

## **Eastern Regional Power Committee**

### **Kolkata-33**

#### **Salient Decisions taken in 88<sup>th</sup> OCC meeting held on 20.08.13**

1. Members in principle agreed for retrofitting of pilot wire protection of 132 kV Purnea(PG)-Purnea(BSPHCL). OCC referred the issue to 24th commercial meeting scheduled to be held on 28th August, 2013 at ERPC, Kolkata for deliberation/information on cost estimation details. Further the issue would be placed in TCC/ERPC meeting for final approval.
2. OCC finalized the revised operating procedure with the comments available suitably considered.
3. The committee requested Powergrid to prepare a detail programme with complete list of sites where the tests for pollution mapping are to be carried out along with work-flow diagram. Powergrid agreed to place the details in next OCC for finalization of the procedure.
4. It was decided that all utilities will submit their Shutdown programme at the beginning of the month within five working days and on receipt of the same, ERLDC will compile and upload the programme in ERLDC website within three working days. Beyond this no further requisition will be entertained unless there is an emergency. This interim procedure will be followed till any new regulation or draft procedure for transmission outage planning is notified. OCC also advised all constituents to share the requisite data with ERPC Secretariat in time so that ERPC could bring out LGBR on transmission outage planning in line with IEGC from 14-15 onwards.
5. OCC advised to update the status on observations of "Third Party Protection Audit" on every 15 days.

### **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	OCC felt the need of identifying some radial feeders in each of the constituents system which can be disconnected at the direction of ERLDC to prevent overdrawal.	Most of the constituents placed the feeders detail except WBSETCL. ERLDC also identified constituent wise radial feeders which can be disconnected during emergencies. WBSETCL agreed in principle and informed that as the feeders identified by ERLDC is under WBSETCL control area, but load connected is under WBSEDCL control area. Confirmation will be placed in next OCC meeting after interaction with WBSEDCL.
3	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 179 stations out of 307; same for rest of the stations will be completed by 30 <sup>th</sup> November, 2013.  Powergrid informed that, survey for AMR completed in 65 stations out of 92; same for rest of the stations will be completed by 30 <sup>th</sup> November, 2013.
4	OCC decided to implement relief through operation of UFR in four stages with total load relief of 3320 MW as per CEA direction.	BSEB and CESC implemented. OCC requested all other constituents to implement the scheme immediately and give the feeder wise details.

## Minutes of 88<sup>th</sup> OCC Meeting held on 20<sup>th</sup> August, 2013 at ERPC, Kolkata

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

### **Item no. A.1: Confirmation of minutes of 87<sup>th</sup> OCC meeting of ERPC held on 23.07.13**

The minutes were circulated vide letter dated 01.08.13 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**

*ERLDC requested for writing the minute in Item No. B.17as follows:*

*“It was decided that all utilities will submit their Shutdown programme at the beginning of the month within five working days and on receipt of the same, ERLDC will compile and upload the programme in ERLDC website within three working days. Beyond this no further requisition will be entertained unless there is an emergency. This interim procedure will be followed till any new regulation or draft procedure for transmission outage planning is notified.”*

*Minutes of 87<sup>th</sup> OCC was confirmed with the above amendment.*

## **PART B**

### **Item no. B.1: Review of load relief under various stages of UFR**

In 87<sup>th</sup> OCC members in line with decision taken by NPC in its 2<sup>nd</sup> meeting, agreed to divide the UFR load relief into four stages with total amount of load relief of 3320 MW.

### **Apportionment of UFR actuated load shedding into four stages as agreed by the constituents**

Control Area	Stage –I (49.2 Hz) (MW)	Stage –II (49.0 Hz) (MW)	Stage–III (48.8Hz) (MW)	Stage–IV (48.6Hz) (MW)	Total Relief by Control Area
<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>

In 87<sup>th</sup> OCC, It was decided to implement the revised scheme within a month. All constituents agreed to give the feeder wise details within a month by next OCC.

Constituents may update the status in respective control area.

### **Deliberation in the meeting**

*BSEB informed that, the revised scheme has been implemented in their control area with total load relief of 440 MW against 397 MW and submitted the feeder wise details (enclosed at*

**Annexure-B.1.1).** CSEC also informed that the revised UFR load relief scheme has been implemented (feeder wise details enclosed at **Annexure-B.1.2**). WBSETCL, JSEB also informed that the feeder wise details will be submitted soon. OCC requested all other constituents to implement the scheme immediately and give the feeder wise details to ERLDC/ERPC. Members agreed to give within a week.

**Item no. B.2: Grid disturbances in NEW grid on 30<sup>th</sup> and 31<sup>st</sup> July 2012- recommendation of ERPC (Item No. B2 of 81<sup>st</sup> OCC meeting)**

In the 23<sup>rd</sup> ERPC meeting it was decided that:

- i. More islanding schemes should be planned in Eastern Region for ensuring adequate start up power during such large scale disturbance.

***Islanding Scheme of FSTPP, NTPC***

In line with decision taken in 86<sup>th</sup> OCC, a separate meeting was convened on 22<sup>nd</sup> July, 2013 at ERPC, Kolkata for finalization of the details for implementation of the scheme. The MOM of the meeting is circulated in the meeting.

Concerned members may update the status.

**Deliberation in the meeting**

*JSEB informed that action has already initiated from their end and assured to complete the implementation from their end by 31<sup>st</sup> December, 2013 in line with decision made in separate meeting on islanding scheme of FSTPP held on 22<sup>nd</sup> July, 2013. OCC advised JSEB to update their status to ERPC regularly.*

*NTPC informed that, implementation of the islanding scheme is in progress and it would complete within target date.*

*The OCC referred the issue to Commercial committee for informing the cost of implementation of the scheme.*

***Islanding Scheme of Tata Power, Haldia***

In 87<sup>th</sup> OCC, WBSETCL informed that vide letter dated 13.07.13 Tata Power communicated that the scheme will be completed by February, 2014. OCC advised WBSETCL to pursue the case with Tata Power, Haldia regular feedback to ERPC and referred the same to TCC/ERPC.

WBSETCL may update.

**Deliberation in the meeting**

*WBSETCL informed that, implementation is in progress as per the schedule.*

In 86<sup>th</sup> OCC meeting, DVC informed that, Islanding Scheme of DVC as a whole has been finalized from DVC end, but not yet authorized by DVC corporate office. The same would be done shortly.

DVC may update the status.

**Deliberation in the meeting**

*DVC informed that it is still under observance at corporate office.*

- ii. All concerned stakeholders should take immediate measures to ensure total 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.

In 87<sup>th</sup> OCC POWERGRID updated the following status of RTUs whose priority list was given:

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

SL no	Name of Utility	kV	Name of station	Reason for not reporting	Status as on 23-07-2013
1	WBPDC	400	Sagardighi TPS	RTU data is very intermittent Voltage data not available, MW and MVAR intermittent.	WBPDC informed ABB has been consulted and will be attending on 5-8 <sup>th</sup> August, 2013. It will be completed by next OCC.
1	DVC	220	220 KV CTPS – B ( 2 x 250 MW)	Except bus kV & Isolator status other data's are available.	RTU available. DVC agreed to look into it and will give the updated status within a week.
2		400	DSTPS	GT data is not updating properly.	DVC agreed to look into it and will give the updated status within a week
3		400	Mejia –B	Unit data not provided. Fine tuning required.	DVC agreed to look into it and will give the updated status within a week

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 23-07-2013
1	NTPC	400	400 kV Farakka : (3x 200 + 2 x 500 MW)	GT -3 MVAR not available.	NTPC informed that GT-3 MVAR will be made available during opportunity shut down.
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 will resolve the problem within 3 months.
3	WBSETCL	220	DPL	Unit -7 data never reported to SLDC.	WBSETCL informed they are looking on the matter. OCC advised WBSETCL/DPL to pursue the case urgently with a feedback before next OCC.

Members may update the status.

### **Deliberation in the meeting**

POWERGRID updated the following status of RTUs whose priority list was given:  
List of RTU supplied under ULDC Project but data is faulty/ intermittent:

SL no	Name of Utility	kV	Name of station	Reason for not reporting	Status as on 20-08-2013
1	WBPDC	400	Sagardighi TPS	RTU data is very intermittent Voltage data not available, MW and MVAR intermittent.	WBPDC informed that problem has been rectified. ERLDC informed that, RTU is reporting satisfactorily.
1	DVC	220	220 KV CTPS – B ( 2 x 250 MW)	Except bus kV & Isolator status other data's are available.	RTU available. DVC consulting vendors for rectification.
2		400	DSTPS	GT data is not updating properly.	
3		400	Mejia –B	Unit data not provided. Fine tuning required.	

*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 20-08-2013
1	NTPC	400	400 kV Farakka : (3x 200 + 2 x 500 MW)	GT -3 MVAR not available.	NTPC informed that respective transducer has been changed. The data will be available now.
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 will resolve the problem within 2 months.
3	WBSETCL	220	DPL	Unit -7 data never reported to SLDC.	WBSETCL informed that vendor has been finalized. OCC advised WBSETCL/DPL to pursue the case urgently with a feedback before next OCC.

#### **A. Non availability of Telemetry of BSEB Substation: -**

BSPHCL and Powergrid updated the station wise status 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	BSPHCL informed that, earlier it was expected that after getting OPGW link at Sirpara, BSPHCL could provide PLCC panel w.r.t. Khagaul GSS. But, plan did not finalize yet. So, BSPHCL is now planning for GPRS telemetry option.
2	Koshi	BSPHCL informed that, PGCIL is not in a position to provide OPGW on priority basis. Hence, PGCIL suggested resolving the issue with GPRS. BSPHCL requested PGCIL to submit the cost details which is awaited.
3	Purnea	BSPHCL informed that, PGCIL is not in a position to provide OPGW on priority basis. Hence, PGCIL suggested resolving the issue with GPRS. BSPHCL requested PGCIL to submit the cost details which is awaited.

4	Barauni TPS	BSPHCL required PDH MUX at BTPS from POWERGRID for RTU restoration. However, POWERGRID further informed that they don't have any spare PDH/MUX. BSPHCL is now working on shifting the PLCC panels of Pasauli(PG) to Gaya (PG) to make through the Dehri-Bodhgaya link. Expected to be completed by 30 <sup>th</sup> June, 2013.
5	Dehri	BSPHCL required PDH MUX at BTPS from POWERGRID for RTU restoration. However, POWERGRID further informed that they don't have any spare PDH/MUX. BSPHCL is now working on shifting the PLCC panels of Pasauli(PG) to Gaya (PG) to make through the Dehri-Bodhgaya link. Expected to be completed by 30 <sup>th</sup> June, 2013.
6	Kamarnasa	BSPHCL informed that, PGCIL is not in a position to provide OPGW on priority basis. Hence, PGCIL suggested resolving the issue with GPRS. BSPHCL requested PGCIL to submit the cost details which is awaited.
7	Sultanganj	RTU is reporting to SLDC but intermittent.

BSPHCL and Powergrid may update the status.

### **Deliberation in the meeting**

*BSPHCL and Powergrid updated the station wise status 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	BSPHCL informed that, earlier it was expected that after getting OPGW link at Sirpara, BSPHCL could provide PLCC panel w.r.t. Khagaul GSS. But, plan did not finalize yet. So, BSPHCL is now planning for GPRS telemetry option. BSPHCL informed that estimate for GPRS has been received from Powergrid and it will be confirmed soon.
2	Koshi	BSPHCL informed that, PGCIL is not in a position to provide OPGW on priority basis. Hence, PGCIL suggested resolving the issue with GPRS. BSPHCL informed that estimate for GPRS has been received from Powergrid and it will be confirmed soon.
3	Purnea	BSPHCL informed that, PGCIL is not in a position to provide OPGW on priority basis. Hence, PGCIL suggested resolving the issue with GPRS. BSPHCL informed that estimate for GPRS has been received from Powergrid and it will be confirmed soon.
4	Barauni TPS	BSPHCL required PDH MUX at BTPS from POWERGRID for RTU restoration. However, POWERGRID further informed that they don't have any spare PDH/MUX. BSPHCL is now working on shifting the PLCC panels of Pasauli(PG) to Gaya (PG) to make through the Dehri-Bodhgaya link.
5	Dehri	BSPHCL required PDH MUX at BTPS from POWERGRID for RTU restoration. However, POWERGRID further informed that they don't have any spare PDH/MUX. BSPHCL is now working on shifting the PLCC panels of Pasauli(PG) to Gaya (PG) to make through the Dehri-Bodhgaya link. Expected to be completed by 30 <sup>th</sup> June, 2013. BSPHCL informed that tower has been collapsed.
6	Kamarnasa	BSPHCL informed that, PGCIL is not in a position to provide OPGW on priority basis. Hence, PGCIL suggested resolving the issue with GPRS. BSPHCL informed that estimate for GPRS has been received from Powergrid and it will be confirmed soon.
7	Sultanganj	RTU is reporting to SLDC.

## B. Non availability of Telemetry of JSEB Substation:

JSEB communicated the latest status vide letter dated 2<sup>nd</sup> August, 2013 station wise status 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 is under process.
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.
3	Deoghar RTU	JSEB informed that RTU will report after rectification of Deoghar –Jamtara PLCC link. AMC to M/s PUNCOM for PLCC link is under process.
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. Presently link is healthy and working.
6	Tenughat RTU	JSEB informed that, there may be problem in co-axial cable from switchyard to carrier room which has been replaced now. But PLCC link could not be made up. Also, there may be problem in LMU/LMDU, the replacement of which requires shutdown of PTPS-TTPS line. AMC to PUNCOM for restoration of PLCC link is also under process.

JSEB & Powergrid may update.

### **Deliberation in the meeting**

*JSEB informed that the status is same.*

In 87<sup>th</sup> OCC Sikkim and Powergrid updated the status as given below:

S/n	Name of RTU Locations	SIKKIM action plan for RTU supplied during ULDC project and restoration.
1	Melli 132 KV	E & PD Sikkim informed that new SCADA will be completed by October, 2013. 5 RTUs to be put under the upgradation scheme.

Sikkim & Powergrid may update

### **Deliberation in the meeting**

*Sikkim and Powergrid updated the status as given below:*

S/n	Name of RTU Locations	SIKKIM action plan for RTU supplied during ULDC project and restoration.
1	Melli 132 KV	E & PD Sikkim informed list of priority RTU has been given to Powergrid and RTU would report by Sep, 2013.



In 87<sup>th</sup> OCC OPTCL updated the status 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 August, 2013.
2	Machkund HPS	OPTCL informed that Machkund HPS RTU will be commissioned by 15 <sup>th</sup> August, 2013.

OPTCL may update

### **Deliberation in the meeting**

*OPTCL updated the status 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 Machkund HPS RTU will be commissioned by 31 <sup>st</sup> August, 2013.

### **Item no. B.3: Reliability of Auxiliary power supply in the stations of POWERGRID :**

For the auxiliary power of the substations, power at 11kV is being taken from SEBs through dedicated feeder.

The reliability and availability of the auxiliary power in the following stations under BSPTCL & JSEB control area is very poor. The auxiliary power position wise is as under:

Sl. No.	Name of Station	% reliability of auxiliary supply	No. of trippings per day
01.	Biharshariff 400/220kV S/S	15%	5-6 times
02.	Patna 400/220kV S/S	20%	50-60 times
03.	Muzaffarpur 400/220kV S/S	70%	40-50 times
04.	Ara 220 /132kV S/S	80%	25 times
05.	Jamshedpur 400/ 220kV S/S	30%	4-5 times
06.	Ranchi 400/220kV S/S	80% (Quality of supply is very poor, voltage is low 380-390 V)	

The substations of POWERGRID are connected with high capacity inter- regional transmission lines in addition to the power fed to the beneficiaries through the inter- connecting transformers.

In 87<sup>th</sup> OCC BSPTCL informed that the matter has been taken up with MD, Discom to make available reliable power to Powergrid S/S.

Powergrid informed that as per Gazette notification Part-III, section-IV dated 09/03/2007, availability of two (2) independent source of Auxiliary power supply is required for 220 kV and above S/S. In compliance with the same following is the status:

Single Aux. supply source is available at following Sub-stations:

- a) Silliguri
- b) Malda
- c) Birpara
- d) Dalkhola
- e) Rourkela
- f) Keonjhar
- g) Jharsuguda
- h) Angul

Concerned utilities/SEB may please provide second dedicated source of supply. Further, existing HT feeders which are feeding power to station are being tapped for the supply in nearby rural areas.

BSPTCL and OPTCL agreed to look into the matter. OCC advised Powergrid to interact further with BSPTCL, OPTCL & JSEB in line with above guidelines and revert back to ERPC.

Concern utilities may update the status.

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

*OCC advised Powergrid to write letters to concerned utility in line with the OCC decision with a copy to ERPC/ERLDC for further effective persuasion. However BSPHCL representative assured firm supply for the purpose.*

#### **Item no. B.4: Retrofitting of pilot wire protection of 132 kV Purnea(PG)-Purnea(BSPHCL) feeders - Powergrid**

There are 04 nos. 132KV feeders to BSEB from 220/132KV Purnea Substation. 03 nos. feeders (line length at around 1Km) are connected to nearby Purnea 132/ 33KV Substation and 01 no. feeder (line length around 72Km) is connected to Kishenganj 132/ 33KV Substation.

For the 132KV Purnea-Purnea feeders, pilot wire protection had been provided as a main protection and Directional O/c E/F protection has been provided as a back up protection. Due to regular theft of pilot wire between the two stations, the pilot wire protection is in in-operative condition for these feeders. As such the relays provided in these feeders are also very old and obsolete. For reliability of power supply, it is proposed to retrofit the pilot wire protections with numerical type current differential protection relays through fiber optic link between Purnea (POWERGRID) and Purnea (BSPHCL). Further the old directional over current, earth fault relays and the trip relays are also required to be replaced with suitable numerical type relays/ new relays.

The relays connected in Kishenganj feeder are also very old and obsolete. These relays are also required to be replaced with suitable numerical type / new relays.

For replacement of these relays along with fiber optic link between Purnea (POWERGRID) and Purnea (BSPHCL), total cost involvement will be around 60 lacs.

Members may discuss.

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

*Members agreed in principle for the proposal. OCC referred the issue to 24<sup>th</sup> commercial meeting scheduled to be held on 28<sup>th</sup> August, 2013 at ERPC, Kolkata for deliberation/information on cost estimation details. Further the issue would be placed in TCC/ERPC meeting for final approval.*

**Item no. B.5:** (Item No. B1 of 84<sup>th</sup> OCC meeting)

**a) Testing and calibration of special energy meter in Eastern Region--Powergrid**

Powergrid may update the latest status of progress etc.

**Deliberation in the meeting**

*Powergrid updated the latest status as given below:*

- Total special energy meters in Eastern Region: 307
- Testing and calibration Completed: 179
- Expected date of completion: 30<sup>th</sup> November, 2013

**b) Automatic Meter Reading (AMR) --Powergrid**

Powergrid may update the latest status of progress etc.

**Deliberation in the meeting**

*Powergrid updated the latest status as given below:*

- Total stations in Eastern Region: 92
- Survey Completed: 65
- Expected date of completion: 30<sup>th</sup> November, 2013

*Server installation at ERLDC, Kolkata is in progress.*

**Item no. B.6: Evacuation arrangement of DSTPS and Mejia B - ERLDC**

In 87<sup>th</sup> OCC DVC informed that DSTPS-Ragunathpur line was synchronised from DSTPS end on 16<sup>th</sup> July, 2013 (at 19:20 Hrs) and Ragunathpur-Ranchi line would be completed by Sep'13.

Powergrid and DVC may update the status.

**Deliberation in the meeting**

*DVC informed the Ragunathpur-Ranchi line will be completed by Sep'13.*

**Item no. B.7: Bus strengthening at Malda and Birpara consequent to augmentation of transformation capacity at North Bengal – ERLDC**  
(Item No. B2 of 82<sup>nd</sup> OCC meeting)

In 87<sup>th</sup> OCC WBSETCL informed that, bus strengthening at Birpara has been completed and the same at Malda would be completed after Puja.

WBSETCL may update the latest status.

**Deliberation in the meeting**

*WBSETCL informed the status is same.*

**Item no. B.8: Commissioning of 220 kV bus bar protection at Ramchandrapur & Chandil substations (JSEB) – (Item No. B13 of 22<sup>nd</sup> TCC meeting)**

In 86<sup>th</sup> OCC JSEB informed that, LBB has been provided in Chandil GSS as per committee report. For Ramchandrapur GSS work has been delayed as CTs are not available and it is under

procurement process in headquarter. As such completion date is not certain. OCC advised JSEB to come with concrete action plan and target date by next OCC.

JSEB may update the latest status.

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

*JSEB informed that, CT is made available at Ramchandrapur GSS and bus bar protection would commission by 30<sup>th</sup> September, 2013. JSEB also informed that, LBB has been provided at Chandil S/s but not wired. OCC advised JSEB to make LBB operational at the earliest as per recommendation of the protection committee. JSEB agreed.*

#### **Item no. B.9: Procurement and installation of numerical relays by JSEB for Lalmatia substation - (Item No. B14 of 22<sup>nd</sup> TCC meeting)**

In 86<sup>th</sup> OCC JSEB informed that although previous target date was 30<sup>th</sup> April, 2013 as given in 84<sup>th</sup> OCC, but till date there is no progress in the work. OCC insisted for concrete action plan and target date by next OCC.

JSEB may update the latest status.

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

*JSEB informed that, numerical relays have been installed at Lalmatia S/s in the month of July, 2013.*

#### **Item no. B.10: Procurement of spare transformers by Powergrid**

The procurement of following spare transformer and reactors by Powergrid as a part of disaster management plan in Eastern Region has been discussed and approved in various ERPC meetings (13<sup>th</sup> to 18<sup>th</sup> meeting):

- 4 number 400/220 kV, 315 MVA transformers
- 2 number 220/132 kV, 160 MVA transformers
- One 132/66 kV, 50 MVA transformer
- One 80 MVAR shunt reactor

In 86<sup>th</sup> OCC Powergrid updated the latest status a given below:

- 315 MVA spare transformers at Biharshariff and Jamshedpur were already installed, while the same at Durgapur and Rourkella were already reached the site.
- One 80 MVAR reactor at Rourkella was already commissioned.
- 1 number of 150/160 MVA, 220/132 kV ICTs of Baripada is being diverted to Purnea.
- 1 number of 160 MVA, 220/132 kV ICT at Siliguri was already commissioned.
- 1 number of 50 MVA, 132/66 kV ICT of Gangtok is at Siliguri. Unable to dispatch to Gangtok due to road clearance problem.

Powergrid may update the latest status.

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

*Powergrid informed the status is same.*

#### **Item no. B.11: Tripping of lines due to suspected PLCC problem**

In the past tripping of 400kV Durgapur(PG)-Bidahnnagar(WB) was reported on several occasions, due to receipt of DT at Bidhannagar(WB) end from Durgapur(PG) end. Due to

generation of spurious trip signals from Durgapur(PG) end, the line had to be taken into service without PLCC for a short duration and subsequently shutdown of the line was taken and the PLCC restored. WBSETCL may provide confirmation regarding above.

Similarly, repeated tripping of 400kV GMR-TSTPP has occurred due to suspected PLCC problem between TSTPP and GMR. On 08/07/13 and 09/07/13, as per report from GMR the line had tripped due to receipt of direct trip from TSTPP end. It has been reported that PLCC for the above section is maintained by OPTCL. TSTPP/GMR/OPTCL may intimate the reasons for repeated tripping of the line and the latest PLCC status.

It may be noted that both the above lines are important lines, tripping of which have the potential to cause grid disturbances.

In 87<sup>th</sup> OCC WBSETCL informed that the matter has been taken up and will be resolved by first week of August, 2013. OPTCL informed that matter will be taken up with GMR for rectification.

WBSETCL and OPTCL may update the status.

### **Deliberation in the meeting**

*WBSETCL informed that, matter has been taken up and will be resolved by end of August, 2013.*

*NTPC informed that, PLCC at TSTPP end is the property of OPTCL. OPTCL agreed to look into it and resolve the problem. GMR informed that, they are inspecting PLCC panels at their end and it will be resolved within a week time.*

### **Item no. B.12: Heavy loading of 315MVA ICTs at Jeypore and 220KV Jaypore-Jaynagar D/C line & Over Loading of 315MVA ICT at Muzaffarpur**

It has been observed that during June 13, the 400/220KV, 315MVA ICTs at Jeypore carried power to the extent of 150MW per ICT. With increase of generation from Balimela & U. Kolab hydro stations in Odisha in July, coupled with enhancement of export to SR through HVDC Gazuwaka, the loading of each of the ICTs is touching 200MW almost on daily basis. As (N-1) security criteria is being violated for these ICTs, it is felt that capacity augmentation of 400/220KV ICTs at Jeypore may be taken up by PGCIL, and the existing 220KV Jeypore-Jaynagar D/C line be strengthened by constructing a 2nd D/C line

It has been observed that 315MVA ICTs at Muzaffarpur are loaded to the levels of 200 MW or more per ICT, many a times it even touched 230 MW. Thus n-1 compliancy is not there. Hence, it is felt that augmentation of 400/220KV ICT capacity at Muzaffarpur ICT may please be expedited.

In 87<sup>th</sup> OCC OPTCL informed that the construction of another 220 kV D/C Jeypore-Jaynagar line is not possible at this stage and hence they may go for generation backing down in that area. The OCC advised OPTCL to plan a SPS for backing down of their generation to fulfill the (N-1) criteria and also to provide over current settings of above said line to ERLDC. Till the implementation of SPS, OPTCL will go for proper load management in the affected area so that per circuit flow never goes beyond 160MW. OPTCL agreed.

Powergrid informed that the DPR for augmentation of 400/220 kV ICT at Muzaffarpur is in approval stage.

Thereafter, OPTCL informed vide letter dated 03.08.2013 the construction of second 220 kV D/C Jeypore-Jaynagar line has already been taken up by OPTCL and it is under process.

OPTCL and Powergrid may update the status.

### **Deliberation in the meeting**

*OPTCL informed that, construction of second 220 kV D/C Jeypore-Jaynagar line is in process and it would take one year.*

*ERLDC informed that, OPTCL is maintaining the load below 160 MW per circuit as per 87<sup>th</sup> OCC decision. OCC advised OPTCL to continue designing an SPS as was earlier decided and place the same before OCC for final deliberation. OCC also advised OPTCL to maintain the load in the affected region till the second line comes. OPTCL agreed.*

### **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.

Members may note and comply.

### **Deliberation in the meeting**

*Constituents requested for another workshop on this issue. OCC agreed and requested NTPC and CESC to share their scheme in the workshop.*

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

List of the observations along with updated compliances received from the constituents is placed in the meeting and also available in ERPC website ([www.eastrpc.org](http://www.eastrpc.org)).

Members may note and ensure compliance on observations.

### **Deliberation in the meeting**

*OCC requested all constituents to update the status on every 15 days.*

### **Item no. B.15: Identification of feeders for distress load shedding - ERLDC** (Item No. B1 of 82<sup>nd</sup> OCC meeting)

In 87<sup>th</sup> OCC ERLDC informed that, ERLDC identified constituent wise radial feeders which can be disconnected during emergencies. The list of feeders is circulated in the meeting.

Members may note for future actions.

### **Deliberation in the meeting**

*ERLDC informed that, OPTCL has given substation details instead of feeder details. OCC requested OPTCL to give feeder details to ERLDC.*

*WBSETCL agreed in principle and informed that as the feeders identified by ERLDC is under WBSETCL control area, but load connected is under WBSEDCL control area. Confirmation will be placed in next OCC meeting after interaction with WBSEDCL.*

**Item no. B.16: Collection of Daily Energy Data – ERLDC** (Item No. B4 of 82<sup>nd</sup> OCC meeting)

In 87<sup>th</sup> OCC members requested OPTCL, WBSETCL and Chuzachen to provide the relevant information to ERLDC. OPTCL, WBSETCL and Chuzachen agreed.

ERLDC may update the latest status.

JSEB may update on status of monitoring Tisco and Jusco.

**Deliberation in the meeting**

*ERLDC informed that, all constituents are sending the relevant information. However, WBSETCL has to give station wise data.*

*JSEB informed that, Tisco and Jusco raised several queries and those queries have been replied. Action from Tisco and Jusco is awaited. OCC requested JSEB to pursue the issue.*

**Item no. B.17: Submission of Grid Incidence Report as per specified format - ERLDC**  
(Item No. B3 of 80<sup>th</sup> OCC meeting)

A list of disturbances that occurred from 1<sup>st</sup> July, 2013 is attached and correspondingly the status and delay in receipt of data from the constituents involved have been compiled and circulated in the meeting.

Members may please note and ensure compliance.

**Deliberation in the meeting**

*ERLDC informed that Sikkim is not giving relay indications. Further, BSEB, JSEB and OPTCL also were not providing full relay indications due to which the disturbances could not be analyzed properly. All constituents agreed to provide the grid incidence report with full relay indications within the specified time.*

*WBSETCL informed that Powergrid is not sharing the relay flags/indications of the other end & and in absence of other end indications WBSETCL could not analyze the grid incidences. OCC requested Powergrid to share the information. Powergrid agreed.*

**Item no. B.18: GT and ICT Tap coordination throughout the Easter Region --- ERLDC**

In 87<sup>th</sup> OCC ERLDC updated the status of GT and ICT details available with ERLDC. OCC requested all constituents to give the pending data. Constituents agreed to send the relevant information to ERLDC.

Constituents may update the status.

**Deliberation in the meeting**

*All constituents agreed to submit the relevant information. OCC requested ERLDC to interact with ERPC secretariat to make out a detailed updated list on the same.*

**Item no. B.19: Auto Reclosure Facility at Tala end**

In 87<sup>th</sup> OCC DGPC informed that, feeders would be put in service as soon as their management approves.

DGPC may update the latest status.

### **Deliberation in the meeting**

*OCC decided to refer the issue to TCC/ERPC and NPC.*

#### **Item no. B.20: Restricted Governor Mode of Operation --- ERLDC**

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

In View of CERC order on petition no 150/MP/2012, 87<sup>th</sup> OCC advised all eligible generating stations in Eastern Region may therefore take necessary action to ensure that RGMO/FGMO with manual intervention is implemented without further delay.

Members may ensure necessary compliance.

### **Deliberation in the meeting**

*The committee reviewed the status of RGMO/FGMO. The latest status is enclosed at Annexure-B.20.*

#### **Item no. B.21: Mock Black start exercises in Eastern Region --- ERLDC**

- i) The status of blackstart exercises scheduled for June/July13 are given below:
  - a) Upper-Kolab HEP: Due to non-commissioning of DG set the revised date for the exercise has been given as October, 2013
  - b) Maithon HEP: DVC has intimated vide letter Dtd.29/06/13 that black start of Maithon HEP was successfully carried out on 12/06/13, by black starting Unit#3 with the help of Battery bank source and subsequently Unit#1 was synchronized with the auxiliary power from Unit#3. However, detailed report from DVC has not yet been received.
  - c) Rengali HEP: Blackstart was attempted on 17/07/13 but could not be successfully carried out due to problem in Rengali SW(as intimated by OPTCL). Revised date may be proposed by OPTCL.
  - d) Upper Indravati HEP: Mock Blackstart exercise was successfully conducted on 30/07/13. Detailed report may be submitted by OPTCL.

DVC and OPTCL may ensure compliance.

### **Deliberation in the meeting**

*OHPC proposed the dates for black start exercises:*

- a) Upper-Kolab HEP: In the month of October, 2013.
- b) Rengali HEP: After October, 2013.
- c) Upper Indravati HEP: Report will be submitted soon.

*DVC informed that the detail report will be submitted soon.*

- ii) Testing of DG sets meant for Black start

Report regarding test run of DG sets for the month of July, 2013 has not been received from any constituent. All such test reports may be forwarded to **erldc.cal@gmail.com** & **psdas\_psd@yahoo.com**. Otherwise in line with previous OCC decision it will be considered that respective members are ensuring the healthiness of the generators.

Members may note and ensure compliance.



### **Deliberation in the meeting**

*Members noted for compliance.*

#### **Item no. B.22: Schedule/generation restriction for Chuzachen HEP in view of repeated disturbances.**

On implementation of SPS, the issue was discussed in 16<sup>th</sup> PCC meeting wherein M/s. Gati Infrastructure Ltd. appraised the house that testing of the SPS of Chuzachen was successfully carried out on 23.07.2013 in the presence of representative from POWERGRID, ERTS – II and Rangit, NHPC. Further functioning of the SPS implemented was explained before the house with a detail presentation.

On the request from Chuzachen to maintain higher generation level from the existing level of 50 MW, PCC considered allowing generation at 75MW i.e - an increase of 25MW. PCC desired that performance of the implemented SPS at Chuzachen would be reviewed at 75 MW generation level for a week and thereafter if there is no constraint, then the station will be allowed to generate maximum at 99 MW.

Post 16<sup>th</sup> PCC, there were several incidents of tripping involving NHPC generators and chuzachen. To resolve the problem a special meeting was convened at ERPC on 16<sup>th</sup> August, 2013.

ERLDC may update the status and OCC may decide further course of action.

### **Deliberation in the meeting**

*House was informed that, in the special meeting held at ERPC on 16<sup>th</sup> August, 2013, it was decided to restrict the Chuzachen generation upto 50 MW and also decided to refer the issue to TCC/ERPC meeting for further deliberation; minutes of the meeting are available at **Annexure-B.22**.*

*ERLDC pointed that situation has been improved after Chuzachen generation was restricted upto 50 MW.*

#### **Item no. B.23: Revised operating procedure for Eastern Region**

In 87<sup>th</sup> OCC meeting, OCC requested all constituents to give their views.

ERLDC may update.

### **Deliberation in the meeting**

*No comments received from constituents except WBSETCL and Adhunik. Members decided to finalize the revised operating procedure with the comments available suitably considered.*

#### **Item no. B.24: Argumentation of Transformation capacity of 400/220 kV, 315 MVA ICT of Baripada Sub-station. (Item No. B1 of 85<sup>th</sup> OCC meeting)**

In 85<sup>th</sup> OCC, OPTCL informed that 400/220 kV, 315 MVA ICT-I & II at New Duburi were idle charged since 27/02/13 and 29/04/13 respectively from 220 kV side. 400 kV connectivity to New Duburi is expected soon. As such, argumentation of ICT capacity at Baripada may not be required. This needs to be reexamined considering commissioning of New Duburi 400 kV/220 kV sub-station.

86<sup>th</sup> OCC advised OPTCL to give the load profile and line configuration details to ERLDC. OCC requested ERLDC to study the load profile and give their views in 87<sup>th</sup> OCC.

In 87<sup>th</sup> OCC ERLDC informed that, load profile and line configuration details are yet to be received from OPTCL. OCC advised OPTCL to give the requisite information. OPTCL agreed.

OPTCL and ERLDC may update the status.

### **Deliberation in the meeting**

*OCC requested OPTCL and ERLDC to interact on the issue and revert back in the next OCC.*

#### **Item no. B.25: Energy Generation data management from Renewable Energy Sources**

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

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

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

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

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

Nodal officers from CEA:

Mrs. Rishika Sharan, Director, CEA, 011-26732663 and 26102263(Fax), Mobile: 9868021299

Mrs. Sarita Sewak, Dy. Director, 011-26732656

SLDCs may note and nominate their Nodal officers as advised.

In 87<sup>th</sup> OCC members agreed to comply.

Members may note and comply.

### **Deliberation in the meeting**

*Members noted.*

#### **Item no. B.26: 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.

OHPC vide their letter dated 03.05.13 informed that their six generators has already obtained certification of OHSAS.

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.

Members may note and update the status.

### **Deliberation in the meeting**

*NTPC informed that, all NTPC stations in Eastern Region are certified with IS 18001. NHPC informed that, Teesta is also certified with IS 18001.*

*OCC requested all other constituents to comply.*

#### **Item no. B.27: Commissioning of 400kV Baripada-Jamshedpur(Direct)**

Presently one circuit of 400kV Baripada-TISCO D/C has been extended to Jamshedpur(PG) to form 400kV Jamshedpur(PG)-TISCO-Baripadackt. The other line has been kept openat TISCO end and is to be extended to Jamshedpur(PG) to form Jamshedpur(PG)-Baripada direct ckt. Pending commissioning of the direct ckt, theloading of 400kV Jamshedpur(PG)-TISCO section remains very high at more than 500MW and the TISCO-Baripada section also remains considerably loaded. To mitigate the transmsion constraint it is essential that 400kV Jamshedpur-Baripada(direct) be put into service at the earliest. Accordingly, Powergrid is requested to intimate the reasons for delay in commissioning of the same alongwith the expected date of commisioning.

Powergrid may update.

### **Deliberation in the meeting**

*Powergrid information that there is a problem in right of way and the line will be commissioned by September, 2013.*

#### **Item no. B.28: Pollution mapping for Eastern Region -- Powergrid**

In 87<sup>th</sup> OCC Powergrid gave a presentation on road map for pollution mapping of Eastern Region and requested to nominate a nodal officer from each constituent to co-ordinate the above programme. The committee requested Powergrid to prepare a detail programme with complete list of sites where the tests are to be carried out along with work-flow diagram. Powergrid agreed to place the details in next OCC for finalization of the procedure.

Powergird may place the details.

### **Deliberation in the meeting**

*The details were not suitably placed. So OCC again advised Powergrid to prepare a detail programme with complete list of sites where the tests are to be carried out along with work-flow diagram and place the details in next OCC.*

#### **Item no. B.29: Procurement of Emergency Restoration System (ERS Towers) for Eastern Region constituents-- Powergrid.**

In 86<sup>th</sup> OCC members requested PGCIL to give a presentation in next OCC along with cost analysis.

In 87<sup>th</sup> OCC Powergrid gave a presentation for requirement of ERS with cost details.

OPTCL informed that they have procured 32 no. of 132 kV ERS tower. WBSETCL informed that they are also planning to procure ERS towers.

However, OCC felt that in the recent past incidences of tower failures has become an increasingly regular features in Eastern region and therefore in general pool Eastern Region should have adequate nos. of ERS towers for early restoration of snapped towers in case of emergency. OCC advised Powergrid to place the detail list of ERS available for ER under CTU control area and all constituents were requested to give their views in next OCC meeting.

Powergrid to place the details and members may discuss.

### **Deliberation in the meeting**

*The details were not suitably placed, OCC requested Powergrid to place the requirement of ERS towers along with cost details in next OCC. Powergrid agreed.*

#### **Item no. B.30: Procurement of Circuit Breaker, CT, CVT, LA for Eastern Region as O&M spare-- Powergrid.**

In 86<sup>th</sup> OCC members requested PGCIL to give a presentation in next OCC along with cost analysis.

In 87<sup>th</sup> OCC Powergrid gave a presentation for requirement of O&M spare. OCC felt that in general pool of ER there should be adequate O&M spare for early restoration. However Powergrid was advised for exploring the possibility of procuring these items through the O&M component of tariff. Members also asked for the population & failure detail of equipments. Powergrid agreed to update their positions along with all these details in next OCC meeting. OCC also advised all constituents to give their comments on the issue in next OCC meeting.

Powergrid to place the details and members may discuss.

### **Deliberation in the meeting**

*During deliberations queries were raised on possibilities of procurement of these items through O&M components of tariff. OCC requested Powergrid to place all the details to constituents clarifying the positions beforehand so that valued comments from respective constituents could be effectively deliberated in next OCC. Powergrid agreed. Constituents agreed to give their comments positively before next OCC.*

#### **Item no. B.31: Reactive Power performance of Generators**

##### **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 sample dates in the month of July 13:

<b>Power Plant</b>	<b>Max and Min Voltage observed for July 13 (kV)</b>	<b>Date for monitoring (July 2013)</b>
Farakka STPS	421,405	20,21,28
Khalgaon STPS	428,411	5,10,12
Talcher STPS	414,402	Voltage within IEGC Band
Teesta	420,388 (Binaguri)	Voltage within IEGC Band
Bakreshwar TPS	411,388	Voltage within IEGC Band
Kolaghat TPS	420,397	Voltage within IEGC Band
Sagardighi TPS	421,405 (Farakka)	20,21,28
MPL	430,416 (Maithon)	3,20,25
Mejia-B	430,416 (Maithon)	3,20,25
DSTPS	431,419(Jamsedpur)	14,18,20
Adhunik TPS	431,419(Jamsedpur)	14,18,20
Sterlite	432,420	17,20,21

## 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: Sagardighi U # 2 was out in the month of July, Reactive performance of sagardighiUnit # 1 was satisfactory.
- IV. MPL: MPL absorbing VAR during High voltage condition and performance was satisfactory.
- V. Sterlite: The VAR absorption by SEL units during high voltage condition was not adequate.

Concerned members may explain their position in line with observation.

### **Deliberation in the meeting**

*Sterlite informed that, they will change the tap position during opportunity shutdown.*

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

400kV bus voltage at Jamshedpur and adjoining sub-stations remain above the upper limit of the range permissible as per IEGC, for considerable duration. In this connection it may readily be appreciated that 400KV voltage profile around Jamshedpur is by and large determined by the voltages maintained at nearby power stations. The subject was discussed in 87th OCC, wherein members unanimously agreed that there is an urgent need for changing GT tap settings at APNRL, Mejia-B and DSTPS, as given below, in order that the 400kV bus voltages at Jamshedpur sub-station is maintained close to the nominal value.

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)

The detailed modality and action plan for effecting above changes may be finalized.

APNRL and DVC may deliberate.

### **Deliberation in the meeting**

*DVC agreed to change one tap instead of two taps. Adhunik agreed to change the tap position during opportunity shutdown.*

### c) Schedule for reactive capability tests

The matter regarding high voltage in and around the area comprising of Jamshedpur, Ranchi, Maithon due to a cluster of generators who are either operating in lagging mode or near unity pf throughout the day, had already intimated in the 86<sup>th</sup> OCC. Accordingly, it was proposed to carry out reactive capability test of all units of the following generators on a priority basis:

- a) Adhunik TPS
- b) Mejia TPS
- c) DSTPS
- d) Koderma TPS
- e) Maithon RB

In the 86<sup>th</sup> OCC meeting, Adhunik/DVC/Maithon RB were requested to confirm the final dates for reactive capability testing.

In 87<sup>th</sup> OCC ERLDC asked for the details reactive capability curve and tentative date of testing by 31st July, 2013. Adhunik, DVC and Maithon RB agreed.

Before carrying out the tests ERLDC control room is to be intimated and the results need to be forwarded to ERLDC/ERPC with along with the capability curves/manufacturer constraints for proper analysis. The filled up formats/any other data to be given, may be mailed to [erldc.cal@gmail.com](mailto:erldc.cal@gmail.com) with a copy to [psdas\\_psd@yahoo.com](mailto:psdas_psd@yahoo.com).

The dates for carrying out reactive capability testing may be finalized.

### **Deliberation in the meeting**

*Constituents informed the date of reactive capability testing as follows:*

- |                 |   |
|-----------------|---|
| a) Adhunik TPS: | In Sep, 13  |
| b) DSTPS:       | In Sep, 13  |
| c) Mejia TPS:   | Date will be given after consulting with BHEL                               |
| d) Koderma TPS: | Date will be given after consulting with BHEL                               |
| e) Maithon RB   | Unit #1: Under Shutdown & Unit #2: Date will be communicated within a week. |

### **Item no. B.32: Procedure for assessment of Frequency Response Characteristic (FRC) of Control Areas in Indian Power System (Item No. B3 of 85<sup>th</sup> OCC meeting)**

OCC in its 86<sup>th</sup> meeting requested all SLDCs to calculate FRC for the given data and send the results to ERLDC.

In 87<sup>th</sup> OCC ERLDC informed that, WBSETCL, DVC and OPTCL sent the results. ERLDC compiled the data and some corrections were indicated. OCC requested all other constituents to calculate FRC for given data in 86<sup>th</sup> OCC and send the results to ERLDC as early as possible.

ERLDC via their email dated 25th July 2013 circulated the event information for calculation of respective control area FRC due to tripping of all feeders from 220 kV Bhilai and Urla substation which leads to a total load loss of 700 MW in CSEB system.

For calculation of FRC following data was circulated:-

Time before the incidence (Ta) = 19:05:10 Hrs

Time after the incidence (Tb) = 19:07:30 Hrs

Frequency before the incidence (Fa) = 49.75 Hz

Frequency after the incidence (Fb) = 50.19 Hz

Frequency rise = 0.44 Hz

Till date only WBSLDC has sent its control area wise FRC. All other SLDCs are requested computed and to send their respective control area wise FRC.

ERLDC may update the status.

### **Deliberation in the meeting**

*OCC requested all other SLDCs to compute their respective control area wise FRC and send the results to ERLDC.*

### **Item no. B.33: Suspension of power off-take by BSEB- DVC.**

MOP ref. no. 5/8/2010-Th.1: (Vol-II); dtd. 28-8-12 was duly forwarded by Member Secretary, I/C, ERPC vide letter no. OM-I/Gen/2012/3254-58; dtd. 30-8-12 to DVC, for supply of 100MW power to Bihar.

DVC vide no. Coml/Export BSEB/12-13/2486; dtd.3-9-12, had accorded supply of 100MW RTC power to BSEB from CTPS unit #7&8 (2x250MW) from 4-9-12 to honour MOP allocation. BSEB preferred to get the 100MW power on STOA mode and suddenly, had stopped placing requisition of the power from 2<sup>nd</sup> July '13.

Request is being addressed to kindly place the matter as an agenda point in the 88<sup>th</sup> OCC for taking-up the matter with BSEB.

DVC and BSEB may deliberate.

### **Deliberation in the meeting**

*OCC advised DVC and BSEB to resolve the issue bilaterally.*

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

### **Item no. C.1: Prolonged outage of power system elements in Eastern Region**

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

Generating Station	UNIT NO	CAP(MW)	DATE	TIME(Hrs)	REASONS FOR OUTAGE
STERLITE	3	600	27.06.13	15:08	OVERHAULING
STERLITE	4	600	30.07.13	13:06	PROBLEM IN HYDROGEN SYSTEM
MPL	1	525	06.07.13	09:49	R-PHASE BUSHING FAILURE OF GT
TENUGHAT	2	210	27.07.13	05:40	TUBE LEAKAGE
MEJIA	3	210	27.07.13	20:50	OVERHAULING
DSTPS	1	500	01.07.13	05:00	OVERHAULING
BAKRESWAR	4	210	25.07.13	00:50	OVERHAULING

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

Name of the Line/Element	Outage Date	Outage Time	Reason
220 KV TENUGHAT - BIHARSHARIFF	12.05.13	16:25	TOWER COLLAPSE AT LOC NO 424 A ,425 A, 426A
220 KV BIHARSHARIF - BODHGAYA D/C	12.05.13	17:07	6 NO. TOWER COLLAPSE

132 KV BIHARSARIF - SHEIKHPURA	12.05.13	17:07	4 NO. TOWER COLLAPSE
220 KV JEERAT - SATGACHIA D/C	15.06.10	-	DUE TO LAND SLIDE OF GANGES RIVER BANK
315 MVA ICT - II AT BIDHANNAGAR	29.12.10		DUE TO PROFOUSE OIL LEAKAGE FROM DIVERTER TANK
220 KV INDRAVATI - THERUVALI -I	15.07.13	8:15	UNDER SHUTDOWN FOR RESTRINGING WORK

Concerned utilities may share the latest status.

### **Deliberation in the meeting**

*Concern utilities updated the latest status as follows:*

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

Generating Station	UNIT NO	CAP(MW)	Date of Outage	REASONS FOR OUTAGE	Date of restoration
STERLITE	3	600	27.06.13	OVERHAULING	Sep, 2013
STERLITE	4	600	30.07.13	PROBLEM IN HYDROGEN SYSTEM	12.08.13
MPL	1	525	06.07.13	R-PHASE BUSHING FAILURE OF GT	1 <sup>st</sup> week of Sep, 2013
TENUGHAT	2	210	27.07.13	TUBE LEAKAGE	Opportunity Maintenance
MEJIA	3	210	27.07.13	OVERHAULING	End of Sept, 2013
DSTPS	1	500	01.07.13	OVERHAULING	Aug, 2013
BAKRESWAR	4	210	25.07.13	OVERHAULING	27.08.13

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

Name of the Line/Element	Outage Date	Reason	Date of restoration
220 KV TENUGHAT - BIHARSHARIFF	12.05.13	TOWER COLLAPSE AT LOC NO 424 A, 425 A, 426A	10 <sup>th</sup> Sep, 13
220 KV BIHARSHARIF - BODHGAYA D/C	12.05.13	6 NO. TOWER COLLAPSE	2 <sup>nd</sup> July, 13
132 KV BIHARSARIF - SHEIKHPURA	12.05.13	4 NO. TOWER COLLAPSE	5 <sup>th</sup> Sep, 13
220 KV JEERAT - SATGACHIA D/C	15.06.10	DUE TO LAND SLIDE OF GANGES RIVER BANK	2014
315 MVA ICT - II AT BIDHANNAGAR	29.12.10	DUE TO PROFOUSE OIL LEAKAGE FROM DIVERTER TANK	After Puja
220 KV INDRAVATI - THERUVALI -I	15.07.13	UNDER SHUTDOWN FOR RESTRINGING WORK	Oct, 13

### **Item no. C.2: Information regarding commissioning of new transmission element – ERLDC**

1. GMR Unit#2 was synchronized for the first time at 20:19 Hrs of 09/07/13.
2. 220kV Muzzaffarpur-Hazipur-I & II (on D/C tower) were taken into service for the first time at 14:50 hrs of 10/07/13 and 18:47 hrs of 11/07/13 respectively.
3. 400kV DSTPS-Ragunathpur-II & I were charged & loaded for the first time at 18:39 hrs and 19:20 hrs of 16/07/13 respectively.
4. Koderma unit#1 was declared under COD w.e.f 00:00 hrs of 18/07/13.



5. 400kV Bus-II at Keonjhar was charged for the first time at 11:29Hrs of 19/07/13.
6. 220kV Purnea-Madhepura-I was charged for the first time from New Purnea end at 17:33 hrs of 19/07/13. Subsequently, both 220kV Purnea-Madhepura- I & II were charged and loaded alongwith 2 x100MVA ATR-I & II at Madhepura S/S on 30/07/13.

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.

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.

Members may note and comply.

### **Deliberation in the meeting**

*Members noted.*

Latest status of commissioning of following generating station and transmission elements may please be furnished.

New generating units:

S.No.	Power Plant	Plant Size	Expected date
1	GMR Unit#3	4x350MW	
2	Koderma Unit#2	2x500MW	
3	Corporate Power Unit#1	2x270MW	
4	Teesta-III Unit#1	1x200MW	
5	Raghunathpur Unit#1	2x600MW	
6	TLDP-IV	1x40MW	

### **New transmission elements**

Sl No.	Name of Element	Expected Date/Remarks
1	400 kV Maithon-Gaya D/C	After December, 2013
2	400 kV Gaya-Koderma D/C	After December, 2013
3	400kV Purnea-Biharshariff D/C	August, 2013
4	LILO of 400kV Kahalgaon-Biharshariff 1 & 2 at Lakhisarai	
5	400kV Sasaram-Daltonganj D/C & Daltonganj S/Stn	
7	400 kV Ranchi-Raghunathpur D/C	
8	400 kV Meramandali-Dubri D/C	
9	400 kV Corporate- Ranchi D/C	
10	400 kV IB-Meramandali D/C	
11	220 kV TLDP-IV – NJP ckt-2	
12	220 kV Kharagpur-Midnapur D/C	
13	220 kV Jeerat-Rishra D/C	
14	220 kV Latehar-Daltonganj D/C	December, 2013
15	220 kV Lohardaga-Lathehar D/C	September, 2013
16	220 kV Bidhansai-Cuttack D/C	
17	220 kV Girdih-Koderma D/C	

Concerned utilities may update the likely date of synchronization and inform commissioning of other new generating station and transmission element which are not included in above said list.

### **Deliberation in the meeting**

*Concern utilities updated the status.*

#### **Item no. C.3: Anticipated power supply position during Sep'13**

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of Sep'13 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. The details are placed in the meeting for discussion.

Members may confirm.

### **Deliberation in the meeting**

*Modified anticipated power supply position for the month of September, 2013 after incorporating constituents' observations is given at **Annexure-C.3**.*

#### **Item no. C.4: Shutdown proposal of transmission lines and generating units for the month of Sep' 13**

*In 8<sup>th</sup> OCC, it was decided that all utilities will submit their Shutdown programme by 5<sup>th</sup> day of the month and ERLDC will compile and upload in ERLDC website on 8<sup>th</sup> day of the month. Beyond this no further requisition will be entertained unless there is emergency. Further, after approval of shutdown programme in the OCC the utility taking shutdown must intimate three (3) days in advance to ERLDC before taking the shutdown in real time.*

ERLDC may update on the time schedule as decided.

### **Deliberation in the meeting**

*"It was decided that till any new draft procedure or regulation comes, all utilities will submit their Shutdown programme at the beginning of the month within five working days and after receipt, ERLDC will compile and upload in ERLDC website within three working days. Beyond this no further requisition will be entertained unless there is an emergency. This interim procedure will be followed till any new regulation or draft procedure for transmission outage planning is notified"*

*OCC also advised all constituents to share the requisite data with ERPC Secretariat in time so that ERPC could bring out LGBR on transmission outage planning in line with IEGC from 14-15 onwards.*

Members may finalize the Shutdown proposals of the generating stations and transmission lines for the month of Sep'13 as placed in the meeting.

Members may finalize.

### **Deliberation in the meeting**

*Approved maintenance programme of generating stations and transmission elements during the month of Sep, 2013 is at **Annexure-C.4**.*

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

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

Since system frequency did not touch 48.8 Hz in July'13, UFR did not operate. Reports of UFR operation from constituents in case of disturbances and local islanding have not yet received.

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 July'13.

Members may note.

### **Deliberation in the meeting**

*Members noted.*

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

Sl no	Disturbance Place	Date & Time	Generation loss (MW)	Load loss (MW)	Remark	Category
1	JSEB (Patratu, Tenughat)	01/07/13 at 06:20hrs	306	100	Fire hazard occurred at Patratu s/s due to C-Ø CT bursting at 33kV side of station transformer (10T). At the same time B-Ø isolator of station transformer (12T) also got damaged. Patratu U#4 & U#10, Tenughat U#@ & various 220kV & 132kV lines from Patratu & Hatia tripped.	GD-1
2	BSPHCL(Purnea, Kisanganj)	06/07/13 at 20:49hrs	0	219	132kV Purnea(PG)-Purnea (BSPHCL) -II & III &100MVA ICTs at Purnea (PG) tripped due to fault in downstream system of BSPHCL[132kV Purnea (BSPHCL) S/S]. 132kV Purnea (PG) –Purnea (BSPHCL)-I did not trip due to Y-Ø CVT fuse failure at Purnea (PG)	GD-1
3	Birpara, Chukha HEP, Salakati	09/07/13 at 09:16hrs	280	60	Various 220kV feeders from Birpara s/s tripped along with all running units of Chukka HEP due to loss of evacuation path.	GD-1
4	Sikkim, NBU, Rammam, Rangit & Chuzachen	11/07/13 at 09:27hrs	160	100	Various 132kV lines & ATRs from Silliguri (PG) tripped due fault in 132kV Silliguri-NBU-NJP line & non clearance of the same at Silliguri. Running units of Rangit U# 1,2, 3, Chuzachen U# 1&Rammam U# 1,2, 3 tripped.	GD-1
5	OPTCL (Theruvali,	30/07/13 at	0	80	Various 220kV feeders & ATRs atTheruvalis/s tripped due to earth	GD-1

	Bhanjanagar, Jaynagar, Narendrapur)	23:59hrs			fault in 220kV Theruvali-U.KolabCkt.	
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Members may note.

**Deliberation in the meeting**

*Members noted.*

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

In the month of July'13, the percentage of time frequency was below 49.70Hz as well as the time period for which frequency was above 50.20 HZ decreased as compared to previous month. On 05/07/13 the minimum frequency touched 49.02 Hz. A high frequency of 50.63 Hz was also recorded on 20/07/13. All constituents are requested to note above and maintain grid discipline.

Members may note.

**Deliberation in the meeting**

*Members noted.*

**Item no. D.5: 1. SPS scheme of TSTPS Talcher-II --NTPC**

At present Talcher-II is having two schemes i.e. SPS-1000 and SPS-450. Ordinarily the SPS-1000 scheme remains in service and in case of grid constraint SPS-450 scheme is taken into service. Talcher-II has experienced a number of tripping on account of SPS and for reasons not attributable to the station.

In view of this review of SPS scheme is warranted and following points may be considered.

- i. Implementation of the latest SPS scheme with only unloading provision.
- ii. Time frame for total elimination of the SPS scheme for Talcher-II.

**Deliberation in the meeting**

*OCC referred the matter to PCC.*

\*\*\*\*\*

# Annexure-A

## Participants in 88<sup>th</sup> OCC Meeting

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 20.08.13 (Tuesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
1	A.K. Bandyopadhyay	MS	ERPC	9433068533	mserpc-power@nic.in	
2	U.K. Verma	GM	ERLDC	08902496220	ujwalkumar.kumar@gmail.com	
3	D.K. SHRI VASTAVA	ACM	ERLDC	9433041802	dkshrivastava25@yahoo.co.in	
4	P.S Das	CM	-do-	9433041837	psdas-psd@yahoo.co.in	
5	S. Banerjee	CM	ERLDC	943304823		
6	Jiten Das	CM	POWERGRID, ER-1	9431815706	jiten.banerjee@gmail.com	
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8	RAKESH KUMAR	AGM	NTPC-PATNA	9431011344	rakeshkumar12@ntpc.co.in	
9	S. Nayak	AGM	NTPC-ER-2	9437041581	snayak@ntpc.co.in	
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11	N. TASHI	AE	ESPD, SIKKIM	9475997713	nangeltashi28@gmail.com	
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14	Chandipati Chowdhury	AGM (E)	SEC	09937244546	Chandipati.Chowdhury@vsnl.com	
15	Ashish Guttami	Dy. G.M.	APNCL	900747762	ashishguttami@admissiongroup.co.in	
16	H.S. Bhatta	Gr. Head (OPS)	MPL	9204853168	himadsi.bhatta@tatapower.com	
17	M.K. Thakur	Engineer	ERLDC	9432357832		
18	ARUNAVA SENGUPTA	Manager	CEEC	9831802682	arunava-sengupta@cep-sg.in	
19	RAHUL CHAKRABORTY	DGM	-do-	9831054619	rahul.chakraborty@rps-sg.in	
20	R. Biswas	SA-MANAGER	DPL	9434735985	rajibbiswas1@gmail.com	

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



### Participants in 88<sup>th</sup> OCC Meeting

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 20.08.13 (Tuesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
21	H.P. Mahapatra	Manager (E)	OTPC	9861164943	hpm.othpc@gmail.com	
22	A.K. Mohanty	Manager (E)	OTPC	09437657956	akm_678@yahoo.co.in	
23	K.C. Mishra	Sr. GM (E)	OPTCL	09438907644	kishorac1574@gmail.com	
24	Madhusudan Saha	DM (E)	GRIDCO	09692423874	GRIDCO.ecb@gmail.com	
25	P.K. BASU	DGM (opm)	KTPP/WBPCL	9432013369	pkbose6@wbpccl.co.in	
26	P. Saha	CE, CPD	WBS BTCL	9434910019		
27	A. Raichaudhary	EXCE/SLD	COBS ETCL	9434910015		
28	A.K. Singh	EEE	JSEB	9973850208	cetrom.jseb@gmail.com	
29	G.K. Choudhary	ESB	BSPHCL	77638177	gkc-1959@rediffmail.com	
30	VINEET GUPTA	Dy CEE/ERLY	E.RLY.	9002028312	vineetguptavineet@gmail.com	
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32	B. SARKHEL	SE (PS)	ERPC	9433065724	buddha_sarkhel@yahoo.co.in	
33	Jaydev Singh	SE (C)	"			
34	Ganeswar Rao	ARE	ERPC			
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40	Sangay Khidup	AE	DGPC, Bhuban	13907243	sangayndp@gmail.com	

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# Participants in 88<sup>th</sup> OCC Meeting

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 20.08.13 (Tuesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
41	Kinzang Chedda	AE	CHP-DGPC	+975-17556848	KinzKesu@gmail.com	
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45	W. Mandat	AGM(E)	Gati Infrastructure Ltd	8016082299	neladri.mandat@gatiinfra.com	
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47	N. Khm	L.O.	GRIDCO	943303443	Khanna.44@gmail.com	
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50	BEJBARANJAN SAHA	SM	WBPDCL	9432021102	brparker@wbpdcl.co.in	
51	N.G. Saha	SM	A	9482015315	ngsaha@wbpdcl.co.in	
52	S. Paul	EE	ERPC		S	
53	T.R. Mohapatra	Dy Man	ERLDC			
54	S.M. Jha	Ex. Engr	NERPC			
55						
56						
57						
58						
59						
60						

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New UFR setting has been implemented. List of 33 KV Feeders provided with UFR relays at different grids of Bihar State Power Trans. Co. Ltd. Patna are as below:

SL. No.	NAME OF GRID	CONNECTED 33 KV FEEDER	LOAD IN MW	SETTING
1.	132/33 KV Gaighat grid	Saidpur	20	48.6
		City Feeder	22	48.6
2.	132/33 KV Mithapur grid	PESU V	18	48.8
		PESU II & IV	32	48.8
3.	220/132/33 KV Fatuha grid	Katra	14	48.8
		Meena Bazar	24	48.8
		Fatuha	22	49.0
		Dina Iron	12	49.0
4.	132/33 KV Digha grid	Digha - I	18	48.6
		Digha - II	7	48.6
		Patliputra	20	49.0
		Excise colony	20	49.2
5.	132/33 KV Bari Pahari ( Bihar Sharif )	Bari Pahari I	11	49.2
		Bari Pahari II	5.5	49.2
		Sohsarai	10	49.2
		Ramchandrapur	15	48.6
		Noorsarai	10	49.2
		Asthama	5	49.2
6.	132/33 KV Harnaut	Line II Feeder (Charan)	1.5	49.0
		Kalyanbigha	0.5	48.6
		Harnaut	5.0	49.2
7	132/33 KV Ekangarsarai	Parwalpur	3	49.2
		Islampur	6	49.0
		Ekangarsarai	5	49.0
		Hilsa	4	49.0
8	132/33 KV Katra	Pahari	18	48.6
		Sabalpur	5	48.8
		Karmalichak	8	48.8
		Ashoknagar	14	48.8
		Kankarbag	18	48.6
9	220/132/33 KV Sampatchak	Bahadurpur	14	49.0
		Sampatchak	7	49.0
		Kuda Nawada	10	49.0
10	132/33 KV Purnea	Maranga	12	49.2
		Madhubani	10	49.2
11	132/33 KV Nalanda	Nalanda	6	49.2
12	132/33 KV Rajgir	Raytar	8	49.2

Sl.No.	Frequency	Total Load
1.	49.2	105.5
2.	49.0	101.5
3.	48.8	115.0
4.	48.6	118.5



	U/F & O/F SCHEME in CESC (modified on 05.08.2013)	SUMMER LOAD (MW)	WINTER LOAD (MW)
<b>Stage-1 (49.2 c/s, 0.1 s)</b>	<b>Chakmir S/S :</b>		
	55 MVA T1 & T2	47	29
	<b>NCGS:</b>		
	Kamarhati T1	8	6
	Kutighat T3	10	8
	<b>TOTAL</b>	<b>65</b>	<b>43</b>
<b>Stage-2 (49.0 c/s, 0.1 s)</b>	<b>Dum Dum S/S:</b>		
	New Dum Dum T1	15	11
	New Dum Dum T2	14	9
	South Dum Dum T1	15	8
	Dum Dum T3	12	7
	<b>BGS:</b>		
	BAURIA 1&3	18	12
	Fore Shore Rd D/S (6 KV Fdrs )	9	5
	Shalimar D/S (6 KV Fdrs )	7	3
	<b>TOTAL</b>	<b>90</b>	<b>55</b>
<b>Stage-3 ( 48.8 c/s, 0.1 s)</b>	<b>Majerhat S/S :</b>		
	Diamond City(W) D/S	13	7
	Thakurpukur T1	10	4
	Thakurpukur T-2 // Behala (N) T-1	24	14
	<b>Jadavpore S/S :</b>		
	South City D/S T2	13	8
	Tollygunge(N) D/S T-1/South city T1	23	15
	<b>KRS</b>		
	Ballygunge(E) D/S (6 kV T1)	8	5
	<b>PRS:</b>		
	Princep St D/S (6 kV Fdrs. )	16	10
	<b>NCGS:</b>		
	Kutighat T1	6	4
	Kutighat T2	6	4
	Kutighat T4	6	4
	<b>TOTAL</b>	<b>125</b>	<b>75</b>
<b>Stage-4 (48.6 c/s, 0.1 s)</b>	<b>132 kV Liluah-CESC(BRS) 1, 2 &amp; 3 at WBSETCL Liluah S/S</b>	<b>120</b>	<b>70</b>

## PARTICIPATING IN RGMO

NTPC	FARAKKA except unit#6
	KAHALGAON
	TALCHER
DVC	MEJIA
WBPDC	BAKRESWAR
	SANTALDIH unit#5
CESC	BUDGE BUDGE
WBPDC	DPL
JSEB	SUBARNREKHA
Sterlite	Sterlite
NHPC	THEESTA

## NOT PARTICIPATING IN RGMO

DVC	CHANDRAPURA TPS	RGMO mode of operation would not be possible for units1, 2 and 3. Because of non-availability of electro-hydraulic governor, digital voltage recorder and CMC.DVC has already applied for exception to Secretary, CERC.
	CHANDRAPURA TPS	Efforts are being made for RGMO mode of operation in the new units of CTPS 7 & 8.
	BOKARO	1. RGMO mode of operation would not be possible for units1, 2 and 3. Because of non-availability of electro-hydraulic governor, digital voltage recorder and CMC. DVC has already applied for exception to Secretary, CERC. 2. For unit 4 governing system is proposed to be change during R&M
	MEJIA	1. RGMO mode of operation would not be possible for units1, 2 and 3. Because of non-availability of electro-hydraulic governor, digital voltage recorder and CMC. DVC has already applied for exception to Secretary, CERC. 2. Efforts are being made for RGMO mode of operation in the new units 4, 5 & 6.
	MEJIA-B	Efforts are being made for RGMO mode of operation in the new units 7 & 8.
	DSTPS	Units 1 & 2 would put in RGMO within a short period.
	WARIA	RGMO mode of operation would not be possible for units 3 & 4. Because of non-availability of electro-hydraulic governor, digital voltage recorder and CMC. DVC has already applied for exception to Secretary, CERC.
JSEB	TENUGHAT	Difficulties in implementing RGMO & exemption not applied
OPGC	IBTPS	Not adequate response in RGMO
WBPDC	KOLAGHAT	Already applied for exception to Secretary, CERC.
	BANDEL	Already applied for exception to Secretary, CERC.
	SANTALDIH unit#6	Could not be implemented because of some technical problem and the issue was referred to manufacturer BHEL.
	SAGARDIGHI	Could not be implemented because of some technical problem and the issue was referred to manufacturer Dangfong, china.
DVC	MAITHON HPS	RGMO mode of operation would not be possible for units1, 2 and 3. Because of non-availability of electro-hydraulic governor, digital voltage recorder and CMC. DVC has already applied for exception to Secretary, CERC.
	PANCHET HPS	RGMO mode of operation would not be possible for units1 & 2. Because of non-availability of electro-hydraulic governor, digital voltage recorder and CMC. DVC has already applied for exception to Secretary, CERC.
OHPC	BURLA	Already applied for exception to Secretary, CERC.
	CHILPIMA	
	BALIMELA	
	UPPER KOLAB	
	RENGALI	
	INDRAVATI	
WBSDDL	RAMMAM	Station is not in RGMO. WBSDDL is pursuing with Rammam
	PPSP	Applied for exception to Secretary, CERC.
NTPC	FARAKKA UNIT #6	
MPL	2	
ADHUNIK	1	
	2	
NHPC	RANGIT	

**Minutes of Special Meeting on “Frequent Tripping around Rangit, Chuzachen and Rammam” held on 16.08.2013 at ERPC, Kolkata**

1. Sh. Ankan Bandyopadhyaya, Member Secretary I/c, ERPC welcomed the participants to this meeting.
2. Representatives from Sikkim & Chuzachen were not present in the meeting.
3. ERLDC pointed that, Chuzachen generation was restricted to 50 MW from 14-06-13 till 24-07-13. No tripping incidence had occurred during this period. Meanwhile, SPS was implemented after discussion in OCC and PCC. In 16<sup>th</sup> PCC meeting held on 24-07-13, PCC considered enhancing Chuzachen generation at 75MW i.e. - an increase of 25MW. PCC desired that performance of the implemented SPS at Chuzachen would be reviewed at 75 MW generation level for a week and thereafter if it found to be satisfactory, then the station generation will be further enhanced.
4. Since no tripping occurred after 24-07-13, Chuzachen was allowed to increase generation by another 10 MW i.e. to 85 MW (interim) from 02-08-13. However, from 03-08-13 onwards, several tripping incidences occurred which caused total power failure at Rangit, Rammam, Melli, Gangtok, Lebong (Darjeeling) and Siliguri complex.
5. Members enquired about dedicated transmission for evacuation of Chuzachen generation. In reply Powergrid informed that, 400/132 kV Rangpo S/s is expected to be ready by March, 2014.
6. ERLDC proposed SPS for backing down generation at Rammam HEP and Rangit HEP in case of tripping of any downstream lines from 132 kV Rammam HPS (i.e. 132 kV Rammam-NBU & Rammam-Lebong-NBU) till new sub-station is ready.
7. WBSETCL and NHPC did not agree for backing down generation at Rammam and Rangit. It was opined that Rammam & Rangit HPS have LTOA & any reduction of generation there need consent from ER beneficiaries as well as Bhutan. It was further reiterated that problems of overloading downside network are arising mainly because of additional generation of Chuzachen even without proper ATS.

8. Threadbare deliberations were held and it was decided,
- i. Rangit & Rammam HPS will be allowed full generation first. After that Chuzachen will be allowed to generate to the maximum of 50 MW.
  - ii. In view of frequent tripping & non operation of SPS implemented for all the possible contingencies it was also decided that, the SPS would be further reviewed to take care of the additional contingencies not covered under present SPS. Any increase in generation at Chuzachen would be reviewed only after argumentation of the present SPS and its successful testing/implementation.
  - iii. Augmentation/revision of the SPS will be done by Gati Infrastructure. For this purpose, ERTS-II, NHPC, WBSETCL and Sikkim shall extend all necessary cooperation.
  - iv. Powergrid/CTU was requested to bring the ATS of Chuzachen as early as possible so that evacuation problem of Chuzachen could be resolved.
  - v. The matter will be referred to next TCC/ERPC and till date Chuzachen generation will be maintained to the maximum of 50 MW.

Meeting ended with vote of thanks to the chair

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**Anticipated Power Supply Position for the month of  
Sep-13**

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
<b>1</b>	<b>BIHAR</b>		
i)	NET MAX DEMAND	2700	1230
ii)	NET POWER AVAILABILITY- Own Source	100	124
	- Central Sector	1950	935
iii)	SURPLUS(+)/DEFICIT(-)	-650	-170
<b>2</b>	<b>JHARKHAND</b>		
i)	NET MAX DEMAND	1150	700
ii)	NET POWER AVAILABILITY- Own Source	688	350
	- Central Sector	708	405
iii)	SURPLUS(+)/DEFICIT(-)	247	54
<b>3</b>	<b>DVC</b>		
i)	NET MAX DEMAND (OWN)	2675	1605
ii)	NET POWER AVAILABILITY- Own Source	4586	2710
	- Central Sector	461	322
	Long term Bi-lateral (Export)	1400	1041
iii)	SURPLUS(+)/DEFICIT(-)	973	386
<b>4</b>	<b>ORISSA</b>		
i)	NET MAX DEMAND	3600	2190
ii)	NET POWER AVAILABILITY- Own Source	2909	1753
	- Central Sector	1013	622
iii)	SURPLUS(+)/DEFICIT(-)	322	185
<b>5</b>	<b>WEST BENGAL</b>		
<b>5.1</b>	<b>WBSEDCL</b>		
i)	NET MAX DEMAND (OWN)	5240	3085
ii)	CESC's DRAWAL	773	215
iii)	TOTAL WBSEDCL's DEMAND	6013	3300
iv)	NET POWER AVAILABILITY- Own Source	3798	2076
	- Import from DPL	0	18
	- Central Sector	2974	2141
v)	SURPLUS(+)/DEFICIT(-)	759	934
<b>5.2</b>	<b>DPL</b>		
i)	NET MAX DEMAND	300	198
ii)	NET POWER AVAILABILITY	300	216
iii)	SURPLUS(+)/DEFICIT(-)	0	18
<b>5.3</b>	<b>CESC</b>		
i)	NET MAX DEMAND	1780	931
ii)	NET POWER AVAILABILITY - OWN SOURCE	1070	716
	FROM WBSEDCL	773	215
iii)	TOTAL AVAILABILITY	1843	931
iv)	SURPLUS(+)/DEFICIT(-)	63	0
<b>6</b>	<b>WEST BENGAL (WBSEDCL+DPL+CESC)</b> <b>(excluding DVC's supply to WBSEDCL's command area)</b>		
i)	NET MAX DEMAND	7320	4214
ii)	NET POWER AVAILABILITY- Own Source	5168	3008
	- Central Sector	2974	2141
iii)	SURPLUS(+)/DEFICIT(-)	822	934
<b>7</b>	<b>SIKKIM</b>		
i)	NET MAX DEMAND	80	44
ii)	NET POWER AVAILABILITY- Own Source	16	5
	- Central Sector	138	86
iii)	SURPLUS(+)/DEFICIT(-)	74	47
<b>8</b>	<b>EASTERN REGION</b> <b>At 1.03 AS DIVERSITY FACTOR</b>		
i)	NET MAX DEMAND	17015	9983
	Long term Bi-lateral	1400	1041
ii)	NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	18749	11419
iii)	PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	1735	1436

### Tentative Maintenance Programme of Generating Units for Sep'13

SYSTEM	POWER STATION	Unit NO.	Effective Capacity (MW)	Proposed programme (As per LGBR)	Reason of S/d	Remarks
DVC	CTPS	Unit No. 7	250	06.09.2013 to 26.09.2013	Annual Overhauling	
	BTPS (B)	Unit No 3	210	11.09.2013 to 06.10.2013	Annual Overhauling	
	DTPS	Unit No. 4	210	28.09.2013 to 08.10.2013	Burner Replacement	
WBPDC	KTPS	Unit No 1	210	15.09.2013 to 26.09.2013	Boiler Licence	
		Unit No 3	210	12.09.2013 to 13.09.2013	Boiler Licence	
	BKTPP	Unit No 3	210	16.09.2013 to 20.09.2013	Boiler Licence	
	BTPS	Unit No 2	60	16.09.2013 to 20.09.2013	Boiler Licence	
		Unit No 5	210	01.09.2013 to 31.03.2014	Scheduled R&M	
TTPS, NTPC	TTPS	Unit No 4	60	22.09.2013 to 06.10.2013	Boiler Overhaul	12.08.2013 to 06.09.2013
NTPC	TSTPP Stg-I	Unit No 1	500	01.09.2013 to 30.09.2013	Boiler+LPT	10.09.2013 to 05.10.2013
	KhSTPP Stg-II	Unit No 6	500	01.08.2013 to 25.08.2013	Boiler+LPT	26.08.2013 to 20.09.2013
MPL		Unit No.1	525	10.09.2013 to 01.10.2013	Annual Overhaul	

**EASTERN REGIONAL LOAD DESPATCH CENTRE  
KOLKATA**

**TRANSMISSION ELEMENTS OTAGE REQUSET APPROVED IN 88TH OCC MEETING OF ERPC**

S/D APPROVED IN OCC									
Sr. No	NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S/D availed BY	Reason	SUBJECT TO CONSENT FROM AGENCY
1	220 KV DALKHOLA - SILIGURI - II	8/21/2013	10:00	8/21/2013	16:00	ODB	ER-II	RELAY RETROFITTING WORK	
2	220KV Maithon-Dhanbad-I	8/22/2013	9:00	8/22/2013	17:00	ODB	ER-II	Numerical relay retrofitting	DVC
3	220KV Birpara-Salakati -II	8/22/2013	9:00	8/22/2013	17:00	ODB	ER-II	Commissioning of PLCC Link and other TL rectification work	NLDC
4	400KV Rourkela-Talcher-1	8/22/2013	9:00	8/22/2013	18:00	ODB	ER-II	Numerical relay retrofitting	NLDC
5	400 KV, 125 MVAR Bus Reactor-1 Sundergarh	8/22/2013	8:00	8/22/2013	18:00	OCB	ER-II	For erection of Pylon Support and formation of Ring of FF system	
6	400 KV PATNA - BALIA - I	8/22/2013	14:00	8/22/2013	14:30	ERLDC		PMU INSTALLATION WORK	NLDC
7	400 KV PATNA - BARH - II	8/22/2013	14:30	8/22/2013	15:00	ERLDC		PMU INSTALLATION WORK	NLDC
8	400 KV ROURKELA - JHARSUGUDA - II	8/22/2013	15:00	8/22/2013	15:30	ERLDC		PMU INSTALLATION WORK	NLDC
9	400 KV ROURKELA - TALCHER - I	8/22/2013	15:30	8/22/2013	16:00	ERLDC		PMU INSTALLATION WORK	NLDC
10	220KV Birpara-Salakati -I	8/23/2013	9:00	8/23/2013	17:00	ODB	ER-II	Commissioning of PLCC Link and other TL rectification work	NLDC
11	400KV Rourkela-Talcher-2	8/23/2013	9:00	8/23/2013	18:00	ODB	ER-II	Numerical relay retrofitting	NLDC
12	400 KV RANCHI - RAGHUNATHPUR	8/25/2013	7:00	8/26/2013	18:00	ODB	ER-I	FOR CROSSING OF 400 KV RANCHI - RANCHI - I AT SECS/0-6/0	
13	400 kv RNC-MTN	8/25/2013	7:00	8/26/2013	18:00	ODB	ER-I	FOR CROSSING OF 400 KV RANCHI - RANCHI - I AT SECS/0-6/0	
14	220 KV JEYPORE - JAYANAGAR - I	8/24/2013	9:00	8/24/2013	18:00		ER-II	RELAY RETROFITTING WORK	NLDC
15	400 kv Farakka-Jeerat	8/24/2013	8:00	8/24/2013	16:00	ODB	ER-II	For jumper reconnection for charging of Berhampur s/s	WBSETCL
16	160MVA ICT-1 at Baripada	8/24/2013	9:00	8/24/2013	17:00	ODB	ER-II	AMP	OPTCL
17	315MVA ICT-1 at Baripada	8/24/2013	9:00	8/24/2013	17:00	ODB	ER-II	AMP'2013 & oil sampling of 400kv Bushings	OPTCL
18	220 KV DALKHOLA - MALDA - I	8/24/2013	9:00	8/24/2013	14:00	ODB	ER-II	Relay Retrofitting work	
19	220KV BINAGURI - SILIGURI - I	8/24/2013	9:00	8/24/2013	14:00	ODB	ER-II	Relay Retrofitting work	
20	220KV Maithon-Dhanbad-II	8/24/2013	9:00	8/24/2013	17:00	ODB	ER-II	Numerical relay retrofitting	DVC
21	220 KV JEYPORE - JAYANAGAR - II	8/25/2013	9:00	8/25/2013	18:00		ER-II	RELAY RETROFITTING WORK	NLDC
22	315MVA ICT-2 at Baripada	8/25/2013	9:00	8/25/2013	17:00	ODB	ER-II	AMP'2013 & oil sampling of 400kv Bushings	OPTCL
23	220 KV DALKHOLA - MALDA - II	8/25/2013	9:00	8/25/2013	14:00	ODB	ER-II	Relay Retrofitting work	
24	220KV BINAGURI - SILIGURI - II	8/25/2013	9:00	8/25/2013	14:00	ODB	ER-II	Relay Retrofitting work	
25	400 kv Indravati-Bengali Line	8/26/2013	9:00	8/26/2013	18:00	ODB	ER-II	Retrofitting of Numerical Relay	NLDC
26	220KV DALKHOLA - PURNEA - I	8/26/2013	9:00	8/26/2013	14:00	ODB	ER-II	Relay Retrofitting work	
27	220KV BINAGURI - SILIGURI - I	8/26/2013	9:00	8/26/2013	14:00	ODB	ER-II	Relay Retrofitting work	
28	400 KV Durgapur - Jamshepur	8/26/2013	9:30	8/26/2013	17:30	ODB	ER-II	Relay Retrofitting work	
29	125 MVAR B /R -II AT PATNA	8/26/2013	8:00	8/29/2013	18:00	ODB	ER-I	FOR ERECTION OF LM NEAR BUS REACTOR - II BAY	
30	400 kv Binaguri- Tala-4	8/26/2013	10:00	8/26/2013	16:00	ODB	ER-II	Relay retrofitting work work	NLDC & BHUTAN
31	ICT#2, 3X105 MVA at Indravati	8/26/2013	9:00	8/26/2013	18:00	OCB	ER-II	Commissioning of repaired single phase transformer & taking into service in three phase bank.	OPTCL
32	400 KV BINAGURI - BONGAIGAIN D/C	8/26/2013	7:00	8/27/2013	17:00	ODB	ENICL	FOR CONSTRUCTION OF 400 KV BINA - BONG - NEW D/C LINE	NLDC
33	400 KV Durgapur - Jamshepur	8/26/2013	10:00	8/26/2013	12:00	ODB	ER-I	FOR TAN DELTA AND CAPACITANCE MEASUREMENT OF ABB CT	
34	400 kv Binaguri- Purnea-I Line	8/26/2013	10:00	8/26/2013	16:00	ODB	ER-II	Relay retrofitting work work	NLDC
35	400 KV Binaguri- Bongaigaon-II	8/26/2013	10:00	8/26/2013	16:00	ODB	ER-II	Relay retrofitting work work	NLDC
36	220KV DALKHOLA - PURNEA - II	8/27/2013	9:00	8/27/2013	14:00	ODB	ER-II	Relay Retrofitting work	
37	220KV BINAGURI - SILIGURI - II	8/27/2013	9:00	8/27/2013	14:00	ODB	ER-II	Relay Retrofitting work	
38	220KV Rourkela-Tarkera-1	8/27/2013	9:00	8/27/2013	18:00	ODB	ER-II	Numerical relay retrofitting	OPTCL
39	400 kv Indravati-UIHEP Line	8/27/2013	9:00	8/27/2013	18:00	ODB	ER-II	Retrofitting of Numerical Relay	OPTCL
40	220KV Durgapur Bidhannagar	8/27/2013	9:30	8/27/2013	17:30	ODB	ER-II	Relay Retrofitting Work	WBSETCL
41	400 kv Binaguri- Tala-2 line	8/27/2013	10:00	8/27/2013	16:00	ODB	ER-II	Relay retrofitting work work	NLDC & BHUTAN
42	400 KV, 125 MVAR Bus Reactor- 2 Sundergarh	8/27/2013	8:00	8/30/2013	18:00	OCB	ER-II	For erection of Pylon Support and formation of Ring of FF system	
43	400 kv Binaguri- Purnea-2 Line	8/27/2013	10:00	8/27/2013	16:00	ODB	ER-II	Relay retrofitting work work	NLDC
44	400 KV SASARAM - BIHARSARIFF - II	8/27/2013	15:00	8/27/2013	15:30	ERLDC		PMU INSTALLATION WORK	NLDC
45	400 KV SASARAM - ALLAHBAD	8/27/2013	15:30	8/27/2013	16:00		ERLDC	PMU INSTALLATION WORK	NLDC
46	220KV Birpara-MALBASE	8/28/2013	9:00	8/28/2013	14:00	ODB	ER-II	Relay Retrofitting work	NLDC/CHUKHA
47	400 KV JERAT - SUBHASGRAM	8/28/2013	9:00	8/28/2013	18:00	ODB	ER-II	Relay Retrofitting work	WBSETCL
48	400kv Baripada-Keonjhar	8/28/2013	10:00	8/28/2013	12:00	ODB	ER-II	For testing of M-2 relay after retrofitting.	NLDC
49	400 KV MEJIA - JSR	8/28/2013	10:00	8/28/2013	12:00	ODB	ER-I	FOR TAN DELTA AND CAPACITANCE MEASUREMENT OF ABB CT	
50	400KV Durgapur Bidhannagar	8/28/2013	9:30	8/28/2013	17:30	ODB	ER-II	Relay Retrofitting Work	WBSETCL
51	400 kv Binaguri- Tala-3 Line	8/28/2013	10:00	8/28/2013	16:00	ODB	ER-II	Relay retrofitting work work	NLDC & BHUTAN
52	ICT-I at Durgapur	8/29/2013	9:30	8/29/2013	13:30	ODB	ER-II	OTW1 adaptation under NTAMC	WBSETCL
53	400 KV RENGALI - TALCHER - II	8/29/2013	14:00	8/29/2013	14:30		ERLDC	PMU INSTALLATION WORK	NLDC
54	400 KV RENGALI - BARIPADA	8/29/2013	14:30	8/29/2013	15:00		ERLDC	PMU INSTALLATION WORK	NLDC
55	220KV Rourkela-Tarkera-2	8/30/2013	9:00	8/30/2013	18:00	ODB	ER-II	Numerical relay retrofitting	OPTCL
56	400KV Rourkela-Jharsuguda-1	8/30/2013	9:00	8/30/2013	18:00	ODB	ER-II	Numerical relay retrofitting	NLDC

57	80 MVAR B/R AT PATNA	8/30/2013	10:00	8/30/2013	14:00	ODB	ER-I	FOR COMMISSIONING OF CONTROLLED SWITCHING DEVICE	
58	315 MVA ICT-II at Durgapur	8/30/2013	9:30	8/30/2013	13:30	ODB	ER-II	CTH1 adaptation under NTAMC	WBSETCL
59	315 MVA ICT#3 at Subhasgram	8/30/2013	8:00	8/30/2013	14:00	ODB	ER-II	CT OIL SAMPLING FOR DGA	WBSETCL
60	400 KV BIHARSARIFF - BALIA - I	8/30/2013	15:00	8/30/2013	15:30		ERLDC	PMU INSTALLATION WORK	NLDC
61	400 KV BIHARSARIFF - KAHALGAON - I	8/30/2013	15:30	8/30/2013	16:00		ERLDC	PMU INSTALLATION WORK	NLDC
62	400 KV Rourkela-SEL -1	8/31/2013	9:00	8/31/2013	18:00	ODB	ER-II	Numerical relay retrofitting	NLDC
63	132 KV MELLI - CHUZACHEN	8/31/2013	6:00	8/31/2013	16:00		SIKKIM	TREE CUTTING WORK	
64	132 KV CHUZACHEN - GANGTOK	8/31/2013	6:00	8/31/2013	16:00		SIKKIM	TREE CUTTING WORK	
65	400 KV RNC-MTN	9/1/2013	7:00	9/30/2013	18:00	ODB	ER-I	For OPGW Stringing under ULDC Project	SHUTDOWN TO BE CLEARED FOR 7 DAYS AND FURTHER CLEARANCE WOULD BE ISSUED WEEKLY BASIS
66	400 KV PATNA - BARH - III	9/1/2013	7:00	9/30/2013	18:00	ODB	ER-I	For OPGW Stringing under ULDC Project	SHUTDOWN TO BE CLEARED FOR 7 DAYS AND FURTHER CLEARANCE WOULD BE ISSUED WEEKLY BASIS
67	400Kv KTHP-Kharagpur- Baripada	9/1/2013	6:00	9/1/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	NLDC
68	80 MVAR Bus Reactor AT 400KV Kharagpur:	9/1/2013	8:00	9/1/2013	15:00		WBSETCL	Maintanance of C.B. i.r.o. reactor	
69	220KV Budhipadar-Korba-3	9/2/2013	9:00	9/2/2013	18:00	ODB	ER-II	Numerical relay retrofitting	NLDC & OPTCL
70	400 KV Malda-Purnea-II	9/2/2013	9:00	9/2/2013	18:00	ODB	ER-II	AMP & Relay retrofitting work.	NLDC
71	BUA - I & REACTOR - II AT ANUGUL	9/2/2013	7:00	9/5/2013	18:00		ER-II	EQUIPMENT ERECTION & BUS - I EXTENSION FOR CHARGING OF REACTOR - I	
72	400 KV BINAGURI - BONGAIGAIN D/C	9/2/2013	7:00	9/3/2013	17:00	ODB	ENICL	FOR CONSTRUCTION OF 400 KV BINA - BONG - NEW D/C LINE	NLDC
73	220KV STPS - Chandil S/C ckt	9/2/2013	5:00	9/2/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
74	400 Kv Main Bus-II with 400/220Kv 315MVA Tr-III At Arambag	9/2/2013	8:00	9/2/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
75	400 KV Binaguri- Bongaigaon-I	9/2/2013	9:00	9/2/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	NLDC
76	400 KV JAMSHEDPUR - TISCO	9/3/2013	8:00	9/7/2013	18:00	OCB	ER-I	FOR RESTORATION OF JSR(PG)-JSR(TISCO) & JSR - BARIPADA ON NORMAL TOWER	NLDC
77	400KV Rourkela-Jharsuguda-2	9/3/2013	9:00	9/3/2013	17:00	ODB	ER-II	To Repair of conductor strained at loc 31	NLDC
78	125 MVAR B/R - II AT NEW PURNEA	9/3/2013	8:00	9/3/2013	12:00	ODB	ER-I	FOR ANNUAL MAINTENANCE WORK	
79	220 KV DALKHOLA - MALDA - I	9/3/2013	8:00	9/3/2013	18:00	ODB	ER-II	Retrofitting of CVTs under ADDCAP	
80	400KV Reactor bay Durgapur(WB)	9/3/2013	9:00	9/3/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
81	400 KV Jeerat (WB)- BKTPP S/C ckt	9/3/2013	8:00	9/3/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
82	400Kv Main Bus-II with 400/220Kv 315MVA Tr-III AT ARAMBAG	9/3/2013	8:00	9/3/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
83	400 KV Binaguri- Bongaigaon-II	9/3/2013	9:00	9/3/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	NLDC
84	400 KV Malda-Purnea-I	9/3/2013	9:00	9/3/2013	17:00	ODB	ER-II	AMP & Relay retrofitting work.	NLDC
85	400 KV DURGAPUR - MAITHON - II	9/3/2013	15:00	9/3/2013	15:30		ERLDC	PMU INSTALLATION WORK	
86	400 KV DURGAPUR - JAMSHEDPUR	9/3/2013	15:30	9/3/2013	16:00		ERLDC	PMU INSTALLATION WORK	
87	400 KV JEYPORE - MERAMUNDALI	9/3/2013	14:00	9/3/2013	14:30		ERLDC	PMU INSTALLATION WORK	NLDC
88	400 KV JEYPORE - INDRAVATI	9/3/2013	14:30	9/3/2013	15:00		ERLDC	PMU INSTALLATION WORK	NLDC
89	400KV Rourkela-SEL-2	9/4/2013	9:00	9/4/2013	17:00	ODB	ER-II	To Repair of conductor strained at LOC 57 & 58	NLDC
90	132 KV Birpara- Birpara-I	9/4/2013	9:00	9/4/2013	17:00	ODB	ER-II	Replacement of CT under ADDCAP	WBSETCL
91	400KV bus Transfer with MB-1 At Arambag	9/4/2013	8:00	9/4/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
92	400 Kv Main Bus-II At Arambag	9/4/2013	8:00	9/4/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
93	132 KV Main bus at Birpara	9/4/2013	9:00	9/4/2013	17:00	ODB	ER-II	Balance work of ERSS-IV Pkg	WBSETCL & ICT-I&II shall be out of service
94	400KV Main Bus-I at Malda	9/5/2013	9:00	9/5/2013	17:00	ODB	ER-II	For stringing of extension bay. Under construction head.	WBSETCL
95	400 KV BSF - BANKA - I	9/5/2013	9:30	9/5/2013	17:30	ODB	NTPC	PM & RELAY TESTING	NLDC
96	400KV Arambag - Durgapur	9/5/2013	9:00	9/5/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
97	132 KV Birpara-Birpara-II	9/5/2013	9:00	9/5/2013	17:00	ODB	ER-II	Retrofitting of Relay	WBSETCL
98	220KV Rengali-Rengali-I	9/5/2013	8:00	9/5/2013	19:00	ODB	ER-II	For Replacement of CTs	OPTCL
99	400KV Durgapur -PPSP #2	9/5/2013	9:00	9/5/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
100	400Kv Transfer Bus with 400/220Kv 315MVA Tr-I At Arambag	9/5/2013	8:00	9/5/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
101	400 KV BSF - BANKA - I	9/5/2013	9:00	9/5/2013	17:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
102	400KV Malda Farakka-I	9/6/2013	9:00	9/6/2013	18:00	OCB	ER-II	For erection & commissioning of new equipments and dismantling of old installed equipments. Under construction head.	NLDC
103	BUA - I & REACTOR - III AT ANUGUL	9/6/2013	7:00	9/10/2013	18:00		ER-II	EQUIPMENT ERECTION & BUS - I EXTENSION FOR CHARGING OF REACTOR - I	
104	132 KV Main Bus at Malda	9/6/2013	8:00	9/6/2013	11:00	ODB	ER-II	For 132 KV main bus isolator jumper removal and isolator dismantling works, Construction head.	WBSETCL & Full power interruption in 132 KV level
105	400 KV FARAKKA - MALDA - I	9/6/2013	9:00	9/6/2013	18:00		ER-II	Retrofitting of Relay	NLDC
106	220 KV DALKHOLA - MALDA - II	9/6/2013	8:00	9/6/2013	18:00	ODB	ER-II	Retrofitting of CVTs under ADDCAP	
107	132KV Malda(WB)-Malda (PG) #1	9/6/2013	7:00	9/6/2013	14:00		WBSETCL	For Maintenance (O.D.B.)	
108	220KV Birpara-Salakati -I	9/6/2013	9:00	9/6/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	NLDC
109	400Kv Durgapur-PPSP#1	9/6/2013	9:00	9/6/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
110	Main Bus I with 400/220Kv 315MVA Tr-IV At Arambag:	9/6/2013	8:00	9/6/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
111	400 KV BINAGURI - PURNEA - III	9/6/2013	15:00	9/6/2013	15:30		ERLDC	PMU INSTALLATION WORK	NLDC
112	400 KV BINAGURI - TALA - III	9/6/2013	15:30	9/6/2013	16:00		ERLDC	PMU INSTALLATION WORK	NLDC/BHUTAN



113	400 KV FARAKKA - MALDA - I	9/7/2013	9:00	9/7/2013	18:00		ER-II	Retrofitting of Relay	NLDC
114	132 KV Main Bus at Malda	9/7/2013	8:00	9/7/2013	12:00	ODB	ER-II	For 132 KV main bus isolator jumper connection and isolator erection works, Construction head.	WBSETCL & Full power interruption in 132 KV level
115	132KV Malda(WB) -Malda(PG) #2	9/7/2013	7:00	9/7/2013	14:00		WBSETCL	For Maintenance (O.D.B.)	
116	220KV Birpara-Salakati -II	9/7/2013	9:00	9/7/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	NLDC
117	220KV Rengali-PTCL FDR-II	9/7/2013	8:00	9/7/2013	19:00	ODB	ER-II	For Replacement of CTs	OPTCL
118	400KV Arambag - Durgapur	9/7/2013	7:00	9/7/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
119	400 KV Rourkela-Jamshedpur-I	9/7/2013	9:00	9/7/2013	14:00	ODB	ER-II	AMP	
120	132 KV Malda(WB) - Malda (PG) #1 & 132KV bays of PG #1 & 2	9/7/2013	7:00	9/7/2013	12:00		WBSETCL	For Maintenance (O.D.B.)	
121	400 KV Biharsariff - Kahaigaon - 1	9/8/2013	9:00	9/8/2013	17:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
122	400kv Durgapur-Parulia(PGCL) S/C ckt	9/8/2013	7:00	9/8/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
123	400 KV Biharsariff - Kahaigaon - 2	9/10/2013	9:00	9/10/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
124	400KV JEERAT - FARAKKA	9/10/2013	8:00	9/10/2013	18:00	ODB	ER-II	CT REPLACEMENT / REACTOR AMP	WBSETCL
125	315 MVA ICT - I AT PSL	9/10/2013	10:00	9/10/2013	18:00	ODB	ER-I	FOR ANNUAL MAINTENANCE WORK	
126	315 MVA ICT#1 at Subhasgram	9/10/2013	8:00	9/10/2013	16:00	ODB	ER-II	NTAMC OTI FITTING	WBSETCL
127	400KV JEERAT - FARAKKA	9/10/2013	8:00	9/10/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
128	400kv KTHP-Kharagpur- Baripada	9/11/2013	6:00	9/11/2013	15:00		WBSETCL	Trimming work	NLDC
129	400kv Durgapur(WB) - Parulia (PG)#1	9/11/2013	9:00	9/11/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
130	400kv Kh-Maithon-ckt-1	9/11/2013	9:30	9/11/2013	17:30	ODB	NTPC	PM & RELAY TESTING	NLDC
131	400kv Barh-Patna-ckt-3	9/11/2013	9:00	9/11/2013	17:00	ODB	NTPC	PM & RELAY TESTING	NLDC
132	315 MVA ICT - II AT PSL	9/11/2013	10:00	9/11/2013	18:00	ODB	ER-I	FOR ANNUAL MAINTENANCE WORK	
133	220KV BINAGURI - SILIGURI - I	9/11/2013	9:00	9/11/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	
134	400kv Barh-Patna-ckt-4	9/12/2013	9:00	9/12/2013	17:00	ODB	NTPC	PM & RELAY TESTING	NLDC
135	125 MVAR B/R - I AT PSL S/S	9/12/2013	10:00	9/12/2013	18:00	ODB	ER-I	FOR ANNUAL MAINTENANCE WORK	
136	400 KV BINAGURI - BONGAIGAIN D/C	9/12/2013	7:00	9/13/2013	17:00	ODB	ENICL	FOR CONSTRUCTION OF 400 KV BINA - BONG - NEW D/C LINE	NLDC
137	132KV NBU(WB)-Siliguri(PG)#2	9/12/2013	8:00	9/12/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
138	160 MVA ICT-II at Siliguri	9/12/2013	8:00	9/12/2013	20:00	ODB	ER-II	CT Replacement	WBSETCL
139	125 MVAR B/R - II AT PSL S/S	9/13/2013	10:00	9/13/2013	18:00	ODB	ER-I	FOR ANNUAL MAINTENANCE WORK	
140	400 KV BSF - SSRM - I	9/13/2013	9:00	9/13/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
141	315 MVA ICT#2 at Subhasgram	9/13/2013	8:00	9/13/2013	16:00	ODB	ER-II	NTAMC OTI FITTING	WBSETCL
142	400KV Bus - Coupler bay At Durgapur(WB)	9/13/2013	9:00	9/13/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
143	220 KV Durgapur(WB) - Waria(DVC) #1	9/13/2013	9:00	9/13/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
144	132KV NBU(WB)-NJP(WB)-Siliguri(PG)#1	9/13/2013	8:00	9/13/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
145	220KV BINAGURI - SILIGURI - II	9/14/2013	9:00	9/14/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	
146	400 KV BSF - SSRM - II	9/14/2013	9:00	9/14/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
147	220 KV Malbase-Birpara TL	9/14/2013	9:00	9/14/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	NLDC & BHUTAN
148	220KV Durgapur(WB) - Waria(DVC) #2	9/14/2013	9:00	9/14/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
149	220KV NJP(WB)- Binnaguri(PG) M.B.Section-A	9/14/2013	8:00	9/14/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
150	400KV SAGARDIGHI - SUBHASGRAM	9/15/2013	8:00	9/15/2013	16:00	ODB	ER-II	LINE JUMPER TIGHTENING / NTAMC OTI FITTING / LA REPLACEMENT / Insulator replacement	WBSTCL
151	132KV NBU(WB)-Siliguri(PG)#2	9/15/2013	5:00	9/15/2013	10:00		WBSETCL	For Maintenance (O.D.B.)	
152	132KV NBU(WB)-NJP(WB)-Siliguri(PG)#1	9/15/2013	5:00	9/15/2013	10:00		WBSETCL	For Maintenance (O.D.B.)	
153	220KV NJP(WB)- Binnaguri(PG) M.B.Section-B	9/15/2013	8:00	9/15/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
154	132 KV HATIA - PATRATU	9/15/2013	8:00	9/15/2013	18:00		ER-I	FOR CROSSING OF 400 KV RANCHI - RANCHI - I	JSEB
155	400kv KTHP-Kharagpur- Baripada	9/16/2013	8:00	9/16/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	NLDC
156	400 KV BSF - SSRM - 3	9/16/2013	9:00	9/16/2013	17:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
157	400KV Bus Coupler Bay At Jeerat:	9/16/2013	8:00	9/16/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
158	400KV Bus Coupler At KTHP:	9/17/2013	6:00	9/18/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
159	At 400KV Durgapur(WB): 400KV Bus Tr. Bay	9/17/2013	9:00	9/17/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
160	400 KV SSRM - BALIA	9/18/2013	8:00	9/18/2013	18:00	ODB	ER-I	FOR DALTANGANI BAY CONSTN. WORK	NLDC
161	400 KV BSF - SSRM - 3	9/19/2013	8:00	9/19/2013	18:00	ODB	ER-I	FOR DALTANGANI BAY CONSTN. WORK	NLDC
162	400 KV BSF - BANKA - II	9/19/2013	9:00	9/19/2013	17:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
163	At Jeerat(WB) : 400/220kv 315MVA Tr-3	9/19/2013	8:00	9/19/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
164	765 KV GAYA - FATEHPUR LINE	9/20/2013	8:00	9/20/2013	18:00	ODB	ER-I	FOR CB TESTING OF 765 KV SPARE REACTOR AT SSRM	NLDC
165	400 KV PTN - BALIA - II	9/20/2013	9:00	9/20/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
166	400KV Main Bus-I at Malda	9/20/2013	9:00	9/20/2013	17:00	ODB	ER-II	For jumpering between extension bay and existing bus. Under construction head.	WBSETCL
167	220KV Durgapur(WB)- Parulia(PG) S/C ckt	9/20/2013	9:00	9/20/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
168	400/220kv 315 MVA TR-1 At Arambag	9/20/2013	7:00	9/20/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
169	400 KV BSF - MUZ - I	9/21/2013	9:00	9/21/2013	17:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
170	132KV NBU(WB)-Siliguri(PG)#2	9/22/2013	5:00	9/22/2013	7:00		WBSETCL	132KV bus P.T. S/D	
171	132KV NBU(WB)-NJP(WB)-Siliguri(PG)#1	9/22/2013	5:00	9/22/2013	7:00		WBSETCL	For Maintenance (O.D.B.)	
172	220 KV HATIA - PATRATU	9/22/2013	8:00	9/22/2013	18:00		ER-I	FOR CROSSING OF 400 KV RANCHI - RANCHI - I	SUBJECT TO AVAILABILITY OF 220 KV TENUGHAT - BIHARSARIF
173	400 KV BSF - MUZ - II	9/23/2013	9:00	9/23/2013	17:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
174	220KV Chukha-Birpara-I	9/23/2013	9:00	9/23/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	NLDC & BHUTAN
175	400/220kv 315MVA Tr-2 At Arambag	9/23/2013	8:00	9/23/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
176	400kv 80MVAR Bus Reactor At Kharagpur	9/23/2013	7:00	9/23/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
177	400 KV BSF - GAYA	9/24/2013	9:00	9/24/2013	17:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC

178	220 KV DALKHOLA - MALDA - I	9/24/2013	8:00	9/24/2013	18:00	ODB	ER-II	Retrofitting of CTs under ADDCAP	
179	220KV Siliguri-New Siliguri-I	9/24/2013	8:00	9/24/2013	20:00	ODB	ER-II	CT Replacement	
180	220KV Chukha-Birpara-II	9/24/2013	9:00	9/24/2013	17:00	ODB	ER-II	Insulator replacement work damaged due to flash over/miscreant	NLDC & BHUTAN
181	400KV Jeerat(WB) – S'Gram(PG) S/C ckt	9/24/2013	8:00	9/24/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
182	400/220kv 315MVA Tr-2 At Jeerat(WB)	9/24/2013	8:00	9/24/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
183	400kv Bus Reactor-1 at Kahalgaon	9/25/2013	9:30	9/25/2013	17:30	ODB	NTPC	PM & RELAY TESTING	
184	400 KV RNC - RAGHUNATHPUR	9/25/2013	9:00	9/25/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	
185	400/220kv 3x105MVA Tr-1 At 400KV Durgapur(wb)	9/25/2013	9:00	9/25/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
186	400/220kv 315MVA TR-1 At Jeerat(WB)	9/25/2013	8:00	9/25/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
187	400/220kv 315MVA Tr-2 At Arambag	9/25/2013	8:00	9/25/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
188	BUA - I & REACTOR - II AT ANUGUL	9/25/2013	7:00	9/28/2013	18:00		ER-II	EQUIPMENT ERECTION & BUS - I EXTENSION FOR CHARGING OF REACTOR - I	
189	220KV Siliguri-New Siliguri-II	9/25/2013	8:00	9/25/2013	20:00	ODB	ER-II	CT Replacement	
190	132 KV SSRM - DEHRI	9/26/2013	10:00	9/26/2013	14:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	BIHAR
191	400 KV MTN - RAGHUNATHPUR	9/26/2013	9:00	9/26/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	
192	220 KV DALKHOLA - MALDA - II	9/26/2013	8:00	9/26/2013	18:00	ODB	ER-II	Retrofitting of CTs under ADDCAP	
193	400 KV BINAGURI - BONGAIGAIN D/C	9/26/2013	7:00	9/27/2013	17:00	ODB	ENICL	FOR CONSTRUCTION OF 400 KV BINA - BONG - NEW D/C LINE	NLDC
194	400 KV BSF - KODERMA - I	9/27/2013	9:00	9/27/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	NLDC
195	400/220 Kv 315MVA Tr-3 At Arambag	9/27/2013	8:00	9/27/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	
196	132 KV BSF - HATIDAH - I	9/28/2013	9:00	9/28/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	BIHAR
197	220 KV DALKHOLA - SILIGURI - I	9/28/2013	8:00	9/28/2013	18:00	ODB	ER-II	Retrofitting of CTs under ADDCAP	
198	400KV Jeerat(WB)- BKTPP S/C ckt	9/29/2013	8:00	9/29/2013	15:00		WBSETCL	For Maintenance (O.D.B.)	
199	132 KV BSF - HATIDAH-II	9/30/2013	9:00	9/30/2013	13:00	ODB	ER-I	FOR ATTENDING LINE DEFECTS	BIHAR
200	220 KV DALKHOLA - SILIGURI - II	9/30/2013	8:00	9/30/2013	18:00	ODB	ER-II	Relay Retrofitting Work	
201	400/220kv 315MVA Tr-4 At Arambag	9/30/2013	8:00	9/30/2013	16:00		WBSETCL	For Maintenance (O.D.B.)	