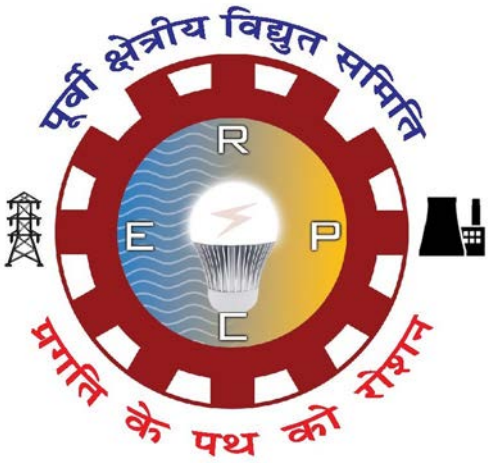

Minutes

of

121st OCC Meeting

Date: 07.06.2016

Eastern Regional Power Committee

14, Golf Club Road, Tollygunge

Kolkata: 700 033

Eastern Regional Power Committee

Minutes of 121st OCC Meeting held on 20th May, 2016 at ERPC, Kolkata

List of participants is at **Annexure-A.**

Item no. 1: Confirmation of minutes of 120th OCC meeting of ERPC held on 28.04.2016

The minutes of 120th OCC meeting were uploaded in ERPC website and circulated vide letter dated 11.05.2016 to all the constituents.

Members may confirm the minutes.

Deliberation in the meeting

ERLDC requested to delete the following para from Item No. B9.

"ERLDC informed that SPS operation could not be treated as grid disturbance."

Members confirmed the minutes of 120th OCC Meeting with the above amendment.

PART A

(List of Items to be discussed for which the details are given at "Part B")

B.1. Commissioning of new transmission elements in Eastern Region
B.2. Status of projects funded under PSDF schemes
B.3. Load and Generation Data for Operational Load Flow study for implementation of Protection Database project
B.4. Sale of Un-Requisitioned Surplus (URS) Power by generators (covered under Sec.62 of IE Act) to the market through Power Exchanges
B.5. Removal of220/132 kV, 100 MVA ICT from parallel operation with 160 MVA ICT at Purnea S/s--- Powergrid
B.6. Mis-declaration of DC by Barh, NTPC – ERLDC
B.7. Tripping of JITPL unita due to disturbance at Meramundali S/s --- JITPL
B.8. Status of UFRs healthiness installed in Eastern Region
B.9. Healthiness of SPS existing in Eastern Region
B.10. Status of Islanding Schemes of Eastern Region
B.11. Restoration of PLCC system of important lines
B.12. Status update of previous decisions/follow up actions
B.13. Third Party Protection Audit
B.14. Inspection of UFR relays
B.15. Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN
B.16. Certification through BIS as per IS 18001:2007 to all generating/ transmission units
B.17. Energy Generation data management from Renewable Energy Sources
B.18. Compilation of data for meeting Renewable Energy targets of 175 GW by 2020 -- Reference from MNRE
B.19. Data of Peak Demand – Submission of hourly power cut data
B.20. Recovery Procedures of ER Constituents – ERLDC
B.21. Nodal coordinators for web based scheduling software
B.22. Dynamic data of Generator Models required in PSSE for Simulations
B.23. Long outage of important transmission lines

B.24. Discrepancy related to input to PMU voltage measurand
B.25. Transfer capability determination by the states -- Agenda by NPC
B.26. Reasons for demand –supply gap and its variation -- Agenda by NPC
B.27. Update on status of telemetry
B.28. Status of Disturbance Recorder, Stand alone Event Logger and Time Synchronization equipment.
B.29. Status of Emergency Restoration System (ERS Towers) for Eastern Region constituents
B.30. Ratification of projected Generation and Demand data of ER constituents for POC charges/losses calculations for Q2(2016-17)
B.31. Pollution mapping for Eastern Region
B.32. Erroneous recording of data by Interface Meters
B.33. Non Receipt of SEM data from Various Locations
B.34. Outstanding payment towards construction of bay at Biharsharif (PG) sub-station for 400kV Biharsharif-Tenughat line
B.35. Mock Black start exercises in Eastern Region
B.36. Restricted Governor Mode of Operation
B.37. Reactive Power performance of Generators and GT tap position optimization

PART B: ITEMS FOR DISCUSSION

(Items to be discussed as listed in "Part A")

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.

The list of new Transmission Elements commissioned/charged during **April, 2016** as informed by ERLDC & WBSETCL is given below:

1. 765kV Gaya-Varanasi-II was taken into service for the first time at 17:20hrs of 19/04/16.
2. 132 kV main bus of Ujanu S/s charged on 02.04.16 at 13:10 Hrs with 132 kV Siliguri-Ujanu (5.5 Km) line (which is LILO of 132 kV NBU- Siliguri line at Ujanu).
3. 132 kV Ujanu-NBU line (4.5 km) line charged on 02.04.16 at 13:23 Hrs.
4. 132/33 kV, 31.5 MVA Transformer-I was charged and loaded on 02.04.16 at 13:15 Hrs.

Other constituents may update (if any).

Deliberation in the meeting

OPTCL updated the following

1. *132 kV Atri-Argul D/C line charged on 29th April, 2016.*

Item No. B.2: Status of projects funded under PSDF schemes

In the PSDF review meeting held on 29.04.16 at N. Delhi, 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 table given below:

SN	Name of Constituent	Name of Project	Date of approval from PSDF	Target Date of Completion	Amount approved	Amount drawn till date	Status

Constituents may update.

Deliberation in the meeting

*WBSETCL submitted the requisite information which is attached at **Annexure-B.2**.*

OCC advised all other the constituents to send the requisite information to ERPC Secretariat at the earliest as per the format.

Item No. B.3: Load and Generation Data for Operational Load Flow study for implementation of Protection Database project.

As discussed during first and second implementation meetings of Protection Database Project, PRDC requires following data from all substations of ER (765 kV to 132 kV with 66 kV in Sikkim including RLY substations and HVDC substations) and generating stations of ER :

1. Transformer Load readings in MW , MVAR for substations
2. Incoming and Outgoing feeder flows in MW MVAR (scada snapshots if available from SLDC) for substations
3. Bus Voltage Profile (SCADA snapshots if available) for substations
4. Capacitor and Reactor flows in MVAR
5. Scheduled generation sent out in MW MVAR from all Generating plants including IPPS and CPPs
6. Inter-regional / country import export in MW MVAR

This data is required for a particular date and time instant during peak hours.

It was observed from ERLDC data that the peak demand recorded for ER grid is 18395 MW on 9th. May 2016 at 19:00 hrs. The corresponding data for this instant is preferred for the study. However, members may select any other preferable date and peak instant for May 2016 for the constituent data.

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Members may discuss and finalize.

Deliberation in the meeting

OCC decided that all the utilities of Eastern Region will collect the power flow snap shot of the Eastern Region for two instants i.e. on 20:00 Hrs of 26.05.2016 & 27.05.2016 in the desired format and send it to ERPC (e-mail: mserpc-power@nic.in).

Item No. B.4: Sale of Un-Requisitioned Surplus (URS) Power by generators (covered under Sec.62 of IE Act) to the market through Power Exchanges

As per letter from MOP Dtd.09/05/16 (attached at **Annexure-B.4**), it has been intimated that the State Discoms can identify the Generating Stations (which are covered under section 62 of the Electricity Act'03) for un-requisitioned power and communicate accordingly to respective Generating Stations, specifying the quantum of power and duration of non-requisition, at least 24 hrs in advance of the start of scheduling from 00.00 hrs of the day for which power is not required. Further, State Discoms shall also give consent to the respective Generating Stations/

Companies for sale of such URS power in the market through Power Exchange. If such power is offered by the Generating Company/ ies and is sold in the market, then the sharing of gains shall be applicable, as per the provisions of Tariff policy.

Beneficiaries of the relevant generating stations may note and confirm regarding furnishing of such consent to facilitate sale of URS which remains unutilized

Members may discuss.

Deliberation in the meeting

OCC advised all the constituents to consider the above proposal and ensure that there should not be any un-utilized surplus power in the region.

Members noted.

Item No. B.5: Removal of220/132 kV, 100 MVA ICT from parallel operation with 160 MVA ICT at Purnea S/s--- Powergrid.

During augmentation of 100 MVA ICTs with 160 MVA ICTs at Purnea sub-station, one no. 100 MVA ICT was placed in parallel with 160 MVA ICT-3. Now all the three 100 MVA ICTs have been already augmented with 160 MVA ICTs at Purnea S/S. For placing the 100 MVA ICT in parallel, 2 sets of ERS was also placed which needs to be dismantled in view of onset of summer season.

In view of above it is proposed that the 100 MVA ICT which is in parallel with 160MVA ICT-3 alongwith utilized ERS may be removed from service. For this work 6 days shutdown of 160MVA ICT-3 is required from 09.06.2016 to 14.06.2016 on continuous basis.

Members may discuss.

Deliberation in the meeting

BSPTCL informed that shutdown of 160MVA ICT-3 is not possible now and requested Powergrid to differ the schedule till Nepal Hydro power is available in the Monsoon.

Item No. B.6: Mis-declaration of DC by Barh, NTPC -- ERLDC

Barh, NTPC had declared its DC for the day 10th May, 2016 as 640 MW from Blk 1 to Blk 96. ERLDC vide Message no: 22175 at 18:15 Hr dated 10th May, 2016 had requested Barh, NTPC to demonstrate their DC of 640 MW for two blocks as per IEGC clause 6.4.19 from 74 BLk onwards. Accordingly Barh had increased its generation but maximum generation achieved was around 607 MW to 608 MW during Blk 77 to 78. Considering the ramp rate of 50 MW per minute with effective from 75th block if Barh had increased its generation then Barh should have been achieved its generation as per DC of 640 MW at around 78th block. Considering this at 19:46 Hr vide message no: 22176 dated 10th May, 2016 ERLDC had issued message to Barh regarding its failure to demonstrate its declared DC of 640 MW and hence maintain its generation as per its schedule for the rest of the blocks. This case may be considered as mis-declaration of DC.

Members may discuss.

Deliberation in the meeting

NTPC was advised to submit the reasons for failure to demonstrate its declared DC of 640 MW on 10th May, 2016 for further deliberation.

OCC advised all the concerned beneficiaries of Barh to communicate their comments on the issue for further course of action.

Item No. B.7: Tripping of JITPL unita due to disturbance at Meramundali S/s --- JITPL.

JITPL vide letter dated 13.05.16 informaed that on 10.05.2016 at 16:44 Hrs. JITPL Unit#1 tripped at around 16:44 Hrs. Heavy voltage dip was observed at JITPL plant. The reason for the same is reported to be the disturbance in the Grid system at Meramundali sub-station. JITPL unit#2 was already out of service. It is also collected that GMR units tripped at the same time due to same reason.

The tripping of the unit has caused heavy loss to JITPL in the form of DSM & costs in bringing up the unit. JITPL requested to discuss the issue in ensuing OCC and make JITPL schedules equal to actual during this period for dated 10.05.2016 as per IEGC 6.5.17 and also discuss the compensation for other losses accruing out of tripping of the unit.

Members may discuss.

Deliberation in the meeting

After detail deliberation, OCC commented that revision of schedule in the above cases is not possible as per the Regulation.

Item No. B.8: Status of UFRs healthiness installed in Eastern Region

UFR Healthiness Certification for the month of April, 2016 has been received from WBSETCL, CESC and OPTCL only.

Members may update.

Deliberation in the meeting

DVC, JUSNL & BSPTCL submitted the UFR Healthiness Certificate.

Item No. B.9: Healthiness of SPS existing in Eastern Region

Vedanta, CESC & GMR have submitted the healthiness certificate for the month of April, 2016.

NTPC (TSTPS), JITPL, Powergrid-Odisha, Powergrid ER-II & Chuzachen may submit the healthiness certificate for April, 2016.

Respective members may update.

Deliberation in the meeting

The healthiness certificate for SPS have been received from JITPL, Powergrid-Odisha, Powergrid ER-II & Chuzachen.

Item No. B.10: Status of Islanding Schemes of Eastern Region

B.10.1: 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

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

The healthiness certificate for Islanding Scheme for April, 2016 has been received from BkTPS, Tata Power and CESC.

CTPS, DVC may submit the healthiness certificate.

Deliberation in the meeting

The healthiness certificate for Islanding Scheme has been received from DVC.

B.10.2: FSTPS Islanding Scheme, NTPC

In 118th OCC, NTPC informed that their part is ready for implementation.

Powergrid informed that the battery charger has been delivered and expected to complete the work by March, 2016.

In 119th OCC, Powergrid informed that the battery charger has been delivered to site and for commissioning with deputation of service engineer JUSNL has to ensure the supply of materials which are in the scope of JUSNL.

OCC advised JUSNL to coordinate with Powergrid and arrange the required materials/works which are in the scope of JUSNL. JUSNL agreed.

In 120th OCC, JUSNL informed that the required materials/works have been arranged, Powergrid may start the commissioning work.

OCC advised Powergrid to complete the work at the earliest.

NTPC/Powergrid may update.

Deliberation in the meeting

Powergrid informed that official confirmation for the readiness of site/material availability by JUSNL is still awaited.

OCC advised JUSNL to give official correspondence regarding their readiness and co-ordinate for early commissioning of the Islanding scheme.

B.10.3: Bandel Islanding Scheme, WBPDCL

The islanding scheme has been placed before 31st TCC Meeting for further concurrence and in 31st TCC/ERPC meetings, members agreed and advised WBPDCL to go ahead with the implementation of islanding scheme.

On the advice of subsequent OCCs, WBSETCL gave a detailed presentation of the islanding scheme and explained that additional load is included for winter season (December to February months) to improve the reliability of the islanding scheme.

WBSETCL was appreciated for detailed analysis and WBPDCL was advised to go ahead with the implementation.

In 120th OCC, WBPDCL informed that the islanding scheme will be implemented by December, 2016.

Subsequently, in the PSDF review meeting held on 29.04.16 in Delhi with Joint Secretary(OM), MOP, GOI in Chair, ERPC placed a proposal for funding the Bandel Islanding scheme from

PSDF. The review committee informed that such type of islanding scheme is now being funded by PSDF and therefore Bandel Islanding Scheme also can be included.

Accordingly, WBPDCL was requested to place the detail proposal for PSDF funding to nodal agency NLDC witha a copy to ERPC at the earliest so that the road map is strictly adhered to.

The DPR for PSDF funding is under preparation by WBPDCL.

WBPDCL may update the latest status.

Deliberation in the meeting

WBPDCL informed that DPR for PSDF funding is under preparation.

Item No. B.11: Restoration of PLCC system of important lines

In 119th OCC, JUSNL informed that the following:

a) In 220 KV Chandil –Ramchandrapur line auto-reclosure has been enabled and linked with PLCC panels on 09.03.16.
b) In 220 KV Chandil –Ranchi line auto-reclosure has been enabled and termination done in PLCC panels (Auto-reclosure will be in service after testing of PLCC scheduled on 22.03.16)
c) In 220 KV Chandil –Santaldih line auto-reclosure has been enabled and termination done in PLCC panels at Chandil end but due to non-availability of PLCC panels at Santaldih(WBPDCL) end the A/R and PLCC scheme could not be activated.
d) In 220 KV Ramchandrapur-Joda line auto-reclosure has been enabled and termination done in PLCC panels at Ramchandrapur end but due to non-availability of PLCC panels at Joda (OPTCL) end the A/R and PLCC scheme could not be implemented.

Further, it was informed that JUSNL is ready to share their standby PLCC panels (BPL make) with WBPDCL (for Snataldih end) and OPTCL (for Joda end) to complete the PLCC schemes of both the above lines.

OCC advised WBPDCL and OPTCL to accept the JUSNL offer and implement the PLCC scheme at the earliest for both the 220 kV lines.

Subsequently, JUSNL vide letter dated 13.04.2016 has asked for consent of OPTCL and WBPDCL for cost estimate details for further needful action.

In 120th OCC, WBPDCL informed that they are in receipt of the JUSNL letter and the decision of their higher authority will be communicated soon.

OPTCL informed that they have some queries regarding the AMC of the PLCC panels as these were purchased in 2006. They will communicate their queries to JUSNL.

OPTCL vide letter dated 30.04.16 has communicated JUSNL that the PLCC set should be commissioned & under AMC of the manufacturer for trouble free and reliable service. Copy of letter is enclosed at **Annexure-B.11**.

JUSNL & WBPDCL may update.

Deliberation in the meeting

OCC advised WBPDCL to settle the issue at earliest.

OCC also advised JUSNL to respond to the queries of OPTCL and WBPDCL at the earliest.

OPTCL vide mail dated 16.03.2016 informed the PLCC communication status of the important links under OPTCL as follows:

1. Jeypore(PG)-Jayanagar (Commn. in OPGW exists)
2. Rourkela(PG)-Tarkera (Commn. in OPGW exists)
3. Rengali(PG)-Rengali S/Y (Proposal for Commn. in OPGW is pending)
4.Indravati(PG)-Indravati(PH) (Proposal for Commn. in OPGW pending)
5.Baripada(PG)-Baripada (Tendering in Progress for OPGW)
6.Baripada(PG)-Rairangpur (Tendering in Progress for OPGW)

BSPTCL and WBSETCL may place their roadmap for restoration of PLCC for important lines using their own resources.

Deliberation in the meeting

OCC advised BSPTCL and WBSETCL to place the roadmap for restoration of PLCC system.

Item No. B.12: Concerned members may update the latest status.

B.12.1. Commissioning of 400 kV Ind-Bharath to Jharsuguda D/C (dedicated line)

In 120th OCC, IBEUL updated the status as follows:

- All the 125 towers foundations have been completed and 125 have been erected.
- Due to route alignment one tower (i.e. 126th tower) has been increased which is under construction.
- Stringing work of 36.81 km out of 39.74 km line has been completed.
- The bay work at 400 kV Jharsuguda (Kenapalli) S/s has also been completed.
- The line will be commissioned by May, 2016.

Ind-Bharath may update the latest status.

Deliberation in the meeting

Ind-Bharath informed that the line will be commissioned by end of June, 2016.

B.12.2. Status of construction of 400 kV Sterlite-Jharsuguda D/C sections

In 31st TCC/ERPC followed by 115th OCC Vedanta informed that out of 66 tower foundations, 21 have been completed and rest is expected to be completed by December, 2015. Commissioning of line is expected by 15 April, 2016.

32nd TCC advised Vedanta to strictly adhere to the schedule.

In 118th OCC, advised Vedenta to adhere the decision of 32nd TCC/ERPC and complete the line by April, 2016.

In 119th OCC, Vendanta informed that 44 out of 66 foundations and installation of six towers have been completed.

Vendanta vide mail dated 15.04.16 submitted the progress report of Vedanta-Jharsuguda 400KV D/C Line as on 15/04/2016 and updated thethat 44 out of 66 foundations and installation of seven towers have been completed.

In 120th OCC, Vedanta updated that 45 out of 66 foundations and installation of seven towers have been completed. OCC put doubt on completion of the line by 30th April, 2016. OCC referred the issue to 33rd TCC.

Vedanta may update.

Deliberation in the meeting

Vedanta updated that 46 out of 66 foundations and installation of seven towers have been completed. OCC referred the issue to 33rd TCC.

B.12.3. Status of construction of Chuzachen bay at Rangpo S/s.

In 32nd TCC, Sikkim informed that the cost estimate from Powergrid was received recently and therefore after studying the same tendering will be done tentatively within a month.

In 118th OCC, Sikkim informed that tender would be floated by March, 2016 and work award will be issued by April, 2016.

Sikkim may update.

Deliberation in the meeting

Sikkim representative was not available for discussion.

B.12.4. Non-availability of Tie bay of 400kV Sagardighi-Behrampore-II

The issue was being deliberated in last few OCCs. In 118th OCC, WBPDCL informed that the work has been delayed due to some problem of vendors.

ERLDC informed that 400 kV Sagardighi- Bahrampore D/C line is an important link for power transfer to Bangladesh and in case of undesired tripping due to non-availability of tie bay of this line the power transfer to Bangladesh may get affected.

OCC felt that the tie bay is very important for system reliability as power export to Bangladesh is expected to be enhanced to 1000 MW soon.

OCC advised WBPDCL to commission the tie bay at the earliest. WBPDCL agreed.

In 119th OCC, WBPDCL informed that a joint meeting was convened with Alstom and BHEL for completion of the work. The work is expected to be completed by March/April, 2016.

WBPDCL may update.

Deliberation in the meeting

WBPDCL informed that they are availing shutdown from tomorrow to complete the work and it is expected to be completed within 3-4 days.

B.12.5. Non availability of both line Reactors of 400KV Malda-Purnea D/C

In 120th OCC, Powergrid informed that Reactor-2 has been charged and Reactor-1, will be brought into service by September, 2016.

Powergrid may update.

Deliberation in the meeting

Powergrid informed that order has been placed for Reactor-1 and it will be commissioned by September, 2016.

B.12.6. Status of Bus Splitting schemes in Eastern Region

A. Bus Splitting of Powergrid Sub-stations

In 11th SCM held on 20.09.2010 the bus-splitting arrangement with tie line breaker for the following 400kV substations in Eastern Region was agreed to contain the short circuit level below 40kA.

- Maithon
- Durgapur
- Biharshariff
- Kahalgaon

In 118th OCC, Powergrid updated the status as follows:

- Maithon ---Completed
- Durgapur--Completed
- Biharshariff—Foundation work has been completed but shutdown are yet to be received to complete the work.

Powergrid may update.

Deliberation in the meeting

Powergrid informed that they are not getting shutdown to complete the work at 400kV Biharshariff S/s.

BSPTCL informed that shutdown for 400kV Biharshariff S/s is not possible before September, 2016.

B. 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 119th OCC, NTPC has given the present status as follows:

- 400/132kV Switchyard package - bid opened on 14.03.16. Award by 31.03.2016.
- Site levelling – Site package awarded, expected to be completed by May, 2016.
- Transformer package – tendering under process and will be awarded by April, 2016.

In 120th OCC, NTPC updated that Transformer package will be awarded by May, 2016.

NTPC may update.

Deliberation in the meeting

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 package awarded, expected to be completed by June, 2016.*
- *Transformer package – Techno commercial under evolution. Price bid will be opened by 1st week of June, 2016.*

B.12.7. 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 118th 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-Kesinga220 kV D/C line at Bolangir S/S	5 out of 14 completed. Dec, 2015 (Severe ROW problem)
b.	LILO of one circuit of Katapalli-Sadeipalli220 kV D/C line at Bolangir S/S	**Ready for charging**
2.	**400/220 kV Keonjhar S/S**	
a.	Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line	Work order to be issued by February, 2016
b.	Keonjhar (PG)-Turumunga(OPTCL) 220kV D/C line	Yet to be awarded
3.	**400/220kV Pandiabil Grid S/s**	
a.	Pratapsasan(OPTCL)-Pandiabil (PG) 220 kV D/C line	It will take 1 year for completion.
b.	LILO of one circuit of Atri-Puri (Samangara) 220 kV D/C line at Pandiabil (PG)	**May, 2016**

In 119th OCC, OPTCL informed that LILO of one circuit of Katapalli-Sadeipalli220 kV D/C line at Bolangir S/S is ready for charging but the PLCC work is expected to be completed by another one month.

OPTCL requested for charging the line with modified zone-I reach setting at 100% of the line.

OCC felt that OPTCL may charge the line in coordination with Powergrid with 100% reach under zone-1 till the PLCC is commissioned and the zone-1 settings may be resumed as per ERPC protection philosophy after the completion of PLCC system.

In 120th OCC, OPTCL informed that LILO of one circuit of Atri-Puri (Samangara) 220 kV D/C line at Pandiabil (PG) will be completed by August, 2016.

OPTCL has requested Powergrid for charging the LILO of one circuit of Katapalli-Sadeipalli 220 kV D/C line at Bolangir S/S without PLCC system for one month. It was informed that PLCC will be activated within one month.

Powergrid agreed and informed that ULDC work will be completed within 2-3 days and the line will be charged by end of April, 2016.

OPTCL/Powergrid may update.

Deliberation in the meeting

OPTCL updated the status 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-Kesinga220 kV D/C line at Bolangir S/S	5 out of 14 completed. (Severe ROW problem)
b.	LILO of one circuit of Katapalli-Sadeipalli220 kV D/C line at Bolangir S/S	**Charged on 04.05.16**
2.	**400/220 kV Keonjhar S/S**	
a.	Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line	Work order placed.
b.	Keonjhar (PG)-Turumunga(OPTCL) 220kV D/C line	Yet to be awarded
3.	**400/220kV Pandiabil Grid S/s**	
a.	Pratapsasan(OPTCL)-Pandiabil (PG) 220 kV D/C line	Work order placed.
b.	LILO of one circuit of Atri-Puri (Samangara) 220 kV D/C line at Pandiabil (PG)	**August, 2016**

B.12.8. 220 kV inter-connecting lines of BSPTCL with 2x200 MVA, 400/132 kV sub-stations at Lakhisarai & Banka

In 30th TCC, BSPTCL informed that at present they are drawing power from 400/132 kV Lakhisarai S/s through LILO of 132 kV Lakhisarai (BSPTCL)-Jamui S/C at Lakhisarai(PG).

In 112th OCC, BSPTCL informed that LILO of 132 kV Lakhisarai (BSPTCL) - Jamui S/C at Lakhisarai(PG) was removed after the charging of 132 kV Lakhisarai (PG)-Lakhisarai (BSPTCL) D/C line which was earlier temporary arrangement for drawing power from 400/132 kV Lakhisarai (PG).

In 118th OCC, BSPTCL updated the latest status as follows:

Sl. No.	Name of the transmission line	Completion schedule
1.	**The 2x200 MVA, 400/132 kV Lakhisarai sub-station**	
a.	132kV Lakhisarai(PG)-Lakhisarai(BSPTCL)D/C line	Charged
b.	132 kV Lakhisarai-Jamui (BSPTCL) D/C line	*Charged on 05.10.2015*
2.	**2x200 MVA, 400/132 kV Banka sub-station**	
a.	LILO of 1st circuit of Banka (BSPTCL)-Sabour (BSPTCL) 132 kV D/C line at Banka (PG)	Charged.
b.	LILO of 2nd circuit of Banka (BSPTCL)-Sabour (BSPTCL) 132 kV D/C line at Banka (PG)	***Line completed. Materials awaited for completion of bays.***
c.	132 kV Banka (PG)-Sultanganj (BSPTCL) line-I	Completed
d.	132 kV Banka (PG)-Sultanganj (BSPTCL) line-II	Completed

In 120th OCC, BSPTCL informed that bay erection for LILO of 2nd circuit of Banka (BSPTCL)-Sabour (BSPTCL) 132 kV D/C line at Banka (PG) is started and expected to be commissioned by May, 2016.

BSPTCL may update.

Deliberation in the meeting

BSPTCL informed that bay erection for LILO of 2nd circuit of Banka (BSPTCL)-Sabour (BSPTCL) 132 kV D/C line at Banka (PG) is started and expected to be commissioned by May, 2016.

Item No. B.13: Third Party Protection Audit

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	16	47.06
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.

Deliberation in the meeting

OCC advised all the constituents to comply the pending observations at the earliest.

2. Schedule for 2nd Third Party Protection Audit:

The latest status of 2nd Third Party Protection audit is as follows:

1) Jeerat (PG) — Completed on 15th July 2015
2) Subashgram (PG) — Completed on 16th July 2015
3) Kolaghat TPS (WBPDCL)- — Completed on 7th August 2015
4) Kharagpur (WBSETCL) 400/220kV - — Completed on 7th August 2015
5) Bidhannagar (WBSETCL) 400 &220kV — Completed on 8th September, 2015
6) Durgapur (PG) 400kV S/s — Completed on 10th September, 2015
7) DSTPS(DVC) 400/220kV — Completed on 9th September, 2015
8) Mejia (DVC) TPS 400/220kV — Completed on 11th September, 2015
9) 400/220/132kV Mendhasal (OPTCL) — Completed on 2nd November, 2015
10) 400/220kV Talcher STPS (NTPC) — Completed on 3rd November, 2015
11) 765/400kV Angul (PG) — Completed on 4th November, 2015
12) 400kV JITPL — Completed on 5th November, 2015
13) 400kV GMR — Completed on 5th November, 2015
14) 400kV Malda (PG) — Completed on 23rd February, 2016
15) 400kV Farakka (NTPC) — Completed on 24th February, 2016
16) 400kV Behrampur(PG) — Completed on 25th February, 2016
17) 400kV Sagardighi (WBPDCL) — Completed on 25th February, 2016
18) 400kV Bakreswar (WBPDCL) — Completed on 26th February, 2016

The list of observations for the above sub-stations is already available at ERPC website (www.erpc.gov.in). Respective constituents are requested to comply and submit the report to ERPC for regular update. The tentative plan for June, 2016 is as given below:

Date of Audit	Substations	Lodging and Boarding	Transport
May, 2016	PPSP (WBSETCL) & Maithon (PG)	Stay at Maithon PGCIL guest house	Transportation will be arranged by Powergrid
May, 2016	Maithon RB (MPL) & Raghunathpur (DVC)	Stay at Santaldih(WBPDCL) guest house	
May, 2016	Santaldih(WBPDCL) & Arambagh (WBSETCL)	If required, stay at Santaldih(WBPDCL) guest house	

Members may decide the schedule for June, 2016.

Deliberation in the meeting

Members noted.

Item No. B.14: Inspection of Under Frequency Relays (UFR)

119th OCC advised to carry out the UFR audit for JUSNL & BSPTCL along with the Protection site visit which is scheduled in April, 2016.

The tentative plan for first quarter of 2016-17 is proposed as given below:

Sl No	Date	Substation/feeder inspected by the sub-group
1	May, 2016	132/33 KV Hatia of JUSNL
2		132/33 KV Namkum of JUSNL
3	May, 2016	220/132/33 KV Ramgarh of DVC
4	June, 2016	132/33 KV Bari Pahari (Bihar Sharif) of BSPTCL
5		132/33 KV Purnea of BSPTCL
6		220/132/33 KV Sampatchak of BSPTCL
7	June, 2016	220/132/33 KV Kalyaneswari of DVC

120th OCC advised Protection team to carry out the UFR audit for above JUSNL/DVC Su-stations along with the Protection site visit scheduled from 11th May-14th May, 2016.

The Protection team has carried out the UFR audit of following Sub-stations:

Sl No	Date	Substation/feeder inspected by the sub-group
1	11.05.2016	132/33 KV Adityapur of JUSNL
2	12.05.2016	132/33 KV Hatia of JUSNL
3	12.05.2016	132/33 KV Namkum of JUSNL
4	13.05.2016	220/132/33 KV Ramgarh of DVC

The team may place the UFR audit report.

Deliberation in the meeting

*The UFR audit report was presented before the house which is given at **Annexure-B.14**. It was informed that during UFR testing of Ramgarh (DVC) S/s it was found that the feeders were tripped at 48.52 Hz instead of 48.6 Hz (set frequency). Therefore, it was recommended that the present EM Under Frequency relays of Ramgarh (DVC) S/s should be replaced with Numerical UF relays to get the desired UFR load shedding at the set frequency (i.e. 48.6 Hz).*

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 and comply.

Deliberation in the meeting

Members noted.

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.

In 85th OCC NTPC informed that, NTPC-Farakka has been certified with IS 18001. Other constituents including OHPC requested to interact with BIS with intimation to ERPC and get certified as per CEA direction. The matter is getting reviewed by highest authorities with top priority.

In 88th OCC NTPC informed that, all NTPC stations in Eastern Region are certified with IS 18001. NHPC informed that, Teesta is also certified with IS 18001. After that, OHPC and CESC informed that their stations are certified with IS18001.

In 104th OCC, WBPDCL informed that Bandel TPS is certified with IS 18001.

OPTCL vide letter No. TB-SO-MISC-9/2010/1914 dated 20.12.2014 had proposed to go for IS 18001:2007 certification as per direction of CEA.

In 113th OCC, CESC informed that Budge-Budge Generating station (3x250 MW) has renewed their certification of BS 18001:2007.

Members may note and update the status.

Deliberation in the meeting

WBPDCL informed that Kolaghat Generating station of WBPDCL has also received certification of IS 18001:2007 from BIS on 29.04.2016.

Item No. B.17: Energy Generation data management from Renewable Energy Sources

RES development Division, CEA has been receiving monthly generation details and installed capacity of Renewable Energy Sources from respective SLDCs and other authorized agencies. Some discrepancies has been found in the data as received by CEA and MNRE.

Constituents are requested to reconcile/confirmed the correct information at the earliest.

In 120th OCC, all the SLDCs were advised to submit the data to CEA as per the format given in **Annexure- B.17** with a copy to ERPC Secretariat.

SLDCs may update.

Deliberation in the meeting

SLDC West Bengal and SLDC Odisha informed that they have submitted the relevant data to CEA.

OCC advised all other SLDCs to submit the data to CEA as per the format given in **Annexure-B.17** *with a copy to ERPC Secretariat.*

Item No. B.18: Compilation of data for meeting Renewable Energy targets of 175 GW by 2020 -- Reference from MNRE

CEA vide letter dated 29.03.16 has referred Ministry of Power letter no. 23/2/2005-R &R(Vol-XI), dated 22.03.2016 & MNRE letter dated 02.03.2016 regarding compilation of data for meeting Renewable Energy targets of 175 GW by 2020 (copies enclosed at **Annexure-B.18**).

In 120th OCC, Concerned State Utilities /Generating companies are requested to submit data of their respective control areas by 1st week of May, 2016.

Members may update.

Deliberation in the meeting

Members noted.

Item No. B.19: 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 Postion Report prepared by CEA, based on the data provided by five Regional Power committee (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.

For the month of April, 2016 data has been received from DVC, WBSETCL, CESC, OPTCL, JUSNL.

BSPTCL may furnish the data.

Deliberation in the meeting

It was informed that BSPTCL has also submitted the requisite data.

Item No. B.20: Recovery Procedures of ER Constituents – ERLDC

As per IEGC clause 5.8 (b) "Detailed plans and procedures for restoration after partial/total blackout of each user's/STU/CTU system within a Region, will be finalized by the concerned user's/STU/CTU in coordination with the RLDC. The procedure will be reviewed, confirmed and/or revised once every subsequent year".

In 117th OCC, ERLDC informed that all STUs have to develop their own restoration plan and procedure of their state in coordination with ERLDC/ERPC.

If such restoration plans are already available, it may be shared with ERLDC.

The restoration procedure received from DVC, JUSNL and WBPDCL.

ERLDC may update.

Deliberation in the meeting

ERLDC requested DVC & West Bengal to include restoration plan for priority loads mentioning quantum of load and restoration procedure.

ERLDC requested DVC and West Bengal to elaborate the preference of lines to get the start up power.

DVC and West Bengal agreed to include.

OPTCL and BSPTCL agreed to submit the restoration procedure by next OCC.

Item No. B.21: Nodal coordinators for web based scheduling software

The name of Nodal Co-coordinators has been received from DVC, GMR, OPTCL & MPL.

Subsequently, BSPTCL vide letter dated 29.01.2016 has nominated the officers as given below:

1) Sri Deepak Kumar, AEE (SLDC), M.- 7763817776, e-mail- sch.patna@gmail.com
2) Miss Anjali Anand, AEE (SLDC), M.- 7033092546, e-mail- sch.patna@gmail.com

In 118th OCC, ERLDC informed that they have received the coordinator names from WBSETCL, NTPC, JUSNL and GMR.

Sikkim vide mail dated 16.03.2016 has nominated their nodal officers as given below:

Sh. Namgyal Tashi, Assistant Engineer (SLDC), Energy & Power Department, Government of Sikkim, Sonam Tshering Marg, Gangtok, East Sikkim-737101, Mobile No# 7797672743, Email: namgyaltashi26@gmail.com

119th OCC advised all the constituents to nominate their nodal officers at the earliest.

JITPL vide mail dated 16.03.16 has also nominated their nodal officer as given below:

Name: Nitin Kumar Gupta, Assistant Manager, Contact No: 08587878395
Email Id: jitplscheduling@jindalgroup.com

Chuzachen vide mail dated 18.04.16 nominated their nodal officer as given below:

Mr Shailendra Gautam - Senior Manager, M. No. +918016099975,
e-mail: shailendra.gautam@gatiinfra.com

The nominations are pending from Rangit, Jorethang, Adhunik.

In 120th OCC, ERLDC informed that they are going to organize a training on web based scheduling in May, 2016.

ERLDC may update.

Deliberation in the meeting

ERLDC informed that nominations from Rangit and Adhunik have been received.

It was also informed that a training on web based scheduling is going to organized in June, 2016.

Item No. B.22: Dynamic data of Generator Models required in PSSE for Simulations -- ERLDC

Requisite data received only from NTPC Kahalgaon & Barh, NHPC Teesta-V, GMR, CESC NTPC Farakka, WBPDCL, JITPL and Vedanta Ltd.

In 119th OCC, it was informed that DVC, JUSNL and OPTCL were yet to submit the data.

OCC advised the above constituents to submit the requisite data at the earliest.

Latest status is enclosed at **Annexure-B22**.

Other Generators may ensure submitting the data.

Deliberation in the meeting

DVC informed that they have submitted the relevant data.

OCC advised all other generators to submit the requisite data at the earliest.

Item No. B.23: Long outage of important transmission lines

a) Prolonged shutdown of 220kV TTPS-Joda-I

220kv TTPS-Joda-I was taken under shutdown for replacement of old Sheep conductor by ACSR Zebra conductor w.e.f 13/02/16 to 15/04/16. However, the shutdown has not been returned till date. The above line is important specially in context of feeding Joda loads during s/d of 220kv Joda-Ramchandrapur during which redundancy of feed to Joda/Jindal/ Jamshedpur (DVC) is affected.

OPTCL may furnish the day wise schedule of the pending works indicating the completion time as there has already been significant time over-run.

In 120th OCC, OPTCL informed that the line would be charged by June, 2016.

OPTCL may update.

Deliberation in the meeting

OPTCL informed that the line would be charged by June, 2016.

b) Long outage of 125MVAR Bus Reactor-II at Binaguri

125 MVAR B/R-II is under outage w.e.f29/02/16 consequent to damage to bushing of all the three phases. Also, currently Tala-Binaguri-II is being kept antitheft charged from Binaguri end. Consequently, the Bus voltages at Binaguri are constantly on the higher side. Powergrid may confirm the status of restoration works and the expected date of restoration of the Bus Reactor at the earliest.

In 120th OCC, Powergrid informed that the line will be charged by 29.04.2016.

Powergrid may update.

Deliberation in the meeting

Powergrid informed that now the reactor is in service.

Item No. B.24: Discrepancy related to input to PMU voltage measurand

A. **Voltage measurand at Jamshedpur PMU**:-

At Jamshedpur one of the two voltage measurands is being fed from 400 kV Jamshedpur – Maithon Line CVT instead of Bus CVT .Due to which whenever this line goes out of service, measured voltage value became zero. At 09:11 Hrs on 13.01.2016, 400 kV Jamshedpur – Maithon line tripped at the same time measured voltage value to PMU became '0'(Zero).It was further observed at 13:00 Hrs on 07.04.2016 when the above said line tripped. It should be provided from Bus CVT instead of any other CVT.

B. Voltage measurand at Rourkela PMU:-

Whenever 400/220 kV 315 MVA ICT II at Rourkela goes out of service, voltage measurandto PMU become zero though both the buses are alive.It was observed that at 09:16 Hrs on 19.04.2016, 400 kV side 400/220 kV 315 MVA ICT II tripped and at the same time Voltage measurand to PMU also became '0' (Zero).

In 120th OCC, ERLDC informed that PMU input measurement voltage has been given from line/ICT CVT instead of bus CVT. As a result, ERLDC was not getting voltage data during line/ICT shutdown.

Powergid agreed to change the PMU input measurement voltage from line/ICT CVT to bus CVT.

ERLDC/Powergrid may update.

Deliberation in the meeting

Powergid informed that they have changed the PMU input measurement voltage from line/ICT CVT to bus CVT.

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.

In 118th OCC advised Odisha SLDC, WBSLDC, DVC & SLDC, Bihar to upload their monthly TTC/ATC on their website.

OCC also advised Jharkhand and Sikkim SLDC to initiate the TTC/ATC computations of their control area in-consultation with ERLDC.

In 120th OCC, DVC informed that they are providing the monthly TTC/ATC on their website.

WBSETCL informed that they are calculating the TTC/ATC but their website is under construction.

Bihar and OPTCL agreed to implement.

JUSNL informed that they are unable to compute the TTC/ATC for their state.

OCC advised JUSNL to interact with ERLDC to get acquainted with the ATC/TTC calculation.

ERLDC informed that, Import / Export TTC for DVC for April 2016 are available in the website of DVC. But the underlying assumptions, limiting constraints etc. are not mentioned. It is therefore suggested that all load-serving control areas in Eastern Region may please endeavor to publish their respective TTC/ATC figures as follows:

Format for TTC declaration:

Import TTC (example)

S.No	Control Area	TTC	RM	ATC	Limiting contingency & loading of the limiting equipment under that contingency
1	W. Bengal				
2	Odisha				
Etc.	Etc.				

Assumptions : W. Bengal (example)

Station-wise MW generation considered (132kV & above)	Injection(+)/Withdrawal(-) considered (MW) for each embedded IPP at 132kV and above (if any)	S/Stn-wise demand (MW) considered (132kV & above)	Lines / elements considered to be normally switched off or under forced outage (if any)	Generating units under forced outage (if any)	SPS considered (if any)

Export TTC (example)

S.No	Control Area	TTC	RM	ATC	Limiting contingency & loading of the limiting equipment under that contingency
1	W. Bengal				
2	Odisha				
3	Bihar				
4	Jharkhand				
5	DVC				

Members may note and update.

Deliberation in the meeting

Members noted for compliance.

Item No. B.26: Reasons for demand –supply gap and its variation -- Agenda by NPC

It was deliberated in the 4th NPC meeting that monthly power supply position prepared & published by CEA based on the data furnished by the states reflected shortages in almost all the states. However, a number of those states intimated adequate availability of power. This meant that the deficit / shortage in such states was actually not the deficit in true sense but demand - supply gap due to reasons other than shortage of power. The other reasons for the demand - supply gap could be inadequate availability of power, transmission constraint, distribution constraint, financial constraint etc. The reason for demand –supply gap needed to be clearly mentioned to reflect true picture of power supply position in different states and also to invite attention of various agencies including policy makers to the specific problem areas in the power sector for suitable solution.

It was agreed by all the RPCs to advise the states in their respective regions to intimate broad break-up of demand –supply gap due to various reasons, or at least, the main reason(s) for demand supply in each month.

119th OCC advised all the constituents to comply.

Members may update.

Deliberation in the meeting

OCC advised all the constituents to comply.

Item No. B.27: 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.

It was informed that JUSNL, Sikkim and MPL have not yet replied to CERC on non-availability of telemetry.

OCC advised JUSNL, Sikkim and MPL to submit their reply to CERC at the earliest.

Members may update.

Deliberation in the meeting

ERLDC presented the updated telemetry status and informed that every month they were posting the updated status at ERLDC website. The updated status is enclosed at ***Annexure-B.27****.*

OCC advise all the respective constituents to ensure the availability of telemetry data to ERLDC.

Item No. B.28: 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.28**.

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

Members may update.

Deliberation in the meeting

Members noted.

Item No. B.29: Status of Emergency Restoration System (ERS Towers) for Eastern Region constituents

The latest status of Emergency Restoration System (ERS towers) as well as the future plan of procurement was given at **Annexure- B.29**.

Members may update the latest status.

Deliberation in the meeting

Members updated the status. Updated status is enclosed at **Annexure- B.29**.

Item No. B.30: Ratification of projected Generation and Demand data of ER constituents for POC charges/losses calculations for Q2(2016-17)

The LGB data for Q2(2016-17) which has been formalized as per the comments of the constituents and is attached alongwith at **Annexure-B.30**. All constituents are requested to go through the details of forecasted Generation/Demand for ratification and finalization before placement in the Validation Committee meeting.

Members may place their views.

Deliberation in the meeting

OCC requested all the constituents to place their views to ERPC Secretariat via email by 23rd May 2016.

Item No. B.31: Pollution mapping for Eastern Region

The Pollution Mapping work in ER was started with on-site measurement of ESDD and NSDD. The latest available status as per 118th OCC is as follows:

Utility	Scope	Installed Locations	Number of locations where 1st set of Measurements Completed	Number of locations where 2nd set of Measurements Completed
JUSNL	67	27	**21**	**19**
BSPTCL	59	52	**45**	
WBSETCL	73	70	**43**	
OPTCL	164	102	**102**	**42**
Sikkim	12	9	**6**	**6**
Powergrid ER 1	99	99	**99**	**47**
Powergrid ER 2	40	40	**40**	**40**
Powergrid Odisha	42	42	**42**	**42**

In 118th OCC, Powergrid ER-2 informed that 2nd set of measurements have been completed for 34 locations. OPTCL informed that 2nd set of measurements are in progress.

In 119th OCC, Powergrid informed that they have created a template at their server for online filling of measurement data which will be directly coming to their database and there will be no requirement of sending by post or mail.

OCC advised all the respective constituents to coordinate with Powergrid for online filling of measurement data.

Powergrid informed and schedule for 3rd set, 4th set, 5th set & 6th set of measurements have been prepared which is given at **Annexure- B.31** along with the latest status. It was requested to all the respective constituents to complete the measurements as per the schedule.

Members may update.

Deliberation in the meeting

Members updated the latest status as follows:

Utility	Scope	Installed Locations	Number of locations where 1st set of Measurements Completed	Number of locations where 2nd set of Measurements Completed
JUSNL	67	27	**21**	**19**
BSPTCL	59	52	**52**	**35**
WBSETCL	73	70	**43**	
OPTCL	164	102	**102**	**42**
Sikkim	12	9	**6**	**6**

Powergrid ER 1	99	99	**99**	**47**
Powergrid ER 2	40	40	**40**	**40**
Powergrid Odisha	42	42	**42**	**42**

OCC advised all the constituents to complete the measurements as per the schedule.

Item No. B.32: Erroneous recording of data by Interface Meters

i. Installation of New SEMs at B/C panels at Joda Grid S/s of OPTCL - OPTCL

OTPCL vide mail dated 30.12.2015 have requested for installation of new SEMs at B/C panel at their Joda GSS for 220kV Joda- Ramchandarpur & Joda – Jindal Interstate tie lines.

In 117th OCC, Powergrid informed that required meters are already installed and SEM for bus coupler is not required.

ERLDC informed that the SEM reading at both ends of the 220kV Joda- Ramchandarpur line is not matching and advised OPTCL to check for any tapping in the line. It was also informed that SEM for 220kV Joda- Jindal is not required as it is an intra-state line.

OPTCL agreed.

In 118th OCC, ERLDC informed that SEM reading at Joda end is 15% less than other end which may be checked and corrected.

OPTCL informed that SEM for the bus-coupler at Joda end is also needed.

In 119th OCC, OPTCL informed that SEM at Joda end needs to be checked and corrected.

OPTCL informed that there is no line CT so 2 nos SEM for the bus-coupler at Joda end is required.

ERLDC requested OPTCL to furnish the SLD of the Joda Sub-station for their study and assessment of requirement of SEM for bus-coupler. OPTCL agreed.

Powergrid also agreed to look into the matter and resolve it.

In 120th OCC, OPTCL informed that they have furnished the SLD to ERLDC/Powergrid.

OCC advised Powergrid to assess the requirement of SEM for bus coupler at Joda and resolve the issue at the earliest.

OPTCL and Powergrid may update.

Deliberation in the meeting

Powergrid informed that SEM is required at for bus coupler at Joda and agreed to install SEM.

Item No. B.33: Non Receipt of SEM data from Various Locations

i. **Forbisganj at BSPTCL**

Kishanganj(BSPTCL) end meterof 132 KV Purnea(PG) Line is not recording any flow compared to Purnea PGCIL end since 14:00 hrs of 29th June 2015. It was gathered that line is feeding load to Farbisganj at BSPTCL regularly through Transfer Bus of Kishanganj bypassing the SEM at Kishanganj. It was decided to place 02 nos of SEM at Forbesganj. In 31st CCM, BSPHCL

representative informed that meter has been placed at Farbesgunj on 03.02.2016. ERLDC has not received the SEM data from Forbisganj since installation of SEM. Non availability of SEM data from BSPTCL end, accounting of energy is fully dependent on Purnea(PG) end meter.

In 120th OCC, Bihar informed that all the five DCDs are faulty.

Powergrid agreed to provide DCDs to BSPTCL at the earliest.

BSPHCL is may update.

Deliberation in the meeting

Powergrid informed that DCDs have been given to BSPTCL.

OCC advised BSPTCL to submit the SEM data to ERLDC.

ii. Santaldih in WBSETCL

SEM from Santaldih for 220 KV Santaldih(WB)-Chandil (JUVNL) Line is not reporting either in DCU of AMR system or communicating through DCD since 28.01.16. In 31st CCM, Powergrid informed that the issue would be resolved at earliest. However problem still persists.

OCC advised Powergrid to check and install new SEM at Santaldih at the earliest,

Powergrid agreed resolve the issue.

Powergrid and WBSETCL may update.

Deliberation in the meeting

Powergrid informed that presently there is shortage of SEMs, however the problem will be resolved soon.

Item No. B.34: Outstanding payment towards construction of bay at Biharsharif (PG) sub-station for 400kV Biharsharif-Tenughat line

Powergrid vide letter dated 12.10.2016 informed that in 30th TCC advised to take up the issue for earliest liquidation of payables by JUSNL for outstanding payment towards construction of bay at POWERGRID Biharsharif sub-station for up-gradation of 220kV Biharsharif-Tenughat line to 400 KV level..

JUSNL was requested to take up the matter on priority and release the outstanding payment for early completion of balance work at POWERGRID Biharsharif sub-station.

Powergrid/JUSNL may update.

Deliberation in the meeting

Powergrid informed that JUSNL not yet released the payment.

Item No. B.35: Mock Black start exercises in Eastern Region – ERLDC

i) <u>The status of black start exercises</u>

The schedule of the proposed black-start exercises for F.Y 2016-17 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, 2016	*31st May, 2016*	Last Week of January 2017	
2	Maithon (To be tested with load in islanded mode)	1st week of June 2016		1st Week of February 2017	
3	Rengali	2nd week of June 2016		Last week of November 2016	
4	U. Indarvati	3rd week of June 2016		2nd week of February 2017	
5	Subarnarekha	1st week of October 2016		1st week of January 2017	
6	Balimela	3rd week of October 2016		1st week of March 2017	
7	Teesta-V	2nd week of November 2014		Last week of February 2017	
8	Chuzachen	Last Week of May 2016		January 2017	
9	Burla	Last Week of June 2016		Last week of February 2017	
10	TLDP-III	1st Week of June 2016		2nd Week of January 2017	
11	TLDP-IV	Last Week of June 2016		1st Week of February 2017	

Members may update.

<u>Deliberation in the meeting</u>

OHPC informed that black-start exercise for U.Kolab would carry out on 31st May 2016.

ii) 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.

<u>Deliberation in the meeting</u>

Members noted.

Item No. B.36: Restricted Governor Mode of Operation

The latest status of units of ER under RGMO is available at ERPC website (http://www.erpc.gov.in/) under Operation>Important data.

In 108th OCC, ERLDC informed that the RGMO/FGMO response of the generators needs monitoring on continuous basis.

OCC advised ERLDC to intimate the event of sudden drop in frequency to the generators and requested all generators to provide the RGMO/FGMO response data to ERLDC during the said incidents.

In 115th OCC, ERLDC informed that for effective monitoring of unit wise governor response, ERLDC proposes to create a web-group wherein SCADA data recorded by ERLDC following an event of sudden load-generation imbalance would be posted within 2-3 days of occurrence of the event. The login id and password to access the web-group would be duly intimated by ERLDC to all concerned.

Coordinators from all the concerned generating stations would post the unit wise MW response as recorded at their respective ends, for a period +/- half-an-hour of the instant, within two days of posting by ERLDC. For the purpose of analysis, wherever significant variation would be observed w.r.t. to SCADA data, generator`s data would be adopted for detailed analysis.

In this connection, SLDCs of E. Region are requested to extend cooperation by coordinating with nodal officers of generators under their respective jurisdiction, in data collection and posting in webgroup.

OCC requested all the constituents to provide their respective e-mails which can be added to the web group.

E-mails can be provided by all SLDCs, Hydro generators of having capacity 10 MW & above and Thermal generators of having capacity 200 MW & above.

SLDCs will co-ordinate with their IPPs of 10 MW & above Hydro generation and 200 MW & above Thermal generation.

Thereafter, ERLDC informed that one web group was formed for sharing governor response of various generators in ER. The url of the group is

https://in.groups.yahoo.com/neo/groups/er_gov_respons/info

ERLDC requested to send email ids where invitation will be sent. Yahoo mail ids are preferable.

In 117th OCC, ERLDC informed that the performances of the governor response are being uploaded in the yahoo group. It was also informed that DVC, CESC and Odisha were already added in the web-group.

OCC advised other constituents to join the web group at the earliest by providing their e-mail ids (preferably yahoo ids).

In 118th OCC, it was informed that WBSETCL, JUSNL, Bihar, NTPC and NHPC are yet to join the group.

OCC advised all the other constituents to join the web group at the earliest by providing their e-mail ids (preferably yahoo ids).

ERLDC has uploaded the following events in yahoo group https://in.groups.yahoo.com/neo/groups/er_gov_respons/info for monitoring of RGMO response of generator.

(1) At 07:05 on 11-04-16 hrs 400 kV Tuticorin PS-NTPL (coastal line) tripped on B-N fault due.
(2) On 14-04-16 at 13:29 hrs. tripping of JP Nigrie-Satna-I and JP Nigrie-Satna-II evacuation lines resulted in 1089 MW generation loss. at JP Ningrie. Frequency dip of 0.14 Hz observed.
(3) On 30-04-16, at 15:01 Hrs, 400 kV Jabalpur-MB power-1 & 2 tripped on Bus Bar differential protection. This led to black out of MB Power. Frequency drop of 0.14 Hz took place during the event (50.06 Hz to 49.92)Loss of generation of 1024 MW (Unit 1=496 MW, Unit 2=528 MW) took place.

All generators (200MW & above thermal and 10MW & above hydro) are requested to provide ERLDC the RGMO/FGMO response data, as recorded by respective station DCS, for the said incidents.

Members may update.

Deliberation in the meeting

ERLDC placed the RGMO response of the generators. All the generators noted.

Item No. B.37: Reactive Power performance of Generators and GT tap position optimization

Maximum and minimum voltage was observed (data taken from SCADA)

Generating stations have been monitored for sample dates in the month of April, 2016:

Power Plant	**Max and Min Voltage observed for** April 16 **(KV)**	**Date for monitoring (**April 16**)**
Farakka STPS	427,407	10,24,25
Khalgaon STPS	419,400	6,10,24
Talcher STPS	400,392	3,10,17
Teesta	429,398	6,10,17
Bakreshwar TPS	406,386	17,19,21
Kolaghat TPS	417,391	19,23
Sagardighi TPS	Data not available	---
MPL	422,411	10,13,24
Mejia-B	Data not available	---
DSTPS	423,412	17,19,21
Adhunik TPS	420,408	17,19,21
Sterlite	Data not available	---

In 120th OCC, it was also informed that the data from Sagardighi TPS and Sterlite is not available, WBPDCL and Sterlite were advised to check and resolve it.

ERLDC may update.

Deliberation in the meeting

ERLDC informed that performance of the generators is satisfactory. But the data from Sagardighi TPS and Sterlite is still not available,

a) Schedule for reactive capability tests

The following was status of regarding reactive capability testing:

a. Adhunik TPS(both units) –Yet to be confirmed by Adhunik
b. DSTPS (Unit#2 only pending) – Not yet done
c. Koderma TPS Unit#1
d. JITPL(both units) – Procedure given. Not yet done
e. Barh TPS

Members may update.

Deliberation in the meeting

JITPL agreed to carry out reactive capability test after completion PSS tuning.

OCC advised Barh TPS to carry out the reactive capability test in June 2016.

NTPC, Barh informed that there is some problem in their control system, they will carry out the the capability test after resolving the control system problem.

PART C:: OPERATIONAL PLANNING

Item no. C.1: Shutdown proposal of transmission lines and generating units for the month of June' 16

Members may finalize the Shutdown proposals of the generating stations for the month of June'16 as placed at **Annexure-C.1**.

ERLDC may place the list of line shutdown. Members may confirm.

Deliberation in the meeting

Approved maintenance programme of generators and transmission elements for the month of June, 2016 is given at **Annexure-C.1**.

Item no. C.2: Anticipated power supply position during June'16

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of June'16 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.2**.

Members may confirm.

Deliberation in the meeting

Modified anticipated power supply position for the month of June, 2016 after incorporating constituents' observations is given at **Annexure-C.2.**

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

(i) Generating units:

Generating Station	UNIT NO	CAP(MW)	REASONS FOR OUTAGE	OUTAGE DATE
MEJIA	4	210	LOW DEMAND	24-Mar-16
RAGHUNATHPUR	2	600	ROTOR PROBLEM	14-Feb-16
BOKARO B	1	210	PROBLEM IN COAL CRUSHER	26-Jan-16
BOKARO B	2	210	PROBLEM IN COAL CRUSHER	15-Apr-16
BAKRESHWAR	4	210	BOILER TUBE LEAKAGE	2-May-16
WARIA	4	210	ROTOR PROBLEM	30-Apr-16
KODERMA	1	500	LOW DEMAND	22-Apr-16
DPL	8	250	TRIPPED	1-May-16
CHANDRAPURA	7	250	ECONOMISER TUBE LEAKAGE	7-May-16
MTPS	1	110	BOILER TUBE LEAKAGE	7-May-16
TENUGHAT	2	210	ROTOR PROBLEM	22-Apr-16
KOLAGHAT	3	210	LOW DEMAND	6-May-16
KOLAGHAT	6	210	LOW DEMAND	8-May-16

(ii) Transmission elements

Name of the Line/Element	Outage	Reason
NIL		

Members may update.

Deliberation in the meeting

Members noted.

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

New generating units:

S.No.	Power Plant	Plant Size	Expected date
1	Sagardighi Unit #3	500 MW	

New transmission elements:

Sl 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(2nd 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	July, 2016

Members may update.

Deliberation in the meeting

Members noted.

PART D:: OTHER ISSUES

Item no. D.1: UFR operation during the month of April'16

System frequency touched a maximum of 50.32Hz at 18:02Hrs of 01/04/16 and a minimum of 49.64Hz at 12:18Hrs of 26/04/16. Accordingly, no report of operation of UFR has been received from any of the constituents.

Members may note.

Deliberation in the meeting

Members noted.

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 April'16.

Members may note.

Deliberation in the meeting

Members noted.

Item no. D.3: Grid incidences during the month of April, 2016

Sl no	Disturbance Place	Date & Time	Generation loss (MW)	Load loss (MW)	Remark	Category
1	OPTCL (Rengali (SY))	03-04-16 at 17:58 hrs	0 MW	20 MW	Total Power interruption occurred at Rengali Switchyard due to bursting of B-Ph CT of Tarkera Rengali Ckt-II at Rengali end. And hence all the elements emanating from Rengali (SY) tripped.	GD-1
2	OPTCL (Mendhasal)	12-04-16 at 14:04 hrs	0 MW	336 MW	All the 400 kV feeders emanating from the Mendhasal S/S i.e. 400 kV Mendhasal Baripada S/C, 400 kV Mendhasal – Meramundali S/C and 400 kV Mendhasal New Duburi tripped at remote end due to fault in idle charged portion of 220 kV Mendhasal – Bidanasi II	GD-1
3	PGCIL & OPTCL (Jeypore, Bhanjanagar, Theruvali, Narendrapur)	15-04-16 at 12:17 & 12:23 hrs	60 MW	400 MW	Total power failure occurred in South Orissa system as well as ISTS system due to tripping of all the 400/220kV lines emanating from Jeypore, Indravati S/s as well as multiple 220kV lines in south Orissa system along with running units of Indravati, Balimela & U.Kolab.	GD-1
4	OPTCL (Mendhasal)	16-04-16 at 09:55 hrs	0 MW	430 MW	Total power interruption occurred at Mendhasal S/s and it surrounded area due to tripping of both 315 MVA ICT at Mendhasal on overcurrent protection.	GD-1
5	PGCIL & BSPTCL (Purnea & Madhepura)	18-04-16 at 20:15 hrs	0 MW	400 MW (140 MW to Nepal)	All the 132kV lines emanating from 132kV Purnea S/s such as Purnea (PG)- Purnea (B) – T/C & Purnea (PG)- Kishanganj S/c tripped from Purnea(PG) end on actuation of overcurrent protection. At the same time 132kV Madhepura- Supaul D/c also tripped on overload	GD-1
6	OPTCL (Tarkera)	19-04-16 at 09:16 hrs	0 MW	150 MW	At 09:16 hrs R phase CT of 220 kV Rourkela – Tarkera – I at Tarkera end bursted. This resulted in operation of bus bar protection. And hence all the elements connected to both main Bus-I & II tripped.	GD-1
7	JUSNL (Hatia)	20-04-16 at 14:57 hrs	125 MW	336 MW	Power interruption occurred at 220/132kV Hatia, Patratu S/s due to tripping of all 220kV lines emanating from Hatia S/s and 220/132kV lines emanating from 220/132kV Patratu S/s along with running units of Tenughat & Patratu. This incident had occurred due to delayed clearance of SLG fault on 220kV Ranchi- Chandil S/c line from Ranchi end.	GD-1
8	OPTCL (Mendhasal)	26-04-16 at 14:48 hrs	0 MW	400 MW	400/220kV 315 MVA ICT-I at Mendhasal tripped due to actuation of overcurrent protection. This resulted in overcurrent tripping of other 315 MVA ICT-II at Mendhasal. However, during the said period Main CB of 400kV Meramundali- Mendhasal S/c at Mendhasal was already under shutdown and it was charged through the Tie	GD-1

					CB of 400/220kV 315 MVA ICT-I. Thus after tripping of Main CB of 315 MVA ICT-I at Mendhasal on overcurrent, the said 400 kV line also tripped.	
9	PGCIL & BSPTCL (Purnea & Madhepura)	28-04-16 at 19:23 hrs	0 MW	325 MW (150 MW to Nepal)	All 132 KV lines emanating from 132 kv Purnea (BSEB) S.S got tripped due to failure of Y phase CT of 33 kv side of 50 MVA ICT-I(132/33 KV) at Purnea(BSEB). The lines are : 132 kv Purnea(PG)- Purnea(BSEB) -T/C and 132 KV Purnea-Faurbuisganj. Consequently, 132 KV Purnea (PG)-Kishanganj,132 KV Madhepura-Supaul D/c also tripped due to over current protection.	GD-1
10	OPTCL (Meramundali)	30-04-16 at 22:02 hrs	0 MW	120 MW	Multiple elements tripping occurred at 400kV Meeramandali S/s due to operation of LBB protection.	GD-1

Members may note.

Deliberation in the meeting

Members noted.

Item no. D.4: Any other items

1) Technical Minimum load for Talcher Stage-I Units-- Additional Agenda by NTPC

The declared technical minimum gross generation for TSTPS Stage-I (2 X 500MW) is 350 MW (Ex-bus 327 MW) per Unit, i.e. when the unit can be run without oil support. However due to wet coal, generation level below the level below the level of 400 MW is causing flame instability and causing unit tripping of the units on flame failure protection". This is due to peculiarity in design of Talcher Stage-I units-drum less tower type boiler supplied by Stein Industries, France with a boiler height of 92 meters. The fuel firing is achieved through double ended tube mills, wherein the grinding takes place through centrifugal force of the grinding balls. During monsoon period, when the moisture content in coal is more, at low level, the desired mill performance is not achieved, at times causing non uniform coal flow into the boiler. Flame inside the boiler. Flame inside the boiler, which is already at a lesser intensity due to low load further gets deteriorated due to this non uniform coal flow. This causes flame out in the boiler at times.

Any dislodgement of ash from the top elevations of the boiler causes a flame disturbance. At lower load operation, when the flame stability is already poor, any such dislodgement of ash further aggravates and at times causes flame out in the boiler.

Manufacture recommends for 2 cycle soot blowing operation per day to avoid such phenomena. For carrying out one cycle of soot blowing, around 8 hrs is required, i.e. 16 hrs a day. For soot blowing, it is also recommended that more than 80 % load is required to be maintained to eliminate the chances of flame failure. Flame stability at lower generation level is maintained either with oil support or we are constrained to generate at a load beyond 400 MW for the purpose of carrying out soot blowing, even at times in excess of the schedule given to the station.

Generation in excess of the schedule is in violation of the present grid code and needs to be avoided for stability of the grid. Running the units with continuous oil support is not feasible as it severely affects the normative parameters.

In view of the above, it s proposed to raise the technical minimum load up to 377 MW per Unit (Ex-bus) for the monsoon period till Oct' 2016.

Deliberation in the meeting

After detail deliberation, OCC felt that as per the provisions of fourth amendment of IEGC, the technical minimum cannot be revised by this forum.

OCC advised NTPC to approach CERC in this regard.

Meeting ended with vote of thanks to the chair.

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Annexure – A

Participants in 121st OCC Meeting of ERPC

Venue: ERPC Conference Room, Kolkata Time: 11:00 hrs Date: 20.05.2016 (Friday)

Sl No	Name	Designation/ Organization	Contact Number	Email	Signature
1	A K Bandyopadhya	MS ERPC	9433068533	mserpc-power@nic.in	
2	U.K. Verma	GM, ERLDC	08902496220	ujjwalkumar.verma@gmail.com	
3	P.P. BANDYOPADHYAY	DGM(SO), ERLDC	7044083323	Parth_banerjee@yahoo.co.in	
4	P.S.Das	Asst GM(SO) ERLDC	9433041837	psdas_psd@yahoo.com	
5	S. BANERJEE	DGM, ERLDC	9433041823	sumajdb@gmail.com	
6	PARTHA GHOSH.	Dy. Mgr. POSOCO	9434748263	partha.ghosh@powersystemindia.com	
7	B. Pan	CE/SLDC/DVC	9903247102	bpan.dvc@gmail.com	
8	S Nayak	AGM/ NTPC Bhubaneswar	9437045881	snayak@ntpc.co.in	
9	S.K. Sharma	AGM(OS) ER-HQ, NTPC Ltd.	9471008359	skSharma06@ntpc.co.in	
10	R.K. Mandal	AGM (EEMG) NTPC/KAHALGAON	9431600132	rkmandal@ntpc.co.in	
11	S. Chakravarty	DGM (OPN.) NTPC BARH	9431600434	raaja62@gmail.com	
12	S.N.Ghosh	DGM, EEMG	9471006034	snghosh60@gmail.com	
13	Karma	EE, DGPC	+975 17720207	karmalob@gmail.com	
14	S. Chowdhury	AM, VE	9937294336	Sudeptu Chowdhury @ vedanta.co.in	
15	RC Mohapatra	Advisor IBEUL	9437044660	rcmohapatra1@gmail.com	
16	R. P. KUNDU	ENGR, ERLDC	9903329591	rajp[illegible]@gmail.com	
17	HEERA L YADAV	Asst Mgr NTPC	9471603374	hlyadav01@ntpc.co.in	
18	Thinley Dorji	Junior Engineer DGPC, KHP	00975 17724918	thinley.dgpc@gmail.com	
19	Passang Lhamo	Section officer CHP/DGPC	00975/17562201	lhopeldem2011@gmail.com	
20	Abhishek	Section officer CHP/DGPC	+97517773080	abhmsk@gmail.com	

"Coming together is a beginning, staying together is progress, and working together is success." –Henry Ford

Participants in 121st OCC Meeting of ERPC

Venue: ERPC Conference Room, Kolkata Time: 11:00 hrs Date: 20.05.2016 (Friday)

Sl No	Name	Designation/ Organization	Contact Number	Email	Signature
21	M.K. Thakur	DM/ ERLDC	9432351832	mktelect@gmail.com	
22	RANJIT DAS	Sr. Consultant PRDC	9748429533	ranjit.das@prdc	
23	Debaraati Basu	PRDC	9903010743	debaratibas@prdc-engineers.com	
24	S VS. Satyanarayana	POWERGRID	9434740038	svs@powergridindia.com	
25	T.R. Mohapatra.	POSOCO, ERLDC	9433041473	tusha.mohapatra@gmail.com	
26	Sudeep Kumar	Sr. Engr/POWERGRID Patna	9431820338	Sudeep.kumar1234@gmail.com	
27	S.K. Naik	chief GM BBSR	9437962169	ormodisha@gmail.com	
28	D K Bauri	EE, ERPC	9883617236	eeopp.erpc@gov.in	
29	Anilkumar	JITPL / Sr. Manager	7042370323	jitpl_powersales@jindalgroup.com	
30	P K Senapaty	AGM/GMR	9777588352	Prasant.Senapathy@gmrgroup.in	
31	H.P. Mahapatra	Mgr / OHPC	9861164943	hpm.ohpc@gmail.com	
32	Anirudha Sethi	Dy Manager, GRIDCO	9439506847	ele.asethi@gridco.co.in	
33	P.R. Satpathy	DGM / SLDC ODISHA	9438907410	ele.PKsatpathy@sldcorissa.gov.in	
34	PRASHANT KUMAR DAS	DGM, SLDC, ODISHA	9438907408	prashantk_das@yahoo.co.in	
35	K. Banerjee	Mgr. CESC Ltd.	9831003281	Koushik.banerjee@rp-sg.in	
36	RANJAN BISWAS	SM/SDPL	9434735985	sldc.ddps@gmail.com	
37	P. HALDER	DGM (Engg.)	8336903685	phalder@wbpdcl.co.in	
38	S. Roy	CE (VCDC)	7439790030	sabya_60@yahoo.co.in	
39	A. Ghosh	CE (CPD), WBSETCL	9434910019	arundhati.ghosh@wbsetcl.in	
40	P. Banerji	WBSEDCL	9432407[illegible]	prerban72@gmail.com	

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sethianirudha@gmail.com
Satapathy_prasant@rediffmail.com

Participants in 121st OCC Meeting of ERPC

Venue: ERPC Conference Room, Kolkata Time: 11:00 hrs Date: 20.05.2016 (Friday)

Sl No	Name	Designation/ Organization	Contact Number	Email	Signature
41	S. KEJRIWAL	EE, ERPC	9831919509	eecom2.erpc@gov.in	
42	B.P. Sidharan	CJLTPL Manager	9583046805	electrical_orissa@JindalGroup.Com	
43	C. K. Haldar	WBSLDC ACE	9434910379	—	
44	P. K. Kundu	ACE/WBSLDC	9434910263	prakirkol1961@gmail.com	
45	N. G. Saha	SM/WBPDCL	8336703***	ngsaha@wbpdcl.co.in	
46	P.K. Banerji	SM, NBPDCL, KTPS	8331903891	PK-banerjee@Nbpdcl.co.in	
47	G. Rao	EE, ERPC	9547891353	ereb_cee@yahoo.co.in	
48	S.K. Chandrakar	CMSR. ERPC	9433041850	Sanjeev.Chandrakar@gmail.com	
49	D.K. Singh	ESE, SLDC BSPTC	7763817716	sldc.bsptc@gmail.com	
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Annexure-B2

Sl. No.	Name of the Constituent	Name of the Project	Date of Approval	Target Completion	Amount Approved	Amount of Grant	Amount Drawn	Status
1	WBSETCL	Renovation & up-gradation of protection system of 220 kV & 400 kV Substations in West Bengal	31-12-14	---	120.67 Cr.	108.60 Cr.	11.04 Cr	95 % Supply Completed
2	WBSETCL	Transmission System Improvement of WBSETCL						

No.3/8/2016-OM
Government of India
Ministry of Power

Shram Shakti Bhawan, Rafi Marg,
New Delhi, dated 9th May, 2016

To,

1. Principal Secretaries/Secretaries (Power/Energy) of all State Governments/UTs.
2. CMDs/MDs of Discoms of all State Governments/UTs.
3. Secretaries of All State Electricity Regulatory Commissions/JERCs.
4. CMDs of all CPSUs under administrative control of Ministry of Power.

Subject: Sale of Un-Requisitioned Surplus (URS) Power in line with provisions of revised Tariff Policy-reg.

Sir,

I am directed to say that currently the utility continues to pay fixed charges towards the un-requisitioned power and such charges are to be borne by the consumers of that utility. In the revised Tariff Policy notified on 28th January, 2016 circulated to all concerned on 12th February, 2016, provisions for sharing the benefits from sale of such un-requisitioned power has been made which would not only reduce the financial burden on the utilities but also on the consumers of that utility. The relevant provision {Para 6.2 (1)] of Tariff policy are reproduced below :

"Power stations are required to be available and ready to dispatch at all times. Notwithstanding any provision contained in the Power Purchase Agreement (PPA), in order to ensure better utilization of un-requisitioned generating capacity of generating stations, based on regulated tariff under Section 62 of the Electricity Act 2003, the procurer shall communicate, at least twenty four hours before 00.00 hours of the day when the power and quantum thereof is not requisitioned by it enabling the generating stations to sell the same in the market in consonance with laid down policy of Central Government in this regard. The developer and the procurers signing the PPA would share the gains realized from sale, if any, of such un-requisitioned power in market in the ratio of 50:50, if not already provided in the PPA. Such gain will be calculated as the difference between selling price of such power and fuel charge. It should, however, be ensured that such merchant sale does not result in adverse impact on the original beneficiary(ies) including in the form of higher average energy charge vis-à-vis the energy charge payable without the merchant sale. For the projects under section 63 of the Act, the methodology for such sale may be decided by the Appropriate Commission on mutually agreed terms between procurer and generator or unless already specified in the PPA."

2. The above provision of the Policy emphasises that the available power, when it is not availed by the entitled Distribution utility, should be made available in the Power market. The most competitive power shall be procured by other needy Distribution utilities through the market. The original Beneficiary Discom shall also get benefitted through sharing of gains through sale in the market. This shall facilitate most cost effective procurement of power by

State Discoms to cater the day-ahead requirement of power and reduce the overall cost of power purchase by Discoms.

5. In order to implement the above provisions of the policy, certain changes in the existing scheduling and despatch procedure under Indian Electricity Grid Code (IEGC) shall be required, which is being framed by CERC. However to start with, the State Discoms can identify the Generating Stations (which are covered under section 62 of the Electricity Act'03) for un-requisioned power and communicate accordingly to respective Generating Stations, specifying the quantum of power and duration of non-requisition, at least 24 hrs in advance of the start of scheduling from 00.00 hrs of the day for which power is not required.

6. Further, State Discoms shall also give consent to the respective Generating Stations/ Companies for sale of such URS power in the market through Power Exchange. If such power is offered by the Generating Company(ies) and is sold in the market, then the sharing of gains shall be applicable, as per the provisions of Tariff policy.

7. In view of the above and in order to implement the aforesaid provisions of Tariff Policy it is requested to kindly take necessary action.

Yours faithfully,

9/5/16

(Ghanshyam Prasad)
Director to the Government of India
Tele No. 2371 6674

Copy to :

1. The Chairperson, Central Electricity Authority, Sewa Bhawan, R. K Puram ,New Delhi
2. The Secretary, CERC/FOR, Chanderlok Building, Janpath, New Delhi.
3. Secretaries of All State Electricity Regulatory Commissions/JERCs.

Copy also to : for information

1. PS to MOS(I/C) for Power, Coal & NRE
2. PPS to Secretary, Ministry of Power
3. PPS to AS(BPP), Ministry of Power

Copy also for information to: All JSs / Directors / Deputy Secretaries, Ministry of Power

Annexure-B11

ODISHA POWER TRANSMISSION CORPORATION LIMITED
(A Government of Odisha Undertaking)
CIN-U40102OR2004SGC007553
Regd.Office:Janapath,Bhoinagar,Bhubaneswar-751022
O/O the CGM (O&M),FAX: (0674) – 2542932

NO:TW-GM(O&M)-O/O CGM(O&M) 04/2014 559 Dated 30.04.2016

To ,

The Chief Engineer, SLDC/ULDC & Telecom, JUSNL,
Kusai Colony,Ranchi,
Jharkhand – 834002.

Sub: Establishment of PLCC link between Joda (OPTCL) and Ramchandrapur 220kV line.

Ref: 1. Your letter No . 83,SLDC / ULDC, Ranchi dated. 13.04.2016 to the address of Member Secretary,ERPC,Kolkata.
2. Your eMail Dated.16.04.2016

Sir,

With reference to the above, it is inform you that no BPL make carrier set is in use in PLCC system of OPTCL. Further, the proposed set to be installed by JUSNL at Joda GSS was purchased during the year 2006. Hence, the set should be commissioned & under AMC of the manufacturer for trouble free & reliable service. Your consent on taking up commissioning and AMC by the manufacturer of the panel may please be communicated for further necessary action in the matter.

Yours faithfully,

Chief General Manager(O&M)

CC to

1. The Member Secretary, ERPC, 14 Golf Club Road, Tollygunge, Kolkata-700 033
2. Chief General Manager (Telecommunication),OPTCL, Bhubaneswar
3. Sr.GM, (PS), SLDC,Bhubaneswar.

UFR Inspection Report at 132/33 kV Adityapur, Namkum & Hatia S/s of JUSNL and 220/132/33 kV Ramgarh S/s of DVC

The Protection team constituted by 31st TCC has carried out the UFR audit of 132 kV Adityapur, Namkum & Hatia S/s of JUSNL and 220/132 kV Ramgarh S/s of DVC as advised by 120th OCC, from 11th May-13th May, 2016. The Protection team (UFR inspection group) physically inspected the feeders, which are connected with UFR. Outgoing feeders, details are as given below:

Stage	Frequency Setting	Name of the sub-station	Date of Audit	Name of the feeder	Peak load	Remarks
Stage-I	48.8 Hz	132/33 KV Adityapur (JUSNL)	11.05.16	33 kV Adityapur-I	10.5 MW	Tested by tripping the feeders
Stage-II	48.6 Hz			33 kV Adityapur-II	9.5 MW	
Stage-I	48.8 Hz	132/33 KV Hatia (JUSNL)	12.05.16	33 kV Brambay	14.0 MW	-do-
Stage-II	48.6 Hz			33 kV Argora	14.0 MW	
Stage-II	48.6 Hz			33 kV Dhurwa	22.0 MW	
Stage-II	48.6 Hz			33 kV Harmu	16.0 MW	
Stage-II	48.6 Hz	132/33 KV Namkum (JUSNL)	12.05.16	33 kV Kokar (Rural)	16.0 MW	-do-
Stage-II	48.6 Hz	220/132/33 KV Ramgarh (DVC)	13.05.16	33 kV JSEB-I	40.0 MW	Tested with secondary test kit*
Stage-II	48.6 Hz			33 kV JSEB-II	40.0 MW	
Stage-II	48.6 Hz			33 kV Giddi-I	16.0 MW	
Stage-II	48.6 Hz			33 kV Giddi-II	18.0 MW	

* UFR Settings of Ramgarh (DVC) S/s were tested with the help of AVO-Pulsar (Universal test system)) Test kit provided by DVC testing team. During testing it was found that the feeders were tripped at 48.52 Hz instead of 48.6 Hz (set frequency).

It was recommended that the present EM Under Frequency relays of Ramgarh (DVC) S/s should be replaced with Numerical UF relays to get the desired UFR load shedding at the set frequency (i.e. 48.6 Hz).

(A. K. Bandyopadhyaya) 20/5/16
Member Secretary

EASTERN REGIONAL POWER COMMITTEE :: KOLKATA

Date of Audit: 11/05/16

Audit of Under Frequency Relay (UFR) for ER SYSTEMS

1. Name of Sub-Station: 132/33 kV Adityapur I S/S
2. Details of feeders having UFR : 33 KV Adityapur 1 & 33 KV Adityapur II

SN	Name of feeders	Voltage Rating	Detail of Emergency Loads, if any	UFR Make	Type/Model
1	33 KV Adityapur 1	33 KV	10.5 MW	AREVA	P127 CATV312CAI
2	33 KV Adityapur II	33 KV	9.5 MW	Schneider electric	P127 BB0Z312FDE

Radial / parallel feed connections, if any, (to be specified for the above feeders).

3. Settings of UFR:

SN	Recommended UFR setting	Adopted Time delay / Instantaneous	Adopted UFR setting	Load (MW)		
				Peak	Off-Peak	Average
1	48.8 HZ	Instenteneous	48.8 HZ	10.5	8.5	9.5
2	48.6 HZ	Instenteneous	48.6 HZ	9.5	5.5	7.5

4. UFR operated in past, if any (Yes/No): NO

If 'Yes' then mention the following

SN	Date/Time	Frequency at operation (Hz)	Nos. of operations	Load Relief obtained (MW)	Name of feeder providing load relief	Any parallel feed looping on feeder	Category of load shedding (RLSS/FLAT)
1.							
2.							

Parallel feeder if any not- wired to the UFR to be mentioned specifically herein

5. Testing of UFR operation in the past

Date/ Time 26/3/2016 At Initiating frequency: Hz

SN	Details of testing	Remarks
1	Adityapur 1	48-8 HZ
2	Adityapur II	48.8 HZ

6. Last calibration/ testing for the above relay was carried out on: 26/3/2016
7. Checking of feeder CB/Trip relay wiring to the UFR: Done
8. Disturbance Recorder(DRs)/Event Loggers(ELs)/GPS provided or not: yes.
9. Availability of fiber optic link: NO
10. Remote monitoring of healthiness of UFR, if provided NO
11. Information on system of noting the UFR operation & its reporting: manual.
12. Secondary Test Kit used for testing: ~~OMICRON~~ Not available.

11/05/16

(S.C. Hazra)
AEE/TSD/Adpr

(A.K.Bandyopadhyaya)	(S.Roy)	(L.Nayek)	(S.Dutta)	( )	B.Verma (Engr)	ERLDC	( )
MS, ERPC	CE,WBSETCL	GM, OPTCL	SE,DVC	Powergrid			JUSNL

EASTERN REGIONAL POWER COMMITTEE :: KOLKATA

Date of Audit:

Audit of Under Frequency Relay (UFR) for ER SYSTEMS

1. **Name of Sub-Station:** 132/33 kV Haldia -I S/S
2. **Details of feeders having UFR :**

SN	Name of feeders	Voltage Rating	Detail of Emergency Loads, if any	UFR Make	Type/Model
1.	Brambey	33 kV		JRS	JRF 014
2.	Argora	-do-		-do-	-do-
3.	Dhurwa	-do-		-do-	-do-
4	Harmu	-do-		-do-	-do-

Radial / parallel feed connections, if any, (to be specified for the above feeders).

3. **Settings of UFR:**

SN	Recommended UFR setting	Adopted Time delay / Instantaneous	Adopted UFR setting	Load (MW)		
				Peak	Off-Peak	Average
1.	48.8		48.8	14	10	12
2.	48.6		48.6	14	10	12
3.	48.6		48.6	22	14	18
4	48.6		48.6	16	8	12

4. UFR operated in past, if any (Yes/No): No

   If 'Yes' then mention the following

SN	Date/Time	Frequency at operation (Hz)	Nos. of operations	Load Relief obtained (MW)	Name of feeder providing load relief	Any parallel feed looping on feeder	Category of load shedding (RLSS/FLAT)
1.							
2.							

-Parallel feeder if any not- wired to the UFR to be mentioned specifically herein

5. Testing of UFR operation in the past : No

   Date/ Time At Initiating frequency: Hz

SN	Details of testing	Remarks

6. Last calibration/ testing for the above relay was carried out on: 1-22/09/2013, 2-11/10/2013
7. Checking of feeder CB/Trip relay wiring to the UFR: No
8. Disturbance Recorder(DRs)/Event Loggers(ELs)/GPS provided or not: No
9. Availability of fiber optic link: No
10. Remote monitoring of healthiness of UFR, if provided : No
11. Information on system of noting the UFR operation & its reporting: SLDC Ranchi on monthly basis
12. Secondary Test Kit used for testing: No

(A.K.Bandyopadhyaya)	(S.Roy)	(L.Nayek)	(J.Dutta)		B Verma	
MS, ERPC	CE,WBSETCL	GM, OPTCL	SE,DVC	Powergrid	ERLDC	JUSNL

BALI RAM ORAON
Asst. Executive Engineer, Haldia -I

EASTERN REGIONAL POWER COMMITTEE :: KOLKATA

Date of Audit:

Audit of Under Frequency Relay (UFR) for ER SYSTEMS

1. **Name of Sub-Station:** 132/33 **kV** Namkum **S/S**
2. **Details of feeders having UFR :**

SN	Name of feeders	Voltage Rating	Detail of Emergency Loads, if any	UFR Make	Type/Model
1.	Kokar (Rural)	33kV		Areva	MFVUM

Radial / parallel feed connections, if any, (to be specified for the above feeders).

3. **Settings of UFR:**

SN	Recommended UFR setting	Adopted Time delay / Instantaneous	Adopted UFR setting	Load (MW)		
				Peak	Off-Peak	Average
1.	48.6	0.1	48.6	16	13	14.5

4. UFR operated in past, if any (Yes/No): No

If 'Yes' then mention the following

SN	Date/Time	Frequency at operation (Hz)	Nos. of operations	Load Relief obtained (MW)	Name of feeder providing load relief	Any parallel feed looping on feeder	Category of load shedding (RLSS/FLAT)
1.							
2.							

-Parallel feeder if any not- wired to the UFR to be mentioned specifically herein

5. Testing of UFR operation in the past : No

Date/ Time At Initiating frequency: Hz

SN	Details of testing	Remarks

6. Last calibration/ testing for the above relay was carried out on: 02/11/2007
7. Checking of feeder CB/Trip relay wiring to the UFR:
8. Disturbance Recorder(DRs)/Event Loggers(ELs)/GPS provided or not: No
9. Availability of fiber optic link: No
10. Remote monitoring of healthiness of UFR, if provided : No
11. Information on system of noting the UFR operation & its reporting: SLDC. Ranchi on monthly basis
12. Secondary Test Kit used for testing: No

(A.K.Bandyopadhyaya)	(S.Roy)	(L.Nayek)	(J.Dutta)	( )	( )	( )
MS, ERPC	CE,WBSETCL	GM, OPTCL	SE,DVC	Powergrid	ERLDC	JUSNL

EASTERN REGIONAL POWER COMMITTEE :: KOLKATA

Date of Audit:13/05/16

Audit of Under Frequency Relay (UFR) for ER SYSTEMS

1. **Name of Sub-Station:** .....132/33...kV .....Ramgarh..... 5/S
2. **Details of feeders having UFR :**

SN	Name of feeders	Voltage Rating	Detail of Emergency Loads, if any	UFR Make	Type/Model
1.	JSEB-I	33Kv		GEC ALSTHOM	Tripping Relay Type VAJ
2.	JSEB-II	33Kv		GEC ALSTHOM	Tripping Relay Type VAJ
3.	Giddi-I	33Kv		GEC ALSTHOM	Tripping Relay Type VAJ
4.	Giddi-II	33Kv		GEC ALSTHOM	Tripping Relay Type VAJ

Radial / parallel feed connections, if any, (to be specified for the above feeders).

4. **Settings of UFR:**

SN	Recommended UFR setting	Adopted Time delay / Instantaneous	Adopted UFR setting	Load (MW)		
				Peak	Off-Peak	Average
	48.6			40	35	37.5
	48.6			40	35	37.5
	48.6			16	12	14
	48.6			18	15	16.5

5. UFR operated in past, if any (Yes/No):

   If 'Yes' then mention the following

SN	Date/Time	Frequency at operation (Hz)	Nos. of operations	Load Relief obtained (MW)	Name of feeder providing load relief	Any parallel feed looping on feeder	Category of load shedding (RLSS/FLAT)
1.							
2.							

-Parallel feeder if any not- wired to the UFR to be mentioned specifically herein

6. Testing of UFR operation in the past

   Date/ Time At Initiating frequency: Hz

SN	Details of testing	Remarks

7. Last calibration/ testing for the above relay was carried out on:
8. Checking of feeder CB/Trip relay wiring to the UFR:
9. Disturbance Recorder(DRs)/Event Loggers(ELs)/GPS provided or not:
10. Availability of fiber optic link:
11. Remote monitoring of healthiness of UFR, if provided
12. Information on system of noting the UFR operation & its reporting:
13. Secondary Test Kit used for testing: AVO - Pulsar (Universal Test System)

(A.K.Bandyopadhyaya)	(S.Roy)	(L.Nayek)	(J.Dutta)	( )	(S.K.Sahu)
MS, ERPC	CE,WBSETCL	GM, OPTCL	SE,DVC	Powergrid	SE(E) ,GOMD-V

Annexure-B17

Installed Capacity (MW) and Generation (MU) from renewable Resources (Injected into the Grid)

1. State/Centre :
2. Month :
3. Year :

Renewable Resources/Organizations	Installed Capacity (MW) as on last date of the month			Generation (MU) during the month : ~~January~~			Cumulative Generation (MU) during the 1st April ~~2015~~ to end of month		
Renewable Energy Resources	Central Sector	State Sector	Private Sector	Central Sector	State Sector	Private Sector	Central Sector	State Sector	Private Sector
1. Wind									
2 a. Solar (1 MW & above)									
2 b. Solar (Less than 1 MW)									
3. Biomass									
4. Bagasse									
5. Small Hydro (1 MW to 25 MW)									
6. Any Other (Please Specify the resources)									
Total									

Annexure-B18

भारत सरकार
विद्युत मंत्रालय
केंद्रीय विद्युत प्राधिकरण
ग्रिड प्रबंधन प्रभाग
सेवा भवन, आर. के. पुरम, नई दिल्ली – 110066 (ISO 9001:2008)
वैबसाइट / Website: www.cea.nic.in

Subject: - Reference from MNRE regarding compilation of data for meeting renewable energy targets of 175GW by 2020.

Reference is invited to MoP letter no. 23/2/2005-R&R(Vol-XI), dated 22/03/2016 enclosing therewith MNRE letter dated 02/03/2016, on the above cited subject (copies enclosed).

In this regard, it is requested that concerned State Utilities/ Generating companies in the region may please be asked to submit their data. Data as received, may please be forwarded to GM Division for compilation.

Encl-As above

Vijay Menghani 29.3.16
(Vijay Menghani)
Director

Member Secretary(NRPC/WRPC/SRPC/ERPC/NERPC)
No: 1/AI/MRP/GM-2016 474-83 Date: 29/03/2016

No. 23/2/2005-R&R (Vol-XI)
Government of India
Ministry of Power
***

Shram Shakti Bhawan, Rafi Marg,
New Delhi, 22nd March, 2016

To

1. Chairperson CEA, Sewa Bhawan, R.K. Puram, New Delhi.
2. Secretary, CERC/FOR, Chanderlok Building, Janpath, New Delhi.

Subject: Reference from MNRE regarding compilation of data for meeting renewable energy targets of 175 GW by 2020.

Sir/Madam,

I am directed to forward herewith a copy of MNRE D.O. letter No. 11/7/2013-EFM dated 2.3.2016 regarding compilation of data for meeting renewable energy targets of 175 GW by 2020 for necessary action.

Yours faithfully.

Encl: As above

(Rajendra Singh)
Under Secretary to the Government of India
Tel: 2373 0265

सत्यमेव जयते

वर्षा जोशी, आई.ए.एस.
संयुक्त सचिव
Varsha Joshi, IAS
Joint Secretary

भारत सरकार
नवीन और नवीकरणीय ऊर्जा मंत्रालय
Government of India
Ministry of New and Renewable Energy

D.O. No. 11/7/2013-EFM
Dated: 2.3.2016

India has announced a very ambitious renewable energy capacity target of 175 GW by 2020. For achieving the 175 GW target, apart from focus on actual deployment of RE equipment on ground, we need to focus on various policy measures and R&D development in new areas. For translating Hon'ble Prime Minister's vision on renewable energy into reality, host of measures are required to be undertaken apart from the measures recently announced in National Tariff Policy.

2. One such measure include examining balancing potential available to handle the today's RE generation and even higher shares of RE generation and by 2022. Role of quality forecasting in efficient balancing is being taken care of in preparation of REMCs DPRs for the RE rich States. Further, States have started coming up with forecasting and scheduling regulations; so far Rajasthan, Madhya Pradesh, Karnataka and Tamil Nadu have done this. The compilation of data on the following items will help in taking measures how to utilize the regional and national potential of balancing and how to distribute the effort of RE integration within all States, and may kindly be considered early.

a) Data on the technical capacities of power plants such as minimum load, rate of change of generation, start up time and down time, minimum standstill time, State-wise and region-wise are important for knowing critically the quantity of available balancing potential at any given time. Regional balancing potential needs to be tapped in order to enhance integration of RE.
b) Thermal balancing potential of RE rich States today and up to 2020 (region-wise also).
c) Theoretical hydro balancing potential of States today and up to 2020 (region-wise also).
d) Pumped hydro projects capabilities today and up to 2020 (region-wise also).
e) Forecasting and scheduling regulations by States (apart from four States mentioned above).

3. Balancing potential availability region-wise would ensure large scale integration of RE.

Yours sincerely,
Sd/-
[Varsha Joshi]

Ms. Jyoti Arora
Joint Secretary (Power)
Rafi Marg, Sansad Marg Area
New Delhi, Delhi 110001

Copy to: Shri P.K. Pujari, Secretary, Ministry of Power, Shram Shakti Marg, New Delhi

O/o SECY. (P)
Dy. No. 142129/Ec
Date 4/3/16

[Varsha Joshi]
Joint Secretary

Annexure-B22

Dynamic data of Generator Models required in PSSE for Simulations

- Data received from
  - NTPC Kahalgaon & Barh, Farakka, TTPS
  - NHPC Teesta-V,
  - WBPDCL, CESC
  - GMR, JITPL,MPL and Vedanta Ltd.
  - OHPC
    - Balimela, Chiplima
  - IMFA CPP Odisha
- Data not received from
  - NTPC TSTPS, Kanti TPS
  - NHPC Rangit
  - DVC, JUVNL, OPGC
  - OHPC
    - Indarvati, Rengali, U. Kolab, Burla
  - Adunik TPS, Vedanta (135 MW units)

Details of Eastern Region

A. Telemetry not provided

A.1 Generating Stations

Sl. No.	User Name	Name of Generation Stations	Date of first sysnchonisation	Total Generation Capacity (in MW)	Remarks by constituentes / ERLDC 05.05.16
1	WBSETCL	Haldia (2 x 300)	Jan-15	600	ERLDC is not getting any real time ISOLATOR status ,SOE from HEL except Line, Unit site MW /MVAR. No response.
1	IPP	400 KV GMR (3X 350 MW)	Apr-13	1050	As per ERLDC guidelines no express voice /VOIP phones and stand by channel provided .
2		400 JITPL (600 x 2)		1200	Data Are highly instable . No stand by data channel and express voice commuincation integrated with ERLDC New Exchange
3		IBEUL (2 x 350 MW)		700	No stand by data channel and as per ERLDC guidelines no express voice /VOIP phones provided .
		Total (Non-telemetered stations)	**4**	**3550**	

A.2 Sub - Stations (765 & 400 kV)

Sl. No.	User Name	Name of sub-Stations	Voltage level	Date of first sysnchonisation	Remarks by constituentes / ERLDC 05.05.16
1	OPTCL	JSPL (Meramundali -400)	400 kV	Sep'10	Status are not reporting.

A.3 Sub - Stations (220 kV & 132 kV)

Sl. No.	User Name	Name of sub-Stations	Voltage level	Target date as per User	Remarks by constituentes / ERLDC 05.05.16
1	OPTCL	OPTCL CPP : 220 KV BPSL,CONCAST,BSL,JSL	220 / 132 kV	Dec-13	CONCAST NO DATA , JSL NO KV/HZ. BSL NO HZ .BPSL NO Bus Kv .
1	BSEB	Gopalganj	220 kV		Integrated Over PLCC /MUX
2		Darbhanga	220 kV		RTU under commissioning under upgradation project.
3		Kisanganj	132 KV		RTU commssioned over GPRS .
4		Arrah	132 KV		Arrah RTU commsioned /integrated but due to rennovation work at site stopped communicating. .
5		Rajgir	132 KV		RTU commissioned over PLCC & MUX.
6		Jagdishpur	132 KV		RTU under commissioning under upgradation project.
7		Sipara	220 KV		Integrated Over PLCC & MUX.
8		Hajipur (New)	220 KV		Integrated Over SDH.
9		Pusauli	220 KV		Integrated Over GPRS .
1	JSEB	Hatia New	220 kV	No Time Schedule	No Data available .No response .
2		Japla	132 KV		No Data available .No response .
3		Dumka	220 KV		No Data available .No response .

B. Telemetry provided but not working / working intermittently

B.1 Generating Stations

Sl. No.	User Name	Name of Generation Stations	Total Generation Capacity (in MW)	Target date as per User	Remarks by constituentes / ERLDC 05.05.16
1	OPTCL	220 KV Vedanta (9X 135 MW)	1215	Dec-13	Some CB / Isolators and KV / HZ point yet to be provided.No response .
1	JSEB	220 KV Tenughat (2X 210 MW)	420	Time Schedule not submitted	Data highly intermittent
2		220 KV Patratu (4x 50 + 2x100 + 4x110)	840	Time Schedule not submitted	Data highly intermittent
	BSEB	KBUNL			Data integrated .
1	NTPC	400 kV Farakka : (3x 200 + 2 x 500 MW + 600) Unit-6 and Unit -5 LV side MW/MVAR not available	2100	Time Schedule not submitted	No response .
2		BRBCL/Nabinagar TPP (4x250 MW)	1000	Time Schedule not submitted	No data available. As per ERLDC guidelines no express voice /VOIP phones provided .
3		BARH (2x550 MW)	1100		Unit site data not available since last 1 year.
1	Vedanta	SEL (4 x550 MW)	2200		All data stopped reporting since March 2016

Annexure-B27

B.2		Sub - Stations			Remarks by constituentes / ERLDC 05.05.16
Sl. No.	**User Name**	**Name of sub-Stations**	**Voltage level**	**Target date as per User**	Data not reporting
1		Barauni	132 kV		Under rennovation and modernization . Target July 2016
2		Dumraon	132 kV		Data reporting
3		Khagaul	132 kV		Data intermittent
5		Darbhanga	220 kv &132 kV		RTU under commissioning under upgradation project.
6		Dehri	220 KV		presently not reporting due to RTU problem. M/s chemtrols RTU vendor directed to rectify problem. Target- May-16
7		Khagul	220 KV		Data reporting
8		Samastipur	220 kV		RTU reporting.
9	BSPTCL	Sonenagar	132 kV		Under rennovation and modernization . Target July 2016
10		sultangaunj	132 kV		Under rennovation and modernization . Target July 2016
11		Lakhisarai	132		Data Intermittent
12		Karmanasa	132		Under rennovation and modernization . Target July 2016
13		Kahalgaon	132 kV		Data Intermittent
14		Jamaui	132		Data Intermittent
15		Begusarai	220		RTU reporting.
16		Banka	220 kv &132 kV		Data Intermittent
17		Valmikinagar	132 kV		Under rennovation and modernization . Target July 2016
18		Koshi	132 kV		Under rennovation and modernization . Target July 2016
1	JSEB	Jamtara	132 kV	Time Schedule not submitted	Data not available
2		Deoghar	132 kV	Time Schedule not submitted	Data not available
3		Garwah	132 kV	Time Schedule not submitted	Data not available
4		Goelkera	132 kV	Time Schedule not submitted	Data not available
5		Jaduguda	132 kV	Time Schedule not submitted	Data not available
6		Kendposi	132 kV	Time Schedule not submitted	Highly Intermittent
1	SIKKIM	Melli	132 KV		Data integrated.stopped reporting
1	PGCIL	Maithon	400 kV		Highly Intermittent
2		Ranchi 400	400 kV		Highly Intermittent
3		NTPC Kahalgaon	400 kV		Highly Intermittent
4		Malda	400 kV		Highly Intermittent
5		Dalkhola	220 kV		Highly Intermittent
6		Siliguri220	220 kV		Highly Intermittent
7		Purnea 400	400 kV		Highly Intermittent
8		Baripada	400 kV		Highly Intermittent
9		Subhasgram	400 kV		Highly Intermittent
10		MPL	400 kV		Highly Intermittent
11		Gaya	765 kV		Highly Intermittent
12		Jharsuguda	765 kV		Highly Intermittent
13		Banka	400 kV		Highly Intermittent
14		Indbharat	400 kV		Highly Intermittent
15		Lakhisarai	400 kV		Highly Intermittent
1	NTPC	Lalmatia	220 kV		Data stoppped reporting since Jan 2016

Orange phone Not Available

A. Substation and Station

S.No.	RTU	Extension No		Status
		Analog FXS	IP Phone	
1	Subashgram		20330015	Port Down/Phone Disconnected
2	Rangpoo	20330139	20330020	Port Down/Phone Disconnected
3	New Malli	20330140	20330021	Port Down/Phone Disconnected
4	Siliguri 220		20330023	Phone Adapter is missing
5	Siliguri 400		20330024	Port Down/Phone Disconnected
6	Jharsugura		20330040	Port Down/Phone Disconnected
7	Kalabadia		20330055	Link is not available
8	Keonjhar CS		20330047	Link is not available
9	Talcher HVDC			Link is not available
10	JITPL			Link is not available
11	Birpara		20330053	Port Down/Phone Disconnected
12	Bolangir		20330064	Link is not available
13	Jaypore		20330048	Link is not available
14	Indravati		20330063	Link is not available
15	Mujaffarpur		20330050	Port Down/Phone Disconnected
16	Teesta NHPC		20330062	Link is not available
17	SEL			Ports details Not available
18	GMR			Ports details Not available
19	Lalmatia			Ports details Not available
20	Bheramera HVDC(Bangladesh)			Ports details Not available
21	Adhunik Power, Jamshedpur			Link is not available

B SLDC

1	WBSETCL , Howarh			Orange phone not working
2	JUSNL ,Howarh			Orange phone not working
3	SLDC Sikkim			Orange phone not working

SAS/RTU lacking stand by channel

S.N.	Substation Name	Main RLDC		Backup RLDC		Remarks
		Main Channel	Std By Channel	Main Channel	Std By Channel	
1	Jeypore	Yes	NO	NO	NO	
2	Talcher HVDC	Yes	NO	NO	NO	
3	Indravati	Yes	NO	NO	NO	
4	Patna	Yes	NO	NO	NO	
5	Rengali	Yes	NO	NO	NO	
6	NTPC Talcher	Yes	NO	NO	NO	
7	Rourkela	Yes	NO	NO	NO	
8	Jamshepur	Yes	NO	NO	NO	
9	Maithon	Yes	NO	NO	NO	
10	Ranchi	Yes	NO	NO	NO	
11	Durgapur	Yes	NO	NO	NO	
12	Farakka NTPC	Yes	NO	NO	NO	
13	Kahalgaon NTPC	Yes	NO	NO	NO	
14	Biharshariff	Yes	Yes	NO	NO	
15	Baharampur	Yes	NO	NO	NO	
16	Lalmatia	Yes	NO	NO	NO	
17	Malda	Yes	NO	NO	NO	
18	Dalkhola	Yes	NO	NO	NO	
19	Purnea -220	Yes	NO	NO	NO	
20	Siliguri	Yes	NO	NO	NO	
21	Birpara	Yes	NO	NO	NO	
22	Binaguri	Yes	Yes	NO	NO	
23	Rangit NHPC	Yes	NO	NO	NO	
24	Purena -400	Yes	NO	NO	NO	
25	Sasaram	Yes	NO	NO	NO	
26	Baripada	Yes	NO	NO	NO	
27	Subhasgram	Yes	NO	NO	NO	
28	Teesta	Yes	NO	NO	NO	
29	Muzaffarpur	Yes	NO	NO	NO	
30	Gangtok	Yes	NO	NO	NO	
31	Arrah	Yes	NO	NO	NO	
32	Adhunik	Yes	NO	NO	NO	
33	Sterlite	Yes	NO	NO	NO	
34	MPL	Yes	NO	NO	NO	
35	Barh NTPC	Yes	NO	NO	NO	
36	Gaya	Yes	NO	NO	NO	
37	Bolangir	Yes	NO	NO	NO	
38	Keonjhar	Yes	NO	NO	NO	
39	Jorthang	Yes	NO	NO	NO	
40	Angul	Yes	NO	NO	NO	
41	Jharsuguda	Yes	NO	NO	NO	
42	Gati	Yes	NO	NO	NO	
43	Banka	Yes	NO	NO	NO	

44	Bheramara	Yes	NO	NO	NO	
45	Rangpo	Yes	NO	NO	NO	
46	Lakhisarai	Yes	NO	NO	NO	
47	Indbharat	Yes	NO	NO	NO	
48	Chaibasa	Yes	NO	NO	NO	
49	Nabinagar NTPC	Yes	NO	NO	NO	
50	JITPL	Yes	NO	NO	NO	
51	Melli (PG)	Yes	NO	NO	NO	
52	KIsanganj	Yes	Yes	NO	NO	

SLDC to ERLDC protection path not provided as per ERLDC.

S.N.	Link	Main RLDC		Backup RLDC	
		Main Channel	Std By Channel	Main Channel	Std By Channel
1	ERLDC - OPTCL	Yes	NO	NO	NO
2	ERLDC - BSPTCL	Yes	NO	NO	NO
3	ERLDC - JUSNL	Yes	NO	NO	NO
4	ERLDC - WBSETCL	Yes	NO	NO	NO
5	ERLDC - DVC	Yes	NO	NO	NO
6	ERLDC - Sikkim	Yes	NO	NO	NO
7	ERLDC - NLDC	Yes	NO	Yes	Yes

Annexure – B.28

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	No	EL will be restored by March, 2015.
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 submitted during ERS meeting held on 10.11.14 taken by Member (Power System), CEA is given below:

1) As per 100th OCC meeting held on 22.08.2014, the status of ERS towers as available in Powergrid 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) As informed by OPTCL, 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 approved by Board of Director for procurement in the current financial year. Purchase order has been placed.
- Another, 16 nos of 400 kV towers accompanied with 6 sets of T&P are required.

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) Bihar informed that they have 10 sets of 220 kV ERS towers and 2 sets are under process of procurements.

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

Annexure-B30

			Generation declared Commercial from 1st Oct '15 to 31st Mar '16					Generation declared/expected to be declared Commercial from 1st Apr'16 to 30th June'16								
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)
West Bengal	ER	4565											4565			4565
Odisha	ER	2906											2906	As data given by GRIDCO	3164	3164
Bihar	ER	216											216			216
Jharkhand	ER	330											330			330
Sikkim	ER	0											0			0
Chujachan	ER	114											114			114
DVC	ER	3308											3308			3308
Durgapur Steel	ER															
Koderma TPP	ER															
MPL	ER	1019											1019			1019
Sterlite	ER	768											768			768
Teesta	ER	533											533	As per NHPC	520	520
Kahalgaon	ER	2044											2044	As per NTPC	2178	2178
Farakka	ER	1869											1869		1968	1968
Talcher	ER	952											952			952
Rangeet	ER	74											74	As per NHPC	63	63
Corporate Power	ER												0			0
Adhunik Power	ER	403											403			403
Barh	ER	669	Barh	5	660	432	432						1101	As per NTPC	1057	1057
Kamalanga TPP (GMR)	ER	659											659			659
JITPL	ER	1043											1043			1043
Jorethang	ER		Jorethang	1	48	48	95						95			95
			Jorethang	2	48	48										
Bhutan	ER	1574											1574			1574
Raghunathpur			Raghunathpur TPP	1	600	393	785						785			785
			Raghunathpur TPP	2	600	393										
Bokaro TPS Extn.	ER		Bokaro A TPS Extn	1	500	327	327						327			327
TOTAL		23046					1640						24686			25109

Note:

1. Projections are based on monthly maximum injection in the last 3 years from actual metered data.

2. Generation forecast has been done based on the following criteria

(i) If there is an increasing trend then last year average generation has been considered

(ii) Otherwise average of past three year average generation has been considered

3. In case of new generators where past data was not available following has been assumed

(i) 1.0 plf for hydro generators

(ii) 0.7 plf for thermal generators.

(iii) 0.3 plf for gas stations

4. In case of the re-organized states of Andhra Pradesh and Telangana Generation is divided in the ratio 53.89% for Telangana and 46.11% for Andhra Pradesh for FY 2012-13 and 2013-14.
This is as per letter No.CE/COMML./APPCC/DE-COMML/POC-DATA-15-16/D.No/15 dtd. 09.10.15 as received from APTRANSCO.

DEMAND FORECAST USING PAST 3 YEARS DATA (July 2016 - Sep 2016)

										1	2	3	4		
	2013-14			2014-15			2015-16								
	Jul-13	Aug-13	Sep-13	Jul-14	Aug-14	Sep-14	Jul-15	Aug-15	Sep-15	2013-14 Average	2014-15 Average	2015-16 Average	Projected Demand for (July 2016 - Sep 2016) before normalization	Data given by DICs	Comments
Bihar	2,166	2,113	2,088	2,470	2,251	2,722	3,084	3,061	3,409	2,122	2,481	3,185	3,658		
DVC	2,583	2,428	2,417	2,512	2,453	2,454	2,688	2,351	2,409	2,476	2,473	2,483	2,484	2860	Data received from DVC
Jharkhand	959	974	943	982	992	986	1,083	1,090	1,113	959	987	1,095	1,150		
Odisha	3,537	3,471	3,620	3,634	3,541	3,710	3,844	3,929	3,827	3,543	3,628	3,867	4,003	3523	Data received from GRIDCO
West Bengal	7,290	7,008	6,981	7,133	7,419	7,288	7,601	7,355	7,495	7,093	7,280	7,484	7,676		
Sikkim	80	80	80	78	75	80	83	83	83	80	78	83	83		
Bhutan															
Eastern Region	**15,528**	**15,023**	**15,075**	**16,086**	**16,010**	**16,609**	**17,642**	**17,149**	**17,597**						

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 2016-2017 (Q1) i.e April 2016 to June 2016
3. Projections are being done based on the forecast function available in MS Office Excel
4. In case of the re-organized states of Andhra Pradesh and Telangana Maximum Demand is divided in the ratio 53.89% for Telangana and 46.11% for Andhra Pradesh for FY 2012-13 and 2013-14. This is as per letter No.CE/COMML./APPCC/DE-COMML/POC-DATA-15-16/D.No/15 dtd. 09.10.15 as received from APTRANSCO.
4. CEA Reports can be accessed from the following links:

http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-09.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-08.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-07.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2014_09.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2014_08.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2014_07.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2013_09.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2013_08.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2013_07.pdf

Annexure- B.31

Pollution Mapping Status

Name of Contract: **Pollution Mapping of Eastern Region**
NOA No: CC-CS/479-ER1/MISC-2482/3/G4/CA/4886 dated 26.02.2014
AGENCY: **M/s CPRI Bangalore**
Contract Value: **28.40 Lac**

Utility	Scope	Installed Locations	no. of locations where the results for 1st set of Measurements submitted	no. of locations where the results for 2nd set of Measurements submitted
JUSNL	**67**	**27**	**17**	**17**
BSPTCL	**59**	**52**	**8#**	**0**
WBSETCL	73	68	43	0
OPTCL	164	102	100	42
Sikkim Power	12	9	6	6
POWERGRID ER1	99	99	47*	0
POWERGRID ER2	40	40	40	33
POWERGRID ODISHA	42	42	42	41

Critical issues –

#BSPTCL have informed in 118th OCC meeting that they have completed 1st set of measurement for 45 locations, However data submitted for only 8 locations.

JUSNL have completed first set measurement for **17no of locations only out of 67** identified locations.

***POWERGRID ER1** have informed in 118th OCC meeting that they have completed 1st set of measurement for all 99 locations identified, however data submitted for only 47 locations. Balance locations were forwarded to them through mail (enclosed).

Schedule for upcoming measurements:

3rd set	4th set	5th set	6th set
21st -31st May 2016	**21st -30th Sep 2016**	**21st -31st Jan 2017**	**21st -31st May 2017**

Annexure- C.1

Approved Maintenance Schedule of Thermal Generating Units of ER for June-2016

System	Station	Unit	Size (MW)	period		No. of Days	Reason
				From	To		
BSPTCL	MTPS (KUNL)	1	110	15.06.16	15.07.16	31	Overhaul, *Deferred to 15.07.2016 to 15.08.2016*
JUSNL	TVNL, Tenughat	1	210	01.06.16	15.07.16	45	Unit Overhauling
DVC	MTPS	1	210	05.06.16	05.07.16	31	AOH & Boiler Acid cleaning, *Deferred to August 2016*
ODISHA	TTPS	5	110	15.06.16	04.07.16	20	Boiler Overhaul , *Deferred to July 2016*
WBPDCL**	Santaldih TPS	6	250	01.06.16	05.07.16	35	B-T-G
NTPC	*KhSTPS	3	210	22.06.16	26.07.16	35	Capital+DDCIMS+Boiler RLA+Boiler Acid Cleaning
	TSTPS	6	500	06.06.16	10.07.16	35	Boiler+RH Modification+ESP R&M

EASTERN REGIONAL LOAD DESPATCH CENTRE
KOLKATA

TRANSMISSION ELEMENTS OUTAGE APPROVED IN 121ST OCC MEETING OF ERPC

Sr. No	NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S/D availed BY	Reason	SUBJECT TO CONSENT FROM AGENCY
1	132kV S/C BIRPARA - ALIPURDUAR LINE	21/05/2016	09:00	24/05/2016	17:00	ODB	ER-II/KOL	For Stringing power line crossing span between Loc MC 2/0- MC 3/0 in LILO of 400KV (Quad) Bongaigoan - New Siliguri CKT#3&4 at Alipurduar	WBSETCL
2	400kV Bus-I at Maithon.	21/05/2016	09:00	21/05/2016	18:00	ODB	ER-II/KOL	400kV Bus Bar Augmentation work	
3	400KV MAIN BUS-I AT BARIPADA	21/05/2016	07:00	21/05/2016	18:00	ODB	ER-II/OR	CONSTRUCTION WORKS -ERECTION OF BUSHING & GAS INSULATED BUS DUCT OF MAIN BUS -I OF GIS	
4	Non Auto mode of Bolangir-Jeypore S/C Line at Both Ends at Bolangir	21/05/2016	07:00	15/06/2016	19:00	ODB	ER-II/OR	For OPGW Stringing works	
5	Non Auto mode of Angul-Jeypore S/C Line at Both Ends at Bolangir	21/05/2016	07:00	31/05/2016	19:00	ODB	ER-II/OR	For OPGW Stringing works	
6	400KV BSF-NPRN-1 & 2	21/05/2016	08:00	02/07/2016	18:00	OCB	ER-I	FOR CONSTRUCTION OF BAYS SWAPPING OF LINE AT BSF	NLDC
7	400KV BSF-MUZ-1	22/05/2016	07:00	26/05/2016	18:00	ODB	ER-I	For laying of OPGW (strengthening of peak at location no. 310 & 335),	NLDC
8	132KV SLG- MELLI LINE	23/05/2016	07:00	25/05/2016	17.00 Hrs	OCB	ER-II/KOL	GIS WORK	SIKKIM
9	400kV Bus-II at Maithon	23/05/2016	09:00	23/05/2016	18:00	ODB	ER-II/KOL	400kV Bus Bar Augmentation work	
10	315MVA ICT#2 AT BARIPADA	23/05/2016	07:00	23/05/2016	18:00	ODB	ER-II/OR	CONSTRUCTION WORKS -ERECTION OF BUSHING & GAS INSULATED BUS DUCT OF MAIN BUS -I OF GIS	OPTCL
11	220kV Rengali PCGIL- OPTCL -II at Rengali	23/05/2016	08.00Hrs.	26/05/2016	17.00Hrs.	OCB	ER-II/OR	Overhauling of CGL CB.	OPTCL
12	125 MVAR B/R - 3 AT BSF	23/05/2016	08:00	23/05/2016	18:00	ODB	ER-I	FOR CSD COMM WORK	
13	220kV ICT -II Bay at Rengali	24/05/2016	08.00Hrs.	26/05/2016	17.00Hrs.	OCB	ER-II/OR	Overhauling of CGL CB.	
14	220kV Rourkela-Tarkera#1 Main Bay (Bay No.- 210)	24/05/2016	09:00 hrs	24/05/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
15	400 KV FKK -KHLG - 1 AND 2	25/05/2016	08:00	28/05/2016	18:00	OCB	ER-I	FOR POWERLINE CROSSING OF CONSTRUCTION WORK FOR SHIFTING OF 400 KV KHLG -BANKA T/L UNDER BUS SPLIT SCHEME AT NTPC/KHLG	NLDC
16	400kV NSLG - TALA-III LINE	25/05/2016	09:00	03/06/2016	17.00 hrs	OCB	ER-II/KOL	Conductor repairing	NLDC
17	220kV NSLG-BRP Ckt-I & II	25/05/2016	09:00	03/06/2016	17.00 hrs	OCB	ER-II/KOL	Tower shifting due to doubling of rail track	NLDC/ will be allowed after Tala - Binagui - III shutdown
18	400kV Tala-I L/R at Binaguri.	25/05/2016	09:00	30/05/2016	17.00 hrs	OCB	ER-II/KOL	Repeat tan delta of 400kV R Phase Bushing & Neutral Bushing Replacement	
19	400kV NSLG-Kishanganj-2 Line at Binaguri.	25/05/2016	09:00	25/05/2016	17.00 hrs	ODB	ER-II/KOL	Hot spot rectification	
20	400kV Bus-I at Binaguri.	25/05/2016	09:00	26/05/2016	17.00 hrs	ODB	ER-II/KOL	To facilitate hot spot rectification in Purnea-3 & 4 Line	
21	315MVA ICT-I AT Maithon	25/05/2016	09:00	25/05/2016	18:00	ODB	ER-II/KOL	AMP Works. And 42389B-RPh isolator alignment	DVC
22	Bay. No-428, Main Bay of Berhampore-Sagardighi ckt-I Line at Sagardighi end	25/05/2016	10.00Hrs	25/05/2016	12.00Hrs	ODB	ER-II/KOL	CT Oil collection for DGA analysis	
23	Bay. No-428, Tie bay of Berhampore-Sagardighi ckt-I Line at Sagardighi end	25/05/2016	14.00Hrs	25/05/2016	17.00Hrs	ODB	ER-II/KOL	CT Oil collection for DGA analysis	
24	315MVA ICT#2 AT BARIPADA	25/05/2016	07:00	25/05/2016	18:00	ODB	ER-II/OR	CONSTRUCTION WORKS -ERECTION OF BUSHING & GAS INSULATED BUS DUCT OF MAIN BUS -I OF GIS	OPTCL
25	50MVAR Bus Reactor at Rourkela	25/05/2016	09:00 hrs	25/05/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
26	MAIN BAY OF NEW RANCHI- DHARAMJAYGARH -1 AT NRNC	26/05/2016	08:00	26/05/2016	18:00	ODB	ER-I	FOR AMP WORK. NO POWER INTERUPPTION	
27	220KV PATNA-KHAGAUL	26/05/2016	10:00	26/05/2016	17:00	ODB	ER-I	AMP OF LINE BAY	ALREADY APPROVED

28	400KV PTN-BARH-2 & 400KV KHLG-BARH-1	26/05/2016	08:00	26/05/2016	18:00	ODB	ER-I	FOR FIXING OF ONE BLAST CUM DECAPPED PILOT STRING AT MULTI CKT TOWER NO.-7 OF 400KV PTN-BARH-2 AND FIXING OF SPACER DAMPER CAP-148 NOS & CUT REPAIR-4 NOS OF 400KV KHLG-BARH-1	ALREADY APPROVED
29	BNG-III L/R at Binaguri.	26/05/2016	09:00	26/05/2016	17.00 hrs	ODB	ER-II/KOL	Repeat tan delta of 400kV B Phase Bushing / AMP	
30	400kV NSLG-Kishanganj-1 Line	26/05/2016	09:00	26/05/2016	17.00 hrs	ODB	ER-II/KOL	Hot spot rectification	
31	Bay. No-403, Main Bay of Berhampore-Jeerat Line	26/05/2016	10.00Hrs	26/05/2016	15.00Hrs	ODB	ER-II/KOL	For checking SAS operation of Isolator from Local SCADA	
32	220KV line-3 (207 Bay) at Bolangir	26/05/2016	09.00	26/05/2016	18.00	ODB	ER-II/OR	AMP Work	
33	220 KV DALKHOLA - PURNEA - I	26/05/2016	08:00	29/05/2016	18:00	ODB	ER-I	REPLACEMENT OF PROCEILAIN INSULATOR WITH POLYMER INSULATOR	
34	L/R OF NEW RANCHI- DHARAMJAYGARH -1 AT NRNC	27/05/2016	08:00	27/05/2016	18:00	ODB	ER-I	FOR AMP WORK. NO POWER INTERUPPTION	
35	400KV BUS-1 AT PATNA	27/05/2016	10:00	28/05/2016	17:00	ODB	ER-I	AMP WORK	
36	BNG-IV L/R at Binaguri.	27/05/2016	09:00	27/05/2016	17.00 hrs	ODB	ER-II/KOL	Repeat capacitance of 400kV Y Phase Bushing	
37	160MVA ICT#1 at Siliguri.	27/05/2016	07:00	27/05/2016	17:30 Hrs	ODB	ER-II/KOL	For MOG Replacement work	WBSETCL
38	315MVA ICT-II AT Maithon	27/05/2016	09:00	27/05/2016	18:00	ODB	ER-II/KOL	Tan Delta of 220KV R-PH Bushing at variable frequency.AMP, Connector replacement	DVC
39	Bay. No-402, Tie Bay of Berhampore-Bheramara ckt-II Feeder	27/05/2016	10.00Hrs	27/05/2016	15.00Hrs	ODB	ER-II/KOL	For checking SAS operation of Isolator from Local SCADA	
40	315MVA ICT#1 AT BARIPADA	27/05/2016	07:00	27/05/2016	18:00	ODB	ER-II/OR	CONSTRUCTION WORKS -ERECTION OF BUSHING & GAS INSULATED BUS DUCT OF MAIN BUS -I OF GIS	OPTCL
41	220KV line -4 (209 Bay) at Bolangir	27/05/2016	09.00	27/05/2016	18.00	ODB	ER-II/OR	AMP Work	
42	400kV Rourkela-Jamshedpur#2 Main Bay at Rourkela	27/05/2016	09:00 hrs	27/05/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
43	220kV Rengali PCGIL- OPTCL -I at Rengali	27/05/2016	08.00Hrs.	30/05/2016	17.00Hrs.	OCB	ER-II/OR	Overhauling of CGL CB.	OPTCL
44	400kV Baripada - Mendhasal	27/05/2016	07:00	28/05/2016	18:00	OCB	ER-II/OR	For LILO arrangement at Pandiabilli.	OPTCL
45	220 KV Satgachia – Krishnanagar T/L of WBSETCL	27/05/2016	06:00	27/05/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
46	400 KV BSF -VARANASI -1	28/05/2016	10:00	28/05/2016	14:00	ODB	ER-I	FOR ERECTION OF 400 KV BUSHING OF 80 MVAR L/R AT BSF	NLDC
47	400 KV MAIN BUS -1 AT JSR	28/05/2016	09:30	28/05/2016	17:30	ODB	ER-I	FOR ICT -3 BAY CONSTRUCTION WORK AT JSR	
48	132 KV TRANSFER BUS AT PRN	28/05/2016	09:00	_____		PERMANENT	ER-I	PERMANET REMOVAL OF TRANSFER BUS IS REQUIRED FOR GIS BUILDING AND ASSOCIATED CIVIL WORK	BIHAR
49	132 KV PRN(PG)- PRN(BSPTCL)#3 LINE	28/05/2016	09:00	30/05/2016	17:00	ODB	ER-I	Dismantling of Transfer Bus section which is above BSPTCL -3& ICT-1 bay FOR Construction of GIS Bus duct & SF6 to air bushing foundation.	BIHAR
50	315 MVA ICT#2 at Binaguri.	28/05/2016	09:00	28/05/2016	17.00 hrs	ODB	ER-II/KOL	Repeat tan delta of 33kV B Phase Bushing	
51	220kV Bus-I at Binaguri.	28/05/2016	09:00	28/05/2016	17.00 hrs	ODB	ER-II/KOL	Bus isolator hot spot rectification	
52	400KV D/C BONGAIGOAN - NEW SILIGURI CKT#1&2	28/05/2016	09:00	31/05/2016	17:00	ODB	ER-II/KOL	For Stringing power line crossing span between Loc DC 11/0 - DC 12/0 in LILO of 400KV (Quad) Bongaigoan - New Siliguri CKT#3&4 at Alipurduar	NLDC
53	400KV D/C BONGAIGOAN - NEW SILIGURI CKT#1&2	28/05/2016	09:00	31/05/2016	17:00	ODB	ER-II/KOL	For Stringing power line crossing span between Loc DC 15/0- DC 16/0 in LILO of 400KV (Quad) Bongaigoan - New Siliguri CKT#3&4 at Alipurduar	NLDC
54	132KV SLG-WBSETCL-1	28/05/2016	07:00	28/05/2016	16.00 Hrs	ODB	ER-II/KOL	BAY AMP	WBSETCL
55	220KV TBC (210 Bay) at Bolangir	28/05/2016	09.00	28/05/2016	18.00	ODB	ER-II/OR	AMP Work	
56	220kV Bus-II at Binaguri.	29/05/2016	09:00	29/05/2016	17.00 hrs	ODB	ER-II/KOL	Bus isolator hot spot rectification	
57	132KV SLG-WBSETCL-2	29/05/2016	07:00	29/05/2016	14.00 Hrs	ODB	ER-II/KOL	BAY AMP	WBSETCL
58	132KV MAIN -BUS at Siliguri	29/05/2016	07:00	29/05/2016	08.00 Hrs	ODB	ER-II/KOL	Attending Hot -Spot at Bus Isolator of WBSETCL-2	WBSETCL

59	400KV MAIN BUS-II AT BARIPADA	29/05/2016	07:00	29/05/2016	18:00	ODB	ER-II/OR	CONSTRUCTION WORKS -ERECTION OF BUSHING & GAS INSULATED BUS DUCT OF MAIN BUS -I OF GIS	
60	400kV Duburi - Mendhasal	5/29/16	07:00	30/05/2016	18:00	OCB	ER-II/OR	For LILO arrangement at Pandiabilli.	OPTCL
61	MAIN BAY OF 765 KV ICT -1 AT NRNC	30/05/2016	08:00	30/05/2016	18:00	ODB	ER-I	FOR AMP WORK. NO POWER INTERUPPTION	NLDC
62	220 KV GAYA - DEHRI -2	30/05/2016	08:00	30/05/2016	18:00	ODB	ER-I	FOR REPLACEMENT OF SF6 CT IN Y-PH DUE TO LEAKAGE ISSUE. AT GAYA	BIHAR
63	400 kv BUS - 1 AT BSF	30/05/2016	08:00	30/05/2016	18:00	ODB	ER-I	FOR JUMPER CONNECTION OF JACK BUS AND CHARGING OF MAIN BAY OF 125 MVAR B/R-3	BIHAR
64	400KV BUS-2 AT PATNA	30/05/2016	10:00	31/05/2016	17:00	ODB	ER-I	AMP WORK	
65	400 KV BUS-1 at BSF	30/05/2016	08:00	30/05/2016	12:00	ODB	ER-I	For opening of DROPPERS FOR SHUT DOWN OF JACK BUS of ICT-I and Lakhisarai ckt-II	
66	MAIN BAY OF 400KV LAKHISARAI-II (18-BAY)	30/05/2016	08:00	10/06/2016	17:00	OCB	ER-I	FOR OPENING OF DROPPERS FOR SHUT DOWN OF JACK BUS FOR FOR SPLIT BUS CONSTRUCTION WORK AT BSF	
67	Main bay of 315MVA ICT-I (15-BAY)	30/05/2016	08:00	10/06/2016	17:00	OCB	ER-I	DUE TO OPENING OF JACK BUS DROPPERS	
68	400KV BUS-2 AT BSF	30/05/2016	14:00	30/05/2016	20:00	ODB	ER-I	Dismentle the Bus Aluminium pipe . Now the BUS-2 become two part one is BUS-2 and BUS-4. BUS-2 will be taken immidiately.	
69	315 MVA ICT-1 AT BSF	30/05/2016	14:00	30/05/2016	20:00	ODB	ER-I	FOR SPLIT BUS CONSTRUCTION WORK AT BSF	BIHAR
70	400 KV BSF - LAKHISRAI -2 AT BSF	30/05/2016	14:00	30/05/2016	20:00	ODB	ER-I	FOR SPLIT BUS CONSTRUCTION WORK AT BSF	NLDC
71	400 KV BSF - LAKHISRAI -1 AT BSF	30/05/2016	14:00	30/05/2016	20:00	ODB	ER-I	FOR SPLIT BUS CONSTRUCTION WORK AT BSF	NLDC
72	HALF MAIN BUS - 2 AT BSF (said as BUS-4)	30/05/2016	14:00	08/06/2016	17:00	OCB	ER-I	Bus-IV will be cocommissioned with Bus split Bay. This Bus-4 with new bus bar protection panel and having new CVT with Bus-4	
73	220 KV Farakka - Lalmatia TL and 315 MVA ICT	30/05/2016	09:00 HRS	31/05/2016	18:00 HRS	ODB	ER-II/KOL	1) Bay no- 12 is to be connected after completion of erection of upgraded equipments (3150 A rating) at Bay no-12. 2) Replacement of strung BUS with HTLS conductor for bay no-12 . Special remarks : Bay no-12 is in permanent shutdown for upgradation of equipments (3150 A rating) since 06.05.2016.	JHARKHAND
74	220KV Bus Coupler (204 Bay) at Bolangir	30/05/2016	09.00	30/05/2016	18.00	ODB	ER-II/OR	AMP Work	
75	315MVA ICT-II Tie Bay (Bay No.- 414) at Rourkela	30/05/2016	09:00 hrs	30/05/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
76	220 kV Bakereshwar – Gokarna TL	30/05/2016	06:00	30/05/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
77	400 KV MAIN BUS -2 AT JSR	31/05/2016	09:30	31/05/2016	17:30	ODB	ER-I	FOR ICT -3 BAY CONSTRUCTION WORK AT JSR	
78	400 KV PATNA - BALIA -3	31/05/2016	07:00	01/06/2016	12:00	ODB	ER-I	FOR REPLACEMENT OF INSULATORS DAMAGED BY MISCREANTS.	NLDC
79	220 kV NPRN-PRN#1 line	31/05/2016	09:00	31/05/2016	17:00	ODB	ER-I	Bay AMP work.	BIHAR
80	3*110MVAR L/R OF 765KV SSRM-FATEHPUR AT GAYA	31/05/2016	09:30	31/05/2016	17:30	ODB	ER-I	AMP WORK	NLDC
81	400KV KHLG-BARH-1	31/05/2016	08:00	31/05/2016	18:00	ODB	ER-I	FOR INSULATOR REPLACEMENT WORK DAMAGED BY MISCREANTS	NLDC
82	220 KV MTN-DHANBAD-I	31/05/2016	09:00	31/05/2016	17:00	ODB	ER-II/KOL	AMP Works.	DVC
83	315 MVA ICT#2 AT BARIPADA	31/05/2016	07:00	31/05/2016	18:00	ODB	ER-II/OR	HV TEST OF MAIN BUS-I OF GIS	OPTCL
84	315MVA ICT-II Main Bay (Bay No.- 415) at Rourkela	31/05/2016	09:00 hrs	31/05/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
85	ICT-I (3x 105 MVA) at Jeypore	31/05/2016	10:30	31/05/2016	11:30	ODB	ER-II/OR	For changing ICT-I combination form Unit-I, II, III to Unit-I,II and IV for charging Unit-IV after New Oil replacement	OPTCL
86	400 KV / 132 KV ICT#1 KAHALGAON	31/05/2016	09:30hrs	02/06/2016	17:30 hrs	OCB	NTPC	Relay replacement &PM works	BIHAR
87	400 KV KHLG -MTN - 1 AND 2	01/06/2016	08:00	03/06/2016	18:00	OCB	ER-I	FOR POWERLINE CROSSING OF CONSTRUCTION WORK OF SHIFTING OF 400 KV KHLG -BANKA T/L UNDER BUS SPLIT SCHEME AND SHIFTING OF 400 KV KHLG -MTN T/L ON ERS FOR REALIGNMENT WORK BETWEEN 203 AND 206 UNDER DEPOSITE WORK OF EASTERN RAILWAY AT NTPC/KHLG	
88	500 MVA ICT -1 AT NPRN	01/06/2016	10:00	01/06/2016	16:00	ODB	ER-I	TESTING OF ICT BEFORE COMPLETION OF WARRANTY PERIOD.	BIHAR

89	160 MVA ICT#3 & 100 MVA ICT#4 (PARALLEL) AT PRN	01/06/2016	09:00	10/06/2016	17:00	OCB	ER-I	FOR NEUTRAL CT REPLACEMENT, TRANSFORMER CABLE REPLACEMENT & OLTC OIL LEAKAGE ARREST WORK	BIHAR
90	220KV PATNA-SIPARA-1	01/06/2016	10:00	01/06/2016	17:00	ODB	ER-I	AMP OF LINE BAY	BIHAR
91	A/R OF 400KV KAHALGAON - MAITHAN - 2	01/06/2016	07:00	30/06/2016	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	
92	A/R OF 400KV KAHALGAON - BARH - 2	01/06/2016	07:00	30/06/2016	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	EITHER 400KV KAHALGAON - BARH - 2/ BSF-BANKA - 2/BSF-MZF - I ONE OUTAGE SHALL BE ALLOWED.
93	A/R OF 400KV BSF-BANKA-2	01/06/2016	07:00	30/06/2016	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	EITHER 400KV KAHALGAON - BARH - 2/ BSF-BANKA - 2/BSF-MZF - I ONE OUTAGE SHALL BE ALLOWED.
94	A/R OF 400KV BSF-MUZ-1	01/06/2016	07:00	30/06/2016	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	EITHER 400KV KAHALGAON - BARH - 2/ BSF-BANKA - 2/BSF-MZF - I ONE OUTAGE SHALL BE ALLOWED.
95	400kV NSLG-Bangaigaon Ckt-1	01/06/2016	09:00	02/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
96	220KV SLG-NSLG-I	01/06/2016	07:00	01/06/2016	16:00 Hrs	ODB	ER-II/KOL	BAY AMP	
97	220 KV MLD-DALKHOLA-I	01/06/2016	08:00 hrs	01/06/2016	16.00 hrs	ODB	ER-II/KOL	AMP.	DVC
98	400KV RANGPO- NSLG, CKT-1	01/06/2016	09:30	01/06/2016	17:30	ODB	ER-II/KOL	AMP Work	TEESTA
99	400kV Angul Meramundali Line-1	01/06/2016	07:00	01/06/2016	18:00	ODB	ER-II/OR	Replacement of defective Isolator contacts in 406-89L and 405-89B Isolators	OPTCL
100	315 MVA ICT#2 AT BARIPADA	01/06/2016	07:00	01/06/2016	18:00	ODB	ER-II/OR	HV TEST OF MAIN BUS-I OF GIS	OPTCL
101	Non Auto mode of Jeypore-Indravati S/C Line at Both Ends at Jeypore	01/06/2016	06:00	30/06/2016	18:00	ODB	ER-II/OR	For PID of 143 Towers & 01 Gantry Tower at IVT end of Jey-IVT S/C Line	EITHER A/R OF 400 KV JPR - IND OR A/R OF ANUGUL - BOLANGIR - JPR ONE A/R SD SHALL BE ALLOWED.
102	400 KV BSF -NPRN -1	01/06/2016	08:00	01/06/2016	16:00	ODB	ER-I	FOR STABILITY TEST AND CHARGING OF 50 MVAR REACTOR AT BSF	WORK SHALL BE ARRANGED DURING BSF - PRN D/C ALREADY APPROVED SD PERIOD
103	132 kV Gokarna - Kuli - LILO TL	01/06/2016	06:00	01/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
104	400KV BSF-KODERMA-1	02/06/2016	09:00	03/06/2016	18:00	ODB	ER-I	FOR CONSTRUCTION OF BAYS SWAPPING OF LINE AT BSF	DVC
105	315 MVA ICT -2 AT MUZ	02/06/2016	10:00	04/06/2016	18:00	OCB	ER-I	TO ATTEND HEAVY LEAKAGE FROM TERTIARY WINDING	BIHAR
106	400 KV PATNA - BALIA -4	02/06/2016	07:00	03/06/2016	12:00	ODB	ER-I	FOR REPLACEMENT OF INSULATORS DAMAGED BY MISCREANTS.	NLDC
107	160MVA ICT-2 AT PRN	02/06/2016	09:00	02/06/2016	17:00	ODB	ER-I	FOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
108	63 MVAR Tala-4 L/R	02/06/2016	09:00	02/06/2016	17.00 hrs	ODB	ER-II/KOL	AMP L/R	
109	220KV Maithon - Kalyaneshwari-1 line	02/06/2016	09:00	02/06/2016	17:00	ODB	ER-II/KOL	Alignment adjustment of line isolatorand Insulator replacement	DVC
110	400KV RANGPO- NSLG, CKT-2	02/06/2016	09:30	02/06/2016	17:30	ODB	ER-II/KOL	AMP Work	TEESTA
111	765kV ICT-4 Anugul	02/06/2016	07:00	02/06/2016	18:00	ODB	ER-II/OR	Replacement of defective Isolator contacts in 419-89B and 420-89B Isolators and erection of 713-89BE Earthswitch	NLDC
112	400KV MAIN BUS-II AT BARIPADA	02/06/2016	07:00	02/06/2016	18:00	ODB	ER-II/OR	HV TEST OF MAIN BUS-II OF GIS	
113	Chaibasa-I & Sundargarh-I Tie Bay (Bay No.- 417) at R	02/06/2016	09:00 hrs	02/06/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
114	63 Mvar Bus Reactor Main Bay (416) at Jeypore	02/06/2016	09:00	02/06/2016	17:00	ODB	ER-II/OR	For AMP works	
115	400 KV LAKHISARAI - BSF -2 , 400 KV SASARAM -BSF -1 AND132 KV SHAIKPURA -BIHARSHARIF CKT. OF BSPTCL	03/06/2016	09:00	03/06/2016	18:00	ODB	ER-I	Diamond formation of OPGW in LAKHISARAI -BSF -2 i.r.o. Construction of swapping of bays/. Line at BSF	It is to mention that S/D of both 400 kv lines have been approved in 120 th occ on separate dates for Bus splitting works at BSF. However s/d of both lines will be required simultaneously for diamond formation as both lines are on the same towers near BSF.
116	TIE BAY OF 765 KV B/R -1 AT NRNC	03/06/2016	08:00	03/06/2016	18:00	ODB	ER-I	FOR AMP WORK. NO POWER INTERUPPTION	NLDC
117	400 KV BSF -VARANASI -1	03/06/2016	08:00	03/06/2016	12:00	ODB	ER-I	FOR STABILITY TEST AND CHARGING OF 80 MVAR L/R AT BSF	NLDC

118	400 KV JSR -DURGAPUR LINE	03/06/2016	09:30	03/06/2016	10:30	ODB	ER-I	FOR R-PH LINE BAY CT OIL SAMPLING WORK	
119	MAIN BAY OF 400 KV NPRN - MUZ -1 AT NPRN	03/06/2016	10:00	03/06/2016	18:00	ODB	ER-I	FOR AMP WORK	
120	160MVA ICT-1 AT PRN	03/06/2016	09:00	03/06/2016	17:00	ODB	ER-I	FOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
121	400kV NSLG-Bangaigaon Ckt-2	03/06/2016	09:00	04/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
122	220KV Maithon - Kalyaneshwari-2 line	03/06/2016	09:00	03/06/2016	17:00	ODB	ER-II/KOL	Alignment adjustment of line isolatorand Insulator replacement	DVC
123	400 KV MEJIA-JAMSHEDPUR LINE	03/06/2016	09:00	11/06/2016	17:00	ODB	ER-II/KOL	Insulator Replacement in Major crossings and PID	DVC
124	220 KV STPS -ASANSOL & STPS-DURGAPUR	03/06/2016	09:00	03/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	WBSETCL
125	400KV RANGPO- TEESTA-V, CKT-1	03/06/2016	09:30	03/06/2016	17:30	ODB	ER-II/KOL	AMP Work	TEESTA
126	400KV BUS-II at Bolangir	03/06/2016	08.00	03/06/2016	18.00	ODB	ER-II/OR	AMP Work	
127	400 kV Jeypore-Bolangir S/C Line at Jeypore	03/06/2016	09:30	03/06/2016	16:30	ODB	ER-II/OR	For replacing Y-Ph CVT of Bolangir Line at Jeypore due to secondary voltage drift violation	NLDC
128	400KV BSF-KODERMA-2	04/06/2016	09:00	05/06/2016	18:00	ODB	ER-I	FOR CONSTRUCTION OF BAYS SWAPPING OF LINE AT BSF	DVC
129	TIE BAY OF 400 KV NPRN-MUZ -1 AND NPRN-KISHANGANJ -2 AT NPRN	04/06/2016	10:00	04/06/2016	18:00	ODB	ER-I	FOR AMP WORK	
130	132 KV PRN(PG)-KISHANGANJ LINE	04/06/2016	09:00	04/06/2016	17:00	ODB	ER-I	Dismantling of Transfer Bus section which is above KISHANGANJ & ICT #2 bay FOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
131	132kV Kurseong - Rangit	04/06/2016	09:00	04/06/2016	17.00 hrs	ODB	ER-II/KOL	PG clamp removal	WBSETCL
132	220KV SLG-NSLG-II	04/06/2016	07:00	04/06/2016	16:00 Hrs	ODB	ER-II/KOL	BAY AMP	
133	132 KV RAMKANALI-JAMURIA & CTPS-DTPS	04/06/2016	09:00	04/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	WBSETCL
134	220 KV STPS-HURA & STPS- BISHNUPUR	04/06/2016	09:00	04/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	WBSETCL
135	220KV BUS - I AT BARIPADA	04/06/2016	07:00	04/06/2016	18:00	ODB	ER-II/OR	CONNECTION FROM EXISTING BUS TO NEW EXTENSION BUS	OPTCL
136	315MVA ICT-I Main Bay (Bay No.-424) at Rourkela	04/06/2016	09:00 hrs	04/06/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
137	ICT-II(315 MVA) at Jeypore	04/06/2016	10:30	04/06/2016	11:30	ODB	ER-II/OR	For disconnecting tertiay Conductors from ICT for providing Insulation Sleeves on Tertiary conductors/Bushing tops	OPTCL
138	160 MVA ICT-2 AT PRN	05/06/2016	09:00	05/06/2016	17:00	ODB	ER-I	Dismantling of Transfer Bus section which is above KISHANGANJ & ICT #2 bay FOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
139	400kB NSLG-Bangaigaon Ckt-II	05/06/2016	09:00	05/06/2016	17.00 hrs	ODB	ER-II/KOL	PG clamp removal	NLDC
140	WBSETCL Bus Section-1 at Binaguri.	05/06/2016	09:00	05/06/2016	17.00 hrs	ODB	ER-II/KOL	AMP of NSLG	WBSETCL
141	400kV NSLG-Tala Ckt-1	05/06/2016	09:00	06/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
142	132KV SLG- KURSEONG LINE	05/06/2016	07:00	07/06/2016	17.00 Hrs	OCB	ER-II/KOL	GIS WORK	WBSETCL
143	220 KV MTPS-KALNASWARI LILO	05/06/2016	09:00	05/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	DVC
144	220 KV KALYANSWARI-CTPS LILO	05/06/2016	09:00	05/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	DVC
145	220KV BUS - II AT BARIPADA	05/06/2016	07:00	05/06/2016	18:00	ODB	ER-II/OR	CONNECTION FROM EXISTING BUS TO NEW EXTENSION BUS	OPTCL
146	220kV D/C Jeerat -newtown Tr line of WBSETCL (T No. 110 - 111)	05/06/2016	06:00	05/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
147	400 KV KH - MAITHON - D/C	05/06/2016	08:00	15/06/2016	18:00	ODB	ER-I	FOR DIVERSION OF TOWER FOR RAILWAY	NLDC
148	765 KV GAYA - BALIA LINE	06/06/2016	08:00	06/06/2016	18:00	ODB	ER-I	FOR REPLACEMENT OF INSULATORS DAMAGED BY MISCREANTS.	NLDC
149	400 KV NPRN - MUZ - 1	06/06/2016	10:00	06/06/2016	18:00	ODB	ER-I	FOR AMP WORK	NLDC
150	132 KV PRN(PG)-KISHANGANJ LINE	06/06/2016	09:00	08/06/2016	17:00	ODB	ER-I	FOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
151	132kV SLG-Kurseong	06/06/2016	09:00	06/06/2016	17.00 hrs	ODB	ER-II/KOL	Jumper cone repairing	WBSETCL

152	WBSETCL Bus Section-2 at Binaguri.	06/06/2016	09:00	06/06/2016	17.00 hrs	ODB	ER-II/KOL	AMP of NSLG	WBSETCL
153	220 KV Malda-Dalkhola ckt -I	06/06/2016	08:00	06/06/2016	12:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
154	220 KV Malda-Dalkhola ckt -II	06/06/2016	14:00	06/06/2016	17:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
155	400KV Maithon Gaya-I line	06/06/2016	09:00	06/06/2016	18:00	ODB	ER-II/KOL	Removal of pipe bus required for commencing the retrofitting of 41752 BHEL CB with Alstom CB	
156	220 KV MTPS-GOLA	06/06/2016	09:00	06/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	DVC
157	220KV HURA-RAGHUNATHPUR I&II	06/06/2016	09:00	06/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	DVC
158	160 MVA ICT-1 AT MALDA	06/06/2016	08:00 hrs	07/06/2016	16.00 hrs	OCB	ER-II/KOL	FOR NIFS COMMISSIONNING.	WBSETCL
159	400KV RANGPO- TEESTA-V, CKT-2	06/06/2016	09:30	06/06/2016	17:30	ODB	ER-II/KOL	AMP Work	TEESTA
160	125 Mvar Bus Reactor at Jeypore	06/06/2016	09:00	06/06/2016	17:30	ODB	ER-II/OR	For Commissioning (Online Testing) of CSD in Tie (408) CB Note- Multiple closing & tripping of Reactor is desired	
161	Both 400kV Angul-Talcher CKT & 400kV Talcher-Meramundali CKT-I	06/06/2016	08:00	11/06/2016	18:00	OCB	ER-II/OR	For diversion of 400kV Talcher-Meramundali D/C Line inside GMR, Kamlanga Thermal POWER Plant as intimated by M/s GMR vide their letter ref. No.: GKEL/PGCIL/2016-17/5756 Dtd: 02.05.2016(Copy Enclosed). Detail working plan from 06.06.2016 to 11.06.2016 enclosed to their letter at Annex-I. It may please be noted that the subject diversion arrangement is being done by M/s GMR, Kamlanga under consultancy service from POWERGRID.	NLDC/ GMR/JITPL GENERATION MEY BE REVISED SUBJECT TO SYSTEM CONDITION
162	400 KV / 132 KV ICT#2 KAHALGAON	06/06/2016	09:30hrs	08/06/2016	17:30 hrs	ODB	NTPC	Relay replacement &PM works	BIHAR
163	400 KV Farakka- Durgapur #2 Line	06/06/2016	09:30hrs	09/06/2016	17:30 hrs	ODB	NTPC	Relay testing.	
164	315 MVA ICT-III at Subhasgram.	06/06/2016	09:00Hrs	06/06/2016	17:30 HRS	ODB	ER-II/KOL	Relay retrofit	WBSETCL
165	315 MVA ICT-3 AT BSF	07/06/2016	08:00	07/06/2016	16:00	ODB	ER-I	AMP WORK.	BIHAR
166	400 KV BARIPADA -TISCO(DVC)	07/06/2016	08:30	07/06/2016	17:30	ODB	ER-I	FOR REPLACEMENT OF DAMAGED INSULATORS AT LOC. 218 DAMAGED BY MISCREANTS	DVC
167	220kV SLG-Kishanganj Ckt-II	07/06/2016	09:00	07/06/2016	17.00 hrs	ODB	ER-II/KOL	PG clamp removal	
168	400kV Tala-II L/R at Binaguri.	07/06/2016	09:00	07/06/2016	17.00 hrs	ODB	ER-II/KOL	CSD Commissioning	
169	400kV NSLG-Tala Ckt-2	07/06/2016	09:00	08/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
170	220 KV Kishanganj-Dalkhola Ckt -I	07/06/2016	08:00	07/06/2016	12:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
171	220 KV Kishanganj-Dalkhola Ckt -II	07/06/2016	14:00	07/06/2016	17:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
172	132KV RAMKANALI -PANCHYET	07/06/2016	09:00	07/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	WBSETCL
173	220 KV STPS -ASANSOL & ASANSOL-DURGAPUR	07/06/2016	09:00	07/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	WBSETCL
174	132 KV RANGPO-CHUZACHEN	07/06/2016	09:30	07/06/2016	17:30	ODB	ER-II/KOL	AMP Work	CHUZACHEN
175	765kV Angul Sundergarh Line-2	07/06/2016	08:00	07/06/2016	14:00	ODB	ER-II/OR	Replacement of NGR LA with higher capacity LA as per OS Guidelines	NLDC
176	125MVAR Bus Reactor at Rourkela	07/06/2016	09:00 hrs	07/06/2016	18:00 hrs	ODB	ER-II/OR	AMP work	
177	400 KV Bus Reactor Main Bay at Subhasgram.	07/06/2016	17:30Hrs	30/06/2016	09:00Hrs	OCB	ER-II/KOL	Bus Reactor CB retrofitt work.	
178	132 kV Gokarna - Kuli - Sainthia TL	08/06/2016	06:00	08/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
179	765 KV ICT -1 AT NRNC	08/06/2016	08:00	09/06/2016	18:00	ODB	ER-I	TO ARREST OIL LEAKAGE FROM PRV AIR RELEASE PLUG & MOG	NLDC
180	400 KV GAYA - MAITHON -1 AND 400 KV GAYA - KODERMA-2	08/06/2016	08:00	09/06/2016	18:00	ODB	ER-I	FOR REPLACEMENT OF INSULATORS DAMAGED BY MISCREANTS.	
181	315 MVA ICT-2 AT BSF	08/06/2016	08:00	08/06/2016	16:00	ODB	ER-I	AMP WORK.	BIHAR
182	400 KV NPRN - MALDA - 1	08/06/2016	10:00	08/06/2016	18:00	ODB	ER-I	FOR AMP WORK	
183	220kV NSLG-BRP Ckt-I	08/06/2016	09:00	08/06/2016	17.00 hrs	ODB	ER-II/KOL	PG clamp removal	NLDC
184	400kV Tala-IV L/R at Binaguri.	08/06/2016	09:00	08/06/2016	17.00 hrs	ODB	ER-II/KOL	CSD Commissioning	
185	132KV SLG-WBSETCL-1	08/06/2016	07:00	10/06/2016	17.00 Hrs	OCB	ER-II/KOL	GIS WORK	WBSETCL
186	220 KV Purnea- Dalkhola Ckt-I	08/06/2016	08:00	08/06/2016	11:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
187	220 KV Purnea- Dalkhola Ckt-II	08/06/2016	14:00	08/06/2016	17:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
188	400KV MTN-Gaya-I LR (Switchable)	08/06/2016	09:00	08/06/2016	14:00	ODB	ER-II/KOL	CSD card replacement and on load testing of Reactor	
189	132 KV CHANDRAPUR-RAMKANALI & CTPS-DTPS	08/06/2016	09:00	08/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	WBSETCL

190	220KV D/C STPS -DURGAPUR (DIRECT CIRCUIT & VIA CIRCUIT)	08/06/2016	09:00	08/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	DVC
191	132 KVRANGPO-GANGTOK-1	08/06/2016	09:30	08/06/2016	17:30	ODB	ER-II/KOL	AMP Work	SIKKIM
192	63 Mvar Bus Reactor-ICT II Tie Bay (417) at Jeypore	08/06/2016	09:00	08/06/2016	17:00	ODB	ER-II/OR	For AMP works	
193	160 MVA ICT-2 AT PRN	09/06/2016	09:00	11/06/2016	17:00	ODB	ER-I	Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
194	400 KV BUS - 2 and BUS-4 AT BSF	09/06/2016	08:00	09/06/2016	17:00	ODB	ER-I	For inteconnecting of jumpers with BUS-2 to BUS-4 and stability test.	
195	315 MVA ICT-1 AT BSF	09/06/2016	08:00	09/06/2016	17:00	ODB	ER-I	For inteconnecting of jumpers with BUS-2 to BUS-4 and stability test.	BIHAR
196	400 KV BSF - LAKHISRAI -2	09/06/2016	08:00	09/06/2016	17:00	ODB	ER-I	For inteconnecting of jumpers with BUS-2 to BUS-4 and stability test.	NLDC
197	400 KV BSF - LAKHISRAI -1	09/06/2016	08:00	09/06/2016	17:00	ODB	ER-I	For inteconnecting of jumpers with BUS-2 to BUS-4 and stability test.	NLDC
198	220kV NSLG-BRP Ckt-II	09/06/2016	09:00	09/06/2016	17.00 hrs	ODB	ER-II/KOL	PG clamp removal	NLDC
199	400kV NSLG-Tala Ckt-3	09/06/2016	09:00	10/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
200	220 KV Dalkhola-Dalkhola Ckt - I	09/06/2016	08:00	09/06/2016	11:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
201	220 KV Dalkhola-Dalkhola Ckt - II	09/06/2016	14:00	09/06/2016	17:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
202	400KV D/C PPSP-DURGAPUR LINE	09/06/2016	09:00	09/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	
203	132 KVRANGPO-RANGIT	09/06/2016	09:30	09/06/2016	17:30	ODB	ER-II/KOL	AMP Work	
204	315MVA, 400/220/33 KV ICT-I at Rourkela	09/06/2016	09:00 hrs	09/06/2016	18:00 hrs	ODB	ER-II/OR	AMP work	OPTCL
205	220 kV Jeypore-Jayanagar-II Line at Jeypore	09/06/2016	09:30	09/06/2016	16:30	ODB	ER-II/OR	For replacing Y-Ph CVT of Jayanagar-2 Line at Jeypore due to secondary voltage drift violation	OPTCL
206	132 kv BARASAT -NEWTOWN Tr line of WBSETCL	09/06/2016	06:00	09/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
207	765 KV ICT -2 AT NRNC	10/06/2016	08:00	11/06/2016	18:00	ODB	ER-I	TO ARREST OIL LEAKAGE FROM PRV AIR RELEASE PLUG & MOG	NLDC
208	400 KV GAYA - MAITHON -2 AND 400 KV GAYA - KODERMA-1	10/06/2016	08:00	11/06/2016	18:00	ODB	ER-I	FOR REPLACEMENT OF INSULATORS DAMAGED BY MISCREANTS.	
209	400KV BSF-VARANASI-1 & 2	10/06/2016	09:00	21/06/2016	18:00	OCB	ER-I	FOR CONSTRUCTION OF BAYS SWAPPING OF LINE AT BSF	NLDC
210	400 KV BUS - 1 AT BSF	10/06/2016	12:00	10/06/2016	12:00	ODB	ER-I	For dropper connection of Jack Bus connected to ICT#1 & Lakhisarai-II with Bus1.	
211	400kV NSLG-Rangpo Ckt-II	10/06/2016	09:00	10/06/2016	17.00 hrs	ODB	ER-II/KOL	PG clamp removal	TEESTA
212	220 KV Transfer Bus Coupler at DLK	10/06/2016	08:00	10/06/2016	12:00	ODB	ER-II/KOL	CT connection for Bus Bar Protection Commissioning	
213	400KV ANDAL-JAMSHEDPUR I&II	10/06/2016	09:00	10/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Mejia-Jamshedpur line	DVC
214	132 KV RANGPO-GANGTOK-1	10/06/2016	09:30	10/06/2016	17:30	ODB	ER-II/KOL	AMP Work	SIKKIM
215	400 KV Farakka- Kahalgaon #4 Line	10/06/2016	09:30hrs	10/06/2016	17:30 hrs	ODB	NTPC	Relay testing.	
216	400kB NSLG-Bangaigaon Ckt-II	11/06/2016	09:00	11/06/2016	17.00 hrs	ODB	ER-II/KOL	PG clamp removal	NLDC
217	132KV SLG-WBSETCL-2	11/06/2016	07:00	13/06/2016	17.00 Hrs	OCB	ER-II/KOL	GIS WORK	WBSETCL
218	400 KV Malda- Purnea ckt-I	11/06/2016	08:00	12/06/2016	15:00	ODB	ER-II/KOL	Replacement of broken insulators and jumper/hardware fittings tightening works in line	
219	315MVA, 400/220/33 KV ICT-II at Rourkela	11/06/2016	09:00 hrs	11/06/2016	18:00 hrs	ODB	ER-II/OR	AMP work	OPTCL
220	315 MVA 400/220 KV ICT -2 AT GAYA	12/06/2016	10:00	12/06/2016	16:00	ODB	ER-I	FOR AMP WORK	BIHAR
221	132 KV PRN(PG)-PRN (BSPTCL#2 LINE	12/06/2016	09:00	12/06/2016	17:00	ODB	ER-I	Dismantling of Transfer Bus which is above TBC & BSEB- 2 bayFOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
222	400kV NSLG-Rangpo Ckt-1	12/06/2016	09:00	15/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	TEESTA
223	400kV NSLG-Tala Ckt-4	12/06/2016	09:00	15/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
224	220 KV MTPS-GOLA	12/06/2016	09:00	12/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Mejia3 line	DVC
225	220 KV STPS -ASANSOL & ASANSOL-DURGAPUR	12/06/2016	09:00	12/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Mejia3 line	WBSETCL

226	400KV MAITHON-MEJIA-3	12/06/2016	09:00	14/06/2016	16:00	ODB	ER-II/KOL	Insulator Replacement in major crossings	DVC
227	160 MVA ICT#3 & 100 MVA ICT#4 (PARALLEL) AT PRN	13/06/2016	09:00	13/06/2016	11:00	ODB	ER-I	Dismantling of Transfer Bus which is above TBC & BSEB- 2 bayFOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
228	Bay no-10 at Farakka	13/06/2016	10:00 Hrs	13/06/2016	13:00 Hrs	ODB	ER-II/KOL	DGA sampling of newly erected CTs (Special remarks : No outage of lines)	
229	Bay no-11 at Farakka	13/06/2016	15:00 Hrs	13/06/2016	18:00 Hrs	ODB	ER-II/KOL	DGA sampling of newly erected CTs (Special remarks : No outage of lines)	
230	125 Bus Reactor-I at Binaguri.	13/06/2016	09:00	13/06/2016	17.00 hrs	ODB	ER-II/KOL	CSD Commissioning	
231	220KV D/C STPS -DURGAPUR (DIRECT CIRCUIT & VIA CIRCUIT)	13/06/2016	09:00	13/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Mejia3 line	DVC
232	220KV Rangpo-New Melli, Ckt-2	13/06/2016	09:30	13/06/2016	17:30	ODB	ER-II/KOL	AMP Work	
233	220 KV SUBHASGRAM- WBSETCL Line # 1 at Subhasgram.	13/06/2016	09:00Hrs	13/06/2016	17:30Hrs	ODB	ER-II/KOL	AMP WORK	WBSETCL
234	400 KV FKK -KHLG - 3 AND 4	14/06/2016	08:00	16/06/2016	18:00	OCB	ER-I	FOR POWERLINE CROSSING OF CONSTRUCTION WORK FOR SHIFTING OF 400 KV KHLG -BANKA T/L UNDER BUS SPLIT SCHEME AT NTPC/KHLG	NLDC
235	100 MVA ICT - 1 AT ARA	14/06/2016	09:30	15/06/2016	17:00	OCB	ER-I	FOR OLTC OVERHAULING	BIHAR
236	132 KV PRN(PG)-PRN (BSPTCL#2 LINE	14/06/2016	09:00	15/06/2016	17:00	ODB	ER-I	Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
237	Bay no-31 at Farakka	14/06/2016	10:00 Hrs	26/05/2016	13:00 Hrs	ODB	ER-II/KOL	DGA sampling of newly erected CTs (Special remarks : No outage of lines)	
238	400KV Maithon Gaya-I line	14/06/2016	09:00	14/06/2016	18:00	ODB	ER-II/KOL	Fixing of earlier removed pipe bus for taking the newly installed CB into service	
239	400KV ANDAL-JAMSHEDPUR LINE I&II	14/06/2016	09:00	14/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Mejia3 line	DVC
240	161 MVA ICT-2 AT MALDA	14/06/2016	08:00 hrs	14/06/2016	16.00 hrs	ODB	ER-II/KOL	FOR NIFS COMMISSIONNING.	WBSETCL
241	220 KV RANGPO-JLHEP	14/06/2016	09:30	14/06/2016	17:30	ODB	ER-II/KOL	AMP Work	
242	400kV Angul Talcher line	14/06/2016	09:00	14/06/2016	15:00	ODB	ER-II/OR	AMP works	NLDC
243	400KV ICT#1 Barh	14/06/2016	09:30hrs	17/06/2016	18:00 hrs	OCB	NTPC	PM Job of ICT # 1.	
244	400KV ICT#1 Bays Barh	14/06/2016	09:30hrs	17/06/2016	18:00 hrs	OCB	NTPC	Testing of Bays Equipments	
245	132 kv Lalmatia - Sahebganj T/L	15/06/2016	06:00	15/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	JHARKHAND
246	400 KV Malda- Purnea ckt-II	15/06/2016	08:00	16/06/2016	15:00	ODB	ER-II/KOL	Replacement of broken insulators and jumper/hardware fittings tightening works in line	
247	132KV RAMKANALI -PANCHYET	15/06/2016	09:00	15/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Jamshedpur line	WBSETCL
248	220 KV STPS -ASANSOL & STPS-DURGAPUR	15/06/2016	09:00	15/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Jamshedpur line	WBSETCL
249	400 KV MAITHON-JAMSHEDPUR	15/06/2016	09:00	19/06/2016	16:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Jamshedpur line	DVC
250	400kV 80 MVAR REACTOR-1	15/06/2016	09:30	15/06/2016	17:30	ODB	ER-II/KOL	AMP Work	
251	400 KV Bus Reactor Main Bay (408) at Keonjhar	15/06/2016	09:00	15/06/2016	18:00	ODB	ER-II/OR	AMP/CSD relay rectification	
252	400 KV Bus Reactor Tie Bay (407-08) at Keonjhar	15/06/2016	09:00	15/06/2016	18:00	ODB	ER-II/OR	AMP/CSD relay rectification	
253	400KV Keonjhar-Baripada Line at Keonjhar	15/06/2016	09:00	16/06/2016	18:00	OCB	ER-II/OR	For OPGW Stringing Work	
254	400KV Keonjhar-Rengali Line at Keonjhar	15/06/2016	09:00	16/06/2016	18:00	OCB	ER-II/OR	For OPGW Stringing Work	
255	400 KV Kh - Farakka#3 Line	15/06/2016	09:30hrs	15/06/2016	17:30 hrs	ODB	NTPC	PM works & Relay testing.	
256	400 KV MUZAFFARPUR - GORAKHPUR - D/C	15/06/2016	08:00	16/06/2016	18:00	ODB	DMTCL	LILO WORK OF BARH - GORAKHPUR AT MOTIHARI	NLDC
257	407 CB (400 KV B'nagar line-1 main CB) at Durgapur.	15/06/2016	09:00	19/06/2016	16:00	OCB	ER-II/KOL	CB hydraulic overhauling	
258	400 kv Subhashgram - Jeerat tr. Line	15/06/2016	06:00	15/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
259	220 KV Main Bus #1 at Subhasgram.	15/06/2016	09:00Hrs	15/06/2016	17:30Hrs	ODB	ER-II/KOL	AMP WORK	WBSETCL
260	500 MVA 400/220 KV ICT -1 AT GAYA	16/06/2016	10:00	16/06/2016	16:00	ODB	ER-I	FOR AMP WORK	BIHAR
261	100 MVA ICT - 2 AT ARA	16/06/2016	09:30	17/06/2016	17:00	OCB	ER-I	FOR OLTC OVERHAULING	BIHAR
262	400kV NSLG-Rangpo Ckt-2	16/06/2016	09:00	19/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	TEESTA

263	315MVA ICT-I AT Maithon	16/06/2016	09:00	18/06/2016	18:00	OCB	ER-II/KOL	Removal of Jumper of ICT-I, connection of Jumpers and other work related to Charging of 500MVA ICT-III through 220kV ICT-I Bay.	DVC
264	220 KV STPS-HURA & STPS- BISHNUPUR	16/06/2016	09:00	16/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Jamshedpur line	WBSETCL
265	400kV 80 MVAR REACTOR-2	16/06/2016	09:30	16/06/2016	17:30	ODB	ER-II/KOL	AMP Work	
266	400kV Angul Meramundali Line-2	16/06/2016	09:00	16/06/2016	15:00	ODB	ER-II/OR	AMP works	OPTCL
267	80 MVAR Bus Reactor at Keonjhar	16/06/2016	09:00	16/06/2016	18:00	ODB	ER-II/OR	AMP/CSD relay rectification	
268	400 KV / 220 KV Auto Transfer FARAKKA	16/06/2016	09:30hrs	16/06/2016	17:30 hrs	ODB	NTPC	Relay & CT testing.	JHARKHAND
269	220 kv Jeerat -newtown Tr line of WBSETCL	16/06/2016	06:00	16/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
270	132 KV PRN(PG)-PRN (BSPTCL#2 LINE	17/06/2016	09:00	17/06/2016	17:00	ODB	ER-I	Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
271	220 KV HURA-RAGHUNATHPUR I&II	17/06/2016	09:00	17/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement in Maithon-Jamshedpur line	DVC
272	ICT-II (315 MVA) at Jeypore	17/06/2016	09:30	17/06/2016	17:30	ODB	ER-II/OR	For AMP	OPTCL
273	220 KV Farakka - Lalmatia Line (Annual Testing)	17/06/2016	09:30hrs	17/06/2016	17:30 hrs	ODB	NTPC	Relay & CT testing.	JHARKHAND
274	220 KV Main Bus #2 at Subhasgram.	17/06/2016	09:00Hrs	17/06/2016	17:30Hrs	ODB	ER-II/KOL	AMP WORK	WBSETCL
275	3*80 MVAR L/R OF 765 KV GAYA -VARANASI -2 AT GAYA	18/06/2016	10:00	19/06/2016	18:00	OCB	ER-I	FOR HV BUSHING REPLACEMENT WORK IN Y-PH	NLDC
276	132 KV PRN(PG)-PRN (BSPTCL#1 LINE	18/06/2016	09:00	18/06/2016	17:00	ODB	ER-I	Dismantling of Transfer Bus which is above ICT 3 & BSPTCL 1 bay FOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
277	160 MVA ICT#3 & 100 MVA ICT#4 (PARALLEL) AT PRN	19/06/2016	09:00	22/06/2016	17:00	ODB	ER-I	Dismantling of Transfer Bus which is above ICT 3 & BSPTCL 1 bay FOR Construction of GIS bus duct & SF6 to air bushing foundation.	BIHAR
278	400 KV N.Siliguri-N. Purnea Ckt- I	19/06/2016	09:00	20/06/2016	16:00	ODB	ER-II/KOL	Replacement of broken insulators and jumper/hardware fittings tightening works in line	NLDC
279	220kV Bus coupler Bay at Rengali	19/06/2016	08.00Hrs.	21/05/2016	17.00Hrs.	OCB	ER-II/OR	Overhauling of CGL CB.	
280	400 KV Farakka- Kahalgaon 3 & 4	20/06/2016	8:00 Hrs	25/06/2016	18:00 Hrs	OCB	ER-II/KOL	Erection of tower at Loc no. 5/0 & 5A/0 of LILO of 400 KV Rajarhat-Purnea D/c at Farakka and stringing between them (5/0 to 5A/0). Special Remarks : Span between 5/0 to 5A/0 is 80 mtrs. So, Distance between tower 5/0 & 5A/0 to 400 KV Farakka - Kahalgaon line is even less. Tower height of 5/0 and 5A/0 is approx 80 mtrs (DD+25 Mtrs with 4 m RC). So, during erection also, shutdown is required for passing stay / guy wires /ropes.	NLDC
281	220 KV Farakka- Lalmatia TL	20/06/2016	8:00 Hrs	23/06/2016	18:00 Hrs	OCB	ER-II/KOL	Erection of tower at Loc. No- 7/0 (DD+25 mtr with 4 m RC) and stringing between loc. No. 6/0 to 7/0 of LILO of 400 KV Rajarhat-Purnea D/c at Farakka. Special Remarks : Distance between tower 7/0 to 220 KV Farakka - Lalmatia line is approx 70 mtrs. Tower height of 7/0 is approx 80 mtrs (DD+25 Mtrs with 4 m RC). So, during erection, shutdown is required for passing stay / guy wires /ropes.	JHARKHAND
282	400kV NSLG-Purnea Ckt-1	20/06/2016	09:00	22/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
283	400 KV MALDA-PURNEA-I.	20/06/2016	08:00 hrs	20/06/2016	16.00 hrs	ODB	ER-II/KOL	AMP.	
284	400kV Angul - Bolangir	20/06/2016	07:00:00	23/06/2016	18:00:00	ODB	ER-II/OR	For Insulator replacement in River crossing, NH/SH crossing, Raiway crossing etc.	NLDC
285	400 KV Bus Reactor-1 at Durgapur.	20/06/2016	10:00	04/07/2016	18:00	OCB	ER-II/KOL	Offline dry out	
286	220 kV D/C Farakka - Lalmatia T/L	20/06/2016	06:00	23/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	JHARKHAND
287	400 KV D/C FKK KAHALGAON T/L CKT-I&II	20/06/2016	06:00	25/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	NLDC
288	220 KV Bus Coupler at Subhasgram.	20/06/2016	09:00Hrs	20/06/2016	15:00Hrs	ODB	ER-II/KOL	AMP WORK	WBSETCL

289	400 KV KHLG -BARH - I AND 2	21/06/2016	08:00	23/06/2016	18:00	OCB	ER-I	FOR POWERLINE CROSSING OF CONSTRUCTION WORK FOR SHIFTING OF 400 KV KHLG -BANKA T/L UNDER BUS SPLIT SCHEME AT NTPC/KHLG	NLDC
290	401 KV MAITHON-DURGAPUR-I	21/06/2016	09:00	21/06/2016	17:00	ODB	ER-II/KOL	Repair of Conductor	
291	765kV ICT-1 Sundergarh line-2 Tie Bay (705)	21/06/2016	09:00	21/06/2016	17:00	ODB	ER-II/OR	AMP works	NLDC
292	765/400KV 1500MVA ICT-1 AT SUNDARGARH	21/06/2016	07:00	22/06/2016	18:00	OCB	ER-II/OR	FOR PROVIDING INSULATION SLEEVES ON 33KV SIDE PIPE OF ICT-1 & CHARGING OF SPARE PHASE ICT WITH ICT-1.	NLDC
293	315 MVA ICT#1 at Durgapur.	21/06/2016	11:00	21/06/2016	12:00	ODB	ER-II/KOL	CB Retrofitting-trasfer load to transfer bus & protection testing	DVC
294	220KV ARA-KHGAUL-1	22/06/2016	10:00	22/06/2016	17:00	ODB	ER-I	REPLACEMENT OF DRIVE MECHANISM OF R POLE CB	BIHAR
295	220KV Gokarna- Sagardighi Ckt. I &2	22/06/2016	8:00 Hrs	22/06/2016	18:00 Hrs	ODB	ER-II/KOL	Stringing between loc. No. 3/0 to 4/0 of LILO of 400 KV Rajarhat-Purnea D/c at Gokarna	WBSETCL
296	400 KV N.Siliguri-N. Purnea Ckt- II	22/06/2016	10:00	23/06/2016	17:00	ODB	ER-II/KOL	Replacement of broken insulators and jumper/hardware fittings tightening works in line	NLDC
297	400 KV MAITHON-MEJIA-II	22/06/2016	09:00	22/06/2016	17:00	ODB	ER-II/KOL	Repair of Conductor	DVC
298	765kV Angul Sundergarh Line-2 Main Bay (706)	22/06/2016	09:00	22/06/2016	17:00	ODB	ER-II/OR	AMP works	NLDC
299	400 KV Kh - Farakka#4 Line	22/06/2016	09:30hrs	22/06/2016	17:30 hrs	ODB	NTPC	PM works & Relay testing.	
300	220 kV Gokarna- Sagardihi	22/06/2016	06:00	22/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
301	132 KV D/C (Gokarna -Raghunathganj Ckt. & Gokarna -Lalgola 1 Ckt.) & 132 D/C (Gokarna-Lalgola Ckt.2 & Gokarna -Sonar Bangla section of Gokarna-Sonarbangla-Lalgola Ckt.)	22/06/2016	06:00	22/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
302	220 KV SUBHASGRAM- KLC Line at Subhasgram.	22/06/2016	09:00Hrs	22/06/2016	17:30Hrs	ODB	ER-II/KOL	AMP WORK	WBSETCL
303	132 KV PRN(PG)-PRN (BSPTCL#1 LINE	23/06/2016	09:00	25/06/2016	17:00	ODB	ER-I	Construction of GIS bus duct & SF6 to air bushing foundation	BIHAR
304	400kV NSLG-Purnea Ckt-2	23/06/2016	09:00	25/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	NLDC
305	400 KV MAITHON-RIGHTBANK-1	23/06/2016	09:00	23/06/2016	15:00	ODB	ER-II/KOL	Insulator Replacement	MPL
306	765kV ICT-4 Main Bay (713)	23/06/2016	09:00	23/06/2016	17:00	ODB	ER-II/OR	AMP works	NLDC
307	400 KV Farakka- Sagardighi Line	23/06/2016	09:30hrs	23/06/2016	17:30 hrs	ODB	NTPC	Relay & CT testing.	WBSETCL
308	132 KV D/C (Gokarna -Raghunathganj Ckt. & Gokarna -Lalgola 1 Ckt.) & 132 D/C (Gokarna-Lalgola Ckt.2 & Gokarna -Sonar Bangla section of Gokarna-Sonarbangla-Lalgola Ckt.)	24/06/2016	8:00 Hrs	24/06/2016	18:00 Hrs	ODB	ER-II/KOL	Stringing between loc. No. 5/0 to 6/0 of LILO of 400 KV Rajarhat-Purnea D/c at Gokarna. Special Remarks : All 04 CKT.s are in single span.	WBSETCL
309	765kV Bus-1 Anugul	24/06/2016	09:00	24/06/2016	18:00	ODB	ER-II/OR	AMP works	NLDC
310	400 KV Farakka- Bus Reactor - 2	24/06/2016	09:30hrs	24/06/2016	17:30 hrs	ODB	NTPC	Relay, CT & Reactor testing.	
311	400kV Rengali - Indravati	24/06/2016	07:00:00	28/06/2016	18:00:00	ODB	ER-II/OR	For Insulator replacement in River crossing, NH/SH crossing, Raiway crossing etc.	NLDC
312	220 KV SUBHASGRAM- WBSETCL Line # 2 at Subhasgram.	24/06/2016	09:00Hrs	24/06/2016	17:30Hrs	ODB	ER-II/KOL	AMP WORK	WBSETCL
313	400 KV Farakka- Kahalgaon 1 & 2	26/06/2016	8:00 Hrs	26/06/2016	18:00 Hrs	ODB	ER-II/KOL	Stringing between Loc. No. 5A/0 to 6/0 of LILO of 400 KV Rajarhat-Purnea D/c at Farakka .	NLDC
314	220kV SLG-Kishanganj Ckt-1	26/06/2016	09:00	27/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	
315	400 KV D/C FKK KAHALGAON T/L CKT-I&II	26/06/2016	06:00	30/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	NLDC
316	220 KV Malda-Dalkhola ckt -I	27/06/2016	08:00	27/06/2016	11:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
317	220 KV Malda-Dalkhola ckt -II	27/06/2016	13:00	27/06/2016	17:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
318	132 kV ASHOKNAGAR - BASHIRHAT Tr line of WBSETCL	27/06/2016	06:00	27/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
319	220kV SLG-Kishanganj Ckt-2	28/06/2016	09:00	29/06/2016	17.00 hrs	ODB	ER-II/KOL	Insulator replacement in crossings	
320	220 KV Kishanganj-Dalkhola Ckt -I	28/06/2016	08:00	28/06/2016	11:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
321	220 KV Kishanganj-Dalkhola Ckt -II	28/06/2016	13:00	28/06/2016	17:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
322	220 KV Purnea- Dalkhola Ckt-I	29/06/2016	08:00	29/06/2016	11:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
323	220 KV Purnea- Dalkhola Ckt-II	29/06/2016	14:00	29/06/2016	17:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
324	400kV Bolangir - Jeypore	29/06/2016	07:00:00	01/07/2016	18:00:00	ODB	ER-II/OR	For Insulator replacement in River crossing, NH/SH crossing, Raiway crossing etc.	NLDC

325	66 KV S/C Ranaghat - Bagula T/L of WBSETCL	29/06/2016	06:00	29/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
326	125 MVAR B/R -3 AT BSF	30/06/2016	08:00	30/06/2016	18:00	ODB	ER-I	STABILITY TEST AND CHARGING FROM MAIN BAY(24 BAY)	
327	220 KV Dalkhola-Dalkhola Ckt - I	30/06/2016	08:00	30/06/2016	11:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
328	220 KV Dalkhola-Dalkhola Ckt - II	30/06/2016	14:00	30/06/2016	17:00	ODB	ER-II/KOL	Stability testing for Bus Bar Protection Commissioning	
329	315 MVA ICT#1 at Durgapur.	30/06/2016	15:00	30/06/2016	16:00	ODB	ER-II/KOL	Final commissioning of CB	DVC
330	132kV D/C Dharampur - Ranaghat Tr line of WBSETCL (T No. 83-84)	30/06/2016	06:00	30/06/2016	17:00	ODB	ER-II/KOL	FOR RAJARHAT-PURNEA-D/C LINE STRINGING.	WBSETCL
331	400 KV Bus Reactor at Subhasgram.	30/06/2016	09:00Hrs	30/06/2016	17:30Hrs	ODB	ER-II/KOL	Final protection testing of new CB and erection of IPS tube from Bus Reactor to new Isolator	
332	220 KV DALKHOLA - PURNEA - II	30/06/2016	08:00	02/06/2016	18:00	ODB	ER-I	REPLACEMENT OF PROCEILAIN INSULATOR WITH POLYMER INSULATOR	
333	400 KV MAIN BUS 3 including Bus Sectionalizer-1 CB at Durgapur.	05/07/2016	10:00	05/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-3(Final commissioning)	
334	400 KV MAIN BUS 4 including Bus Sectionalizer-2 CB at Durgapur.	06/07/2016	10:00	06/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-4(Final commissioning)	
335	400 KV Bus Reactor at Subhasgram.	06/07/2016	09:00Hrs	06/07/2016	17:30Hrs	ODB	ER-II/KOL	Bus Reactor CB retrofitt work. Dismantling of IPS tube from Bus Reactor to Isolator	
336	400 KV MAIN BUS 1 including Bus Sectionalizer-1 CB at Durgapur.	07/07/2016	10:00	07/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-1(Final commissioning)	
337	400 KV MAIN BUS 2 including Bus Sectionalizer-2 CB at Durgapur.	08/07/2016	10:00	08/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-2(Final commissioning)	
338	400 KV MAIN BUS 3 including Bus Sectionalizer-1 CB at Durgapur.	09/07/2016	10:00	09/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-3(Final commissioning)	
339	400 KV MAIN BUS 4 including Bus Sectionalizer-2 CB at Durgapur.	10/07/2016	10:00	10/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-4(Final commissioning)	
340	400 KV MAIN BUS 1 including Bus Sectionalizer-1 CB at Durgapur.	13/07/2016	10:00	13/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-1(Final commissioning)	
341	400 KV MAIN BUS 2 including Bus Sectionalizer-2 CB at Durgapur.	14/07/2016	10:00	14/07/2016	18:00	ODB	ER-II/KOL	Testing of Bus bar protection for Bus-2(Final commissioning)	
342	315 MVA ICT-IV at Subhasgram.	06/08/2016	09:00Hrs	06/08/2016	17:30Hrs	ODB	ER-II/KOL	AMP WORK	WBSETCL
343	315 MVA ICT-V at Subhasgram.	06/10/2016	09:00Hrs	06/10/2016	17:30 HRS	ODB	ER-II/KOL	LA counter replacement and AMP	WBSETCL

Outages proposed in other RPCs requiring ERPC approval

Sl No	outages proposed in	Name of Requesting Agency	Name of Elements	From		To		Basis	Reason	Remarks (If Any)
				Date	Time	Date	Time			
1	SRPC	PGCIL	400 kV Jeypore-Gazuwaka-D/C	3/Jun/16	6:00	4-Jun-16	19:00	D	Line Crossing works of 765kV Srikakulam - Vemagiri D/C line	ER-SR TTC revision shall be required as per the real time conditions
2	SRPC	PGCIL	400 kV KOLAR AC Filter BUS-I	11/May/16	9:30	19/May/16	17:30	D	Replacement of insulator stacks in BPI & AC filter bank isolators	HVDC Power Flow could be restricted to 2000 MW
3	SRPC	PGCIL	400 kV KOLAR AC Filter BUS-I	20/May/16	9:30	20/May/16	17:30	D	Replacement of insulator stacks in BPI & AC filter bank main bay isolators	HVDC Power Flow could be restricted to 2000 MW
4	SRPC	PGCIL	400 kV KOLAR AC Filter BUS-I	21/May/16	9:30	21/May/16	17:30	D	Replacement of insulator stacks in BPI & AC filter bank main bay isolators	HVDC Power Flow could be restricted to 2000 MW
5	SRPC	PGCIL	400 kV KOLAR AC Filter BUS-III	23-May-16	9:30	1-Jun-16	17:30	D	For replacing LA earthing cables with Copper Strips	HVDC Power Flow could be restricted to 2000 MW
6	SRPC	PGCIL	KOLAR AC Filter BUS-II	13-Jun-16	9:30	22-Jun-16	18:00	D	For replacing LA earthing cables with Copper Strips	HVDC Power Flow could be restricted to 2000 MW
7	SRPC	PGCIL	A/R HVDC Talcher-Kolar-1 & 2	1-Jun-16	6:00	30-Jun-16	20:00	D	For Hotline Washing of Insulators. the Auto reclose selection of both lines to be kept in Non auto mode	
8	SRPC	PGCIL	A/R 400 kV Jeypore-Gazuwaka-D/C	1-Jun-16	6:00	30-Jun-16	20:00	D	For Hotline Washing of Insulators. the Auto reclose selection of both lines to be kept in Non auto mode	
9	WRPC	PGCIL	400KV RANCHI-SIPAT I	26-May-16	10:00	26-May-16	14:00	Daily	For on line PLCC Ch-2 Counter Checking work at Sipat. (Line will be in service)	
10	WRPC	PGCIL	400KV RANCHI-SIPAT II	1-Jun-16	10:00	1-Jun-16	14:00	Daily	For online PLCC Ch-1 Counter Checking work at Sipat (line will remain in service)	
11	WRPC	PGCIL	400KV RANCHI-SIPAT I & II D/C	14-Jun-16	9:00	15-Jun-16	18:00	Daily	For power line crossing of under construction 765kv D/C Korba-Jharsududa Line -2 .	
12	WRPC	CSPTCL/PGCIL	D/C KORBA(EAST)-BUDDHIPADAR I & II S/C KORBA(EAST)-BUDDHIPADAR III	18-Jun-16	9:00	19-Jun-16	18:00	Daily	For power line crossing of under construction 765kv D/C Korba-Jharsududa Line -2 . Shutdwon of all three lines required on same date & time as crossing is in the same span.	

Annexure-C.2

Anticipated Power Supply Position for the month of
Jun-16

SL.NO		PARTICULARS	PEAK DEMAND MW	ENERGY MU
1		**BIHAR**		
	i)	NET MAX DEMAND	3600	2115
	ii)	NET POWER AVAILABILITY- Own Source (including bilateral)	390	286
		- Central Sector	2378	1652
	iii)	SURPLUS(+)/DEFICIT(-)	-832	-177
2		**JHARKHAND**		
	i)	NET MAX DEMAND	1200	800
	ii)	NET POWER AVAILABILITY- Own Source (including bilateral)	339	264
		- Central Sector	563	342
	iii)	SURPLUS(+)/DEFICIT(-)	-298	-194
3		**DVC**		
	i)	NET MAX DEMAND (OWN)	2783	1690
	ii)	NET POWER AVAILABILITY- Own Source	4308	2354
		- Central Sector	488	339
		Long term Bi-lateral (Export)	1300	936
	iii)	SURPLUS(+)/DEFICIT(-)	713	67
4		**ORISSA**		
	i)	NET MAX DEMAND	4100	2450
	ii)	NET POWER AVAILABILITY- Own Source	3050	1800
		- Central Sector	1047	710
	iii)	SURPLUS(+)/DEFICIT(-)	-3	60
5		**WEST BENGAL**		
5.1		**WBSEDCL**		
	i)	NET MAX DEMAND (OWN)	5714	3428
	ii)	CESC's DRAWAL	0	0
	iii)	TOTAL WBSEDCL's DEMAND	5714	3428
	iv)	NET POWER AVAILABILITY- Own Source	3340	1811
		- Import from DPL	126	70
		- Central Sector	1960	1305
	v)	SURPLUS(+)/DEFICIT(-)	-288	-241
	vi)	EXPORT (TO B'DESH & SIKKIM)	260	187
5.2		**DPL**		
	i)	NET MAX DEMAND	300	205
	ii)	NET POWER AVAILABILITY	426	275
	iii)	SURPLUS(+)/DEFICIT(-)	126	70
5.3		**CESC**		
	i)	NET MAX DEMAND	2150	1025
	ii)	NET POWER AVAILABILITY - OWN SOURCE	880	596
		FROM HEL	530	322
		FROM CPL/PCBL	40	0
		Import Requirement	700	107
	iii)	TOTAL AVAILABILITY	2150	1025
	iv)	SURPLUS(+)/DEFICIT(-)	0	0
6		**WEST BENGAL (WBSEDCL+DPL+CESC)** **(excluding DVC's supply to WBSEDCL's command area)**		
	i)	NET MAX DEMAND	8164	4658
	ii)	NET POWER AVAILABILITY- Own Source	4646	2682
		- Central Sector+Others	3190	1627
	iii)	SURPLUS(+)/DEFICIT(-)	-328	-348
7		**SIKKIM**		
	i)	NET MAX DEMAND	85	32
	ii)	NET POWER AVAILABILITY- Own Source	10	7
		- Central Sector+Others	135	90
	iii)	SURPLUS(+)/DEFICIT(-)	60	64
8		**EASTERN REGION** **At 1.03 AS DIVERSITY FACTOR**		
	i)	**NET MAX DEMAND**	19351	11745
		Long term Bi-lateral by DVC	1300	936
		EXPORT BY WBSEDCL	260	187
	ii)	**NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)**	20543	12154
	iii)	**PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)**	-368	-715