

## **Eastern Regional Power Committee**

### **Kolkata-33**

#### **Salient Decisions taken in 92<sup>nd</sup> OCC meeting held on 20.12.13**

1. Powergrid opined that, outage of 500 MVA, 400/220 kV ICT at Gaya substation due to manufacturing defect may be treated as force majeure condition and requested for availability certificate from 17-11-2013 to 02-12-2013. As it is a manufacturing defect, OCC felt that it may not be within the parameters attracting force majeure condition and referred the issue to commercial committee meeting for further deliberation.
2. OPTCL opined that, LILO points at JITPL premises may be treated as interface points between Eastern Grid and Gridco for the purpose of drawal of start-up / emergency power by JITPL. OPTCL informed that, two numbers of LILO points need to be added as GRIDCO's interface points. OCC agreed.
3. Regarding Chandrapura islanding scheme, DVC requested for separate meeting. Accordingly, separate meeting is convened on 31st December, 2013 at ERPC, Kolkata.
4. Powergrid informed that, replacement of the defective PLCC equipment at SgTPP end of 400 kV SgTPP-Farakka line are in progress. In order to expedite OCC advised Powergrid to interact with their highest authority for arranging PLCC equipments from other regions and advised PGCIL to make the PLCC channel operational before power export to Bagladesh is enhanced to 500 MW. PGCIL agreed.
5. In view of present generation in north Sikkim area, OCC restricted the Chuzachen generation to 85 MW in peak time between 18:00 hrs to 21:00 hrs and allowed to generate 99 MW during off peak hours.
6. OCC felt that, as JITPL directly connected with CTU, in line with CERC order on case No: 95/MP/2013 JITPL is a direct costumer. Accordingly it was decided that, construction agreement between JITPL and OPTCL will continue till injection of JITPL starts and ERLDC will schedule the JITPL power, once JITPL starts the injection. With this view, OCC referred the issue to commercial committee meeting for further deliberation.

### **Status of decisions taken in previous OCC meetings, not yet resolved**

Sl. No.	Particulars	Present Status
1	OCC requested to all constituents to take appropriate actions at their end to establish the existing communication system (SCADA) with ERLDC healthy by June 2013 without fail.	ERPC decision is being implemented in majority cases. But, in case of BSPHCL/JSEB, the restoration is far behind the schedule.
2	a) Testing and calibration of special energy meter in Eastern Region b) Automatic Meter Reading (AMR)	Powergrid informed that, Testing and calibration of SEMs have been completed in all 307 stations.  Powergrid informed that, survey for AMR has been completed for all 98 stations.  Powergrid informed that, DCU installation at Subhashgram would be completed within 2 weeks. DCU installation in ER would be completed by 31st March, 2014.
3	OCC decided to implement relief through operation of UFR in four stages with total load relief of 3320 MW as per CEA direction.	WBSETCL, DVC, BSPHCL and CESC implemented. OPTCL implemented except 3 s/s. JSEB informed that, load shedding through UFR scheme has been implemented except 64 MW in different stages.
4.	Pollution mapping for Eastern Region -- Powergrid	OCC requested all constituents to fill the formats at the earliest and send it to <a href="mailto:sksinghpg@yahoo.co.in">sksinghpg@yahoo.co.in</a> .  Powergrid informed that, till date no data received from the constituents. OCC requested to send the requisite data immediately to <a href="mailto:sksinghpg@yahoo.co.in">sksinghpg@yahoo.co.in</a> with a copy to <a href="mailto:mserpc-power@nic.in">mserpc-power@nic.in</a> . Constituents agreed.

## Minutes of 92<sup>nd</sup> OCC Meeting held on 20<sup>th</sup> Dec, 2013 at ERPC, Kolkata

*Shri. A. K. Bandyopadhyay, Member Secretary (I/c), ERPC welcomed the OCC members, and other participants in the meeting. He requested all the constituents to submit LGBR data for the year 2014-15 latest by 23<sup>rd</sup> December, 2013 so that it could be discussed in first LGBR meeting scheduled to be held on 30<sup>th</sup> December, 2013 at ERPC, Kolkata.*

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

### **Item no. A.1: Confirmation of minutes of 91<sup>st</sup> OCC meeting of ERPC held on 22.11.13**

The minutes were circulated vide letter dated 10.12.13 to all the constituents and also uploaded in ERPC website. No comments were received till date.

Members may confirm the minutes.

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

*Members confirmed the minutes of 91<sup>st</sup> OCC meeting.*

## **PART B**

### **Item no. B.1: Repair of 500 MVA, 400/220 kV ICT at Gaya substation due to manufacturing defect**

Sudden increase in the fault gases has been observed in the 500MVA, 400/220KV ICT of Gaya substation. The ICT is under warranty period. As per recommendation of the manufacturer, i.e. M/S ALSTOM after taking shutdown of the ICT on 17.11.2013, internal inspection had been carried out and problem in the tap lead has been observed. As per manufacturer, the reason for fault gases is problem in tap lead and downstream faults seen by the ICT. Necessary rectification at site is under process and all out efforts are being made restore the ICT by 30.11.2013. As this is a manufacturing defect, the outage of the same for rectification by manufacturer at site may be treated as force majeure condition.

Members may discuss.

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

*Powergrid informed that, ICT has been restored on 02-12-2013 and manufacturer accepted that it was a manufacturing defect. Powergrid opined that, outage of ICT may be treated as force majeure condition and requested for availability certificate from 17-11-2013 to 02-12-2013. As it is a manufacturing defect, OCC felt that it may not be within the parameters attracting force majeure condition and referred the issue to commercial committee meeting for further deliberation.*

### **Item no. B.2: Heavy loading of 315MVA ICTs at Jeypore and 220KV Jaypore-Jaynagar D/C line.**

The issue was discussed earlier in OCC forum. In reference to these deliberations OPTCL vide letter dated 18.11.2013 informed that, major contribution for overloading 220kV Jayanagar-

Jeypore line is due to export of power to SR through Gazuwaka HVDC. The State has to boost up its hydro generation to meet its requirement. Also, during spilling condition of reservoir in the southern part of the State, backing down of hydro generation is not advisable. ERLDC may take necessary action for reduction of export to SR through Gazuwaka HVDC to avoid overloading. Although, it is not the State's interest for capacity augmentation of Jeypore - Jayanagar ckt; still OPTCL has taken action for construction of 220 kV Jeypore - Jayanagar 2nd D/C line.

Further, it was opined that commissioning of 220kV Jeypore - Jayanagar 2nd D/C line installation of Special Protection Scheme (SPS) for backing down of hydro generation and connecting Indravati units to 400kV system only to relieve congestion through existing 220kV Jeypore - Jayanagar line & ICT at Jeypore shall be considered, provided a separate ATC considering South Odisha hydro stations (for export of power to SR) shall be made by NLDC exclusively for the State's export to SR. Alternatively, it may be examined by ERLDC to isolate 220kV Jayanagar - Jeypore circuits.

OPTCL & ELRDC may update.

### **Deliberation in the meeting**

*OCC felt that, the heavy loading would be relieved after synchronization of NEW grid with SR grid and injection of JITPL into the grid. OCC decided to review the situation after synchronization of NEW grid with SR grid.*

#### **Item no. B.3: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG) Substation**

400/220 kV, 2X 315 MVA S/S at Bolangir has been established by Powergrid as part of ISTS system based on the decision taken in Standing Committee meeting held on 08.11.2008 held at Bhubaneswar. This substation was to cater to the local load demand of Bolangir and its adjoining area in Odisha.

The following 220 kV interconnecting lines was envisaged to be established by OPTCL:

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

However, none of these outlets have been commissioned as of now.

In absence of the 220kV interconnection to the Bolangir (PG), the existing 400kV Bolangir (PG) S/S remains as unused transmission assets. OPTCL should implement the above 220kV interconnections with Bolangir(PG) S/S on top priority, enabling proper anchoring of the Meramundali-Jeypore line at Bolangir (PG) to avoid operational problems in the grid.

In 91<sup>st</sup> OCC, OPTCL informed that one ckt of 220 kV Burla-Bolangir will be made LILO at Bolangir (PG) for which tendering work is under process. Work is in progress for Bolangir(PG) – Bolangir (OPTCL) S/C line and Bolangir(PG) –Kesinga S/C line.

OPTCL may update the status.

### **Deliberation in the meeting**

*OPTCL informed that, tendering work is in progress for all the three lines.*

#### **Item no. B.4: Start-up/emergency power to Jindal India Power Ltd.--GRIDCO**

It was informed by GRIDCO that, presently M/s. JINDAL India Thermal Power Ltd.(JITPL) is being connected to CTU through LILO of 400kVAngul(PGCIL)-Bolangir (PGCIL) S/C line. The

final connectivity of JITPL will be to PGCIL Pooling Station at Phulpada, Angul through 400 kV D/C line.

JITPL has entered into an agreement with the concerned DISCOM, i.e, Central Electricity Supply Utility of Odisha (CESU) on 03.10.2013 for drawal of 29,000 kVA Start-up/Emergency power through GRIDCO. Accordingly, any drawal by JITPL from Eastern Grid may be accounted as GRIDCO's drawal from Eastern Grid and the LILO points at JITPL premises may be treated as interface points between Eastern Grid and Gridco for the purpose of drawal of start-up / emergency power by JITPL.

OPTCL informed that, two numbers of LILO points need to be added as GRIDCO's interface points.

Members may discuss.

### **Deliberation in the meeting**

*OCC agreed to the GRIDCO proposal.*

#### **Item no. B.5: Commercial declaration of Biharshariff-Fatwa & Fatwa-Jakkanpur OPGW link.**

The purpose of the establishment of fiber link in lieu of existing Microwave link between Biharsharif to SLDC Patna to get the data of RTU of Fatwa and dedicated link of BSPTCL up to SLDC, Patna. But following works are still pending in this regard:

- Integration of Fatwa RTU.
- Laying UGFO between Jakkanpur & SLDC Patna.
- Commissioning of dedicated link between Biharsharif to SLDC Patna via Fatwa & Jakkanpur

As such, till the completion of the above and achieving the above purpose and testing of all fibre links under BSPTCL region, the declaration of any FO link of BSPTCL in commercial operation cannot be accepted.

Members may discuss.

### **Deliberation in the meeting**

*Powergrid informed that, OPGW of Biharshariff-Fatwa & Fatwa-Jakkanpur are already completed and Fatwa RTU reporting the data to SLDC Patna. To this extent only OCC felt declaration of commercial operation could be accepted. BSPTCL also agreed to.*

#### **Item no. B.6: Issue of trial operation of transmission elements.**

CERC while giving order on petition for “**Approval of transmission tariff for LILO of Nalagarh-Kaithal line at Patiala along with associated bays and 125 MVAR Bus Reactor at Patiala and 400/220 kV, 500 MVA ICTs both at Patiala and Malerkotla S/S along with bays under Northern Region Strengthening Scheme-XIV in Northern Region**” observed the following in Para 38 of the order:

“We have considered the submissions of both PSPCL and the petitioner. As submitted by the petitioner, the 2009 Tariff Regulations do not define the trial operation in case of transmission elements and the successful test charging is considered as trial operation. The explanation of the petitioner is found to be satisfactory and accordingly, successful test charging by the petitioner is considered as completion of trial operation. However, we direct the RPCs to discuss the issue of trial operation of transmission elements and submit the proposals to CEA who in turn shall submit a consolidated proposal regarding trial operation of transmission elements to the

Commission. The staff of the Commission shall study the proposal made by CEA and make suitable changes to the existing Regulation to deal with all such cases in future.”

ERPC Secretariat had already submitted its views (circulated in the meeting)

Members may place their views.

### **Deliberation in the meeting**

*OCC requested all constituents to submit their views by 27-12-2013, so that the same would be communicated to CERC in time.*

#### **Item no. B.7: Consent for changing of all 160 KN insulators in 400 KV D/C (Quad) Siliguri-Purnea Line & Purnea-Saharsha section of 400 KV Purnea-Muzaffarpur Line -- Powerlinks**

There were frequent failure of 160 KN insulators in our 400 KV D/C (Quad) Siliguri-Purnea Line and Purnea-Saharsha section of 400 KV Purnea-Muzaffarpur Line. This in turn had made the line unreliable and the entire grid vulnerable. These insulators were supplied by M/S Birla –NGK (Jayashree) during construction of the line in 2005-06. Since then trouble free operation continued upto 2010. Then 2011 onwards, failure had started and it reached alarming stage in December’12 when there were 12 failures in one single month. These insulators were tested at CPRI, Bangalore after removing the same from line. At CPRI, 20% of sample tested had failed. PID testing of these insulators were also carried out and result of PID test was alarming as it shows deviation in most of the strings. From the pattern of failure, it had been observed that only those 160 KN insulators are failing which were installed in between tower no.100 to 300 from Siliguri end. Subsequently, all 160 KN insulators were changed in all tension towers in between loc.100 to 300 fo Siliguri-Purnea Line in March’13 and April’13. As a result of this preventive action, the failure rate had gone down to great extent and there were only five failures during the period May’13 to October’13.

To analyse the root cause of the failure, the supplier M/S Birla-NGK was consulted and samples were tested extensively at the manufacturer’s laboratory. During testing, it had been observed that those samples having hair line cracks on them had failed to pass the electrical requirements. In other words, it can be said that hairline cracks are the root cause of the failure of 160 KN insulators. The insulation resistance of these insulators is going down as moisture and other impurities are entering the cracks leading to flash over and failure of the string. This finding is supported by the fact that in all the cases of failure, hairline cracks were observed on the discs.

From above facts, it can be concluded that the present decrease in rate of failure is temporary and it is bound to increase with the passage of time as hairline cracks may develop at any point of time. This will seriously affect the reliability of the line and stability of the entire grid as a whole. As a preventive measure, it is planned to change all remaining 160 KN insulators in 400 KV D/C (Quad) Siliguri-Purnea Line and Purnea-Saharsha section of 400 KV Purnea-Muzaffarpur Line. This is necessary for the stability of the system and these two lines are very important part of the grid particularly of East-North Corridor. Total financial implication will be around Rs. 13 crores considering polymer insulators will be used. We are planning to submit a petition to CERC for capitalization of the expenditure.

In 91<sup>st</sup> OCC, members advised Powerlinks to give a detailed report.

Powerlinks may update and members may decide.

### **Deliberation in the meeting**

*During deliberations members opined that hair line cracks on insulators may be either due to design defects or due to normal adverse effects of operation. So OCC felt that some authority like CPRI must certify whether the present case is within the purview of design defects or because of other reasons. Powerlink was requested to place these details in next OCC so that*

decision on cost sharing by eastern region constituents, if required in the existing case, could be decided.

However as replacement of insulators is extremely necessary for reliability of the line OCC advised Powerlinks to replace the damaged/defective insulators at the earliest.

#### **Item no. B.8: Review of load relief under various stages of UFR**

NPC in its 2nd meeting held on 16.07.2013 decided that total load relief based on UFR load shedding of ER is 3320 MW. Accordingly, OCC divided the total load quantum as per present proportionate for ER constituents as given below:

<b>Control Area</b>	<b>Stage –I (49.2 Hz) (MW)</b>	<b>Stage –II (49.0 Hz) (MW)</b>	<b>Stage–III (48.8Hz) (MW)</b>	<b>Stage–IV (48.6Hz) (MW)</b>	<b>Total Relief by Control Area</b>
<b>BSEB</b>	98	99	99	101	397
<b>JSEB</b>	61	62	61	62	246
<b>DVC</b>	134	135.5	136	137	542.5
<b>Odisha</b>	181.5	183.5	184	186	735
<b>WB &amp; CESC</b>	345.5	350	350	354	1399.5
<b>Total</b>	<b>820</b>	<b>830</b>	<b>830</b>	<b>840</b>	<b>3320</b>

It was decided to implement the revised scheme within a month.

The latest status updated in last OCC is follows:

- **DVC, WBSETCL, Bihar & CESC:** Implemented
- **Odisha:** Implemented except 3 Sub-stations namely Kesinga, Junagarh & Kalarangi. UFRs are required to be procured for those Sub-stations and the same will be installed by December, 2013.
- **JSEB:** Implemented except Dumka S/s.

Constituents may update the status of respective control area.

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

*Constituents updated the latest status as follows:*

- **DVC, WBSETCL, Bihar & CESC:** Implemented
- **Odisha:** Implemented except 3 Sub-stations namely Kesinga, Junagarh & Kalarangi. UFRs have been ordered for those Sub-stations and the same will be installed by February, 2014.
- **JSEB:** JSEB informed that, load shedding through UFR scheme has been implemented except 64 MW in different stages. This 64 MW load at five new substations have been replaced with existing Dumka and Sahebgunj loads in view of Farakka islanding scheme. For these five substations new UFRs are to be procured and installed. JSEB also informed that, load shedding through Stage-I and II would be implemented by 31<sup>st</sup> December, 2013 and Stage-III and Stage-IV would be implemented by 15<sup>th</sup> January, 2014.

#### **Item no. B.9: Islanding Scheme of FSTPP, NTPC & BkTPS of WBPDC**

A special meeting on upcoming islanding schemes was held on 6<sup>th</sup> December, 2013 at ERPC, Minutes of the meeting is circulated in the meeting.

For FSTPP constituent's wise list of equipment required for this islanding scheme was assessed and respective constituents were advised do the needful for early implementation of the scheme.

Powergrid, JSEB and NTPC may update the status on FSTPP, NTPC.

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

*JSEB confirmed that it had already shifted 2 nos BPL make PLCC panels to 132KV Lalmatia S/S. OCC advised JSEB to shift one more BPL make PLCC panel to 132 KV Lalmatia S/S and advised NTPC to take care of two nos PLCC panels stocked at Lalmatia 132 KV S/S of JSEB for onward shifting of the same to 220 KV Lalmatia & Farakka S/S.*

*JSEB confirmed that Trip Relay available at 132 KV Lalmatia S/S is with 3nos "NO" contacts.*

*OCC was informed that 2 NOS 48 V battery banks are required to be newly procured and installed. Accordingly Powergrid was requested to arrange the battery bank. Powergrid agreed to explore the possibility and for which it was agreed that concerned officer from Powergrid will make on site inspection to assess the position in compatibility of the available battery chargers. OCC advised PGCIL to give feedback to ERPC secretariat by 31.12.13*

*In the meeting JSEB confirmed that, available UFR relays at 132 kV Dumka and Lalmatia S/s are compatible for single phase supply hence CVTs for this purpose are not required at Dumka.*

For BkTPS, WBPDCCL agreed to implement the islanding scheme at the earliest.

WBPDCCL may update the status.

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

*WBPDCCL informed that, efforts are being made to implement BkTPS islanding scheme by 28<sup>th</sup> Feb, 2014.*

*Regarding Chandrapura islanding scheme, DVC requested for separate meeting. Accordingly, separate meeting is convened on 31<sup>st</sup> December, 2013 at ERPC, Kolkata.*

**Item no. B.10:** (Item No. B1 of 84<sup>th</sup> OCC meeting)

In last OCC, Powergrid updated the latest status as given below:

##### **a) Testing and calibration of special energy meter**

- Total special energy meters in Eastern Region: 307
- Testing and calibration Completed: 307

##### **b) Automatic Meter Reading (AMR)**

- Total stations in Eastern Region: 98
- Survey Completed: 98
- DCU supply started and will be completed by November, 2013.

Server installation at ERLDC, Kolkata is in progress.

Thereafter, Powergrid vide its letter dated 8<sup>th</sup> November, 2013 informed that, various constituent sites are not permitting the TCS personnel to carry out installation works related to Automatic Meter Reading (AMR). In this regard, permission and cooperation is required for the following for installation of AMR equipment on priority basis:

1. Meter to Meter daisy chaining with CAT6 cable via meter RS485 port will be done.
2. Tools & Tackles will be entered into the sub-station on a returnable basis.
3. At the time of installation works permission is required for the techniques to work beyond the office hours (if required).
4. One DC voltage source (AC source if DC not available) is required from sub-station end to give the power to DCU. (Ratings of DCU: 7 watt)
5. Software needs to be installed in sub-station local HMI.

In 91<sup>st</sup> OCC, TCS representative informed that, various constituent sites are not permitting the TCS personnel to carry out installation works related to Automatic Meter Reading (AMR). Constituents informed that, prior information is not available with them and requested Powergrid to give the details in advance so that gate pass arrangement can be made in time. OCC advised Powergrid to give a written intimation to all the constituents and advised all the constituents to cooperate with TCS personal for early completion of AMR installation.

Powergrid may update.

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

*Powergrid informed that, DCU installation at Subhashgram would be completed within 2 weeks. DCU installation in ER would be completed by 31<sup>st</sup> March, 2014.*

*Chuzachen requested to include their station in AMR installation. Powergrid agreed to look into it.*

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

1. **Increase in protection CT ratio from 1000/1 to 2000/1 for 400 kV Farakka-Berhampore line- Powergrid**

Powergrid and NTPC may update.

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

*ERLDC informed that, the line would be under shutdown on 22<sup>nd</sup> December, 2013. OCC advised Powergrid and NTPC to change the CT ratio on 22<sup>nd</sup> December, 2013. Powergrid and NTPC agreed.*

2. **Auxiliary Power Supply at Berhampore S/S- Powergrid**

In 91<sup>st</sup> OCC WBSEDCL informed that, the auxiliary supply would be provided within 3 months. Powergrid requested to provide the auxiliary supply within 2 months and requested to make the Sukhi feeder as a priority feeder till the dedicated auxiliary supply is available. WBSEDCL agreed to look into it.

WBSEDCL & Powergrid may update.

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

*WBSEDCL informed that, dedicated auxiliary supply would be provided by 31<sup>st</sup> Mar, 2014. OCC requested to make the Sukhi feeder as a priority feeder till the dedicated auxiliary supply is available. WBSEDCL agreed.*

*In the meeting PGCIL also informed that, it is facing unreliable auxiliary supplies in most of their grid substations under JSEB and BSEB control area. Members viewed it seriously as its a long pending issue and already deliberated in OCC forums on previous occasions. OCC with serious concern advised respective members to look into this matter positively with feedback to next OCC.*

### **3. Power Supply to Railway TSS from 132 kV Deogarh (JSEB) S/S**

In 91<sup>st</sup> OCC ERLDC informed that, line configuration and load details are not yet received from JSEB. JSEB assured to give the requisite data within 10 days.

ERLDC, JSEB may update.

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

*ERLDC informed that, line configuration and load details are not yet received from JSEB. OCC advised JSEB to give the requisite information within a week. JSEB agreed.*

### **4. Replacing/repairing of defective PLCC equipment at SgTPP end of 400 kV SgTPP-Farakka line**

Powergrid and WBPDCCL may update the status.

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

*Powergrid informed that, replacement of the PLCC equipments are in progress. In order to expedite OCC advised Powergrid to interact with their highest authority for arranging PLCC equipments from other regions and advised PGCIL to make the PLCC channel operational before power export to Bangladesh is enhanced to 500 MW. PGCIL agreed.*

### **5. Restoration of 220 kV Meramundali - TSTPP D/C**

OPTCL may update.

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

*The line will be charged soon after rectification of breaker problem at Meramundali end, tentatively by 31<sup>st</sup> March, 2014.*

### **6. The following line/Bus reactors are under presently under outage:**

- a) 80MVAR Line reactor of 400kV Meramundali-Anugul at Meramundali
- b) 50MVAR Line reactor of 400kV Rourkella-TSTPP-I at TSTPP
- c) 80MVAR Bus Reactor at Kharagpur
- d) 63MVAR Line reactor of 400kV Baripada-Mendhasal-I at Mendhasal

It is essential that the above Line/Bus reactors are made available at the earliest as high voltages are prevailing during night lean hours in the ER Grid.

In 91<sup>st</sup> OCC, it was informed that 80 MVAR Line reactor of 400kV Meramundali-Angul at Meramundali was charged on 18<sup>th</sup> November, 2013. OCC requested concern members to take appropriate action to restore the reactors.

Members may update.

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

*Members updated the latest status as follows:*

- a) *80MVAR Line reactor of 400kV Meramundali-Anugul at Meramundali: Oil leakage observed after the reactor was charged on 18<sup>th</sup> November, 2013, it will be rectified by 31<sup>st</sup> December, 2013.*
- b) *50MVAR Line reactor of 400kV Rourkella-TSTPP-I at TSTPP: Will be charged soon after getting clearance from BHEL.*

- c) 80MVAR Bus Reactor at Kharagpur: Charged on 14-11-2013.
- d) 63MVAR Line reactor of 400kV Baripada-Mendhasal-I at Mendhasal: Will be in service by January, 2014.

**7. Schedule/generation restriction for Chuzachen HEP in view of repeated disturbances.**

ERLDC & Chuzachen may update.

**Deliberation in the meeting**

*Keeping in view of present generation in north Sikkim area, OCC restricted the Chuzachen generation to 85 MW in peak time between 18:00 hrs to 21:00 hrs and allowed to generate 99 MW during off peak hours.*

**8. Restoration of Ragunathpur-Ranchi line**

DVC may update.

**Deliberation in the meeting**

*DVC informed that, the line will be restored by 31<sup>st</sup> March, 2014.*

**9. Bus strengthening at Malda and Birpara consequent to augmentation of transformation capacity at North Bengal – (Item No. B2 of 82<sup>nd</sup> OCC meeting)**

WBSETCL may update.

**Deliberation in the meeting**

*It was informed that the work is in progress.*

**10. Depletion in OPTCL network due to impact of cyclone “Phailin”**

OPTCL may kindly update regarding latest status.

**Deliberation in the meeting**

*OPTCL informed that, all transmission lines have been restored except 220 kV Narendrapur-Theruvai and 220 kV Narendrapur-Mendasal lines.*

**Item no. B.12: Commissioning of 220 kV bus bar protection at Ramchandrapur & Chandil substations (JSEB) – (Item No. B13 of 22<sup>nd</sup> TCC meeting)**

In last OCC JSEB informed that, bus bar protection at Ramchandrapur GSS is in service from 11<sup>th</sup> November, 2013.

Regarding LBB at Chandil JSEB informed that, some panels are not included in the proposal hence fresh proposal is being prepared.

JSEB may update the latest status.

**Deliberation in the meeting**

*JSEB informed that, LBB installation at Chandil S/s will be completed by 31<sup>st</sup> March, 2014.*

**Item no. B.13: 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.14: Status of “Third Party Protection Audit”**

List of the observations along with updated compliances received from the constituents made available in reports of ERPC website ([www.erpc.gov.in](http://www.erpc.gov.in)).

Members may note and ensure compliance on observations.

**Deliberation in the meeting**

*Members noted.*

**Item no. B.15: Restricted Governor Mode of Operation --- ERLDC**

The latest status of units of ER under RGMO is circulated in the meeting.

Members may update.

**Deliberation in the meeting**

*Members noted.*

**Item no. B.16: Mock Black start exercises in Eastern Region --- ERLDC**

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

Mock blackstart of Upper Indravati HEP and Maithon HEP have been done successfully. The pending status as informed in the last OCC meeting is indicated below:

- a) Rengali HEP: Proposed in November'13
- b) Upper Kolab HEP: End of November'13
- c) Teesta HEP – November'13
- d) Subarnarekha HEP- Dec13

In last OCC NHPC informed that, Teesta HEP is ready for black start exercise, the date will be intimated. JSEB informed that, water level of Subarnarekha HEP is very low and it is not possible to conduct the black start exercise.

Members may update the status.

### **Deliberation in the meeting**

*Members updated the latest status as follows:*

- a) Rengali HEP: End of December'13
- b) Upper Kolab HEP: End of December'13
- c) Teesta HEP – 23<sup>rd</sup> Dec, 13
- d) Subarnarekha HEP- 25<sup>th</sup> Dec, 13

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

Report regarding test run of DG sets for the month of November, 2013 has not been received from any of the constituents. All test reports may be forwarded to [erldc.cal@gmail.com](mailto:erldc.cal@gmail.com) & [psdas\\_psd@yahoo.com](mailto:psdas_psd@yahoo.com).

Constituents may kindly ensure compliance.

### **Deliberation in the meeting**

*Members noted.*

#### **Item no. B.17: 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](mailto:ceaopmwind@gmail.com)  
with a copy to [rishika.engineer@gmail.com](mailto:rishika.engineer@gmail.com) and [s.sewak@cea.nic.in](mailto: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.

Members may note and comply.

### **Deliberation in the meeting**

*Members noted.*

**Item no. B.18: 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, CESC informed that their stations are certified with IS18001.

Members may note and update the status.

**Deliberation in the meeting**

*Members noted.*

**Item no. B.19: Pollution mapping for Eastern Region -- Powergrid**

In line with decision of 89<sup>th</sup> and 90<sup>th</sup> OCC meeting, Powergrid has already submitted the soft copy of the formats to be submitted by concern members to initiate the work on pollution mapping.

The formats were already mailed to respective OCC members.

Members may please note and comply.

**Deliberation in the meeting**

*Powergrid informed that, till date no data received from the constituents. OCC requested to send the requisite data immediately to [sksinghpg@yahoo.co.in](mailto:sksinghpg@yahoo.co.in) with a copy to [mserpc-power@nic.in](mailto:mserpc-power@nic.in).*

**Item no. B.20: Black start and Restoration procedure of Eastern region- ERLDC**

Black start and restoration procedure of Eastern Region was updated by ERLDC on 30.11.13. Prior to updation a draft copy of same was circulated to all the constituents of eastern regional via email dated 15 November 2013 seeking comments as well as updates on following issues

- a) Details of 220kV and above substation(s) not having synchronizing facility for synchronization of islands and time schedule for providing the same.
- b) Details of Minimum auxiliary power requirement and survival power requirement by unit/plant wherever left blank in the document

Members are once again requested to supplement the missing data and furnish any other valuable comments.

**Deliberation in the meeting**

*House was informed that, the formats will be made available at ERPC website ([www.erpc.gov.in](http://www.erpc.gov.in)). OCC advised all constituents to send their views as soon as possible.*

**Item no. B.21: Over voltage protection setting of 400 kV lines in Eastern region - ERLDC**

To avoid multiple or uncoordinated tripping of lines on account of over voltage, both voltage as well as time grading of protection setting of the lines need to be done. The overvoltage protection settings of all 400 kV lines were last complied in the year 2011. Since then many new 400kV lines as well as a few 765kV lines have been commissioned and LILO of some existing lines have also configured. Therefore to ensure proper gradation of settings and systematic compilation of the information on overvoltage settings, all constituents/utilities may kindly provide the requisite data as per the format given below:

NAME OF SUBSTATION	NAME OF THE LINE	OVERVOLTAGE STAGE-I SETTINGS					
		Local end		Remote end		Difference	
		% setting	Time Delay(sec)	% setting	Time Delay(sec)	% difference	Time difference(sec)

The details of settings for pick up /drop off of the over-voltage relays could also be provided.

The above data may be mailed to erldc.cal@gmail.com / psdas\_psd@yahoo.com / surojitb@gmail.com

Members may ensure kind compliance.

**Deliberation in the meeting**

*ERLDC informed that, in view of commission of new transmission lines the over voltage settings needs to be reviewed to maintain proper coordination. House was informed that, the format will be made available at ERPC website ([www.erpc.gov.in](http://www.erpc.gov.in)). OCC advised all constituents fill the latest status of requisite information and send to ERLDC.*

**Item no. B.22: Status of construction of 400 kV Sterlite-Jharsuguda D/C sections - ERLDC**

Sterlite Energy Limited (SEL) is presently connected to ER grid vide LILO of 400kV Rourkella-Raigarh D/C at Sterlite. The above is however only an interim connectivity with final connectivity vide 400kV Sterlite-Jharsuguda D/C (2 Nos). The scope of development of the above dedicated transmission lines for permanent connectivity to ISTS system is under the generation developer. SEL may accordingly intimate the current status of the dedicated portion, as 400kV Jharsuguda substation has been commissioned and commissioning of 765kV switchyard is in progress.

SEL may update the status.

**Deliberation in the meeting**

*SEL informed that, the line construction is pending due to ROW problem. OCC advised SEL to construct the line as early as possible.*

**Item no. B.23: Implementation of SPS for 500MW round the clock power through HVDC Bheramara - ERLDC**

A meeting was held on 12/12/13, between CEA, CTU and NLDC at New Delhi which was also attended by ERLDCs, ERPCs, WBSETCL vide video conferencing facility available at ERLDC. Some of the relevant decisions taken in the meeting are detailed below:

- It was decided to pass on 500MW(Round the clock) to Bangladesh subject to commissioning of SPS wherein the power order would be ramped down to 350MW upon occurrence of the following contingencies:

S. No.	Triggering Criteria for SPS	SPS actions (signal shall be generated to do following)	Signal to be sent Bheramara (Yes/No)
1	Tripping of 400kV Farakka-Behrapur, the SPS shall generate a signal	To trip 80 MVAR Bus reactor at 400kV Behrapur.	No, Local action at Behrapur.
		To ramp down HVDC set-point to 350 MW (with Appropriate Filter switching to maintain Bheramara Voltage)	Yes
	Voltage at 400kV Behrapur going below 390kV	To trip 80 MVAR Bus reactor at 400kV Behrapur.	No, Local action at Behrapur.
2	Voltage at 400kV Behrapur going below 380kV, the SPS shall generate a signal.	To ramp down HVDC set-point to 350 MW (with Appropriate Filter switching to maintain Bheramara Voltage)	Yes
3	If the frequency goes below 49.5 Hz.	To ramp down HVDC set-point to 350 MW (with Appropriate Filter switching to maintain Bheramara Voltage)	Yes
4	If the 400kV Farakka-Behrapur line flow goes above 780 MW (Flow may touch 800 MVA).	To ramp down HVDC set-point to 350 MW (with Appropriate Filter switching to maintain Bheramara Voltage)	yes

b) Over voltage and Unbalanced voltage at Bheramara HVDC were reported by PGCB (Powergrid Company of Bangladesh). Voltage above 420 kV has been experienced at 400kV Bheramara even after keeping shunt reactors (2\*63 MVAR) in service, due to which HVDC Bheramara cannot be ramped up. Also unbalance of the order of 5kV to 7kV has been detected in 400kV AC switchyard of HVDC Bheramara.

Accordingly, the following were decided upon:

- It was agreed that during short term, nearby generators, viz. Farakka, Kolaghat, Sagardighi and Bakreshwar should absorb MVAR to the maximum extent possible subject to the capability curve limits.
- It was also agreed that line reactors of Behrapur-Jeerat and Jeerat-Bakreshwar at Jeerat end should be converted into switchable bus reactors which may be taken out of service when needed.
- It was agreed to take measurements with HVDC out of service to identify whether the source of imbalance lies in the HVDC or in the AC system. It was also agreed that ERTS-II should look into the aspect of imbalance.
- Emphasis has been placed on commissioning of 400 kV Sagardighi-Behrapur D/C (Quad)
- It was also decided to explore the possibility of load anchoring at 400kV Behrapur S/S

SLDC, WBSETCL and NTPC are accordingly requested to take action as detailed above regarding absorption of MVAR by generators. Conversion of Line reactors to switchable bus reactors at Jeerat end was discussed in the last OCC meeting. Powergrid may update regarding above. ERTS-II/WBSETCL may also indicate tentative schedules for the remaining action points.

Members may update.

### **Deliberation in the meeting**

- *ERLDC gave a presentation on reactive power absorption by the generators. It was observed that, VAR absorption of Farakka unit#1 & 2 and Sagardighi units are not satisfactory during high voltage condition. NTPC and WBSETCL agreed to take appropriate action.*
- *On converting line reactors of Behrapur-Jeerat and Jeerat-Bakreshwar at Jeerat end into switchable bus reactors, Powergrid informed that, work is in progress.*
- *ERLDC advised Powergrid to measure the supply voltage at 400 kV Berhampore S/s on 22<sup>nd</sup> December, 2013 to find out source of the unbalance at Beramera. Powergrid agreed.*

On SPS a separate deliberation had come up in the meeting in relation to modification of SPS-1000 presently operating at Talcher. It was informed that the modification was planned, deliberated and decided in a special meeting in ERPC on 27.11.13 in view of proposed synchronization of SR-NEW grid. Sterlite and GMR raised certain issues towards implementation. OCC felt that since the modification has been designed with thoughtful deliberations in presence of all the concerned members these issues, if required, could be taken up for further reviewing in future. OCC therefore categorically advised Sterlite and GMR to implement the decision of special meeting so that there would not be any blockage in successful synchronization of SR-NEW Grid in time.

**Item no. B.24: Reactive Power performance of Generators and GT tap position optimization**

**a) Review of reactive power generation/drawal of generators vis-à-vis 400kV station bus voltage of units**

Maximum and minimum voltage observed (data taken from SCADA)

Generating stations have been monitored for the following sample dates in the month of Nov 13, during which the maximum and minimum voltages observed

Power Plant	Max and Min Voltage observed for Nov 13 (KV)	Date of monitoring (Nov 2013)
Farakka STPS	428,414	15,16,30
Khalgaon STPS	423,408	15,16,30
Talcher STPS	420, 404	1,3
Teesta	427,401	15,18
Bakreshwar TPS	415,398	15,16,18
Kolaghat TPS	430,403	13,14
Sagardighi TPS	428,413	16,30
MPL	434, 421(Maithon)	15,16,30
Mejia-B	434,424	16,30
DSTPS	438,426	6,13,14,15
Adhunik TPS	434,419	15,16,25
Sterlite	437,418	25,30

**Performance analysis:**

I. Farakka: Both 210MW & 500MW units at FSTPP, absorbed VAR or injected zero VAR into the Grid for most of the time and hence performance of the units was satisfactory.

II. Kahalgaon : Both 210MW & 500MW units at KhSTPP, absorbed VAR or injected zero VAR into the Grid for most of the time and hence performance of the units was satisfactory.

III. Sagardighi: Reactive performance of Sagardighi was satisfactory.

IV. MPL: MPL MVAR data not reported.

V. Sterlite: U#3 absorbed VAR during high voltage condition but U#1 VAR absorption was not adequate.

VI. Performance of Mejia-B, DSTPS and Adhunik TPS were not adequate.

Members may note.

**Deliberation in the meeting**

*Members noted.*

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

In the 88<sup>th</sup> OCC it was decided to change the relevant taps of identified units as follows:

DSTPS GT-1 and 2		MEJIA'B' GT - 1 & 2	
Present tap position & voltage ratio	Suggested tap position & voltage ratio	Present tap position	Suggested tap position
5 (21kV/420 kV)	7 (21kV /399 kV)	4 (21kV /430.5 kV)	7 (21kV /399 kV)

Adhunik GT-1 & 2	
Present tap position & voltage ratio	Suggested tap position & voltage ratio
8 (16.5kV /420kV)	12 (16.5kV /400.68 kV)

In the 88<sup>th</sup> meeting, DVC agreed to change one tap instead of two taps. In the 89<sup>th</sup> OCC meeting, DVC had confirmed that the above tap change would be done.

DSTPS U#2 and Mejia-B U#8 had gone under shutdown recently. DVC may please inform whether GT tap of these units have been changed to 6 and 5 respectively.

Also, in the last OCC meeting Adhunik Unit#1 had agreed to change tap position to 10 in view of problem faced during the synchronizing process with the generators at tap position 12.

DVC and Adhunik may update.

### **Deliberation in the meeting**

*In view of difficulties raised DVC and Adhunik, OCC advised ERLDC to make further analysis on the issue.*

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

As discussed in the last OCC meeting, the status of reactive capability testing of identified generators is as follows:

- a) Adhunik TPS: In Nov, 13
- b) DSTPS: Due to outage of unit#2, test to be done on opportunity basis.
- c) Mejia & Koderma TPS: Test to be done when both units are in service.

Maithon RB had mentioned in the last OCC meeting that they had already carried out reactive capability tests of their machines in January/march, 2013. However, the report of the reactive capability tests have not yet been received at this end.

Concerned members may update the status.

### **Deliberation in the meeting**

*Concerned members agreed to intimate the dates.*

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

### **Item no. C.1: Shutdown proposal of transmission lines and generating units for the month of Jan' 14**

Members may finalize the Shutdown proposals of the generating stations and transmission lines for the month of Jan' 14 is circulated in the meeting.

Members may finalize.

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

*Members finalized the shutdown proposals for the month of Jan'14. Approved list is given at Annexure-C.1. Shutdown related to Odisha subject to approval from Govt. of Odisha.*

### **Item no. C.2: Anticipated power supply position during Jan'14**

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of Jan'14 were prepared by ERPC Secretariat on the basis of LGBR for 2013-14, keeping in view that the units are available for generation and expected load growth etc. and circulated in the meeting for discussion.

Members may confirm.

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

*Members updated the latest power supply position. Updated power supply position during Jan' 14 is given at Annexure-C.2.*

### **Item no. C.3: Prolonged outage of power system elements in Eastern Region**

#### **(i) Generating units:**

Generating Station	UNIT NO	CAP(MW)	DATE	REASONS FOR OUTAGE	Date of restoration
BOKARO B	3	210	12.10.13	POLLUTION CONTROL BOARD	
STERLITE	4	600	23.10.13	F. D. FAN PROBLEM	
BOKARO B	2	210	16.11.13	AUXILIARY SUPPLY FAILURE	
BANDEL	5	210	16.11.13	MAINTENANCE	
MEJIA	2	210	21.11.13	OVERHAULING	
BAKRESWAR	5	210	24.11.13	TUBE LEAKAGE	
ADHUNIK	1	270	29.11.13	GT FAILURE	
KODARMA	1	500	03.12.13	SHORTAGE OF COAL	
SANTALDIHI	5	250	04.12.13	TURBINE PROBLEM	
KOLAGHAT	1	210	09.12.13	SHORTAGE OF COAL	
KOLAGHAT	2	210	10.12.13	SHORTAGE OF COAL	
SAGARDIGHI	2	300	11.12.13	SHORTAGE OF COAL	

#### **(ii) Transmission elements**

Name of the Line/Element	Outage Date	Reason	Date of restoration
220 KV JEERAT - SATGACHIA D/C	15.06.10	DUE TO LAND SLIDE OF GANGES RIVER BANK	
220 KV MERAMUNDALI - TSTPS - I	24.08.13	BREAKER PROBLEM AT MERAMUNDALI	

765 KV SASARAM - FATHEPUR	25.08.13	TOWER COLLAPSE AT LOC 61/A AND TOWER BENT AT LOC 61/A0	
220 KV MENDHASAL - NARENDRAPUR - II	12.10.13	TOWER COLLAPSE	
220 KV THERUBALI - NARENDRAPUR - I	12.10.13	TOWER COLLAPSE	
400 KV BARIPADA - MENDHASAL - I	01.11.13	KEPT OPEN ON O/V	
400 KV BINAGURI - PURNEA - I	02.11.13	SHUTDOWN AVAILED BY	
400 KV BINAGURI - TALA - IV	05.11.13	S/D TO ATTEND DAMAGED XLPE CABLE	
400 KV RANCHI - ROURKELA - II	08.12.13	KEPT OPEN ON O/V	
315 MVA ICT - I AT BIDHANAGAR (WB)	13.12.13	S/D AVAILED BY WBSETCL	
220 KV BIDHANNAGAR - WARIA - I	10.12.13	B-PHASE CT BURST AT BIDHANNAGAR	
400 KV RAIGARH - JHASUGUDA - ROURKELA - I	11.12.13	S/D AVAILED BY POWERGRID	
220 KV JEERAT - SATGACHIA D/C	15.06.10	DUE TO LAND SLIDE OF GANGES RIVER BANK	
220 KV MERAMUNDALI - TSTPS - I	24.08.13	BREAKER PROBLEM AT MERAMUNDALI	
765 KV SASARAM - FATHEPUR	25.08.13	TOWER COLLAPSE AT LOC 61/A AND TOWER BENT AT LOC 61/A0	
220 KV MENDHASAL - NARENDRAPUR - II	12.10.13	TOWER COLLAPSE	
220 KV THERUBALI - NARENDRAPUR - I	12.10.13	TOWER COLLAPSE	

Members may update.

### **Deliberation in the meeting**

*Members noted.*

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

1. 400kV Anugul-Bolangir successfully LILOed at JITPL[Jindal India Thermal Power Limited](2 x 600MW) at 10:13 hrs of 07/11/13.
2. 750MVA(3x250MVA single phase units) GT at JITPL charged for the first time on 12/11/13 and loaded subsequently.
3. 220kV Jeerat-Rishra D/C was commissioned on 20/11/13.
4. 132kV Paradeep-Jagatsinghpur taken into service on 02/11/13

All constituents are requested to intimate details of commissioning of new elements/generating units(if any) positively by the first working day of the current month for the previous month.

All members are also requested to verify above and also intimate regarding details of any other new elements commissioned but not included in the above list.

**Status of commissioning of generating station and transmission elements are as follows:**

### **New generating units:**

S.No.	Power Plant	Plant Size	Expected date
1	GMR Unit#3	4x350MW	15 <sup>th</sup> Nov, 2013
2	Koderma Unit#2	2x500MW	Oct, 2013
3	Corporate Power Unit#1	2x270MW	

4	Teesta-III Unit#1	1x200MW	
5	Raghunathpur Unit#1	2x600MW	Nov, 2013
6	TLDP-IV	1x40MW	

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

Sl No.	Name of Element	Expected date
1	400 kV Maithon-Gaya D/C	After December, 2013
2	400 kV Gaya-Koderma D/C	After December, 2013
3	LILO of 400kV Kahalgaon-Biharshariff 1& 2 at Lakhisarai	Nov, 2013
4	400kV Sasaram-Daltonganj D/C &Daltonganj S/Stn	
5	400 kV Ranchi-Raghunathpur D/C	Mar, 2014
6	400 kV Meramandali-Dubri D/C	
7	400 kV Corporate- Ranchi D/C	
8	400 kV IB-Meramandali D/C	March, 2014
9	220 kV TLDP-IV – NJP ckt-2	2014
10	220 kV Kharagpur-Midnapur D/C	After Puja
11	220 kV Jeerat-Rishra D/C	
12	220 kV Latehar-Daltonganj D/C	December, 2013
13	220 kV Lohardaga-Lathehar D/C	December, 2013
14	220 kV Bidhansai-Cuttack D/C	June, 2014
15	220 kV Girdih-Koderma D/C	Mar, 2014

Members may update.

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

*NTPC informed that, Barh unit#4 was successfully synchronized with grid on 30<sup>th</sup> November, 2013. Members updated the latest status.*

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

#### **Item no. D.1: UFR operation during the month of Nov'13**

System frequency touched 49.48 Hz in November'13. No report of UFR operation has been received from any of the constituents. Constituents may confirm regarding any UFR operation in their respective systems.

Members may note.

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

*Members noted.*

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

Vide clause no 5.5.1.c)(h) of IEGC, non-compliance of SLDC direction by SEB/Distribution licenses/bulk consumers to curtail overdrawal is 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 over drawal, within two days after the day of operation.

No report from any constituent received. Hence ERLDC consider 'Nil' report for all Constituent for Nov'13.

Members may note

**Deliberation in the meeting**

*Members noted.*

**Item no. D.3: Grid incidences during the month of Nov'13**

Sl no	Disturbance Place	Date & Time	Generation loss (MW)	Load loss (MW)	Remark	Category
1	TSTPP S/Y	03/11/13 at 18:30hrs	425	0	Due to Failure of B-phase CT of GT-I & fire hazard in Talcher Switchyard, 400kV Bus-II, TSTPP Unit#1, 400kV Talcher-Rourkela-D/C & 315MVA both the ICTs at Talcher tripped.	
2	OPTCL (Rengali PH)	04/11/13 at 18:33Hrs	250	15	All the 220kV lines & running units of Rengali PH tripped due to 'Y' and 'B'-Ø contacts of U#1 bus isolator of Bus-A damaged due to flash over at Rengali PH.	GD-1
3	JSEB (Chandil)	05/11/13 at 08:30Hrs	260	126	Due to fire hazard occurred in B-Ø 220kV CT of station transformer at Patratu 220kV Tenughat-Patratu, Tenughat U#1 & Patratu U#10 tripped.	GD-1

Members may note.

**Deliberation in the meeting**

*Members noted.*

**Item no. D.4: Eastern Region grid performance during the month of Nov'13**

ERLDC may present.

Members may note.

**Deliberation in the meeting**

*Members noted.*

**Item no. D.5: SCADA data availability to ERLDC.**

It was directed that all utilities should take appropriate actions at their end to establish the existing communication system (SCADA) with ERLDC healthy by June 2013 without fail.

The latest status as updated in 90<sup>th</sup> OCC is circulated in the meeting.

**Concerned members may update the latest status.**

**Deliberation in the meeting**

*Members updated the latest status. Updated status is given in **Annexure-D5**.*

#### Item no. D.6: Bhutan voice communication with ERLDC:

In 23<sup>rd</sup> ERPC meeting held on 22<sup>nd</sup> December, 2012, POWERGRID informed that they are working for voice communication between Backup NLDC, India at ERLDC, Kolkata & NLDC, Bhutan.

In 90<sup>th</sup> OCC Powergrid informed that work order has already been placed and will be completed by November, 2013.

**POWERGRID may update the status.**

#### Deliberation in the meeting

*Powergrid informed that work order has already been placed and will be completed by January, 2014.*

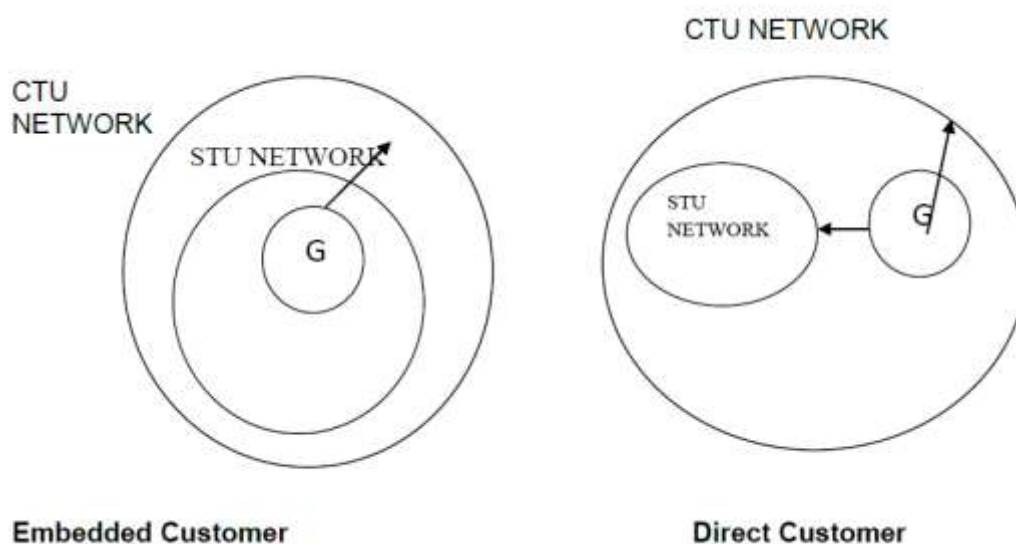
#### Item no. D.7: Any other point

##### 1. Scheduling of power by ERLDC--GMR

CERC vide case no. 95/MP/2013 has recently defined the status of embedded entity and direct costumer of CTU as follows:

Quote:

“18. ....The difference between these two entities can be shown below with following diagrams:



Where the customer is not an embedded customer, the contract path through intervening system of STU network cannot be identified.....”

Unquote

In view of above, GMR and JITPL requested scheduling their power by ERLDC.

Members may discuss.

#### Deliberation in the meeting

*OCC felt that, as JITPL directly connected with CTU, in line with CERC order on case No: 95/MP/2013 JITPL is a direct costumer. Accordingly it was decided that, construction agreement between JITPL and OPTCL will continue till injection of JITPL starts and ERLDC will schedule*

*the JITPL power, once JITPL starts the injection. With this view, OCC referred the issue to commercial committee meeting for further deliberation.*

*Regarding GMR, OCC advised OPTCL & GMR to settle the issue bilaterally and inform the status in next OCC.*

*Meeting ended with vote of thanks to the chair.*

\*\*\*\*\*

# Participants in 92<sup>nd</sup> OCC Meeting

# Annexure-A

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 20.12.13 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
1	A.K. Bandyopadhyay	MS I/c	ERPC	9433068533	mscrpc-bandyopadhyay@nic.in	A.Bandyopadhyay
2	U.K. Verma	GM	ERLDC	9890249622	ujwalkumar.verma@gmail.com	U.K. Verma
3	P.S. Das	Ch. Mgr	ERLDC	9433041837	psdas_psd@yahoo.com	P.S. Das
4	Surajit Banerjee	Ch. Mgr	ERLDC	9433041823	surajitb@gmail.com	Surajit Banerjee
5	Jiten Das	Ch. Mgr	TONERGRID	9431315704	er_cile@yahoo.com	Jiten Das
6	B.N. Prasad	CE/CLD	DVC	9831954299	bnpasad.dvc@gmail.com	B.N. Prasad
7	B. Pann	DCE(ELDC)	"	9903247102	brahmananda.pann@dvc.gov.in	B. Pann
8	S. Nayak	AGM	NTPC-ER2	9437041581	snayak@ntpc.co.in	S. Nayak
9	SANTU KUMAR	D.IT	NTPC, T-V	9800003624	sanmyk1@mediat.com	SANTU KUMAR
10	HIRSHY D. BHUTIA	E. Eng.	ERP, D. Sikkim	9647879822	hirshydh@yahoo.in	HIRSHY D. BHUTIA
11	Sangay Wangyel	etc	THP/DGDC	4575-17702091	sangaywangyel@thp.com	Sangay Wangyel
12	A.K. Nayak	E. Eng.	MPL	9204958570	nayakak@tatapower.com	A.K. Nayak
13	Shripati Choudhary	Asst. Mgr.	ELC	9937244336	shripati_choudhary@yahoo.com	Shripati Choudhary
14	Zaved Khasani	Ch. Manager (O&M)	Powerlink	9474517446	zaved.khasani@tatapower.com	Zaved Khasani
15	A.S. GUSAIN	AGM-Engg	-do-	9818666223	Anand-gusain@tatapower.com	A.S. GUSAIN
16	Ripunjay Kumar	Asst. Manager	APMRL	9007098131	ripunjaykumar@adkumargroup.com	Ripunjay Kumar
17	Manoj K. Thakur	Sp. Engg	ERLDC	9432357832		Manoj K. Thakur
18	Anindam Chatterjee	NP	GMR Energy	7894471081	anindam.chatterjee@gmrgroup.in	Anindam Chatterjee
19	W. Mandal	AGM(E)	Gati Infra structure	8016082299	niladri.mandal@gatiinfra.com	W. Mandal
20	R.K. SHRI VASIA	Project Head	GIL	9800099100	rzatan.shrivastava@gatiinfra.com	R.K. SHRI VASIA

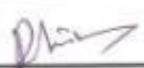
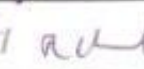
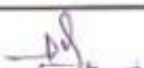
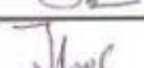
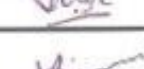
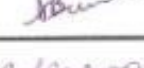
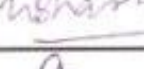
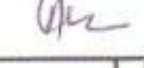


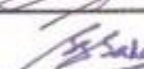
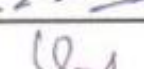

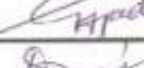

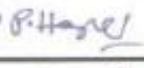


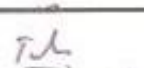
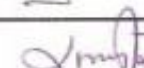
"Coming together is a beginning, staying together is progress, and working together is success." —Henry Ford

# Participants in 92<sup>nd</sup> OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 20.12.13 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
21	RANJAN BISWAS	Sr. Mgr./ALDC	DPL	9434735985	ranjan.biswas1@gmail.com	
22	RAHUL CHAKRAVARTY	DGM	CECL	98310-54619	rahul.chakraborty@cecl.co.in	
23	Pranab K. BASH	DGM(O)	KJPS WBPDCL	9432013369	pkloose@wbpdcl.co.in	
24	T. K. Dc	A. C F/ALDC	WBSECL	9433870748	kumar.tapan.de@gmail.com	
25	A. Biswas	C.E(O), SLDC HBSETCL	WBSETCL	9434910030	amitava.biswas22@gmail.com	
26	VV SHARMA	Gr. VP	JITPL	9873549664	Panv_sales@jindalgroup.com	
27	A. K. Singh	EE	JSEB	9973850288	cetromajseb@gmail.com	
28	RAJDEEP BHATTACHARJEE	RESIDENT ENGINEER	BSP(H)CL	9830380689	rajdeep.bspcl@gmail.com	
29	D. Sankar	Dy. CEO (T&O)	Indian Railways	9002020312	—	
30	S. K. SAHA	SSE	E. Railway	9002025315	sanjay.saha39@gmail.com	
31	V. Thyagarajan	EE	ERCI	1422012	—	
32	G. Rao	AEE	ERPL	—	—	
33	D. K. Bauri	EE	ERPC	9883610231	—	
34	P. Harshavardhan	Engr.	BOWERGRID	9434049232	02133@bowergrid.co.in	
35	S. P. BARNWAL	CM(SL)	ERLDC, POSOCO	9433041812	spbarnwal@gmail.com	
36	S. N. Ghosh	CM (ULDC)	PLCIL	9434740116	ngosh-11@yahoo.co.in	
37	T. R. Mohapatra	DM (E)	ERLDC	9433041673	tushar.mohapatra@gmail.com	
38	R. P. Singh	DGM (PS)	NTPC	9431011366	rp.singh.01@ntpc.co.in	
39	J. C. Pathe	AGM (O&M)	NTPC-Tatva	5437013671	—	
40	RAKESH KUMAR	AGM (OS)	NTPC-PATNA	9431011344	02038 kumar12@ntpc.co.in	

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# Participants in 92<sup>nd</sup> OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 20.12.13 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
41	NANGYAL TASHI	A.E/SUD	ESPD, SIKKIM	9475-997743	nangyaltashi@gmail.com	
42	Pelchuk Dema	S.OI	DGP/C	9751787244	Pelchuk74@yahoo.com	
43	A. Gangopadhyay Jr		NHPC	9932049436	abhishek372000@yahoo.co.in	
44	S.K. Chandrakar	mgr.	BRIDC	9433041800	Sanjeev.chandrakar@gmail.com	
45	P.K. Mishra	AGM	SLD, Odisha	9438907402	ek.pkmishra@slc.orissa.org.in	
46	P.K. Das	AGM	SEDC, Odisha	9438907408	prashanth.das@yahoo.co.in	
47	D. De.	DM	CESC	9163312742	debanjali.de@p-pg.in	
48	PREETAM DANERJEE	DE	WBSEDCL	9432140765	preetan72@gmail.com	
49	PRABIR HALDER	DGM (Eng)	WBPDCL	9432014803	phalder@wbpdcl.co.in	
50	N. G. Saha -	SM (PS)	"	9432015313	ngsaha@wbpdcl.co.in	
51	A. Reichardhvi	ACE/SLDC	WBSE TCL	9434910075	reichardhvi2017@gmail.com	
52	Madhusudan Saha	Mngr (elect)	GRIDCO	9692427876	gridco.elec@gmail.com	
53	N. Kher	L.O.	GRIDCO	943303543	Khermnmrthi4@gmail.com	
54	P. K. PATTANAIK	Manager	OPTCL	09438907492	ppk170.ppt@gmail.com	
55	B. SARKHEL	SE (PS)	ERPL	9433065724		
56						
57						
58						
59						
60						

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## Annexure-C.1

### Maintenance Programme of Generators for the Month of January, 2014 as per LGBR

SYSTEM	POWER STATION	Unit NO.	Effective Capacity	Maintenance Programme	Remarks	No.of Days
JSEB	PTPS	Unit No 10	110	01.01.2014 to 28.02.2014	Sch. Maintenance	59
DVC	CTPS	Unit No 1	130	15.01.2014 to 25.01.2014	Burner Replacement	10
		Unit No 2	130	01.01.2014 to 11.01.2014	Burner Replacement	10
WBDCL	STPS	Unit No 5	210	20.12.2013 to 25.01.2014	Capital O/H	35
	BTPS	Unit No 4	60	26.01.2014 to 30.01.2014	Boiler Licence	5
	KTPS	Unit No 4	210	28.12.2013 to 01.02.2014	Capital O/H	35
CESC	Budge-Budge TPS	Unit No 1	250	01.01.2014 to 15.01.2014	Boiler Insp + Turbine	15
OHPC	CHEP, Chipillima	Unit No 2		10.01.2014 to 31.01.2014	Annual Maint.	

**EASTERN REGIONAL LOAD DESPATCH CENTRE  
KOLKATA**

**TRANSMISSION ELEMENTS OUTAGE REQUSET APPROVED IN 92nd OCC MEETING OF ERPC**

S/D APPROVED IN OCC									
Sr.	NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S/D availed BY	Reason	SUBJECT TO CONSENT FROM AGENCY
1	400 kV Berhampore-Farakka	12/22/2013	9:00	12/22/2013	18:00	ODB	ER-II	CT ratio change from 1000/1 to 2000/1, relay setting revision, Isolator interlocking assembly changing	NLDC
2	80 Mvar BUS Reactor at Berhampore	12/22/2013	10:00	12/22/2013	16:00	ODB	ER-II	Painting of conservator tank, Isolator interlocking assembly changing etc.	NLDC
3	63MVAR L/R OF 400KV SSRM-BSF-I AT SSRM	12/23/2013	9:00	12/23/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT SSRM	
4	400KV Rourkela - Sundargarh Ckt.-I	12/23/2013	10:00	12/23/2013	14:00	ODB	ER-II	Numerical Relay retorfitting by M/s ABB	NLDC
5	400 kV Rourkela-Sundergarh#1 & 400 kV Rourkela-Sterlite#1	12/23/2013	7:00	12/23/2013	17:00	OCB	ER-II	Stringing work of 765 kV S/c Angul-Jharsuguda TL(line-II) between Loc.No. 852 & 853 of said 400kV.(Section:25/0-26/0=0.25Kms)	NLDC
6	400KV Rourkela - SEL Ckt.-I	12/23/2013	9:00	12/23/2013	17:00	ODB	ER-II	Numerical Relay retorfitting by M/s ABB, Replacement of Damaged Tension String Insulators at Loc. 841 & 862	NLDC
7	315MVA ICT-I at Jeypore	12/23/2013	9:00	12/23/2013	17:00	OCB	ER-II	OTI adaptation works under NTAMC project	OPTCL
8	63MVAR L/R OF 400KV SSRM-BSF-II AT SSRM	12/24/2013	9:00	12/24/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT SSRM	
9	400 kV Bus Reactor-II at Sundargarh	12/24/2013	8:00	12/24/2013	16:00	OCB	ER-II	For balance fire fighting work at Bus Reactor-II	
10	63 MVAR Bus Reactor at Jeypore	12/24/2013	9:00	12/24/2013	13:00	OCB	ER-II	OTI adaptation works under NTAMC project	
11	80 Mvar BUS Reactor at Berhampore	12/25/2013	10:00	12/25/2013	16:00	ODB	ER-II	Painting of conservator tank, Isolator interlocking assembly changing etc.	NLDC
12	400 kV Berhampore-Jeerat	12/25/2013	9:00	12/25/2013	18:00	ODB	ER-II	Isolator interlocking assembly changing, Cu strip changing	NLDC/WBSETCL
13	400 KV RNC - RNC CKT -1	12/25/2013	7:00	1/31/2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT. THE SAID LINE IS UNDER CONSTRUCTION & EXPECTED TO BE CHARGED BY 15.12.13	
14	400 KV PATNA - BALIA - 1	12/25/2013	7:00	1/31/2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT	NLDC/ONLY A/R SHUTDOWN TO BE CLEARED
15	400 KV KHLG - BANKA - 1	12/25/2013	7:00	1/31/2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT	Either 14 or 37, one sd will be allowed--- NLDC/Only A/R SHUTDOWN TO BE CLEARED FOR 7 DAYS AND FURTHER CLEARANCE WOULD BE ISSUED WEEKLY BASIS
16	220 KV ARA - KHAGAU D/C	12/25/2013	7:00	1/31/2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT	BIHAR
17	63MVAR L/R OF 400KV SSRM-ALLD AT SSRM	12/25/2013	9:00	12/25/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT SSRM	NLDC
18	400 kV Bus Reactor-I at Sundargarh	12/25/2013	8:00	12/28/2013	16:00	OCB	ER-II	For erection of rings of fire fighting system at Bus Reactor-I	
19	220 KV BIHARSHARIF - TENUGHAT	12/25/2013	7:00	12/26/2013	18:00	ODB	ER-I	FOR STRINGING OF 400 KVD/C BOKARO - KODERMA T/L BETWEEN TOWEWR NO. 15/0 & 16/0.	BIHAR/JHARKHANDA
20	220 KV PRN - DAL - 1	12/26/2013	8:00	12/26/2013	17:00	ODB	ER-I	FOR LINE MAINTENANCE WORK	
21	63MVAR L/R OF 400KV SSRM-SNT AT SSRM	12/26/2013	9:00	12/26/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT SSRM	NLDC
22	400 kV Rourkela-Sundergarh#2 & 400 kV Rourkela-Sterlite#2	12/26/2013	7:00	12/26/2013	17:00	OCB	ER-II	Stringing work of 765 kV S/c Angul-Jharsuguda TL(line-II) between Loc.No. 0297&0298 of said 400kV.(Section:23C/0-24/0=0.258Kms)	NLDC
23	400KV Maithon-KODERMA-I	12/26/2013	8:00	12/26/2013	17:00	ODB	ER-II	AMP	NLDC
24	315 MVA ICT - 2 AT RANCHI	12/27/2013	9:30	12/27/2013	17:30	ODB	ER-I	FOR CONSTRUCTION WORK OF 400 KV RNC - RNC TL(NEW).	JHARKHANDA
25	10MVA ICT-I AT 132KV SSRM S/S	12/27/2013	9:00	12/27/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC DIFFERENTIAL RELAY WITH NUMERICAL DIFFERENTIAL RELAYAT SSRM	BIHAR
26	400 KV New Siliguri-New Purnea CKT-III & IV	12/27/2013	8:00	12/29/2013	17:00	ODB	ER-II	For Re-conductoring of NSLG-NPRN CKT-I in the section 159-163	NLDC
27	220KV Budhipadar - Korba Ckt.-III	12/27/2013	9:00	12/27/2013	17:00	ODB	ER-II	Numerical Relay retorfitting by M/s ALSTOM	NLDC/OPTCL

28	400KV Maithon-KODERMA-II	12/27/2013	8:00	12/27/2013	17:00	ODB	ER-II	AMP	NLDC
29	220 KV PRN - DAL - 2	12/28/2013	8:00	12/28/2013	17:00	ODB	ER-I	FOR LINE MAINTENANCE WORK	
30	10MVA ICT-II AT 132KV SSRM S/S	12/28/2013	9:00	12/28/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC DIFFERENTIAL RELAY WITH NUMERICAL DIFFERENTIAL RELAYAT SSRM	BIHAR
31	400KV SEL - Raigarh Ckt.-I	12/28/2013	9:00	12/28/2013	17:00	ODB	ER-II	For Replacement of Damaged Tension String Insulators at Loc. 742	NLDC
32	220KV Maithon-KALYANESHWARI-I	12/28/2013	8:00	12/28/2013	17:00	ODB	ER-II	AMP of bay equipment	DVC
33	220 KV TRANSFER BUS AT PRN S/S	12/30/2013	9:00	12/30/2013	17:00	ODB	ER-I	AMP WORK	
34	EAST SIDE HVDC CONVERTOR TRANSFORMER AT SSRM	12/30/2013	9:00	12/30/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC DIFFERENTIAL RELAY WITH NUMERICAL DIFFERENTIAL RELAYAT SSRM(DURING S/D PERIOD HVDC TO BE MADE OFF.POWERFLOW WILL CONTINUE THROUGH AC BY PASS MODE)	NLDC
35	400KV SEL - Raigarh Ckt.-II	12/30/2013	9:00	12/30/2013	17:00	ODB	ER-II	To attend Hotspots at Loc. 299, 304, 307, 308, 311, 313, 317, 318, 321	NLDC
36	220KV Maithon-KALYANESHWARI-II	12/30/2013	8:00	12/30/2013	17:00	ODB	ER-II	AMP of bay equipment	DVC
37	NORTH SIDE HVDC CONVERTOR TRANSFORMER AT SSRM	12/31/2013	9:00	12/31/2013	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC DIFFERENTIAL RELAY WITH NUMERICAL DIFFERENTIAL RELAYAT SSRM(DURING S/D PERIOD HVDC TO BE MADE OFF.POWERFLOW WILL CONTINUE THROUGH AC BY PASS MODE)	NLDC
38	400 KV TEESTA - BINAGURI - I	1/1/2014	8:00	1/31/2014	18:00	OCB	ER-II	OPGW STRINGING WORK	TEESTA
39	A/R OF 400 KV ROURKELA - SUNDERGARH -	1/1/2014	9:00	1/31/2014	19:00	OCB	ER-II	OPGW STRINGING WORK	NLDC
40	A/R OF MALDA - PURNEA	1/1/2014	9:00	1/31/2014	19:00	OCB	ER-II	OPGW STRINGING WORK	NLDC
41	A/R OF BOLANGIR - ANUGUL	1/1/2014	9:00	1/31/2014	19:00	OCB	ER-II	OPGW STRINGING WORK	NLDC
42	400 KV KHLG - BARH - 1	1/1/2014	7:00	1/31/2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT	Either 14 or 37, one sd will be allowed--- NLDC/Only A/R SHUTDOWN TO BE CLEARED FOR 7 DAYS AND FURTHER CLEARANCE WOULD BE ISSUED WEEKLY BASIS
43	400kV New Siliguri Purnea-I	1/1/2014	0:00	1/31/2014	0:00	OCB	ER-II	For Reconductoring Works	NLDC
44	220 KV Subhasgram (PG) – EMSS (CESC) # 1	1/1/2014	6:00	1/22/2014	16:00	OCB	WBSETCL	Conductor strengthening work	
45	220 KV Dalkhola-Malda-I & II	1/2/2014	8:00	1/4/2014	18:00	ODB	ER-II	For Re-conductoring of NSLG-NPRN CKT-I in the section 045-047 & Retrofitting of CT under ADDCAP	
46	400 kV Rourkela-Sundergarh-Raigarh#I	1/2/2014	8:00	1/3/2014	16:00	OCB	ER-II	For cheking remote operation of ISO and attending punch point	NLDC
47	400 KV TALCHER - GMR	1/2/2014	9:00	1/4/2014	17:00	OCB	NTPC	AMC WORK	NLDC/OPTCL
48	At BktPP : 400 KV Main Bus-I	1/2/2014	7:00	1/2/2014	15:00		WBSETCL	Mnt. Work	
49	50 MVAR B/R-I AT BSF S/S	1/3/2014	9:00	1/3/2014	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT BSF	
50	315 MVA ICT#1 at Durgapur	1/3/2014	9:30	1/3/2014	17:30	ODB	ER-II	Retrofitting of Isolator	WBSETCL
51	400KV Rourkela - Jamshedpur - I & L/R	1/3/2014	10:00	1/3/2014	14:00	ODB	ER-II	Numerical Backup Impedance Relay retorfiting by M/s ABB	
52	At Durgapur (WB) : 400 KV Bus Reactor	1/3/2014	7:00	1/3/2014	15:00		WBSETCL	Mnt. Work	
53	50 MVAR B/R AT BSF S/S	1/4/2014	10:00	1/4/2014	12:00	ODB	ER-I	AMP WORK	
54	50 MVAR L/R-I OF 400KV KHLG-BSF-I AT BSF S/S	1/4/2014	9:00	1/4/2014	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT BSF(LINE WLLBE OUT FOR 5 MINUTE EACH AT THE TIME OF TAKING & RETURNING S/D.)	
55	400KV Rourkela - Jamshedpur - II & L/R	1/4/2014	10:00	1/4/2014	14:00	ODB	ER-II	Numerical Backup Impedance Relay retorfiting by M/s ABB	
56	400 KV Arambag – Durgapur ckt.	1/4/2014	7:00	1/4/2014	15:00		WBSETCL	Mnt. Work	
57	At BktPP : 400 KV Main Bus-II	1/4/2014	7:00	1/4/2014	15:00		WBSETCL	Mnt. Work	
58	400 kV Rourkela-Sundergarh-Raigarh#II	1/5/2014	8:00	1/6/2014	16:00	OCB	ER-II	For cheking remote operation of ISO and attending punch point	NLDC
59	At Jeerat : 400/220 KV, 315 MVA Tr-3	1/5/2014	7:00	1/5/2014	15:00		WBSETCL	Mnt. Work	
60	400 KV Durgapur (WB) – Parulia (PG) S/C tie	1/5/2014	7:00	1/5/2014	15:00		WBSETCL	Mnt. Work	
61	50 MVAR L/R-II OF 400KV KHLG-BSF-II AT BSF S/S	1/6/2014	9:00	1/6/2014	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT BSF(LINE WLLBE OUT FOR 5 MINUTE EACH AT THE TIME OF TAKING & RETURNING S/D.)	
62	125 MVAR BUS REACTOR-I at Angul	1/6/2014	9:00	1/11/2014	17:00	OCB	ER-II	Replacement of corona shield of Bushing	
63	315 MVA ICT#1 at Durgapur	1/6/2014	9:30	1/6/2014	17:30	ODB	ER-II	Retrofitting of Isolator	WBSETCL
64	400 kV Berhampore-Jeerat	1/6/2014	6:00	1/6/2014	17:00	ODB	ER-II	LA / CVT Replacement	NLDC
65	315MVA ICT-II at Jeypore	1/6/2014	8:00	1/9/2014	13:00	OCB	ER-II	OLTc tap head cover replacement works for rectifying the problem of main tank oil mixing with OLTc-Y phase of ICT-II & Remote OTI installation works(NTAMC)	OPTCL

66	132 KV Dalkhola (WB) – Kishanganj (BSEB) ckt.	1/6/2014	7:00	1/6/2014	15:00		WBSETCL	Mnt. Work	
67	At KTHPP : 400/220 KV, 315 MVA IBT # 1	1/6/2014	7:00	1/8/2014	15:00		WBSETCL	Mnt. Work	
68	At BkTHPP : 400/220 KV, 315 MVA IBT # 1	1/6/2014	7:00	1/11/2014	15:00	ODB	WBSETCL	Mnt. Work	
69	400 KV RNC - SIPAT - I	1/6/2014	9:30	1/6/2014	15:30	ODB	ER-I	FOR COMMISSIONING TESTING OF CSD	NLDC
70	400 KV Berhampore-Jeerat	1/6/2014	7:00	1/6/2014	15:00		WBSETCL	Mnt. Work	NLDC
71	400 KV RNC-MTN(RB) - I & II	1/7/2014	10:00	1/7/2014	15:00	ODB	ER-I	FOR MEASUREMENT OF R & X OF THE LINE FOR SETTING OF ACTUAL PARAMETER IN THE DISTANCE PROTECTION RELAY	MPL
72	400 KV JSR - TISCO(DVC)	1/7/2014	8:00	1/7/2014	17:00	ODB	ER-I	FOR RECTIFICATION OF INSULATOR BROKEN BY MISCREANTS .	NLDC
73	315 MVA ICT - I AT PTN	1/7/2014	9:00	1/7/2014	17:00	ODB	ER-I	FOR CONSTN. WORKS OF 400 KV PATNA - KISHANGANJ TL(NEW).	BIHAR
74	400KV Rourkela - Sundargarh Ckt.-I	1/7/2014	10:00	1/7/2014	14:00	ODB	ER-II	Numerical Backup Impedence Relay retrofitting by M/s ABB	NLDC
75	400 KV FARAKKA - KAHALGAON - III	1/7/2014	9:30	1/7/2014	17:30	ODB	NTPC	PM & RELAY TESTING	NLDC
76	400 KV Durgapur – PPSP # 2	1/7/2014	7:00	1/7/2014	15:00		WBSETCL	Mnt. Work	
77	220 KV Dalkhola (WB) – Dalkhola (PG) # 1	1/7/2014	7:00	1/7/2014	15:00		WBSETCL	Mnt. Work	
78	At BkTHPP : 400 KV Main Bus-I	1/7/2014	7:00	1/7/2014	15:00		WBSETCL	Mnt. Work	
79	400KV Maithon-KODERMA-I & II	1/8/2014	10:00	1/8/2014	15:00	ODB	ER-I	FOR MEASUREMENT OF R & X OF THE LINE FOR SETTING OF ACTUAL PARAMETER IN THE DISTANCE PROTECTION RELAY	NLDC
80	315 MVA ICT - II AT PTN	1/8/2014	9:00	1/8/2014	17:00	ODB	ER-I	FOR CONSTN. WORKS OF 400 KV PATNA - KISHANGANJ TL(NEW).	BIHAR
81	220KV Durgapur-WBSEB #2	1/8/2014	9:30	1/8/2014	17:30	ODB	ER-II	Retrofitting of Isolator	WBSETCL
82	50MVA ICT-IV at Malda	1/8/2014	8:00	1/8/2014	18:00	ODB	ER-II	AMP of ICT alongwith bay equipments.	WBSETCL
83	400 KV TALCHER - MERAMUNDALI - II	1/8/2014	9:00	1/10/2014	17:00	OCB	NTPC	AMC WORK	NLDC
84	400 KV Durgapur – PPSP # 1	1/8/2014	7:00	1/8/2014	15:00		WBSETCL	Mnt. Work	
85	220 KV Dalkhola (WB) – Dalkhola (PG) # 2	1/8/2014	7:00	1/8/2014	15:00		WBSETCL	Mnt. Work	
86	400 KV BIHARSARIFF - SASARAM- I & II	1/9/2014	8:00	1/11/2014	18:00	ODB	ER-II	FOR STRINGING WORK OF 400 KV SASARAM - DALTENGANJ LINE BET LOC 4/0 - 5/0.	NLDC
87	400 KV TISCO(DVC) - BARIPADA	1/9/2014	8:00	1/9/2014	17:00	ODB	ER-I	FOR RECTIFICATION OF INSULATOR BROKEN BY MISCREANTS .	NLDC
88	50 MVAR B/R-I AT JSR S/S	1/9/2014	9:00	1/9/2014	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT JSR	
89	220 KV PTN - KHAGAIL	1/9/2014	9:30	1/9/2014	13:30	ODB	ER-I	AMP WORK	BIHAR
90	132 KV Malda (WB) – Malda (PG) # 1	1/9/2014	7:00	1/9/2014	15:00		WBSETCL	Mnt. Work	
91	At BkTHPP : 400 KV Main Bus-2	1/9/2014	7:00	1/9/2014	15:00		WBSETCL	Mnt. Work	
92	At Arambag : 400 KV Bay of KTHPP ckt.	1/9/2014	7:00	1/9/2014	15:00		WBSETCL	Mnt. Work	
93	315 MVA ICT - II AT NPRN	1/10/2014	10:00	1/10/2014	16:00	ODB	ER-I	AMP WORK	BIHAR
94	400 KV RNC - SIPAT - II	1/10/2014	9:30	1/10/2014	15:30	ODB	ER-I	FOR COMMISSIONING TESTING OF CSD	NLDC
95	50 MVAR B/R-II AT JSR S/S	1/10/2014	9:00	1/10/2014	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC BACK UP IMPEDANCE RELAY WITH NUMERICAL BACK UP IMPEDANCE RELAY AT JSR	
96	220 KV PTN - FATUHA	1/10/2014	9:30	1/10/2014	13:30	ODB	ER-I	AMP WORK	BIHAR
97	315MVA ICT-V at Malda	1/10/2014	8:00	1/10/2014	17:00	ODB	ER-II	AMP	WBSETCL
98	315MVA 400/220KV ICT-I at Rourkela	1/10/2014	9:00	1/10/2014	17:00	ODB	ER-II	AMP	OPTCL
99	80MVAR Reactor at Jeypore	1/10/2014	9:00	1/10/2014	12:00	OCB	ER-II	OTI adaptation works under NTAMC project	
100	220 KV Durgapur (WB) – Parulia (PG) S/C tie	1/10/2014	7:00	1/10/2014	15:00		WBSETCL	Mnt. Work	
101	At Arambag : 400 KV Bay of BkTHPP ckt.	1/10/2014	7:00	1/10/2014	15:00		WBSETCL	Mnt. Work	
102	132 KV Birpara (WB) – Birpara (PG) # 1	1/10/2014	6:00	1/12/2014	15:00	OCB	WBSETCL	Conductor strengthening work	
103	400 kv Indravati-Rengali	1/11/2014	10:00	1/11/2014	16:00	ODB	ER-II	INSTALLATION OF OTI UNDER NTAMC PROJECT	NLDC
104	220KV Durgapur-WBSEB #2	1/11/2014	9:30	1/11/2014	17:30	ODB	ER-II	Retrofitting of Isolator	WBSETCL
105	315MVA 400/220KV ICT-II at Rourkela	1/11/2014	9:00	1/11/2014	17:00	ODB	ER-II	AMP	OPTCL
106	At Durgapur (WB) : 400/220 KV, 315 MVA ICT # 1	1/11/2014	7:00	1/11/2014	15:00		WBSETCL	Mnt. Work	
107	400 KV JSR - BARIPADA	1/12/2014	8:00	1/12/2014	17:00	ODB	ER-I	FOR RECTIFICATION OF INSULATOR BROKEN BY MISCREANTS .	NLDC
108	400 KV Jeerat-BkTHPP S/C line	1/12/2014	7:00	1/12/2014	15:00		WBSETCL	Mnt. Work	

109	315 MVA ICT-I at NPRN	1/13/2014	9:00	1/13/2014	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC DIFFERENTIAL RELAY WITH NUMERICAL DIFFERENTIAL RELAYAT NPRN	BIHAR
110	220 KV MAIN BUS - I AT PRN S/S	1/13/2014	9:00	1/13/2014	17:00	ODB	ER-I	AMP WORK	BIHAR
111	400 kV MERAMUNDALLI- ANGUL-JITPL	1/13/2014	9:00	1/14/2014	17:00	ODB	ER-II	Beam extension for Monnet bay	NLDC/OPTCL
112	132 KV Birpara (WB) – Birpara (PG) # 2	1/13/2014	7:00	1/15/2014	15:00	OCB	WBSETCL	Conductor strengthening work	
113	At BkTTP : 400/220 KV, 315 MVA IBT # 2	1/13/2014	7:00	1/18/2014	15:00		WBSETCL	Mnt. Work	
114	400KV Rourkela - SEL Ckt.-I	1/14/2014	10:00	1/14/2014	14:00	ODB	ER-II	Numerical Backup Impedence Relay retorfiting by M/s ABB	NLDC
115	100 MVA ICT-III AT PRN	1/14/2014	9:00	1/14/2014	19:00	ODB	ER-I	FOR RETROFITTING OF STATIC DIFFERENTIAL RELAY WITH NUMERICAL DIFFERENTIAL RELAYAT PRN	BIHAR
116	400 kV Farakka Durgapur #1	1/14/2014	9:00	1/14/2014	17:00	ODB	ER-II	Rectification of Power Clearance	
117	400/220 KV ICT - I AT TALCHER	1/14/2014	9:00	1/17/2014	17:00	OCB	NTPC	AMC WORK	OPTCL
118	At Durgapur (WB) : 400 KV Bus coupler bay	1/14/2014	7:00	1/14/2014	15:00		WBSETCL	Mnt. Work	
119	At Arambag : 400 KV Main Bus-II & 400/220 KV, 315 MVA Tr-2	1/14/2014	7:00	1/14/2014	15:00		WBSETCL	Mnt. Work	
120	At BkTTP : 400 KV Main Bus-1	1/14/2014	7:00	1/14/2014	15:00		WBSETCL	Mnt. Work	
121	50 MVAR Bus Reactor at Jeerat	1/15/2014	9:00	1/15/2014	17:00	ODB	ER-II	AMP / SFRA	WBSETCL
122	At Arambag : 400 KV Main Bus-II & 400/220 KV, 315 MVA Tr-3	1/15/2014	7:00	1/15/2014	15:00		WBSETCL	Mnt. Work	
123	132 KV Malda (WB) – Malda (PG) # 2	1/15/2014	7:00	1/16/2014	15:00		WBSETCL	Mnt. Work	
124	220 KV MAIN BUS - II AT PRN S/S	1/16/2014	9:00	1/16/2014	17:00	ODB	ER-I	AMP WORK	BIHAR
125	125 MVAR BUS REACTOR-I AT PATNA	1/16/2014	9:00	1/16/2014	17:00	ODB	ER-I	CONSTN. WORKS FOR TIE BAY ERECTION OF 400 KV PTN - KISHANGANJ LINE - II	
126	765KV GAYA-FATEHPUR	1/16/2014	8:00	1/18/2014	15:00	OCB	ER-I	FOR COMMISSIONING OF 765 KV SPARE REACTOR AT GAYA	NLDC
127	50MVAR 400KV Bus Reactor at Rourkela	1/16/2014	9:00	1/16/2014	17:00	ODB	ER-II	AMP	
128	400 KV FARAKKA - KAHALGAON - IV	1/16/2014	9:30	1/16/2014	16:30	ODB	NTPC	PM & RELAY TESTING	NLDC
129	At Arambag : 400 KV Main Bus-2	1/16/2014	7:00	1/16/2014	15:00		WBSETCL	Mnt. Work	
130	At Durgapur : 400 KV Transfer Bus	1/16/2014	7:00	1/16/2014	15:00		WBSETCL	Mnt. Work	
131	220 KV PRN - NPRN - II	1/17/2014	9:00	1/17/2014	17:00	ODB	ER-I	AMP WORK	BIHAR
132	400 kV Farakka Durgapur #2	1/17/2014	9:00	1/17/2014	17:00	ODB	ER-II	Rectification of Power Clearance	
133	ICT#1 at Subhasgram	1/17/2014	9:00	1/17/2014	17:00	ODB	ER-II	OTI Retrofitting under NTAMC Project	WBSETCL
134	At BkTTP : 400 KV Main Bus-2	1/17/2014	7:00	1/17/2014	15:00		WBSETCL	Mnt. Work	
135	400 KV SgTTP – Farakka (PG) ckt.	1/17/2014	7:00	1/17/2014	15:00		WBSETCL	Mnt. Work	
136	125 MVAR BUS REACTOR - II AT PATNA	1/20/2014	9:00	1/20/2014	17:00	ODB	ER-I	CONSTN. WORKS FOR TIE BAY ERECTION OF 400 KV PTN - KISHANGANJ LINE - II	
137	400 kV MERAMUNDALLI- ANGUL-JITPL	1/20/2014	9:00	1/20/2014	17:00	ODB	ER-II	For Tie Bay charging	NLDC/OPTCL
138	220 KV Malbase-Birpara TL	1/20/2014	9:00	1/20/2014	17:00	ODB	ER-II	AMP	NLDC
139	400/132 KV ICT - II AT BARH	1/20/2014	9:00	1/22/2014	17:00	ODB	NTPC	PM & RELAY TESTING	
140	At BkTTP : 400 KV Main Bus-1	1/20/2014	7:00	1/20/2014	15:00		WBSETCL	Mnt. Work	
141	160MVA ICT #1 at Baripada	1/21/2014	9:00	1/21/2014	17:00	ODB	ER-II	AMP of ICT	OPTCL
142	132 KV KHAHALGAON - SABOUR	1/21/2014	9:30	1/21/2014	17:30	ODB	NTPC	PM & RELAY TESTING	BIHAR
143	At SgTTP : 400/220 KV 315 MVA ICT	1/21/2014	7:00	1/21/2014	15:00		WBSETCL	Mnt. Work	
144	132 KV MAIN BUS AT PRN S/S	1/22/2014	9:00	1/22/2014	17:00	ODB	ER-I	AMP WORK	BIHAR
145	400KV MALDA- FARAKKA-II	1/22/2014	8:00	1/22/2014	18:00	ODB	ER-II	For Numerical Relay retrofitting at Farakka end (LZ96 to be replaced)	NLDC
146	At BkTTP : 400 KV Main Bus-2	1/22/2014	7:00	1/22/2014	15:00		WBSETCL	Mnt. Work	
147	400 KV JSR - RKL - I	1/23/2014	8:00	1/23/2014	17:00	ODB	ER-I	FOR RECTIFICATION OF INSULATOR BROKEN BY MISCREANTS .	
148	220 KV Subhasgram (PG) – EMSS (CESC) # 2	1/23/2014	6:00	1/31/2014	15:00	OCB	WBSETCL	Conductor strengthening work	
149	400KV Baripada-Mendhasal-2 Reactor	1/24/2014	6:00	1/24/2014	18:00	ODB	ER-II	AMP of Bay equipments & reactor	OPTCL
150	400 KV Jeerat (WB) – Subhasgram (PG) ckt.	1/26/2014	7:00	1/26/2014	15:00		WBSETCL	Mnt. Work	
151	63 MVAR MUZ - I L/R AT NPRN	1/27/2014	10:00	1/27/2014	12:00	ODB	ER-I	AMP WORK	
152	400/220 KV ICT - II AT TALCHER	1/28/2014	9:00	1/31/2014	17:00	OCB	NTPC	AMC WORK	OPTCL
153	At Arambag : 400 KV Main Bus-1 & Arambag-KTTP	1/28/2014	7:00	1/28/2014	15:00		WBSETCL	Mnt. Work	
154	At Arambag : 400 KV Main Bus-1 & 400/220 KV 315 MVA Tr-2	1/29/2014	7:00	1/29/2014	15:00		WBSETCL	Mnt. Work	
155	At Arambag : 400 KV Main Bus-1 & 400 KV Arambag – BKTTP ckt.	1/30/2014	7:00	1/30/2014	15:00	ODB	WBSETCL	Mnt. Work	

## Annexure-C.2

Anticipated Power Supply Position for the month of  
Jan-14

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
1	<b>BIHAR</b>		
	i) NET MAX DEMAND	2490	1275
	ii) NET POWER AVAILABILITY- Own Source	265	182
	- Central Sector	1486	821
	iii) SURPLUS(+)/DEFICIT(-)	-740	-272
2	<b>JHARKHAND</b>		
	i) NET MAX DEMAND	1220	725
	ii) NET POWER AVAILABILITY- Own Source	534	291
	- Central Sector	612	365
	iii) SURPLUS(+)/DEFICIT(-)	-73	-69
3	<b>DVC</b>		
	i) NET MAX DEMAND (OWN)	2755	1710
	ii) NET POWER AVAILABILITY- Own Source	5251	3255
	- Central Sector	432	302
	Long term Bi-lateral (Export)	1400	1041
	iii) SURPLUS(+)/DEFICIT(-)	1528	806
4	<b>ORISSA</b>		
	i) NET MAX DEMAND	3350	1900
	ii) NET POWER AVAILABILITY- Own Source	2718	1619
	- Central Sector	1051	626
	iii) SURPLUS(+)/DEFICIT(-)	419	345
5	<b>WEST BENGAL</b>		
5.1	<b>WBSEDCL</b>		
	i) NET MAX DEMAND (OWN)	4750	2535
	ii) CESC's DRAWAL	583	88
	iii) TOTAL WBSEDCL's DEMAND	5333	2623
	iv) NET POWER AVAILABILITY- Own Source	3750	2277
	- Import from DPL	0	35
	- Central Sector	3264	2144
	v) SURPLUS(+)/DEFICIT(-)	1681	1833
5.2	<b>DPL</b>		
	i) NET MAX DEMAND	300	187
	ii) NET POWER AVAILABILITY	300	222
	iii) SURPLUS(+)/DEFICIT(-)	0	35
5.3	<b>CESC</b>		
	i) NET MAX DEMAND	1423	678
	ii) NET POWER AVAILABILITY - OWN SOURCE	840	590
	FROM WBSEDCL	583	88
	iii) TOTAL AVAILABILITY	1423	678
	iv) SURPLUS(+)/DEFICIT(-)	0	0
6	<b>WEST BENGAL (WBSEDCL+DPL+CESC)</b> (excluding DVC's supply to WBSEDCL's command area)		
	i) NET MAX DEMAND	6473	3400
	ii) NET POWER AVAILABILITY- Own Source	4889	3089
	- Central Sector	3264	2144
	iii) SURPLUS(+)/DEFICIT(-)	1680	1833
7	<b>SIKKIM</b>		
	i) NET MAX DEMAND	90	30
	ii) NET POWER AVAILABILITY- Own Source	16	5
	- Central Sector	107	52
	iii) SURPLUS(+)/DEFICIT(-)	33	27
8	<b>EASTERN REGION</b> At 1.03 AS DIVERSITY FACTOR		
	i) NET MAX DEMAND	15901	9040
	Long term Bi-lateral	1400	1041
	ii) NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	18666	11711
	iii) PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	2765	2671

## Annexure-D5

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

SL no	Name of Utility	kV	Name station of	Reason for not reporting	Status as on 25.10.2013
1	DVC	220	220 KV CTPS – B ( 2 x 250 MW)	Except GT MW & line flow no data available	DVC informed that it will be rectified during up gradation of SCADA scheme and will be completed by March, 2014.  Same status. Also UNIT MVAR are coming wrong.
2		400	DSTPS	Data updation again interrupted due to communication problem.	
3		400	Mejia –B	Bus -1 KV/HZ not available.	

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	Status as on 25.10.2013
1	NTPC	400	400 kV Farakka : (3x 200 + 2 x 500 MW)	MW, MVAR of primary (LV) side of All GT is not available.	NTPC agreed to make available these data by March, 2014.  Unit 1 to 6 signals up to RTU signal wire completed and Waiting for ULDC RTU vendors for termination to Alstom S-900 RTU .Further Unit - 7 will done during opportunity S/D as informed by NTPC
		400	400 kV Kahalgaon STPS : ( 4X 210 + 3X 500 MW) primary (LV) side of GT is not available.	MW, MVAR o primary (LV) side of All GT is not available.	
2	OPTCL	220	220 KV Vedanta ( 9 x 135 MW)	No status points are available.	OPTCL informed Vedanta has taken up the matter with ABB and the problem will be resolved by December, 2013.
3	WBSETCL	220	DPL	Unit -7 data never reported to SLDC.	WBSETCL informed that order has been placed to Powergrid.

The updated status of telemetry of BSEB Sub-Stations is as given below:

S/n	Name of RTU locations	BSPHCL action plan for RTU supplied during ULDC project and restoration by June 2013
1	Khagaul RTU	Powergrid informed that, integration of RTUs through GPRS scheme will be implemented by end of Sep, 2013 on receipt of advance amount of around Rs. 6 Lakhs from BSPHCL.
2	Koshi	
3	Purnea	
4	Kamarnasa	
5	Barauni TPS	
6	Dehri	The PLCC panels of Pasauli(PG) have been shifted to Gaya (PG)

		and Dehri-Bodhgaya link made operational. In addition BSPTCL requested Powergrid for OPGW rectification of Biharshariff-Bhodgaya. Powergrid informed that, OPGW will be restored by 30-09-2013.
7	Sultanganj	RTU is reporting to SLDC.

The updated status of telemetry of JSEB Sub-Stations is as given below:

S/n	Name of RTU Locations	JSEB action plan for RTU supplied during ULDC project and restoration.
1	Ramchadrapur RTU	JSEB informed that there is problem in PLCC link between Chandil – Ramchadrapur. AMC to M/s PUNCOM for PLCC link will be placed within 2-3 days.
2	Jamtara RTU	JSEB informed that, RTU has been shifted to new control room and requested Powergrid to reintegrate the feeders in RTU as integration of additional feeder (new element) in the existing RTU. Work order is to be placed to POWERGRID for which file is under process. Powergrid informed that, implementation of the same will be initiated on receipt of advance amount from JSEB.
3	Deoghar RTU	JSEB informed that RTU will report after rectification of Deoghar –Jamtara PLCC link. AMC to M/s PUNCOM for PLCC link will be placed within 2-3 days.
4	Garwarah RTU ,	JSEB informed that RTU may report after it get connected from Ranchi end through Hatia-Loherdaga-Latehar- Daltanganj – Garwah transmission line.
5	Patartu RTU	JSEB informed that, reporting of RTU is frequently interrupted because of frequent damages in UGFO. POWERTEL looking after the maintenance of this link. It was informed that UGFO link is damaged at 2-3 points within one Km. span and POWERTEL has been hanged on 11 kV pole in the effected portion for restoration of the link. JSEB informed that, SLDC getting data however, ERLDC informed that, they are not getting data.
6	Tenughat RTU	JSEB informed that, PLCC link could not be made up even after replacement of co-axial cable. There may be problem in LMU/LMDU, the replacement of which requires shutdown of PTPS-TTPS line. Due to break down of 220 kV TTPS-B'shariff line shutdown is not being allowed. JSEB informed that, replacement of LMU/LMDU could be done in 5 days after the restoration of 220 kV TTPS-B'shariff line.

The updated status of telemetry of Sikkim is as given below:

S/n	Name of RTU Locations	SIKKIM action plan for RTU supplied during ULDC project and restoration.
1	Melli 132 KV	Powergrid informed that RTUs are under manufacturing and will be completed by Nov, 2013.

The updated status of telemetry of OPTCL Sub-Stations is as given below:

S/n	Name of RTU Locations	OPTCL action plan for RTU supplied during ULDC project and restoration by June 2013.
1	Nalco	Work has been awarded and wiring is in progress. RTU will be commissioned by January, 2014.
2	Machkund HPS	OPTCL informed that RTU will be commissioned by end of September, 2013.

## 1. Non Availability of SCADA data from critical sub-stations

### New IPP

- I. Chuzachen HPS: Gati's gateway is not configured as per ERLDC guideline. Data fails daily. Data are highly intermittent since connectivity with grid. Data updation is not proper. No stand by channel provided for data reporting. SOE of Chuzachen SAS and their S/s are not matching.
  - II. Maithon Right Bank Power Ltd.: Unit & GT Data is not proper updating at ERLDC. Generation voltage, SOE, OLTC tap position, protection signals yet to be made available to ERLDC Kolkata also gateway at MPL end yet to be configure for dual reporting. At present maithon right bank data is not available since 01-Oct-2013. Target date extended up to 30<sup>th</sup> Dec 2013.
  - III. Mejia 'B' TPS:- 400 KV Bus -1 KV, HZ not available.
  - IV. DSTPS (Andal):- Data updation again not stable due to communication problem. UNIT MVAR are coming wrong.
  - V. NTPC Barh:- Data available except 80 MVAR bus reactor & Voice facility is not available. Unit data ( LV) site yet to make available to ERLDC .
  - VI. JITPL( Angul) : No real time data / express voice communication are available to ERLDC.
- A. Pending issue**
- I. NHPC Rangit :  
No measurands are available for Gangtok 132 KV feeder.
  - II. Sasaram(NEW) 765 KV Bus 2 HZ, Fathepur line MW, MVAR, and Line reactor MVAR , 765KV bus reactor MVAR ,765/400KV ICT OLTC and MVAR are not available .
  - III. Baripada:- Voice communication not ok. Data reporting highly intermittent.
  - IV. Gaya 765 KV: Voice communication not provided.
  - V. Bidhanagar 400 Kv (W.B): No real time data is available.
  - VI. Kharagpur - 400 KV (WBSETCL). Baripada -Kharagpur-Kolaghat charged on 28/04/12. No real time data is available from Kharagpur.
  - VII. Subhasgram (WB) –No real time data available.
  - VIII. Farakka NTPC:  
Alstom attended the site jointly with NTPC on 03<sup>rd</sup> Dec 12 and rectified the CB points. Following SOE point are yet to rectified: Sagardighi line ,GT-2 & 3 CB, Station Transformer-III CB , Tie CB of Unit- IV status.220 KV Lalmatia line CB, ICT 400/220 KV LV site CB. Many isolators status also not available  
None of station transformers MW/MVAR, Unit Site LV Generations are available.
  - IX. Kahalgaon NTPC: Following CB SOE point are not coming to ERLDC 400 KV: Gen-1 & ICT-1 Tie , Gen-1 Main,Tie of Gen-2 & Reactor-1,Gen-3 Main,Gen-4 Main, Gen-5 Main, Gen-6 Main, .  
Following analog points are not coming to ERLDC:  
MW/MVAR of 132 KV: Stn Xformer -3,4 &5, Colony Xformer 1 & 2, Unit LV side Generation of all Unit.
  - X. Talcher NTPC :  
  
OLTC tap position of 400/220 KV ICT-I, II & 400/11 stn Xfmr are not available .Also Stn Xfmr (220/11 KV) MW/MVAR /OLTC Tap position are not available
  - XI. Lalmatia NTPC:  
Tap position of 220/132 KV ICT –I & 132 /11 KV Stn Xfmr -1 & 2 not available
  - XII. Lalmatia JSEB: MW / MVAR/ OLTC tap of 220/132 KV ICT –II not available
  - XIII. Jeypore: 400/220 KV ICT 1 MW and MVAR incorrect.
  - XIV. Mendhasal: 400 KV Baripda 1 & 2 line flow and Reactors data, Tap position of both 400 ICTs not available
  - XV. Meeramundali: Tap position of both 400 ICT are not available.
  - XVI. Jeerat: Tap position of 400/220 KV ICT#1 and ICT#2 , not available.

- XVII. Kolaghat: Tap position of both 400/220 KV ICT not available.
- XVIII. Indravati HPS: Main CB of ICT- II line not correct. ICT-I &II OLTC Tap positions not available.
- XIX. Jhasurguda 400: Data reporting is highly intermittent. No PUNCOM phones has been provided so far. **Data not reporting**
- XX. Angul 400: Bolangir & Meeramundali lines flows doesn't match.125 MVAR third bus reactor no values are available. No PUNCOM phones has been provided so far. **Data not reporting**
- XXI. Bolangir 400 : PUNCOM phone not working.
- XXII. Purnea 400: Data reporting highly intermittent. **OK**
- XXIII. Keonjhar 400 : Data reporting highly intermittent. No PUNCOM phones has been provided so far.