

Eastern Regional Power Committee

Minutes of 94th OCC Meeting held on 21st February, 2014 at ERPC, Kolkata

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

Item no. A.1: Confirmation of minutes of 93rd OCC meeting of ERPC held on 10.01.14

The minutes were circulated vide letter dated 16.01.14 to all the constituents and also uploaded in ERPC website. No comments were received till date.

Members may confirm the minutes.

Deliberation in the meeting

Members confirmed the minutes of 93rd OCC meeting.

PART B

Item no. B.1: Collection of data regarding power supply in RGGVY villages

Govt. of India launched Rajiv Gandhi Grameen Vidyutikaran Yojna (RGGVY) to provide access to electricity to all the rural households in the country. As per the scheme states have to provide minimum 6-8 hours power supply in the villages.

At higher level meeting taken by Secretary, MoP, it has been decided that the monthly status on the power supply to all the villages including villages electrified under RGGVY scheme may be collected by CEA through RPCs from the states of their region.

Accordingly, all are requested to furnish monthly data starting from December, 2013/January, 2014 in the format enclosed at **Annexure-B.1** to ERPC vide mail **mserpc-power@nic.in** or to CEA vide mail **cegmcea@yahoo.com** on regular basis.

Members may note and provide the requisite information on monthly basis.

Deliberation in the meeting

*MS I/C informed that MoP is now monitoring the status of power supply to the villages including those which are electrified under RGGVY scheme. OCC requested all the constituents to send the above data in the prescribed format (enclosed at **Annexure-B.1**) on regular basis. All constituents agreed.*

Item no. B.2: Charging of 400/220/132 kV RANGPO substation

Construction of 400/220/132 kV GIS Rangpo Substation is in progress and likely to be charged by Mar'14. Further, for energization of the substation Powergrid has planned for LILO of 132 kV Chujachen-Melli at Rangpo substation in the month of Feb'14. Two Nos. 132 kV bays for making LILO of 132 kV Chujachen-Melli and Chujachen-Gangtok at Rangpo substation which are in the scope of Sikkim Govt. are yet to be constructed.

Further, Interim arrangement shall be made utilizing 132kV Melli bay of POWERGRID to terminate Chuzachen at Rangpo substation.

Powergrid and Chuzachen may deliberate & OCC may design further course of action.

Deliberation in the meeting

Powergrid informed that 132 kV bays of Sikkim at Rangpo S/s are not yet ready. However, temporarily 132 kV Melli bay of Powergrid can be used to terminate 132 kV Chuzachen-Melli at Rangpo substation and 132 kV Chuzachen – Gangtok will be directly connected to Gangtok S/s. Sikkim agreed for the above interim arrangement till Sikkim bays commissioned.

On enquiry, Powergrid informed that the 400/220 kV Rangpo pooling S/S will be ready by 31st March, 2014.

Item no. B.3: Re-commissioning of 220kV Balimela-UpperSileru

220kV Balimela-UpperSileru is presently under open condition and hence transfer capability enhancement expected on commissioning the line remains unavailable. However with the synchronization of NEW grid and SR grid the tie line has assumed greater importance and it is essential that the above line be taken into service. As an initial step, it is proposed to re-commission the line and take it into service in radial mode. Accordingly, to start with it is essential that OPTCL confirm readiness of 220kV Balimela-Uppersileru for the Odisha portion of the line, so that radial mode of power transfer can take place between ER and SR over the line.

In 93rd OCC Odisha informed that, the line is ready for charging from their end.

OCC agreed for re-commissioning of the line and referred the issue to TCC/ERPC for final concurrence.

Since a portion of the line is under SRPC jurisdiction, OCC also advised secretariat to refer the issue to SRPC for further necessary action at their end after getting final approval from TCC/ERPC.

In 26th TCC/ERPC meeting, Odisha confirmed that the line has already been charged from Balimela end and the Odisha portion is under charged conditions.

TCC agreed for re-commissioning of the line and referred the issue to ERPC for final concurrence.

Since a portion of the line is under SRPC jurisdiction TCC also advised secretariat to refer the issue to SRPC for further necessary action at their end after getting final approval from ERPC.

Subsequently, ERPC vide letter dated 13.02.2014 referred SRPC for re-commissioning of the said line.

Members may note.

Deliberation in the meeting

MS I/C informed that till date no communication has been received from SRPC. OCC noted.

Item no. B.4: Review of load relief under various stages of UFR

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

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
BSEB	98	99	99	101	397
JSEB	61	62	61	62	246
DVC	134	135.5	136	137	542.5
Odisha	181.5	183.5	184	186	735
WB & CESC	345.5	350	350	354	1399.5
Total	820	830	830	840	3320

It was decided to implement the revised scheme within a month. The latest status updated in last OCC is follows:

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

ERLDC suggested for keeping UFRs in operational at Dumka and Sahebgunj till the implementation of Farakka islanding scheme. JSEB agreed.

During UFR inspection in OPTCL substations on 2nd January, 2014 it was found that, Tripping Alarm & Annunciation/Facia are not available in some sub-stations of OPTCL for which OPTCL agreed to provide the same.

OPTCL and JSEB may update the latest status.

Deliberation in the meeting

OPTCL informed that UFR installation will be completed by February, 2014 in rest of the three Sub-stations and the recommendations of UFR inspection team regarding Alarm & Annunciation/facia had been complied in the concerned sub-stations.

JSEB informed that the order for UFR installation at five new sub-stations has been placed and expected to be completed by February, 2014.

Item no. B.5: Availability of data of real time power flow of feeders covered under Under frequency Load shedding scheme(UFLS) and lower relief expected to obtained in real time system operation

a) Availability of data of real time power flow of feeders covered under Under frequency Load shedding scheme (UFLS)

CERC has given order against the petition no 221/MP/2012 “Providing adequate load shedding through automatic under frequency and df/dt relays in the state systems of Northern region and keeping them functional in terms of Regulation 5.2 (n) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (First amendment), Regulations 2012 for ensuring security of the Northern regional grid as well as the interconnected Indian grid.”

Quote

(vi) The UFRs and df/dt may be replaced with numerical type so that following features can be achieved:

- Storage of past data
- Remote programming and status monitoring at ALDC/SLDC/RLDC
- Remote on-line real time load flow of each feeders for local shedding
- Time synchronization from remote
- Tripping from remote under special protection scheme
- Easy for developing islanding scheme for the constituents by monitoring the relay condition with trip circuit healthy and real time load flow on feeders

(vii) Installation of OPGW / Fiber optic for direct speech (hot line) / data communication with ALDC/SLDC/RLDC

Unquote

In this connection, all SLDCs are requested to make available at ERLDC, the real time power flow data of the feeders earmarked for UFLS. This is essential so that RLDC can assess the relief actually obtained in real time whenever any stage of UFRs operates.

In 93rd OCC, ERLDC requested for real time telemetry data of feeders connected with UFR. OCC requested all the constituents to comply the CERC guidelines and communicate their experience.

Members may share.

Deliberation in the meeting

Constituents expressed that the implementation of above scheme is quite difficult and needs re-investment in numerical UFRs and communication system. OCC requested all constituents to communicate their views/reply to CERC.

b) Lower relief expected from UFLS in real time system operation

Most of the constituents have furnished maximum MW demands of the feeders, which are covered under frequency load shedding scheme. But as there is time diversity among these demands, actual load relief that would be obtained in real time is likely to be less than the projected quantum. Constituents may therefore furnish the average demands of these identified feeders. Further, since in reality, some of them may be under planned or forced outage, it is essential to connect loads whose aggregated average demand is around 1.5 to 2 times the quantum of the agreed scheme; for each of the 4 stages.

In 93rd OCC, constituents felt that setting UFRs at average demand is not feasible due to huge variation in peak and average load. However, ERLDC opined that, the load quantum should be taken as average load for actual load relief.

The house was informed that the relief quantum from UFLs for each constituent in ER was set in line with decision taken in NPC followed by deliberation in previous OCCs. Therefore members felt it necessary to refer the same to NPC for further guidance.

Therefore, OCC requested all members to give their views and decided to take up the issue to NPC for review. ERPC vide letter dated 13th February, 2014 sought clarification on the matter from NPC.

Members may note/update.

Deliberation in the meeting

MS I/C informed that the issue has been referred to NPC and will be discussed in next NPC meeting. ERLDC informed that as per CERC order for petition no 263/MP/2012 dated 19.12.2013 the UFR load shedding quantum should be considered on average load basis. OCC noted.

Item no. B.6: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG) Substation

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

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

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

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

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

In 93rd OCC OPTCL informed the status as follows:

- (i) LILO of OPTCL's Burla-Bolangir line at Bolangir (PG).—Work is in progress and it would be completed by June, 2014
- (ii) Bolangir(PG) –Bolangir (OPTCL) S/C line.). —Retendering is in progress
- (iii) Bolangir(PG) –Kesinga S/C line. —Work is in progress and it would take one year.

OPTCL may update the status.

Deliberation in the meeting

OPTCL informed the status as follows:

- (iv) *LILO of OPTCL's Burla-Bolangir line at Bolangir (PG).—Work is in progress and it would be completed by June, 2014*
- (v) *Bolangir(PG) –Bolangir (OPTCL) S/C line.). — Abandoned.*
- (vi) *Bolangir(PG) –Kesinga S/C line. —Work is in progress and it would take one year.*

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

There were frequent failure of 160 KN insulators in our 400 KV D/C (Quad) Siliguri-Purnea Line and Purnea-Saharsha section of 400 KV Purnea-Muzaffarpur Line. This in turn had made the line unreliable and the entire grid vulnerable. These insulators were supplied by M/S Birla –NGK (Jayashree) during construction of the line in 2005-06. Since then trouble free operation continued upto 2010. Then 2011 onwards, failure had started and it reached alarming stage in December'12 when there were 12 failures in one single month. These insulators were tested at CPRI , Bangalore after removing the same from line. At CPRI, 20% of sample tested had failed. PID testing of these insulators were also carried out and result of PID test was alarming as it

shows deviation in most of the strings. From the pattern of failure, it had been observed that only those 160 KN insulators are failing which were installed in between tower no.100 to 300 from Siliguri end. Subsequently, all 160 KN insulators were changed in all tension towers in between loc.100 to 300 to Siliguri-Purnea Line in March'13 and April'13. As a result of this preventive action, the failure rate had gone down to great extent and there were only five failures during the period May'13 to October'13.

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

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

In 92nd OCC, members opined that hair line cracks on insulators may be either due to design defects or due to normal adverse effects of operation. So OCC felt that some authority like CPRI must certify whether the present case is within the purview of design defects or because of other reasons. Powerlink was requested to place these details in next OCC so that decision on cost sharing by eastern region constituents, if required in the existing case, could be decided.

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

Subsequently, Powerlinks informed replacement of the insulators is in progress and the issue of identification of root cause of the insulator failures has been taken up with CPRI.

Powerlinks may update and members may decide.

Deliberation in the meeting

The issue could not be updated due to non representation of Powerlinks.

Item no. B.8: New Islanding Schemes in Eastern Region

B.8.1. FSTPS Islanding Scheme, NTPC

In 93rd OCC, members informed the islanding scheme would be implemented by March, 2014. The latest status on procurement & installation of equipments is as follows:

Requirement	Where Required	Action	Latest status
PLCC - 4 Panels	<ul style="list-style-type: none"> • 220 kV Lalmatia – 1 • 220 kV Farakka – 1 • 132 kV Dumka – 1 • 132 kV Lalmatia – 1 	<ul style="list-style-type: none"> • JSEB will shift 3 panels from Sahebgunj/Pakur to 132 kV Lalmatia S/s • NTPC will take care of shifting 2 panels from 132 kV Lalmatia S/s to 220 kV Lalmatia and Farakka S/s. • JSEB will shift one panel from Sahebgunj/Pakur to 132 kV Dumka S/s 	<ul style="list-style-type: none"> • JSEB had already shifted 3 nos BPL make PLCC panels to 132KV Lalmatia S/S • NTPC to take care of two nos PLCC panels stocked at Lalmatia 132 KV S/S of

		<ul style="list-style-type: none"> • Installation of PLCC panels at 220 kV Lalmatia and Farakka S/s will be done by NTPC • Installation of PLCC panels at 132 kV Lalmatia and Dumka S/s will be done by JSEB • Commissioning of all the four panels will be done by Powergrid. 	JSEB for onward shifting of the same to 220 KV Lalmatia & Farakka S/S
2 trip relays (220 V) having at least 03 nos NO contacts	<ul style="list-style-type: none"> • 132 kV Lalmatia – 1 relay • 132 kV Dumka – 1 relay 	<ul style="list-style-type: none"> • JSEB will provide 2 trip relays. • Commissioning will be done by Powergrid. 	<ul style="list-style-type: none"> • Trip Relay available at 132 KV Lalmatia S/S is with 3nos “NO” contacts.
4 wave traps	<ul style="list-style-type: none"> • 132 kV Lalmatia – 2 • 132 kV Dumka – 2 	<ul style="list-style-type: none"> • JSEB will provide four wave traps. • JSEB will do the installation and erection • Commissioning will be done by Powergrid. 	<ul style="list-style-type: none"> • JSEB confirmed that wave traps are available with them
2 LMUs	<ul style="list-style-type: none"> • 132 kV Lalmatia – 1 • 132 kV Dumka – 1 	<ul style="list-style-type: none"> • JSEB will provide two LMUs. • JSEB will do the installation and erection • Commissioning will be done by Powergrid. 	<ul style="list-style-type: none"> • JSEB confirmed that LMUs are available with them
4 UFR relays	<ul style="list-style-type: none"> • 132 kV Lalmatia – 2 • 132 kV Dumka – 2 	<ul style="list-style-type: none"> • JSEB will provide and erect. • Commissioning will be done by Powergrid. 	<ul style="list-style-type: none"> • JSEB confirmed that UFRs are available with them
2 nos 48 V Battery bank with charger	<ul style="list-style-type: none"> • 132 kV Lalmatia – 1 • 132 kV Dumka – 1 	<ul style="list-style-type: none"> • Powergrid will arrange 300 Ah battery bank at both stations. • JSEB will provide 300 Ah Amara Raja make battery chargers at both stations. 	<ul style="list-style-type: none"> • Powergrid informed that, estimate for 2X300Ah battery bank will be send to JSEB by 20th January, 2014. • One 300 Ah battery charger is already available at 132 kV Dumka s/s. • JSEB ensured one 300 Ah battery charger of Amara Raja make will be shifted from Sahebgunj/Pakur to 132 kV Lalmatia s/s.
Coaxial Cable - As required at site	<ul style="list-style-type: none"> • 132 kV Lalmatia • 132 kV Dumka 	<ul style="list-style-type: none"> • JSEB will provide and laying/cabling. 	

In 26th TCC/ERPC meeting, JSEB informed that 80 Ah battery chargers are available at both the stations Sahebgunj and Pakur and because of non-availability of 300 Ah battery charger, one 80 Ah battery charger from Sahebgunj has already been shifted to 132 kV Lalmatia S/s.

Powergrid however informed that they are facing difficulty in purchasing of battery banks with capacity less than 100 Ah because of less availability.

In view of above, TCC advised Powergrid to procure both charger and battery bank of 300Ah capacity for 132 kV Lalmatia S/s and 300 Ah battery bank for 132 kV Dumka S/s where 300 Ah charger is already available in healthy condition. Further, TCC requested Powergrid to implement the scheme by March, 2014.

Subsequently, JSEB informed that Battery charger of 300 Ah is not available at Dumka S/s also. Therefore, Powergrid is requested to procure charger and battery bank of 300Ah capacity for both 132 kV Lalmatia S/s and 132 kV Dumka S/s.

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

Deliberation in the meeting

After detail deliberation Powergrid was advised to procure two sets of 300 AH battery banks along with battery charger for Dumka and Lalmatia S/s.

OCC advised Powergrid to visit the Lalmatia and Dumka S/s for checking the PLCC panels and give a status report to secretariat. OCC also requested PGCIL to complete the UFR scheme by 31st March, 2014.

B.8.2. Chandrapura TPS Islanding Scheme, DVC

In 26th TCC/ERPC meeting, DVC expressed that because of some logistics problems the implementation got delayed but assured house that utmost care is now being taken at its highest authority level so that the scheme could be put in operation by April, 2014.

DVC may update the status.

Deliberation in the meeting

DVC informed that the scheme will be completed by April, 2014.

B.8.3. BkTPS Islanding Scheme, WBPDCCL

In 26th TCC/ERPC meeting WBPDCCL informed that, specification for the islanding scheme was finalized and PMS tendering is in process. The scheme will be implemented by April, 2014.

WBPDCCL may update the status.

Deliberation in the meeting

WBPDCCL informed that all the work order will be placed by April, 2014 the scheme will be completed by October, 2014.

B.8.4. Tata Power Islanding Scheme, Haldia

In 26th TCC/ERPC meeting WBSETCL informed that a meeting has been scheduled on 22nd January, 2014 with TATA Power wherein further detailing towards implementation will be finalized. It was assured that the scheme will be operational by March, 2014.

WBSETCL may update the status.

Deliberation in the meeting

WBSETCL informed that part order has been placed and the scheme will be completed by March, 2014.

On all the above schemes 26th TCC/ERPC took serious note on delayed implementation and advised concerned implementers to complete the needful so that all the aforementioned schemes could come out at the earliest without further delay.

Members may note.

Deliberation in the meeting

OCC decided and requested secretariat to convene a special meeting to ascertain the status of implementation of all the above schemes and requested concerned constituents to execute the scheme within target date with regular feedback to secretariat.

It was agreed that the special meeting will be held in March, 2014.

Item no. B.9: (Item No. B1 of 84th OCC meeting)

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

a) Testing and calibration of special energy meter

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

Powergrid may update.

Deliberation in the meeting

Powergrid informed that the above work has been completed.

b) Automatic Meter Reading (AMR)

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

In 92nd OCC Powergrid informed that, DCU installation at Subhashgram would be completed within 2 weeks. DCU installation in ER would be completed by 31st March, 2014.

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

In 93rd OCC Powergrid informed that, DCUs at Subhashgram and Durgapur have been installed and tested. DCU will be installed at Kolkata soon and data will be reported.

Powergrid agreed to install AMR at Chuzachen.

Powergrid may update.

Deliberation in the meeting

Powergrid informed that the installation work has been completed.

c) Recurring expenditure for procurement of SIM cards for AMR project

Automatic Meter Reading (AMR) project is in advance stage of completion. For communication of SEM meter data from concerned site to RLDC, SIM cards are required to be procured for each station. For maintaining the SIM card in live condition, recurring expenditure is required to be borne by each station. In principle approval for re-imbursement of expenditure towards procurement of SIM cards and their subscription charges may be accorded.

Members may discuss and decide.

Deliberation in the meeting

Powergrid informed that for AMR project 194 SIM cards connections are required at the cost of Rs. 3.6 lakhs per annum. OCC accepted the necessity and referred the issue to Commercial Committee for final concurrence.

Item no. B.10: Concerned members may update the latest status.

B.10.1. Auxiliary Power Supply at Berhampore S/S and other Powergrid S/S- Powergrid

In 92nd OCC WBSEDCL informed that, dedicated auxiliary supply would be provided by 31st Mar, 2014. OCC requested to make the Sukhi feeder as a priority feeder till the dedicated auxiliary supply is available. WBSEDCL agreed.

In 93rd OCC, WBSEDCL informed that, Sukhi feeder has been set as a priority feeder. Regarding dedicated power supply, WBSETCL informed that cost details have been sent to Powergrid.

Further, WBSETCL vide letter dated 07.02.14 informed that till date PGCIL has not deposited the required money against the quotation.

Powergrid may update.

Deliberation in the meeting

Powergrid informed that the required money has been deposited.

WBSETCL informed that above work will be completed by June, 2014.

Regarding auxiliary supply at other Powergrid substations, PGCIL informed that, it is still facing unreliable auxiliary supplies in most of their grid substations under JSEB and BSEB control area. In OCC concerned members again assured for improvement in quality of service.

OCC however in view of sensitivity of the issue placed the same before TCC/ERPC for further guidance.

In 26th TCC meeting, Powergrid informed that, Ranchi, Jamshedpur and Arra substations are facing serious problem due to unreliable auxiliary supply.

Powergrid also informed that auxiliary supply at Muzaffarpur and Patna substations fed from BSEB are also not available because of disconnection of the same on some payment issues and presently they are getting supply from tertiary winding of ICTs.

JSEB informed that the matter has already been taken up with concerned GM for supplying reliable auxiliary supply to Powergrid S/S.

BSEB informed that the Distribution Companies are not under direct control of BSPHCL. However, they assured to provide reliable auxiliary power supply.

TCC took serious note on unreliable supply at such important substations and advised JSEB and Bihar to arrange reliable and un-interrupted auxiliary power supply to Powergrid S/s for better grid operation at the earliest. TCC further advised Powergrid to explore making arrangements for reliable auxiliary supplies from two sources in all the affected substations on its own.

ERPC took serious note on disconnection of auxiliary supplies at such important 400 kV substations. ERPC advised BSEB to settle the nonpayment issues separately in ERPC forums and directed BSEB to restore the auxiliary supply immediately. BSEB agreed.

ERPC also advised JSEB to provide uninterrupted auxiliary supply for secure operation of the grid. JSEB agreed.

WBSEDCL, JSEB, BSEB & Powergrid may update.

Deliberation in the meeting

Powergrid informed that the reliability of feeders supplying auxiliary supply to PG Sub-stations in BSEB and JSEB control areas has improved.

Representative from BSEB & JSEB also assured that efforts are continuously being made for maintaining the auxiliary power supply to PG S/Ss on priority basis. OCC advised PGCIL, BSEB, JSEB to resolve the problems, if any, through dialogues across the table.

B.10.2. Power Supply to Railway TSS from 132 kV Deogarh (JSEB) S/S

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

ERLDC, JSEB may update.

Deliberation in the meeting

ERLDC informed that some data has been received from JSEB and they are analyzing it. OCC requested ERLDC to present the status in next OCC.

B.10.3. Replacing/repairing of defective PLCC equipment at SgTPP end of 400 kV SgTPP-Farakka line

In 92nd OCC Powergrid informed that, replacement of the PLCC equipments are in progress. In order to expedite OCC advised Powergrid to interact with their highest authority for arranging PLCC equipments from other regions and advised PGCIL to make the PLCC channel operational before power export to Bangladesh is enhanced to 500 MW. PGCIL agreed.

In 93rd OCC, Powergrid informed that it is not possible to get PLCC equipment from other region for immediate restoration and assured that new PLCC equipment will be restored by March, 2014.

Powergrid and WBPDCCL may update the status.

Deliberation in the meeting

Powergrid informed that the work will be completed by April, 2014.

B.10.4. Restoration of 220 kV Meramundali - TSTPP -I

In last OCC OPTCL informed that, the line will be charged soon after rectification of breaker problem at Meramundali end, tentatively by 31st March, 2014.

OPTCL may update.

Deliberation in the meeting

OPTCL informed that they are strict to their time schedule.

B.10.5. The following line/Bus reactors are under presently under outage:

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

In last OCC, Members updated the status as follows:

- a) 80MVAR Line reactor of 400kV Meramundali-Anugul at Meramundali: Work is in progress and it will be rectified by 31st January, 2014.
- b) 50MVAR Line reactor of 400kV Rourkella-TSTPP-I at TSTPP: Will be charged within a week.
- c) 63MVAR Line reactor of 400kV Baripada-Mendhasal-I at Mendhasal: Will be in service by January, 2014.

Members may update.

Deliberation in the meeting

Members updated the status as follows:

- a) 80MVAR Line reactor of 400kV Meramundali-Anugul at Meramundali: Powergrid informed that work is in progress and it will be rectified by March, 2014.
- b) 50MVAR Line reactor of 400kV Rourkella-TSTPP-I at TSTPP: NTPC informed that it will be charged on 24th February, 2014..
- c) 63MVAR Line reactor of 400kV Baripada-Mendhasal-I at Mendhasal: Powergrid informed that it will be in service by March, 2014.

B.10.6. Commissioning of Ragunathpur-Ranchi line

In last OCC DVC informed that, the line will be restored by 31st March, 2014.

DVC may update.

Deliberation in the meeting

DVC informed that, the line will be commissioned by April, 2014.

B.10.7. Bus strengthening at Malda and Birpara consequent to augmentation of transformation capacity at North Bengal – (Item No. B2 of 82nd OCC meeting)

In last OCC WBSETCL informed that, the work is in progress and it will be completed by January, 2014.

WBSETCL may update.

Deliberation in the meeting

WBSETCL informed that both the strengthening work had already been completed.

B.10.8. Depletion in OPTCL network due to impact of cyclone “Phailin”

In last OCC OPTCL informed that, 220 kV Narendrapur-Theruvali line will be restored by March, 2014 and restoration of 220 kV Narendrapur-Mendasal line would take another 6 months.

OPTCL may kindly update regarding latest status.

Deliberation in the meeting

OPTCL informed that,

- 220 kV Narendrapur-Theruvai line: will be restored by March, 2014 and
- 220 kV Narendrapur-Mendasal line: will be restored by 30th June, 2014.

B.10.9. Scheduling of power by ERLDC—GMR

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

GMR informed that, the issue will be discussed in separate meeting with OPTCL on 20th January, 2014.

In 26th TCC/ERPC meeting ERLDC informed that scheduling of JITPL and GMR would not be a problem to ERLDC but before taking up the units under ERLDC control area OPTCL should give a “No objection”.

It was informed that on 21st January, 2014, OPTCL, JITPL and GMR will interact on the issue to come out with a solution for the benefit of grid.

OPTCL, JITPL and GMR may update.

Deliberation in the meeting

After detailed deliberation on the issue OCC advised OPTCL to forward their letter to ERLDC in unequivocal manner expressing that it has no objection if scheduling of generation of JITPL & GMR is done by ERLDC. OPTCL agreed.

On supply of power to Orissa by GMR & JITPL as per their internal arrangements it was clarified that consequent ISTS charges will be chargeable as per CERC regulation. However OCC advised concerned members of OPTCL, GMR and JITPL to sort out bilaterally details of adjustment of financial burdens arising out of such charges. OPTCL, JITPL and GMR agreed.

B.10.10. Power Evacuation from 400/ 132KV Lakhisarai Substation

As per CEA letter ref: 69/1/2012-SP&PA/1203-05 dated 15.11.2012, following downstream network are to be constructed for safe evacuation of the power from 400/132KV Lakisharai Substation.

1. Lakhisarai (PG) – Lakhisarai(BSPTCL) 132 kV D/c line
2. Lakhisarai (PG) – Jamui (BSPTCL) 132 kV D/c line

2X 200MVA, 400/ 132KV ICTS and 4 nos. 132 kV line bays for termination of these lines at Lakhisarai (PG) is already under construction by POWERGRID, and are expected to be commissioned by February'14/ March'14.

BSTPCL may kindly give the status of construction of the above said 132KV lines.

BSTPCL may update the latest status.

Deliberation in the meeting

BSPTCL informed the status as follows:

1. Lakhisarai (PG) – Lakhisarai(BSPTCL) 132 kV D/c line – will be completed by June, 2014.
2. Lakhisarai (PG) – Jamui (BSPTCL) 132 kV D/c line – will be completed by Sept/Oct, 2014.

On enquiry, Powergrid informed that 400/132KV Lakisharai Substation will be ready by February, 2014.

B.10.11. Power Evacuation from 400/ 220KV Daltonganj and Chaibasa Substations

Construction of 400/220KV Daltonganj and Chaibasa Substations by POWERGRID are under process and expected to be commissioned in this year.

JSEB may inform the status of evacuation of power at 220KV level from these stations.

JSEB may update the status.

Deliberation in the meeting

Powergrid informed that 400/220KV Daltonganj and Chaibasa Substations will be ready by May/June, 2014.

JSEB informed the status as follows:

- 1. 400/220 kV Daltonganj- will be connected to existing Daltonganj and Garwa S/s.*
- 2. 400/220 kV Chaibasa- will be connected to Chaibasa S/s.*

OCC advised PGCIL to ascertain whether construction of intermediate 220/132 kV ICTs is within its scope of work as per standing committee decisions. PGCIL agreed to give feedback.

B.10.12. Commissioning of LBB protection at Chandil substations (JSEB)

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

In 93rd OCC, JSEB informed that JSEB informed that, three LBB panels has already been installed at Chandil S/s; however LBB panels for Chandil-Ramandrapur line and ICTs are yet to be installed. JSEB informed that, LBB scheme at Chandil S/s will be in service by 31st March, 2014.

JSEB may update.

Deliberation in the meeting

JSEB informed that LBB scheme will be completed by 31st March, 2014.

Item no. B.11: Implementation of recommendations of various ERPC teams on JSEB protection coordination.

As decided in 26th ERPC meeting a special meeting on protection co-ordination of JSEB system was convened on 28th January, 2014 for ascertaining the latest status on implementation of recommendations of various ERPC teams as well as on zone settings towards full co-ordination of protection system of JSEB; the latest status is placed at Annexure-B.11.

JSEB may update the latest status.

Deliberation in the meeting

JSEB updated the latest status.

Item no. B.12: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

The activity of the preparation of Crisis Management Plan for countering the cyber attacks and its implementation including the Mock Drills, audits etc. is being monitored by CEA regularly in line with crisis management plant of Ministry of Power. Power Utilities (including generation,

transmission & distribution utilities) of eastern region are to furnish regularly the updated status to on the same to Chief Engineer, Distribution Planning & Development Division, CEA.

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

In 88th OCC, constituents requested for another workshop on this issue. OCC agreed and requested NTPC and CESC to share their scheme in the workshop.

Members may note and comply.

Deliberation in the meeting

Members noted for compliance.

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

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

Members may note and ensure compliance on observations.

Deliberation in the meeting

Members noted for compliance.

Item no. B.14: Restricted Governor Mode of Operation --- ERLDC

The latest status of units of ER under RGMO is given in **Annexure-B.14**.

Members may update.

Deliberation in the meeting

Members updated the latest status.

Item no. B.15: Black start and Restoration procedure of Eastern region- ERLDC

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

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

In 92nd OCC, House was informed that, the formats will be made available at ERPC website (www.erpc.gov.in). OCC advised all constituents to send their views as soon as possible.

Till date requisite data has been received only from DVC, CESC, Adhunik, Chuzachen and GMR

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

Deliberation in the meeting

WBPDC/WBSEDCL, OPGC/OHPC, BSPHCL, JSEB, DPL agreed to submit the data at the earliest.

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

i) The status of black start exercises

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

- a) Rengali HEP: 20th January, 2014.
- b) Upper Kolab HEP: 15th January, 2014.
- c) Teesta HEP: March, 2014.
- d) Subarnarekha HEP: OCC advised JSEB to carry out black start exercise and submit the report. JSEB agreed.

Members may update the status.

Deliberation in the meeting

The status as informed in the OCC meeting is indicated below:

- e) Rengali HEP: done on 20th January, 2014.
- f) Upper Kolab HEP: done on 15th January, 2014.
- g) Teesta HEP: will be done on 30th March, 2014.
- h) Subarnarekha HEP: OCC advised ERLDC to send their representative to Subarnarekha HEP for black start. JSEB agreed to carry out the black start.

ii) Testing of DG sets meant for Black start

Report regarding test run of DG sets for the month of January, 2014 has not been received from any of the constituents. All test reports may be forwarded to erldc.cal@gmail.com & psdas_psd@yahoo.com.

Constituents may kindly ensure compliance.

Deliberation in the meeting

Members noted for compliance.

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

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

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

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

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

Email: ceaopmwind@gmail.com
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.

Members may note and comply.

Deliberation in the meeting

Members noted for compliance.

Item no. B.18: Certification through BIS as per IS 18001:2007 to all generating/transmission units. (Item No. B9 of 84th OCC meeting)

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

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

In 88th OCC NTPC informed that, all NTPC stations in Eastern Region are certified with IS 18001. NHPC informed that, Teesta is also certified with IS 18001.

After that, CESC informed that their stations are certified with IS18001.

Members may note and update the status.

Deliberation in the meeting

Members noted for compliance.

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

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

The formats were already mailed to respective OCC members.

In last OCC Powergrid informed that, till date no data received from the constituents except OPTCL. OCC requested to send the requisite data immediately to sksinghpg@yahoo.co.in with a copy to mserpc-power@nic.in.

Members may please note and comply.

Deliberation in the meeting

Members agreed to submit the data within a week.

Item no. B.20: INVESTMENT APPROVAL FOR “PHASE I – UNIFIED REAL TIME DYNAMIC STATE MEASUREMENT (URTDSM)”

Powergrid vide letter dated 21.01.2014 informed that the Board of Directors of POWERGRID, have accorded investment approval for “Phase I – Unified Real Time Dynamic State Measurement (URTDSM)” in its 297th meeting held on 13th January 2014, as per the details given below:

1. SCOPE OF PROJECT

The scope of work under URTDSM Phase – I is as follow:

1. Installation of approximately 1186 no. of PMUs at the Substations and Power plants of all utilities of the county based upon following criterion.
 - a) Substations of 400kV and above
 - b) Generating Stations of 220kV and above
 - c) HVDC terminals
 - d) Important inter-regional and inter-national connection points
2. The data flow hierarchy similar to that being followed for ULDC system is being adopted for URTDSM. Accordingly, Phasor Data Concentrators (PDCs) which shall acquired data from PMUs to be installed is as follow:
 - a) Super PDCs at Main and Back up NLDCs (2 sets)
 - b) Super PDCs at all the five RLDCs (5 sets) and NTAMC
 - c) Master PDCs at SLDCs (25 sets) and strategic locations
 - d) Visualization software & Data archiving sever at all PDC locations including NTAMC and NLDC.
 - e) Router/Switches and miscellaneous items.
 - f) Communication interfaces, cables etc.
 - g) Remote Consoles at each RPC, Union Territories, CEA CTU and other identified location.
3. The hardware and software proposed to be installed at Control centers to accommodate all the PMUs under Phase-I with provision for future expansion of about 50%.
4. The Fiber Optic based communication system existing and being established by POWERGRID and Constituents shall meet the requirement of Phase-I.
5. Analytical Software

2. PROJECT COST & FUNDING

The estimated cost of the project based on October, 2013 price level is Rs. 374.63 Crore including IDC of Rs. 29.54 Crore.

The project is being funded through domestic borrowings (loans/bonds)/ External Commercial Borrowings (ECB) etc. and POWERGRID's internal resources with debt: equity ration of 70:30

3. Commissioning Schedule

The project is scheduled to be commissioned within 27th months from the date of approval of Board of Directors, i.e. 13th January 2014.

Members may note/discuss.

Deliberation in the meeting

It was informed that in 24th ERPC it was decided to implement the above scheme through PSDF fund. OCC advised all constituents to communicate their views to PSDF Committee.

Item no. B.21: Commissioning of elements associated with Ranchi New 765/400 kV S/S as part of transmission System for DVC & Maithon RB generation projects

CEA vide letter dated 26.12.2013 informed that the on going inter-state Ranchi New 765/400 kV Sub-station and associated transmission elements as given below as part of the transmission system for DVC & Maithon RB generation projects would be ready for commissioning shortly.

- 1x1500 MVA, 765/400 kV ICT
- 1x240 MVAR, Bus Reactor at 765 kV Bus at Ranchi New S/S
- 1x125 MVAR, Bus Reactor at 400 kV Bus at Ranchi New S/S
- 2xD/C (quad), 400 kV Ranchi New- Ranchi line

Powergrid has also informed that the current voltage level of the existing 400/220kV Ranchi S/S (PG) is frequently touching 420-430 kV. It was proposed that with the commissioning of the above elements, there would be reduction in voltage at Ranchi (PG) by 4-5kV.

Further, as the commissioning of the above elements would help the system, we are in-principle agreeable to the proposal of commissioning of the completed works as mentioned above.

Members may note/discuss.

Deliberation in the meeting

Powergrid informed that 2x125 MVAR reactor and one D/C, 400 kV Ranchi New-Ranchi line was commissioned and another D/C, 400 kV Ranchi New-Ranchi line is expected by March, 2014. After commissioning of above elements there was considerable improvement in voltage profile (10-11 kV) of Ranchi S/s.

Members noted.

Item no. B.22: Over voltage protection setting of 400 kV lines in Eastern region - ERLDC

The above issue was discussed in the last OCC meeting, wherein it was finalized that the over-voltage protection settings of all 400kV and 765kV lines in Eastern region would be furnished as per the circulated format.

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

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

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

In 92nd OCC ERLDC informed that, in view of commission of new transmission lines the over voltage settings needs to be reviewed to maintain proper coordination. House was informed that, the format will be made available at ERPC website (www.erpc.gov.in). OCC advised all constituents fill the latest status of requisite information and send to ERLDC.

Till date requisite data has been received only from PGCIL, NTPC, DVC, WBSETCL, Adhunik, GMR and Sterlite. Data from OPTCL, JITPL, MPL, Teesta & Tala are still pending.

Members may kindly ensure compliance.

Deliberation in the meeting

OPTCL informed that data will be submitted within a week.

Tala informed they will re-send the data.

MPL informed that data will be submitted at the earliest.

Item no. B.23: Status of construction of 400 kV Sterlite-Jharsuguda D/C sections - ERLDC

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

SEL may update the status.

Deliberation in the meeting

Sterlite informed that the work of 2xD/C, 400 kV Sterlite-Jharsuguda line is in starting phase and their forest clearance is still awaited.

Item no. B.24: Status of implementation of Automatic Demand Management Schemes (ADMS)- DVC

In 82nd OCC, constituents principally agreed for the implementation of Automatic Demand Management System & GSES. Constituents felt that without effective automation in SLDC control area the implementation would not be feasible and unless exact schemes with objective set-up are finalized/placed it would not be possible to assess the fund requirement for this automation. OCC felt that under present day complex grid scenario automatic operation is must but before finalizing detail deliberation is needed considering technical feasibilities along with the cost-benefit analysis of Automatic Demand Management System & GSES. OCC requested all the constituents to send their views on NLDC document of "Automatic Defense Plans for the All India Electricity Grids" to CERC with a copy to ERPC positively by 28-02-2013.

With reference to CERC order dated 18-12-13 in petition no.208/SM/2011, the submission by the all state constituents of India except DTL, as compliance against the above petition was found to be as 'non-compliance' by the commission. The ADMS was earlier discussed in ERPC forum. Now, it is felt necessary to know the views of all the ER constituents in the ensuing 94th OCC regarding action taken by them vide order of the commission.

Members may deliberate.

Deliberation in the meeting

OCC advised constituents to communicate their views to CERC.

Item no. B.25: Modification of 132kV Bus arrangement at 220/132kV Birpara Sub-station of POWERGRID

At present single Main & Transfer Bus Scheme is functional at 132kV level and Double Main & Transfer Bus Scheme is functional at 220 kV level at 220/132kV Birpara substation of POWERGRID. In order to improve reliability of 132 kV system of Birpara, 132 kV Bus arrangement including switchgear need to be upgraded to Double Main Scheme. Considering the importance of 132kV Birpara substation, modification of 132kV Bus arrangement along with switchgear at 220/132kV Birpara substation of POWERGRID is felt necessary. Due to the space constraint, 132 kV GIS bays could be considered at Birpara substation. Similar proposal in respect of 132kV Siliguri substation was discussed during 2nd-2013 Standing Committee meeting on Power System Planning of Eastern Region held at New Delhi on 27.08.2013 and members agreed to the proposal in respect of 132kV Siliguri sub-station.

After detailed deliberations 93rd OCC agreed in principle for the proposal and referred to TCC/ERPC for further deliberation.

26th TCC/ERPC agreed to the proposal.

Members raised whether there will be provision of extension of additional bays at the substation in proposed GIS Scheme. Powergrid informed that provision of additional bays can be kept in the scheme, if members agree.

TCC advised to take up the issue of keeping provision of extension of additional bays in lower forums of ERPC.

Members may note and deliberate.

Deliberation in the meeting

OCC requested WBSETCL to refer the issue of keeping provision of additional bays to their planning wing and outcome of the same may be communicated to Powergrid.

Item no. B.26: Modification of 132kV Bus arrangement at 220/132kV Purnea Sub-station of POWERGRID

In 93rd OCC Powergrid informed that modification of 220/132kV Purnea S/S is in progress.

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed tendering is in progress and bid opening is on 14/03/2014.

Item no. B.27: Procurement of Emergency Restoration System (ERS Towers) for Eastern Region constituents- Powergrid

In 25th TCC/ERPC, Powergrid was advised to procure four sets of ERS. It was also decided that these four sets will be kept at Sikkim, Siliguri, Ranchi and Gaya and will be used by all constituents of ER during emergencies.

In 93rd OCC Powergrid informed that, Feasibility Report is under preparation stage and the same shall be put up for approval of POWERGRID management.

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed that feasibility report is under preparation stage.

Item no. B.28: Augmentation of DG set at Biharshariff sub-station

25th TCC/ERPC agreed for Augmentation of DG set at Biharshariff sub-station.

Powergrid informed that, order has been placed and expected to be delivered by May, 2014.

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed that expected delivery schedule is May, 2014.

Item no. B.29: Failure of Optical fibre link between Hatia- SLDC(Ranchi) -JESB

JSEB vide letter dated 08.01.14 informed that Hatia- SLDC (Ranchi) optical fibre link (UGFO) is under breakdown since September, 2013 which results non-reporting of four (4) nos. RTU viz. Patratu, Sikidiri, Tenughat and Hatia.

To rectify the above defect, several reminders in written as well as verbal request have been made to Powergrid and same has been raised in different forum of ERPC meetings.

In 93rd OCC JSEB requested Powergrid to restore the link temporarily till its final restoration. Powergrid agreed to look into the matter.

JSEB and Powergrid may update.

Deliberation in the meeting

Powergrid informed that the offer for temporary restoration will be forwarded to JSEB soon and after the concurrence of JSEB, it will be restored within 15 days.

Item no. B.30: Proposal for establishment of 220kV system at 400kV Baharampur switching station of POWERGRID with 2x500 MVA, 400/220 kV ICTs

The 400 kV Farakka-Jeerat S/C line was made LILO at Baharampur switching Station (AIS) to export power to Bangladesh through 400 kV D/C Baharampur-Bheramara line terminating at Bheramara HVDC Back-to-Back station of Bangladesh.

During 2nd -2013 Standing Committee Meeting on Power System Planning of Eastern Region held on 27th August , 2013 at New Delhi, conversion of Baharampur switching station into a Substation and feeding some load in and around that area for better controllability from system operation angle was discussed.

Load survey of the area around Baharampur revealed existence of about 400MW load in the area. In view of the above, it is proposed that 2x500MVA, 400/220kV Substation be established for meeting the load of Baharampur and surrounding area. WBSETCL is to extend its support for acquisition of additional land. In case of space constraint, GIS be considered for the extension project.

In 26th TCC advised to initiate the discussion on the issue in lower forums of ERPC. ERPC felt that, establishment of 220kV system at 400kV Baharampur switching station of POWERGRID with 2x500 MVA, 400/220 kV ICTs to feed some load in and around that area for better controllability of the system.

Members may discuss.

Deliberation in the meeting

WBSETCL informed that after system study it was found that at the present growth rate till next 5-7 years no 400/220 kV Sub-station is required in and around Baharampur Switching station.

Item no. B.31: Implementation of SPS for 500MW round the clock power through HVDC Bheramara - ERLDC

A meeting was held on 12/12/13, between CEA, CTU and NLDC at New Delhi which was also attended by ERLDCs, ERPCs, WBSETCL vide video conferencing facility available at ERLDC. In line with the decisions taken in this meeting, in 92nd OCC concerned members were requested to do needful on following

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

In 93rd OCC Powergrid informed that, Line reactor of Behrampur-Jeerat will be converted into switchable bus reactor by March, 2014. Work has been awarded for 400 kV Sagardighi-Behrampur D/C (Quad) and the line will be commissioned within a year.

Members may update.

Deliberation in the meeting

Powergrid informed the status as given below:

- *Line reactor of Behrampur-Jeerat will be converted into switchable bus reactor: tendering completed and expected by March, 2014.*
- *400 kV Sagardighi-Behrampur D/C (Quad): Work has been awarded and will be commissioned within a year.*

Item no. B.32: Discrepancy in Energy Billing based on metering across

In 26th TCC meeting, OPTCL brought into notice that there is some flaw in LILO metering for which abnormality/discrepancy is noticed towards energy accounting.

TCC advised OPTCL to place the issue as an agenda item in the next OCC and further advised ERLDC to study the issue with feedback in OCC forum.

OPTCL/ERLDC may update.

Deliberation in the meeting

After detail deliberation OCC advised to constitute a team to visit the site and report in next OCC.

Item no. B.33: Repeated operation of LBB relays at Meramundali S/S

Unwarranted operation of LBB relays at Meramundali S/s have been occurring in the recent past. It has been observed in general that on occurrence of fault in an outgoing 400kV line from Meramundali S/s, the breaker at Meramundali end fails to open(stuck breaker condition) or suffers a delayed clearance leading to LBB operation and tripping of all lines connected to the Bus. Presently Bus-I & II are coupled vide only one Tie-Breaker i.e vide JSPL-II and 'Future' bays at Meramundali end and hence tripping of 400kV JSPL-Meramundali-II leads to decoupling of the 400kV Buses with GMR-Meramundali going under floating condition. Also, operation of Pole discrepancy relays have been observed at Meramundali end signifying significant breaker

problems at Meramundali end. In this regard, it needs to be noted that a similar incident had occurred on 06/02/14, wherein due to CT bursting at JSPL end of 400kV JSPL-Meramundali-II, all outgoing connected to 400kV Bus-I at Meramundali S/S tripped. 400kV Meramundali-GMR which was connected to 400kV Bus-II thus went under floating condition due to segregation of Buses.

The present Bus disposition of feeders at Meramundali S/S is given below:

Diameter	Bus I	Bus II	Tie-breaker(ON/OFF)
401	Angul	Ib TPSW-II	Angul main breaker not functioning
402	Mendhasal	Duburi New-II(bay)	Mendhasal main breaker ok. Tie breaker not functioning
403	Kaniha-II	Ib TPS-I(bay)	Tie breaker not functioning. Main breaker of IbTPS not functioning.
405	JSPL-I	GMR	Tie breaker not functioning.
406	ICT-1	SPARE	Tie breaker not functioning. Main breaker of "Future" bypassed.
407	ICT-2	SPARE	Tie breaker ok. Main breaker of ICT-II not OK. Main breaker of "Future" bypassed.
408	SPARE	JSPL-II	Tie breaker functioning. Main breaker of "Future" bypassed. Both the Buses connected through this Dia.

The following issues hence need consideration in view of above:

- In respect of the incident on 06/02/14, it needs to be noted that before any charging attempt after a 3-phase fault, a thorough investigation is required to be carried out. OPTCL may confirm whether the same was done before attempting to charge 400KV Meeramundali-JSPL-II as a 3-Ø fault had been detected.
- Presently, Bus-I & II at Meramundali are coupled weakly via only one tie breaker. Also, the disposition of feeders at Meramundali is uneven with both 400/220kV ICT-I & II having their main breakers connected to the same Bus. Hence it is essential that the Buses are coupled strongly by restoring more number of main and tie CBs.
- LBB operates with a time delay of around 200ms. PMU data analysis shows the fault getting cleared within 100ms. OPTCL may clarify the same.

In the past such stuck breaker problems and pole discrepancy operations at Meramundali S/s had been reported on several occasions. In the previous PCC/OCC meetings, OPTCL had confirmed that the breakers at Meramundali end needed to be replaced/overhauled and the same was in process.

OPTCL may furnish the latest status.

Deliberation in the meeting

OPTCL informed that they are phasing out old BHEL breakers to rectify the problem. OCC advised OPTCL to submit the action plan and refer the issue to PCC for further deliberation. OPTCL agreed to submit their action plan at the earliest.

OCC further advised that the ERPC team while visiting Orissa as per decision on item B.32 must also interact with protection engineers of GRIDCO/OPTCL and settle the zone settings of all interstate transmission lines associated with Orissa at Orissa end in line with zone setting philosophy of Eastern Region as decided in a special protection meeting on 12.11.2013 and 05.12.2013.

Item no. B.34: Status of construction of dedicated transmission lines upto respective pooling stations as per connectivity granted by CTU

765kV extensions at Jharsuguda/Anugul pooling stations extensions are in progress, and the following dedicated transmission systems are under scope of construction by the respective IPPs:

- a) 400kV Sterlite-Jharsuguda pooling station 2x D/C
- b) 400kV JITPL-Anugul D/C
- c) 400kV GMR-Anugul D/C

JITPL is presently availing start-up power by LILO of 400kV Angul-Bolangir S/C line. As per a recent communication from CEA, the project is in advanced stage of completion and the first unit is expected to be ready for synchronization by this month (Feb-14).

As decided in the meeting held among CEA, CTU, JITPL and POSOCO at CEA on 22-1-14, synchronization of JITPL unit could be allowed subject to completion of both 400kV JITPL-Anugul D/C and LILO of 400kV TSTPP-Meramundali at Anugul.

The present status of progress of the dedicated transmission systems may be intimated by the respective generation developers. Powergrid may inform the status of progress of LILO works at Anugul.

Deliberation in the meeting

Powergrid informed that there is no considerable progress as requisite S/D was not yet received from OPTCL at Angul end.

Item no. B.35: Calculation of FRC by SLDCs due to Anpara (UPCL) Stage-A & B

On 23.12.13, at 06:12hrs due to tripping of Auxiliary ICT (which was providing station auxiliary supply), machines of Anpara UPPCL Stage-A & B tripped. Total Generation Loss was 1340MW.

It may be observed that excepting a few generators, response of the rest is far from satisfactory. In view of the recent formation of a pan-India synchronous grid with consequent pooling of more renewable energy sources into the single interconnection, primary response is absolutely essential to contain the system frequency within a very narrow band around 50 Hz, for controlling line flows within allowable limits.

In 93rd OCC, ERLDC gave a presentation and informed that most of the generators are not responding as per the requirement. All the constituents requested to give the data with supporting documents, if given data is incorrect.

Further, On 10/01/14, at 15:17hrs tripping of all running units of Anpara UPPCL Stage-A, B & C. Total Generation Loss was 2304MW. It may be observed that excepting a few generators, response of the rest is far from satisfactory.

Members may place their views.

Deliberation in the meeting

All constituents were requested to submit their data for FRC calculations.

Item no. B.36: Reactive Power performance of Generators and GT tap position optimization

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

Maximum and minimum voltage observed (data taken from SCADA)

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

Power Plant	Max and Min Voltage observed for Dec 13 (KV)	Date for monitoring (Dec 2013)
Farakka STPS	425,407	1,11,18
Khalgaon STPS	422,402	1,11,18
Talcher STPS	414,403	16,17
Teesta	N/A	N/A
Bakreshwar TPS	411,389	4,6
Kolaghat TPS	424,393	6,13
Sagardighi TPS	424,406	3,4
MPL	N/A	N/A
Mejia-B	431,419	1,10,11
DSTPS	433,420	1,18,25
Adhunik TPS	431,414	6,11,12
Sterlite	429,412	11,12,13

Performance analysis:

- I. Farakka: Both 210MW & 500MW units at FSTPP, absorbed VAR or injected zero VAR into the Grid for most of the time and hence performance of the units was satisfactory.
- II. Kahalgaon : Both 210MW & 500MW units at khSTPP, absorbed VAR or injected zero VAR into the Grid for most of the time and hence performance of the units was satisfactory.
- III. Sagardighi: Reactive performance of Sagardighi units was satisfactory.
- IV. MPL: MPL MVAR data is not reporting since last four months. In the absence of real time data, ERLDC is unable to monitor the performance of the plant.
- V. Sterlite: U#1 did not absorb VAR during high voltage condition.
- VI. Performance of Mejia-B, DSTPS and Adhunik TPS were not adequate.

Members may note.

Deliberation in the meeting

Members noted.

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

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

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

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

In last meeting, ERLDC informed that the presently voltage is within permissible range so the tap changing may be done during winter.

ERLDC may update.

Deliberation in the meeting

Members noted.

c) Schedule for reactive capability tests

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

- a) Adhunik TPS: In Nov, 13
- b) DSTPS: One unit is out due to coal shortage, test to be done on opportunity basis.
- c) Mejia & Koderma TPS: Test to be done when both units are in service.

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

Concerned members may update the status.

Deliberation in the meeting

Members updated the status.

PART C:: OPERATIONAL PLANNING

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

Members may finalize the Shutdown proposals of the generating stations and transmission lines for the month of Mar' 14 is given in Annexure-C1.

In view of above, ERPC/ERLDC facing difficulty in planning the shutdown of CTU lines with Orissa and these are affecting transmission line S/D programme of ER as a whole.

In 26th TCC/ERPC meeting Odisha assured to resolve the issue.

Members may finalize the shutdown proposal and OPTCL may update the status.

Deliberation in the meeting

*Approved maintenance programme of generating stations and transmission elements during the month of March, 2014 is at **Annexure-C.1**.*

Installation of OPGW on following transmission lines of Central Sector is going on in full swing. For completion of the same, following activities are required:

Sl. No.	Name of Transmission line	Requirement	Period
1.	400 kV JITPL-Bolangir	Auto-reclosure in Non-Auto mode	1 Month
2.	400 kV Malda-Purnea TL	Auto-reclosure in Non-Auto mode	1 Month
3.	400 kV Subhasgram-Jeerat	Auto-reclosure in Non-Auto mode	10 days from 15.02.14
4.	400 kV Binaguri-Teesta	Shut down required w.e.f. 1 st Mar' 14	1 Month

Members may approve.

Diversion of 400KV Kahalgaon-Barh D/C & 400KV Barh-Patna Ckt-I & II for the proper clearance of ash pipe corridor of NTPC, Barh.

A request had been received from NTPC for diversion of 400KV Kahalgaon-Barh D/C line and 400KV Barh-Patna Ckt-I & II for the proper clearance of ash pipe corridor of NTPC Barh. Accordingly contract has been finalized and work for diversion of the lines is under process.

For Kahalgaon-Barh section, 4 nos. foundation/ erection and 2.76Km de-stringing/ stringing is there and for Barh-Patna section, 4 nos. foundation/ erection and 2.63Km de-stringing/ stringing is there.

Presently, foundation work for both the sections has been completed. Tower erection for 02 nos. tower in Kahalgaon-Barh section and 01 no. in Barh-Patna sections have been completed. Balance work could not be carried out due to clearance problem with the existing circuit. The gangs are mobilized at site. For carrying out the work shutdown of the following lines on continuous basis is required as per details below:

- 400KV Kahalgaon-Barh D/C line from 17.02.2014 to 05.03.2014
- 400KV Barh-Patna Ckt-I & II from 08.03.2014 to 24.03.2014

Members may approve.

Deliberation in the meeting

*Approved maintenance programme of generating stations and transmission elements during the month of March, 2014 is at **Annexure-C.1**.*

Complete plant shutdown is proposed for inspection, repair & maintenance of the Cooling Water System & underwater components of the powerhouse in addition to the rectification/ calibration of the Hydro mechanical system of the Dam before ensuing monsoon season with effect from 21/02/2014 to 27/02/2014. 132 KV Melli - Chuzachen - Gangtok feeder link & Chuzachen switchyard will remain in service from Chuzachen end.

Members may approve.

Deliberation in the meeting

OCC approved the maintenance programme of Chuzachen generating station.

Item no. C.2: Anticipated power supply position during Mar'14

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of Mar'14 were prepared by ERPC Secretariat on the basis of LGBR for 2013-14, keeping in view that the units are available for generation and expected load growth etc. and is given at Annexure-C.2 for discussion.

Members may confirm.

Deliberation in the meeting

*Modified anticipated power supply position for the month of March, 2014 after incorporating constituents' observations is given at **Annexure-C.2**.*

Item no. C.3: Prolonged outage of power system elements in Eastern Region**(i) Generating units:**

Generating Station	UNIT NO	CAP(MW)	DATE	REASONS FOR OUTAGE	Date of restoration
BOKARO B	3	210	12.10.13	POLLUTION CONTROL	
BOKARO B	1	210	30.01.14	TUBE LEAKAGE	
KODARMA	2	500	03.11.13	SUPER HEATER TUBE	
MEJIA B	7	500	20.01.14	TUBE LEAKAGE	
MEJIA	1	210	05.01.14	TUBE LEAKAGE	
CHANDRAPURA	7	250	17.01.14	OVER HAULING	
STERLITE	4	600	23.10.13	F. D. FAN PROBLEM	
STERLITE	2	600	24.01.14	FURNACE PRESSURE	
BANDEL	5	210	16.11.13	MAINTENANCE	
ADHUNIK	1	270	29.11.13	GT FAILURE	
SANTALDIH	5	250	04.12.13	TURBINE PROBLEM	
KOLAGHAT	4	210	28.12.13	OVER HAULING	
GMR	2	350	23.01.14	AIR PREHEATER	

(ii) Transmission elements

Name of the Line/Element	Outage Date	Reason	Date of restoration
220 KV JEERAT - SATGACHIA D/C	15.06.10	DUE TO LAND SLIDE OF GANGES RIVER BANK	
220 KV MERAMUNDALI - TSTPS - I	24.08.13	BREAKER PROBLEM AT MERAMUNDALI	
220 KV MENDHASAL - NARENDRAPUR – II	12.10.13	TOWER COLLAPSE	
220 KV THERUBALI - NARENDRAPUR – I	12.10.13	TOWER COLLAPSE	
400/220 KV,315 MVA ICT - II AT JEERAT	29.10.13	BUCHHOLTZ OPERATED	
400 KV PURNEA - BINAGURI - I	02.11.13	S/D	
400/220 KV,315 MVA ICT - I AT BIDHANNAGAR	18.01.14	FAILURE OF R PHASE BUSHING,HV SIDE.	
400 KV TALA-BINAGURI-I	22.01.14	S/D AVALIED BY TALA	

Members may update.

Deliberation in the meeting

Members updated the status.

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

1. Line terminal equipments of 400kV Haldia#2 and Haldia#1 bays at Subhasgram end were charged for the first time on 01/01/14.
2. 400kV Anugul-Talcher and Anugul-Meramundali bays at Anugul were charged for the first time alongwith 17.5km of the line as an antitheft measure.
3. 765/400kV, 3 x500MVA, ICT-II and Bus-II at Ranchi(New) was charged for the first time on 13/01/14.
4. 125MVAR Bus Reactor-I at Ranchi(New) was charged for the first time on 27/01/14.
5. 3 X 80 MVAR Bus Reactor-II(first Bus reactor at 765kV) was charged for the first time on 29/01/14.

6. On 30/01/14, 110MVAR spare single phase reactor at Sasaram was test charged for the first time by opening 3 x 110MVAR mid-point Line reactor of 765kV Sasaram-Fatehpur and replacing its R-phase by the spare reactor and charging it subsequently.

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

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

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

New generating units:

S.No.	Power Plant	Plant Size	Expected date
1	GMR Unit#3	4x350MW	15 th Nov, 2013
2	Koderma Unit#2	2x500MW	Oct, 2013
3	Corporate Power Unit#1	2x270MW	
4	Teesta-III Unit#1	1x200MW	
5	Raghunathpur Unit#1	2x600MW	Nov, 2013
6	TLDP-IV	1x40MW	

New transmission elements:

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

Members may update.

Deliberation in the meeting

Members updated the status.

PART D:: OTHER ISSUES

Item no. D.1: UFR operation during the month of Jan'14

System frequency touched 49.40 Hz in January'14. No report of operation of UFR is hence expected under above circumstances.

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 Jan'14.

Members may note

Deliberation in the meeting

Members noted.

Item no. D.3: Grid incidences during the month of January, 2014.

Sl no	Disturbance Place	Date & Time	Generation loss (MW)	Load loss (MW)	Remark	Category
1	BSPHCL (Purnea)	27/01/14 at 02:49hrs	0	165	Due to fault in downstream of Purnea (BSPHCL) system, 132kV Purnea (PG)-Purnea (BSPHCL)-T/C, 132kV Purnea (PG)-Kishanganj and 132/33kV, 20MVA Transformer-III at Purnea (BSPHCL) tripped.	-

Members may note.

Deliberation in the meeting

Members noted.

Item no. D.4: Bhutan voice communication with ERLDC.

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

In 92nd OCC Powergrid informed that work order has already been placed and will be completed by January, 2014.

In 26th TCC/ERPC Powergrid informed that, voice communication of Bhutan with ERLDC and NLDC has been made operational from 16th January, 2014. ERLDC was requested to confirm.

ERLDC may update the status.

Deliberation in the meeting

Members noted.

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

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

The latest status as updated in 92nd OCC is circulated in the meeting.

Concerned members may update the latest status.

Deliberation in the meeting

Members updated.

Item no. D.6: Non-receipt / delayed receipt of daily system operation report from ER constituents

It is observed that the daily system operation report is often received late from some of the SLDCs. Further, some of the desired information is also omitted from the report. Present status regarding receipt of daily reports is as follows:

- 1) Jharkhand: Hourly demand met and load shedding figures are not available since May'13.
- 2) Odisha: Daily reports received but delayed every month.
- 3) W. Bengal: Daily reports received but delayed every month (sometimes delayed beyond 9th day of the next month).
- 4) CESC: Unit-wise breakup of daily generation not received since long time.
- 5) Bihar: Hourly data is sent in Microsoft Word format. For the purpose of computation it is desirable to have the data in Microsoft Excel format.

It may kindly be appreciated that ERLDC has to send various reports, based on the information obtained from SLDCs, to CEA / MOP / POSOCO etc. authorities by 10th / 15th of the next month, which sometimes get delayed due to late receipt of the basic inputs from SLDCs.

All constituents are therefore requested to kindly send their daily reports to ERLDC by the next two working days.

Deliberation in the meeting

Members noted for compliance.

Item no. D.7: Transmission constraints in intra-state system

In the 89th OCC meeting held on 10-09-13, all constituents of E. Region were requested to furnish information regarding transmission constraints in their respective intra-state systems on monthly basis, so that the same could be updated in monthly OCC and sent to higher authority, as and when required.

However, ERLDC is yet to receive the desired information from any of the constituents.

Members are once again requested to furnish the information sought.

Deliberation in the meeting

Members noted for compliance.

Item no. D.8: Any other Point.

1) Minimum Technical Limit for Farakka Stage-I -- NTPC

Commercial Stage-1 of Farakka is having a total installed capacity of 1600 MW (3X200 MW + 2X500 MW). This Commercial Stage is having a normative DC of 1489 MW. Considering minimum of 70% load in each unit, the minimum technical limit of this Stage is given as 1042 MW. However, presently our Unit-5 has been experiencing high turbine vibration below the load of 470 MW. We have observed that if the Unit-5 load is reduced below 470 MW, turbine vibration sharply increases leading to the shut down condition of the Unit. This turbine requires replacement of HPT module and IPT casing. The job has been planned during unit overhauling which will be preponed in April 2014.

Under present circumstances to avoid failure of Unit-5 turbine, we are forced to operate this particular unit at a minimum gross load of 470 MW throughout the day. Hence, Stage-1 AG cannot be reduced below 1150 MW considering the safe operation of all the units including Unit-5. Under the present deviation mechanism regulation, this is leading to huge financial loss as well as unavoidable deviation during minimum technical schedule regime. This may also call for violating grid discipline by Farakka Stage-1 due to unavoidable reason at our end. Under this condition you are requested to kindly consider the situation favourably and allow to treat minimum technical schedule of Farakka Stage-1 as 1150 MW for scheduling purpose till the problem of Unit-5 is rectified i.e. April 2014.

Deliberation in the meeting

During deliberation secretariat categorically pointed out that it would not be possible any adjustment through deviation settlement mechanism. So to avoid heavy penalties for over generation, besides violation of Grid Code, NTPC may take S/D of the unit and thereby beneficiaries might face power disruption in the month of March-the exam month.

Therefore to resolve the problem ERPC Secretariat proposed:

Minimum technical limit of Unit#5 is 70% of Installed Capacity (i.e.350 MW). But due to vibration problem, the unit is to run at 470 MW. That means (470-350) MW or 120 MW needed to be adjusted. On the remaining 4 units of FSTPP with installed capacity of 1100 MW, NTPC should back down further by 5%, therefore, giving a relief of 55 MW. The remaining 65 MW (GROSS) needed to be absorbed by the beneficiaries of FSTPS Stage-I and FSTPS Stage-II, when stations (I &II) are required to run under technical minimum.

Orissa, Jharkhand, Bihar, DVC, Sikkim agreed to the proposal. West Bengal, although felt the necessity, requested NTPC to have interaction with competent authority of its Board for a final decision.

Annexure- A

Participants in 94th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 21.02.14 (Friday)

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

Participants in 94th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 21.02.14 (Friday)

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40	K. CAGRAWAL	HEAD, POWER SALES	JITPL	931207530	power_sales@jindalgrp.com	


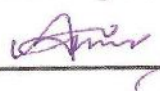
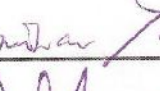
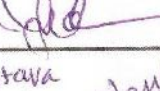
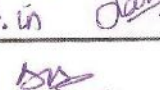

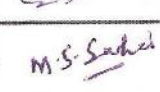


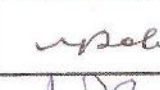
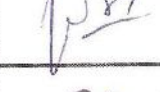
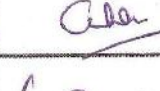
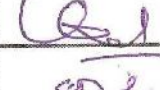
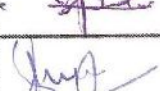
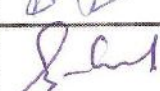
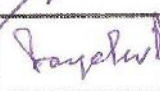

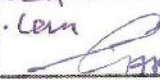
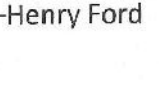

"Coming together is a beginning, staying together is progress, and working together is success." –Henry Ford

Participants in 94th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 21.02.14 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
41	Tenzin Wangda	Section Officer	KHP, DG PCL	+97517597374	tenzinwangda.khp@gmail.com	
42	Anir Gurung	S. Officer	THP, DGPC Balistan	009751761240	ganir4637@gmail.com	
43	Ram Bk. Rai	Sr. SO	CHP, DGPC	+97517641109	ram299rai@gmail.com	
44	NANGPAI TASHI	ASST ENGINEER SLDC	ERPD - Sikkim	943599743	mangaldattai26@gmail.com	
45	Santanu Shrivastava	Asst. Mgr. G.M.	GKEL	7894420947	Santanu.Shrivastava@gmail.com	
46	Debarshi De	Dy. Mgr.	CESC	9183312742	debarshi.de@rp-cg.in	
47	Priscilla Sathya	Asst Manager	GRIDCO	9438506354	ele.asedhi@gmail.com	
48	Madhu Sudan Saha	Mgr.	GRIDCO	9692427876	gridco-elc@gmail.com	
49	PRASHANT KUMAR DAS	AGM, ERG	SLDC, UPTCL BORD	9438907408	prashantk.das@yahoo.co.in	
50	Alok R Bhunia	AGM(OS)	NTPC/Kol	9433027333	alokabhunia@rediffmail.com	
51	N. G. Deb.	GM (PS)	WBPDCL	9432015315	ngdeb@wbpdcl.co.in	
52	P. K. Kundu	SE(E)	WBSETEL SLDC/HW	9434910263	pkundu_1961@yahoo.co.in	
53	S. K. Saha	SSE	Eastern Railway	9002025315	Sanjay. Saha39@gmail.com	
54	V. Kalyanaram	EE	ERPC	2423 2015	-	
55	S. P. DATTA	AGM(NTPC)	ERPC	9433067022	spdatta@rediffmail.com	
56	S. KEJRIWAL	EE	ERPC	-	-	
57	B. SARKHEL	SE(PS)	ERPC	9433065724	-	
58	J. BANJYOPADHYAY	SE(C)	ERPC	-	-	
59	SHASHWATA DUTTA	HEAD CONSTRUCTION	ENIGL	95603000	Shashwata.Dutta@sterlite.com	
60	G. Rao	Asst. Engr.	ERPC	-	-	

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

FORMAT FOR COLLECTION OF DATA REGARDING RURAL POWER SUPPLY

Name of the State :

Month & Year :

[illegible]

Name of Region : EASTERN REGION

Sl. No.	Details of stations/Units required to operate under RGMO/FGMO as per IEGC							Whether operating under RGMO	Whether operating in FGMO with manual intervention to achieve RGMO	whether exempted from FGMO/RGMO by CERC	Whether applied to CERC for exemption/extension	whether units operating with locked governors	indicate in case of status is not available
	Name of State	Type	Name of Utility	Sector (CS/SS/Private)	Name of Station	Name of Stage/ Unit	Installed capacity (MW)						
1	JHARKHAND	Thermal	TVNL	SS	Tenughat	1	210	No			No		Difficulties in implementing RGMO & exemption not applied
2				SS		2	210	No			No		
3		Hydro	JSEB	SS	Subarnrekha	1	65	Yes					
4				SS		2	65	Yes					
5	WEST BENGAL	Thermal	WBPCL	SS	Bandel TPS	1	82.5	No			Yes		
6				SS		2	82.5	No			Yes		
7				SS		3	82.5	No			Yes		
8				SS		4	82.5	No			Yes		
9				SS		5	210	No			Yes		
10				SS	Santalidih	5	250	Yes					Unit#6 could not be implemented because of some technical
11				SS		6	250	No					
12				SS	Kolaghat	1	210	No			Yes		
13				SS		2	210	No			Yes		
14				SS		3	210	No			Yes		
15				SS		4	210	No			Yes		
16				SS		5	210	No			Yes		
17				SS		6	210	No			Yes		
18				SS	Bakreshwar	1	210	Yes					
19				SS		2	210	Yes					
20				SS		3	210	Yes					
21				SS		4	210	Yes					
22				SS		5	210	Yes					
23				SS	Sagaridighi	1	300	No					Could not be implemented because of some technical
24				SS		2	300	No					
25		Hydro		SS	Raman Hydel	1	12.5	No					Station is not in RGMO. WBSETCL is pursuing with Ramnam
26				SS		2	12.5	No					
27				SS		3	12.5	No					
28				SS	PPSS	4	12.5	No					
29				SS		1	225	No			Yes		
30				SS		2	225	No			Yes		
31				SS		3	225	No			Yes		
32				SS		4	225	No			Yes		
33		Thermal	CESC	SS	Budge-Budge	1	250	Yes					
34				SS		2	250	Yes					
35		Thermal	DPL	SS	DPL	3	250	Yes					
36				SS		7	300	Yes					
37	Orissa		OPGC	SS	IB TPS	1	210	No					Not adequate response in RGMO
38				SS		2	210	No					
39		Hydro	OHPC	SS	Buria	1	49.5	No			Yes		
40				SS		2	49.5	No			Yes		
41				SS		3	32	No			Yes		
42				SS		4	32	No			Yes		
43				SS		5	37.5	No			Yes		
44				SS		6	37.5	No			Yes		
45				SS		7	37.5	No			Yes		
46				SS	Chiplima	1	24	No			Yes		
47				SS		2	24	No			Yes		
48				SS		3	24	No			Yes		
49				SS	Balimela	1	60	No			Yes		
50				SS		2	60	No			Yes		
51				SS		3	60	No			Yes		
52				SS		4	60	No			Yes		
53				SS		5	60	No			Yes		
54				SS		6	60	No			Yes		
55				SS		7	75	No			Yes		
56				SS	Rengali	8	75	No			Yes		
57				SS		1	50	No			Yes		
58				SS		2	50	No			Yes		
59				SS		3	50	No			Yes		
60				SS		4	50	No			Yes		
61				SS	Upper Kolab	5	50	No			Yes		
62				SS		1	80	No			Yes		
63				SS		2	80	No			Yes		
64				SS		3	80	No			Yes		
65				SS	Indravati	4	80	No			Yes		
66				SS		1	150	No			Yes		
67				SS		2	150	No			Yes		
68				SS		3	150	No			Yes		
69				SS		4	150	No			Yes		
70		Thermal	DVC	CS	Bokaro-B	1	210	No			Yes		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 exemption
71				CS		2	210	No			Yes		
72				CS		3	210	No			Yes		
73				CS	Chandrapura	1	140	No			Yes		RGMO mode of operation would not be possible for units1, 2 and 3. Because of non-availability of
74				CS		2	140	No			Yes		
75				CS		3	140	No			Yes		
76				CS		7	250	No					
77				CS	WARIA	8	250	No					Efforts are being made for RGMO mode of operation in the new
78				CS		3	210	No			Yes		
79				CS		4	210	No			Yes		
80				CS	Mejia	1	210	No			Yes		
81				CS		2	210	No			Yes		
82				CS		3	210	No			Yes		
83				CS		4	210	Yes					
84				CS	Mejia - B	5	250	Yes					
85				CS		6	250	Yes					
86				CS		7	500	No					Efforts are being made for RGMO mode of operation in the new
87				CS		8	500	No					
88				CS	DSTPS	1	500	No					
89				CS		2	500	No					

90	Central Sector	Hydro		CS	Maithon	1	20	No						RGMO mode of operation would not be possible for units1, 2 and 3. Because of non-availability of	
91				CS		2	20	No							
92				CS		3	23.2	No						RGMO mode of operation would not be possible for units1 & 2.	
93				CS	Panchet	1	40	No							
94				CS		2	40	No							
95		Thermal		NTPC	CS	Farakka STPP-I	1	300	Yes						
96					CS		2	300	Yes						
97					CS		3	300	Yes						
98					CS	Farakka STPP-II	1	500	Yes						
99					CS		2	500	Yes						
100	CS		Farakka-U#6			500	No						Under trial operation, it will be put in RGMO after successful operation		
101	CS		Kahalgaoan STPP		1	210	Yes								
102	CS				2	210	Yes								
103	CS				3	210	Yes								
104	CS				4	210	Yes								
105	CS				5	500	Yes								
106	CS				6	500	Yes								
107	CS				7	500	Yes								
108	CS		Talcher STPP Stg-I		1	500	Yes								
109	CS				2	500	Yes								
110	Hydro	NHPC	CS	* Rangit	1	20	No						Pondage capacity is to generate power upto 3 hours only.Hence not under the perview of RGMO		
111			CS		2	20	No								
112			CS		3	20	No								
113			CS	Teesta HEP	1	170	Yes								
114			CS		2	170	Yes								
115			CS		3	170	Yes								
				46											
116	IPP	Thermal	IPP	PS	Maithon RB TPP	1	525	Yes						Under RGMO since Jan'2014	
117						2	525	No							
118					Sterlite	1	600	Yes							
119						2	600	Yes							
120						3	600	Yes							
121						4	600	Yes							
122					Adhunik Power	1	270	No							Not Implemented & exemption
123						2	270	No							not applied

**EASTERN REGIONAL LOAD DESPATCH CENTRE
KOLKATA**

TRANSMISSION ELEMENTS OUTAGE REQUSET TO BE DISCUSSED IN 94TH OCC MEETING OF ERPC

Sr. No	S/D APPROVED IN OCC NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S/D availed BY	Reason	SUBJECT TO CONSENT FROM AGENCY
1	400KV BUS-I & Bus Reactor-I,II & III Anugul	23-02-2014	09:00	24-02-2014	17:00	ODB	ER-II	for Bus extension for commissioning of 2 bays of JITPL at Angul S/S	NLDC
2	132 kV D/C Budhipadar-Sundargarh	23-02-2014	08:00	23-02-2014	18:00	ODB	ER-II	Stringing of 765 kV S/C Angul-Jharsuguda Transmission line-I, Part-II	OPTCL
3	400KV Rourkela - Jamshedpur Ckt.-II	23-02-2014	10:00	23-02-2014	14:00	ODB	ER-II	Final Testing of CSD for Reactor	
4	132 kV D/C Budhipadar-Sundargarh of OPTCL	23-02-2014	08:00	23-02-2014	18:00	ODB	ER-II	FOR STRINGING WORK OF 765KV ANGUL-SUNDARGARG LINE-1 AT LOC. NO-25/0-	OPTCL
5	400 kV Talcher-Meramundali & GMR-Meramundali	24-02-2014	08:00	24-02-2014	17:00	ODB	ER-II	For making LILO of line at Angul	OPTCL
6	400KV EAST BUS-II & 125MVAR B/R-II MAIN BAY AT SSRM	24-02-2014	08:00	24-02-2014	18:00	ODB	ER-I	FOR ISOLATOR MODIFICATION WORK AT PSL	
7	A/R 400 KV JITPL - BOLANGIR	01-03-2014	09:00	31-03-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	sd will be allowed on weekly basis
8	A/R 400 KV MALDA - PURNEA - I	01-03-2014	09:00	15-03-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	sd will be allowed on weekly basis
9	A/R 400 KV SUBHASGRAM - JERAT	22-03-2014	09:00	28-03-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	sd will be allowed on weekly basis
10	BINAGURI - TEESTA - 1	01-03-2014	09:00	31-03-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	SD WILL BE ALLOWED ON DAILY BASIS DEPENDING UPON THE REAL TIME CONDITION
11	A/R OF ROURKELA - SUNDERGARH - I	24-02-2014	08:00	24-03-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	
12	ROURKELA - SUNDERGARH - I	26-02-2014	08:00	07-03-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	NLDC
13	132 kV D/C Budhipadar-Tarkera	24-02-2014	08:00	24-02-2014	18:00	ODB	ER-II	Stringing of 765 kV S/C Angul-Jharsuguda Transmission line-I, Part-II	OPTCL
14	132 kV S/C Sambalpur-Kuchinda	24-02-2014	08:00	24-02-2014	18:00	ODB	ER-II	Stringing of 765 kV S/C Angul-Jharsuguda Transmission line-I, Part-II	OPTCL
15	315 MVA ICT-II at Maithon	24-02-2014	09:00	24-02-2014	17:00	OCB	ER-II	Bushing replacement 220KV Y-PH	DVC
16	400KV Maithon-Kahalgaoon-II	24-02-2014	09:00	24-02-2014	17:00	ODB	ER-II	Reactor Isolator checking,CVT inspection/replacement	NLDC
17	315MVA ICT-I at Rourkela	24-02-2014	09:00	24-02-2014	17:00	ODB	ER-II	OTI adaptation work under NTAMC project	OPTCL
18	220KV Malda - Dalkhola-II	24-02-2014	08:00	24-02-2014	18:00	ODB	ER-II	Replacement of CT under ADDCAP	
19	400 kV Jeypore-Rengali S/C	25-02-2014	08:00	25-02-2014	17:00	ODB	ER-II	For completion of stringing for the power line crossing span	NLDC
20	315MVA ICT-II at Rourkela	25-02-2014	09:00	25-02-2014	17:00	ODB	ER-II	AMP	OPTCL
21	220 KV PTN - FATUHA	25-02-2014	09:30	25-02-2014	13:00	ODB	ER-I	FOR AMP WORK	BIHAR
22	220 KV BUS - I AT PRN S/S	25-02-2014	09:00	25-02-2014	17:00	ODB	ER-I	FOR AMP WORK	BIHAR
23	400KV BSF-SSRM-III	25-02-2014	08:00	25-02-2014	18:00	ODB	ER-I	FOR BAY CONSTRUCTION WORK OF 400KV SSRM-DALTANGANJ LINE	NLDC
24	63 MVAR Bus Reactor at Jeypore	25-02-2014	09:30	25.02.2014	13:30hrs	OCB	ER-II	1.AMP works 2.Installtion of Control Switching Device	
25	400KV Maithon-Kahalgaoon-I	25-02-2014	09:00	25-02-2014	17:00	ODB	ER-II	SFRA signature of Reactor,OTIRT replacement:Isolator operation checking under	NLDC
26	50 MVAR Bus Reactor at Jeerat	25-02-2014	08:00	25-02-2014	17:00	ODB	ER-II	AMP / CSD Commissioning	
27	400KV ROURKELA-SUNDARGARH-RAIGARH -1	25-02-2014	08:00	26-02-2014	16:00	OCB	ER-II	For attending constructional defects	NLDC
28	400 KV BUS - I AT TALCHER	25-03-2014	09:00	25-03-2014	17:00	ODB	NTPC	PM WORK & RELAY TESTING	
29	400 KV BUS - II AT TALCHER	28-03-2014	09:00	28-03-2014	17:00	ODB	NTPC	PM WORK & RELAY TESTING	
30	125MVAR BUS REACTOR-1 at Sundargarh	25-02-2014	08:00	26-02-2014	16:00	OCB	ER-II	Removal of shuterling from fire fighting wall	
31	315 MVA ICT - I AT JSR	26-02-2014	09:30	26-02-2014	17:30	ODB	ER-I	CT REPLACEMENT (ROTATIONAL CT OF ALSTOM)	JSEB
32	132 kV D/C BTPS - GOMIA(RAILWAY)	26-02-2014	07:00	21-02-2014	17:00	ODB	ER-I	FOR POWER LINE CROSSING WORK OF 400 KV KODERMA - BOKARO D/C LINE BETWEEN LOC. 82/0-83/0.	BIHAR
33	400 KV BUS - II AT RNC	26-02-2014	09:30	26-02-2014	17:30	ODB	ER-I	EXTENSION OF 400 KV BUS FOR RANCHI - RANCHI 3 & 4	
34	220 KV BUS - I AT PATNA	26-02-2014	09:30	26-02-2014	17:30	ODB	ER-I	FOR AMP WORK	BIHAR
35	50MVAR BUS REACTOR-I AT BSF	26-02-2014	09:00	26-02-2014	13:00	ODB	ER-I	FOR AMP WORK	
36	220 KV BUS - II AT PRN S/S	26-02-2014	09:00	26-02-2014	17:00	ODB	ER-I	FOR AMP WORK	BIHAR
37	400 KV RNC(OLD)-RNC(NEW)-I	26-02-2014	07:00	27-02-2014	18:00	OCB	ER-I	FOR ERECTION & STRINGING OF MULTI TOWERS INVOLVING RNC-RNC 2, 3 & 4.	
38	400kV New Siliguri - Purnea Circuit # 3 & 4	26-02-2014	08:00	28-02-2014	17:00	ODB	ER-II	For Re-conductorng of NSLG-NPRN CKT-I in the section 159-163	NLDC
39	50MVAR 400KV Bus Reactor at Rourkela	26-02-2014	09:00	26-02-2014	17:00	ODB	ER-II	OTI adaptation work under NTAMC project	
40	400KV Malda-Farakka-I	26-02-2014	09:00	26-02-2014	13:00hrs	ODB	ER-II	For Relay Retrofitting & Oil sample collection	NLDC
41	400KV Maithon-RTPS	27-02-2014	09:00	27-02-2014	17:00	ODB	ER-II	Line Isolator checking for remote operation under NTAMC	DVC
42	132KV D/C BARAUNI-MUZAFFARPUR(BSEB)	27-02-2014	08:00	28-02-2014	18:00	ODB	ER-I	FOR STRINGING OF 800KV HVDC	BIHAR
43	TIE BAY OF 400KV BSF-SSRM-3 AT SSRM	27-02-2014	08:00	27-02-2014	18:00	ODB	ER-I	FOR ISOLATOR MODIFICATION WORK AT PSL	
44	315 MVA ICT-I at Maithon	27-02-2014	09:00	27-02-2014	10:00	ODB	ER-II	oil sample collection -CGL R-PH 220KV CT	DVC
45	400KV Rourkela - SEL -II	27-02-2014	09:00	27-02-2014	17:00	ODB	ER-II	Jumper Tightening, Corpra ring tightening, VD adjustments	NLDC
46	400KV Rourkela - SEL -I	28-02-2014	09:00	28-02-2014	14:00	ODB	ER-II	Numerical Distance Relay retrofitting by M/s ABB	NLDC
47	400 KV RNC(OLD)-RNC(NEW)-I	28-02-2014	07:00	05-03-2014	18:00	ODB	ER-I	FOR ERECTION & STRINGING OF MULTI TOWERS INVOLVING RNC-RNC 2, 3 & 4.	
48	400 kV BUS-II & JITPL-Meramundali1 Line	01-03-2014	09:00	02-03-2014	17:00	ODB	ER-II	For SAS commissioning	NLDC/ WILL BE ISSUED DURING ANUGUL-
49	400kV Jeypore-Bolangir	01-03-2014	10:00	01-03-2014	12:00hrs	OCB	ER-II	Control Switching device installation works At Lineraeactor & IR measuremnet of	NLDC/ WILL BE ISSUED DURING ANUGUL-
50	400 KV KHLG - BARH - I & II	19-03-2014	08:00	24-03-2014	18:00	OCB	ER-I	DIVERSION OF 400 KV KHLG - BARH D/C	POWERGRID MAY JUSTIFY WHY 15 DAYS
51	400 KV ANUGUL - JITPL - BOLANGIR	01-03-2014	08:00	06-03-2014	17:00	OCB	JITPL	TO REMOVE LILO AND MAKE PERMANENT CONNECTION AT ANUGUL	NLDC
52	400 KV PATNA - BALIA - 1	01-03-2014	07:00	31-03-2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT (A/R WILL BE MADE OFF)	May be applied after sasaram - Sarnath &

53	400 KV KHLG - BANKA - I	01-03-2014	07:00	31-03-2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT (A/R WILL BE MADE OFF)	NLDC
54	220 KV ARA - KHAGAU D/C	01-03-2014	07:00	31-03-2014	18:00	ODB	ER-I	FOR OPGW STRINGING WORK UNDER ULDC PROJECT (A/R WILL BE MADE OFF)	BIHAR
55	A/R OF 400 KV SSRM-ALLD	01-03-2014	08:00	31-03-2014	18:00	ODB	ER-I	FOR PID WORK. A/R TO BE MADE OFF. (SSRM-ALLD & SSRM-SRNTH-ALLD are on same D/C tower)	NLDC
56	A/R OF 400 KV SSRM-SARNATH	01-03-2014	08:00	15-03-2014	18:00	ODB	ER-I	FOR PID WORK. A/R TO BE MADE OFF. (SSRM-ALLD & SSRM-SRNTH-ALLD are on same D/C tower)	NLDC
57	400KV New Siliguri - Purnea - 1	01-03-2014	00:00	31-03-2014	00:00	OCB	ER-II	For Reconductoring works	NLDC
58	400KV Malthon-MEJIA-I	01-03-2014	09:00	01-03-2014	17:00	ODB	ER-II	SFRA signature of Reactor	DVC
59	220 KV PTN - KHAGAU	02-03-2014	09:30	02-03-2014	13:00	ODB	ER-I	FOR AMP WORK	BIHAR
60	400 KV BUS - I ALONGWITH 125 MVAR B/R AT RNC S/S	02-03-2014	09:30	02-03-2014	17:30	ODB	ER-I	JUMPERING OF RNC - RNC - 4 WITH BUS - I AND INTEGRATION OF 400 KV RNC -	
61	400KV EAST BUS-II & 125MVAR B/R-I MAIN BAY AT SSRM	02-03-2014	08:00	02-03-2014	18:00	ODB	ER-I	FOR ISOLATOR MODIFICATION WORK AT PSL	
62	220 KV BUS - II AT PATNA	02-03-2014	09:30	02-03-2014	17:30	ODB	ER-I	FOR AMP WORK	BIHAR
63	132KV D/C Budhipadar-Sundargarh Line (OPTCL)	02-03-2014	09:00	02-03-2014	15:00	OCB	ER-II	FOR STRINGING WORK OF 765KV ANGUL-SUNDARGARG LINE-1 AT LOC. NO-25/0-	OPTCL
64	400 KV BSF - BALIA - II	03-03-2014	09:30	03-03-2014	13:30	ODB	ER-I	AMP WORK	WILL BE ALLOWED IF KAHALGAON -
65	400 KV RANCHI - SIPAT - I & II	03-03-2014	07:00	04-03-2014	18:00	ODB	ER-I	FOR CONSTRUCTION OF 400KV RNC-RNC LINE-II	NLDC
66	220KV D/C MUZ-HAJIPUR (BSEB)	03-03-2014	08:00	04-03-2014	18:00	ODB	ER-I	FOR STRINGING OF 800KV HVDC LINE	BIHAR
67	400 KV KHLG - BSF - I	26-02-2014	08:00	28-02-2014	18:00	OCB	ER-I	FOR LILO WORK OF SAID LINE AT LAKHISARAI S/S	WILL BE ALLOWED IF KAHALGAON - BARH
68	400 KV KHLG - BSF - II	26-02-2014	08:00	26-02-2014	18:00	ODB	ER-I	FOR LILO WORK OF SAID LINE AT LAKHISARAI S/S	WILL BE ALLOWED IF KAHALGAON - BARH D/C IS NOT ALLOWED/ NLDC
69	220 KV TBC BAY AT PTN	03-03-2014	09:30	03-03-2014	13:30	ODB	ER-I	FOR AMP WORK	BIHAR
70	132 KV ARA - JAGDISHPUR	03-03-2014	10:00	03-03-2014	16:00	ODB	ER-I	FOR AMP WORK	BIHAR
71	220 KV Birpara-Salakati -I	23-03-2014	09:00	24-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	NLDC
72	220KV Budhipadar - Korba -III	03-03-2014	09:00	03-03-2014	17:00	ODB	ER-II	Numerical Distance Relay retrofitting by M/s ALSTOM and also to Replace B-ph CVT	NLDC
73	50 MVar Bus Reactor at Durgapur	03-03-2014	09:30	08-03-2014	18:00	OCC	ER-II	To Carry out Drying out of Bus Reactor as per recommendation of 8th RTC meeting.	
74	220 KV BUS COUPLER BAY AT PTN	04-03-2014	09:30	04-03-2014	13:30	ODB	ER-I	FOR AMP WORK	BIHAR
75	132 KV ARA - ARA	04-03-2014	10:00	04-03-2014	14:00	ODB	ER-I	FOR AMP WORK	BIHAR
76	132KV D/C SAMASTIPUR-CHHAPRA	04-03-2014	08:00	05-03-2014	18:00	ODB	ER-I	FOR STRINGING OF 400KV BARH-GORAKHPUR LINE	BIHAR
77	TIE BAY OF 125MVAR B/R-2 AT SSRM	04-03-2014	08:00	04-03-2014	18:00	ODB	ER-I	FOR ISOLATOR MODIFICATION WORK AT PSL	
78	400KV ROURKELA-SUNDARGARH-RAIGARH CKT-2	04-03-2014	08:00	05-03-2014	16:00	OCB	ER-II	For attending constructional defects	NLDC
79	125MVAR BUS REACTOR-2 at Sundargarh	04-03-2014	08:00	05-03-2014	16:00	OCB	ER-II	Removal of shuterling from fire fighting wall	
80	400KV Tala-New Siliguri Ckt -IV	04-03-2014	08:00	05-03-2014	17:00	ODB	ER-II	Replacement of pilfered conductor strand in the span of Loc. 228-229(Jaldhaka river crossing) Previously the river was full of water, since last week it is workable.	NLDC
81	400 KV JSR - RKL - I	05-03-2014	08:00	05-03-2014	18:00	ODB	ER-I	FOR INSULATOR REPLACEMENT WORK BROKEN BY MISCREANTS	
82	100 MVA ICT - I AT ARA S/S	05-03-2014	10:00	05-03-2014	16:00	ODB	ER-I	FOR AMP WORK	BIHAR
83	400 kV Farakka - Kahalgaon - III	05-03-2014	09:30	05-03-2014	17:30	ODB	NTPC	PM WORK & RELAY TESTING	NLDC
84	220 KV Birpara-Salakati -II	23-03-2014	09:00	24-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	NLDC
85	400KV Rourkela - SEL -I	05-03-2014	10:00	05-03-2014	14:00	ODB	ER-II	Numerical Backup Impedence Relay retrofitting by M/s ABB	NLDC
86	132KV D/C HATIA-PATRATU	06-03-2014	07:00	06-03-2014	18:00	ODB	ER-I	FOR CONSTRUCTION OF 400KV RNC-RNC LINE-II	JSEB
87	400 KV BUS - I AT PTN	06-03-2014	09:30	06-03-2014	15:30	ODB	ER-I	FOR AMP WORK	
88	100 MVA ICT - II AT ARA S/S	06-03-2014	10:00	06-03-2014	16:00	ODB	ER-I	FOR AMP WORK	BIHAR
89	400 KV RNC(OLD)-RNC(NEW)-I	06-03-2014	07:00	10-03-2014	18:00	OCB	ER-I	FOR ERECTION & STRINGING OF MULTI TOWERS INVOLVING RNC-RNC 2, 3 & 4.	
90	400KV BSF-MUZ-I & II	06-03-2014	08:00	07-03-2014	18:00	ODB	ER-I	FOR STRINGING OF 800KV HVDC LINE	NLDC
91	TIE BAY OF 125MVAR B/R-1 AT SSRM	06-03-2014	08:00	06-03-2014	18:00	ODB	ER-I	FOR ISOLATOR MODIFICATION WORK AT PSL	
92	315MVA ICT-II at Jeyapore	07-03-2014	11:00	10-03-2014	18:00	OCB	ER-II	1.OLTC tap head cover replacement works for rectifying the problem of main	OPTCL
93	220 KV Birpara-Chukha -I	07-03-2014	09:00	08-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	NLDC
94	400 KV FARAKKA - SAGARDIGHI	08-03-2014	09:30	08-03-2014	16:30	ODB	NTPC	PM WORK & RELAY TESTING	WBSETCL/NLDC
95	400 KV PATNA- BARH III & IV	08-03-2014	09:00	08-03-2014	15:00	ODB	ER-I	FOR ATTENDING OPGW CLEARANCE PROBLEM WITH BSF-MUZ I & II.	NLDC
96	132 KV Rammam -Rangit	08-03-2014	07:00	08-03-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
97	400KV Rourkela - Sundargarh -I	08-03-2014	10:00	08-03-2014	14:00	ODB	ER-II	Numerical Backup Impedence Relay retrofitting by M/s ABB	NLDC
98	220KV D/C HATIA-PATRATU	09-03-2014	07:00	09-03-2014	18:00	ODB	ER-I	FOR CONSTRUCTION OF 400KV RNC-RNC LINE-II	JSEB

99	400KV SSRM-BALIA	09-03-2014	08:00	09-03-2014	18:00	ODB	ER-I	FOR BAY CONSTRUCTION WORK OF 400KV SSRM-DALTANGANJ LINE	NLDC
100	MAIN BAY OF 400KV SSRM-BALIA AT SSRM	09-03-2014	08:00	09-03-2014	18:00	ODB	ER-I	FOR ISOLATOR MODIFICATION WORK AT PSL	
101	400 KV BKTPP- Jeerat	09-03-2014	07:00	09-03-2014	16:00	ODB	WBSETCL	MAINTENANCE WORK	
102	400KV Maithon-Right Bank-II	09-03-2014	09:00	09-03-2014	15:00	ODB	ER-II	Strengthening of strung BUS to avoid overheating	MPL
103	400KV Maithon-MEJIA-III	10-03-2014	10:30	10-03-2014	11:30	ODB	ER-II	oil sample collection -CGL R-PH CT	DVC
104	400/220 KV 315 MVA IBT-2 AT BAKRESWAR	10-03-2014	07:00	10-03-2014	17:00	ODB	WBSETCL	MAINTENANCE WORK	
105	400 KV Bus coupler Bay AT KTPP	10-03-2014	07:00	10-03-2014	18:00	ODB	WBSETCL	MAINTENANCE WORK	
106	220 KV Birpara-Chukha -II	10-03-2014	09:00	11-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	NLDC
107	40KV Maithon-JAMSHEDPUR	10-03-2014	09:00	20-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	
108	400KV Maithon-MEJIA III	10-03-2014	09:00	20-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	DVC
109	400KV Malda-Farakka-II	10-03-2014	09:00	10-03-2014	18:00hrs	ODB	ER-II	For Relay Retrofitting at Farakka end	NLDC
110	132KV D/C GOPALGANJ-SIWAN(BSEB)	11-03-2014	08:00	12-03-2014	18:00	ODB	ER-I	FOR STRINGING OF 800KV HVDC LINE	BIHAR
111	400 kV Baripada-Mendhasal Line-2 Bay with L/R	11-03-2014	09:00	11-03-2014	17:00	ODB	ER-II	AMP of Reactor	
112	400KV Rourkela - Jamshedpur - 2 with Reactor	11-03-2014	09:00	12-03-2014	17:00	ODB	ER-II	Recator AMP & Line Bay AMP	
113	400 kV Maithon - Koderma - Biharsariff	12-03-2014	08:00	14-03-2014	17:00	OCB	DVC	400 KV BUS 1 & 2 SD OF KODERMA/DVC	TOTAL POWER INTERRUPTON AT KODERMA/ NLDC
114	400 kV Farakka - Kahalgaoon - IV	12-03-2014	09:30	12-03-2014	17:30	ODB	NTPC	PM WORK & RELAY TESTING	NLDC
115	220 KV Birpara-Malbase TL	12-03-2014	09:00	13-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	NLDC
116	220KV Maithon-Kalyaneshwari-I	13-03-2014	09:00	13-03-2014	17:00	ODB	ER-II	Line Isolator checking for remote operation under NTAMC, AMP,CVT replacement	DVC
117	400 KV Bongaigaon-New Siliguri -I	04-03-2014	09:00	13-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	NLDC
118	132 KV Chujachen-Gangtok	15-03-2014	07:00	17-03-2014	17:00	ODB	ER-II	LILO termination of 132 KV Chujachen-Gangtok/Melli	SIKKIM/CHUZACHEN
119	400 KV PTN - BARH - I & II	03-03-2014	08:00	18-03-2014	18:00	OCB	ER-I	DIVERSION OF 400 KV PTN - BARH - I & II	POWERGRID MAY JUSTIFY WHY 15 DAYS SD REQUIRED/ NLDC CONSENT
120	A/R OF 400 KV SARNATH-ALLD	16-03-2014	08:00	31-03-2014	18:00	ODB	ER-I	FOR PID WORK. A/R TO BE MADE OFF. (SSRM-ALLD & SSRM-SRNT-ALLD are on same D/C tower)	NLDC
121	400 KV BSF - BALIA - I	17-03-2014	09:30	17-03-2014	13:30	ODB	ER-I	AMP WORK	NLDC
122	220KV Maithon-Dhanbad-2	17-03-2014	09:00	17-03-2014	17:00	ODB	ER-II	CVT inspection Y-PH	DVC
123	400 KV JSR - DURGAPUR	18-03-2014	09:30	18-03-2014	17:30	ODB	ER-I	AMP WORK	
124	220KV Maithon-Dhanbad-1	18-03-2014	09:00	18-03-2014	17:00	ODB	ER-II	Bay AMP	DVC
125	132 KV Chujachen-Melli	18-03-2014	07:00	20-03-2014	17:00	ODB	ER-II	LILO termination of 132 KV Chujachen-Gangtok/Melli	SIKKIM/CHUZACHEN
126	132KV DARBHANGA-SAMASTIPUR(BSEB)	19-03-2014	08:00	20-03-2014	18:00	ODB	ER-I	FOR STRINGING OF 800KV HVDC LINE	BIHAR
127	400 KV RNC(OLD)-RNC(NEW)-I	20-03-2014	07:00	22-03-2014	18:00	OCB	ER-I	FOR ERECTION & STRINGING OF MULTI TOWERS INVOLVING RNC-RNC 2, 3 & 4.	
128	400KV MEJIA - JAMSHEDPUR	21-03-2014	09:00	30-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	DVC
129	132 KV Rangit-Gangtok	21-03-2014	07:00	23-03-2014	17:00	ODB	ER-II	for crossing of 132 D/C line by 400 KV D/C line (LILO of 400 KV Ckt-I).	SIKKIM
130	132 KV Chujachen-Gangtok	21-03-2014	07:00	23-03-2014	17:00	ODB	ER-II	for crossing of 132 D/C line by 400 KV D/C line (LILO of 400 KV Ckt-I).	SIKKIM
131	200MVA ICT-I AT BANKA	25-03-2014	10:00	25-03-2014	16:00	ODB	ER-I	FOR AMP WORK	BIHAR
132	200MVA ICT-II AT BANKA	26-03-2014	10:00	26-03-2014	16:00	ODB	ER-I	FOR AMP WORK	BIHAR
133	132 KV KHALGAON - SABOUR	26-03-2014	09:30	26-03-2014	17:30	ODB	NTPC	PM WORK & RELAY TESTING	BIHAR
134	400 KV Bongaigaon-New Siliguri -II	14-03-2014	09:00	19-03-2014	17:00	ODB	ER-II	Insulator string replacement work damaged by miscreants	NLDC
135	80 MVAR B/R AT BARH	25-03-2014	09:30	26-03-2014	17:00	OCB	NTPC	PM WORK & RELAY TESTING	
136	400 KV TeestaV New Slg -I	26-03-2014	07:00	28-03-2014	17:00	ODB	ER-II	LILO termination of 400 KV Ckt-I	
137	132 KV BANKA-BANKA	27-03-2014	10:00	27-03-2014	13:00	ODB	ER-I	FOR LINE BAY AMP WORK	BIHAR
138	132KV D/C MASRAKH-SIWAN(BSEB)	27-03-2014	08:00	28-03-2014	18:00	ODB	ER-I	FOR STRINGING OF 800KV HVDC LINE	BIHAR
139	132KV BANKA-SABOUR	28-03-2014	10:00	28-03-2014	13:00	ODB	ER-I	FOR LINE BAY AMP WORK	BIHAR

Following shutdowns ha been canceled due to Madhyamik Parikha & H.S. EXAM in WEST BENGAL

1	315 MVA ICT-V at Malda	22-02-2014	09:00	22-02-2014	18:00hrs	ODB	ER-II	WTI/OTI adaption work of ICT & Isolator allinment and remote operation under NTAMC	WBSETCL
2	315 MVA ICT#3 at Subhasgram	23-02-2014	08:00	23-02-2014	16:00	ODB	ER-II	Isolator CRM	WBSETCL
3	160 MVA ICT-I at Malda	23-02-2014	09:00	23-02-2014	18:00hrs	ODB	ER-II	Inspection & measurment for commissioning of NIFS system, mainly at conservator line.	WBSETCL
4	315 MVA ICT#4 at Subhasgram	24-02-2014	08:00	24-02-2014	16:00	ODB	ER-II	Isolator CRM / Jumper Alignment	WBSETCL
5	160 MVA ICT-II at Malda	25-02-2014	09:00	25-02-2014	18:00hrs	ODB	ER-II	Inspection & measurment for commissioning of NIFS system, mainly at conservator line.	WBSETCL
6	400 KV Behrampore - Jeerat	25-02-2014	11:00	25-02-2014	11:30	OBD	ER-II	Replacement of link between LA base and surge monitor counter with 25x3 sq mm Cu flat in LAs installed at Behrampur which is currently linked by Cu wire of lower cross section area	NLDC/WBSETCL
7	220KV Birpara-New Siliguri Ckt.-I	25-02-2014	08:00	26-02-2014	17:00	ODB	ER-II	Conversion of single tension fitting to double tension fitting at Loc. No.140 & 141 (State Highway crossing) Jalpaiguri to Siliguri.	WBSETCL
8	220 KV Birpara-New Siliguri -II	27-02-2014	09:00	28-02-2014	17:00	ODB	ER-II	Conductor replacement work	WBSETCL
9	400KV S'Gram - Sgardighi	27-02-2014	07:00	28-02-2014	16:00	ODB	ER-II	VD Replacement, Jumper tightening, LR SFRA	WBSETCL
10	220KV Birpara-New Siliguri -II	27-02-2014	08:00	28-02-2014	17:00	ODB	ER-II	Conversion of single tension fitting to double tension fitting at Loc. No.140 & 141 (State Highway crossing) Jalpaiguri to Siliguri.	WBSETCL
11	400KV Jeerat - Beharampur	03-03-2014	07:00	03-03-2014	16:00	ODB	ER-II	Line Isolator Replacement / LA Replacement / LR AMP & SFRA	NLDC/WBSETCL
12	132 KV Siliguri-WBSETCL - II	06-03-2014	08:00	06-03-2014	20:00	ODB	ER-II	Retrofitting of CT under ADDCAP	WBSETCL
13	400KV Durgapur-Bidhannagar	10-03-2014	09:30	10-03-2014	10:00	ODB	ER-II	For Isolating reactor to carry out Dry out	WBSETCL
14	400KV Durgapur-Bidhannagar	16-03-2014	17:30	16-03-2014	18:00	ODB	ER-II	For Taking Line reactor in to service after Dry out	WBSETCL
15	ICT-1(100 MVA) at Birpara	17-03-2014	09:00	17-03-2014	17:00	ODB	ER-II	AMP	WBSETCL
16	160 MVA ICT-2 at Birpara	19-03-2014	09:00	22-03-2014	17:00	ODB	ER-II	AMP+ Balance work of ERSS-IV(Installation and commissioning of NIFFS)	WBSETCL
17	400 KV Durgapur Sagardighi#1	28-03-2014	08:00	28-03-2014	13:00	ODB	ER-II	Numerical relay retrofitting	WBSETCL

Anticipated Power Supply Position for the month of
Mar-14

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
1	BIHAR		
	i) NET MAX DEMAND	2750	1365
	ii) NET POWER AVAILABILITY- Own Source	349	237
	- Central Sector	1483	840
	iii) SURPLUS(+)/DEFICIT(-)	-918	-288
2	JHARKHAND		
	i) NET MAX DEMAND	1285	800
	ii) NET POWER AVAILABILITY- Own Source	560	306
	- Central Sector	612	368
	iii) SURPLUS(+)/DEFICIT(-)	-114	-126
3	DVC		
	i) NET MAX DEMAND (OWN)	2800	1735
	ii) NET POWER AVAILABILITY- Own Source	5324	3255
	- Central Sector	433	303
	Long term Bi-lateral (Export)	1400	1041
	iii) SURPLUS(+)/DEFICIT(-)	1557	782
4	ORISSA		
	i) NET MAX DEMAND	3700	2420
	ii) NET POWER AVAILABILITY- Own Source	2881	1673
	- Central Sector	1052	635
	iii) SURPLUS(+)/DEFICIT(-)	233	-112
5	WEST BENGAL		
5.1	WBSEDCL		
	i) NET MAX DEMAND (OWN)	5350	3680
	ii) CESC's DRAWAL	570	164
	iii) TOTAL WBSEDCL's DEMAND	5920	3844
	iv) NET POWER AVAILABILITY- Own Source	3820	2284
	- Import from DPL	-50	21
	- Central Sector	3084	2010
	v) SURPLUS(+)/DEFICIT(-)	934	471
5.2	DPL		
	i) NET MAX DEMAND	300	200
	ii) NET POWER AVAILABILITY	250	221
	iii) SURPLUS(+)/DEFICIT(-)	-50	21
5.3	CESC		
	i) NET MAX DEMAND	1620	858
	ii) NET POWER AVAILABILITY - OWN SOURCE	1050	694
	FROM WBSEDCL	570	164
	iii) TOTAL AVAILABILITY	1620	858
	iv) SURPLUS(+)/DEFICIT(-)	0	0
6	WEST BENGAL (WBSEDCL+DPL+CESC) (excluding DVC's supply to WBSEDCL's command area)		
	i) NET MAX DEMAND	7270	4738
	ii) NET POWER AVAILABILITY- Own Source	5120	3199
	- Central Sector	3084	2010
	iii) SURPLUS(+)/DEFICIT(-)	934	471
7	SIKKIM		
	i) NET MAX DEMAND	90	54
	ii) NET POWER AVAILABILITY- Own Source	16	4
	- Central Sector	108	54
	iii) SURPLUS(+)/DEFICIT(-)	34	4
8	EASTERN REGION		
	At 1.03 AS DIVERSITY FACTOR		
	i) NET MAX DEMAND	17374	11112
	Long term Bi-lateral	1400	1041
	ii) NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	19050	11843
	iii) PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	1676	731