDI of Selected 765 kV & 400 kV in Eastern Region in the month of October - 2017

नई राँची / Ranchi New			जमशेदपुर / Jamshedpur			मुजफ्फरपुर / Muzaffarpur		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
798	769	0.00	434	416	98.14	417	385	0.00

बिहार शरीफ / Bihar Sariff			बिनागुरी / Binaguri			जीरत / Jeerat		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
419	397	0.00	425	399	1.88	427	381	10.16

राउरकेला / Rourkela			जयपुर / Jeypore			कोडरमा / Koderma		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
419	408	0.00	418	387	0.00	422	407	0.42

मैथन / Maithon			तीस्ता / Teesta			रंगपो / Rangpo		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
420	403	0.00	418	396	0.00	418	394	0.00