

Eastern Regional Power Committee

Minutes of 96th OCC Meeting held on 25th April, 2014 at ERPC, Kolkata

Shri A. K. Bandyopadhyaya, Member Secretary (I/C), ERPC welcomed all the OCC members and participants in the meeting. He informed that in Eastern Region Powergrid has successfully commissioned the first 400 kV GIS at Rangpo substation on 22nd April, 2014. He also informed that, 10 MW Solar plant of NTPC at Talcher was commissioned in 28th March, 2014.

The house applauded for both the achievements of Powergrid and NTPC.

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

Item no. A.1: Confirmation of minutes of 95th OCC meeting of ERPC held on 21.03.2014

The minutes were uploaded in ERPC website and circulated vide letter dated 02.04.14 to all the constituents. No comments were received till date.

Members may confirm the minutes.

Deliberation in the meeting

Members confirmed the minutes of 95th OCC meeting.

PART B

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

The issue is being discussed in last couple of OCC meetings. But unfortunately till date Secretariat is either receiving requisite information not in time and /or or not in proper format.

Recently in a meeting held in MoP on 9th April 2014 with Chairperson, CEA it was decided that an appropriate officer of the level of Chief Engineer / General Manager in each DISCOM may be nominated / deputed by the head of the DISCOM, who should be responsible to furnish rural supply related data to RPC, REC or any other agency. In the meeting a new format was also designed for submission of the information.

Therefore, the contact details of such nominated officers may be forwarded by the DISCOMs to the Secretariat at the earliest.

Constituents are also requested to place the information in new format on regular basis in the first week of every month for the data of the previous month.

Members may note and provide the requisite information.

Deliberation in the meeting

Member Secretary I/C, ERPC informed that, though the matter was discussed over last OCCs and taken up with all the constituents the complete data in the desired format is not being received. Further, he informed that ERPC vide letter dated 11.04.2014 had requested constituents to forward the nomination of an appropriate officer of the level of Chief Engineer / General Manager from each DISCOMs who should be responsible to furnish rural supply related data to RPC, REC or any other agency. The nominations are yet to be received from JSEB, BSEB. Orissa has already nominated but it was requested to nominate the level of Chief Engineer / General Manager. OCC requested respective constituents to forward the nominations of their DISCOMs at the earliest.

It was also informed that, till date no data received from JSEB.

DVC informed that, they are supplying power to JSEB at 33 kV level and downwards distribution is looked after by JSEB and they do not have any information about distribution. So, the desired data of rural supply may be collected from JSEB only. OCC requested DVC to give as much relevant information.

*OCC requested all the constituents to send the complete data of Jan, 2014 to Mar, 2014 in prescribed format as enclosed at **Annexure-B.1** (the excel format is also available at ERPC website). All constituents were also requested to supply the requisite information of a month by the first week of the following month without fail. 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.

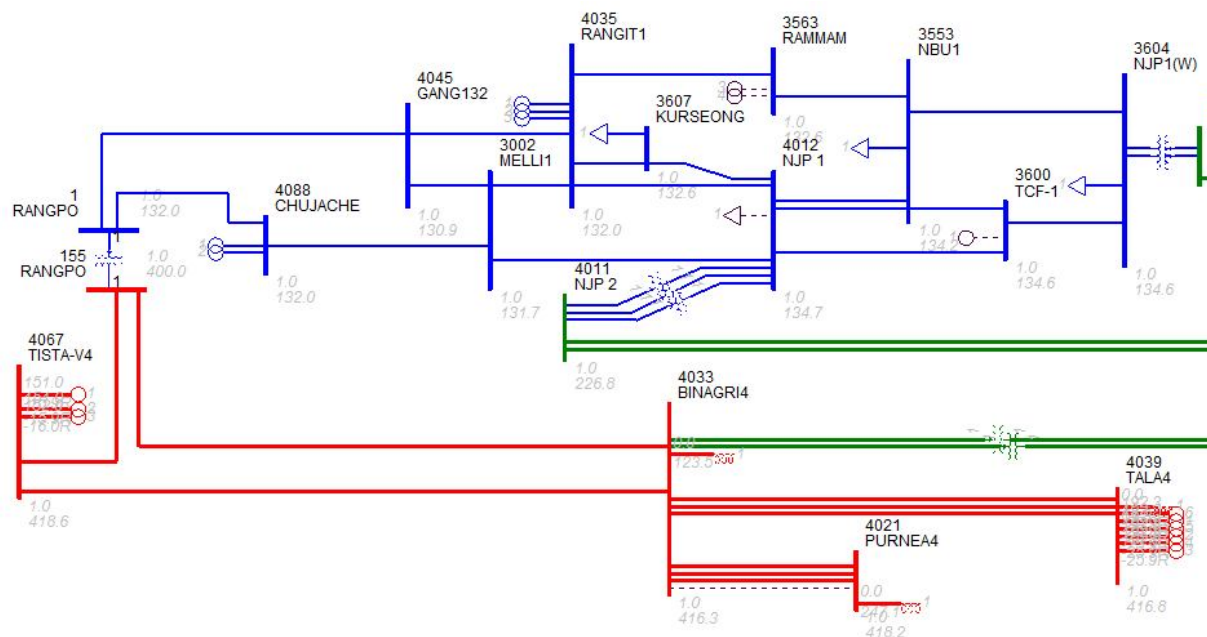
Further, Interim arrangement shall be made utilizing 132kV Melli bay of POWERGRID to terminate Chuzachen at Rangpo substation.

In 94th OCC, 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.

In 95th OCC, Powergrid informed that the 400/220 kV Rangpo pooling S/S will be ready by 15th April, 2014. In view of the delayed commissioning of Rangpo S/s, OCC advised Chuzachen to explore the possibility of implementation of the revised SPS and to interact with ERLDC for execution.

132 KV Chuzachen-Gangtok LILO at Rangpo S/S- Powergrid informed that the termination work will be completed on 24-25th March, 2014.

Subsequently, LILO of 132kV Chuzachen-Gangtok at Rangpo and charging of 220/132kV, 100MVA ICT-I at Rangpo S/S were done by 31/03/14. One 315MVA ICT was test charged from 220kV side on 15/04/14 and 400kV Bus-I & II were charged. However, till commissioning of LILO of 400kV Teesta-Binaguri-I at Rangpo, the constraints faced by Chuzachen HEP would not be mitigated and Chuzachen SPS would need a review. Keeping in view the urgency of requirement, Powergrid may indicate the latest status regarding commissioning of the LILO of 400kV Teesta-Binaguri-I at Rangpo and complete commissioning of the 400/220/132kV Rangpo S/S.



Powergrid and Chuzachen may update the status.

Deliberation in the meeting

Powergrid informed that 400 kV, Rangpo GIS substation was commissioned on 22nd April, 2014.

ERLDC gave a presentation on the changed scenario with the commissioning of 400 kV Rangpo S/S. It was informed that the loading of 132 kV Chuzachen-Melli line has enhanced and the Sikkim & North Bengal grid is now strengthened. Accordingly, the Chuzachen station may be permitted to inject more quantum but prior to that the SPS for Chuzachen needs to be reviewed with the new power flow scenario. ERLDC also informed that they will carry out the load flow studies with full generation at Chuzachen, Rangit and Rammam and present in next OCC.

OCC advised ERLDC to carry out the studies for review of Chuzachen SPS with new scenario and place in the next OCC.

Teesta requested Powergrid to give the modified protection setting at Teesta 400 kV S/s. Powergrid agreed.

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

The matter was discussed in the previous OCC/TCC/ERPC meetings and subsequently the bays at both Balimela and Upper-sileru were checked and re-commissioned and the line was test charged from either ends. Presently, the line is kept test charged from Upper-Sileru end and APTRANSCO has indicated readiness to draw power through the line. It has been decided initially to segregate one Bus at Balimela and keep one unit of Balimela radially on Upper-sileru and segregated from Odisha. Balimela S/S has DMT Bus configuration, wherein, the following procedure could be followed for Bus/Unit segregation at Balimela:

- i) All 220kV feeders may shifted onto one Bus (Either Bus-I or II)
- ii) On opening of the Bus coupler the segregated Bus would become dead.
- iii) The segregated Bus would then be charged from Upper-Sileru source.
- iv) One unit at Balimela may then be started and synchronized onto the segregated Bus.

However, it was confirmed by GRIDCO that due to the elections scheduled, the test synchronization can be done only after 17/04/14.

ERPC vide letter dated 07.04.14 informed that the Power flow during test synchronization will be accounted towards ER-SR exchange in deviation settlement account.

Subsequently, ERLDC informed that test synchronization was successfully done on 21st April, 2014 at 12:35 Hrs.

ERLDC and OPTCL may update the latest status.

Deliberation in the meeting

OCC appreciated OPTCL for successful synchronization of the line. OPTCL raised the issue of priority scheduling of power via this line. OCC advised OPTCL to give the proposal on Bilateral Transaction with APTRANSCO through this line to Commercial Committee. OPTCL agreed.

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 2 Sub-stations namely Kesinga & Junagarh. UFRs have been ordered and the same will be installed by Mar, 2014.
- **JSEB:** JSEB informed that, load shedding through UFR scheme has been implemented including new 33 kV feeders in place of feeders of Lalmatia, Dumka, Sahebganj under islanding scheme. The latest status of UFR is enclosed at **Annexure B.4.**

OPTCL may update the latest status.

Deliberation in the meeting

OPTCL informed that UFRs have been installed at both Kesinga & Junagarh. With this the implementation of UFR based load relief scheme in the Eastern Region is complete.

Item no. B.5: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG) S/s

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

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

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

Powerlinks vide letter dated 23.04.2014 informed that the order for polymer insulators had been placed to BHEL and the work will be taken up during next lean season. Regarding the analysis of causes of failure, CPRI have been entrusted and the detail report will be placed in next OCC.

Item no. B.7: Enhancement of injection Quantum of GMR KEL to 700 MW on RTC Basis

All 3 units of 350 MW each (1050 MW installed Capacity) of GMR are commissioned and under commercial operation since 25th March, 14.

Now GMR vide letter dated 15th April, 2014 submitted the following:

- a) In the MoM of the Meeting held on 14th Mar 14 it is recorded under point no. C that the Quantum of power injection allowable from GMR has been estimated to be 350 MW in the peak & 450 MW in the off-peak Hrs. However this would be reviewed from time to time depending on the margin available in the ISTS.
- b) In view of the above, GMR requested to permit them to apply for short term open access and IEX sale up to the extent of 700 MW on RTC basis, however actual injection shall be as per the accepted schedule, which will be based on the margin available in the ISTS.

Members may discuss and decide further course of action.

Deliberation in the meeting

ERLDC informed that GMR is allowed to the maximum margin available based on load flow study considering (n-1) criteria. ERLDC presented the load flow results and informed that, GMR injection of more than the 350 MW in the peak & 450 MW during off-peak Hrs would cause violation of (n-1) criteria which will endanger the reliability and security of the grid.

GMR requested for allowing more evacuation and proposed for designing a SPS in order to tackle the contingencies. However, ERLDC is not in favor of SPS and advised GMR to complete the ATS as early as possible.

After detailed deliberation in order to explore utilization of untapped generation capability of GMR with three units in operation, OCC decided to form a committee comprising team members from ERPC, ERLDC, CTU, OPTCL, NTPC, GMR & JITPL to review:

Effectiveness of SPS for allowing more evacuation from GMR station.

Further, OCC advised the committee to do the above study along with reviewing of other SPSs already existing in the Eastern grid in view of changing grid scenario due to addition of more transmission/generation elements. The committee will be named as “SPS committee” and it would place the study report in the next OCC.

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 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. 	<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 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 along with battery chargers at both stations. 	
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 94th OCC, 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.

In 95th OCC Powergrid informed that, estimate has been prepared for purchase of two sets of 300 AH battery banks along with battery charger and same will be put up to JSEB by 25th Mar, 2014. Further, Powergrid informed that their engineers would visit Farakka, Lalmatia and Dumka S/s by 1st week of April, 2014 for checking healthiness of PLCC panels and the installation of UFR scheme will also be completed during the visit.

Subsequently, Powergrid vide letter dated 24.03.2014 had submitted the cost estimate for the above work. ERPC vide letter dated 08.04.2014 has requested JSEB to do the needful at their end and confirm the same to Powergrid.

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

Deliberation in the meeting

Powergrid informed that JSEB vide letter asked for some queries and details of healthiness of PLCC panels; the reply to all queries will be made soon.

OCC also felt that, as per OCC decision Powergrid should first check the healthiness of the PLCC panels and submit the cost estimation.

Accordingly, OCC advised Powergrid to check the healthiness of PLCC panels and re-submit the cost estimation to JSEB with all queries at the earliest with a copy to ERPC Secretariat.

JSEB representative was not available in the meeting for discussion.

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 islanding scheme will be ready by July, 2014.

B.8.3. BkTPS Islanding Scheme, WBDCL

In 94th OCC, WBDCL informed that all the work order will be placed by April, 2014 the scheme will be completed by October, 2014.

WBDCL may update the status.

Deliberation in the meeting

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

B.8.4. Tata Power Islanding Scheme, Haldia

In 95th OCC, WBSETCL informed that tendering has been completed and the material will be available in Mar, 2014. The installation will be completed by May, 2014.

WBSETCL may update the status.

Deliberation in the meeting

WBSETCL informed that the islanding scheme would commission by May, 2014.

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

In previous OCC meetings, 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

ERLDC clarified that, as per the regulation meters are to be calibrated once in 5 years and as per this criterion 305 meters out of 650 were due for calibration. OCC advised Odisha to give the list of meters where the Odisha representatives were not involved during calibration.

Powergrid informed that calibration of SEMs was completed as per the list provided by ERLDC and they have calibrated the meters in presence of State representatives.

Powergrid may update.

Deliberation in the meeting

Powergrid informed that calibration of SEMs was completed as per the list provided by ERLDC and they have calibrated the meters in presence of State representatives.

In line with decision taken in 95th OCC meeting a team of engineers from ERPC, ERLDC, CTU, OPTCL and JITPL visited the JITPL site on 8th April, 2014 for reviewing the status of meters readings of which are required to compute injection of JITPL in CTU grid post ERLDC scheduling of JITPL. The minutes are enclosed at **Annexure-B.9**.

Members may note.

Deliberation in the meeting

Members noted.

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.

In 94th OCC, Powergrid informed that the installation work has been completed.

Further, Powergrid informed that the award has been placed on M/s TCS for implementation of AMR project. M/s TCS is now going to start DCU installation and cabling works at the substations during the period as part of AMR implementation works.

For AMR implementation works at sites, 220 V DC voltage is required and the same is to be provided. M/s TCS is encountering the problems during visit to the state utilities premises for implementation of AMR project. Hence, it is requested to nominate the nodal officers by each utility to extend help and co-operation to M/s TCS Engineers deputed for AMR implementation works.

In 95th OCC, Powergrid informed that TCS engineers were not being allowed to work in few substations. OCC requested all the constituents to cooperate with TCS Engineers.

Constituents informed that, they were not informed regarding the schedule of visit to their substations hence they are unable to convey the message to the substation representative.

In the meeting, Powergrid circulated the work schedule to all the constituents. Constituents agreed to cooperate with TCS Engineers.

Powergrid may update.

Deliberation in the meeting

Powergrid informed that, TCS representatives were not being allowed inside the OPTCL/GRIDCO substations. OPTCL/GRIDCO asked for the details and assured to resolve the issue.

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

B.10.1. Power Supply to Railway TSS from 132 kV Deogarh (JSEB) S/S

In last OCC, ERLDC presented the study result during the meeting. From the study result it was found that if bus coupler at Deoghar is closed some of the lines are getting overloaded during some contingencies and it is not fulfilling the n-1 criteria.

After detailed deliberations OCC advised to review the relay settings of the lines which were being affected/ loaded and some load disconnection of non-essential loads may also be explored. After the review of protection schemes the bus coupler at Deoghar may be closed on trail basis to figure out the real-time situation.

Further, OCC advised ERLDC/ERPC Secretariat to interact with system study group of CTU to explore the possibility of connecting these Sub-stations with nearby up-coming switching Station by constructing new lines in the nearby areas to relieve the loading in critical lines which are being overloaded.

Secretariat has already placed the issue before standing committee, the next meeting of which will be held on 2nd May, 2014.

ERLDC may update.

Deliberation in the meeting

ERLDC presented the results of load flow under different contingencies and suggested for an additional feed through a 132 kV Deoghar-Banka D/C line to relieve the overloading of the lines during contingencies.

ERPC Secretariat informed that, the issue is already communicated to standing committee which will be held on 2nd May, 2014 and advised ERLDC to place the results. ERLDC agreed.

B.10.2. Replacing/repairing of defective PLCC equipment at SgTPP end of 400 kV SgTPP-Farakka line

In 95th OCC, Powergrid informed that the work will be completed by May, 2014.

Powergrid and WBPDCCL may update the status.

Deliberation in the meeting

Powergrid informed that, work is in progress and will be completed as per schedule.

B.10.3. 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, the line has been restored on 24th April, 2014.

B.10.4. The following line/Bus reactors are under presently under outage:

In last OCC, 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 was charged but tripped on backup impedance protection. The issue has been taken up with BHEL.
- c) 63MVAR Line reactor of 400kV Baripada-Mendhasal-I at Mendhasal: Powergrid informed that it will be in service by March, 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 May, 2014.
- b) 50MVAR Line reactor of 400kV Rourkella-TSTPP-I at TSTPP: NTPC informed that it was charged but tripped on backup impedance protection. The issue has been taken up with BHEL.

- c) 63MVAR Line reactor of 400kV Baripada-Mendhasal-I at Mendhasal: Powergrid informed that the reactor has been charged and it is in operation.

B.10.5. Commissioning of 400 kV Ragunathpur-Ranchi line

In last OCC, DVC informed that, the line will be commissioned by May, 2014.

On enquiry, DVC informed that test synchronization of Raghunathpur unit may be carried out during 21st – 25th March, 2014.

DVC may update.

Deliberation in the meeting

DVC informed that the line has been charged on 15th April, 2014.

B.10.6. Depletion in OPTCL network due to impact of cyclone “Phailin”

OPTCL may update the latest status of 220 kV Narendrapur-Mendasal line

Deliberation in the meeting

OPTCL informed that, the line will be brought into service tentatively by July, 14.

B.10.7. Change to Regional entity status for JITPL & GMR and status of construction of dedicated lines to Anugul pooling station

In line with previous OCC decisions followed by TCC/ERPC directions and CERC guidelines it was decided to consider JITPL and GMR to a regional entity (under ERLDC control area), subject to unconditional NOC from SLDC, OPTCL. Accordingly, JITPL and GMR were taken over as Regional Entity w.e.f. 28.03.2014 (being the date for first synchronization of Unit#1 of JITPL) and 31.03.2014 respectively.

GMR/JITPL may also indicate the current status of construction of the dedicated lines to Anugul pooling stations, viz. 400kV GMR-Anugul D/C and 400kV JITPL-Anugul D/C.

GMR/JITPL, ERLDC may update.

Deliberation in the meeting

GMR informed that they are still waiting for forest clearance which is being rigorously pursued in MoEF. Members noted.

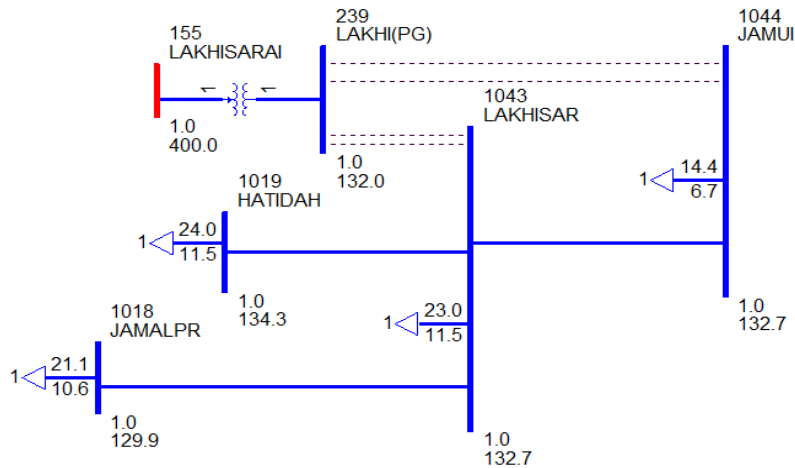
B.10.8. Power Evacuation from 400/ 132KV Lakhisarai Substation

In last OCC, Powergrid informed that 400/132KV Lakisharai Substation will be ready by March, 2014.

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 Oct, 2014.

Subsequently, Powergrid vide letter dated 01.04.2014 informed that 400/132KV Lakisharai Substation along with 200 MVA ICT, 80 MVAR Bus Reactor and line bay of Lakhisarai (PG) – Lakhisarai(BSPTCL) 132 kV D/c line has been charged at rated voltage and declared under commercial operation w.e.f. 01.04.2014.



Powergrid and BSPTCL may update the latest status.

Deliberation in the meeting

BSPTCL informed that work is in progress and will be completed as per schedule.

B.10.9. Power Evacuation from 400/ 220KV Daltonganj and Chaibasa Substations

In last OCC, Powergrid informed that 400/220KV Chaibasa Substations will be ready by June, 2014 and Daltanganj S/S may take some more time to come.

Further, it was informed that construction of intermediate 220/132 kV ICTs is being executed by Powergrid under the consultancy work of JSEB.

Powergrid informed the status as follows:

1. 400/220 kV Daltanganj will be connected to existing Daltanganj and Garwa S/s under JSEB.
2. 400/220 kV Chaibasa connected to Chaibasa S/s- by June, 2014.

Powergrid and JSEB may update the status.

Deliberation in the meeting

Powergrid informed the status as follows:

1. 400/220 kV Daltanganj which will be connected to existing Daltanganj and Garwa S/s- ready by June, 15.
2. 400/220 kV Chaibasa which will be connected to Chaibasa S/s- ready by Sep, 2014.

The status of JSEB portion was not updated as no JSEB representatives were present in the meeting.

B.10.10. Implementation of recommendations of various ERPC teams on JSEB protection coordination Commissioning of LBB protection at Chandil substations (JSEB)

ERPC vide letter 9th April, 2014 had submitted the latest status on 31st March, 2014 as ascertained from JSEB 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 enclosed at **Annexure- B.10.10.**

Members may note.

Deliberation in the meeting

Members noted.

ERLDC informed that on 24th April, 2014 all 220 kV lines were tripped at Chandil 220 kV S/S even though the line fault was successfully cleared by the protection relay. OCC felt that LBB settings need to be reviewed in order avoid such incidences.

JSEB representative was not available for discussion.

B.10.11. Implementation of SPS for 500MW round the clock power through HVDC Bheramara

In 94th OCC, Powergrid informed the status as follows:

- Line reactor of Behrampur-Jeerat will be converted into switchable bus reactor: tendering completed and expected by March, 2015.
- 400 kV Sagardighi-Behrampur D/C (Quad): Work has been awarded and will be commissioned by Dec, 2014.

Powergrid may update the status.

Deliberation in the meeting

Powergrid reported the same status.

Item no. B.11: 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).

Subsequently, CERC vide order dated 21.02.2014 in Petition No. 220/MP/2012 has directed all the utilities to ensure rectification of defects in the protection system as pointed in the protection audit within the time frame as specified in the order and submit the latest status to Member Secretary within one month of the issue of the said order.

In 95th OCC MS I/C informed that CERC vide order dated 21.02.2014 in Petition No. 220/MP/2012 decided that in order to implement the recommendations of the Protection Audit, a compliance mechanism with definite time line needs to be put in place as under:

- a) Each STU and CTU shall submit its action plan against each deficiency within one month from issue of this order clearly stating the deficiencies which can be corrected without any procurement (Category-A) and deficiencies involving procurement of equipment (Category-B). However, action plan for deficiencies dealt in Petition No. 146/MP/2013 shall be submitted therein;
- b) The remaining deficiencies, if any, in Category-A shall be rectified by the concerned STU and CTU within 2 months of issue of the order and compliance report in this regard shall be submitted to respective RPC.
- c) As protection is a matter of critical importance, a time period of one year, as informed by various agencies in RPC for rectifying the deficiencies, which involve procurement, cannot be allowed. All deficiencies of Category-B shall be rectified within 6 months of issue of the order. In this regard, reasons of non-availability of fund or delay in procurement process shall not be accepted. The procurement and implementation is to be completed by each STU using their own fund which can be reimbursed through a common request of funding through PSDF forwarded through RPCs as per procedure recently approved by Government of India.

- d) Each SLDC shall be responsible to monitor the action taken by STU. If any deficiency in the STU system in regard to the Category-A deficiencies is not corrected after 3 months of issue of this order, the concerned SLDC may approach the respective State Commission for appropriate action against defaulting State entity in accordance with State Grid Code. The Office-in-Charge of the concerned SLDC shall be responsible for monitoring and ensuring compliance of the action plan and filing of the petition as directed herein.
- e) RPCs at the end of each quarter shall prepare a report on the protection deficiencies and their rectification which shall be sent to this Commission with a copy to CTU not later than 45 days of expiry of the quarter. The report shall inter-alia identify deviations from time lines as well as the State sub-stations which have interface with ISTS system. CTU shall take necessary action and issue a show cause notice for disconnection to sub-station of STU for not complying with the Standards for Protection and Control as per Central Electricity Authority (Technical Standards for Construction of Electric Plants and Electric Lines) Regulations, 2010 and Central Electricity Authority (Grid Standards) Regulations, 2010.

Accordingly, CERC has directed CTU, STUs and Generating Companies /Stations of all the regions to ensure rectification of defects in the protection system as pointed out in the protection audit within the time frame specified in paragraph 27 of the said order and submit the latest status of corrective actions to Member Secretary of the respective Regional Power Committee within one month of issue of this order. All RPCs are directed to furnish consolidated report with their observations/ recommendations to the Commission within 2 months of issue of this order. Thereafter, CTU and SLDCs shall submit quarterly report to the respective RPC latest by 15th day of the first month of next quarter and RPCs shall submit the report to the Commission latest by 15th day of the second month of next quarter.

Subsequently, NTPC, PGCIL ER-II and Sterlite updated the status; updated status is available at ERPC website.

Members may note and ensure compliance.

Deliberation in the meeting

DVC, WBPDC and Powergrid updated the status. OPTCL, JSEB and BSEB were requested to update the latest status. Members agreed.

Item no. B.12: Restricted Governor Mode of Operation

The latest status of units of ER under RGMO is in **Annexure-B.12**.

Members may update.

Deliberation in the meeting

House was informed that as per new CERC regulation on tariff there is penalty for not participating in RGMO and not performing up to the limits. OCC requested all the constituents to implement RGMO. Constituents agreed.

MPL requested for a workshop on RGMO for better understanding of its importance and regulations.

Item no. B.13: Restriction of schedule for MPL and load flow of MPL-Maithon line

MPL vide letter dated 08.04.2014, 18.04.2014 & 19.04.2014 raised concern on import of power through Maithon- Ranchi lines and routing through Maithon- Maithon lines thereby increasing the loading significantly. At present Unit-1 & 2 at MPL are running at full capacity. There is no

appreciable improvement in MPL-Ranchi lines import. To reduce MPL-Maithon line loading MPL's ex-bus schedule is restricted to 971 MW by ERLDC from 10th April 2014.

In this connection MPL has submitted the following points:

Clause no 4.1 of the BPTA signed between MPL and PGCIL on 8th July 2008 mentions "The transmission tariff and terms and conditions for the power to be transmitted by POWERGRID through the said system shall be as per norms specified by CERC and as amended from time to time".

Clause no 6.2 of the transmission services agreement (TSA) signed between MPL and PGCIL on 26th April 2012 mentions "The calculation of availability for the elements and for the ISTS scheme, as the case may be, shall be as per the CERC (Terms and Conditions of Tariff) Regulations 2009 as may be amended from time to time and any subsequent enactment thereof"

As per the letter No C/ENG/E/00/CTU/LTA from PGCIL CTU on grant of LTOA exbus capacities of 281 MW has been allocated for transmission to each beneficiary WBSEDCL, TPDDL & DVC. Also it is worthwhile to mention here that on the basis of the RTA published by ERPC, MPL is regularly paying PoC charges for the balance 140.5 MW exbus capacity against 150 MW untied installed generation capacity of the Station every month.

However it is observed that from 10th April 2014 onwards ERLDC is granting schedule to our long term beneficiaries as per the Terms of Conditions of Tariff 2009-14 whereas restricting our total station schedule as per the Terms and Conditions of Tariff 2004-09 thereby limiting our untied capacity schedule to 127 MW in place of 140.5 MW for which we are regularly paying PoC charges. It is also important to mention here that MPL is losing heavily everyday due to this restriction imposed by ERLDC and the cumulative minimum revenue loss has touched Rs 1.60 Crores till 19th April 2014 except deviation charges which would follow subsequently.

MPL has placed the following points for further discussion:

- a) In case of tripping of any one MPL-Maithon line, other line will be heavily loaded and may get damaged before taking corrective action (load reducing from our side) at Station.
- b) During that period MPL will have to move out of schedule but there is no clarity what will be the safe load for one line & how to deal with consequential commercial losses to MPL.
- c) In case tripping of one MPL-Maithon line, other will get over loaded. In order to avoid the unwanted damage to 2nd MPL-Maithon Line, MPL would like to seek necessary clearance from ERLDC to switch off 2nd MPL-Maithon Line manually. In this case MPL Ranchi line should take full load in reserve direction.
- d) In case of one MPL-Maithon line tripping, MPL would like to seek necessary clearance from ERLDC for bus segregation. [i.e. One Generator in Bus # 1 with corresponding ST and other Generator in Bus # 2 with corresponding ST on other MPL-Ranchi Lines].
- e) STOA schedule to the maximum quantum of 140.5 MW exbus capacity against 150 MW untied installed generation capacity of the Station every month.

ERLDC and MPL may update.

Deliberation in the meeting

ERLDC informed that regarding loading of MPL-Maithon/MPL-Ranchi lines may get clarified from system planner i.e. CEA/CTU as they had planned the system.

On scheduling issue ERPC clarified that RTA on MPL is being issued on a quantum of 983 MW as provided by CTU/Powergrid duly vetted by NLDC.

However ERLDC informed that as per available document with it the connectivity quantum of MPL is 971 MW and therefore, under compulsion MPL's ex-bus schedule was restricted to 971 MW. w.e.f. 10th April 2014-a change of 12 MW from previous quantum of 983MW.

MPL clarified that they had already signed a revised TSA for 983 MW connectivity quantum with CTU and the same would be forwarded to ERLDC.

OCC felt that before resorting to change from 983MW to 971MW unilaterally, ERLDC should raise this issue in ERPC forum for further clarification.

However after a detailed deliberation OCC advised MPL to get revised LTA/connectivity quantum from CTU and submit to ERLDC. MPL agreed.

Item no. B.14: 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.

Item no. B.15: 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.

Item no. B.16: 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, OHPC and CESC informed that their stations are certified with IS18001.

Members may note and update the status.

Deliberation in the meeting

Members noted.

Item no. B.17: Pollution mapping for Eastern Region -- Powergrid

On the issue a special meeting was scheduled to be conveyed on 20th March, 2014.

Minutes of the special meeting on Pollution Mapping are circulated in last OCC meeting and OCC requested all the constituents to cooperate for successful implementation.

Powergrid may update the status.

Deliberation in the meeting

*The house was informed that, first training on Pollution Mapping was held on 23rd and 24th April, 2014 at ERPC Secretariat. Tentative schedule of the training program at other locations in Eastern Region is enclosed at **Annexure-B.17**.*

All constituents are requested to attend the training program at appropriate training location along with the concerned team who will be doing actual measurements.

Members were also informed that Relevant documents of Pollution Mapping are already available at ERPC website (www.erpc.gov.in). They were requested to watch the Videos on Pollution Mapping procedure also available at ERPC website in video section.

OPTCL and JSEB are advised to fill up the excel format available at ERPC website for identification of the location and send to sksinghpg@yahoo.co.in with a copy to mserpc-power@nic.in by 30th April, 2014.

Item no. B.18: Modification of 132kV Bus arrangement at 220/132kV Purnea Sub-station of POWERGRID

In 94th OCC Powergrid informed that tendering is in progress and bid opening is on 14/03/2014.

In 95th OCC Powergrid informed that tendering is in progress and bid opening was extended for 10 days.

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed that work will be awarded by June, 2014.

Item no. B.19: 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 95th OCC, Powergrid informed that feasibility report is under finalization stage and it will be approved by POWERGRID management by April, 2014.

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed that for ERS tower there are only two worldwide vendors. So finalization of tendering will take some more time with either of the vendors.

Item no. B.20: 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.

In 94th OCC, 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.

In 94th OCC, Powergrid informed that JSEB consent is still awaiting.

JSEB and Powergrid may update.

Deliberation in the meeting

The status could not be updated as JSEB representative was not available in the meeting.

Item no. B.21: Implementation of 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 for 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 ratio of 70:30. The project is scheduled to be commissioned within 27th months from the date of approval of Board of Directors, i.e. 13th January 2014.

In 94th OCC 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.

Subsequently, ERPC Secretariat had communicated to Powergrid vide letter dated 24.02.2014. WBSEDCL vide letter dated 24.02.2014 and GRIDCO vide letter dated 01.03.2014 have also communicated their views on the issue. Further, in response to ERPC Secretariat letter Powergrid has replied vide letter dated 27.02.2014 that as per CERC order in Petition No. 129/MP/2013 dated 06.09.2013 the projects should be funded through debt and equity in the ratio of 70:30. PGCIL shall contribute the equity and the debt portion shall be funded from the PSDF for which PGCIL shall make an application before the Managing Committee of PSDF for re-imbursement of funds equivalent to the loan amount. Since there is a possibility of time lag between making of the application by PGCIL to PSDF and actual reimbursement of the fund, PGCIL shall arrange for loan for the matching amount, which shall be repaid on receipt of the funds from PSDF. PGCIL has already taken up the matter with the Nodal Agency, NLDC and has put up the URTDSM project for consideration of PSDF committee.

Further to this Powergrid vide letter dated 18.04.2014 informed that URTDSM Project (Phase-I) consisting of two Packages (Package-I for NR, ER & NER and Package-II for WR & SR) has been awarded to "JV of ALSTOM SAS, France, Alstom Grid (UK) and Alstom T&D India Ltd" on 15.01.2014 with an implementation schedule of 24 months. The PMU locations within Eastern Region are as per list enclosed at **Annexure- B.21a**.

It was requested the coordinators from various constituents as per the list attached at **Annexure- B.21b** may please be nominated for smooth implementation of URTDSM Project at all PMU Locations within ER.

Members may nominate the coordinators.

Deliberation in the meeting

OCC requested all the constituents to nominate their coordinator. Constituents agreed.

Item no. B.22: Black start and Restoration procedure of Eastern region- ERLDC

Black start and restoration procedure of Eastern Region was updated by ERLDC on 30.11.13. Prior to updation a draft copy of same was circulated to all the constituents of eastern regional via email dated 15th 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

In 94th OCC, WBPDC/WBSEDCL, OPGC/OHPC, BSPHCL, JSEB agreed to submit the data at the earliest.

Subsequently, WBPDC/WBSEDCL and DPL had submitted the data.

In last OCC, it was informed that relevant data from OPGC/OHPC, BSPHCL, JSEB is still pending. OCC once again requested to submit the missing data.

Members are once again requested to supplement the missing data.

Deliberation in the meeting

Members noted.

Item no. B.23: 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) Teesta HEP: Blackstart at was carried out successfully on 31/03/14 by successfully isolating radial load of North Bengal of around 40-50MW and Teesta Unit#3 was run successfully with the islanded load for around 15minutes.
- b) Subarnarekha HEP: Mock exercise carried out successfully on 14.03.2014.

Further, ERLDC informed that schedule for black start exercise of Eastern Region Generators has been prepared for 2014-15 and will be placed in next meeting.

CERC vide there order on Petition No 149/MP/2012 dated 2nd December 2013 directed the WBSEDCL to provide black-start facility at PPSP after finalizing a suitable scheme in consultation with ERLDC. It is proposed to carry out the mock black start exercise of PPSP by taking radial load of around 160-170 MW of 132 kV Arambag, Raina and Birsingha.

Members may update the status.

Deliberation in the meeting

*Tentative schedule of Black Start exercise was given at **Annexure-B.23**.*

WBSETCL informed that, Black Start is not possible due to design constraint as advised by the Manufacturer. OCC advised WBSETCL to convey their comments to CERC. WBSETCL agreed.

ii) Testing of DG sets meant for Black start

Report regarding test run of DG sets for the month of March, 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.

Item no. B.24: 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)

In 94th OCC, 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.

In 95th OCC, members assured that separate communications will be made to CERC with intimation to secretariat.

The above matter was discussed in the last OCC meeting wherein all SLDCs were requested to make available to 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.

Members may update.

Deliberation in the meeting

OCC advised constituents to communicate their comments to CERC.

Item no. B.25: Switching of line by WBSECTL without availing code from ERLDC Kolkata

On 10/04/14, 400kV Jeerat-Bakreshwar tripped on Y-ph fault (Zone-I from Jeerat) at 12:44Hrs and was taken into service at 12:50Hrs without intimating or availing code from ERLDC. It may be noted that as per IEGC Cl.5.6.2 (b):

“Before any operation is carried out on a User/STU system, the User’s/SLDC will inform the RLDC, in case the Regional grid may, or will, experience an Operational effect, and give details of the operation to be carried out. In case such operation is likely to have impact on other regions, the RLDC of those Regions shall also be informed through NLDC.

All operational instructions given by RLDC and SLDC shall have unique codes which shall be recorded and maintained as specified in Central Electricity Authority (Grid Standards) Regulations, 2010.”

WBSECTL may note above and strictly adhere to the same by taking prior codes for line switching operations (except in case of emergency).

Deliberation in the meeting

WBSECTL informed that attempts were made to contact ERLDC and 400kV Jeerat-Bakreshwar line was closed under emergency condition in order to avoid the overloading of other lines.

Further, WBSECTL informed that, on 5th April, 2014 at 23:29 hrs 132 kV Malda(PG)-Malda(WBSECTL) was opened at Malda(PG) end without any intimation to them. Powergrid informed that, spark was observed from one of the ICT at Malda henceforth the ICTs are isolated to tackle the emergency.

OCC advised all constituents to follow the operating procedure for operation of lines and information should be passed to the concerned utility without delay for smooth operation of grid.

Item no. B.26: Reduction of power export to Bangladesh considering high loading and repeated operation of SPS

It has been observed that repeated operation of SPS is occurring due to loading in 400kV Farakka-Behrapore crossing 780MW which leads to reduction of HVDC Bheremara power order to 350MW. The above congestion has become significant due to increase of loads in Subhasgram/ Jeerat with the onset of summer season. Accordingly, a meeting was held on 11/04/14 between WBSETCL, ERLDC and was also attended by NLDC through VC. In the meeting, curtailment of power as proposed by GM, NLDC was accepted wherein the STOA quantum for export to Bangladesh has been reviewed as follows:

Weekdays

00:00 -05:00 Hrs – 150MW

05:00 – 10:30 Hrs – 200MW

10:30-17:30Hrs – 150MW

17:30-24:00 – 100MW

Sundays/Holidays

00:00 – 18:00 – 200MW

18:00 – 24:00 hrs -100MW

Also, it was confirmed in the meeting that on instruction by ERLDC to raise PPSP generation citing transmission constraints, the same would be done keeping only the technical perspective in view for enhancement of Grid security. It was also decided to expedite commissioning of 400kV Sagardighi-Berhampore D/C which may help relieve the above congestion.

Members may note/discuss.

Deliberation in the meeting

WBSEDCL/ WBSETCL informed that in the meeting of WBSETCL, ERLDC and NLDC (connected through VC) which was held on 11/04/14 they have never agreed to NLDC/POSOCO proposal to raise the PPSP generation citing transmission constraints in view of grid security.

Further, WBSEDCL reiterated that PPSP is a souvenir project of WBSEDCL & will be used as a peaking station only and its generation should not be used for any other purposes like transmission constraints.

Item no. B.27: Low voltage being faced at Jeerat/Subhasgram substations

With the onset of the summer season, the 400kV Bus voltages at Jeerat and Subhasgram substations of West Bengal are at times dipping to as low as 370kV and below. In view of above the tap positions at Jeerat/Subhasgram have already been changed to position '11' and '9' respectively. Also, units at KTHP/Bakreshwar/Sagardighi are required generate MVAR (lagging mode operation) to the maximum extent possible. Also, conversion of line reactor of 400kV Jeerat-Berhampore(at Jeerat end) to switchable Bus reactor needs to be expedited to take care of the low voltage problem in the peak hours. Presently, line reactor of 400kV Bakreshwar-Jeerat(at Jeerat end) and 400kV Jeerat-Berhampore(at Jeerat end) are open.

Feasibility of opening of line reactor of 400kV Sagardighi-Subhasgram (at Subhasgram end) may also be deliberated upon considering that the line is a long one 256Km(with 1x63 MVAR line reactor at Sagardighi end and 1x50MVAR at Subhasgram end).

Members may deliberate.

Deliberation in the meeting

OCC requested CTU/Powergrid to check the feasibility of opening of line reactor of 400kV Sagardighi-Subhasgram (at Subhasgram end). Powergrid informed that they will check the schematic diagram and revert back.

Item no. B.28: Injection of infirm power by Barh Unit #4

Unit#4(660MW) of Barh was first synchronized to the Grid on 22/11/2013 and has been injecting infirm power on an intermittent basis. It was reported that full load has also been achieved but sustained full load operation (with advance notice) and declaration of C.O.D has not yet been done. In this regard Cl8(7) of CERC regulations regarding (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) is quoted below:

“Notwithstanding anything contained in clause (6) of this regulation and any provision with regard to sale of infirm power in the PPA, a unit of a generating station, including a captive generating plant which has been granted connectivity to the grid shall be allowed to inject infirm power into the grid during testing including full load testing before its COD for a period not exceeding six months from the date of first synchronization after obtaining prior permission of the concerned Regional Load Despatch Centre:

Provided that the Commission may allow extension of the period for testing including full load testing, and consequent injection of infirm power by the unit, beyond six months, in exceptional circumstances on an application made by the generating company at least two months in advance of completion of six month period”

In this regard it needs to be noted that the six month period for Barh TPS Unit#4 would end on 22/05/14. Accordingly, Barh TPS needs to ensure permission from the H'onble Commission failing which; ERLDC would be compelled to instruct Barh TPS to box up its unit.

Members may discuss.

Deliberation in the meeting

NTPC informed that they are trying to commission the unit within May, 2014 and if there is any delay they will definitely abide by the regulations.

Item no. B.29: 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 sample dates in the month of Mar 14:

Power Plant	Max and Min Voltage observed for Mar 14 (KV)	Date for monitoring (Mar 2014)
Farakka STPS	424,409	1,18,30
Khalgaon STPS	421,403	1,18,30
Talcher STPS	412,393	9,10
Teesta	421,401	25,26
Bakreshwar TPS	409,385	1,3,5
Kolaghat TPS	421,385	3,5
MPL	432,412	1,12,18
Mejia-B	431,416	1,18,30
DSTPS	431,418	1,17,29
Adhunik TPS	428,409	1,5
Sterlite	435,416	9,17,26

ERLDC may update.

Deliberation in the meeting

ERLDC presented the performance of the generators and members noted.

b) 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 and report has been submitted.

Concerned members may update the status.

Deliberation in the meeting

Members updated the status.

c) 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 95th OCC ERLDC informed that, they have issued messages for changing of taps at DSTPS and Adhunik for changing GT tap position of both the units from present position of 5 to 6 and from present position of 8 to 10 respectively. The messages were issued using the opportunity when both the units of the plants were not on bar. However, no confirmation has been received from DVC and Adhunik in this regard.

Representative from Adhunik informed that, it is not possible to change the GT tap at their end. DVC informed that, they will change the tap during opportunity shutdown.

Concerned members may update the status.

Deliberation in the meeting

Representative from Adhunik informed that, it is not possible to change the GT tap at their end due to technical reasons. DVC informed that, they will change the tap during opportunity shutdown.

PART C:: OPERATIONAL PLANNING

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

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

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 for the month of May, 2014 is at **Annexure-C.1**.*

Replacement of 100MVA, 220/132KV ICT-III at Purnea Substation—Powergrid

25th ERPC meeting had approved replacement of 100MVA, 220/ 132KV ICT-III of Purnea Substation with 160MVA, 220/ 132KV ICT. Accordingly tender has already been done, however this will take some time.

Keeping in view of load requirement, BSTPCL had requested POWERGRID for early replacement of the ICT with 160MVA spare ICT of Eastern Region available at Purnea Substation. The 160 MVA ICT after procurement will be kept as spare at Purnea Substation.

POWERGRID has planned for replacement of the ICT for which shutdown of 100MVA ICT-III is required for 45 days, which includes dismantling of the existing ICT, modification of foundation, erection and commissioning of the 160MVA ICT etc. It has been planned to start the work from 28.04.2014.

Members may approve.

Deliberation in the meeting

Members approved.

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

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of May'14 were prepared by ERPC Secretariat on the basis of Provisional LGBR for 2014-15, keeping in view that the units are available for generation and expected load growth etc. and circulated in the meeting.

Members may confirm.

Deliberation in the meeting

*Modified anticipated power supply position for the month of May, 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	2	210	15.04.14	TUBE LEAKAGE	
BOKARO B	3	210	12.10.13	ASH POND PROBLEM	
BANDEL	5	210	16.11.13	MAINTENANCE	
MEJIA	4	210	09.02.14	HIGH FURNACE	
MEJIA	3	210	06.04.14	LOW SYSTEM DEMAND	
KODERMA	1	500	01.03.14	TUBE LEAKAGE	
ADHUNIK	2	270	03.03.14	BOILER PROBLEM	
FSTPS	6	500	04.04.14	CONDENSER ACID	
KODERMA	2	500	07.04.14	ASH POND PROBLEM	
DSTPS	2	500	08.04.14	TUBE LEAKAGE	

(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	
400/220 KV, 315 MVA ICT - I AT BIDHANNAGAR	18.01.14	FAILURE OF R PHASE BUSHING, HV SIDE.	
220 KV BIHARSHARIFF - FATHWA -D/C	11.02.14	TOWER COLLAPSE	

Members may update.

Deliberation in the meeting

Members updated the latest status.

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

- 400kV Durgapur(PG)-Bidahanagar(WB)-II was charged and loaded for the first time on 12.03.14 at 01:14Hrs(after upgradation from 400kV to 220kV).
- 400kV Biharsariff-Lakhisarai & 400kV Kahalgaoon-Lakhisarai first time charged at 16:27hrs & 17:48hrs respectively on 23.03.14.
- 400kV Sagardighi-Durgapur-II first time charged at 20:45hrs of 25.03.14.
- DPL U#8 (250MW) first time synchronised at 04:02hrs of 28.03.14.
- 400kV Ranchi-Ranchi (New)-II first time charged at 20:58hrs of 28.03.14.
- JITPL U#1(600MW) first time synchronised at 07:33hrs of 28.03.14 but tripped immediately. Again synchronised at 08:11hrs on same date and generated 60MW.
- 400kV Bus-II at New Ranchi first time charged at 20:52hrs of 29.03.14.
- 765/400kV, 1500MVA ICT-1 at New Ranchi first time charged at no load at 23:00hrs of 29.03.14.
- 132kV Gangtok-Rangpo first time charged at 21:00hrs of 30.03.14.
- 132kV Chuzachen-Rangpo first time charged at 20:39hrs of 30.03.14.
- 220MVA ICT-1 at Lakhisarai first time charged at 20:43hrs of 30.03.14.
- RTPS U#1 (600MW) was synchronized for the first time at 12:10hrs of 31.03.14.
- 400kV Ranchi-Ranchi-III was charged for the first time at 18:38hrs of 31.03.14.
- 400kV Ranchi-Ranchi (New)-IV first time charged at 01:19hrs of 31.03.14.
- 220/132kV, 100MVA ICT-I at Rangpo s/s was charged for the first time charged on no load at 13:24hrs of 31.03.14.
- 3x80 MVAR line reactor of 765kV Ranchi (New)-Dharamjaygarh charged as bus reactor at New Ranchi end for the first time at 17:40hrs of 31.03.14.

17. 132kV Main Bus at Lakhisarai (PG) along with 132kV side bay of 200MVA ICT-I first time charged at 22:25hrs of 31.03.14.
18. 400kV Main Bus-II at Lakhisarai first time charged at 22:35hrs of 31.03.14.
19. 80MVAR Bus reactor at Lakhisarai first time charged at 22:59hrs of 31.03.14.
20. Main bay of 132kV Lakhisarai (PG)-Lakhisarai (BSPHCL) first time charged at Lakhisarai (PG) end at 23:57hrs of 31.03.14.
21. 765kV Ranchi (New)-Dharamjaygarh along with 240MVAR line reactor at New Ranchi first time charged from New Ranchi end at 23:47hrs of 31.03.14.
22. 320 MVA, 220/132 kV Foundry Park Sub-Station of WBSETCL was commissioned on 23.03.2014.
23. 160 MVA, 220/132 kV Hura Sub-Station of WBSETCL was commissioned on 22.03.2014.
24. Re-conductoring of ckt-I of 400 kV D/C Siliguri-Purnea line (HTLS Conductor) was completed and charged at rated voltage on 27.03.2014.

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.

Members may note/update.

Deliberation in the meeting

Members updated the latest status.

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	Commissioned in Mar,2014
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 Dec,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	

Members may update.

Deliberation in the meeting

Members updated the latest status.

PART D:: OTHER ISSUES

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

System frequency touched a minimum of 49.28Hz in March'14. Accordingly, no report of operation of UFR has been received from any of the constituents.

Members may note.

Deliberation in the meeting

Members noted.

Item no. D.2: Grid incidences during the month of March, 2014.

S N	Disturbance Place	Date & Time	Genera- tion loss (MW)	Load loss (MW)	Remark	Category
1	WBSETCL (Bidhannagar)	09.03.14 at 12:24hrs	0	280	Due to bursting of CB pole of 132kV Bidhannagar-Mankar-II at Bidhannagar, various 220kV, 132kV & ICTs tripped.	-
2	DVC (Kalyaneswari)	12.03.14 at 18:30hrs	0	300	Due to bursting of Y-Ø CT of 220kV Mejia-Kalyaneswari-III at Kalyaneswari, all the 220kV lines & ATR-2 & 3 which were connected to 220kV Bus-2 tripped on Bus bar protection.	-
3	JSEB (Adityapur)	17/03/14 at 08:21hrs	0	58	Total power failed at 132/33kV Adityapur S/s due to bursting of 33kV feeder Lightning arrester (RF-2) at Adityapur.	GD-1
4	Sikkim	18.03.14 at 19:13hrs	59	80	Power supply failed at Gangtok s/s due to tripping of 132kV Rangit-Gangtok & 132kV Chuzachen-Gangtok. One unit of Chuzachen also tripped.	-
5	Sikkim	20.03.14 at 15:42hrs	0	30	Power supply failed at Gangtok s/s due to tripping of 132kV Rangit-Gangtok & 132kV Chuzachen-Gangtok. SPS at Chuzachen also operated	-
6	BSPHCL (Fatuah)	20/03/14 at 11:48hrs	0	120	Total power failure occurred at Fatuah S/s of BSPHCL system due to tripping of various 220kV lines on earth fault.	GD-1
7	JSEB (Hatia)	24/03/14 at 15:07hrs	0	172	Total power failure occurred at Hatia S/s of JSEB system due to tripping of various 220kV, 132kV lines & ATRs due to relay mal operation.	GD-1
8	BSPHCL (Purnea)	24/03/14 at 05:38hrs	0	160	Total power failure occurred at 132/33kV Purnea (BSPHCL) system due to fault in downstream of Purnea (BSPHCL)	
9	WBSETCL(Kasba, Subhashgram(WB))	25/03/14 at 15:54hrs	0	450	Due to inclement weather condition, various 220kV lines tripped at Kasba & Subhashgram (WB) s/s causing total power failure at the same.	GD-1
10	JSEB (Chandil)	28/03/14 at 10:23hrs	0	150	While availing shutdown of 220kV Chandil-Ramchandrapur, all elements at 220kV bus of Chandil (JSEB) S/s tripped	GD-1
11	JSEB (Chandil)	29/03/14 at 12:17hrs	0	0	While availing the shutdown of 220kV Chandil-Ramchandrapur, all 220kV feeders of 220/132 Chandil (JSEB) S/s tripped	GD-1

Members may note.

Deliberation in the meeting

Members noted.

Item no. D.3: Any other items

1. Frequent filing of petition to CERC by ERLDC - OPTCL

It was informed that recently ERLDC has filed a petition No. 59/MP/2014 against OPTCL for protection deficiencies existing at Meramundali, Jeynagar and Therubali Sub-stations which was heard before CERC on 24.04.2014. OPTCL representative expressed dissatisfaction over the frequent filing of petitions to CERC by ERLDC (against ERPC constituents) on the issues which are being discussed in various meetings of ERPC sub-committees and all out efforts are being made to resolve those issues.

Members may discuss.

Deliberation in the meeting

OPTCL representative expressed great dissatisfaction over the frequent filing of petitions to CERC by ERLDC. OPTCL opined that Issues endangering grid securities are being regularly discussed in OCC/PCC meetings and constituents always take sincere efforts to resolve those issues following guidelines/recommendations of ERPC forums. So filing of petitions on open issues in a recurrent ways portrays wrong picture of ERPC forums and its decisions.

ERLDC expressed that they are filing the petition because of non-compliance of constituents as per CERC (Indian Electricity Grid Code) and CEA (Grid Standards) regulations. Constituents expressed reservation on this view of ERLDC.

For solving an issue OCC advised ERLDC to explore all possibilities under ERPC forums before filing petitions in CERC. This way, OCC felt, issues could be solved easily and that too without hurting the harmony of ERPC forums and its esteemed members.

Meeting ended with vote of thanks to the chair.

Participants in 96th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 25.04.14 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
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Participants in 96th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 25.04.14 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
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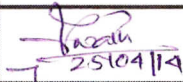
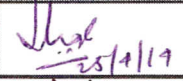
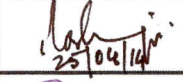
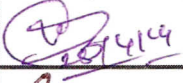
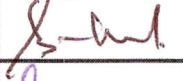

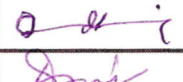
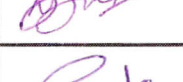
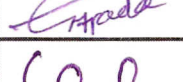

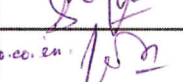
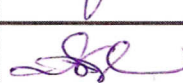
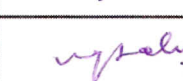
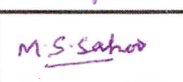
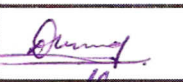
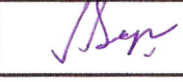

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Participants in 96th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 25.04.14 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
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45	B. SARKHEL	SE(BS)	ERPC	9433065724	—	
46	J. Bandyopadhyay	SE(L)	"	—	—	
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50	V. Kalyanrao	EE	ERPC	—	—	
51	S. KEJRIWAL	EE	ERPC	—	—	
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58						
59						
60						

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MONTHLY RURAL POWER SUPPLY POSITION

Month & Year:

Name of State	Number of Distribution Companies in the state	Name of Distribution Company	Total Electrified Villages		Average hours of power supply to rural areas in the month	Energy supplied to rural areas in the month (MU)
			Total No. of inhabited villages as per 2011 census	No. of inhabited villages electrified		

Note : Where agricultural feeders and rural supply (non-agricultural) feeders are segregated, the data pertaining to rural supply (Non-agricultural) feeders only need to be given.

Signatures of the officer
(Name & Designation)
Mobile No.



JHARKHAND URJA SANCHARAN NIGAM LIMITED

Office of the

Electrical Superintending Engineer, State Load Despatch Centre

Kusai Colony, Doranda, Ranchi

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Letter No. 203 / SLDC, Ranchi

Date 14-04-2014

From,

Er. Akshay Kumar
Elect. Superintending Engineer
SLDC, Ranchi.

To,

Member Secretary
ERPC, 14 Golf Club Road,
Tollygunj, Kolkata 700033

Sub: The Latest Status of Under Frequency Relay Under Various Stages.

Sir,

With reference to the subject mentioned above the latest status of Under Frequency Relay is hereunder:-

Stage	G/S/S	33KV Feeder	Max Load	Average Load	Remarks
Stage I 49.2 Hz	Kamdara	Kamdara	14 MW	12MW	Installed
	Gumla	Gumla	10 MW	08 MW	Installed
	Deoghar	Sarath	14 MW	12 MW	Installed
	Jamtara	Jamtara	24 MW	20 MW	Installed
	Loherdaga	Loherdaga	10 MW	08 MW	Installed
	Total Load		72 MW	60 MW	-
Stage II 49.0 Hz	Garhwa	Ranka	12 MW	10 MW	Installed
	Garhwa	Bhavathpur	14 MW	12 MW	Installed
	Deoghar	Baidyanathpur	18 MW	15 MW	Installed
	Loherdaga	Tico	18 MW	15 MW	Installed
	Latehar	Manika	05 MW	04 MW	Installed
	Total Load		67 MW	56 MW	-
Stage III 48.8 Hz	Hatia	Brambay	09 MW	08 MW	Installed
	Adityapur	Adityapur I	15 MW	12 MW	Installed
	Adityapur	Adityapur II	15 MW	12 MW	Installed
	Manique	Chandil I	10 MW	08 MW	Installed
	Japla	Japla	18 MW	15 MW	Installed
	Total Load		67 MW	55 MW	-
Stage IV 48.6 Hz	Namkum	Koker (R)	14 MW	12MW	Installed
	Hatia	Argora	14 MW	12 MW	Installed
	Hatia	Dhurwa	20 MW	16 MW	Installed
	Hatia	Harmu	18 MW	14 MW	Installed
	Total Load		62 MW	54MW	-

Note:-

1. All the UFR proposed in new 33KV feeders in place of 33KV feeders of Lalmatia, Dumka, Sahebganj under Islanding Scheme have been installed.
2. The load is supposed to be increased tremendously during this year on account of construction of many 11KV feeders under 33KV load feeders from G/S/S.

(Akshay Kumar)
ESE, SLDC, Ranchi

Minutes of SEM inspection at JITPL on 08-04-2014

1. Voltage and current inputs to the main and check meters of L&T of JITPL-Angul 400 kV line are checked and found in order.
2. Time synchronisation of main meters of JITPL-Angul 400 kV line is checked and found time stamp of both meters are same.
3. However, 6 min time lag is found with reference to GPS clock. Accordingly, JITPL advised to synchronise the SEM time with GPS clock.
4. The team demonstrated the procedure of time correction in L&T SEM meter through DCD to JITPL representative.
5. Powergrid also advised to check the SEM time at Angul and Bolangir end and synchronise with GPS clock.

Annexure-B.10.10

Status of Action taken by JSEB on recommendations of ERPC team which visited the JSEB Stations for rectification of protection deficiencies in JSEB System

The latest status as on 31st March, 2014 on implementation of recommendations of various ERPC teams as well as on zone settings towards full co-ordination of protection system of JSEB and ascertained from JSEB is as follows:

A) Recommendation of ERPC team which visited Chandil on 17.04.2013 to 19.04.2013 in line with the decision taken in the 15th Protection Subcommittee meeting held on 9th April 2013:

Name of line	Protection available	Measures required Immediately	Latest Status
220KV Chandil-Santalidih	SEL(ER) & TJM12	Matter to be taken up with M/S Easun Reyrolle	Complied.
220KV Chandil-Ranchi	SEL(ER) & TJM12	Do	Complied.
220KV Chandil-Ramchandpur	MiCom (Relay Not working from July 2012)	Matter to be taken up with Alstom	Complied.
1x 100MVA, 220/132KV Transformer	RYDSB, RID1-Status – Not healthy-Because-No test reports-No trippings in the past	The differential relay to be tested & the report to be given to ERPC, ABB to be contacted for any assistance.	Complied
Single Main with Transfer Bus	LBB relay available	The bus to be sectionalized and LBB relay to be made operational.	Complied

B) Recommendation of ERPC team which visited 220kV Hatia s/s(New), 132kV Hatia s/s, Tenughat TPS (2x210MW) & Patratu TPS (2x50+1x100)MW on 11th, 12th & 13th June, 2013 in line with the decision taken in the Special Protection committee meeting held on 5th June 2013:

Recommendations	Latest Status
All the Micom relays at Tenughat TPS, Patratu TPS, Hatia 220KV S/S(New) have to be tested for Reliability, Selectivity, Sensitivity and speed. The manufacturer should be contacted for the above works at the earliest.	Complied
Unless EL inputs are there, the zone indication on different faults for distance protection cannot be identified. Hence the concerned utilities may take up the matter with the manufacturer and relay properly configured to receive EL inputs.	Complied
For Relays other than Micom they should be tested and if found not suitable should be replaced with numerical relay preferably with a different make other than Alstom	Complied
The other mandatory/Routine tests on CTs and PTs should also be carried out and the reports should be submitted to ERPC.	Complied
The PLCC link on 220KV Tenughat-Patratu S/C, 220KV Patratu-Hatia D/C and 220KV Tenughat-Biharshariff S/C should be established immediately.	The work of PLCC Link was taken up by M/s PUNCOM and as per ULDC report it is likely to be completed by July'14. However, the integration works of OPGW at G/S/S Hatia II and Namkum for extending data communication to SLDC from TTPS and PTPS is expected to be completed by end of April'14. As informed by TTPS, 220KV Tenughat-Biharshariff line is under upgradation from 220 kV to 400 kV by PGCIL in which the same will be taken care.

The Auto-reclose feature should also be enabled on all the above 220KV lines immediately.	A/R features will be enabled immediately after PLCC link is restored. As informed by TTPS, 220KV Tenughat-Biharshariff line is under upgradation from 220 kV to 400 kV by PGCIL in which the same will be taken care.
PGCIL Ranchi S/S is to submit the details of distance relays on their outgoing 220KV lines to ERPC Secretariat. The protections available on the 400/220KV ICTs may also be given. The copy of the test reports of the 220KV side relays may also be made available to ERPC secretariat.	Complied.

C) Recommendation of ERPC team which visited 220kV Ramchandrapur Substation, Chandil Substation, 132 kV Adityapur Substation and 220kV WBPDC Santhaldih Substation from 18.09.13 to 20.09.13 to ascertain the reasons behind disturbances occurring repeatedly in JSEB system:

1) Ramchandrapur Substation:-

Sl no.	Observations	Recommendations	Latest Status
1	Log register for recording trippings are not being properly filled in by sub-station personnel	Tripping details need to be correctly recorded in the tripping log register for both ends, for proper analysis of the tripping.	Complied.
2	Micom-P430 relay is not showing any fault log history	J.S.E.B needs to immediately take up with the manufacturer, for rectification of the relay.	Complied.
3	Relays are not time synchronized, therefore it is not possible to determine the sequence of events in case of multiple outage	J.S.E.B should install the GPS system and time synchronise all its numerical relays with GPS clock	Order placed to M/s Alstom for GPS system. Expected to be completed by 20 th April, 2014.
4	Earth fault relay for 220/132kV Ramchandrapur ICT not properly time graded / co-ordinated with distance relays of 132kV Adityapur-Ramchandrapur line.	Necessary action to be taken by JSEB for proper time grading of earth fault relay for 220/132kV ICTs at Ramchandrapur and distance relay of 132kV Adityapur- Ramchandrapur line, for ensuring selectivity of relay operation and avoid unnecessary tripping of ICT on occurrence of line fault.	Complied.

2) Adityapur Substation:-

Sl no.	Observations	Recommendations	Latest Status
1	Electromechanical distance relay for 132kV Adityapur-Ramchandrapur line is non-functional	The non-functional relay needs to be immediately replaced with fully functional distance protection relays. Distance relay functionality for other 132kV lines viz. Adityapur-Rajkharswan and Adityapur-Chandil also need to be checked and tested.	Complied.
2	Snapping of earth wire and lightning strike is occurring frequently around Adityapur.	Frequent tripping due to lighting and breaking of earthwire needs to be analysed	New MiCom 441 Relay has been installed.
3	Log register for recording trippings are not being properly filled in by sub-station personnel	Tripping details need to be correctly recorded in the tripping log register for both ends, for proper analysis of the tripping.	Complied.

3) Chandil Substation:-

Sl no.	Observations	Recommendations	Latest Status
1	Wiring of SEL-311C relay for 220kV Chandil-Ranchi line appears to be erroneous	Wiring of SEL-311C relay for 220kV Chandil-Ranchi line needs to be corrected for sensing of fault in proper direction and appropriate selectivity.	Complied.
2	Wiring of REL-650 relay for 220kV Chandil-Santaldih line appears to be erroneous as on various occasions it has been observed that for reverse zone faults the relay is sensing Z-1 fault.	Wiring of REL-650 relay for 220kV Chandil-Santaldih line needs to be corrected for sensing of fault in proper direction and appropriate selectivity.	Complied.
3	Log register for recording trippings are not being properly filled in by sub-station personnel	Tripping details need to be correctly recorded in the tripping log register for both ends, for proper analysis of the tripping.	Complied.
4	Zone-1 of 220kV Chandil-Ranchi line is set as 78.6 Km in distance relay at Chandil end.	The distance needs to be verified by Off line fault locator equipment, and if required necessary correction in relay setting needs to be incorporated at both ends.	Complied.
5	Micom-P430 relay is not showing any fault log history	JSEB needs to take up with relay manufacturer for necessary rectification / replacement.	Complied.

D) Recommendations of Various Sub-committees

Recommendations	Latest Status
17th PCC meeting held on 11.09.2013	
PCC advised JSEB to install Synchroscope at Chandil S/S.	Synchroscope installed on 25.02.2014.
Replacement of two CBs in PTPS by single CB.	Cabling work is under progress and expected to be completed by 15 th April, 2014.
Special meeting on Protection Co-ordination of JSEB system held on 12.11.2013 and 05.12.2013	
Various Zone- settings of all transmission lines of JSEB system were discussed and finalized and advised JSEB to implement the same by 31 st December, 2013.	Complied (Except tie lines with NTPC and Uttar Pradesh (NR) where some additional data were required for Z3 settings).
JSEB was advised to place restricted earth fault protection for all transformer with rating >50 MVA.	All new transformer panels of capacity greater than 50 MVA are with REF.

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	Bakreshwar	5	210	No			Yes		
17				SS		6	210	No			Yes		
18				SS		1	210	Yes					
19				SS		2	210	Yes					
20				SS	Sagaridighi	3	210	Yes					
21				SS		4	210	Yes					
22				SS		5	210	Yes					
23		Hydro		SS	Raman Hydel	1	300	No					Could not be implemented because of some technical Station is not in RGMO. WBSETCL is pursuing with Ramnam
24				SS		2	300	No					
25				SS	PPSS	1	12.5	No					
26				SS		2	12.5	No					
27				SS		3	12.5	No					
28				SS		4	12.5	No					
29				SS	Budge-Budge	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	DPL	1	250	Yes					
34				SS		2	250	Yes					
35		Thermal	DPL	SS	IB TPS	3	250	Yes					
36				SS		7	300	Yes					
37	Orissa		OPGC	SS	Buria	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 RGMO mode of operation would not be possible for units1, 2 and 3. Because of non-availability of Efforts are being made for RGMO mode of operation in the new
71				CS		2	210	No			Yes		
72				CS		3	210	No			Yes		
73				CS	Chandrapura	1	140	No			Yes		
74				CS		2	140	No			Yes		
75				CS		3	140	No			Yes		
76				CS		7	250	No					
77				CS		8	250	No					
78				CS	WARIA	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		5	250	Yes					
85				CS		6	250	Yes					
86				CS		7	500	No					
87				CS	Mejia - B	8	500	No					Efforts are being made for RGMO mode of operation in the new Units 1 & 2 would put in RGMO within a short period.
88				CS		1	500	No					
89				CS	DSTPS	2	500	No					

[illegible]

Eastern Region Pollution Mapping Training Program

Team	Location	From	To
Team-1 (CPRI Benguluru)	Durgapur	19 th May	20 th May
	Ranchi	21 st May	22 nd May
	Jamshedpur	23 rd May	24 th May
	Siliguri	26 th May	27 th May
	Subhasgram	29 th May	30 th May
Team 2 (CPRI Benguluru)	Patna	19 th May	20 th May
	Muzaffurpur	21 st May	22 nd May
Team3 (CPRI Hyderabad)	Bhubaneswar	20 th May	21 st May
	Rurkela	23 rd May	24 th May
	Jeypore	26 th May	27 th May

List of Substations & Power Plants of Eastern Region URTDSM Phase – I*

1.) BIHAR

S.No	Utility	kV S/s	Name of Station
1	Bihaar-I	220	MUZAFFAPUR

2.) DVC

S.No	Utility	kV S/s	Name of Station
1	DVC-I		Budhipadar
2	DVC-I		CTPS(Chanderpur)
3	DVC-I		Mejia
4	DVC-I		Raghunathpur TPS
5	DVC-I		Bokaro
6	DVC-I		Durgapur TPS
7	DVC-I		Malthon RB TPS
8	DVC-I		Mejia-b
9	DVC-I		Kodarma TPS
10	DVC-I		Warla(DTPS)
11	DVC-I		Bokaro TPS
12	DVC-I		DSTPS

3.) Jharkhand

S.No	Utility	kV S/s	Name of Station
1	Jharkhand-I	220	Patratu
2	Jharkhand-I	220	Tenughat
3	Jharkhand-I	220	Tenughat

4. Orissa

S.No	Utility	kV S/s	Name of Station
1	Orissa-I	400	MERAMANDALI
2	Orissa-I	400	MENDHASAL
3	Orissa-I	220	TTPS(Talcher)
4	Orissa-I	220	Rengall
5	Orissa-I	220	BALIMELA(H)
6	Orissa-I	220	U.Kolab

5. West Bengal

S.No	Utility	kV S/s	Name of Station
1	W.B.-I	400	Bidhannagar
2	W.B.-I	220	Bakreshwar
3	W.B.-I	400	Arambagh

Note: *As per CERC approval only phase-I of the scheme has been takenup for implementation.

List of Substations & Power Plants of Eastern Region URTDSM Phase – I*

4	W.B.-I	220	Kasba
5	W.B.-I	400	Jeerat
6	W.B.-I	400	Purulla PSP
7	W.B.-I	220	Kolaghat
8	W.B.-I	400	KOLAGHAT
9	W.B.-I	400	Bakreshwar

6.) Central Sector

S.No	Utility	kV S/s	Name of Station
1	Central-I, ER	400	Binaguri
2	Central-I, ER	400	Biharsharif
3	Central-I, ER	400	Rangpo
4	Central-I, ER	400	Kishanganj (karandeghi)
5	Central-I, ER	400	Alipurduar
6	Central-I, ER	400	MAITHON
7	Central-I, ER	400	765kV Gaya
8	Central-I, ER	400	Farraka
9	Central-I, ER	400	Jamshedpur
10	Central-I, ER	400	Kahalgau(KHSTPP)
11	Central-I, ER	400	Purnea
12	Central-I, ER	400	PATNA
13	Central-I, ER	400	RANCHI
14	Central-I, ER	400	SASARAM(Pusauli)
15	Central-I, ER	400	New Melli
16	Central-I, ER	400	765/400kV Ranchi (N)
17	Central-I, ER	400	Barh
18	Central-I, ER	400	TT Pool
19	Central-I, ER	400	Jharkhand Pool
20	Central-I, ER	400	Durgapur
21	Central-I, ER	220	Birpara
22	Central-I, ER	400	MUZAFFAPUR
23	Central-I, ER	400	Mangan
24	Central-I, ER	400	Rajrhat
25	Central-I, ER	400	MALDA
26	Central-I, ER	400	SUBHASHGRAM
27	Central-I, ER	400	LakhiSarai
28	Central-I, ER	400	Banka
29	Central-I, ER	400	Uttara
30	Central-I, ER	400	Chiabasa
31	Central-I, ER	400	TEESTA
32	Central-I, ER	400	Dalotganj
33	Central-I, ER	220	Birpara

Note: *As per CERC approval only phase-I of the scheme has been taken up for implementation.

List of Substations & Power Plants of Eastern Region URTDSM Phase – I*

7.) Central Sector ODISHA

S.No	Utility	kV S/s	Name of Station
1	Central-I, ER	400	Angul
2	Central-I, ER	400	Jharsuguda
3	Central-I, ER	400	ROURKELA
4	Central-I, ER	400	TALCHER
5	Central-I, ER	400	Baripada
6	Central-I, ER	400	Jaypore
7	Central-I, ER	400	RENGALI
8	Central-I, ER	400	Lanco
9	Central-I, ER	400	Strelite
10	Central-I, ER	400	Baharampur
11	Central-I, ER	400	Indrawati
12	Central-I, ER	400	Indrawati HPS
13	Central-I, ER	400	Keonjhar
14	Central-I, ER	400	Bolangir
15	Central-I, ER	400	Jindal
16	Central-I, ER	400	Monnet
17	Central-I, ER	400	GMR
18	Central-I, ER	400	Navbharat
19	Central-I, ER	400	Ind barath

Note: *As per CERC approval only phase-I of the scheme has been taken up for Implementation.

Annexure- B.21b

S.No	Utility	Name of Coordinator from Utility	Name of POWERGRID Coordinator	Designation	Mobile
1.	BIHAR		Mr. Rajesh Kumar	CM(C&M), ER-I	9431821127
2.	DVC		Mr S. N. Ghosh	Chief Manager- ULDC, Kolkata, ER-II	9434740016
3.	Jharkhand		Mr. Rajesh Kumar	CM(C&M), ER-I	9431821127
4.	Orissa		Mr. S.P. DASH	DGM(O&M)	9437575651
5.	West Bengal		Mr S. N. Ghosh	Chief Manager- ULDC, Kolkata, ER-II	9434740016

Proposed programme for conducting Black Start exercise in 2014-15

Sl No.	Name of Hydro Station	schedule	Actual	Schedule	Actual	Remarks
		Test-I		Test-II		
1.	U. Kolab	Last week of May, 2014		Last week of January, 2015		
				1st week of February, 2015		
2.	Maithon	1 st week of June, 2014		1 st week of October, 2014		
3.	Rengali	2 nd week of June, 2014		3rd week of November, 2014		
				Last week of November, 2014		
				1st week of December, 2014		
4.	U. Indravati	3 rd week of June, 2014		2nd week of February, 2015		
				3rd week of February, 2015		
6.	Subarnarekha	2 nd week of October, 2014		2nd week of December, 2014		
		3 rd week of October 2014		3rd week of December, 2014		
		Last week of October, 2014		Last week of December 2014		
				1st week of January, 2015		
				2nd week of January, 2015		
				3rd week of January, 2015		
7.	Balimela	1 st week of November, 2014		1 st week of March, 2015		
8.	Teesta-V	2 nd week of November, 2014		Last week of February, 2015		
9.	Rengali	2nd week of June, 2014		3rd week of November, 2014		
				Last week of November, 2014		
10	Chuzachen	May, 2014		1st week of December, 2014		

ERPC: KOLKATA**Proposed Maintenance Programme of thermal units as per LGBR 2014-15 (Rev 1)**

SYSTEM	POWER STATION	Unit NO.	Effective Capacity (MW)	Maintenance Programme	Remarks	No.of Days
DVC	Mejia TPS	Unit No 5	250	26.05.2014 to 20.06.2014	AOH	25
NTPC	FSTPS	Unit No 3	200	27.04.2014 to 21.05.2014	OH	25
		Unit No 5	500	As per LGBR 2014-15	Boiler+HP & IP Module replacement+DDCMIS	35
	KhSTPP Stg-I	Unit No 3	210	06.05.2014 to 25.05.2014	Boiler+Gen.	20

Note: There is no change in the maintenance programme of Hydro Generating units as proposed and submitted by the constituents of Eastern Region.

**EASTERN REGIONAL LOAD DESPATCH CENTRE
KOLKATA**

TRANSMISSION ELEMENTS OUTAGE APPROVED IN 96TH 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	132KV PSL-MOHANIA	25-04-2014	09:00	25-04-2014	12:00		ER-I	FOR AMP WORKS	BIHAR
2	400 KV Sundergarh - Raigarh - II	25-04-2014	09:00	25-04-2014	17:00		ER-II	Corona ring tightening, VD adjustment, Jumper tightening works at Loc. 529,540,577,534, 343, 432,433,434,441, 463,469.	NLDC
3	A/R of Rengali - Keonjhar	25-04-2014	09:00	31-05-2014	17:00	ODB	ER-II	OPGW installation works	A/R SD WILL BE CLERAED 10 DAY BAIS PROVISSIONALLY/ PLS. MENTIONED THE EXACT TIME REQUIRED FOR COMPLETION OF THE WORK
4	400 KV MTN - KODERMA - II	26-04-2014	08:00	26-04-2014	18:00		ER-I	AFTER COMPLETION OF S/D LINE WILL BE CHARGED AS 400KV GAYA - MTN LINE- II	NLDC
5	132KV MOHANIA-KARAMNESA	26-04-2014	09:00	26-04-2014	12:00		ER-I	FOR AMP WORKS	BIHAR
6	80 MVAR BUS REACTOR AT KEONJHAR	26-04-2014	07:00	02-05-2014	18:00	ODB	ER-II	CONSTRUCTION WORK OF FIRE WALL	
7	400 KV BSF - GAYA	27-04-2014	08:00	03-05-2014	18:00	OCB	ER-I	AFTER COMPLETION OF S/D LINE WILL BE CHARGED AS A 765 KV GAYA - BALIA LINE & 400KV SSRM-BSF-IV	NLDC
8	400 KV SSRM - BALIA	27-04-2014	08:00	03-05-2014	18:00	OCB	ER-I	AFTER COMPLETION OF S/D LINE WILL BE CHARGED AS A 765 KV GAYA - BALIA LINE & 400KV SSRM-BSF-IV	NLDC
9	400 KV BSF - SSRM - III	27-04-2014	08:00	03-05-2014	18:00	OCB	ER-I	FOR CHARGING OF 765 KV GAYA - BALIA LINE	NLDC
10	132KV D/C GUMLA-KAMDERA (JSEB)	27-04-2014	07:00	27-04-2014	18:00		ER-I	FOR CONSTRUCTION OF 765KV NRNC-DHARAMJAIGARH-2(NEW)	JHARKHANDA
11	400 KV ANGUL - JITPL - BOLANGIR	28-04-2014	08:00	29-04-2014	17:00	ODB	JITPL	Angul Pooling station for back charging and testing of the JITPL Bays equipment	NLDC
12	400 KV BUS - I AT MUZ	28-04-2014	10:00	29-04-2014	16:00	ODB	ER-I	FOR AMP WORKS	
13	400 KV PATNA - BARH - I	28-04-2014	08:00	28-04-2014	17:00		ER-I	DISMANTLING WORKS OF 50 MVAR LINE REACTOR & ITS ASSOCIATED EQUIPMENTS AT PATNA	NLDC
14	220 KV BTPS - JAMSHEDPUR	28-04-2014	10:00	28-04-2014	13:00		ER-I	FOR ERECTION OF TOWER NO. 89/0 OF 400 KV D/C BOKARO - KODERMA TL	DVC
15	220KV Budhipadar-Koraba ckt-III	28-04-2014	09:00	28-04-2014	17:00		ER-II	Replacement of R-Phase defective CVT(Oil leakage)	OPTCL
16	400 KV RANCHI - NEW RANCHI - I & II	28-04-2014	07:00	27-05-2014	18:00	OCB	ER-I	TOWER REALLOCATION DUE TO ROAD ROAD CONSTRUCTION	
17	400 KV PATNA - BARH - II	29-04-2014	08:00	29-04-2014	17:00		ER-I	DISMANTLING WORKS OF 50 MVAR LINE REACTOR & ITS ASSOCIATED EQUIPMENTS AT PATNA	NLDC
18	132KV KONAR-HAZARIBAGH ROAD(DVC)	29-04-2014	07:00	30-04-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 51/0 - 52/0	DVC
19	400 KV Purnea - New Siliguri - I & II	29-04-2014	08:00	30-04-2014	14:00	ODB	ER-II	For stringing of 800 kv HVDC Transmission Line	NLDC
20	220KV Maithon-Dhanbad-I	29-04-2014	09:00	29-04-2014	17:00		ER-II	Y-PH CVT replacement	DVC
21	132 KV Birpara-WBSTCL Feeder-I	29-04-2014	10:00	29-04-2014	14:00		ER-II	Installation of Surge Counter	WBSETCL
22	400KV ROURKELA-SUNDARGARH-RAIGARH CKT-1	29-04-2014	08:00	30-04-2014	16:00	OCB	ER-II	FOR ATTENDING PUNCH POINTS	NLDC
23	315 MVA ICT - II AT JEYPORE	30-04-2014	11:00	03-05-2014	18:00	ODB	ER-II	REPLACEMENT OF OLTC TAP HEAD COVER	OPTCL
24	400 KV BUS - II AT MUZ	30-04-2014	10:00	01-05-2014	16:00	ODB	ER-I	FOR AMP WORKS	
25	125 MVAR BUS REACTOR - II AT PATNA	30-04-2014	07:00	30-04-2014	19:00		ER-I	FOR FIRE FIGHTING ERECTION & COMMISSIONING WORKS.	
26	220 KV BTPS - JAMSHEDPUR LINE OF DVC	30-04-2014	10:00	30-04-2014	13:00		ER-I	FOR ERECTION OF TOWER NO. 89/0 OF 400 KV D/C BOKARO - KODERMA TL	DVC
27	315 MVA ICT - I AT BSF S/S	30-04-2014	09:00	30-04-2014	11:00		ER-I	FOR TAN DELTA MEASUREMENT OF Y - PH TERTIARY BUSHING	BIHAR
28	315MVA ICT-I at Maithon	30-04-2014	08:00	30-04-2014	12:00		ER-II	220KV Y& B-Ph Bushing inspection	DVC
29	400KV Jeerat - Beharampur	30-04-2014	07:00	30-04-2014	16:00		ER-II	Line Insulator Replacement / LA Replacement / LR AMP & SFRA	WBSETCL
30	132 KV Birpara-WBSTCL Feeder-II	30-04-2014	10:00	30-04-2014	14:00		ER-II	Installation of Surge Counter	WBSETCL
31	400 kV Mendhasal - Baripada-2 Bay with L/R	30-04-2014	09:00	30-04-2014	17:00		ER-II	AMP of Bay equipments & Line reactor	
32	400 KV Berhampore - Bheramara - II	30-04-2014	11:00	30-04-2014	15:00		ER-II	Tightening of Clamp and connectors due to presence of hot spots	NLDC
33	400 KV Berhampore - Farakka	01-05-2014	11:00	01-05-2014	14:00		ER-II	Tightening of Clamp and connectors due to presence of hot spots	NLDC
34	400 KV Berhampore - Bheramara - I	01-05-2014	11:00	01-05-2014	13:00		ER-II	Tightening of Clamp and connectors due to presence of hot spots	NLDC
35	400 kV Maithon - Jamshedpur	01-05-2014	09:00	10-05-2014	17:00	ODB	ER-II	INSULATOR REPLACEMENT WORK	
36	A/R of Rourkela- Sudhargarh Ckt-I	01-05-2014	09:00	31-05-2014	17:00	ODB	ER-II	OPGW installation works	A/R SD WILL BE CLERAED 10 DAY BAIS PROVISSIONALLY/ PLS. MENTIONED THE EXACT TIME REQUIRED FOR COMPLETION OF THE WORK & THE PROGRESS OF THE WORK
37	A/R of Bolangir - JITPL	01-05-2014	09:00	31-05-2014	17:00	ODB	ER-II	OPGW installation works	A/R SD WILL BE CLERAED 10 DAY BAIS PROVISSIONALLY/ PLS. MENTIONED THE EXACT TIME REQUIRED FOR COMPLETION OF THE WORK & THE PROGRESS OF THE WORK
38	132 KV New Jalpaiguri- TCF Ph-1	01-05-2014	08:00	02-05-2014	16:00	ODB	ER-II	For stringing of 800 kv HVDC Transmission Line	WBSETCL

39	400KV Maithon-Durgapur-I	01-05-2014	09:00	01-05-2014	17:00		ER-II	AMP of Line and bay	
40	315 MVA ICT#3 at Subhasgram	01-05-2014	08:00	01-05-2014	16:00		ER-II	Isolator CRM	WBSETCL
41	400KV ROURKELA-SUNDARGARH-RAIGARH CKT-2	01-05-2014	08:00	02-05-2014	16:00	OCB	ER-II	FOR ATTENDING PUNCH POINTS	NLDC
42	160 MVA ICT#2 at Baripada	01-05-2014	09:00	01-05-2014	17:00		ER-II	AMP of ICT	OPTCL
43	400 KV Rourkela-Raigarh 1 & 2 (400 KV Rourkela-Sterlite & Rourkela-Sundargarh)	02-05-2014	08:00	02-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	NLDC
44	132 kV D/C Budhipadar-Tarkera line	02-05-2014	08:00	02-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	OPTCL
45	220 KV BUS - I AT MUZ	02-05-2014	10:00	02-05-2014	16:00		ER-I	FOR AMP WORKS	BIHAR
46	220 KV BTPS - JAMSHEDPUR LINE OF DVC	02-05-2014	10:00	02-05-2014	13:00		ER-I	FOR ERECTION OF TOWER NO. 89/0 OF 400 KV D/C BOKARO - KODERMA TL	DVC
47	132KV KONAR-HAZARIBAGH ROAD(DVC)	02-05-2014	07:00	03-05-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 44/0 - 44 A /0	DVC
48	315MVA ICT-II at Maithon	02-05-2014	09:00	02-05-2014	17:00		ER-II	LA replacement work & 220KV CT Connector replacement work	DVC
49	220KV ICT#1 at Durgapur	02-05-2014	09:30	02-05-2014	17:30		ER-II	Retrofitting of CB	DVC
50	315 MVA ICT#4 at Subhasgram	02-05-2014	08:00	02-05-2014	16:00		ER-II	Isolator CRM / Jumper Alignment	WBSETCL
51	132 kV D/C Budhipadar-Sundargarh line	02-05-2014	08:00	02-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	OPTCL
52	400 KV TALCHER - RENGALI - II	02-05-2014	09:00	03-05-2014	16:00	OCB	NTPC	ANNUAL MAINTENANCE WORK	
53	400 KV BUS-II & JITPL-Meramundalli	03-05-2014	09:00	03-05-2014	17:00	ODB	ER-II	For SAS commissioning	OPTCL
54	400KV BUS-I & Bus Reactor-I,II & III Anugul	03-05-2014	09:00	04-05-2014	17:00	ODB	ER-II	For Bus extension For commissioning of 2 bays of JITPL at Angul S/S	
55	220 KV BUS - II AT MUZ	03-05-2014	10:00	03-05-2014	16:00		ER-I	FOR AMP WORKS	BIHAR
56	400KV Maithon-MPL-II	03-05-2014	09:00	03-05-2014	17:00		ER-II	Strung bus repair,Y-Ph line CT replacement	
57	125MVAR BUS REACTOR-1 at Sundargarh	03-05-2014	08:00	04-05-2014	16:00	OCB	ER-II	FOR COMMISSIONING OF FIRE FIGHTING SYSTEM & WATER SPRAY CHECKING	
58	400 KV ARAMBAG - DURGAPUR	03-05-2014	07:00	03-05-2014	15:00		WB	MAINTENANCE WORK	
59	50 MVAR Rengali Line reactor at Indravati	04-05-2014	09:00	18-05-2014	18:00 hrs	OCB	ER-II	For drying out of Reactor	
60	765 KV GAYA - FATEHPUR	04-05-2014	07:00	04-05-2014	17:00		ER-I	COMMISSIONING OF SPARE REACTOR	NLDC
61	400 KV MTN - KODERMA - I	04-05-2014	08:00	04-05-2014	18:00		ER-I	AFTER COMPLETION OF S/D LINE WILL BE CHARGED AS A 400KV GAYA - MTN LINE-I & 400KV KOD-GAYA-I	NLDC
62	220 KV BTPS - JAMSHEDPUR LINE OF DVC	04-05-2014	10:00	04-05-2014	13:00		ER-I	FOR ERECTION OF TOWER NO. 89/0 OF 400 KV D/C BOKARO - KODERMA TL	DVC
63	220KV D/C HATIA- LOHARDAGA (JSEB)	04-05-2014	07:00	04-05-2014	18:00		ER-I	FOR CONSTRUCTION OF 400KV RNC-CHANDWA (NEW)	JHARKHANDA
64	400 KV BSF - BALIA - I	05-05-2014	09:00	05-05-2014	13:00		ER-I	AMP OF LINE CT	NLDC
65	400 KV JSR - ANDAL - I	05-05-2014	09:30	05-05-2014	17:30		ER-I	FOR AMP WORKS	
66	125 MVAR B/R - I AT NPRN S/S	05-05-2014	10:00	05-05-2014	18:00		ER-I	COMMISSIONING OF CSD	
67	100 MVA ICT-I at Siliguri	05-05-2014	08:00	05-05-2014	20:00		ER-II	Retrofitting of CT under ADDCAP	WBSETCL
68	220 KV D/C Birpara-Chukha Circuit-I	05-05-2014	09:00	06-05-2014	17:00	ODB	ER-II	Replacement of insulators damaged by miscreants.	NLDC
69	400 KV Rourkela-Sundargarh-Raigarh I&II	05-05-2014	08:00	05-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	NLDC
70	125MVAR BUS REACTOR-2 at Sundargarh	05-05-2014	08:00	06-05-2014	16:00	OCB	ER-II	FOR COMMISSIONING OF FIRE FIGHTING SYSTEM & WATER SPRAY CHECKING	
71	400 KV MAITHON - RTPS	05-05-2014	09:00	09-05-2014	17:00	ODB	ER-II	PIR REMOVAL WORK OF MAIN BAY CB	DVC
72	400 KV Malda-New Purnea -I	06-05-2014	08:00	06-05-2014	17:00		ER-II	AMP	NLDC
73	125 MVAR BUS REACTOR - I AT PATNA	06-05-2014	10:00	06-05-2014	15:00		ER-I	FOR FIRE FIGHTING ERECTION & COMMISSIONING WORKS	
74	220 KV TENUGHAT - BIHARSHARIF(JSEB)	06-05-2014	07:00	07-05-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 58/0 - 59 /0	BIHAR
75	63 MVAR MUZ - I L/R AT NPRN	06-05-2014	10:00	06-05-2014	18:00		ER-I	COMMISSIONING OF CSD	
76	220KV Maithon-Kalyaneshwari-I	06-05-2014	09:00	06-05-2014	17:00		ER-II	Line isolator remote operation checking	DVC
77	132 kV D/C Budhipadar-Tarkera line	06-05-2014	08:00	06-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	OPTCL
78	315MVA ICT-I at Rourkela	06-05-2014	09:00	06-05-2014	17:00		ER-II	To attened Leakage in OLTC by M/S BHEL	OPTCL
79	400 KV TALCHER - GMR - I	06-05-2014	09:00	07-05-2014	17:00	OCB	NTPC	ANNUAL MAINTENANCE WORK	GMR
80	132 KV S/C Kuchinda-Rajgangpur (132 kv S/C Sambalpur-Rajgangpur LILO at Kuchinda)	06-05-2014	08:00	06-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	OPTCL
81	400 KV JSR - ANDAL - II	07-05-2014	09:30	07-05-2014	17:30		ER-I	FOR AMP WORKS	
82	63 MVAR MUZ - II L/R AT NPRN	07-05-2014	10:00	07-05-2014	18:00		ER-I	COMMISSIONING OF CSD	
83	220KV Maithon-Kalyaneshwari-II	07-05-2014	09:00	07-05-2014	17:00		ER-II	Replacement of CVT due to humming sound	DVC
84	220 KV D/C Birpara-Chukha Circuit-II	07-05-2014	09:00	08-05-2014	17:00	ODB	ER-II	Replacement of insulators damaged by miscreants.	NLDC
85	400KV Maithon-Kahalgaoon-II Line with LR	07-05-2014	09:00	07-05-2014	17:00		ER-II	PRD inspection/leakge arrest/PRD replacement of LR,Line CVT replacement	NLDC
86	400 KV NPRN - NSLG - I	08-05-2014	10:00	08-05-2014	18:00		ER-I	COMMISSIONING OF CSD	NLDC
87	400KV Malda-Purnea-I	08-05-2014	08:00	11-05-2014	16:00	ODB	ER-II	Replacement of broken insulator strings damaged by miscreants	NLDC
88	132 KV Sambalpur-Kuchinda & 132 KV Kuchinda-Rajgangpur (Double Circuit portion of LILO 132 kv S/C Sambalpur-Rajgangpur line at Kuchinda)	08-05-2014	08:00	08-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	OPTCL
89	315MVA ICT-II at Rourkela	08-05-2014	09:00	08-05-2014	17:00		ER-II	To attened Leakage in OLTC by M/S BHEL	OPTCL
90	400 KV NPRN - NSLG - III	09-05-2014	10:00	09-05-2014	18:00		ER-I	COMMISSIONING OF CSD	NLDC

Annexure- C.1

91	220KV Maithon-Dhanbad-1I	09-05-2014	09:00	09-05-2014	17:00		ER-II	TBC isolator checking for remote operation under NTAMC	DVC
92	220KV Durgapur-DVC#2	09-05-2014	09:30	09-05-2014	17:30		ER-II	Retrofitting of CB	DVC
93	220 KV Birpara-Malbase S/C	09-05-2014	09:00	09-05-2014	17:00		ER-II	Replacement of broken insulator strings damaged by miscreants	NLDC
94	132KV KONAR-HAZARIBAGH ROAD(DVC)	10-05-2014	07:00	11-05-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 62/0 - 63 /0	DVC
95	400 KV Rourkela-Raigarh 3 & 4 (400 KV Sterlite-Raigarh & Rourkela-Sundargarh)	10-05-2014	08:00	10-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	NLDC
96	400 KV BUS REACTOR AT ARAMBAG	10-05-2014	07:00	10-05-2014	15:00		WB	MAINTENANCE WORK	
97	400KV Malda-Purnea-II.	12-05-2014	08:00	14-05-2014	16:00	ODB	ER-II	Replacement of broken insulator strings damaged by miscreants	NLDC
98	50 MVA Bus Reactor at Jeerat	12-05-2014	08:00	12-05-2014	16:00		ER-II	SFRA	WBSETCL
99	220 KV Birpara-New Siliguri Ckt-I	12-05-2014	09:00	12-05-2014	17:00		ER-II	Replacement of insulators damaged by miscreants.	
100	400kV S'Gram - Sgardighi	13-05-2014	07:00	13-05-2014	16:00		ER-II	VD Replacement, Jumper tightening, LR SFRA	WBSETCL
101	220 KV Birpara-New Siliguri Ckt-II	13-05-2014	09:00	14-05-2014	17:00	ODB	ER-II	Replacement of insulators damaged by miscreants.	
102	400 KV TALCHER - MERAMUNDALI - II	13-05-2014	09:00	14-05-2014	17:00	OCB	NTPC	ANNUAL MAINTENANCE WORK	OPTCL
103	220 KV D/C Budhipadar-Tarkera line	13-05-2014	08:00	13-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	NLDC
104	220kV Subhasgram-WBSETCL - 1	14-05-2014	08:00	14-05-2014	16:00		ER-II	Relay setting change due to line conductor change	WBSETCL
105	400 KV KAHALGAON - FARAKKA - IV	14-05-2014	09:30	14-05-2014	17:30		NTPC	PM & RELAY TESTING	NLDC
106	400KV Maithon-Kahalgaon-I Line with LR	15-05-2014	09:00	15-05-2014	17:00		ER-II	Reactor isolator operation checking, leakage arrest from reactor	NLDC
107	160 MVA ICT-I at Malda	15-05-2014	08:00	15-05-2014	16:00		ER-II	Completion of balance work for fire fighting of HVV & NIFS.	WBSETCL
108	400KV Durgapur-Bidhannagar - 1	15-05-2014	10:00	16-05-2014	14:00	ODB	ER-II	Retrofitting of Backup Impedance Relay	WBSETCL
109	220kV Subhasgram-WBSETCL - 2	15-05-2014	08:00	15-05-2014	16:00		ER-II	Relay setting change due to line conductor change	WBSETCL
110	400 KV Binaguri-Tala -I	15-05-2014	09:00	16-05-2014	17:00	ODB	ER-II	Replacement of broken insulator strings damaged by miscreants	NLDC
111	220 KV TALCHER - MERAMUNDALI - II	16-05-2014	09:00	17-05-2014	17:00	OCB	NTPC	ANNUAL MAINTENANCE WORK	OPTCL
112	400 KV KTPP - ARAMBAG	17-05-2014	07:00	17-05-2014	15:00		WB	MAINTENANCE WORK	
113	220 KV BTPS - RAMGARH (DVC)	17-05-2014	07:00	18-05-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 88/0 - 89 /0	DVC
114	220 KV BTPS - JAMSHEDPUR LINE OF DVC	17-05-2014	07:00	18-05-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 88/0 - 89 /0	DVC
115	400 KV BSF - MUZ D/C	17-05-2014	08:00	18-05-2014	18:00	ODB	ER-I	POWERLINE CROSSING WORK OF 400 KV BARH - GKP	NLDC
116	160 MVA ICT-II at Malda	17-05-2014	08:00	17-05-2014	16:00		ER-II	Completion of balance work for fire fighting of HVV & NIFS.	WBSETCL
117	400 KV Binaguri-Tala -II	17-05-2014	09:00	18-05-2014	17:00	ODB	ER-II	Replacement of broken insulator strings damaged by miscreants	NLDC
118	400 KV KAHALGAON - BANKA - II	19-05-2014	09:30	19-05-2014	17:30		NTPC	PM & RELAY TESTING	NLDC
119	400 KV PATNA - BARH - III AND IV	20-05-2014	08:00	21-05-2014	18:00	ODB	ER-I	POWERLINE CROSSING WORK OF 400 KV BARH - GKP	NLDC
120	315 MVA ICT-V at Malda	20-05-2014	08:00	20-05-2014	16:00		ER-II	For balance work of WT/OTI Under NTAMC project	WBSETCL
121	400 KV Durgapur - Sagardighi -1	20-05-2014	08:00	20-05-2014	13:00		ER-II	Retrofitting of REL 521	
122	220 KV Birpara-Salakati Ckt-I	20-05-2014	09:00	20-05-2014	17:00		ER-II	Replacement of insulators damaged by miscreants.	NLDC
123	132 kV S/C Burla-Rairakhol line	20-05-2014	08:00	20-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	OPTCL
124	400/220 KV ICT - I AT TALCHER	20-05-2014	09:00	22-05-2014	17:00	OCB	NTPC	ANNUAL MAINTENANCE WORK	OPTCL
125	220 KV Birpara-Salakati Ckt-II	21-05-2014	09:00	21-05-2014	17:00		ER-II	Replacement of insulators damaged by miscreants.	NLDC
126	400 KV ARAMBAG - PPSP	21-05-2014	09:00	21-05-2014	16:00		WB	MAINTENANCE WORK	
127	315 MVA ICT-III at Malda	22-05-2014	08:00	22-05-2014	16:00		ER-II	For balance work of WT/OTI Under NTAMC project	WBSETCL
128	132 KV BTPS - GOLA(DVC)	23-05-2014	07:00	24-05-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 89/0 - 90 /0	DVC
129	132 KV BARH - HATHIDAH	23-05-2014	08:00	24-05-2014	18:00	ODB	ER-I	POWERLINE CROSSING WORK OF 400 KV BARH - GKP	BIHAR
130	400 KV Bongaigaon-New Siliguri -I	23-05-2014	09:00	23-05-2014	17:00		ER-II	Replacement of insulators damaged by miscreants.	NLDC
131	400 KV Bongaigaon-New Siliguri -II	24-05-2014	09:00	24-05-2014	17:00		ER-II	Replacement of insulators damaged by miscreants.	NLDC
132	132 KV BTPS - KONAR(DVC)	27-05-2014	07:00	28-05-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 94/0 - 95 /0	DVC
133	132 KV SIWAN - GOPALGANJ D/C	27-05-2014	08:00	28-05-2014	18:00	ODB	ER-I	POWERLINE CROSSING WORK OF 400 KV BARH - GKP AND 800 KV HVDC LINE	BIHAR
134	400KV Malda-Farakka-II.	27-05-2014	09:00	27-05-2014	19:00		ER-II	For Numerical Relay Retrofitting at Farakka End. (LZ 96 to be replaced by Micom).	NLDC
135	400/220 KV ICT - II AT TALCHER	27-05-2014	09:00	29-05-2014	17:00	OCB	NTPC	ANNUAL MAINTENANCE WORK	OPTCL
136	132 KV VAISHALI - SHITALPUR	28-05-2014	08:00	29-05-2014	18:00	ODB	ER-I	POWERLINE CROSSING WORK OF 400 KV BARH - GKP	BIHAR
137	400KV Malda-Farakka-II.	28-05-2014	09:00	28-05-2014	19:00		ER-II	For Relay Retrofitting at Farakka End. (LZ 96 to be replaced by Micom).	NLDC
138	132 KV KAHALGAON - SABOUR	28-05-2014	09:30	28-05-2014	17:30		NTPC	PM & RELAY TESTING	BIHAR
139	132 KV SIWAN - MASHRAKH S/C	30-05-2014	08:00	31-05-2014	18:00	ODB	ER-I	POWERLINE CROSSING WORK OF 400 KV BARH - GKP AND 800 KV HVDC LINE	BIHAR
140	400 KV Rourkela-Raigarh 3 & 4 (400 KV Rourkela-Sterlite & Sterlite-Raigarh)	30-05-2014	08:00	30-05-2014	16:00		ER-II	For stringing work of 2 X 765 kV S/C Angul-Jharsuguda TL	NLDC
141	132 KV BTPS - KONAR(DVC)	31-05-2014	07:00	01-06-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 67/0 - 68 /0	DVC
142	220 KV TENUGHAT - BIHARSHARIF(USEB)	03-06-2014	07:00	04-06-2014	18:00	ODB	ER-I	STRINGING OF 400 KV D/C BOKARO - KODERMA TL FROM AP - 76/0 - 77 /0	BIHAR/JHARKHANDA

Annexure-C.2

Anticipated Power Supply Position for the month of
May-14

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
1	BIHAR		
	i) NET MAX DEMAND	2700	1387
	ii) NET POWER AVAILABILITY- Own Source	73	116
	- Central Sector	1511	1000
	iii) SURPLUS(+)/DEFICIT(-)	-1116	-271
2	JHARKHAND		
	i) NET MAX DEMAND	1100	705
	ii) NET POWER AVAILABILITY- Own Source	388	303
	- Central Sector	595	382
	iii) SURPLUS(+)/DEFICIT(-)	-117	-20
3	DVC		
	i) NET MAX DEMAND (OWN)	2605	1615
	ii) NET POWER AVAILABILITY- Own Source	4469	3075
	- Central Sector	436	309
	Long term Bi-lateral (Export)	2069	1539
	iii) SURPLUS(+)/DEFICIT(-)	231	230
4	ORISSA		
	i) NET MAX DEMAND	3750	2254
	ii) NET POWER AVAILABILITY- Own Source	2926	1740
	- Central Sector	998	627
	iii) SURPLUS(+)/DEFICIT(-)	174	113
5	WEST BENGAL		
5.1	WBSEDCL		
	i) NET MAX DEMAND (OWN)	5110	3035
	ii) CESC's DRAWAL	810	242
	iii) TOTAL WBSEDCL's DEMAND	5920	3277
	iv) NET POWER AVAILABILITY- Own Source	3831	2090
	- Import from DPL	-50	143
	- Central Sector	1723	1174
	v) SURPLUS(+)/DEFICIT(-)	-416	130
5.2	DPL		
	i) NET MAX DEMAND	300	225
	ii) NET POWER AVAILABILITY	250	368
	iii) SURPLUS(+)/DEFICIT(-)	-50	143
5.3	CESC		
	i) NET MAX DEMAND	1750	1009
	ii) NET POWER AVAILABILITY - OWN SOURCE	1050	737
	FROM WBSEDCL	700	242
	iii) TOTAL AVAILABILITY	1750	979
	iv) SURPLUS(+)/DEFICIT(-)	0	-30
6	WEST BENGAL (WBSEDCL+DPL+CESC) (excluding DVC's supply to WBSEDCL's command area)		
	i) NET MAX DEMAND	7160	4269
	ii) NET POWER AVAILABILITY- Own Source	5131	3195
	- Central Sector	1723	1174
	iii) SURPLUS(+)/DEFICIT(-)	-306	100
7	SIKKIM		
	i) NET MAX DEMAND	90	40
	ii) NET POWER AVAILABILITY- Own Source	0	0
	- Central Sector	118	72
	iii) SURPLUS(+)/DEFICIT(-)	28	32
8	EASTERN REGION		
	At 1.03 AS DIVERSITY FACTOR		
	i) NET MAX DEMAND	16898	10271
	Long term Bi-lateral	2069	1539
	ii) NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	15824	10454
	iii) PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	-1074	183