

**Eastern Regional Power Committee**  
**Kolkata-33**

**Salient Decisions taken in 107<sup>th</sup> OCC meeting held on 19.03.15**

1. OCC decided that as per IEGC, ERLDC could only schedule the KBUNL units, if there is no objection from Bihar.
2. OCC agreed to start 2nd Third party Protection audit from the month of May,2015 with the check lists already designed and modified by ERPC in line with recommendation of the Task Force Committee.

## **Eastern Regional Power Committee**

### **Minutes of 107<sup>th</sup> OCC Meeting held on 19<sup>th</sup> Mar, 2015 at ERPC, Kolkata**

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

Member Secretary, ERPC chaired the meeting. He welcomed all the participants in the meeting and informed that Shri Srivastava, AGM, ERLDC is retiring from the service on superannuation. MS on behalf of OCC forum acknowledged the contribution made by Sri Srivastava during his tenure and placed the same on record. OCC wished all the best to Shri Srivastava and his family members for rest of the life.

#### **Item no. A.1: Confirmation of minutes of 106<sup>th</sup> OCC meeting of ERPC held on 26.02.2015**

The minutes were uploaded in ERPC website and circulated vide letter dated 13.03.15 to all the constituents. No comments were received till date.

Members may confirm the minutes.

#### **Deliberation in the meeting**

*Members confirmed the minutes of above meeting.*

### **PART B**

#### **Item no. B.1: DR, EL and Reactor status installed in Eastern Region**

The latest status is available at ERPC web site.

Members may confirm.

#### **Deliberation in the meeting**

*OCC advised all constituents to confirm.*

*Members noted.*

#### **Item no. B.2: PLCC status installed in Eastern Region**

Latest status on ownership of PLCC system is available in ERPC website.

The list discrepancies observed in the PLCC system ownership and Third Party Protection Audit is circulated in the meeting.

In line with 29<sup>th</sup> TCC decision, members may place the road map for settlement of the discrepancies.

In 106<sup>th</sup> OCC, Powergrid agreed to restore and maintain the PLCC system at both ends (its own end as well as the constituent end) of a line wherein the other ends are not being maintained by

respective constituents for some reasons or others. The details of lines of similar nature are in Annexure-B2.

It was decided that the cost of restoration and maintenance of PLCC system at such (constituent) ends of the line will be borne by the respective constituents. In addition to this the constituents also agreed to extend all possible support to Powergrid in carrying out the above work.

Powergrid may update the status.

### **Deliberation in the meeting**

*Powergrid updated the status given at Annexure-B2.*

*OPTCL has submitted the list of the lines where Powergrid has to do maintenance of PLCC system which is also included in the above Annexure.*

### **Item no. B.3: Status of UFRs healthiness installed in Eastern Region**

In 105<sup>th</sup> OCC, it was decided that constituents should check the UFR enunciation & PT fuse and thereby certify on monthly basis that UFRs are in service.

BSPTCL, DVC, OPTCL and WBSETCL submitted the UFR healthiness certificate for January, 2015. Sikkim and JUSNL may submit.

WBSETCL vide mail dated 14<sup>th</sup> Mar, 2015 confirmed that all UFR relays connected in WBSETCL system are in working condition. They have already taken a programme towards detail testing of all those relays, scheduled to be completed by March'2015. Most of the sub-stations has already been completed rest will be done within next week.

Certification for the month of February, 2015 is yet to be received from constituents except WBSETCL.

Members may update.

### **Deliberation in the meeting**

*WBSETCL, CESC, BSPTCL and JUSNL have sent the certification for the month of February, 2015. OCC advised all other constituents to submit the certification on regular basis.*

### **Item no. B.4: Healthiness of SPS existing in Eastern Region**

In 105<sup>th</sup> OCC meeting, it was decided that constituents should certify the healthiness of SPS in every OCC meeting, after carrying out simulated checking of SPS.

In 106<sup>th</sup> OCC, the house was informed that certification of healthiness of SPS for the month of January, 2015 was not yet received from constituents.

Powergrid informed that the SPS setting at Beharampur end was recently modified in view of changed grid scenario due to commissioning of Sagardighi-Biharampur (HTLS) line hence, they could not check the SPS for Power Export to Bangladesh.

OCC felt that before changing the SPS settings, it should be informed/ discussed in ERPC forums. OCC also advised CTU and ERLDC to share the settings details with the house.

OCC advised respective constituents to check the SPS on monthly basis and submit the healthiness certification.

Till date the healthiness certificates are not submitted.

Members may opine.

### **Deliberation in the meeting**

*Detailed procedure of SPS simulated testing was discussed again and OCC reiterated that the SPS checking should be done as per the procedure decided in 105<sup>th</sup> OCC meeting, which is as given below:*

*Constituents should certify the healthiness of SPS in every OCC meeting, after carrying out simulated checking of SPS on the following aspects:*

- *Testing of all logical conditions that are expected to actuate/ trigger the SPS (through CT secondary injection / application of suitable digital input signal etc.)*
- *Testing the healthiness of all power supplies necessary for the SPS action*
- *Testing healthiness of all communication channels for signal transmission (both inputs to and outputs from the SPS)*

*However, where the SPS action is expected to trip / reduce generation of a generator, the concerned input to the generator DCS would be kept disabled and only availability of SPS signal would be checked. As an evidence of successful testing, PLCC counter readings and snapshot of station SCADA may be provided.*

*All constituents agreed to check the SPS system under their control area and submit the healthiness certificate on monthly basis.*

## **Item no. B.5: New Islanding Schemes in Eastern Region**

### **B.5.1. FSTPS Islanding Scheme, NTPC**

98<sup>th</sup> OCC recommended following:

- 1) Procurement of new PLCC panels for Lalmatia, Dumka and Farakka S/s
- 2) Procurement of two sets of 300 AH battery banks along with battery charger for Dumka and Lalmatia S/s as decided in 94<sup>th</sup> OCC.

In 100<sup>th</sup> OCC, Powergrid informed that the estimate of Rs. 53,10, 526/- has already been sent to JSEB and requested JSEB to release the amount as early as possible.

In 105<sup>th</sup> OCC, Powergrid informed that they are yet to receive payment from JUSNL. Powergrid also informed that LOA is to be awarded for batteries and PLCC equipment and without this receipt from JUSNL awarding LOA would be difficult.

In 29<sup>th</sup> TCC/ERPC meeting, JUSNL informed that approval of the fund was delayed due to Election, change of CMD and other administrative problems. JUSNL however assured that payment will be made by 31st March, 2015. Powergrid informed that they would take around 6 months for implementation after receiving payment from JUSNL.

NTPC informed that implementation of the NTPC part will be commissioned by April, 2015.

In 106<sup>th</sup> OCC, JUSNL informed that payment will be made to Powergrid by 31<sup>st</sup> March, 2015.

Powergrid/ JUSNL may update the status.

### **Deliberation in the meeting**

*JUSNL informed that the payment has been approved by their board and the payment will be made to Powergrid by end of March, 2015.*

#### **B.5.2. Chandrapura TPS Islanding Scheme, DVC**

In 29<sup>th</sup> TCC/ERPC meeting, DVC informed that material will reach to the site by March, 2015 and the islanding scheme will be implemented by April, 2015.

In 106<sup>th</sup> OCC, DVC informed that the islanding scheme will be implemented by April, 2015.

DVC may update the status.

### **Deliberation in the meeting**

*DVC informed that material has been reached to the site and cable laying is completed. The islanding scheme will be implemented by April, 2015.*

#### **B.5.3. BkTPS Islanding Scheme, WBPDC**

In 29<sup>th</sup> TCC/ERPC meeting, WBPDC informed that only unit#3 is remaining to be included in the islanding scheme and it will be done within a week. WBPDC also informed that the BkTPS islanding scheme as a whole would be in service by end of February, 2015. However, it was informed that WBSETCL/WBSEDCL are to confirm some settings pertaining to this islanding scheme. WBPDC, WBSETCL, WBSEDCL agreed to settle the issue bilaterally.

In 106<sup>th</sup> OCC, WBPDC informed that unit#3 has been included in the islanding scheme.

OCC requested WBPDC to give a presentation on implementation of BkTPS islanding scheme so that the onsite representative can share their experience with the house for the benefit of constituents. WBPDC agreed to give a presentation in next OCC meeting.

WBPDC may present.

### **Deliberation in the meeting**

*Representative from BkTPS, WBPDC has delivered a presentation on technical details of BkTPS islanding scheme. The handouts of presentation are enclosed at **Annexure-B.5**.*

*WBPDC explained that the present setting for islanding of BkTPS is considered at under frequency of 47.7 Hz with 300 ms time delay and df/dt is kept in alarm mode with a setting of 0.5 Hz/sec. At 47.7 Hz frequency, BkTPS will island with 220 kV Gokarna and Satgachia feeders along with in-house load.*

*Members felt that under voltage and dv/dt settings may be required to be included in the scheme in order to avoid the tripping of station auxiliaries on under voltage before initiation of the islanding.*

*WBPDC informed that they have not experienced such problem during last grid disturbances. However, under voltage, df/dt and dv/dt features are also available in the islanding scheme, which may be enabled after getting appropriate settings from ERPC forum.*

*OCC advised WBPDC to put the islanding scheme in service with present under frequency setting. The settings will be reviewed in ERPC forum at later stages, if required based on experience. OCC also advised WBPDC to give an intimation to ERPC/ERLDC after putting the islanding scheme in service.*

*OCC appreciated WBPDCCL efforts once again and congratulated WBPDCCL for successful implementation of BkTPS islanding scheme.*

#### **B.5.4. Tata Power Islanding Scheme, Haldia**

In 29<sup>th</sup> TCC/ERPC meeting, WBSETCL informed that Tata Power Islanding Scheme, Haldia has been commissioned on 11<sup>th</sup> February, 2015.

In 106<sup>th</sup> OCC, OCC requested WBSETCL to share their experience on implementation of Tata Power islanding scheme for the benefit of constituents.

WBSETCL agreed.

WBSETCL may present.

#### **Deliberation in the meeting**

*WBSETCL informed that Tata Power representative would present their islanding scheme in next OCC meeting.*

#### **Item no. B.6: Handing over of O & M of 220 kV Farakka –Lalmatia transmission system -- NTPC**

In 29<sup>th</sup> TCC it was decided that ECL is to handover the O&M part of the line to JUSNL on chargeable basis keeping the ownership with them and advised both ECL and JUSNL to discuss the commercial and technical issues in lower forums of ERPC.

TCC also advised secretariat to convene a special meeting in 1<sup>st</sup> week of March, 2015 with all concerned for final settlement of the issue. The meeting is scheduled to be held on 11.3.15.

Accordingly, a special meeting was held at ERPC Conference Hall on 11.03.2015, minutes of the meeting enclosed at **Annexure-B.6**.

It was informed that the permanent restoration of 220KV Farakka-Lalmatia transmission line tower no. 07 has been awarded to M/s POWERGRID and they have informed vide letter Ref. No. ER-II/FKK/TL/NTPC rest/2411 dated 11.03.2015 that they are ready for stringing work for final restoration in between tower location No. 06 to 08 of the said line. The permanent restoration of 220KV Farakka-Lalmatia transmission line tower no. 7 is very vital for ensuring healthiness of the said line and also to remove the ERS from that location & hand over the same to M/s POWERGRID by 31.03.2015. This is also in line with the minutes of special meeting regarding handing over of O&M of 220KV Farrakka-Lalmatia Transmission system on 11.03.2015, wherein M/s NTPC have to permanently restore tower no. 07 so that the 220KV Farakka-Lalmatia transmission system can be handed over to JUSNL by 31.03.2015.

In view of the above, shut down of 220KV Farakka-Lalmatia transmission line is requested from 09:00hrs. of 20.03.2015 to 17:00 hrs of 25.03.2015 to carry out permanent stringing work in between tower location No. 06 to 08 of the said line on continuous basis.

Members may note and allow the shutdown.

#### **Deliberation in the meeting**

*House was informed that another meeting was scheduled on 24-03-2015 at Ranchi with higher officials of JUVNL, JUSNL, JBVNL and ECL.*

*OCC agreed to allow the shutdown of 220KV Farakka-Lalmatia transmission line from 09:00hrs. of 20.03.2015 to 17:00 hrs of 25.03.2015 to carry out permanent stringing work in between tower location No. 06 to 08 of the said line on continuous basis.*

## **Item no. B.7: Status of “Third Party Protection Audit”**

List of the observations in 1<sup>st</sup> third party audit along with updated compliances received from the constituents are available in ERPC website ([www.erpc.gov.in](http://www.erpc.gov.in)).

The format for data collection to initiate 2<sup>nd</sup> Third Party Protection Audit is circulated to constituents and also made available in ERPC website. All constituents requested to send requisite information by 16<sup>th</sup> March, 2015. On site inspection of 2<sup>nd</sup> Third Party Protection Audit will commence after receiving the data.

*In 106<sup>th</sup> OCC, all constituents were advised to send the requisite data as per the format available at ERPC website. Constituents agreed.*

Till date constituents failed to submit. Members may update.

### **Deliberation in the meeting**

*The requisite data from few substations of Odisha, BSPTCL and WBPDCCL have been received. OCC agreed to start 2<sup>nd</sup> Third party Protection audit from the month of May, 2015 with the check lists already designed and modified by ERPC in line with recommendation of the Task Force Committee. It was decided that relevant information as per data format already circulated may be collected during actual visit of audit team.*

*All constituents were requested to co-operate.*

## **Item no. B.8: Concerned members may update the latest status.**

### **B.8.1. Status of construction of 400 kV Sterlite-Jharsuguda D/C sections**

In 29<sup>th</sup> TCC/ERPC meeting, Sterlite explained that they are seriously trying to complete the line at earliest and requested for extension of LILO.

It was decided to allow the extension of LILO connectivity till next TCC/ERPC meeting provided Sesa Sterlite makes considerable progress in the construction of the line and bay.

Accordingly, ERPC advised Sterlite to expedite the construction of the line.

It was also decided that ERPC team along with CTU personal will do the on-site inspection of the physical progress made by Sesa Sterlite in the construction of the line and bay, before the next TCC/ERPC meeting. Accordingly, the possibilities of further extension of the LILO will be explored in 30<sup>th</sup> TCC/ERPC meeting.

In 106<sup>th</sup> OCC, Sterlite and Powergrid updated the status as follows:

1. Sterlite bay no. 15 & 18 at 765/400kV Sundargarh(Jharsuguda) S/s will be started after receiving clearance from their Corporate Engg.: *Powergrid informed that they are yet to receive the clearance.*
2. Consultancy of bays is with Powergrid for which Sterlite has placed the award on M/s SR construction, who are already working on bay no.21 and 24.: *Sterlite informed that order has been placed for equipment.*
3. Bay no. 19&22 of Sterlite are under hold as informed by Powergrid Corporate Engg.: *Powergrid informed that they will give the clearance soon.*
4. Line construction: *Sterlite informed that forest diversion approval is under progress.*

OCC advised Sterlite to expedite the construction work. It was informed that on on-site verification of the physical progress as decided in 29<sup>th</sup> TCC/ERPC meeting would be carried out sometimes in the month of May.

Thereafter, Sterlite has submitted the latest status on the progress, which is enclosed at **Annexure-B.8.1**.

Sterlite and Powergrid may further update.

#### **Deliberation in the meeting**

*OCC noticed that till date there is no physical progress of the construction work. Accordingly, OCC advised Sterlite to initiate the physical construction work. Sterlite agreed to expedite.*

#### **B.8.2. Implementation of double bus scheme and commissioning of remaining tie/main breakers at Angul S/S.**

In 106<sup>th</sup> OCC, Powergrid informed the status of bus configuration at 400kV Angul Substation is as follows:

- i. 400kV GMR bays (2 nos): Done on 21.12.2014
- ii. 400kV GMR-JITPL ties (2 nos) : Done on 21.12.2014
- iii. 400kV ICT-I & II bays: Done on 21.12.2014
- iv. 400kV ICT-III & IV bays and 400kV Monnet bays (2 nos): Subjected to Shutdown clearance

Powergrid may update.

#### **Deliberation in the meeting**

*Powergrid informed that 400kV ICT-III part will be completed by March, 2015 and ICT-IV not yet reached to the site & the same is expected by June, 2015.*

#### **B.8.3. Status of 400 kV GMR- Angul D/C line.**

i) 400kV GMR-Angul D/C line has been commissioned. However it was informed in 104<sup>th</sup> OCC that the GMR lines are connected to single bus of 400kV Angul S/s, which may create problem for GMR evacuation under contingency.

In 106<sup>th</sup> OCC, Powergrid informed that the missing part of Bus-II is ready and will be commissioned by March, 2015.

Powergrid may update the status.

#### **Deliberation in the meeting**

*Powergrid informed that the missing part of Bus-II has already been commissioned at 400kV Angul S/s.*

ii) It was informed that Powergrid-HVDC vide a letter to GMR pointed out insufficient clearance of GMR line with Talcher-Meramundali line because of sag.

In 106<sup>th</sup> OCC, GMR informed that the clearance of GMR line with Talcher-Meramundali line is about 7 meters, which is sufficient.

OCC advised Powergrid and GMR to visit the site jointly and report in the next OCC.



GMR and Powergrid may update the status.

#### **Deliberation in the meeting**

*Powergrid and GMR agreed for the joint site-inspection on 24<sup>th</sup> March, 2015. OCC advised to report the outcome to ERPC Secretariat on completion of the joint visit.*

*Powergrid and GMR agreed.*

#### **B.8.4. Status of construction of Chuzachen bay at Rangpo S/s.**

In 29<sup>th</sup> TCC Meeting, Sikkim informed that they will send the proposal to Powergrid for consultancy.

Sikkim may update.

#### **Deliberation in the meeting**

*Sikkim representative was not available for discussion.*

#### **B.8.5. Status of 80MVAR Line reactor of 400kV Meramundali-Angul at Meramundali**

In 29<sup>th</sup> TCC/ERPC meeting, OPTCL & Powergrid informed that the reactor has been charged on 12<sup>th</sup> February, 2015.

In 106<sup>th</sup> OCC, it was informed that the issue has been deliberated in 28<sup>th</sup> PCC held wherein OPTCL informed that the reactor was out of service because of non availability of LA. OPTCL was advised to charge the reactor by arranging LA from some other line presently not in operation.

OPTCL may update.

#### **Deliberation in the meeting**

*OPTCL and Powergrid informed that LA has been arranged and testing is going on. OPTCL and Powergrid assured that the reactor will be charged within 2 days.*

#### **B.8.6. Non availability of important bays at FSTPP end**

In 106<sup>th</sup> OCC, FSTPP, NTPC informed the status of remaining 400kV CBs at 400kV FSTPP S/s as follows:

- a) Main bay of FSTPP-Sagardighi at FSTPP end : Completed
- b) Bay connecting FSTPP-Malda-II to Bus-II which is under outage since disturbance at FSTPP on 28/08/14 (Bay connecting to Bus-I in service).: Work has been completed but not charged. NTPC informed that PGCIL is yet to give clearance for charging. OCC alike PCC, advised NTPC and Powergrid to coordinate and charge the CB
- c) FSTPP-KhSTPP-IV Tie bay : Work has been completed but not charged. OCC alike PCC advised NTPC and Powergrid to coordinate and charge the tie.

NTPC may update.

#### **Deliberation in the meeting**

*FSTPP, NTPC informed the status of remaining 400kV CBs at 400kV FSTPP S/s as follows:*

- a) Main bay of FSTPP-Sagardighi at FSTPP end : *Completed*

- b) Bay connecting FSTPP-Malda-II to Bus-II which is under outage since disturbance at FSTPP on 28/08/14 (Bay connecting to Bus-I in service): *Work has been completed but not charged. NTPC informed that the CB will be charged by tomorrow (i.e. 20.03.2015).*
- c) FSTPP-KhSTPP-IV Tie bay : *Work has been completed but not charged. NTPC informed that they required shutdown for charging the Tie bay. OCC advised NTPC to charge the Tie bay in coordination with ERLDC.*

#### **B.8.7. 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG) S/s**

400/220 kV, 2X 315 MVA S/S at Bolangir has been established by Powergrid as part of ISTS system & the following 220 kV interconnecting lines was envisaged to be established by OPTCL:

- (i) LILO of OPTCL's Katapalli-Bolangir line at Bolangir (PG).
- (ii) Bolangir(PG) –Bolangir (OPTCL) S/C line.
- (iii) Bolangir(PG) –Kesinga S/C line.

In 106<sup>th</sup> OCC, OPTCL informed that status as follows:

- (i) LILO of OPTCL's Burla (Katapalli)-Bolangir line at Bolangir (PG)- By March' 2015
- (ii) 220 kV Bolangir(OPTCL)- Bolangir (PG) S/C line, which is a part of proposed Bolangir-Kesinga D/C line with one ckt LILO at Bolangir (PG)- Getting delayed due to land disputes.
- (iii) Bolangir(PG) –Kesinga S/C line —Tender opened and completion schedule is not yet finalized.

OPTCL may update the status.

#### **Deliberation in the meeting**

*OPTCL updated the status as follows:*

- (i) *LILO of OPTCL's Burla (Katapalli)-Bolangir line at Bolangir (PG)- By April' 2015*
- (ii) *220 kV Bolangir(OPTCL)- Bolangir (PG) S/C line, which is a part of proposed Bolangir-Kesinga D/C line with one ckt LILO at Bolangir (PG)- Getting delayed due to land disputes.*
- (iii) *Bolangir(PG) –Kesinga S/C line —Tender opened and completion schedule is not yet finalized.*

Further, OCC advised OPTCL to plan other alternatives for SI No. (ii) & (iii) as these were getting delayed due to land disputes.

OPTCL agreed to explore other alternatives in their internal Co-ordination meetings.

#### **B.8.8. Augmentation of Transformation Capacity in PGCIL Grid S/s at Muzaffarpur, Purnea, Sampatchak(Patna) & Sasaram-- BSPHCL**

In 106<sup>th</sup> OCC, Powergrid informed that the status as follows,

- Augmentation of additional 500MVA, 400/220kV ICT at Muzaffarpur: The order was placed on 20<sup>th</sup> October, 2014 for augmentation of transformation capacity and it will take 18-24 months for completion.
- Replacement of 2x315MVA, 400/220kV ICTs at Sampatchak(Patna) & Sasaram by 2x500MVA ICTs: will be completed by January, 2016.
- Replacement of 400/220kV ICTs at Purnea by 2x500MVA ICTs: One 160 MVA ICT has already been augmented and other one will be completed by March, 2015.

Powergrid may update the status.

### **Deliberation in the meeting**

*Powergrid updated the status as follows,*

- *Augmentation of additional 500MVA, 400/220kV ICT at Muzaffarpur: The order was placed on 20<sup>th</sup> October, 2014 for augmentation of transformation capacity and it will take 18-24 months for completion.*
- *Replacement of 2x315MVA, 400/220kV ICTs at Sampatchak(Patna) & Sasaram by 2x500MVA ICTs: will be completed by January, 2016.*
- *Replacement of 400/220kV ICTs at Purnea by 2x500MVA ICTs: One ICT will be commissioned by July, 2015 and the other one will be completed by December, 2015.*

#### **B.8.9. Synchronization of 132 kV Dalkhola (WB)-Kishanganj(BSPTCL) S/C**

In 106<sup>th</sup> OCC, WBSETCL informed that the line is ready charging but SEM is not working properly.

OCC advised Powergrid to replace the meter immediately. Powergrid agreed.

WBSETCL/Powergrid may update the status.

### **Deliberation in the meeting**

*WBSETCL informed that new SEM has been installed however, CT and PT connections are yet to be done.*

*OCC advised WBSETCL and Powergrid to coordinate and complete the work within a week.*

#### **B.8.10. Non functioning of main meter (NP-5896-A) at Teesta end of 400 kV Rangpo line-1 and time drift in SEMs of FSTPS GT meters**

The Main Meter (NP-5896-A) installed in line Teesta-V Rangpo Line-1 is non functional since last 3 months and consequently SEM data from this meter is not being provided to ERLDC. Presently data for this line is being provided by the Check Meter (NP-5895-A). Keeping in view the provision of CEA Metering Regulation 2006 and subsequent amendments, it is requested to do necessary action for replacement of the defective Main meter at the earliest. The matter has been taken up with ERLDC and PGCIL through emails but remedial action is awaited.

In 104<sup>th</sup> OCC, PGCIL informed that they would replace the meter within a week.

NTPC pointed that 7 series meters are not allowing time correction and Powergrid agreed to replace all the 7 series meters but till date their meters were not replaced.

OCC advised Powergrid to replace the meters immediately and resolve the problem of the meters with L&T. Powergrid agreed.

Thereafter, Farakka, NTPC informed vide letter dated 07.01.2015, time drift of SEMs of GT-1, 2, 3, 4 & 5 of their station has reached to 8 minutes. All these meters are of 7 series meters. Besides this, few SEM meters of installed in following lines are also getting stalled/inoperative from last few months,

- Farakka-Sagardighi (Main-NP 5213-A)
- Farakka-Berhampore (Main-NP 5221-A)
- Farakka-Kahalgaoon-2 (Main-NP 5200-A)
- GT-6 (NP 5216-A)

In 105<sup>th</sup> OCC, it was understood that considerable number of meters are having time drift & some with even 28 minutes drift. On deliberation it was informed that using a software, now-a-days available in market, time drifts are possible to get corrected in one go.

Therefore, it was decided that a separate meeting with L&T will be convened by ERLDC to discuss the meter drifting issues and its correction with software.

PGCIL may update.

#### **Deliberation in the meeting**

*Powergrid informed that Main SEM (NP-5896-A) of Teesta-V Rangpo Line-1 has been replaced in December, 2014.*

*Powergrid also informed that two new SEMs will be handed over to NTPC, Farakka by today evening to replace the meters and rest of the time drifted SEMs will be replaced within two days.*

*In the meeting it was informed that no software is available for online correction of time drift in one go. These meters were required to be taken out and send to L&T for time correction.*

*OCC felt that separate meeting with L&T is not required now and advised Powergrid to replace the SEMs having time drift more than 5 min.*

*Powergrid agreed.*

#### **B.8.11. Commissioning of Ind-Bharath to Jharsuguda D/C(dedicated line)**

In the last OCC, Ind-Bharath has communicated the status as follows:

- 104 towers out of total 125 towers have been completed. A minor change in the existing alignment for erection of towers has now been made to avoid some portion of forest land. Hence completion of construction of the line may take some time.
- Dedicated ATS to 765/400kV Sundergarh line will be completed by April, 2015.
- LC for drawal of enhance startup power has been opened.

Ind-Bharath may update.

#### **Deliberation in the meeting**

*Ind-Bharat has communicated that their dedicated ATS will be completed as per schedule.*

#### **Item no. B.9: Future requirement of Special Energy Meters and DCDs ---Powergrid**

The requirement of frequency based ABT Special type meters up to 2014 has been procured by POWERGRID and likely to be exhausted shortly. Beneficiary Constituents of ER are requested for assessment of their requirement of Special Type Energy Meters and DCDs for the period from 2015 to 2017 and intimate the same in the next OCC meeting so that the advance action for procurement can be taken.

In 106<sup>th</sup> OCC, ERLDC informed that they will submit the list of requirement in next OCC.

OCC advised all constituents to submit the details of additional requirement of SEMs and DCDs , if any, by next OCC. Consolidated list will be placed in next OCC.

Subsequently, ERLDC has prepared an exhaustive list of SEMs that would be required to be procured considering upcoming various generating projects and their associated transmission lines in Eastern region up to 2017-18. The new Special Energy meter would be capable of

frequency measurement with a step size of 0.01 Hz. is to be procured considering the recent change in regulation. The procurement of DCDs may also be done accordingly. The list is enclosed in **Annexure-B.9**.

Constituents may assess their requirement of SEMs and DCDs for the period from 2015 to 2018 and intimate the same to the OCC.

Members may update.

#### **Deliberation in the meeting**

*OCC advised all constituents to check the annexure and send the requisition for SEMs if any, which is not included the list. OCC decided to finalize the list in next OCC meeting.*

*OPTCL informed that the following DCDs in their control area are not working properly and requested change the DCDs:*

<b>Sl No.</b>	<b>Make</b>	<b>Serial No.</b>
1.	PSION	PGCDCD161
2.	L&T	11122068
3.	L&T	11122071
4.	L&T	11122076
5.	L&T	07120455
6.	L&T	07120465
7.	L&T	11122083

*OCC advised Powergrid to do the needful.*

#### **Item no. B.10: 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 2<sup>nd</sup> August, 2013. In 88<sup>th</sup> OCC, constituents requested for another workshop on this issue. OCC agreed and requested NTPC and CESC to share their scheme in the workshop.

Members may note and comply.

#### **Deliberation in the meeting**

*Members noted.*

#### **Item no. B.11: Energy Generation data management from Renewable Energy Sources**

As per Electricity Act, 2003, CEA has been entrusted with the task of collecting electricity generation data. CEA is monitoring all the existing generating stations with capacity more than 25 MW (Conventional sources only). In recent years there has been appreciable growth in generation from Renewable Energy Sources (RES).

In view of above it was decided to monitor all the generating stations under RES connected to the grid and also to bring out month wise, state wise and sector wise report on RES generation in MU including peak generation from RES.

CEA already requested to nominate Nodal officers at the level of SLDC for the above purpose. However, only few states have responded.

Those SLDCs who have not yet nominated the nodal officers for Energy Generation Data management from RES are requested to furnish the details at following email/Fax:

Email: ceaopmwind@gmail.com with a copy to rishika.engineer@gmail.com and s.sewak@cea.nic.in

Nodal officers from CEA: Mrs. Rishika Sharan, Director, CEA, 011-26732663 and 26102263(Fax), Mobile: 9868021299, Mrs. Sarita Sewak, Dy. Director, 011-26732656

SLDCs may note and nominate their Nodal officers as advised.

### **Deliberation in the meeting**

*Members noted.*

#### **Item no. B.12: Certification through BIS as per IS 18001:2007 to all generating/transmission units. (Item No. B9 of 84<sup>th</sup> OCC meeting)**

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

In 85<sup>th</sup> 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 88<sup>th</sup> 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 104<sup>th</sup> OCC, WBPDL 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.

Members may note and update the status.

### **Deliberation in the meeting**

*Members noted.*

#### **Item no. B.13: Restricted Governor Mode of Operation**

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

Members may update.

### **Deliberation in the meeting**

*Members noted.*

#### **Item no. B.14: Pollution mapping for Eastern Region -- Powergrid**

In 105<sup>th</sup> OCC, Powergrid informed that the Instrument Kits for measurement related to Pollution Mapping were already dispatched to the constituents. Powergrid requested to commence the first set of Pollution measurements by second week of February, 2015 and communicate the results. The format for filling up the results is already available in ERPC website.

The issue was discussed in 29<sup>th</sup> TCC Meeting, wherein JUSNL expressed certain difficulties in receiving the kits from dispatcher. TCC advised Powergrid to look into. Powergrid agreed.

In 106<sup>th</sup> OCC, JUSNL informed that they have received the Pollution Mapping test kit. Powergrid confirmed that the Pollution Measurement would start in schedule.

Powergrid may update the status.

#### **Deliberation in the meeting**

*Powergrid informed that pollution measurement would start from 1<sup>st</sup> April, 2015. OCC advised Powergrid to give updated status of Pollution mapping in every OCC.*

#### **Item no. B.15: Mock Black start exercises in Eastern Region – ERLDC**

##### **i) The status of black start exercises**

Program for conducting black start exercise 2014-15 as updated in last OCC,

Sl no	Name of Hydro Station	Schedule	Actual	Schedule	Tentative Date
		Test-I		Test-II	
1	U.Kolab	Last week of May, 2014	3 <sup>rd</sup> June 2014	2 <sup>nd</sup> or 3 <sup>rd</sup> week of March, 2015	27 <sup>th</sup> Mar, 2015
2	Maithon	1 <sup>st</sup> week of June 2014	17 <sup>th</sup> June 2014	1 <sup>st</sup> Week of October 2014	<i>Done on 10<sup>th</sup> February, 2015</i>
3	Rengali	2 <sup>nd</sup> week of June 2014	19 <sup>th</sup> September 2014	Last week of November 2014	25 <sup>th</sup> Mar, 2015
4	U. Indarvati	3 <sup>rd</sup> week of June 2014	16 <sup>th</sup> December 2014	2 <sup>nd</sup> week of February 2015	<i>Done on 10<sup>th</sup> February, 2015</i>
5	Subarnarekha	2 <sup>nd</sup> week of October 2014		1 <sup>st</sup> week of January 2015	Water is not available
6	Balimela	1 <sup>st</sup> week of Nov. 2014	19 <sup>th</sup> November 2014	1 <sup>st</sup> week of March 2015	Mar, 2015
7	Teesta-V	2 <sup>nd</sup> week of Nov. 2014	16 <sup>th</sup> December 2014	Last week of March, 2015	31 <sup>st</sup> Mar, 2015
8	Chuzachen	--		April, 2015	
9	Sikidri			4 <sup>th</sup> week of December, 2014	May, 2015

Members may update.

#### **Deliberation in the meeting**

*Members updated the status as mentioned above.*

*Chuzachen informed that they are in process of incorporating logics for black starting of their generators from 26.03.15 to 28.03.15 and they require shutdown on 28.03.15. Chuzachen requested ERLDC to prepare the black start procedure for their Generator. ERLDC agreed.*

## **ii) Testing of DG sets meant for Black start**

Tets 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](mailto:erldc.cal@gmail.com) and [erldcoutage@gmail.com](mailto:erldcoutage@gmail.com).

Constituents may kindly ensure compliance.

### **Deliberation in the meeting**

*Members noted.*

## **iii) Updating of Restoration Procedure of Eastern Region for 2014**

The Restoration Procedure of Eastern Region has been updated till the current year. Soft copy of the draft updated procedure would be circulated among OCC members during the meeting.

Members may offer their valuable observations by 7-12-14 for finalization of the procedure.

In this connection, updated information pertaining to restoration of traction supply in Eastern Region was sought vide ERLDC/SS&MIS/2014/2446 dated 24-10-14, addressed to Eastern Railways, East-Central Railways, South-Eastern Railways, East-Coast Railways and South-East-Central Railways. However, no comments have been received from them, despite requesting them once again vide email dated 5-11-14. Under the circumstances, it is presumed that there are no changes in the information pertaining to traction supply.

In 103<sup>rd</sup> OCC, ERLDC circulated the Restoration Procedure of Eastern Region for 2014 and requested to send their comments by 7<sup>th</sup> December, 2014 for finalization of the procedure.

In 104<sup>th</sup> OCC, ERLDC informed that they have received the comments from DVC and Railways. The Restoration Procedure is ready and it would be published within a week.

In 105<sup>th</sup> OCC, NTPC informed that Kahalgaon stage-II, Farakka stage-III and Barh units are not there in the restoration procedure. NTPC requested to include. ERLDC agreed.

In 106<sup>th</sup> OCC, ERLDC informed that the information is yet to be received from NTPC. NTPC agreed to send the relevant information.

ERLDC may update.

### **Deliberation in the meeting**

*ERLDC informed that the relevant data from NTPC has been received. ERLDC intimated that they will share the revised operating procedure after incorporating NTPC part.*

## **Item no. B.16: Restoration of SCADA data**

Updated latest status is circulated in the meeting. During deliberations in 99<sup>th</sup> OCC it was pointed out by most of the constituents that SCADA problem in many locations are due to behind the schedule progress of work on the part of CTU/PGCIL. OCC advised Powergrid/CTU to expedite and restore at least the priority RTUs by 31<sup>st</sup> July, 2014.

Updated status as updated in SCADA meeting which was held on 28<sup>th</sup> January, 2015 is circulated in the meeting.

CTU may update.



### **Deliberation in the meeting**

*CTU updated the latest status. The updated status is enclosed at **Annexure-B.16**.*

*The house was informed that the project review meeting of ULDC scheme is scheduled to be held tentatively on 8<sup>th</sup> April, 2015.*

### **Replacement of RTUs at Kahalgaon, NTPC**

In 105<sup>th</sup> OCC, Powergrid informed that RTU has been commissioned. But as Unit#6 data is not made available to the interfacing unit so the same is not getting reported.

NTPC agreed to provide the Unit#6 data to interfacing unit.

Powergrid/NTPC may update.

### **Deliberation in the meeting**

*Powergrid and NTPC informed that the work has been completed.*

### **Item no. B.17: Over-voltage settings of EHV lines in ER**

Data from is pending in respect of certain newly commissioned lines from ER-I(Nabinagar), WBSETCL(Parulia/Sagardighi), Anugul(ER-II).

In 106<sup>th</sup> OCC, the list of over voltage settings yet to be updated by the constituents is circulated in the meeting. OCC advised concern members to submit the settings to ERLDC.

Members may update.

### **Deliberation in the meeting**

*Members updated the over voltage settings. Updated list is enclosed at **Annexure-B.17**.*

### **Item no. B.18: Proposal for review of PDO conditions for HVDC Gajuwaka Poles, in view of repeated tripping of lines in S. Odisha**

In view of repeated trippings of EHV lines causing major disturbance in South Odisha for the past six months, ERLDC proposed to review the PDO conditions for HVDC Gajuwaka to meet the eventualities arising out of the consequences.

In 106<sup>th</sup> OCC, members appreciated the proposal and advised OPTCL to study and send their views. OPTCL agreed.

ERLDC and OPTCL may update.

### **Deliberation in the meeting**

*OPTCL informed that they will communicate their views within two days.*

### **Item no. B.19: Scheduling of KBUNL-II (Kanti Bijlee Utpadan Nigam Limited)--ERLDC**

KBUNL-II(2x 195MW) is a joint venture of NTPC and BSEB, and GT#3 and Unit#3 are expected to be synchronized shortly. KBUNL is connected to both CTU/STU and has GOI allocation with majority share to home state viz.BSEB. With reference to scheduling/control area jurisdiction of KBUNL-II, the following points need to be noted:

- a) KBUNL may be considered as a C.G.S with control area jurisdiction under ERLDC. However, a confirmation would be required in this respect of the plant being a C.G.S as defined in IEGC.
- b) For synchronization of GT to the Grid and drawal of start up power all necessary formats need to be filled up. The formats have been already mailed to KBUNL.
- c) Registration at ERLDC end and the requirement of being a member of ER Deviation pool account need to be fulfilled.
- d) It should be ensured that before any synchronization of GT to ER Grid, commissioning of Data and dedicated voice communication to ERLDC is put in place.
- e) Before COD of the unit and scheduling by ERLDC, KBUNL needs to sign the requisite LTA agreements with CTU in respect of the GOI share allocations.

Members may kindly give their views.

### **Deliberation in the meeting**

*It was informed that KBUNL is a joint venture of NTPC and BSEB wherein NTPC has a stakeholder of 55%. It was also informed that the power from KBUNL is not dedicated to Bihar only but other constituents of ER have also share allocation from KBUNL. Therefore, KBUNL will be considered as Inter- State Generating Station (ISGS) and it will be scheduled by ERLDC.*

*KBUNL was advised to submit their documents related to stakeholder and share allocation to ERLDC/ERPC for further proceeding towards scheduling formalities.*

*KBUNL has circulated the share allocation in the meeting, which is enclosed at **Annexure-B.19**.*

*OCC felt that scheduling is to be done as per IEGC and with no objection from Bihar, ERLDC could schedule the KBUNL units. NTPC and Bihar were advised to do the needful in this regard.*

### **Item no. B.20: COD and Trial run operation of JITPL unit # 2 --JITPL**

JITPL vide letter dated 16<sup>th</sup> March, 2015 informed that they had declared commercial operation of unit #2 (600MW) of 2X600 MW thermal power plant located at Derang, Orissa from 00:00 Hrs of 12th February 2015.

JITPL also informed that they had conducted Maximum Continuous Rating (MCR) test for 72 hours of unit#2 during 02:00hrs of 04.02.2015 to 02:00 hrs of 07.02.2015 and requested for confirmation letter of trial run operation at MCR for 72 hours for the given period.

JITPL and ERLDC may update.

### **Deliberation in the meeting**

*OCC felt that the beneficiary of the generator should certify the MCR test. JITPL replied that beneficiary has witnessed and certified the MCR test for 72 hours, which have been submitted to ERLDC. However, CEA is asking certification from ERPC forum.*

*It was ascertained that JITPL had conducted Maximum Continuous Rating (MCR) test for 72 hours of unit#2 (600 MW) from 02:00hrs of 04.02.2015 to 02:00 hrs of 07.02.2015.*

*ERLDC clarified that based on the certificate of satisfactory operation at MCR for 72 hours as given by beneficiary of JITPL (i.e. GRIDCO), COD of JITPL has been accepted.*

## **Item no. B.21: 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 February 15

<b>Power Plant</b>	<b>Max and Min Voltage observed for Feb 15 (KV)</b>	<b>Date for monitoring (February 15)</b>
Farakka STPS	422, 408	2,5
Khalgaon STPS	417, 405	16, 13
Talcher STPS	416,408	3,18
Teesta	422,386	7,8
Bakreshwar TPS	411,388	2,27
Kolaghat TPS	425,397	16,24
Sagardighi TPS	Data not Available	N/A
MPL	423,411	2,27
Mejia-B	424,413	2,21
DSTPS	427,416	2,27
Adhunik TPS	427,412	2,27
Sterlite	428,416	2,14

ERLDC may update.

### **Deliberation in the meeting**

*ERLDC informed that the performance of all generators of ER is satisfactory except Sterlite unit#2. OCC advised Sterlite to look into it. Sterlite agreed.*

#### **a) Schedule for reactive capability tests**

From last many OCCs reactive capability testing of following units are pending:

- a) Adhunik TPS
- b) DSTPS
- c) Mejia & Koderma TPS
- d) GMR
- e) JITPL

Members may decide.

### **Deliberation in the meeting**

*ERLDC informed that the reactive capability test of DSTPS unit #1 (500 MW) was carried out on 03.03.2015 and Mejia TPS unit #8 was carried out on 10 & 11.03.2015.*

#### **b) Optimization of GT tap position at Adhunik, Mejia-B and DSTPS**

In 97<sup>th</sup> OCC, members requested ERPC Secretariat to convene a special meeting for detail deliberation on tap changing proposal before next OCC.

Accordingly, a special meeting was convened on 27<sup>th</sup> June, 2014. During the meeting following tap position was agreed:

Sl. No.	Utility	Present GT tap position	Agreed tap position in the meeting
1	APNRL: GT-1	8	9
	APNRL: GT-2	3	4
2	Mejia-B, DVC	4	5
3	DSTPS, DVC	5	6

Subsequently, DVC vide mail dated 3<sup>rd</sup> July, 2014 informed that GT tap position of MTPS units U#7&8 has been changed from Tap no. 4 to Tap no. 5.

In 101<sup>st</sup> OCC, ERLDC informed that MPL should also reduce the GT tap from tap position 5 to 6. MPL informed that they will confirm in the next OCC.

In 102<sup>nd</sup> OCC, APNRL informed that they have changed the GT tap position of both the GTs as per agreed settings.

DVC vide letter No.LD/25/ERPC/640 dated 03.01.2015 informed that the tap position of DSTPS GT #1 was changed from 5 to 6.

ERLDC assured that they will take care of the voltage problem during synchronization of their generator and advised to change the GT tap position.

In 103<sup>rd</sup> OCC, MPL informed that they need clear cut written communication from ERLDC that during synchronization of their generators what actions they need to take.

ERLDC once again assured that they will take care of the high voltage during synchronization of the generators.

Since the deliberations are already noted in the minutes of special meeting of GT tap, OCC felt no separate written communication is required and advised MPL to change the tap position. MPL agreed.

ERLDC and MPL may update the status.

#### **Deliberation in the meeting**

*OCC advised MPL to change the tap position immediately.*

## **PART C:: OPERATIONAL PLANNING**

### **Item no. C.1: Shutdown proposal of transmission lines and generating units for the month of April' 15**

Members may also finalize the Shutdown proposals of the generating stations and transmission lines for the month of April' 15 as placed in the meeting.

ERLDC may place.

#### **Deliberation in the meeting**

*Approved maintenance programme of transmission elements for the month of April, 2015 is at Annexure-C.1.*

### **Item no. C.2: Anticipated power supply position during April'15**

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of April'15 were prepared by ERPC Secretariat on the basis of Provisional LGBR for 2015-16, keeping in view that the units are available for generation and expected load growth etc. as circulated in the meeting.

Members may confirm.

#### **Deliberation in the meeting**

*Modified anticipated power supply position for the month of April, 2015 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:**

<b>Generating Station</b>	<b>UNIT NO</b>	<b>CAP(MW)</b>	<b>DATE</b>	<b>REASONS FOR OUTAGE</b>	<b>Date of restoration</b>
MEJIA	1	210	02.01.15	LESS DEMAND	
MEJIA	2	210	24.02.15	LESS DEMAND	
MEJIA	4	210	09.11.14	LESS DEMAND	
MEJIA	8	500	11.03.15	TUBE LEAKAGE	Running
BOKARO 'B'	1	210	21.02.15	TUBE LEAKAGE	LESS DEMAND
BOKARO B	2	210	15.02.15	TUBE LEAKAGE	LESS DEMAND
BOKARO B	3	210	17.02.15	TUBE LEAKAGE	LESS DEMAND
CHANDRAPURA	8	250	23.01.15	STATOR EARTH FAULT	May 2015
STERLITE	3	600	23.01.15	DESYNCHRONISED	LESS DEMAND
KODERMA	1	500	12.11.14	Problem in vacuum pump	27 <sup>th</sup> Mar 2015
DSTPS	2	500	01.12.14	LESS DEMAND	
BANDEL	5	210	16.11.13	MAINTENANCE	May 2015
APNRL	1	270	25.11.14	TURBINE PROBLEM	
JITPL	1	600	16.08.14	LEAKAGE IN STATOR.	Available
DPL	7	300	11.03.15	TUBE LEAKAGE	27 <sup>th</sup> Mar 2015
SANTALDIH	6	250	14.03.15	TUBE LEAKAGE	Running

## (ii) Transmission elements

Name of the Line/Element	Outage	Reason	Date of restoration
220 KV CHUKHA-BIRPARA-I	11.01.15	S/D AVAILED BY CHUKHA	Charged but did not withstand

Members may update.

### **Deliberation in the meeting**

*Members updated the latest status.*

#### **Item no. C.4: Information regarding commissioning of new transmission element**

1. JITPL Unit#2 declared under COD w.e.f 12/02/15. With the above both units of JITPL have now been declared under COD.

Members may update.

### **Deliberation in the meeting**

*Members noted.*

#### **Item no. C.5: Status of commissioning of generating station and transmission elements**

##### **New generating units:**

S.No.	Power Plant	Plant Size	Expected date
1	Ragunathpur Unit#1	2x600MW	

##### **New transmission elements:**

SI No.	Name of Element	Expected date
1	765kV Anugul-Jharsuguda I & II	
2	400kV Ind-Bharath-Jharsuguda D/C	
3	400kv Talcher-Bramhapur-Gazuwaka D/C	
4	400kv Talcher-Rourkella(2 <sup>nd</sup> D/C-Quad)	
5	400kV Sterlite-Jharsuguda D/C	
6	LILO of Baripada-Mendhasal D/C at New Duburi	
7	765kv Anugul-Srikakulum D/C	
8	400kV Sasaram-Daltonganj D/C & Daltonganj S/Stn	
9	400 kV Ranchi-Ragunathpur D/C	
10	400 kV Meramandali-Dubri D/C	
11	400 kV IB-Meramandali D/C	
12	220 kV TLDP-IV – NJP ckt-2	
13	220 kV Bidhansai-Cuttack D/C	
14	220 kV Girdih-Koderma D/C	
15	400kV Rajarhat-Purnea D/C(with LILO of one circuit each at Farakka and Gokarno)	
16	Augmentation of 400kV Farakka-Malda D/C with HTLS conductor	

Members may update.

### **Deliberation in the meeting**

*Members noted.*

## **PART D:: OTHER ISSUES**

### **Item no. D.1: UFR operation during the month of Feb'15**

System frequency touched a minimum of 49.58Hz in February'15 on 17/02/15 at 08:37Hrs. 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 February'15.

Members may note.

#### **Deliberation in the meeting**

*Members noted.*

### **Item no. D.3: Grid incidences during the month of Feb, 2015**

Sl no	Disturbance Place	Date & Time	Generation loss (MW)	Load loss (MW)	Remark	Category
1	South Odisha (Jeypore, Bolangir, Indravati, Jayanagar, Bhanjanagar, Theruvali, Narendrapur, HVDC Gazuwaka)	10/02/15 at 16:11hrs & 16:24hrs.	250	400	Total power failure occurred at South Odisha system including HVDC Gazuwaka due to tripping of various 400kV and 220kV lines at Jeypore and in south Odisha.	GD-1
2	220kV Jayanagar S/s	20/02/15 at 14:10hrs.	0	50	Total power failure occurred at 220kV Jayanagar S/s due to bursting of LV side B-Ø CT of 220/132kV, 160MVA Auto transformer-I (idle charged from HV side) at Jaynagar.	GD-1
3	220kV Fatuha S/s	20/03/14 at 18:18hrs	0	250	Total power failure occurred at 220kV Fatuha S/s due to bursting of 220kV side Y and B-Ø CT of 220/132kV, 100 MVA ICT-III at Fatuha	GD-1
4	220kV Chandil S/s	15/02/15 at 13:25 hrs	0	273	SLG fault (B Ph-G) occurred close to Santaldih TPS, in 220kV Chandil-Santaldih S/C line and subsequently all lines at Chandil tripped due to non-clearance of	GD-1

					above fault from Chandil end.	
5	220kV Chandil S/s	17/02/15 at 20:13 hrs	0	300	total power failure occurred at 220kV Chandil S/S due to bursting of B-Ph CVT of 220kV Chandil- Ranchi (PG) line at Chandil end	GD-1
6	220kV Chandil S/s	18/02/15 at 12:26 hrs.	0	235	SLG fault (B Ph-G) occurred in 220kV Chandil-Santaldih S/C line and subsequently all lines at Chandil tripped due to non-clearance of above fault from Chandil end	GD-1
7	400kV Jeypore S/s	23/02/15 at 13:26 & 13:33 hrs.	0	0	Multiple trippings occurred at Jeypore S/s due to tripping of 400kV Angul-Bolangir line on earth fault.	GD-1

Members may note.

**Deliberation in the meeting**

*Members noted.*

**Item no. D.4: Any other items.**

Meeting ended with vote of thanks to the chair

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Participants in the 107<sup>th</sup> OCC Meeting of ERPC

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 19.03.2015 (Thursday)

Sl No	Name	Designation/ Organization	Contact Number	Email	Signature
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15	A. Chowdhury	Asst Manager Electrical	9927294328	ashwin.chowdhury@vedant.in	A. Chowdhury
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17	S. PAL	SR-MGR (CR1)	833690382	spal@wppdel.co.in	S. PAL
18	A. Banerjee	Mgt (Testing)	8336904097	Abanerjee@wppdel.co.in	A. Banerjee
19	M.K. Thakur	ERLDC	9432351832		M.K. Thakur
20	SHASHWATA DUTTA	ENICL	9560300055	Shashwata.dutta@sterile.com	Shashwata DUTTA

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

## Participants in the 107<sup>th</sup> OCC Meeting of ERPC

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 19.03.2015 (Thursday)

Sl No	Name	Designation/ Organization	Contact Number	Email	Signature
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28	T. R. Mohapatra	DM / ERDC	9433041873		
29	H. P. Matopatra	Mgr (CHPC)	9861164943	hpm.chpc@gmail.com	
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33	S. Ghosh	AM / WBPDCL	9474367864	s-subidast@rediffmail.com	
34	N. G. Saha	SM / WBPDCL	8336783700	ngsaha@wbpdcl.co.in	
35	P. K. Kundu	SE / SLDC / WBPDCL	943490269	pkundu_1961@yahoo.co.in	
36	P. K. DE	EE / ERPC	9433125844		
37	V. Kalyanaswami	EE / ERPC	2423 141		
38	J. G. Rao	ARE / ERPC	9547891353	erab-cea@yahoo.com	
39	Sumit Ghosh	ARE / ERPC	9045241633	Sumitghosh96@gmail.com	
40	S. Kojima	EE	9831919509		

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### Participants in the 107<sup>th</sup> OCC Meeting of ERPC

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 19.03.2015 (Thursday)

Sl No	Name	Designation/ Organization	Contact Number	Email	Signature
41	D. K. Bauri	EE(O), ERPC	9883617236	eeop.erpc@nagov.in	
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43	P. KUMAR	ESE/SLDC BSPTEL	7763816743	prabhatk842@gmail.com	
44	A.K. Mishra	A.EE/SLDC JUSNLCTSEB/Pandi	9263296225		
45	RATENDRA PRASAD	A.E.G.(CRM) TVNL	9470383346	r.p.ttps@gmail.com	
46	A. BISWAS	C.E., SLDC WBSETCL	9434910030	anitava.biswas22@gmail.com	
47	T. K. DE	A.CE/BLOC WBSETCL	9433870748	krumartapande@gmail.com	
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56	R.P. Singh	AGM KBUNL, Kandi	9431011366	rpsingh01@ntpc.co.in	
57	Samir Pandey	Head-Opn/ MPL	9031000323	spandey@tatapower.com	
58					
59					
60					

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## Annexure-B2

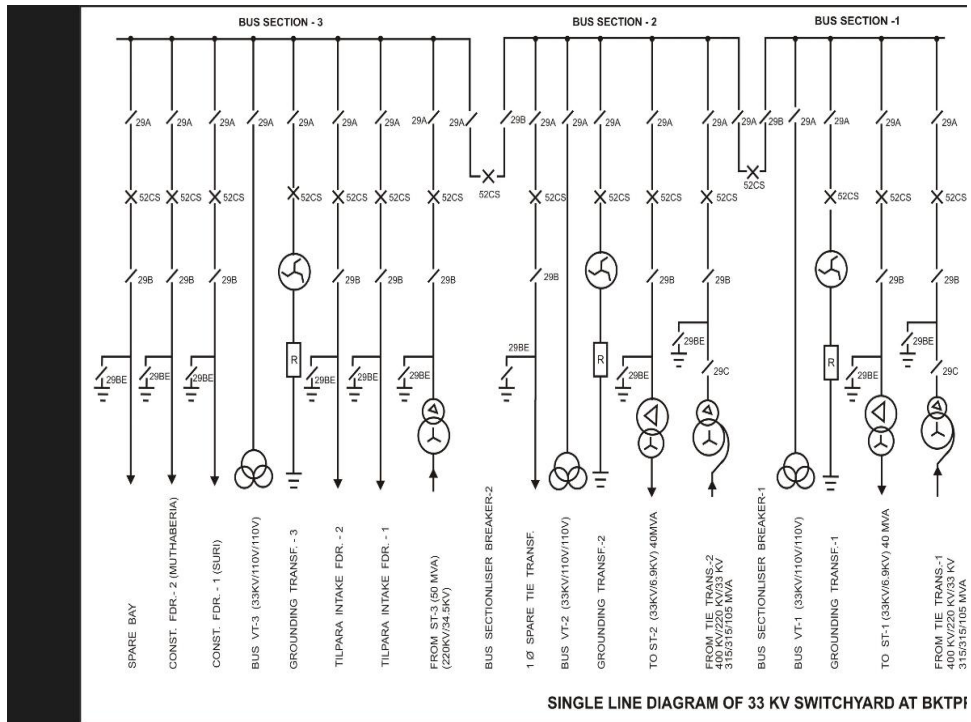
### List of Third Party Protection observations related to PLCC

1	Jaypore 400 kV - Powergrid	28-01-2013	PLCC of 220 kV lines is not working	Line belongs to OPTCL.
2	Rengali 400 kV - Powergrid	02/01/2013	PLCC for 220 kV lines is not available	Line belongs to OPTCL
3	Rourkela 400 kV - Powergrid	22-01-2013	Only one PLCC channel is available for 220 kV line protection	Line belongs to OPTCL
4	TSTPS, Kaniha 400 kV - NTPC	29-12-2012	PLCC facility for protection is not available for 220 kV lines	<p>OPTCL is the owner of the associated PLCC system of the 220 kV Lines.</p> <p>The scheme for PLCC aided tripping for 220 Kv Lines is in place at Kaniha but non functional due to absence of protection coupler in associated PLCC system.</p> <p>OPTCL may be perused to provide protection coupler in the associated PLCC system</p>
5	Gaya 765 kV - Powergrid	28-12-2012	Auto reclosing and carrier aided tripping features for 220 kV lines are not in service due to problem at remote end (BSPTCL).	
6	Patna 400 kV - Powergrid	29-12-2012	PLCC for 220 kV lines not in service due to problem at remote end (BSPTCL).	PLCC link for 220kV Patna-Khagul and 220kV Patna-Fathua has been commissioned on 10.12.2013 but end to end protection checking was not done due pending interpanel wiring from Relay to PLCC protection coupler. The work is to be done by BSPTCL.

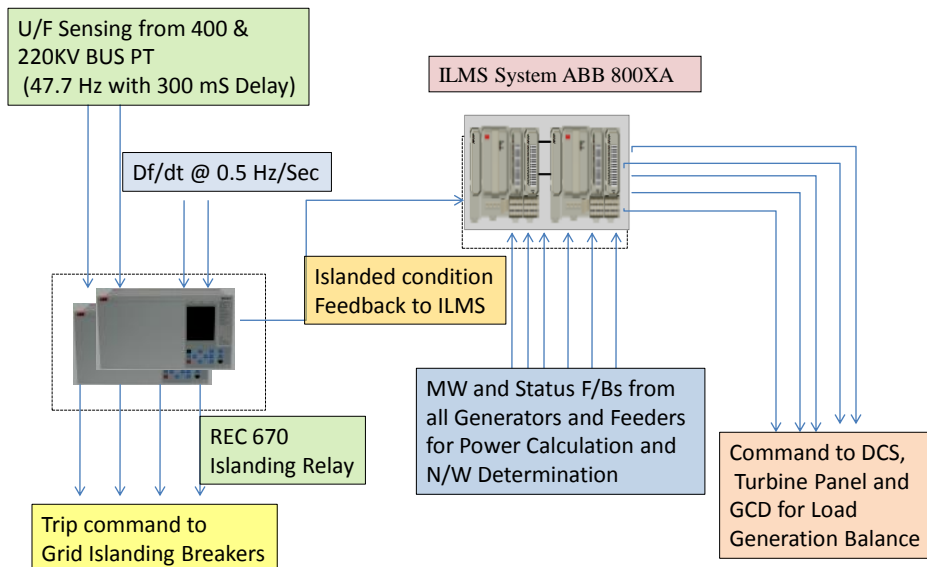
### List of Owner of PLCC equipment

SL No	TIE-LINE	CONNECTED SYSTEM		LENGTH (KM)	CONDUCTOR (Type)	VOLTS (kV)	NO OF CKTS	Ownership		Maintenance		Owner of Line
								End1	End2	End1	End2	
7	INDRAVATI (PG)-INDRAVATI	POWERGRID(ER)	OPTCL	1	MOOSE	400	S/C	OPTCL	OPTCL	OPTCL / POWERGRID	OPTCL	OPTCL
8	RAIGARH-STERLITE	POWERGRID(WR)	VEDANTA	147	TWIN MOOSE	400	S/C	POWERGRID(WR)	STERLITE ENERGY Ltd	POWERGRID(WR)	STERLITE ENERGY Ltd	POINT(26 KM)/REMAINING PORTION OF THE LINE IS OWN BY
12	STERLITE-ROURKELA	VEDANTA	POWERGRID(ER)	114	TWIN MOOSE	400	S/C	STERLITE ENERGY Ltd	POWERGRID(ER)	STERLITE ENERGY Ltd	POWERGRID(ER)	
13	BARIPADA-MENDASAL	POWERGRID	OPTCL	272	TWIN MOOSE	400	D/C	POWERGRID	POWERGRID	POWERGRID	POWERGRID / OPTCL	POWERGRID
44	DEHRI--GAYA	BSEB	POWERGRID	96	ZEBRA	220	D/C	POWERGRID/BSEB	POWERGRID	POWERGRID/BSEB	POWERGRID	Upto LILO portion POWERGRID(ie 11
45	GAYA--BODHGAYA	POWERGRID	BSEB	16	ZEBRA	220	D/C	POWERGRID	POWERGRID	POWERGRID	POWERGRID	Upto LILO portion POWERGRID(ie 12
47	CHANDIL-RANCHI	JUSNL	POWERGRID	42	ZEBRA	220	S/C	POWERGRID/JUSNL	POWERGRID	POWERGRID/JUSNL	POWERGRID	length 07 KM (Upto LILO)own by POWERGRID and rest own by JUSNL
	Powergrid informed that the following work is required to be done by JUSNL: 1. CVT foundation and erection. 2. Wavetrap erection. 3. Erection of PLCC panels in control room. 4. Earthing of PLCC panels. 5. Cable laying and termination of 48V DC from battery charger to PLCC panel. 6. Interpanel wiring from relay panel to protection coupler of PLCC system.											
48	RANCHI-HATIA	POWERGRID	JUSNL		ZEBRA	220	S/C	POWERGRID	POWERGRID/JUSNL	POWERGRID	POWERGRID/JUSNL	
	Powergrid informed that the following work is required to be done by JUSNL: 1. Cable laying and termination of 48V DC from battery charger to PLCC panel. 2. Interpanel wiring from relay panel to protection coupler of PLCC system.											
54	BALIMELA-U.SILLERU	OPTCL	APTRASCO	24	ZEBRA	220	S/C					
55	BUDHIPADAR-RAIGARH	OPTCL	CHATTISGARH	81	ZEBRA	220	S/C					
58	BUDHIPADAR-KORBA	OPTCL	CHATTISGARH	180	ZEBRA	220	D/C	POWERGRID	POWERGRID (WR)	POWERGRID / OPTCL	POWERGRID	POWERGRID
61	JAYANAGAR-JEYPOREPG	OPTCL	POWERGRID	7.73		220	DC	OPTCL	OPTCL	OPTCL	OPTCL	OPTCL
66	BISRA-TARKERA	POWERGRID	OPTCL	15		220	DC	OPTCL	OPTCL	OPTCL/POWERGRID	OPTCL	OPTCL
105	JODA-KENDUPOSI	OPTCL	JUSNL	48		132	SC	JUSNL	JUSNL	JUSNL	JUSNL	JUSNL
106	ROURKELA-GOELKERA	OPTCL	JUSNL	68		132	SC	JUSNL	JUSNL	JUSNL	JUSNL	JUSNL

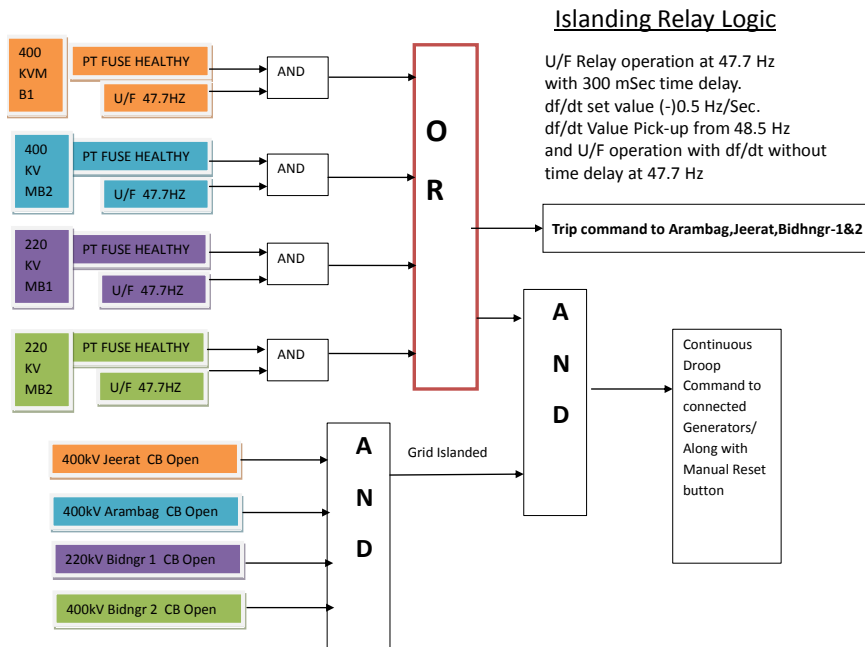
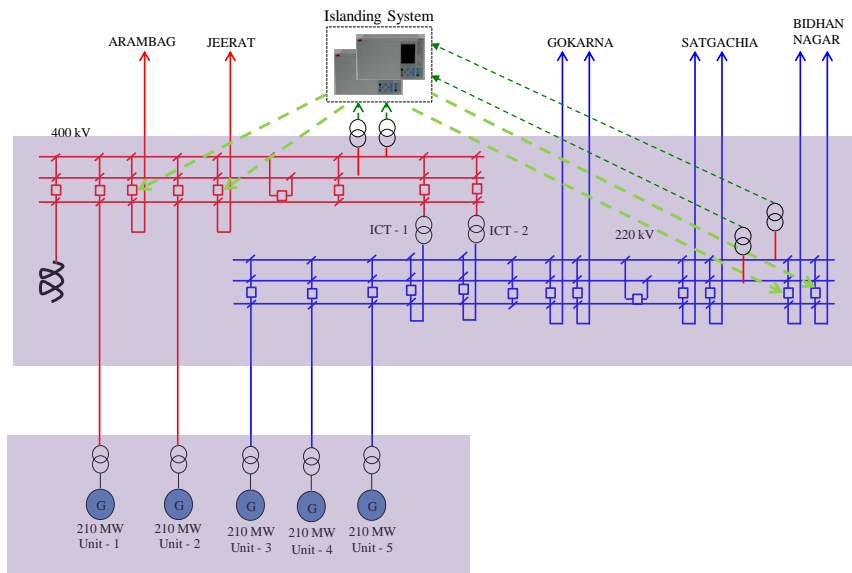




## BkTPP Islanding Scheme General Architecture



## Basic Scheme for Grid Breaker Tripping





## Brief Operation Philosophy

### Sensing source of Islanding situation initiation:

1. Frequency setting 47.7 Hz and Time delay 300 msec. [as discussed at SLDC dt.04/03/2015]  
Remote UFR setting at Satgachia and Gokarna End Stg-I/-II/-III :47.9/47.6/47.5 Hz with Time delay 250 msec, 500 msec and 750 msec respectively.
2.  $df/dt$  .....-0.5 Hz/sec,  $df/dt$  value pick-up from 48.5 Hz. In this case for U/F relay operation at 47.7 Hz there will be no time delay. [as discussed at SLDC dtd 04/03/2015]
3. 400kV and 220 KV MB-1 & MB-2 Protection PT as sensing source.

### Action for creation of Island:

1. Tripping command to selected Feeders [400kV BkTPP-Jeerat S/C, 400kV BkTPP-Arambag S/C, 220kV BkTPP-Bidhannagar D/C.
2. Tripping Command also to be issued to Isolate 220kV Sagardighi-Gokarna, TIE Feeder of SAT-BTPS, SAT-Mahachanda, SAT-Khanyan D/C Line .
3. Command to all TG control for change over to droop mode.

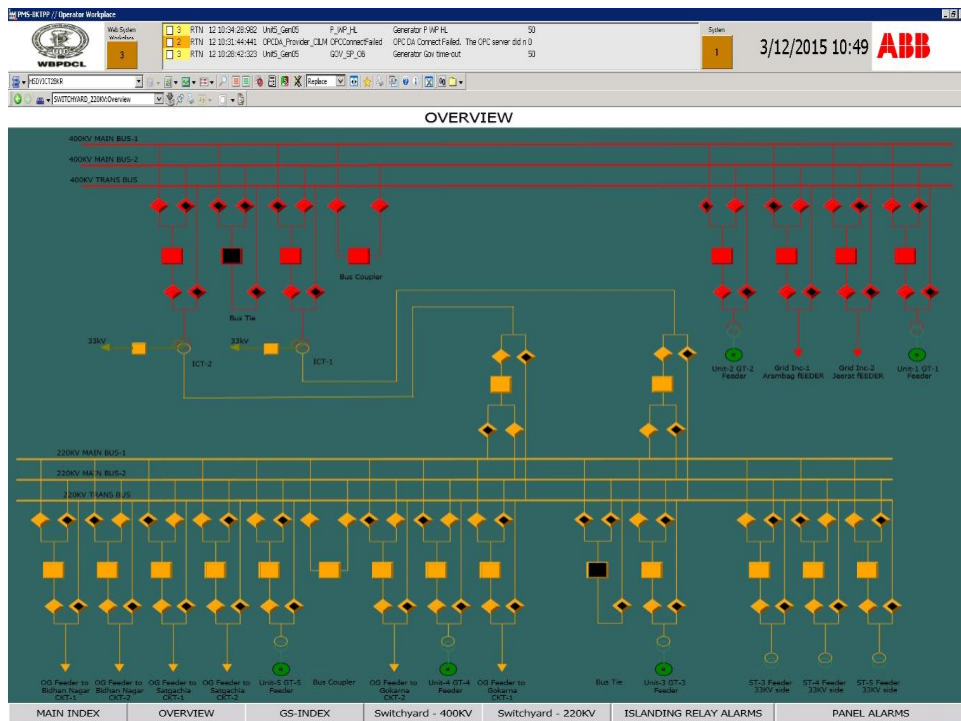
### Load Balance (Power Management System action-PMS) after Islanding:

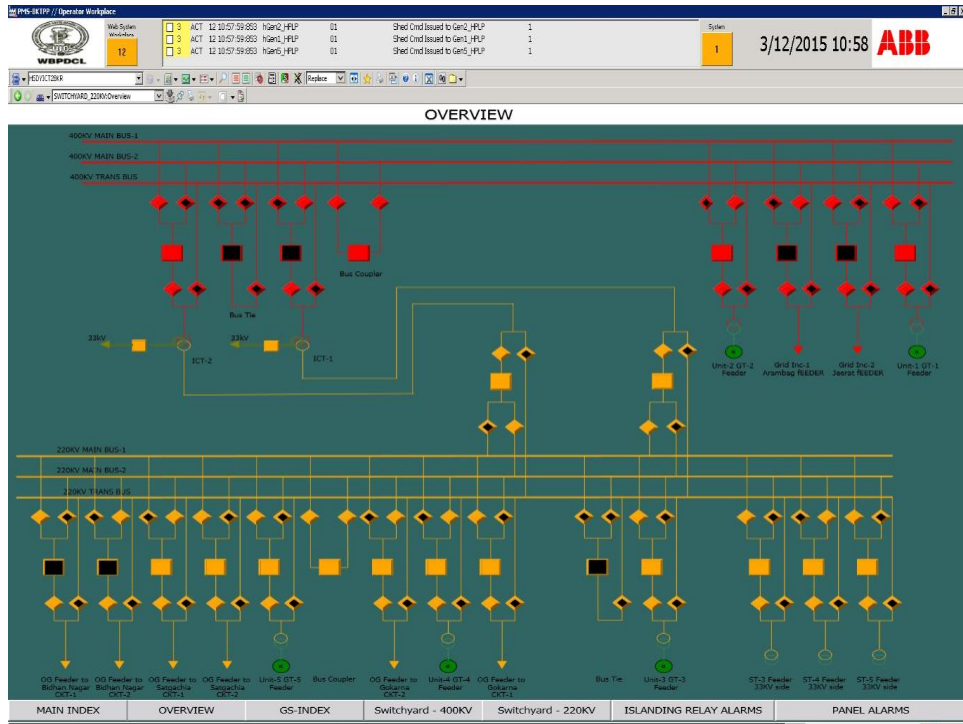
Input:

- (i) All Feeder load & Breaker open/close status
- (ii) All GT and generator load & Breaker status.
- (iii) HP/LP Bypass open demand from DCS.
- (iv) Other feedback from DCS as required.

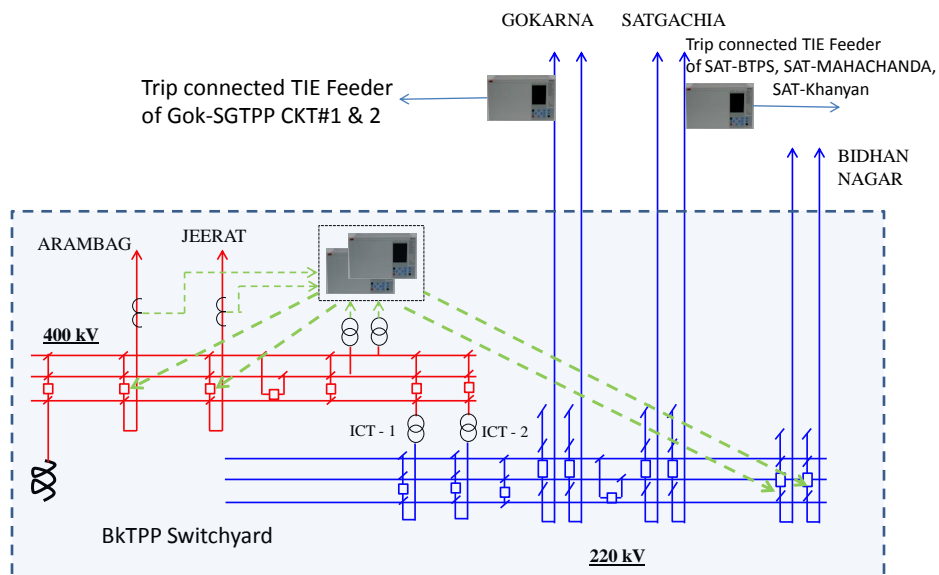
### Action for load balance:

- (a) Unit Tripping direct as per scheme if required.
- (b) HP/LP Bypass open demand to DCS
- (c) Load reduction command to DCS



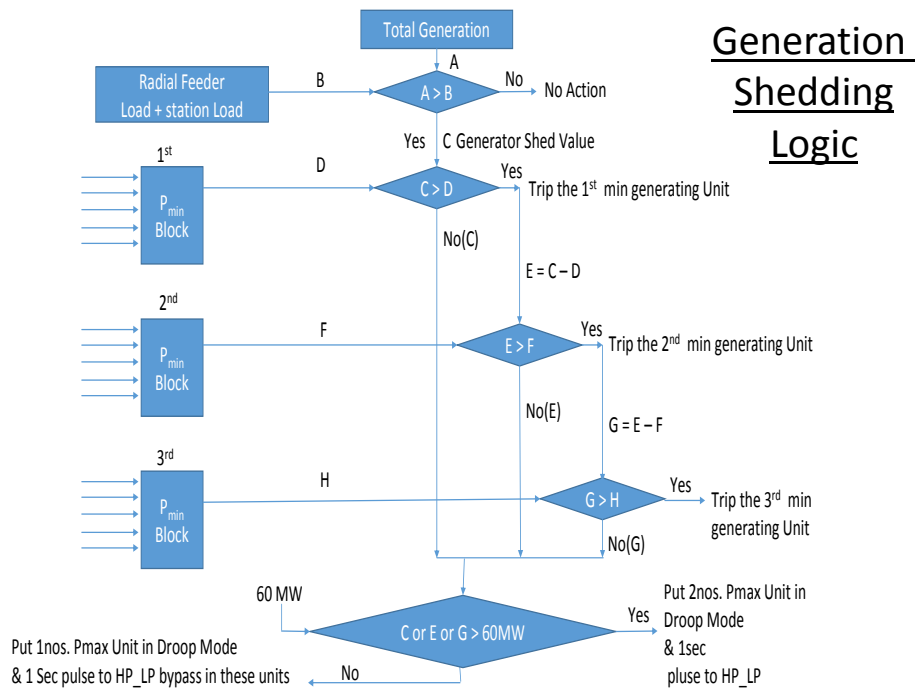
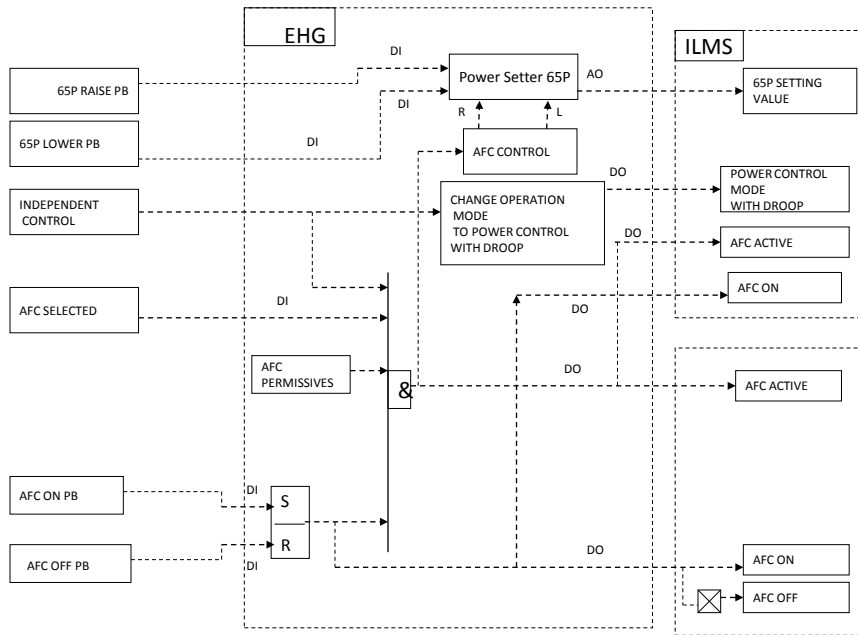


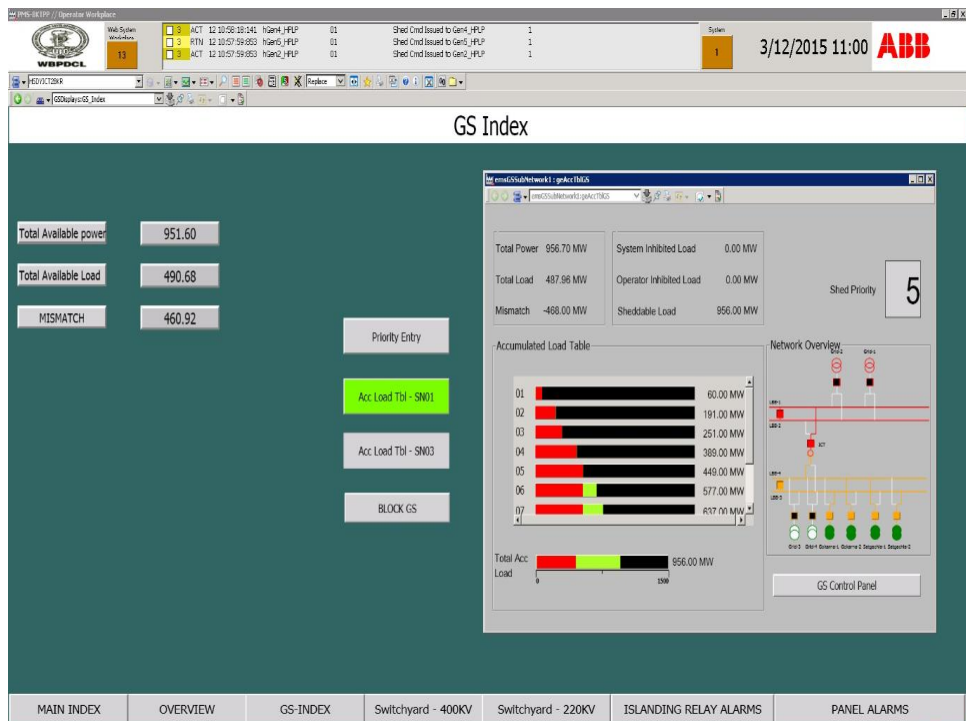
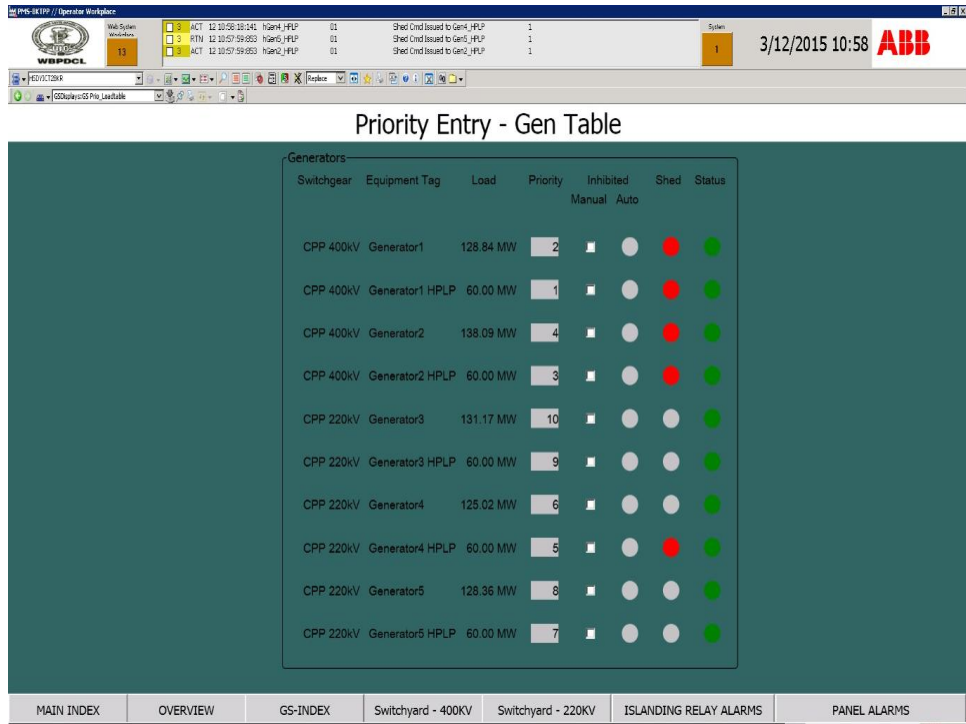
## Basic Scheme for Remote End Tripping





## ABB PMS and DCS Turbine Panel Interface





ERPC::KOLKATA

Minutes of Special Meeting regarding issues related to Handing over of O&M of 220 kV Farakka-Lalmatia Transmission System

Shri A.K.Bandyopadhyaya, Member Secretary welcomed the participants to the meeting and initiated the discussions. Following discussions were held during the meeting.

1. ECL informed that Lalmatia substation, constructed in 1989-90 and 220 kV Farakka-Lalmatia line and Lalmatia Substation was built by NTPC and ownership is with ECL. The line and substation was being maintained by NTPC against payment made by ECL.
2. JSEB informed that Lalmatia S/s has one 100MVA transformer and two 35 MVA transformer belong to ECL. One more 100 MVA transformer of JSEB is also installed in Lalmatia S/s. JSEB is using the Lalmatia S/s for supply of power to its Santhal Pargana region.
3. NTPC informed that they are ready to continue the maintenance of 220 kV Lalmatia-Farakka Line Section upto their switchyard boundary since it is an important part of Farakka Islanding scheme. NTPC expressed their lack of expertise for O&M of transmission line and wanted to hand over the line at the earliest.
4. ECL intimated that they have mainly three commercial issues for resolution:
  - a. They should be charged power tariff at FSTPS/KhSTPS NTPC rates
  - b. They should get wheeling charges for use of their 220 kV Farakka-Lalmatia line.
  - c. Reversal of JBVNL bill for contract demand extension to the tune of 5 Cr. and reversal of penalty already paid to the tune of 0.32 Cr.
  - d. Voltage rebate of 3% of Electricity charges
5. ECL insisted that without resolution of the above commercial issues the hand-over of the 220 kV Farakka-Lalmatia line for maintenance to JUSNL may not be possible.
6. ECL was requested to continue the maintenance contract with JUSNL with the payment of same amount as is being paid to NTPC so that emergency supply to coal mines is kept uninterrupted. JUSNL informed their willingness for taking over the maintenance of the 220 kV Farakka-Lalmatia Line at the same payment/rates as was being paid to NTPC by ECL. ECL however, opined that they have to discuss this issue with higher authorities for a final decision.
7. ECL pointed out that since JUSNL was using their line for transmission of own power they should get wheeling charges. It was clarified that ECL not being a transmission licensee may not be entitled to any wheeling charges, however, being an esteemed customer of JBVNL, the distribution licensee may consider to offer proper rebates. JUSNL representatives informed that since providing rebates, etc is the domain of JBVNL, they would not be able to take any decision on the same, however, representative from JUSNL agreed that since the transmission system belongs to ECL, ECL may receive some compensation/benefits.
8. It was agreed that the 220 kV Farakka Lalmatia line was a very important line and an important part of the emergency supply to coal mines of ECL. Therefore it was unanimously agreed that the line should not be bereft of maintenance services. ECL was requested by the forum to enter into a O&M agreement with JUSNL for regular O&M of the line since neither NTPC nor PGCIL were willing to do the same. In the meantime NTPC will continue to maintain the line upto 31.03.2015
9. It was decided that based on the above discussions, ECL would put forward the recommendation of the forum regarding the transfer of the O&M of 220 kV Farakka-Lalmatia line to their higher authorities for a decision.
10. It was decided that a high level meeting with MD/Chairperson level of JBVNL, JUSNL, ECL and NTPC, ERLDC and ERPC officers would be held tentatively on 30.03.2015 at Ranchi regarding other pending commercial issues. It was also decided that concerned parties would take appropriate measures towards handing over O&M of the line by 31.03.2015 from NTPC to JUSNL and continuation of proper maintenance of the 220 kV Farakka-Lalmatia transmission system.

**MONTHLY REPORT**

DATE: 16.03.2015

**SESA STERLITE LIMITED, ALUMINIUM & POWER**  
(Formerly STERLITE ENERGY LIMITED),  
JHARSUGUDA, ODISHA

**REPORT: - STATUS OF CONSTRUCTION OF 400 kV STERLITE - JHARSUGUDA D / C SECTIONS**

**Name of Line: Sterlite – Jharsuguda 400 kV D/c line with associated Line Bays**

[Interim Arrangement: LILO of one circuit of Rourkela – Raigargh 400 kV D/c (1<sup>st</sup> line) at Sterlite]

[Interim Arrangement: LILO of one circuit of Rourkela – Raigargh 400 kV D/c (2<sup>nd</sup> line) at Sterlite]

<b>Status of Line Bay construction at POWERGRID's Jharsuguda Pooling Station</b>	
•	Dated 13.10.2014, Order has been placed order Engineering, Supply, construction & commissioning of 400 kV Bays at POWERGRID's Jharsuguda pooling station on M/s SR Associates Infrastructure Private Limited, S-2/40, Mancheswar Industrial Estate, Bhubaneswar – 751010, Odisha. Commissioning to complete by end of 2015.
•	Dated 25.11.2014, Design and drawings are prepared and submitted to POWERGRID for approval
•	Dated 09.12.2014, Supply orders for sub equipment has been placed for Circuit Breaker, CVT, CT, Isolator, Relay & Protection panels, Substation automation systems and Spares to SIEMENS.
•	MOM dated 28.12.2014 with PGCIL, Construction contractor already mobilized at PGCIL pooling station.
•	Dated 14.01.2015, Rs 30 Lakh has been paid to PGCIL as Service fee for Post order consultancy services
•	Approvals of Construction drawings are under hold by PGCIL, Gurgaon and due to that bay construction work is stopped.
•	Dated 13.03.2015, PGCIL has approved the Single line diagram, Layout and sub system equipment drawings. Detailed status is attached.

<b>Status of Transmission Line construction</b>	
•	Line length: LILO 1: 22.5 km, LILO 2: 21.5 km
•	Route Survey for the Transmission line has been completed
•	Tower spotting, Tower schedule with detailed land schedule has been prepared for each tower location
•	BOQ and technical specification has been prepared
•	Forest Diversion Approval is required for 11.03 Ha
•	Forest diversion Proposal submitted to PCCF office and state serial number obtained
•	DGPS survey for forest land completed
•	Pillar posting and Tree enumeration job in Forest land has been completed.
•	DGPS survey at Compensatory afforestation land is completed.
•	Compensatory afforestation land (CA Land) of 30 acres is arranged by us and after site inspection DFO already issued suitability certificate.
•	Compensatory afforestation scheme has been approved by DFO;.
•	Dated 20.02.2015, on line application with all documents submitted in the MoEF on line Portal and Proposal number is FP/OR/TRANS/10273/2015.
•	Site visit of DFO, sundargarh and Forwarding of Part II through on line portal is expected in this month.
•	Obtaining FRA compliance certificate from Collector under Forest Rights Act (FRA) is in progress.
•	Activities related to start construction in non-forest land is under progress.

## REQUIREMENT OF METER UNDER XII TH PLAN (UPTO 2017)

ORISSA SYSTEM				
S.N	Description of line	Type of line/	Requirement of Meter	
			One End	Other End
GENERATORS				
1	KU Projects(1320 MW)	2x660	2	
2	Tata Power (1320 MW)	2X660	2	
3	Visa (1320 MW)	2X660	2	
4	BGR Energy (1320 MW)	2X660	2	
5	JR Powergen (1980 MW)	3x660	3	
6	Navbharat(2250 MW)	2X525+2x600	4	
7	Lanco (2640 MW)	4X660	4	
8	CESC (1320 MW)	2X660	2	
9	KVK Nilanchal(1050 MW)	1X350+2x350	3	
10	JITPL (1200 MW)	2X600	2	
11	Bhusan (2640 MW)	4X660	4	
12	Monet (1050 MW)	2X525	2	
13	Mahanadi (1320 MW)	2X660	2	
14	Chambal Infrastructure (1320 MW)	2X660	2	
15	IND BHARAT (1360 MW)	2x350+660	3	
16	Sahara India Power (1320 MW)	2X660	2	
17	Astaranga Power (2640 MW)	4X660	4	
18	Kalinga Energy (1320)	2X660	2	
19	Visaka Thermal Power (1320 MW)	2X660	2	
20	Adhunic Power & Natural (1005 MW)	3X335	3	
21	JSL Energy Ltd (1320 MW)	2X660	2	
22	NSL Orissa Power & Infratch (1320 MW)	2X660	2	
23	Orissa UMPP (4000 MW)	5X800	5	
24	Gajamara NTPC (1600 MW)	2x800	2	
25	OPGC IB-TPS (1320 MW)	2x660	2	
26	Darlipali NTPC (3200 MW)	2X800	4	
			69	
TRANSMISSION SYSTEM				
1	Bolangir - Bolangir	220 Kv S/C	1	1
2	Bolangir - Burla	220 Kv D/C	2	2
3	Bolangir - Kesinga	220 Kv S/C	1	1
4	Odhisia UMPP - Angul	765 Kv D/C	2	2
5	Odhisia UMPP - Jharsuguda	765 Kv D/C	2	2
6	Odhisia UMPP - Keonjhar(PG)	400 Kv D/C	2	2
7	Odhisia UMPP - Lapanga(OPTCL)	400 Kv D/C	2	2
8	Odhisia UMPP - Kesinga(OPTCL)	400 Kv D/C	2	2
9	Sterlite-Miramundali	400 Kv D/C	4	2
10	Angul-Jajpur Road	765Kv D/C	2	2
11	Duburi-Jajpur Road	400 Kv D/C	2	2
12	Keonjhar-Jajpur Road	400 Kv D/C	2	2
13	OPGC-Jhasuguda	400 Kv D/C	4	2
14	Darlipalli-Jhasuguda	400 Kv D/C	4	2
15	IND BHARAT - Jharsuguda	400 Kv D/C	4	2
16	Angul - Dhenkanol	765 Kv D/C	2	2
17	Angul - Jharsuguda	765 Kv D/C	2	2
18	Jhasuguda-Raipur Pool	765 Kv D/C	2	2
19	Angul -Barnala	AC/DC conv	4	
20	Dhenkanol - Jharsuguda	765 Kv D/C	2	2
21	Dhenkanol 765/400 Kv Transformer	2	2	2
22	Monet - Angul	400 Kv D/C	4	2
23	Angul-Srikakulam Pool	765 Kv D/C	2	2
24	Tata- Dhenkanol	400 Kv D/C	4	2
25	Visa - Dhenkanol	400 Kv D/C	4	2
26	Adhunik - Dhenkanol	400 Kv D/C	4	2



27	Navbharat - Dhenkanol	2x400 Kv D/C	8	4
28	Lanco - Dhenkanol	2x400 Kv D/C	8	4
29	CESC- Dhenkanol	400 Kv D/C	4	2
30	Bhusan - Angul	2x400 Kv D/C	4	2
31	Mahanadi - Angul	400 Kv D/C	4	2
32	Essar - Angul	400 Kv D/C	4	2
33	KVK- Duburi	400 Kv D/C	4	2
34	KVK - Mehendasol	400 Kv D/C	4	2
			<b>108</b>	<b>68</b>
<b>SUB STATION</b>				
1	Pandiabil	2X315 MVA ICT	2	2
2	Odisha UMPP	2X1500 MVA ICT	2	2
3	Jajpur Road	2X1500 MVA ICT	2	2
4	Baripada	1x500 MVA ICT	1	1
			<b>7</b>	<b>7</b>
<b>TOTAL</b>			<b>259</b>	

JHARKHAND SYSTEM				
S.N	Description of line	Type of line/	Requirement of Meter	
			One End	Other End
GENERATORS				
1	Tilaya STPP (4000 MW)	5X800	5	
2	Adhunik Power (540 MW)	2X270	2	
3	Visa Power (2640 MW)	4X660	4	
4	Tata Power (1980 MW)	3x660	3	
5	Chitrapur (540 MW)	2x270	2	
6	Essar - (1800 MW)	2X600+1X600	3	
7	Corporate (1080 MW)	4X270	4	
8	Electrosteel (1200 MW)	4X300	4	
9	North Karanpura STPP(NTPC)	3X660	3	
10	Dumka P.S (CESC)	2X500	2	
11	Adhunik Thermal Ltd (1005 MW)	3x335	3	
12	Jindal Power Ltd (2640 MW)	4X660	4	
			39	
TRANSMISSION SYSTEM				
1	Daltonganj-Sasaram	400 Kv D/C	2	2
2	NKSTPP - Gaya	400 Kv D/C	4	
3	NKSTPP - Ranchi	400 Kv D/C	4	2
4	Corporate-Ranchi	400 Kv D/C	4	2
5	Tilaya - Gaya	765 Kv D/C	1	1
6	Tilaya - Balia	765 Kv S/C	1	
7	Tilaya - Sasaram	765 Kv S/C	1	1
8	Tilaya 765/400 Kv Transformer	2	4	2
9	Chitrapur - Ranchi	400 Kv D/C	4	2
10	Corporate Power - Ranchi	400 Kv D/C	4	2
12	Essar - Jharkhand Pool	400 Kv D/C	4	2
13	Electrosteel- Ranchi	400 Kv D/C	4	2
14	Ranchi-Jharkhand Pool	400 Kv D/C	2	2
15	Gaya-Jharkhand Pool	400 Kv D/C	2	2
16	Gaya - Dumka P.S	400 Kv D/C	2	4
17	Maithon - Dumka P.S	400 Kv D/C	2	4
18	Sasaram - Daltonganj	400 Kv D/C	2	2
19	Ranchi(New)-Gaya	765 Kv D/C	2	2
20	Ranchi(New)-Mednipur	765 Kv D/C	2	2
			51	36
SUB STATION				
1	Chaibasa	2x315 MVA ICT	2	2
2	Daltonganj	2x315 MVA ICT	2	2
3	GIS Jharkhand POOL	400 KV	4	
			8	4

**WEST BENGAL SYSTEM**

S.N	Description of line	Type of line/	Requirement of Meter	
			One End	Other End
GENERATORS				
1	Rammam St-III (NTPC)	120	4	
			4	
TRANSMISSION SYSTEM				
1	Alipuduar - Bishwanath Chariali	800 KV D/C	2	2
2	Alipuduar - Agra HVDC	800 KV D/C	2	2
3	Alipurduar - Binaguri	400 Kv D/C	2	2
4	Alipurduar - Bongaigaon	400 Kv D/C	2	2
5	Alipuduar - Binaguri	400 Kv D/C	2	2
6	Alipurduar - Birpara	220 Kv D/C	2	2
7	Alipurduar - Salakati	220 Kv D/C	2	2
8	Alipurduar - Puntsangchu(I)	400 Kv D/C	2	2
9	Alipurduar - Sankosh	400 Kv D/C	2	2
10	Alipurduar - Jigmeling	400 Kv D/C	2	2
11	Farakka-Rajarhat	400 Kv S/C	2	1
12	Farakka-Purnea	400 Kv S/C	2	1
13	Gokarnao- Purnea	400 Kv S/C	1	1
14	Gokarnao- Rajarhat	400 Kv S/C	1	1
15	Mednipur - Jajpur Road	765 Kv D/C	2	2
16	Teesta Lower Dam 3 - Binaguri	400 Kv S/C	2	1
17	Teesta Lower Dam 4 - Binaguri	400 Kv D/C	4	2
18	Teesta LD 3 - Teesta LD-4	400 Kv S/C	2	2
19	Maithon - Dumka P.S	400 Kv D/C	2	4
20	Jeerat(New)-Katwa	765 Kv D/C	2	2
21	Jeerat(New)-Mednipur	765 Kv D/C	2	2
22	Mednipur - Arambagh	400 Kv D/C	2	2
23	Mednipur-Chandithala	400 Kv D/C	2	2
24	Mednipur-Kharagpur	400 Kv D/C	2	2
25	Jeerat(New)-Jeerat	400 Kv D/C	2	2
26	Jeerat(New)-Rajarhat	400 Kv D/C	2	2
27	Gokarna-Katwa	400 Kv D/C	1	1
28	Chanditala-Katwa	400 Kv D/C	1	1
29	Katwa-Durgapur	400 Kv D/C	2	2
			56	53
SUB STATION				
1	Alipurduar	2X315 MVA ICT	2	2
2	Mednipur	2X1500 MVA	2	2
3	Jeerat(New)	2X1500 MVA	2	2
4	Katwa	2X1500 MVA	2	2
5	Rajarhat(PG)	2X315 MVA	2	2
			10	10
TOTAL			133	

**BIHAR SYSTEM**

S.N	Description of line	Type of line/	Requirement of Meter	
			One End	Other End
GENERATORS				
1	Barh STPP-I(NTPC)	3X660	3	
2	Nabinagar P.S.(NTPC/RAIL)	4X250	4	
3	New Nabinagar TPP(NTPC)	3X660	3	
4	Jas Infra (IPP)	4x660	4	
5	Buxar Bijlee (IPP)	2x660	2	
6	Nalanda Power (IPP)	4x500	4	
7	Ganga Power (IPP)	2x660	2	
8	KBUNL	2X110	2	

				<b>24</b>	
<b>TRANSMISSION SYSTEM</b>					
1	Kishanganj - Binaguri	400 Kv Q/C	4		
2	Kishanganj - Purnea	400 Kv Q/C	4		
3	Kishanganj - Dalkhola	220 Kv D/C	2		
4	Kishanganj - Siliguri	220 Kv D/C	2	2	
5	Kishanganj - Darbhanga	400 Kv D/C	2	2	
6	Kishanganj - Patna	400 Kv D/C	2	2	
7	Darbhanga-Muzaffarpur	400 Kv D/C	2	2	
8	Gaya-Varanasi(NR)	765 KV S/c	2		
9	Muzaffarpur- Begusarai	220 Kv D/C	2	2	
10	Biharshariff - Begusarai	220 Kv D/C	2	2	
11	Purnea - Begusarai	220 Kv D/C	2	2	
12	Barh STPP- Purnea	400 Kv D/C	4	2	
13	Barh STPP - Gorakhpur (NR)	400 Kv D/C	4		
14	NKSTPP - Gaya	400 Kv D/C	4	2	
15	Tilaya - Gaya	765 KV S/C	1	1	
16	Gaya - Dumka P.S	400 Kv D/C	2	2	
17	Banka(New)-Katwa	765 KV D/c	2	2	
18	Banka(New)-Gaya	765 KV D/c	2	2	
19	Kishanganj-Kishanganj	220 Kv D/C	2	2	
20	JAS TPS-Banka	400 KV D/C	4	2	
21	Banka(New)-Banka(PG)	400 Kv D/C	2	2	
22	KBUNL-Muzaffarpur	220 Kv D/C	2	2	
			<b>55</b>	<b>33</b>	
<b>SUB STATION</b>					
1	Kishanganj	(2X315+1X500) M'	3	3	
2	Darbhanga	2X500 MVA ICT	2	2	
3	Muzaffarpur	1X500 MVA ICT	1	1	
4	Banka(New)	2X1500 MVA	2	2	
			<b>8</b>	<b>8</b>	
<b>TOTAL</b>			<b>128</b>		

<b>DVC SYSTEM</b>				
<b>S.N</b>	<b>Description of line</b>	<b>Type of line/</b>	<b>Requirement of Meter</b>	
			<b>One End</b>	<b>Other End</b>
<b>GENERATORS</b>				
1	Bokarao TPS-A	1X500	1	
			<b>1</b>	
<b>TRANSMISSION SYSTEM</b>				
1	Adhunik -Mejia	400 Kv D/C	2	2
			<b>2</b>	<b>2</b>
<b>TOTAL</b>			<b>5</b>	

<b>SIKKIM SYSTEM</b>				
<b>S.N</b>	<b>Description of line</b>	<b>Type of line/</b>	<b>Requirement of Meter</b>	
			<b>One End</b>	<b>Other End</b>
<b>GENERATORS</b>				
		6x200	6	
1	Teesta -III(IPP)	8X60	8	
2	Teesta -II(IPP)	5X60	5	
3	Panan	5X60	5	
4	Teesta-I(IPP)	2X30	2	
5	Dikchu	3X33	3	
6	Chakungchu	4X125	4	
7	Teesta-VI (IPP)	2X48	2	
8	Jorethang (IPP)	3X40	3	
9	Rangit-IV	2X48.5	2	
10	Tashiding	2X49.5	2	
11	Tingting	2X48	2	

12	Rongnichu	2X40	2	
13	Rolep	2X35.5	2	
14	Sadamangher	2X25.5	2	
15	Bhasme	2X33	2	
16	Rangit-II	4X130	4	
17	Teesta -IV(NHPC)	3x33	3	
18	Thangchi Lachung (IPP)	3x33	3	
			<b>62</b>	
<b>TRANSMISSION SYSTEM</b>				
1	Teesta-1 - Pooling stn	400 kv D/C	4	2
2	Teesta-2 - Pooling stn	400 kv D/C	4	2
3	Lachung - BOP	220 kv S/C	1	1
4	Lachung - Bhimkyong	220 kv S/C	1	1
5	Bhimkyong - BOP	220 kv S/C	1	1
6	Teesta 2- BOP	220 kv D/C	2	2
7	Teesta-3 - Mangan	400 kv D/C	4	2
8	Rangyong- Mangan	132 KV D/C	2	2
9	Pannan - Mangan	400 kv D/C	4	2
10	Dikchu - Mangan	132 kv D/C	2	2
11	Chakungchu - Mangan	132 KV D/C	2	2
12	Teesta-VI - New Melli	220 kv D/C	2	2
13	Jorethang - New Melli	220 kv D/C	2	2
14	Jorethang - Rangit IV	220 kv S/C	1	1
15	Rangit IV - New Melli	220 kv D/C	2	2
16	Sadamangdher - Legship	220 kv D/C	2	2
17	Legship - New Melli	220 kv D/C	2	2
18	Ting ting - Legship	220 kv D/C	2	2
19	Tashiding - Legship	220 kv D/C	2	2
20	Ralong - Legship	220 kv D/C	2	2
21	Chuzachen - Bhasme	132 KV S/C	1	1
22	Rolep - Rangpo	132 KV D/C	2	2
23	Bhasme - Rangpo	132 kv S/C	1	1
24	Bhasme - Rongnichu	220 kv S/C	1	1
25	Rongnichu - Rangpo	220 kv D/C	2	2
26	Teesta-2 pooling point - Mangan	400 kv D/C	2	2
27	Mangan - New pooling stn( K'ganj)	400 kv D/C	2	2
28	Mangan - New Melli	400 kv D/C	2	2
29	Dikchu - Gangtok	132 kv D/C	2	2
30	New Melli - Kishanganj	400 kv D/C	2	2
31	Rangpo - New Melli	220 kv D/C	2	2
32	Teesta-3 - Dikchu	400 kv D/C	4	4
33	Rangpo-Kishanganj	400 kv D/C	2	2
34	Teesta-VI - Rangpo	220 kv D/C	2	2
35	Dikchu-Rangpo	400 KV D/C	4	2
36	Dikchu-Rangpo	220 KV D/C	4	2
			<b>79</b>	<b>67</b>
<b>SUB STATION</b>				
1	New Melli	2X160 MVA ICT	2	2
			<b>2</b>	<b>2</b>
		<b>TOTAL</b>	<b>212</b>	

Total no of meter required upto 2017

875

Spare @ 10%

90

**GRAND TOTAL**

**965**

### **Latest status on non-availability of SCADA data**

It was informed by ERLDC that some constituents are not updating single line diagram in SCADA as per actual real time network and same is causing lack of network visibility.

All constituents agreed to update SCADA single line diagram as per real network time to time and will furnished the same to ERLDC also.

The status as updated in the SCADA meeting is as given below:

- i) List of RTU supplied under ULDC Project but data is faulty/ intermittent:

SL no	Name of Utility	kV	Name of station	Reason for not reporting	Latest status
1	DVC	220	CTPS-B (2 x 250 MW)	Except GT MW & line flow, no data available	No CB/isolators status available. KV /HZ . Unit site MW/MVAR . Bokaro-B I & II line flow , Station Transformer value not available:  <b>New Chemtrol make RTU has been integrated with existing SCADA system and the data is being reported to ERLDC.</b>

- ii) List of additional elements/feeders whose data is not available – station under ULDC project:

SL no	Name of Utility	KV	Name of station	Reason for non reporting	Latest status
1	OPTCL	220	Vedanta (9x135 MW)	No status points are available.	No isolators status are available. MW/ MVAR not available for sterlite 1/2 line, station transformer / Smelter. CBs of Bus coupler not available. Bus-1 KV/ HZ not available.  <b>Problem will be resolved within 21<sup>st</sup> March 2015.</b>

- iii) The List of RTU supplied under BSEB ULDC Project but data is faulty/ intermittent:

S/n	Name of RTU locations	Latest status	Remarks
1	Jakkanpur, Khagaul RTU, Dumraon, Karmnasha, Sitamarhi, , Purnea & Koshi	Data is reporting intermittently.	<b>1) Data integrated through GPRS will be intermittent till Final communication packages is implemented ( Already awarded to PGCIL for execution ).</b> <b>2) ALL RTU will be report to SLDC patna subject to availability of communication system ( Already Awarded to</b>
2	Hathidah, Lakhisarai & Darbhanga	Data is reporting intermittently.. Due to re-conductoring work in Darbhanga-Samastipur T/L, Darbhanga is not reporting temporarily.	
3	BTPS	RTU dismantled. Renovation/overhauling work is going on. SAS is expected to be operational by the November, 2014.	

## Annexure- B16

4	220 kV Hajipur	<i>Hajipur is temporarily down, BSPTCL working to restore it.</i>	<b>PGCIL )</b> <b>3) New RTU is being integrated with OSI systems and this RTU will report to ERLDC once ERLDC OSI system is ready.</b>
5	Jagdishpur, Sipara, Madhepura	RTU has been supplied by PGCIL under Sub-transmission project of Bihar but commissioning is left out. Now, it will be done in ULDC upgradation scheme.	
6	Siwan, Valmikinagar, Gopalganj, Kisanganj and Arrah	RTU along with communication has been included in the scope of work of Powergrid under up gradation/ replacement scheme of ULDC. It was scheduled to be completed by Oct'14. <i>RTU supplied by M/s. Chemtrols except Darbhanga. RTU reached site.</i>	

iv) The updated status of telemetry of JSEB Sub-Stations under ULDC project is as given below:

Sl. No.	Name of the RTU location	Latest status	Remarks
1	Ramchandrapur	Reporting is interrupted because of problem in PLCC link between Candil & Ramchandrapur. CVT brusted at Ramchandrapur bay and requires replacement. Arrangement in being done for its replacement.	1) RTU's CPU Card sent to Bhubaneswar for repairing . 2) All RTU will restored by Mid March 2015.
2	Jamtara	Jamtara RTU has been shifted in new control room. POWER GRID has been requested to reintegrate the feeders in RTU as integration of additional feeder (new element) in the existing RTU. <i>Powergrid informed that Advance Payment towards new element integration is pending since long. After payment, M/s. ALSTOM will give the schedule of site visit for feeder integration.</i>	
3	Deoghar	Both LMU & LMDU rusted at Jamtara. Arrangement inbeing done for its replacement. Deoghar-Jamtara-Maithon link is interrupted also because of snatching of patching cable at Maithon (G) and Maithon (SLDC). This was found during survey of sites with M/s PUNCOM which will be corrected by the agency under AMC. AMC by PUNCOM has been started.	
4	Garawah	Garawah RTU will be restored when it will be connected from Ranchi end through Hatia-Loherdaga-Latehar-Daltonganj – Garwah Transmission lie.	
5	Rajkharsawan	Reporting is interrupted because of shifting of Chandil bay at Rajkharsawan. PLCC outdoor equipment has been shifted recently to new location of Chandil bay at RKSJ. Some work like termination of co-axial cable will be done soon.	
6	Kendposi		
7	Goelkera		
8	Jadugoda	Co-axial cable faulty at Golmuri (Chandil bay)	

## Annexure- B16

- v) The updated status of telemetry of OPTCL Sub-Stations under ULDC project is project as given below:

S/n	Name of RTU Locations	Latest status
1	Nalco	OPTCL informed that RTU is reporting but intermittent since it was not configured properly. The issue was already taken up with Nalco and it will be resolved soon.  <b>OPTCL has resolved the issue .Some Unit generation polarity will be resolved by Feb 2015.</b>

- vi) **RTU telemetry provided but data are intermittent / new element not wired.**

SL No	Name of station/ Utility	Reason for non reporting	Latest status
I	Lalmatia JSEB	MW / MVAR/ OLTC tap of 220/132 KV ICT –II not available	MW/MVAR/OLTC tap of 220/132 KV ICT-II not available. <b>Will be complete during additional feeder integration , no time frame .</b>
II	Mendhasal	400 KV Baripda 1 & 2 line flow and Reactors data, Tap position of both 400 ICTs not available since charging of bays.	Data reporting.
III	JSPL (Meramundali - 400)	Most of the data not available .	OPTCL informed that they are taking matter with JSPL. <b>Will be resolved the problem by Mar 2015</b>
IV	Jhasurguda 400	Data reporting is highly intermittent.	Data reporting is intermittent .POWERGRID informed fibre link will be commissioned by 27/11/14 . <b>Data Reporting is stable .</b>
V	DVC		
	Ramgarh	Data for 220 KV bay not available	RTU Commissioned. Data reporting is intermittent. <b>Connected through OPGW and stable</b>
	Putki		RTU installation Completed and reporting.
	Patherdiah,		RTU reached site. <b>Will be commissioned within Feb 2015.</b>
	Kalipahari		RTU reached site. <b>Will be commissioned within Feb 2015.</b>
VI	Arrah(220)		Restored.

## vii) Sub - Stations (220 &amp; 132 kV) Telemetry not provided :

SL No	Name of station/ Utility	Reason for non reporting	Latest status
I	WBSETCL		
	Subhasgram	RTU not provided for data telemetry	Data integrated
	New Bishnupur		Data integrated
	Bantala		Commissioning work completed. Data integrated
	New Town		Data integrated
	Krishna Nagar		RTU commissioned.
	Kalingpong		RTU is reporting.
	Karseong		RTU commissioned. Communication link to be provided by WBSETCL.  <b>WBSETCL requested M/s PGCIL to commissioned one Mux ( to be provided by M/s WBSETCL ) at Siliguri (220) S/s (PGCIL) for integration of the voice and data of Kurseong substation .</b>  <b>POWERGRID agreed for the same and subject to technical feasibility .</b>
	CESC S/s: EM 220 kV		By January, 2015. <b>CESC control centre ICCP will be integrated with WB's new OSI system by April 2015</b>
	CESC : Kasba-132 kV, EM-132 kV Jadavpur, Chakmir, Majerhat and CESC Belur		By January, 2015 <b>CESC control centre ICCP will be integrated with WB's new OSI system by April 2015</b>
II	DVC		
	Burnpur	RTU not provided for data telemetry	Data integrated. <b>Data reporting ok.</b>
	Dhanbad		Data integrated. <b>Data reporting ok.</b>
	Chandil (Manique)		Data integrated. <b>Data reporting ok.</b>
III	JSEB		
	Hatia New	RTU not provided for data telemetry	Hatia SAS to be integrated with SLDC No time frame.
	Manique (Chandil)		By Feb 2015 all RTUs will be supplied. No commissioning time frame
	Japla		By Feb 2015 all RTUs will be supplied. No commissioning time frame



## Annexure-B17

S.NO	LINE NAME	WHICH END OVER VOLTAGE SETTINGS TO BE SUBMITTED	ORGANISATION
1	400KV PUSAULI-NABINAGAR-I	PUSAULI	ER-I
2	400KV PUSAULI-NABINAGAR-II	PUSAULI	ER-I
3	400 KV KHARAGPUR-KOLAGHAT-II	KOLAGHAT	WBSETCL
4	400 KV KHARAGPUR-KOLAGHAT-II	KHARAGPUR	WBSETCL
5	400 KV BIDHANNAGAR - DURGAPUR-II	BIDHANNAGAR	WBSETCL
6	400KV BERHAMPORE-SAGARDIGHI-I	SAGARDIGHI	WBSETCL
7	400KV BERHAMPORE-SAGARDIGHI-II	SAGARDIGHI	WBSETCL
8	400KV SUBHASHGRAM-HALDIA-I	HALDIA	CESC
9	400KV SUBHASHGRAM-HALDIA-II	HALDIA	CESC
10	400KV PUSAULI-NABINAGAR-I	NABINAGAR	NTPC
11	400KV PUSAULI-NABINAGAR-II	NABINAGAR	NTPC

## Annexure-B.19



No.5/14/2009-Th.II  
Government of India  
Ministry of Power  
\*\*\*\*\*

Shram Shakti Bhawan, Rafi Marg,  
New Delhi-110001  
10<sup>th</sup> December, 2010

To

1. Chairman,  
Central Electricity Authority,  
Sewa Bhawan, R.K. Puram,  
New Delhi
2. Chairman & Managing Director,  
NTPC Limited,  
Scope Complex, Lodhi Road  
New Delhi-110003
3. Member Secretary,  
Eastern Region Electricity Board,  
14, Golf Club Road, Tollygunge  
Kolkata - 700033

Subject: Allocation of power from Muzaffarpur TPS Expansion Project (390 MW)

Sir,

I am directed to state that power generated from the Muzaffarpur Thermal Power Station Expansion Project (2x195 MW), of Kanti Bijlee Utpadan Nigam Limited (a joint venture of NTPC and BSEB) in Bihar is allocated with effect from the date of commercial operation of the plant as in the following:

Name of State/Union Territory	Share in installed capacity (%)	Equivalent quantum in installed capacity (MW)
Bihar	67.7	264
DVC	2.6	10
Jharkhand	3.1	12
Orissa	7.7	30
West Bengal	8.7	34
Sikkim	0.5	2
Unallocated	9.7	38
Total	100	390 MW

2. The extant guidelines on allocation of power have also been taken into cognizance in the above allocation.

*(Signature)*  
Director



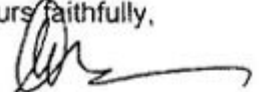
3. The aforesaid allocation will be operative for pro-rata distribution to the quantum of electricity mentioned above alongwith distribution of unallocated power from the declared capacity of the generating station based on auxiliary consumption, planned outage, forced outage, availability of fuel / water etc. and after taking into account transmission losses.

4. The above allocation will further be subject to the Power Purchase Agreements (PPAs) entered into by NTPC Limited with State Power Utilities/ Union Territory and will further be subject to the beneficiaries ensuring compliance with the financial and commercial terms (including coverage for Letter of Credit) of the PPA signed with NTPC Ltd., the tariff notification and any other directives/ guidelines issued by the Government of India /Central Electricity Regulatory Commission from time to time

5. In case of failure of the beneficiaries adhering to the condition mentioned above, NTPC Ltd. may shut off or restrict power supply from the power station and also reallocate the power in case beneficiaries default in payment or where they have not opened LCs of an adequate amount in favour of NTPC Ltd. NTPC Ltd. would inform Member Secretary of the Concerned Regional Power Committee of the revised allocation of power in respects of the defaulting beneficiaries. Member Secretary of the concerned Regional Power Committee would reallocate the surplus power to the other beneficiaries based on grid security and power situation.

6. This issues with the approval of the Minister of Power.

Yours faithfully,



(K.C. Sharma)

Under Secretary to the Government of India

Telefax: 23719710

**Annexure-C.1****Proposed Maintenance Programme of thermal units during April, 2015.**

SYSTEM	POWER STATION	Unit NO.	Effective Capacity	Maintenance Programme	Remarks	No.of Days
NTPC	FSTPS	Unit No 6	500	08.04.15 to 07.05.2014	Boiler+TG Bearing insp.+LPT Rotor Rep.+Cond. Chem.Cleaning	30
NTPC	KhSTPS	Unit No 4	210	03.04.15 to 29.04.15	Boiler+Boiler Chem.Cleaning+Boiler RLA	27
NTPC	Barh TPS	Unit No 4		01.04.2015 to 10.04.2015	Maint	10
MPL		Unit No.2	525	25.04.2015 to 30.04.2015	Maint	5

**EASTERN REGIONAL LOAD DESPATCH CENTRE  
KOLKATA**

**TRANSMISSION ELEMENTS OUTAGE APPROVED IN 107TH 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	220KV Fkk-Lalmatia	20/03/2015	09:00	25/03/2015	17:30	OCB	NTPC	Removal of ERS & restoration to normal tower	JHARKHAND
2	400 KV FARAKKA - GURGAPUR - D/C	20/03/2015	09:00	23/03/2015	17:30	OCB	NTPC	Removal of ERS & restoration to normal tower OF FRK - LALMATIA	
3	A/R OF 220 KV BIRPARA-SALAKATI-D/C	20/03/2015	07:00	20/04/2015	17:00	ODB	ER-II/ ULDC	OPGW STRINGING WORK	NLDC
4	A/R OF 400 KV BARIPADA-KEONJHAR	20/03/2015	07:00	20/04/2015	17:00	ODB	ER-II/ ULDC	OPGW STRINGING WORK	MAY BEE APPROVED PROVISIONALLY.SHUTDOWN WOULD BE ALLOWED DEPENDING ON THE GMR & JITPL GENERATION.
5	A/R OF 400 KV BOLANGIR - ANUGUL	20/03/2015	07:00	20/04/2015	17:00	ODB	ER-II/ ULDC	OPGW STRINGING WORK/ PID WORK	MAY BEE APPROVED PROVISIONALLY.SHUTDOWN WOULD BE ALLOWED DEPENDING ON THE GMR & JITPL GENERATION.
6	400 KV TESTA - RANGPO - BINAGURI - I	20/03/2015	08:00	20/04/2015	18:00	ODB	ER-II/ ULDC	OPGW STRINGING WORK	TESTA
7	315 MVA ICT - I at Baripada	21/03/2015	08:00	21/03/2015	17:00	ODB	ER-II/OR	AMP Work and Oil sampling	OPTCL
8	315 MVA ICT - I at Baripada	21/03/2015	08:00	21/03/2015	17:00	ODB	ER-II/OR	AMP Work and Oil sampling	OPTCL
9	400KV MTN - MPL - I	22/03/2015	09:00	23/03/2015	17:00	ODB	ER-II	Isolator Arm Replacement and AMP of Line Bay.	MPL
10	132 KV GANGTOK - RAGPO - I & CHUZACHEN - MELLI	22/03/2015	08:00	25/03/2015	17:00	ODB	ER-II	CROSSING WORK OF 220 KV RAGPO - MELLI	SIKKIM
11	132 KV RANGIT - RAGPO & CHUZACHEN - MELLI	22/03/2015	08:00	25/03/2015	17:00	ODB	ER-II	CROSSING WORK OF 220 KV RAGPO - MELLI	SIKKIM
12	220KV MTN-Kalyaneshwari-I	23/03/2015	09:00	23/03/2015	17:00	ODB	ER-II	Line isolator arm replacement & remote operation checking	DVC
13	A/R of 400 KV MALDA-FARAKKA-D/C	23/03/2015	08:00	23/04/2015	18:00	ODB	ER-II	FOR PID SCANNING OF BOTH CIRCUIT.	NTPC
14	125 MVAR B/R - II AT ANUGUL	23/03/2015	11:00	23/03/2015	14:00	ODB		CSD COMMISSIONING WORK	
15	220kV Siliguri-New Siliguri Ckt-1	24/03/2015	08:00	26/03/2015	16:00	OCB	ER-II	Isolator Replacement under Addcap	
16	400 KV ICT - I MAIN BAY at Rengali	24/03/2015	07:00	29/03/2015	18:00	OCB	ER-II/OR	PIR removal work	
17	400 KV Rourkela - Talcher # 1	25/03/2015	08:00	25/03/2015	18:00	ODB	ER-II/OR	For replacement of damaged insulators in Middle and Bottom phase at location no.- 247 .	NLDC
18	400 KV Rourkela-Sterlite-2	25/03/2015	08:00	25/03/2015	17:00	ODB	ER-II/OR	Stringing of 765 KV S/C Angula-Jharsuguda (Line-I Part-II)	NLDC
19	400 KV Sterlite-Raigarh-2	25/03/2015	08:00	25/03/2015	17:00	ODB	ER-II/OR	Stringing of 765 KV S/C Angula-Jharsuguda (Line-I Part-II)	NLDC
20	400 KV BSF - SSRM - III	25/03/2015	15:30	25/03/2015	17:30	ODB	ER-I	FOR INSPECTION OF SIEMENS MAKE ISOLATORS AT BSF	NLDC
21	400 KV BSF - KODERMA - II	25/03/2015	10:30	25/03/2015	12:30	ODB	ER-I	FOR INSPECTION OF SIEMENS MAKE ISOLATORS AT BSF	DVC
22	220 KV BUS - I AT PATNA S/S	25/03/2015	08:00	28/03/2015	18:00	ODB	ER-I	FOR BAY EXTN. WORK AT PATNA	BIHAR
23	125 MVAR B/R - I AT PATNA S/S	25/03/2015	08:00	28/03/2015	18:00	ODB	ER-I	FOR BAY EXTENSION WORK OF 400 KV PATNA - KISHNGANJ LINE - I	
24	63 MVAR REACTOR OF PATNA - KISHANGANJ -1 AT PATNA	25/03/2015	08:00	28/03/2015	18:00	ODB	ER-I	FOR BAY EXTENSION WORK OF 400 KV PATNA - KISHNGANJ LINE - I	
25	125 MVAR Bus Reactor	26/03/2015	08:00	26/03/2015	18:00	ODB	ER-II/OR	Checking of Interlock ,VT Selection Ckt & Commissioning of CSD.	
26	400 KV BSF - PRN - I	26/03/2015	10:30	26/03/2015	12:30	ODB	ER-I	FOR INSPECTION OF SIEMENS MAKE ISOLATORS AT BSF	NLDC
27	315MVA ICT-II AT Maithon	26/03/2015	09:00	26/03/2015	17:00	ODB	ER-II	Testing of LA & 220KV CT Connector replacement work	DVC
28	132 KV RANGPO - CHUZACHEN - MELLI	26/03/2015	09:00	29/03/2015	17:00	OCB	CHUZACHEN	RELAY HELTHINESS CHECK UP FOR FACILITATING BLACK START OPERATION	SIKKIM/ SHUTDOWN OF RANGPO - BINA IS CANCELLED DURING THIS PERIOD.
29	400 KV Rourkela - Raigarh # 2 with Reactor	27/03/2015	08:00	27/03/2015	18:00	ODB	ER-II/OR	AMP Work	NLDC
30	765/400 KV ICT - I & II AT NRNC	27/03/2015	09:00	27/03/2015	13:00	ODB	ER-I	FOR ERECTION OF AUX. BUS (COMMON PORTION). DURING THE S/D THERE WILL NOT BE ANY POWERFLOW IN 765 KV RNC - DHARAMJAYGARH LINE.	NLDC
31	400 KV Bus - I at Rourkela	28/03/2015	08:00	28/03/2015	18:00	ODB	ER-II/OR	AMP Work	
32	400KV MTN-KHG-II with LR	28/03/2015	09:00	28/03/2015	14:00	ODB	ER-II	Y-PH CVT Replacement	
33	220kV Siliguri-New Siliguri Ckt-2	28/03/2015	08:00	30/03/2015	16:00	OCB	ER-II	Isolator Replacement under Addcap	NLDC
34	132 KV Main Bus at Malda	29/03/2015	08:00	29/03/2015	11:00	ODB	ER-II	Bus isolator alignment of 160 MVA ICT-I & WBSETCL-I Feeder.	WBSETCL
35	400 KV SEL - Raigarh # 2	30/03/2015	08:00	30/03/2015	17:00	ODB	ER-II/OR	For tightening of Jumpers, Adjustment of VD, Corona Ring and spacer at various locations.	NLDC
36	132KV DEHRI-BIKRAMGANJ & 132KV DEHRI-DUMRAON(BSPTCL)	30/03/2015	09:00	31/03/2015	18:00	ODB	ER-I	FOR CONSTRUCTION WORK OF 765KV GAYA-VARANASI S/C T/L	BIHAR
37	765/400 KV ICT - I AT NRNC	30/03/2015	08:00	31/03/2015	18:00	ODB	ER-I	FOR ERECTION OF AUX. BUS.	NLDC
38	400 KV ICT - II MAIN BAY at Rengali	30/03/2015	07:00	04/04/2015	18:00	OCB	ER-II/OR	PIR removal work	
39	315MVA ICT-I AT Maithon	31/03/2015	09:00	31/03/2015	17:00	ODB	ER-II	Relay retrofitting,42489T (Y-Ph) Isolator arm replacement	DVC
40	315 MVA ICT-V & 400 KV BUS-I at Malda	31/03/2015	07:00	31/03/2015	19:00	ODB	ER-II	Defective BUS-I isolator maintenance of Farakka-II, B/C.	WBSETCL

41	400 KV Rourkela - Sundargarh # 1	01/04/2015	09:00	01/04/2015	18:00	ODB	ER-II/OR	AMP Work	
42	220 KV PRN - DALKHOLA I & II	01/04/2015	08:00	15/04/2015	18:00	OCB	ER-I	REPLACEMENT OF DAMAGED TOWER AT LOC NO 36 DUE TO NATURAL CALAMITY(RIVER)	
43	400 KV BUS-II at Malda	01/04/2015	07:00	01/04/2015	19:00	ODB	ER-II	Defective BUS-II Isolator maintenance of ICT-V.	WBSETCL
44	220kV Siliguri-Dalkhola Ckt-1	01/04/2015	08:00	03/04/2015	16:00	OCB	ER-II	Isolator Replacement under Addcap	
45	400 KV Bus I at Subhasgram	01/04/2015	07:00	01.04.2015	17:00	ODB	ER-II	Bus Isolator AMP	WBSETCL
46	A/R OF 400 KV BARH - KAHALGAON -2	01/04/2015	07:00	30/04/2015	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	
47	A/R OF 400 KV KAHALGAON - MTN -2	01/04/2015	07:00	30/04/2015	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	
48	A/R OF 400 KV JAMSHEDPUR - BARIPADA	01/04/2015	07:00	30/04/2015	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	EITHER A/R OF BARIPADA - KEONJHAR OR A/R OF BARIPADA - JSR , ONE WOULD BE ALLOWED.
49	A/R OF 400 KV BANKA - BIHARSHARIF -2	01/04/2015	07:00	30/04/2015	19:00	ODB	ER-I	FOR OPGW INSTALLATION WORK	EITHER A/R OF KHG - BARH - 2 OR A/R OF BSF - BANKA - 2 , ONE WOULD BE ALLOWED.
50	400KV Baripada - Jamshedpur2 Main Bay	01/04/2015	08:00	01/04/2015	16:00	ODB	ER-II	AMP of 400KV Baripada - Jamshedpur Line2 Main Bay equipments	
51	765kV Sundarharh - Dharamjaygarh-2	02/04/2015	08:00	04/04/2015	17:00	OCB	ER-II/OR	Erection of Beam near Dharmjaygarh line-2 for Dharamjaygarh Line-3&4 Bay extension work.	NLDC
52	400 KV Rourkela - Sundergarh # 2	02/04/2015	08:00	02/04/2015	17:00	ODB	ER-II/OR	For tightening and checking of Jumpers, Adjustment of VD, Corona Ring and spacer at various locations.	
53	400 KV BSF-LAKHISARAI -2	02/04/2015	09:00	02/04/2015	13:00	ODB	ER-I	FOR AMP WORK AT BSF	NLDC
54	132KV S/C SSRM(BSPCL)-KUDRA(RLY)	02/04/2015	09:00	03/04/2015	18:00	ODB	ER-I	FOR CONSTRUCTION WORK OF 765KV GAYA-VARANASI S/C T/L	BIHAR
55	400 KV Bus II at Subhasgram	02/04/2015	07:00	02/04/2015	17:00	ODB	ER-II	Bus Isolator AMP	WBSETCL
56	765/400 KV ICT - II AT NRNC	02/04/2015	08:00	03/04/2015	18:00	ODB	ER-I	FOR ERECTION OF AUX. BUS.	NLDC
57	400KV Fkk-Sagardighi	02/04/2015	09:00	02/04/2015	17:30	ODB	NTPC	Bay Maintenance	WBSETCL
58	220KV Baripada- Balasore1 Main Bay	02/04/2015	08:00	02/04/2015	16:00	ODB	ER-II	AMP of 220KV Baripada- Balasore Line1 Main Bay equipments	OPTCL
59	400KV Subhasgram - Haldia # 1	03/04/2015	07:00	03/04/2015	16:00	ODB	ER-II	AMP	WBSETCL
60	160 MVA ICT-II at Malda	04/04/2015	08:00	04/04/2015	15:00	ODB	ER-II	For NIFS commissioning.	WBSETCL
61	400KV Subhasgram - Haldia # 2	04/04/2015	07:00	04/04/2015	16:00	ODB	ER-II	AMP	WBSETCL
62	220KV Siliguri-Dalkhola Ckt-2	05/04/2015	08:00	07/04/2015	16:00	OCB	ER-II	Isolator Replacement under Addcap	
63	400 KV KEONJHAR -TALCHER-II TIE BAY at Rengali	05/04/2015	07:00	10/04/2015	18:00	OCB	ER-II/OR	PIR removal work	
64	400 KV BUS-2 at Sundargarh at Sundargarh	06/04/2015	08:00	08/04/2015	17:00	OCB	ER-II/OR	For erection of extra BPI.	NLDC
65	400 KV Rourkela - SEL # 2	06/04/2015	09:00	06/04/2015	18:00	ODB	ER-II/OR	AMP Work of S/S & Tightening of jumpers, adjustment of VD, Corona Ring & Spacers in TL by JSG Group.	NLDC
66	400 KV GAYA - MTN -1	06/04/2015	08:00	07/04/2015	18:00	ODB	ER-I	FOR REPLACEMENT OF DAMAGED INSULATORS(BY MISCREANTS) AT VARIOUS LOCATION	NLDC
67	400KV MTN-RTPS(DVC)	06/04/2015	09:00	11/03/2015	17:00	ODB	ER-II	PIR removal of main Bay CB .S/D required for crane movement. Line will be charged through TIE bay when crane movement is not required during PIR removal work	DVC
68	160 MVA ICT-I at Malda	06/04/2015	08:00	06/04/2015	15:00	ODB	ER-II	For NIFS commissioning.	WBSETCL
69	400KV MAITHON-JAMSHEDPUR	06/04/2015	09:00	08/04/2015	17:00	ODB	ER-II	Replacement of insulator strings at crossings	
70	220KV Baripada- Balasore2 Main Bay	06/04/2015	08:00	06/04/2015	16:00	ODB	ER-II	AMP of 220KV Baripada- Balasore Line2 Main Bay equipments	OPTCL
71	400KV Malda-Purnea-I	07/04/2015	07:00	07/04/2015	18:00	ODB	ER-II	Replacement of broken insulator strings damaged by miscreants.	NLDC
72	400KV Bus-I Bolangir	07/04/2015	09:00	07/04/2015	17:00	ODB	ER-II/OR	AMC Works & Rectification works on Bus-side isolator	NLDC
73	765/400KV 1500MVA ICT-1 at Sundargarh	07/04/2015	08:00	08/04/2015	17:00	OCB	ER-II/OR	Fire fighting commissioning work.	NLDC
74	400 KV Rourkela - Raigarh # 2	07/04/2015	09:00	07/04/2015	17:00	ODB	ER-II/OR	AMP Work	NLDC
75	200 MVA ICT-2 AT LAKHISARAI	07/04/2015	08:00	07/04/2015	18:00	ODB	ER-I	CONDUCTING OF TEST WITHIN WARRANTY PERIOD	BIHAR
76	400 KV BSF-BANKA -1	07/04/2015	09:00	07/04/2015	13:00	ODB	ER-I	FOR AMP WORK	NLDC
77	400 KV Subhasgram – Jeerat	07/04/2015	07:00	10/04/2015	16:00	OCB	ER-II	Bph CVT replacement and Breaker retrofit at Jeerat End	WBSETCL
78	220KV Fkk-Lalmatia	07/04/2015	09:00	07/04/2015	17:30	ODB	NTPC	Bay Maintenance	JHARKHAND
79	220KV side of 315MVA ICT #1 Bay at Baripada	07/04/2015	08:00	07/04/2015	16:00	ODB	ER-II	AMP of 220KV side of 315MVA ICT #1 Bay equipments	OPTCL
80	400 KV ANUGUL - BOLANGIR	08/04/2015	09:00	09/04/2015	17:00	ODB	ER-II/OR	LINE CROSSING WORK OF 765 KV ANUGUL - JHARSUGUDA	NLDC
81	220 KV Bus - I at Rourkela	08/04/2015	09:00	08/04/2015	18:00	ODB	ER-II/OR	AMP Work	
82	400 KV GAYA - MTN -2	08/04/2015	08:00	09/04/2015	18:00	ODB	ER-I	FOR REPLACEMENT OF DAMAGED INSULATORS(BY MISCREANTS) AT VARIOUS LOCATION	NLDC
83	50 MVAR B/R -1 AT BSF	08/04/2015	10:00	08/04/2015	14:00	ODB	ER-I	FOR AMP WORK	
84	400 KV KHLG - FKK - I	08/04/2015	08:00	14/04/2015	18:00	ODB	ER-I	FOR REPLACEMENT OF DAMAGED INSULATORS(BY MISCREANTS) AT VARIOUS LOCATION	NLDC
85	220 KV Bus-I at Birpara	08/04/2015	09:00	08/04/2015	11:30	ODB	ER-II	for opening iso lator drop-out for Iso retrofitting.	NLDC
86	220 KV Bus-IIat Birpara	08/04/2015	11:45	08/04/2015	14:15	ODB	ER-II		NLDC
87	220KV side of 315MVA ICT #2 Bay at Baripada	08/04/2015	08:00	08/04/2015	16:00	ODB	ER-II	AMP of 220KV side of 315MVA ICT #2 Bay equipments	OPTCL
88	400KV Malda-Purnea-II	09/04/2015	07:00	09/04/2015	18:00	ODB	ER-II	Replacement of broken insulator strings damaged by miscreants.	NLDC
89	400 KV BUS-1 at Sundargarh at Sundargarh	09/04/2015	08:00	11/04/2015	17:00	OCB	ER-II/OR	For erection of extra BPI.	NLDC

90	220 KV Bus - II at Rourkela	09/04/2015	09:00	09/04/2015	18:00	ODB	ER-II/OR	AMP Work	
91	400 KV MAIN BAY OF ICT-2 AT LAKHISARAI	09/04/2015	08:00	09/04/2015	18:00	ODB	ER-I	CONDUCTING OF TEST WITHIN WARRANTY PERIOD	
92	220KV PUSAULI-DEHRI S/C	09/04/2015	09:00	10/04/2015	18:00	ODB	ER-I	FOR CONSTRUCTION WORK OF 765KV GAYA-VARANASI S/C T/L	BIHAR
93	400KV Kh-BANKA -1	09/04/2015	09:30	09/04/2015	17:30	ODB	NTPC	PM works & Relay Testing.	NLDC
94	220KV Side of 160MVA ICT #1 Bay at Baripada	09/04/2015	08:00	09/04/2015	16:00	ODB	ER-II	AMP of 220KV Side of 160MVA ICT #1 Bay equipments	OPTCL
95	400KV Bus-II Bolangir	10/04/2015	09:00	10/04/2015	17:00	ODB	ER-II/OR	AMC Works & Rectification works on Bus-side isolator	NLDC
96	765/400KV 1500MVA ICT-2 at Sundargarh	10/04/2015	08:00	11/04/2015	17:00	OCB	ER-II/OR	Fire fighting commissioning work.	NLDC
97	315 MVA ICT - I at Rourkela	10/04/2015	09:00	10/04/2015	18:00	ODB	ER-II/OR	AMP Work	OPTCL
98	220 KV GAYA - DEHRI -1	10/04/2015	08:00	10/04/2015	18:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	BIHAR
99	220 KV BUS - II AT NEW PURNEA	10/04/2015	10:00	10/04/2015	18:00	ODB	ER-I	R - PH CVT REPLACEMENT WORK AT NPRN	
100	315 MVA ICT-III at Malda	10/04/2015	10:00	10/04/2015	14:00	ODB	ER-II	Oil sample collection of CT changed under ADDCAP as per DGA schedule.	WBSETCL
101	220KV Side of 160MVA ICT #2 Bay at Baripada	10/04/2015	08:00	10/04/2015	16:00	ODB	ER-II	AMP of 220KV Side of 160MVA ICT #2 Bay equipments	OPTCL
102	315 MVA ICT - II at Rourkela	11/04/2015	09:00	11/04/2015	18:00	ODB	ER-II/OR	AMP Work	OPTCL
103	220 KV GAYA - DEHRI -2	11/04/2015	08:00	11/04/2015	18:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	BIHAR
104	220 KV Malda - Dalkhola-I	11/04/2015	10:00	11/04/2015	14:00	ODB	ER-II	Oil sample collection of CT changed under ADDCAP as per DGA schedule.	WBSETCL
105	400 KV Jeerat - Behrampore	11/04/2015	07:00	14/04/2015	16:00	OCB	ER-II	400 KV Air Blast Circuit Breaker replacement , LA replacement	WBSETCL
106	400 KV KEONJHAR MAIN BAY at Rengali	11/04/2015	07:00	16/04/2015	18:00	OCB	ER-II/OR	PIR removal work	
107	400 KV INDRAVATI MAIN BAY at Rengali	11/04/2015	07:00	16/04/2015	18:00	OCB	ER-II/OR	PIR removal work	
108	220 KV Malda - Dalkhola-II	12/04/2015	10:00	12/04/2015	14:00	ODB	ER-II	Oil sample collection of CT changed under ADDCAP as per DGA schedule.	WBSETCL
109	220 KV Rourkela - Tarkera # 1	13/04/2015	09:00	13/04/2015	18:00	ODB	ER-II/OR	AMP Work	OPTCL
110	400KV Baripada- Mendhasal1	13/04/2015	09:00	13/04/2015	17:00	ODB	ER-II/OR	Jumpering nut & Bolts Tightning	OPTCL
111	765 KV GAYA -BALIA	13/04/2015	08:00	15/04/2015	18:00	ODB	ER-I	FOR REPLACEMENT OF DAMAGED INSULATORS(BY MISCREANTS) AT VARIOUS LOCATION	NLDC
112	765 KV NEW RANCHI - DHARAMJAIGARH	13/04/2015	07:00	19/04/2015	18:00	OCB	ER-I	FOR RECTIFICATION OF MEMBERS AT LOC NO 50/0 , CUT BY MISCREANTS ( IN NAXALIE AREA ) AND IS IN BENT CONDITION.	NLDC
113	220 KV MTN-DHANBAD-I	13/04/2015	09:00	13/04/2015	17:00	ODB	ER-II	CVT Replacement	DVC
114	220 KV Bus Coupler at malda	13/04/2015	14:00	13/04/2015	15:00	ODB	ER-II	Oil sample collection of CT changed under ADDCAP as per DGA schedule.	WBSETCL
115	220 KV Bus-I at Birpara	13/04/2015	10:00	13/04/2015	12:30	ODB	ER-II	for re-connection of isolator drop-out for Isolator retrofitting.	NLDC
116	220 KV Bus-II at Birpara	13/04/2015	14:15	13/04/2015	16:45	ODB	ER-II	for re-connection of isolator drop-out for Isolator retrofitting.	NLDC
117	400KV MAITHON-MEJIA-3	13/04/2015	09:00	14/04/2015	17:00	ODB	ER-II	Replacement of insulator strings at crossings	DVC
118	765kV, 240MVar Bus Reactor-1 at Sundargarh	14/04/2015	08:00	15/04/2015	17:00	OCB	ER-II/OR	Fire fighting commissioning work.	NLDC
119	132 kv RANGIT - KURSEONG	14/04/2015	08:00	25/04/2015	17:00	ODB	ER-II	INSULATOR REPLACEMENT	WBSETCL
120	220 KV Rourkela - Tarkera # 2	14/04/2015	09:00	14/04/2015	18:00	ODB	ER-II/OR	AMP Work	OPTCL
121	400KV Baripada- Mendhasal1	14/04/2015	09:00	14/04/2015	17:00	ODB	ER-II/OR	Jumpering nut & Bolts Tightning	OPTCL
122	220 KV MTN-DHANBAD-II	14/04/2015	09:00	14/04/2015	17:00	ODB	ER-II	WINTER MAINT.	DVC
123	400KV BARH-PATNA - 2	14/04/2015	09:00	15/04/2015	17:30	OCB	NTPC	PM of Bay Equipments	
124	125 MVAR B/R - II AT ANUGUL	14/04/2015	11:00	24/04/2015	14:00	ODB		CSD COMMISSIONING WORK	
125	400 KV MAIN BUS-I at Farakka	15/04/2015	09:00	15/04/2015	13:00	ODB	ER-II	FOR REMOVAL OF BUS JUMPER FOR WORK IN 3252 BAY.	
126	400 KV MALDA-FARAKKA-II	15/04/2015	09:00	15/04/2015	13:00	ODB	ER-II	FOR REMOVAL OF LINE JUMPER FOR WORK IN 3252 BAY.	NLDC
127	400 KV Rourkela - Talcher # 1	15/04/2015	09:00	15/04/2015	18:00	ODB	ER-II/OR	Modification of Line Isolator (Hivelm Make) for converting gang operated mechanism to individual operated mechanism.	NLDC
128	400KV Baripada- Mendhasal2	15/04/2015	09:00	15/04/2015	17:00	ODB	ER-II/OR	Jumpering nut & Bolts Tightning	OPTCL
129	400 KV JSR - CHAIBASA -1	15/04/2015	11:00	15/04/2015	13:00	ODB	ER-I	FOR BAY CONSTRUCTION WORK FOR B/R AT CHAIBASA	
130	400 KV RKL - CHAIBASA -1	15/04/2015	14:00	15/04/2015	16:00	ODB	ER-I	FOR BAY CONSTRUCTION WORK FOR B/R AT CHAIBASA	
131	400 KV KHLG - FKK - II	15/04/2015	08:00	21/04/2015	18:00	ODB	ER-I	FOR REPLACEMENT OF DAMAGED INSULATORS(BY MISCREANTS) AT VARIOUS LOCATION	NLDC
132	400KV Baripada- Mendhasal2	16/04/2015	09:00	16/04/2015	17:00	ODB	ER-II/OR	Jumpering nut & Bolts Tightning	OPTCL
133	400 KV LAKHISARAI - KAHALGAON -2	16/04/2015	08:00	16/04/2015	18:00	ODB	ER-I	CONDUCTING OF TEST WITHIN WARRANTY PERIOD OF NON SWITCHABLE LINE REACTOR AT LKR	NLDC
134	315 MVA ICT -2 AT CHAIBASA	16/04/2015	10:00	16/04/2015	16:00	ODB	ER-I	FOR BAY CONSTRUCTION WORK FOR B/R AT CHAIBASA	
135	400 KV BUS - I AT NPRN	16/04/2015	10:00	16/04/2015	18:00	ODB	ER-I	Y - PH CVT REPLACEMENT WORK AT NPRN	
136	400 KV Sgram-Sagardighi main Bay	16/04/2015	09:00	18/04/2015	17:00	OCB	ER-II	CB SF6 dew point correction in Bph	WBSETCL
137	400KV Kh-BANKA -2	16/04/2015	09:30	16/04/2015	17:30	ODB	NTPC	PM works & Relay Testing.	NLDC
138	765kV, 240MVar Bus Reactor-2 at Sundargarh	17/04/2015	08:00	18/04/2015	17:00	OCB	ER-II/OR	Fire fighting commissioning work.	NLDC
139	400 KV Rourkela - Talcher # 2	17/04/2015	09:00	17/04/2015	18:00	ODB	ER-II/OR	Modification of Line Isolator (Hivelm Make) for converting gang operated mechanism to individual operated mechanism.	NLDC
140	400 KV INDRAVATI TIE BAY at Rengali	17/04/2015	07:00	22/04/2015	18:00	OCB	ER-II/OR	PIR removal work	
141	400KV Baripada-Keonjhar	18/04/2015	09:00	18/04/2015	17:00	ODB	ER-II/OR	Jumpering nut & Bolts Tightning	
142	400KV Baripada-Kharagpur	19/04/2015	09:00	19/04/2015	17:00	ODB	ER-II/OR	Jumpering nut & Bolts Tightning	WBSETCL
143	3152 BAY CB at Farakka	20/04/2015	08:00	20/04/2015	18:00	OCB	ER-II	FOR CB CHANGE UNDER ERSS-XIII. (AS PER LOA COMPLETION TARGET: JUNE'15).	

144	220 KV Bus-I at Birpara	20/04/2015	09:00	20/04/2015	11:30	ODB	ER-II	for opening iso lator drop-out for Iso retrofitting	NLDC
145	220 KV Bus-II at Birpara	20/04/2015	11:45	20/04/2015	14:15	ODB	ER-II	for opening iso lator drop-out for Iso retrofitting	NLDC
146	400KV MEJIA-JAMSHEDPUR	20/04/2015	09:00	22/04/2015	17:00	ODB	ER-II	Replacement of insulator strings at crossings	
147	765kV, 240MVA Ar Angul Reactor-2 at Sundargarh	21/04/2015	08:00	22/04/2015	17:00	OCB	ER-II/OR	Fire fighting commissioning work.	NLDC
148	315 MVA ICT -1 AT CHAIBASA	21/04/2015	10:00	21/04/2015	16:00	ODB	ER-I	FOR BAY CONSTRUCTION WORK FOR B/R AT CHAIBASA	
149	400KV SSRM- NABINAGAR D/C	22/04/2015	09:00	23/04/2015	18:00	ODB	ER-I	FOR CONSTRUCTION WORK OF 765KV GAYA-VARANASI S/C T/L	NTPC
150	400 KV MAIN BUS-I at Farakka	22/04/2015	09:00	22/04/2015	13:00	ODB	ER-II	FOR RECONNECTION OF BUS JUMPER FOR WORK IN 3252 BAY.	
151	400 KV MALDA-FARAKKA-II	22/04/2015	09:00	22/04/2015	13:00	ODB	ER-II	FOR RECONNECTION OF LINE JUMPER FOR WORK IN 3252 BAY.	NLDC
152	400KV MTN - MPL - I	23/04/2015	09:00	25/04/2015	17:00	ODB	ER-II	Replacement of insulator strings at crossings	MPL
153	400KV Kh-MAITHON - 2	23/04/2015	09:30	23/04/2015	17:30	ODB	NTPC	PM works & Relay Testing	
154	403R Bus Reactor bay at Bherampur	24/04/2015	10:00	28/04/2015	18:00	OCB	ER-II	To attend oil leakage from PRD of Bus Reactor.	
155	400KV Bolangir- Angul	25/04/2015	09:00	25/04/2015	17:00	ODB	ER-II/OR	AMC works and rectification of construction defects in the line.	NLDC
156	220 KV Bus-I at Birpara	25/04/2015	10:00	25/04/2015	12:30	ODB	ER-II	for re-connection of isolator drop-out for Isolator retrofitting.	NLDC
157	220 KV Bus-II at Birpara	25/04/2015	14:15	25/04/2015	16:45	ODB	ER-II	for re-connection of isolator drop-out for Isolator retrofitting.	NLDC
158	3152 BAY CB at Farakka	25/04/2015	08:00	24/05/2015	18:00	OCB	ER-II	FOR CB CHANGE UNDER ERSS-XIII. (AS PER LOA COMPLETION TARGET: JUNE'15).	
159	132 KV SILIGURI - MELLI	26/04/2015	08:00	02/05/2015	17:00	ODB	ER-II	INSULATOR REPLACEMENT	SIKKIM
160	400KV Bolangir- Jeypore	26/04/2015	09:00	26/04/2015	17:00	ODB	ER-II/OR	AMC works and rectification of construction defects in the line.	NLDC
161	400KV MTN- MPL - II	27/04/2015	09:00	30/04/2015	17:00	ODB	ER-II	Replacement of insulator strings at crossings	MPL
162	ICT#1 at Subhasgram	28/04/2015	09:00	31-04-2015	17:00	OCB	ER-II	OLTC oil migration	WBSETCL
163	220KV Transfer Bus Coupler Bay at Baripada	28/04/2015	08:00	28/04/2015	16:00	ODB	ER-II	AMP of 220KV Side of 160MVA ICT #2 Bay equipments	OPTCL
164	220KV Bus Coupler Bay at Baripada	29/04/2015	08:00	29/04/2015	16:00	ODB	ER-II	AMP of 220KV Side of 160MVA ICT #2 Bay equipments	OPTCL
165	400 KV MALDA-FARAKKA-II	30/04/2015	08:00	15/05/2015	18:00	OCB	ER-II	FOR CHANGE OF WAVE TRAP, LA, CVT, CT & TRANSFER BUS ISOLATOR OF FARAKKA-II UNDER ERSS-XIII. (AS PER LOA COMPLETION TARGET: JUNE'15).	NLDC



**Annexure-C.2**

**Anticipated Power Supply Position for the month of  
Apr-15**

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
<b>1</b>	<b>BIHAR</b>		
i)	NET MAX DEMAND	3100	1509
ii)	NET POWER AVAILABILITY- Own Source	200	148
	- Central Sector	2003	1225
iii)	SURPLUS(+)/DEFICIT(-)	-897	-136
<b>2</b>	<b>JHARKHAND</b>		
i)	NET MAX DEMAND	1150	760
ii)	NET POWER AVAILABILITY- Own Source	447	294
	- Central Sector	581	336
iii)	SURPLUS(+)/DEFICIT(-)	-122	-131
<b>3</b>	<b>DVC</b>		
i)	NET MAX DEMAND (OWN)	2650	1590
ii)	NET POWER AVAILABILITY- Own Source	4535	2266
	- Central Sector	291	176
	Long term Bi-lateral (Export)	1250	900
iii)	SURPLUS(+)/DEFICIT(-)	926	-49
<b>4</b>	<b>ORISSA</b>		
i)	NET MAX DEMAND	3950	2357
ii)	NET POWER AVAILABILITY- Own Source	3013	1839
	- Central Sector	952	588
iii)	SURPLUS(+)/DEFICIT(-)	15	70
<b>5</b>	<b>WEST BENGAL</b>		
<b>5.1</b>	<b>WBSEDCL</b>		
i)	NET MAX DEMAND (OWN)	5728	3530
ii)	CESC's DRAWAL	410	74
iii)	TOTAL WBSEDCL's DEMAND	6138	3603
iv)	NET POWER AVAILABILITY- Own Source	3911	2106
	- Import from DPL	126	68
	- Central Sector	1558	865
v)	SURPLUS(+)/DEFICIT(-)	-543	-565
<b>5.2</b>	<b>DPL</b>		
i)	NET MAX DEMAND	310	227
ii)	NET POWER AVAILABILITY	436	295
iii)	SURPLUS(+)/DEFICIT(-)	126	68
<b>5.3</b>	<b>CESC</b>		
i)	NET MAX DEMAND	1950	1078
ii)	NET POWER AVAILABILITY - OWN SOURCE	1009	696
	FROM WBSEDCL	410	74
	FROM HEL	540	308
iii)	TOTAL AVAILABILITY	1959	1078
iv)	SURPLUS(+)/DEFICIT(-)	9	0
<b>6</b>	<b>WEST BENGAL (WBSEDCL+DPL+CESC) (excluding DVC's supply to WBSEDCL's command area)</b>		
i)	NET MAX DEMAND	7988	4835
ii)	NET POWER AVAILABILITY- Own Source	5356	3097
	- Central Sector	2098	1173
iii)	SURPLUS(+)/DEFICIT(-)	-535	-565
<b>7</b>	<b>SIKKIM</b>		
i)	NET MAX DEMAND	85	34
ii)	NET POWER AVAILABILITY- Own Source	0	4
	- Central Sector	107	64
iii)	SURPLUS(+)/DEFICIT(-)	22	33
<b>8</b>	<b>EASTERN REGION At 1.03 AS DIVERSITY FACTOR</b>		
i)	NET MAX DEMAND	18372	11084
	Long term Bi-lateral	1250	900
ii)	NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	19583	11208
iii)	PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	-39	-776