### Eastern Regional Power Committee Kolkata-33

### Salient Decisions taken in 99<sup>th</sup> OCC meeting held on 18.07.14

- OCC advised to convene a separate meeting on scheduling issues tentatively on 7<sup>th</sup> August, 2014 at ERPC conference hall. OCC advised OPTCL, DVC and West Bengal to give presentations on their scheduling issues/problems/complexities in the said meeting.
- 2. OCC took serious note on non-submission of progress report by Sterlite and decided to place the issue before board if defiance is continued.
- 3. OCC advised to convene a special meeting on Pollution Mapping tentatively on 8<sup>th</sup> August, 2014 at ERPC, Kolkata to assess status of completion of base works needed to start of actual Pollution Mapping work on-site.
- During deliberations it was pointed out by most of the constituents that SCADA problem in many locations are due to behind the schedule progress of work on the part of CTU/PGCIL. OCC advised Powergrid/CTU to expedite and restore at least the priority RTUs by 31<sup>st</sup> July, 2014.
- 5. It was informed that scheduling of un-requisitioned surplus (URS) power should be as per the CERC order dated 11.01.2010 for the petition No. 134/2009. OCC advised constituents to get the information of URS power from ERLDC website and accordingly they can send their requisition to the generators.

### Minutes of 99<sup>th</sup> OCC Meeting held on 18<sup>th</sup> July, 2014 at ERPC, Kolkata

List of participants is at Annexure-A.

#### Item no. A.1: Confirmation of minutes of 98<sup>th</sup> OCC meeting of ERPC held on 20.06.2014

The minutes were uploaded in ERPC website and circulated vide letter dated 03.07.14 to all the constituents. No comments were received till date.

Members may confirm the minutes.

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

*Members confirmed the minutes of 98<sup>th</sup> OCC meeting.* 

### PART B

#### Item no. B.1: Power System related issues pertaining to the States in Eastern Region

CEA vide letter dated 3<sup>rd</sup> June, 2014 requested to submit major issues related to generation, transmission, distribution, system operation, protection, etc. pertaining to each State of the region. The information should be furnished state wise and should include issues on which

- States require assistance of the Central Government
- Action/ attention is required from the State Government

The relevant information is to be submitted on regular basis as and when issues generate.

Members may note and comply.

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

Members noted for compliance.

## Item no. B.2: Non availability of Power from the power plant of FSTPS, TSTPS and MTPS #7 ---WBSEDCL

WBSEDCL vide letter dated 7<sup>th</sup> July, 2014 informed that,

- The generation has come down extensively from FSTPS Stage-I, II & III and TSTPS Stage-I.
- The generation from MTPS #7 is not available since 23<sup>rd</sup> June, 2014.

As a result, WB unable to meet the system demand.

If possible, WBSEDCL requested to arrange URS power to avoid the load shedding.

FSTPS & DVC may update and OCC may discuss.

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

NTPC informed that, due to some technical problems in FSTPS units generation has come down extensively. And due to coal shortage at TSTPS the generation has come down a little bit. NTPC is trying to resolve the problems.

DVC informed that, generation from MTPS #7 is not available because of coal shortage.

Regarding URS power ERLDC informed that availability of URS power is already made available in ERLDC website, constituents may place their request.

## Item no. B.3: Long outage of 400 kV Raigarh-Sterlite-Rourkela ckt-1 due to tower twist -- NLDC

It was informed that 400 kV Raigarh-Sterlite-Rourkela ckt-1 is under outage since 8<sup>th</sup> June, 2014 due to tower twist at location 36. This tower comes under the LILO portion which was constructed by Sterlite. Restoration of this line may take another 2 months.

This line is an important part of WR-ER corridor, which is used for wheeling of power from WR to NR via ER under contingency on WR-NR corridor.

In view of grid security, till the time the damaged tower restored, NLDC decided that the tower may be bypassed and the line may be made direct from 400 kV Raigarh to 400 kV Rourkela. The protection settings may also be reviewed.

ELDC may update.

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

It was informed that the damaged tower along with LILO has been bypassed and the line was connected directly from 400 kV Raigarh to Rourkela on 2<sup>nd</sup> July, 2014.

# Item no. B.4: Drawal of power from 400/ 132KV Lakhisarai(PG) by temporary LILO of existing 132 kV Lakhisarai-Jamui S/C

In 98<sup>th</sup> OCC, BSPTCL informed the status as follows:

1. Lakhisarai (PG) – Lakhisarai(BSPTCL) 132 kV D/c line – As per LOA, it will be completed by Aug. 2014.

2. Lakhisarai (PG) – Jamui (BSPTCL) 132 kV D/c line – will be completed by Feb, 2015.

BSPTCL vide letter dated 2<sup>nd</sup> July, 2014 informed that, presently work has been slow down due to monsoon and may not able to complete within target date. Hence, BSPTCL has planned to make LILO of 132 kV Lakhisarai-Jamui S/C at Lakhisarai(PG). As for as metering, protection and communication the following arrangement has been proposed:

Transmission line	Metering	Protection	Communication
132 kV Lakhisarai (PG) – Lakhisarai(BSPTCL)	At Lakhisarai (PG end	At Lakhisarai (PG) end and at Lakhisarai (BSPTCL) end	Will be provided through dedicated mobile of GSS no. +91 77638-18060
132 kV Lakhisarai (PG) – Jamui(BSPTCL)	At Lakhisarai (PG end	At Lakhisarai (PG) end and at Jamui (BSPTCL) end	Will be provided through dedicated mobile of GSS no. +91 77638-18053

Thereafter, ERLDC vide letter dated 4<sup>th</sup> July, 2014 requested Powergrid to examine the above configuration and asked for confirmation on adequacy of protection, metering and communication arrangements.

Powergrid may update.

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

OCC requested Powergrid to do the needful for drawl of power from Lakhisarai (PG) through the temporary LILO of 132 kV Lakhisarai-Jamui S/C line at Lakhisarai (PG).

Powergrid informed that they will provide metering facility and protection settings. However, BSPTCL has to install PLCC system for communication as the PLCC system is not in the scope of Powergrid.

OCC advised BSPTCL to arrange for PLCC system for availing power as desired.

#### Item no. B.5: Preparedness of the Power Sector for the Monsoon season

A meeting was taken by Secretary, Ministry of Power on 6<sup>th</sup> May, 2014 wherein measures in general to mitigate the shortages due to poor monsoon were chalked out. Accordingly, an urgent meeting was convened on 13<sup>th</sup> June, 2014 at ERPC conference room to assess the situation in Eastern Region. Minutes of the meeting are circulated in the meeting.

In 98<sup>th</sup> OCC, OHPC informed that they can keep water in the reservoirs of Balimela, Upper Kolab & Upper Indravati above MDDL because they are carry-over reservoirs. But for Rengali & Hirakund reservoirs the available water needs to be depleted to MDDL.

OCC advised OPTCL to explore for utilization of Balimela Upper-Sileru line for power transfer as its lying idle.

The latest update on the issue is enclosed at Annexure-B.5.

Members may update.

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

OPTCL informed that the Balimela reservoir is one of the reliable reservoir of Odisha and its water can be utilized over the whole year without much depletion. So, with this depleted monsoon OPTCL wants to regulate the Balimela power for whole year.

OCC advised OPTCL to transfer the Balimela generation irrespective of quantum and draw the equivalent quantum from the grid by closing Balimela-U.Sileru line, till level of Balimela reservoir normalized.

### Item no. B.6: Submission of DPR for R&U of protection and control system for funding from PSDF

- As per the recommendation of the enquiry committee report under chairmanship of Chairperson, CEA after the grid disturbances of July 2012 and based on the protection audit, the states are required to rectify the deficiencies in protection and control system of all the sub-station of intra-state network at 220 kV Level (132 kV level and above in NER).
- Accordingly, the states were requested to submit the DPR for Renovation and Upgradation (R&U) of protection and control systems (R&U) as above for funding from the PSDF. Based on the information from all the states consolidated DPR was prepared by CEA and submitted to MoP for approval.

- MoP vide its letter dated 10th January 2014 has circulated the scheme for operationalization of PSDF. Based on this Appraisal Committee under chairmanship of Chairperson, CEA and Monitoring Committee headed by Secretary, MoP have been constituted. NLDC has been designated as Nodal agency for PSDF.
- Appraisal Committee has prepared the procedures and formats for submission of DPR which are under approval of MoP (Which were made available in ERPC website).
- Chairperson, CEA has directed that all states may be advised to prepare their DPR for R&U as above in the formats attached and resubmit the same to NLDC i.e. Nodal Agency with a copy to GM Div., CEA; this is also in line with the discussion at the 3rd Special meeting of NPC held on 14th February, 2014 at CEA, New Delhi.

ERPC secretariat had already communicated the same to TCC members vide mail dated 13<sup>th</sup> June, 2014.

In 98<sup>th</sup> OCC, OCC advised all constituents to re-submit their DPRs to NLDC i.e. Nodal Agency with a copy to GM Division, CEA in the desired/ new formats as given by Appraisal Committee of PSDF (which is available at ERPC website) by 15<sup>th</sup> July, 2014.

All constituents agreed.

Members may note and submit the DPR.

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

The house was informed that PSDF appraisal committee meeting will be held shortly and so OCC advised all the constituents to send their DPRs in new formats available at ERPC website (http://www.erpc.gov.in) to NLDC at the earliest

WBSETCL informed that, they have already sent the DPR to NLDC. OCC requested to give a copy to ERPC Secretariat for record. WBSETCL agreed.

OPTCL, DVC, JSEB and BSPTCL agreed to submit the DPR by 25<sup>th</sup> July, 2014.

OCC also advised NTPC to send the proposal of bus splitting of 400 kV Khahalgaon S/s to appraisal committee as per the ERPC decision. NTPC agreed.

#### Item no. B.7: Low Voltage in North Bihar & South Bihar area--BSPTCL

On the issue deliberations were held in 98<sup>th</sup> OCC meeting wherein following suggestions were made:

- 400kV & 220kV bus voltages at Muzaffarpur(PG) S/Stn of ISTS is to be maintained within the limits allowed by IEGC, as being done at present.
- For this purpose, ERLDC constantly monitors the voltages in real time and advises ERTS-I to switch-off / switch-on the 63 MVAR bus reactors at Muzaffarpur. This will continue.
- In addition, corrective actions like changing of the tap of 2X315 MVA 400/220kV ICT at Muzaffarpur will be taken when required as were done in past on several occasions in order to ensure acceptable voltage on 220kV side of the ICTs.
- BSPTCL has to assess the reactive power requirements at their S/Stns such as Hajipur, Motihari, Gopalganj, Darbhanga etc. that are supplied from Muzaffarpur, and provide adequate switchable reactive compensation locally.

- During restoration of distribution system in Bihar, following a load crash caused by weather disturbance, concerned DISCOM(s) should strike a proper balance of reactive power generated by lines and that consumed by loads instead of keeping too many 132kV lines idle charged, without connecting customer load.
- BSPTCL should also explore scope for adjustment of its own 220/132kV transformers at Hajipur, Gopalganj, Darbhanga etc. so that reasonable voltage can be maintained at 132kV and below within Bihar system. Representative from BSPHCL was requested to provide the present setting of the taps of its 220/132kV ATRs along with complete range of tap with voltage ratio corresponding to each tap.
- 2X315 MVA 400/220 kV Sasaram ICTs are already heavily loaded due to supply of active and reactive power to Arrah, Khagaul, Dehri, Sahupuri etc. Thus supplying Khagaul load radially from Sasaram would cause deterioration of voltage at Khagaul and down stream S/Stns of BSPTCL. BSPTCL should therefore endeavour to meet Khagaul, Sipara etc. loads from Patna and Fatuah by keeping 220kV Patna-Khagaul S/C, Patna-Sipara D/C and Fatuah-Sipara S/C lines in service.
- Reactive demand should be compensated locally as far as possible and efforts should also be made to adjust 220/132kV ATR taps within BSPTCL, such that satisfactory voltage can be maintained at 132kV system of BSPTCL.

Concerned Members may update

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

BSPTCL informed that they are planning to take help from other agency for assessment of the reactive power requirements at their S/Stns such as Hajipur, Motihari, Gopalganj, Darbhanga etc. and accordingly they will provide the compensation where ever it is required.

OCC advised to report the progress in next OCC. BSPTCL agreed.

BSPTCL also informed that 220kV Patna-Khagaul S/C, Patna-Sipara D/C and Fatuah-Sipara S/C lines were brought in service and voltage profile has been improved.

BSPTCL further informed that they are following advice of ERLDC in resolving the low voltage problems.

#### Item no. B.8: High voltage problem at OPTCL Substation—OPTCL

OPTCL vide letter dated 11<sup>th</sup> June, 2014 informed that, the 220kV voltage at Jeypore (PG) is remaining very high which is in the range of 247 kV or more. This has been discussed in OCC meetings at ERPC, Kolkata time and again.

In 98<sup>th</sup> OCC, OCC advised Powergrid to change the tap of Jeypore (PG) ICT form tap position 16 to 14 to mitigate the high voltage problem at Jeypore. Powergrid agreed.

Powergrid may update.

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

Powergrid reported that ICT tap position has been changed from 16 to 14 as per the decision of OCC. ERLDC informed that voltage profile has improved (around 3-4 kV in 220 kV side) after changing the ICT tap position. It was also informed that voltage profile will further improve after the installation of 125 MVAR bus reactor at Jaypore (PG).

#### Item no. B.9: Backward revision of ISGS schedule by ERLDC-- OPTCL

OPTCL vide letter dated 11<sup>th</sup> June, 2014 intimated that-

#### QUOTE:

"..... in Rev-II, net ISGS Schedule of GRIDCO for 10.06.2014 was 790MW from 00:00 Hrs to 12:00 Hrs. Accordingly, SLDC, Odisha was under drawing around 40MW from the Grid. The system frequency was 49.60Hz. At 00:50 Hrs, ERLDC, Kolkata revised the net ISGS Schedule of GRIDCO from 790 to 630 MW retrospectively from 00:00 Hrs to 12:00 Hrs. By this backward revision by ERLDC, 40MW under drawal of GRIDCO has changed to 120MW over drawal at 49.6Hz which will earn heavy penalty due to deviation settlement mechanism. It is not understood, how can ERLDC revise the schedule for past blocks in real time system operation? This has not happened for the first time. Earlier also, ERLDC had done backward revision of the GRIDCO Schedule. For no fault, GRIDCO has to pay the penalty due to backward revision by ERLDC, Kolkata.

Therefore, it is requested to keep the GRIDCO schedule as 790MW for the period 00:00 Hrs to 01:00 Hrs of 10.06.2014 and also see that, this type of backward revision of ISGS schedule should not be done in future, which involves financial issues due to implication of deviation settlement mechanism"

#### UNQUOTE

In 98<sup>th</sup> OCC, ERLDC submitted that this type of issues should be brought in the notice as soon as it occurred for immediate follow up and revision/necessary correction.

However, in the instant case since the power was scheduled to SR so the nodal RLDC was SRLDC. The information from SRLDC for revised schedule (from 00:00 Hrs to 01:00 Hrs) was received at 00:45 Hrs, subsequently, ERLDC has also to revise the schedule from 00:00 Hrs to match the inter-regional schedule. So, there was delay in SR part.

After detail deliberation it was decided that for the instant case ERLDC will write a letter to SRLDC to avoid such type of retrospective revision. Further, OCC requested OPTCL to bear with the situation for the time being.

It was also decided that if there is any discrepancy in schedule, it should be immediately taken up with ERLDC for revision and should not be brought in a later stage for any settlement when all accounts have been settled.

OPTCL expressed that it has a huge commercial implication which needs to be settled.

Thereafter, OPTCL vide letter dated 21<sup>st</sup> June, 2014 informed that—

#### QUOTE:

".....after the revision, SCE SLDC, Odisha has pointed out it to ERLDC immediately and also sent a fax message vide Msg No. EREB-247/14 dated 10.06.2014 at 07.20 hrs. Thereafter, this office has also sent a letter to GM ERLDC vide letter no. 1682 dated 11.06.2014. In 98<sup>th</sup> OCC held on 20.06.2014, ERLDC has told that SLDC, Odisha has point out the matter after four days is totally untrue.

OPTCL view point in 98<sup>th</sup> OCC meeting to keep the GRIDCO schedule as 790 MW for the period 00.00hrs to 01.00 hrs of 10.06.2014 was not taken up to our satisfaction"

UNQUOTE

In its letter OPTCL preferred more deliberation on the issue in OCC.

Members may guide for resolving these sorts of problems.

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

OPTCL informed that the same was repeated on 5<sup>th</sup>, 6<sup>th</sup> & 11<sup>th</sup> July, 2014.

Further, DVC and WBSETCL also informed that they were also facing problems due to revision of Schedule by ERLDC.

After deliberation, OCC advised to convene a separate meeting on scheduling issues tentatively on 7<sup>th</sup> August, 2014 at ERPC conference hall. OCC advised OPTCL, DVC and West Bengal to give presentations on their scheduling issues/problems/complexities in the said meeting. In line with suggestions forwarded by OCC all constituents agreed to arrive at workable solutions on scheduling complicacies in the special meeting. Accordingly all constituents were advised to attend the meeting for fruitful deliberation.

### Item no. B.10: Extension of Talcher-Kolar pole trip signal to JITPL for generation reduction –ERLDC

On synchronization of SR and NEW grid in a special meeting in ERPC it was decided that, Sterlite, GMR and JITPL would share 600 MW generation relief through SPS in case of single/both pole tripping of HVDC Talcher-Kolar. In subsequent SPS meeting held on 08.05.14 then it was agreed that, the 600MW generation relief would be shared as given below when JITPL come into bar:

Sterlite- 350 MW, GMR- 150 MW and JITPL- 100 MW.

It was also decided that Powergrid will extend the digital signal to JITPL switchyard for implementation of the scheme.

In 98<sup>th</sup> OCC, it was informed that the JITPL unit was declared COD w.e.f. 06.06.2014.

Powergrid informed that at present there is no direct connectivity to JITPL for extending the signal. The connectivity will be established via Talcher-Angul-JITPL. It was informed that, they are already in process to establish the connectivity and extend the trip signal to JITPL and the work will be completed by June, 2014.

JITPL, Powergrid and ERLDC may update.

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

Powergrid informed that they do not have any information about the extension of the trip signal to JITPL and requested for written communication.

OCC informed that it was decided in SPS meeting held on 08.05.14 and advised Powergrid to extend the trip signal immediately.

Powergrid agreed.

ERLDC informed that, both GMR and SSL failed to provide any generation relief during last Talcher-Kolar pole trip. GMR vide letter informed that they have not received the trip signal from Talcher end.

OCC advised NTPC to check the SPS. NTPC confirmed that the signal from Talcher has been extended to GMR.

House advised NTPC and CTU to check the healthiness of SPS again and report to OCC.

#### Item no. B.11: Status of construction of 400 kV Sterlite-Jharsuguda D/C sections

In 27<sup>th</sup> ERPC, It was informed that LILO of 400 kV Rourkela-Raigarh line was done in 2009 and till date there is no progress in construction of dedicated line to pooling station. Because of this Odisha is facing congestion and grid security is being compromised. Thereby, it was pointed out that Sterlite is mis-utilising the LILO connection.

OPTCL pointed that there should be firm commitment for commissioning schedule of 400 kV Sterlite- Jharsuguda line and periodical report of progress should be submitted to ERPC/NLDC.

PGCIL informed that as per the BPTA agreement the LILO connection of Sterlite is allowed till November, 2014 and Sterlite has to construct their dedicated line to Jharsuguda pooling station by that time. Otherwise continuation of LILO arrangements would not be possible.

Sterlite informed that the initial survey from LILO tapping points to Jharsuguda Pooling Point has been completed and execution work is pending due to forest clearance. SSL has already applied for forest clearance on 31.05.13. Hence, SSL has requested for completion time for construction of the 400 kV Sterlite-Jharsuguda line up to December, 2015.

ERPC took serious note on non-completion of 400 kV Sterlite-Jharsuguda line and advised Sterlite to complete the commissioning of 2xD/C, 400 kV Sterlite-Jharsuguda line by 31<sup>st</sup> March, 2015. Sterlite was further advised to give the progress report on monthly basis to ERPC Secretariat.

ERPC also decided that LILO arrangements of 400 kV Rourkela-Raigarh line for evacuating power generation of Sterlite will be withdrawn latest by 1<sup>st</sup> April,2015.

In 98<sup>th</sup> OCC, Sterlite informed that the work is in progress.

OCC advised Sterlite to place officially, the details of progress of the commissioning work to Secretariat on monthly basis.

Sterlite may update.

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

It was informed that ERPC Secretariat has already written a letter on 11.07.14 to Sterlite to provide the progress of the commissioning work of the line but Sterlite did not comply.

Sterlite representative was not available in the meeting for discussion.

OCC took serious note on non-submission of progress report by Sterlite and decided to place the issue before board if defiance is continued.

#### Item no. B.12: New Islanding Schemes in Eastern Region

#### B.12.1. FSTPS Islanding Scheme, NTPC

Latest status as available is as follows,

Requirement	Where Required	Action	Latest status
	• 220 kV Lalmatia – 1	• JSEB will shift 3 panels from	• JSEB had already shifted 3
Panels	• 220 kV Farakka – 1	Sahebgunj/Pakur to 132 kV Lalmatia S/s	nos BPL make PLCC panels
		• NTPC will take care of shifting 2 panels	to 132KV Lalmatia S/S

	<ul> <li>132 kV Dumka – 1</li> <li>132 kV Lalmatia – 1</li> </ul>	<ul> <li>from 132 kV Lalmatia S/s to 220 kV Lalmatia and Farakka S/s.</li> <li>JSEB will shift one panel from Sahebgunj/Pakur to 132 kV Dumka S/s</li> <li>Installation of PLCC panels at 220 kV Lalmatia and Farakka S/s will be done by NTPC</li> <li>Installation of PLCC panels at 132 kV Lalmatia and Dumka S/s will be done by JSEB</li> <li>Commissioning of all the four panels will be done by Powergrid.</li> </ul>	• 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> <li>132 kV Lalmatia – 1 relay</li> <li>132 kV Dumka – 1 relay</li> </ul>	<ul> <li>JSEB will provide 2 trip relays.</li> <li>Commissioning will be done by Powergrid.</li> </ul>	• Trip Relay available at 132 KV Lalmatia S/S is with 3nos "NO" contacts.
4 wave traps	<ul> <li>132 kV Lalmatia – 2</li> <li>132 kV Dumka – 2</li> </ul>	<ul> <li>JSEB will provide four wave traps.</li> <li>JSEB will do the installation and erection</li> <li>Commissioning will be done by Powergrid.</li> </ul>	• JSEB confirmed that wave traps are available with them
2 LMUs	<ul> <li>132 kV Lalmatia – 1</li> <li>132 kV Dumka – 1</li> </ul>	<ul> <li>JSEB will provide two LMUs.</li> <li>JSEB will do the installation and erection</li> <li>Commissioning will be done by Powergrid.</li> </ul>	• JSEB confirmed that LMUs are available with them
4 UFR relays	<ul> <li>132 kV Lalmatia – 2</li> <li>132 kV Dumka – 2</li> </ul>	<ul><li>JSEB will provide and erect.</li><li>Commissioning will be done by Powergrid.</li></ul>	• UFRs have been installed by Powergrid
2 nos 48 V Battery bank with charger	<ul> <li>132 kV Lalmatia – 1</li> <li>132 kV Dumka – 1</li> </ul>	• Powergrid will arrange 300 Ah battery bank along with battery chargers at both stations.	
Coaxial Cable - As required at site	<ul><li>132 kV Lalmatia</li><li>132 kV Dumka</li></ul>	• JSEB will provide and laying/cabling.	

The issue was discussed in 27<sup>th</sup> TCC/ERPC meeting wherein,

Powergrid informed that, they have already visited Farakka, Lalmatia and Dumka S/s and installed the UFRs.

Powergrid also intimated that, PLCC panels were physically checked and cards are available.

JSEB insisted for checking the healthiness of PLCC by energizing the PLCC panels as decided in OCC. On reply Powergrid informed that, 48 V DC supply is required for checking the healthiness of PLCC panels/cards which is not available in Lalmatia and Dumka S/s.

JSEB informed that, the old PLCC panels may not work and insisted for installation of new PLCC panels. On reply, Powergrid informed that, purchasing new PLCC panels will take long time.

After deliberation, TCC advised JSEB to provide 48 V DC supply at their sub-stations for checking the healthiness of the PLCC panels.

JSEB assured to arrange 48 V DC supply at both the stations by 15<sup>th</sup> June, 2014 and Powergrid agreed to check the healthiness by 3<sup>rd</sup> week of June, 2014.

TCC advised JSEB and Powergrid to implement the scheme at the earliest and report the status in OCC.

Subsequently, Powergrid vide mail dated 04.06.14 informed that as per discussion held with JSUNL, due to non availability of 48V DC source at Dumka, the PLCC Panels of Dumka to be shifted to Lalmatia for checking the healthiness.

It is planned to check the healthiness of the PLCC panels in the 2nd week of June 2014. Further, JSEB was asked to confirm the followings so that necessary programme for checking the PLCC panels can be made.

- 1. Shifting of PLCC panels from Dumka to Lalmatia
- 2. Ensuring availability of 48 V DC source in all PLCC panels at Lalmatia and Farakka.
- 3. Arrangement of transportation from Farakka to Lalmatia and back.

Further during commissioning of UFR relays at Lalmatia and Dumka, it was found that in addition to the PLCC panels with protection coupler, 01 no. speech panel without protection coupler are available for Lalmatia-Dumka & Lalmatia-Farakka links respectively. For implementation of Islanding scheme commissioning of Speech panel without protection coupler is not required. In view of that checking of the PLCC panels with protection coupler will only be carried out.

In 98<sup>th</sup> OCC, Powergrid informed that they have visited Farakka, Lalmatia & Dumka on 13<sup>th</sup> & 14<sup>th</sup> June, 2014 along with Erlang Teletronix for checking the healthiness of PLCC panels and submitted the report.

After detail deliberation, OCC recommended following:

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

Powergrid, JSEB and NTPC may update the status.

#### Deliberation in the meeting

Powergrid informed that the new estimate for procurement of above items is in approval stage by its appropriate authority but indicated that the amount would be around Rs. 53,41,889/- .It was informed that the final approved estimate will be submitted to JSEB by July, 2014.

Further, Powergrid informed that the above estimate also includes Rs.64,675 –an expenditure already incurred by it for checking the healthiness of BPL make PLCC panels at Farakka, Lalmatia and Dumka S/s in line with OCC decision. OCC requested JSEB to release this amount at earliest for payment to the vendor. JSEB requested Powergrid to submit the bills.

#### B.12.2. Chandrapura TPS Islanding Scheme, DVC

In 27<sup>th</sup> TCC/ERPC meeting, DVC informed that the initial tender has to be closed as Party did not comply the terms and conditions of the tender. However, new tender has already been floated with squeezed implementation time of 150 days.

TCC/ERPC advised DVC to implement the scheme by 30<sup>th</sup> October, 2014 and reiterated that no further extension will be given.

In 98<sup>th</sup> OCC, DVC informed that the decision of TCC had already been communicated to higher authority. DVC also informed that Tendering work is in the process.

DVC may update the status.

#### Deliberation in the meeting

DVC informed that the tender was opened and is under evolution. OCC advised DVC to expedite the work for timely completion.

#### B.12.3. BkTPS Islanding Scheme, WBPDCL

In 27<sup>th</sup> TCC/ERPC, WBPDCL informed that LOA has been placed on 14<sup>th</sup> May, 2014 and the work will be completed by December, 2014 (+/- 2 months).

In 98<sup>th</sup> OCC, WBPDCL informed that it will be completed in schedule.

WBPDCL may update the status.

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

WBPDCL informed that the scheme will be completed as per schedule.

#### B.12.4. Tata Power Islanding Scheme, Haldia

In 27<sup>th</sup> TCC/ERPC meeting, WBSETCL informed the scheme will be implemented by July, 2014.

In 98<sup>th</sup> OCC, WBSETCL informed that it will be completed in schedule.

WBSETCL may update the status.

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

WBPDCL informed that order has been placed and the scheme will be implemented by November, 2014.

### Item no. B.13: Concerned members may update the latest status.

#### B.13.1. Status of 400kV GMR- Angul D/C line.

In 27<sup>th</sup> TCC/ERPC meeting, GMR appraised that the work of 400kV D/C GMR- Angul is in progress except some ROW issues at some sections, however they were trying to complete it by June, 2014.

In 98<sup>th</sup> OCC, GMR informed that the work will be completed by July, 2014 because they were facing some severe ROW problem.

GMR may update.

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

Status could not be updated as GMR representative was not available in the meeting.

#### B.13.2. Status of 400kV Maithon-Gaya and Koderma-Gaya D/C lines.

In 27<sup>th</sup> TCC/ERPC meeting, Powergrid informed that Maithon-Gaya and Koderma-Gaya 400kV D/C lines will be commissioned by June, 2014.

In 98<sup>th</sup> OCC, Powergrid informed that the line were expected to be completed by 15<sup>th</sup> July, 2014.

Powergrid may update the latest status.

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

Powergrid informed that the work was delayed due to rain & other unavoidable problems and so the line is expected to be delayed commissioned by August, 2014.

# B.13.3. Replacing/repairing of defective PLCC equipment at SgTPP end of 400 kV SgTPP-Farakka line

In 27<sup>th</sup> TCC/ERPC meeting, Powergrid informed that PLCC panels are ready to dispatch and will be installed by 15<sup>th</sup> June, 2014.

In 98<sup>th</sup> OCC, Powergrid informed that work will be completed by 1<sup>st</sup> week of July, 2014.

Powergrid and WBPDCL may update the status.

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

Powergrid informed that PLCC equipment has been replaced and it will be commissioned by 31<sup>st</sup> July, 2014.

#### B.13.4. Status of 80MVAR Line reactor of 400kV Meramundali-Angul at Meramundali

In last OCC, Powergrid informed that it will be rectified within 2-3 days.

Powergrid may update.

#### Deliberation in the meeting

Powergrid informed that the reactor is ready and could not be charged due to defective Siprotec relay which belongs to OPTCL. OPTCL informed that this Siprotec relay is very old and there is no inventory for these type of relays as these were used in very few places.

OCC advised Powergrid to explore the possibilities for replacement of this relay on exchange basis & can be exchanged when OPCTL make it available. PGCIL & OPTCL agreed.

#### B.13.5. Depletion in OPTCL network due to impact of cyclone "Phailin"

In 97<sup>th</sup> OCC, OPTCL informed that due to non- receipt of consignment of towers the work is delayed and expected to be completed by July, 2014.

OPTCL may update the latest status.

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

OPTCL informed that all the lines were restored.

#### B.13.6. 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.

In 98<sup>th</sup> OCC OPTCL informed the status as follows:

- (i) LILO of OPTCL's Burla-Bolangir line at Bolangir(PG) —Work is in progress and it would be completed by Nov, 2014
- (ii) Bolangir(PG) –Kesinga S/C line —Tender opened and completion schedule is Dec, 2015.

OPTCL may update the status.

#### Deliberation in the meeting

OPTCL informed that work is in progress as per schedule.

#### B.13.7. Power Evacuation from 400/ 220KV Daltonganj and Chaibasa Substations

In 96<sup>th</sup> 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 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.

In 27<sup>th</sup> TCC/ERPC meeting, JSEB informed the status of power evacuation scheme:

1. 400/220 kV Daltanganj – There is no scope of Daltanganj S/s (JSEB) which was earlier planned. However, nearby two new sub-stations 400/220 kV Latehar and 220/132 kV Lohardaga are coming up for which land acquisition is going on.

2. 400/220 kV Chaibasa- Chaibasa (JSEB) S/s is being constructed by Powergrid under deposit work.

In 98<sup>th</sup> OCC, JSEB informed that both the work was given to Powergrid under consultancy work. OCC requested Powergrid to update the status.

Powergrid informed that there is problem in land acquisition for 400/220 kV Daltanganj S/s, however the latest status will be given in next OCC.

Powergrid and JSEB may update the status.

#### Deliberation in the meeting

Powergrid informed that 400/220kV Chaibasa S/s will be ready by September, 2014. However, the downstream system is to be made ready by JSEB as per the above schedule. The work of downstream system has been stopped due to some payment issues.

JSEB informed that the payment issues were now settled and the work could be started.

For 400/220 kV Daltanganj S/s, Powergrid informed that it is facing problem in land acquisition and the matter is continuously being taken up with State Govt.

# B.13.8. Status of works related to Implementation of SPS for 500MW round the clock power through HVDC Bheramara

In 97<sup>th</sup> 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 (HTLS twin): Work has been awarded and will be commissioned by Dec, 2014.

Powergrid may update the status.

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

Powergrid informed that the work is in progress as per schedule.

#### B.13.9. Automatic Meter Reading (AMR)

In 98<sup>th</sup> OCC, Powergrid informed that 63 out of 97 AMR have been installed.

ERLDC stressed that the complete detail of the substations where AMR have been installed may be provided for verifying the transfer of data from these stations. Powergrid agreed.

NTPC pointed that the DCD at Farakka is giving frequent problem and requested Powergrid to issue two DCDs one each for Farakka and Kahalgaon.

OCC advised Powergirid to issue two DCDs to NTPC. Powergrid agreed

Powergrid and NTPC may update.

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

Powergrid informed that 77 out of 97 AMRs have been installed and the rest will be installed by September, 2014.

ERLDC informed that 51 AMRs have been reporting to ERLDC and data has been verified.

### B.13.10. Modification of 132kV Bus arrangement at 220/132kV Purnea Sub-station of POWERGRID

In 97<sup>th</sup> OCC, Powergrid informed that work will be awarded by June, 2014.

Powergrid may update the latest status.

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

Powergrid informed that price bid opened and work will be awarded by August, 2014.

#### Item no. B.14: Tripping of 132 kV Patratu (JSEB)- Patratu (DVC) line - DVC

It was informed that whenever the said line was loaded beyond 40 MW it is getting tripped from Patratu (JSEB) end on overload.

In 98<sup>th</sup> OCC, OCC advised DVC to visit Patratu (JSEB) S/s and resolve the issue at the earliest.

JSEB and DVC agreed.

#### DVC and JSEB may update.

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

DVC informed that their engineer had visited the Patratu (JSEB) S/s and found that the relay setting was for lower loading. OCC felt that the line loading was restricted because ICTs may be getting overloaded and advised JSEB to provide the details of overloading of lines/ICTs within a week. JSEB agreed.

#### Item no. B.15: 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 95<sup>th</sup> 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.

Members may note till date majority of the observations are not complied. Latest updates as communicated to CERC are in ERPC website. Members please ensure compliances before next hearing in CERC.

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

OCC informed that CERC advised OPTCL to carry out the protection audit of their sub-stations from third party preferably from CPRI.

OCC advised OPTCL to give the compliance report of Protection Audit carried out earlier by the ERPC team within 7 days so that ERPC Secretariat can send the report to CERC by 10<sup>th</sup> August, 2014.

#### Item no. B.16: Restricted Governor Mode of Operation

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

Members may update.

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

Members noted.

## Item no. B.17: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

The activity of the preparation of Crisis Management Plan for countering the cyber attacks and its implementation including the Mock Drills, audits etc. is being monitored by CEA regularly in line with crisis management plant of Ministry of Power. Power Utilities (including generation, transmission & distribution utilities) of eastern region are to furnish regularly the updated status to on the same to Chief Engineer, Distribution Planning & Development Division, CEA.

NTPC communicated their activity of the preparation of Crisis Management Plan for countering the cyber attacks vide letter dated 2<sup>nd</sup> August, 2013. In 88<sup>th</sup> OCC, constituents requested for another workshop on this issue. OCC agreed and requested NTPC and CESC to share their scheme in the workshop.

Members may note and comply.

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

Members noted.

#### Item no. B.18: 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.19: Pollution mapping for Eastern Region -- Powergrid

In 27<sup>th</sup> TCC/ERPC meeting, it was informed that, OPTCL, BSPHCL and JSEB are yet to submit the filled excel format (which is available at ERPC website) for identification of the location.

OPTCL, BSPHCL and JSEB assured to identify the location as per the excel format and agreed to submit by 15<sup>th</sup> June, 2014.

In 98<sup>th</sup> OCC, Powergrid updated the latest status for identification of locations by the constituents; the same is circulated in the meeting.

OCC advised the respective constituents to complete the identification of location at the earliest as the Pollution Mapping process is to be started by September/October, 2014.

Powergrid may update the status.

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

Powergrid updated the latest status enclosed at Annexure-B.19.

WB informed that insulators have been hanged at 80% locations and the rest will be done by 31<sup>st</sup> July, 2014

OPTCL informed that the location identification data will be placed within a day or two.

OCC took serious note on the progress and advised all constituents to submit the requisite data latest by 31<sup>st</sup> July in proper format available at ERPC website.

OCC also advised the concerned constituents to hang the dummy insulators at identified locations by 31<sup>st</sup> July, 2014.

Accordingly, OCC advised to convene a special meeting tentatively on 8<sup>th</sup> August, 2014 at ERPC, Kolkata to assess status of completion of base works needed to start of actual Pollution Mapping work on-site.

#### Item no. B.20: Certification through BIS as per IS 18001:2007 to all generating/ transmission units. (Item No. B9 of 84<sup>th</sup> OCC meeting)

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

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

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

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

Members may note and update the status.

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

Members noted.

#### Item no. B.21: 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 93<sup>rd</sup> OCC JSEB requested Powergrid to restore the link temporarily till its final restoration. Powergrid agreed to look into the matter.

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 98<sup>th</sup> OCC, Powergrid informed that it will be restored by 25<sup>th</sup> June, 2014.

JSEB and Powergrid may update.

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

Powergrid informed that the link has been restored.

#### Item no. B.22: Restoration of SCADA data

The 27th TCC advised all constituents to do the needful for restoration of SCADA data at the earliest.

On the issue after detailed discussions the 98<sup>th</sup> OCC found that in number of the cases CTU involvement is there. OCC advised CTU/Powergrid to do the needful for restoration of SCADA data latest by 30<sup>th</sup> June, 2014 and submit the detail report on action taken by them in next OCC.

The latest status of SCADA is enclosed at Annexure B.22. The latest update of BSPTCL and WBSETCL, OPTCL Sub-station SCADA are separately given at Annexure- B.22a.

CTU may update.

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

*Members updated the latest status which is enclosed at* **Annexure B.22**. During deliberations it was pointed out by most of the constituents that SCADA problem in many locations are due to behind the schedule progress of work on the part of CTU/PGCIL. OCC advised Powergrid/CTU to expedite and restore at least the priority RTUs by 31<sup>st</sup> July, 2014.

#### Replacement of RTUs at Kahalgaon, NTPC

NTPC in 98<sup>th</sup> OCC informed that on account of the fire incidence in RTU & SIC panels of the ULDC system at NTPC-Kahalgaon Switchyard control room, the real time data transmission to ERLDC for generation & power flow of various lines have stopped since 18<sup>th</sup> June, 2014. These RTU & SIC panels are the assets of PGCIL and needs to be made available by PGCIL at the earliest.

ERLDC also informed that data of those RTUs are very important and stressed for early restoration.

OCC advised Powergrid to replace the RTUs on priority basis latest by 15<sup>th</sup> July, 2014.

Concerned Member may update.

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

Powergrid informed that RTU is not available, they are going for tender and it will take 2 months. OCC advised Powergrid to divert some other RTUs and complete the work by 31<sup>st</sup> July, 2014.

#### Item no. B.23: Procurement of Emergency Restoration System (ERS Towers) for Eastern Region constituents- Powergrid

In 25<sup>th</sup> 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 97<sup>th</sup> OCC, 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.

Powergrid may update the latest status.

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

Powergrid informed that NIT has some technical problem and same will be resolved by December, 2014.

## Item no. B.24: Status of available Emergency Restoration System (ERS Towers) in Eastern Region

Powergrid may update status of total number of ERS towers available in Eastern Region and how many are being used.

Approval of OCC is required if these are being used for other regions.

In 98<sup>th</sup> OCC, OCC requested Powergrid to submit the details of ERS already available in Eastern Region and how many of them are being used. Powergrid agreed to give the detail.

It was informed by Sterlite that 400 kV Raigarh-Sterlite-Rourkela- I line is under breakdown since 08.06.14 for a tower collapse under LILO portion and expected date of restoration would be around two months.

On deliberation Member Secretary, ERPC informed that CTU/Powergrid was already requested to assist STERLITE with ERS in restoring 400 kV Raigarh-Sterlite-Rourkela- I line which was out of service because of tower failure in LILO section. Sterlite was advised to give the detail programme to CTU/Powergrid for hiring & utilization of ERS tower for restoration of the line. Sterlite agreed to do the needful at the earliest.

Powergrid and Sterlite may update the latest status.

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

OCC advised Powergrid to submit the status of available ERS towers officially. Powergrid agreed.

Subsequently, ER-II, PGCIL vide letter dated 18.07.14 has intimated that there are two (2) sets of ERS available at ER-II one each at Durgapur S/S and Rourkela S/S. Each set of ERS contains eight (8) numbers of towers.

At present two numbers of tower have been erected in 400 kv Maithon- Mejia D/C line near Maithon and one no. tower having 170 ft has been erected in 220 kV Faraka-Lalmatia line near Farakka.

#### Item no. B.25: Review of SPS for enhanced Chuzachen generation

In 97<sup>th</sup> OCC, OCC decided to allow Chuzachen to enhance their generation upto 99 MW with SPS operation of one unit tripping (whichever is generating more). The other signaling part of Chuzachen SPS will be reviewed in next OCC.

98<sup>th</sup> OCC decided to continue the existing SPS for Chuzachen with one unit tripping for the monsoon period and based on the experience of that period the same will be reviewed.

ERLDC/Chuzachen may update.

#### Deliberation in the meeting

Chuzachen requested for review of existing SPS.

OCC felt that further review of SPS will be done based on experience of the current monsoon period.

#### Item no. B.26: Mock Black start exercises in Eastern Region – ERLDC

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

In 97th OCC, tentative schedule of Black Start for 2014-15 exercise was confirmed by the constituents.

In 98<sup>th</sup> OCC, the following generators are scheduled for black start:

- i. Chujachen HEP : In month of Jan, 15
- ii. Rengali HEP :- 1st Week of July, 14
- iii. U. Indravati HEP :- 2nd Week of July, 14

DVC has confirmed that blackstart at Maithon HEP has been successfully carried out on 17th June 2014.

SLDC,OPTCL has reported that mock blackstart exercise of Upper Kolab has been successfully carried out on 03/06/14.

OPTCL may confirm the final dates for Upper Indravati and Rengali HEP.

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

OPTCL informed that they are planning to do the black start exercise of U.Indravati HEP in July, 2014 and Rengali HEP in next month as water level has depleted.

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

Report regarding test run of DG sets for the month of June, 2014 has not been received from any of the constituents. All test reports may be forwarded to <u>erldc.cal@gmail.com</u> & <u>psdas\_psd@yahoo.com</u>.

Constituents may kindly ensure compliance.

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

Members noted.

#### 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 Jeertat/Subhasgarm have already been changed to position '11' and '9' respectively. Also, units at KTPP/Bakreshwar/Sagardighi are required generate MVAR (lagging mode operation) to the maximum extent possible. Also, conversion of line reactor of 400kV Jeerat-Behrampore(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-Behrampore(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).

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.

In 97<sup>th</sup> OCC, ERLDC informed that they are awaiting Powergrid's response on feasibility of the above.

ERLDC/Powergrid may update.

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

Powergrid confirmed that the line can be operated with auto-reclosure in service without line reactor at Subhasgram end.

#### Item no. B.28: Persistent over drawal by West Bengal/Odisha - ERLDC

It has been observed that West Bengal/Odisha is persistently overdrawing from the Grid for the past few days. Inspite of repeated non-compliance/alert/emergency messages no significant reduction of such over drawal is observed. Due to the above situation, one circuit of 220kV Dalkhola-Dalkhola D/C and 220kV Rengali(PG)-Rengali(O) D/C were opened at times on occasions of high over drawal by WBSEDCL/GRIDCO. Under the above circumstances, it is emphasized that proper forecast of demand may be carried out and adequate planning for demand management done so that such over-drawal is controlled.

ERLDC may update.

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

OCC requested WBSEDCL and GRIDCO to control the over drawal with proper demand management. Constituents agreed.

#### Item no. B.29: Availing of Un-requisitioned Share of ISGS stations scheduled by RLDC

In the recent past it has been increasingly observed that at times a significant quantum of share of ISGS stations(GOI allocations) scheduled by RLDC are remaining unrequisitioned(URS) and the same is requisitioned from time to time by other beneficiaries of the ISGS. The above is beneficial both to the beneficiary and to NPTC as any over-drawal by the constituents is made up by requisitioning the share while at the same time the PLF of the ISGS stations improves. At the same time the above also helps in maintaining Grid frequency within limits and thus improves Grid security. However, for scheduling URS power of one beneficiary to another, the consent of the the concerned generation station owner viz. NTPC is taken every time. The above is time consuming and there is a delay in the process. As an example, when a constituent over-drawal, and if the delay is on account of waiting for receipt of consent from NTPC, the over-drawing constituent suffers significant loss on account of deviation from schedule.

Hence, it is proposed that RLDC may be allowed to allot URS on request by a beneficiary without waiting for any consent from the station owner viz. NTPC in this case. The station from which URS would be scheduled would be as per the request of the beneficiary.

It is felt that above would serve the twin objectives of both helping to maintain grid frequency and to minimizing over-drawal by constituents.

Members may deliberate.

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

It was informed that scheduling un-requisitioned surplus (URS) power should be as per the CERC order dated 11.01.2010 for the petition No. 134/2009, which is as given below:

"Accordingly, we direct that all the generating stations, governed by the Tariff Regulations of the Commission be allowed to change schedule for the unrequisitioned quantum of power from one beneficiary(s) to another beneficiary(s) of the same power station on the requisition by these beneficiaries through the provision provided in the IEGC, i.e. within six time blocks or as per the provisions of the IEGC as amended from time to time. In case the original beneficiary requests back for its share of power, then its schedule and schedule of beneficiary who had availed URS power would be revised in the six time blocks again, or as specified in the IEGC as amended from time to time. These schedule revisions would be treated as re-allocation of power on temporary basis and would not be taken as open access transactions."

OCC advised constituents to get the information of URS power from ERLDC website and accordingly they can send their requisition to the generators.

#### Item no. B.30: Black start and Restoration procedure of Eastern region- ERLDC

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

Status of data received regarding synchronization facility and auxiliary and survival power

Sl No.	Constituent	Data received (Yes/No)
1	BSPHCL	Yes
2	DVC	Yes
3	JVSNL	No
4	OHPC/OPGC	Yes
5	West Bengal	Yes
6	CESC	Yes
7	NHPC	Yes
8	NTPC	Yes
9	CHEP	Yes
10	APNRL	Yes
11	MPL	Yes
12	GMR	Yes
13	JITPL	Yes

In 98<sup>th</sup> OCC, BSPHCL submitted the data and JSEB agreed to provide the relevant data at the earliest.

ERLDC may update the status.

#### Deliberation in the meeting

OCC advised JSEB to provide the relevant information. JSEB agreed.

## Item no. B.31: 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 was observed (data taken from SCADA) Generating stations have been monitored for sample dates in the month of June, 14:

Power Plant	Max and Min Voltage observed for	Date for monitoring
	June 14 (KV)	(June 2014)
Farakka STPS	422, 406	1, 21, 29
Khalgaon STPS	416,400	1, 4, 13
Talcher STPS	410, 397	3,11,26
Teesta	Data Not available	NA
Bakreshwar TPS	410, 390	8,9,23
Kolaghat TPS	420, 395	6, 10, 14
Sagardighi TPS	424, 407	21, 8,
MPL	422, 411	1, 3, 29
Mejia-B	428, 416	15, 21, 29
DSTPS	432, 420	15, 21, 27
Adhunik TPS	428, 410	29, 21
Sterlite	435, 414	22, 28, 21

ERLDC may update.

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

ERLDC has 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.

Concerned members may update the status.

#### Deliberation in the meeting

Members noted.

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

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

Accordingly, a special meeting was convened on 27<sup>th</sup> June, 2014. Minutes of the meeting is enclosed at **Annexure-B.31c**. During the meeting following tap position was agreed:

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

MPL was requested to submit MW, MVAr, voltage data of both HV and LV side of GT/Generator terminal for the past months and GT tap details for analysis, so that decision on the required tap position could be decided in next OCC. MPL agreed to provide the required data to ERLDC.

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

DVC, Adhunik and MPL may update the status.

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

DVC informed that DSTPS tap will be changed after ensuring the improvement of voltage profile is sufficient for synchronization of units, which will be checked by opening 400 kV DSTPS-Jamshedpur line during shutdown of both the units.

MPL informed that the required data had been submitted to ERLDC.

The status of Adhunik units could not be updated as they were not available in the meeting.

#### PART C:: OPERATIONAL PLANNING

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

The shutdown permission on Raigarh – Sundergarh 400 KV PGCIL circuit 1 was allowed to Ind Barath Energy Utkal Ltd.) on 22<sup>nd</sup> May 2014 (MOM of OCC of ERPC dated 15.05.2014 vide item No. D 3/9) but differed as per request of IBEUL. Now IBEUL is ready for charging the line for which S/D request on and from 20<sup>th</sup> of July has been placed.

Members may finalize the shutdown proposal.

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

OCC approved the above shutdown subjected to NLDC consent.

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

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

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

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

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of Aug'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 Aug, 2014 after incorporating constituents' observations is given at **Annexure-C.2**.

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

Generating Station	UNIT NO	CAP(MW)	DATE	REASONS FOR OUTAGE	Date of restoration
STERLITE	2	600	08.06.14	TURBINE VIBRATION	
MEJIA	3	210	15.06.14	HYDROGEN LEAKAGE	
MEJIA	4	210	21.06.14	LOW DEMAND	
MEJIA	7	500	23.06.14	COAL SHORTAGE	
BOKARO B	1	210	24.06.14	TUBE LEAKAGE	
MEJIA	1	210	29.05.14	LOW DEMAND	
KODARMA	1	500	01.03.14	ASH POND PROBLEM	
KODARMA	2	500	05.07.14	BOTTOM ASH PROBLEM	
BANDEL	5	210	16.11.13	R&M	
KOLAGHAT	6	210	27.06.14	OVERHAULING	
KAHALGAON	2	210	20.06.14	OVERHAULING	
KAHALGAON	6	500	05.07.14	WET COAL QUALITY	
ADHUNIK	2	270	03.07.14	FLAME FAILURE	
FSTPP	5	500	10.07.14	AVR PROBLEM	

#### (i) Generating units:

#### (ii) Transmission elements

Name of the Line/Element	Outage Date	Reason	Date of restoration
220 KV JEERAT - SATGACHIA D/C 220 KV MENDHASAL -	15.06.10 12.10.13	DUE TO LAND SLIDE OF GANGES TOWER COLLAPSE	
NARENDRAPUR - II 400/220 KV,315 MVA ICT - I AT BIDHANNAGAR	18.01.14	FAILURE OF R PHASE BUSHING,HV SIDE.	
400 KV RANCHI - NEW RANCHI - I &	05.05.14	S/D AVAILED BY POWERGRD FOR TOWER SHIFTING WORKS	
765 KV GAYA-FATEHPUR	31.05.14	15 Nos tower collapsed between LOC no. 305 to 330	
400 KV STERLITE-RAIGARH -I	08.06.14	400 KV ROURKELLA-RAIGARH CKT MADE AVAILABLE BY PASSING LILLO AT	
400 KV ROURKELLA-STERLITE-I	08.06.14	STERLITE	
400 KV MAITHON-MEJIA-D/C	11.06.14	TOWER LOC NO 93 TWISTED.	

Members may update.

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

Members updated the latest status.

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

- 1. 400kV Angul-JITPL-II first time charged from Angul end only at 18:39hrs on 02.06.14.
- 2. 315 MVA, 400/220kV ICT-III first time charged on no load at Rangpo from 400kV side at 17:50hrs on 06.06.14.
- 3. 400kV Angul-Talcher first time charged at 20:30hrs on 08.06.14.
- 4. 400kV Angul-Meramundali-II first time charged at 18:10hrs on 10.06.14.
- 5. 100 MVA 220/132kV ICT-III at Rangpo first time charged on no load at 19:02 hrs on 11.06.14 and have been put under commercial operation from 00:00hrs of 13.06.14.
- 6. 315 MVA 400/220/33kV ICT-II at RTPS (DVC) first time charged on no load from 400 kV side at 15:46hrs on 27.06.14.
- 7. 315 MVA 400/220/33kV ICT-I at RTPS (DVC) first time charged on no load from 400 kV side at 16:19hrs on 27.06.14.
- 8. 315 MVA, 400/220/132kV ICT-II first time charged on no load at Rangpo at 18:35hrs on 28.06.14

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 noted.

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

#### New generating units:

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

#### New transmission elements:

SI No.	Name of Element	Expected date
1	400 kV Maithon-Gaya D/C	
2	400 kV Gaya-Koderma D/C	
3	400kV Sasaram-Daltonganj D/C & Daltonganj S/Stn	
4	400 kV Ranchi-Raghunathpur D/C	
5	400 kV Meramandali-Dubri D/C	
6	400 kV Corporate- Ranchi D/C	
7	400 kV IB-Meramandali D/C	
8	220 kV TLDP-IV – NJP ckt-2	2014
9	220 kV Jeerat-Rishra D/C	
10	220 kV Latehar-Daltonganj D/C	
11	220 kV Lohardaga-Lathehar D/C	
12	220 kV Bidhansai-Cuttack D/C	June,2014
13	220 kV Girdih-Koderma D/C	Sep, 2014

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 June'14

System frequency touched a minimum of 49.32 Hz in June'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 June, 2014.

Sl no	Disturbance Place	Date & Time	Generation loss (MW)	Load loss (MW)	Remark	Category
1	OPTCL (Jaynagar), ER-II (Jeypore)	07/06/14 at 19:28hrs,19:3 0hrs,19:44hrs and 19:49hrs	0	0	Various 220kV & 400kV lines tripped from Jaynagar & Jeypore on transient E/F due to inclement weather condition.	GD-1
2	DVC (Kalyaneswari)	12/06/14 at 17:10 Hrs	200	300	Total power failure occurred at Kalyaneswari S/s due to bursting of Y-Ø Bus Tie CT.	GD-1
3	BSHPCL (Biharshariff (BSEB), Fatuah	26/06/14 at 15:03hrs	0	388	Total power failure occurred at 220kV Biharsariff (BSEB) S/s while closing 220kV Biharsariff-Tenughat line. All the three 400/220kV ICTs at Biharsariff (PG) also tripped	GD-1

Members may note.

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

Members noted.

#### Item no. D.3: Any other items

#### Item no. D.3.1: COMMISSIONING OF 2 X 63MVAR LINE REACTOR CONNECTED IN 400KV KISHENGANJ D/C LINE AT PATNA SUB-STATION AS BUS REACTOR:

The voltage of 400kV Patna substation remains high in the range of 418 -422kV. Further, the two nos. 50 MVAR line reactors connected in 400kV Patna- Barh Ckt-I & II at Patna sub-station are going to be dismantled and shifted to Balia shortly. This will further worsen the voltage profile at Patna substation. At Patna sub-station, the bays for 400kV Patna –Kishenganj D/C line with the 63 MVAR line reactors are going to be ready in the Month of August, 2014. Till the 400kV Patna-Kishenganj D/C line is ready, to control the voltage at Patna substation, it is proposed to connect the 63 MVAR line reactors of Kishenganj D/C line at Patna sub-station as bus reactors.

Members may kindly discuss.

#### Deliberation in the meeting

ERLDC agreed for the proposal of Powergrid for operational purpose.

BSPTCL informed that the prior to the connection a communication should be given to SLDC/CE (Trans), BSPTCL.

#### Item no. D.3.2: Un-anticipated event of opening of Rangpo Breaker at 132 kV Rangpo (PG) S/s

Chuzachen brought into the attention regarding the unanticipated event of the opening of Rangpo end Breaker at the 132kV PGCIL Rangpo sub-station occurred on 15/07/2014 at 05:07 Hrs causing local system disturbance in the Sikkim system. They acknowledged and appreciated for the prompt response received from PGCIL for restoring the system to normalcy during the odd morning hours, when all efforts of communication from Chuzachen & ERLDC side was not effective. The system was restored to normalcy at 07:01 hours subsequently. Additionally, Chuzachen placed the following:

- Since commissioning of 132/220/400kV Rangpo substation in March-April, 2014, it is observed that, unanticipated breaker opening of the Chuzachen Bay at 132 kV PGCIL Rangpo substation is happening, causing tripping of Chuzachen units on activation of SPS & localised system disturbance in Sikkim system.
- During each of these events, it is observed that, Rangpo Control Room Operators do not even notice the breaker opening event because of non receipt of any alarm or any relay indication flag at their end till they are informed by Chuzachen Operation group about the NO POWER FLOW status in 132kV Chuzachen Rangpo feeder.
- Additionally, the Rangpo sub-station Operators becomes incommunicado with Chuzachen after receipt of information & even ERLDC Control Room had been unsuccessful in establishing communication with the Rangpo Control Room during this period till arrival of competent engineers for restoration at least 2-3 hours later.

# In view of grid security of the sensitive Sikkim system and negative commercial implication on Chuzachen generation, PGCIL is requested to:

- 1. Rectify the technical defects of the Incoming breaker of 132kV GIS Chuzachen -Rangpo Breaker at Rangpo end **on top priority**.
- 2. Arrange presence of GIS competent engineers 24 x 7 over and above the technician level operators to avoid any communication gap between Chuzachen -Rangpo Control Room as well as ERLDC.

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

Powergrid informed that their technical team is looking after the defects of Rangpo end Breaker and it will be resolved at the earliest.

Powergrid also informed that the shift engineers are available 24x7 at Rangpo Sub-station but there was communication gap on that particular day because of non-availability of contact details at Chuzachen and ERLDC end.

OCC advised Powergrid to share the contact details of Rangpo S/s and resolve the CB problem of 132 kV Chuzachen-Rangpo at Rangpo.

Meeting ended with vote of thanks to the chair.

MEXUSE-A

### Participants in 99th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 18.07.14 (Friday)

Sl	Name	Designation	Organization	Contact	Email	Signature	
No	0			Number			
1	A. K. Bandy Smells	nusile	ERPE	9433068533	mserpe-power @nic.in	Accenti	
2	UK. Verma	GM	ERLDC	\$902496220	Givelkins nonce	Mame.	
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4	P.S.Dap	ChMm	GRIDI	9433041832	padas pod @	A	
5	S.R. SINGH	DGm(os)	Power (pro)	9434740009	prostospips @ get		~
6	B.N.De Bhowmick	GM (7D)	POWERGRID	9910377993	barin@ponergne	ANNA	
7	V.S. Jata	GH (OCM)	POWERGRID	9437575231	GMAIL.LOY	वर्जे दिप	
8	B. Pan	CE(SLDC)	DVC	9903247102	opom. dvc. @ gwarl. Com	Brm	
9	A.K. TIWARY	GM(03)	NTPC ER-1 HA	9431600703	aktiwang@_ ntpc. co. in	the.	
10	C. Challombat	GM (open	NTR/ISTRS	943756528	changlanchattent	to c. cent	~
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19	N. Mandal	AGM(E)	Gabi	8016082299	niladri marad Ogaliinfra.com		114
20	leijay kumar .g	Sr. Engineer (PS)	JITPL, Derang	9583040	ji+plodisha @gmel.Gn	100im	

### Participants in 99th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 18.07.14 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
21	RAHUL CHAREPOO	an DGW	Con	98 310 Seb K		Rhot
22	A.K. MOHANITY	Mounger (E)	OTHPC	9437657956		All
23	Madhusudan Sahao	Ahm Celect	GRIDCO	9692427876	gridesebe Egmail	M-S:Seho
24	PRASHANT KUMAR DAS	D G M (Elear)	SLDG BBSE	9438907408	Prashantik-das @yanoo-co.in	B
25	M.R. Mohanty	Sr. G.M(M)	SLDC. alight	94389073110	nerne besty 113 @	fleesty
26	A. Bimas	C.E., SLDC	WBSETCL	9434910030	amitout biswas 22 @ gmail . Com	
27	D.S. NAG	DGH, KTPS WOPDCL	WASPOCL	8336903888	dsnage word eL.co.i	During
28	Buj Mohan	BSPTCL, A. Ex. E	BSPTCL	7032091456	bms282 Gyalas in	Byrucha
29	P. Kuman	BSPTC2 ESE/SIDE	BSPTCL	7763817742	pralihattirouz	BAL
30	Subhard Mish	GM/CE Francis	JUSTAL	9421717313	Sulhad, 50g mish @ gmail.ca	-
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32	Rojendra Praimd	A.Ex.E.	TVNL	9470383346	r. P. Etfs @ gmail. (om	Rey Jusey
33	B. SARKHEL	SE(PS)	ERR	9433065724	_	Sound
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38	R.K.MANDAL	D'GM (BEMG	KAHALGAON	9431600132	nonanolal a	Nr.
39	R.V. Patnaix	AGM (05)	NTPC ER-I - BBSR	9438233243	supatnaixe ntpr. co. in	Me
40	Y. Kishen	AMÈ	NTPC Kabalge	947319669		··VS

### Participants in 99th OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 18.07.14 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
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43	Rijeh Subba	Ass. Eginati	DGPC, CHP	77207251	rukensbb@jonalia	129-11
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48	R.h. Tonas	SEE	MBL	9 2e48536	2 sajew & by	on Per-
49	A. K. Navali	Sr. Mapor.	MPL	920 495 8570	Noysihand fata Perm . an	Alle
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54	Preetom Bourja	DE	WOSEDUL	9432140 765	preeban72 @gmail.com	18-E
55	Ram proval Maried	SE	WBSETCL	9434910270	mandal rampra sade gmilius	BY
56	Sudip Gowani	Add. C.E.	WISSETLL	9434910037	Sidj. Jaca ( Woodd. la	Sidip Griffig.
57	C.K.Haldar	SE	WB-SLDC WBSETCL	9432209503		Dalday
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59	D. K. Baumi	6E(0)	ERPC	9883617236	coop, experigrau.h	Del
60	S. P. Datta.	AGM(NTPC)	ERPC	94330	spotatta 1	

### Participants in 99<sup>th</sup> OCC Meeting

Venue: ERPC Conference Room

Time: 11:00 hrs

Date: 18.07.14 (Friday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
61	G. Rao	ARE	ERR	95478913	eseb-lea@. Yahoo-com.	Carroda
62	S.KEJRINAL P. R. DE	E.E.	ERPC			Ang
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#### 1. Rescheduling of planned maintenance shutdown of Central Sector (CS) Thermal/Gas units

Region	Central Sector units orig maintenance dur	, j	Central Sector unit maintenance durir	Remarks	
	Number	MW	Number	MW	
ER	15	4740	6	1880	

For details refer Annexure-I

#### 2. Status of hydro reservoirs

Region	Total number of Reservoirs	Number of Reservoirs whose level is higher than last year	Number of Reservoirs whose level is less than last year	Remarks
ER	6	6	0	

For details refer Annexure-II

#### 3. Coal stock position at coal based thermal power stations of NTPC & DVC

Region	Total number of CS coal based stations	Number of stations where coal available for 15 days or more	Number of stations where coal stock critical (leass than 7 days)	Number of stations where coal stock super critical (leass than 4 days)	Remarks
ER	9				Critical/Super Critica

Possibilities of transferring coal from stations of NTPC of ER to other NTPC stations of other regions were at this moment found not feasible.

#### 4. Progress of construction of transmission lines critical for greater inter-regional exchanges

		No. C	No. Of critical transmission lines				
	No. Of identified critical		Likely to be				
	transmission lines under	Subsequently	commissioned in the	Awaiting for various			
Region	construction as on 1.5.14	commissioned	current month	clearances	Remarks		
ER	2						

For details refer Annexure-III

#### Annexure-I

SYSTEM	POWER STATION	Unit NO.	Effective Capacity (MW)	Scheduled Maintenance Programme	Revised Maintenance Programme	Remarks
	CTPS	Unit No. 3	130	11.07.2014 to 26.07.2014	Already completed	
	BTPS (B)	Unit No 1	210	16.08.2014 to 05.09.2014	16.08.2014 to 05.09.2014	Two units operation will be continued
DVC	Mejia TPS	Unit No 4	210	25.08.2014 to14.09.2014	25.08.2014 to14.09.2014	Numbers of units will be there for maintaing generation.
	megia 115	Unit No 6	250	21.09.2014 to 06.10.2014	Deferred	
		Unit No 7	500	15.07.2014 to 09.08.2014	Already completed	
		Unit No 2	60	20.08.2014 to 03.09.2014	Will be reviewed in Aug,2014	
	TTPS FSTPS	Unit No 3	60	06.09.2014 to 20.09.2014	OCC	
		Unit No 5			25.06.2014 to 16.07.2014	
		Unit No 6	110	20.07.2014 to 18.08.2014	10.07.2014 to 08.08.2014	
		Unit No 5	500	14.07.2014 to 11.09.2014	31.07.2014 to 04.09.2014	Allowed to attend unaviodable Turbine vibration
	KhSTPP Stg-I	Unit No 2	210	15.06.2014 to 14.07.2014	20.06.2014 to 10.07.2014	Other units should be in operation
NTPC		Unit No 5	500	19.08.2014 to 13.09.2014	Deferred to Oct/Nov, 2014	
	KhSTPP Stg-II	Unit No 7	500	15.07.2014 to 08.08.2014	19.07.2014 to 12.08.2014	There is coal shortage. As Unit is running with vaccum problem, S/D was allowed.
	TSTPP Stg-I	Unit No 2	500	01.08.2014 to 14.09.2014	01.08.2014 to 14.09.2014	Allowed for PCB clearance for boiler licence & because of foreign expert tied up
	TSTPP Stg-II	Unit No 5	500	19.07.2014 to 17.08.2014	ER proposed for deferrement	SR Cleared.
	15111 Stg-II	Unit No 6	500	15.06.2014 to 14.07.2014	Already cleared & under Shutdown.	

During shutdown of Talcher units & considering network situations and status of monsoon, further reviewing will be done in OCC forum for evacution of supress generation if any.

### Annexure-II

	Rese	rvoir Lev	<b>el</b>							
SI. No.	Name of Station	FRL	MDDL	07-06-2013	07-06-2014	06-06-2013	06-06-2014	31-05-2013	31-05-2014	12-06-2014
1	Burla	630 ft	590 ft	595.89	604.73	596.62	605.10	598.33	606.71	603.08
2	Balimela	1516 ft	1440 ft	N.A.	1487.40	N.A.	1487.60	1482.20	1487.90	1486.40
3	Rengali	123 mt	109 mt	109.91	114.24	110.01	114.45	111.70	115.41	113.24
4	U.Kolab	858 mt	844 mt	849.16	849.25	849.26	849.38	849.88	849.79	848.63
5	U.Indravati	641 mt	625 mt	628.00	629.44	628.10	629.63	628.70	630.52	628.60
6	Machkund	2750 ft	2685 ft	2709.00	-	2709.20	2725.60	2711.20	2727.00	

Detail Plan of Odisha for contingency is given at Annexure B.1a

Annexure-III

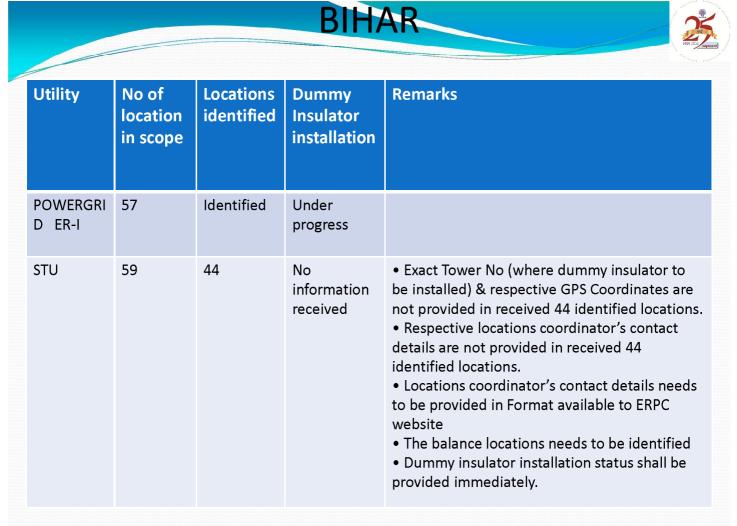
SI. No.	Name of the line	COD
1	220 kV Balimela-Upper Sileru line	Already in charged condition
2	765 kV Dharamjaygarh-Jharsuguda D/C line	July, 2014
3	765 kV Angul-Jharsuguda D/C line	December, 2014

Shutdown of all major Transmission lines of CTU will be cleared in monthly OCC meetings depending upon the status of Monsoon.

220 kV Balimela- U. Sileru ideally charged from U.Sileru end wef 12.06.14.

Operational and Commercial modalities between Odisha and Andhra Pradesh are in the process of finalization.

Annexure-B.19



	-		
JHA			
		TA	



Utility	No of location in scope	Locations identified	Dummy Insulator installation	Remarks
POWER GRID ER-I	39	Identified	Under progress	• Exact Tower No(where dummy insulator to be installed or installed ) & respective GPS Coordinates yet to be received
STU	66	21	No information received	•Out of 66 grids locations details (total 21nos) given for 7 grids only. Hence 14 locations are not to be considered in 66 locations. Effective 7 locations only identified. Balanced (66-7=59) locations still need to be identified.

WEST	DLV	
VVE S F	KEN	
VVL31		



Utility	No of location in scope	Locations identified	Dummy Insulator installation	Remarks
POWERG RID ER-II	40	Identified	Under progress	
STU	74	28	No information received	<ul> <li>GPS coordinate for one of location ( Katwa-Gokarna 132KV line ) out of 28 no of location found outside the west Bengal</li> <li>The balance locations needs to be identified</li> <li>Dummy insulator installation status shall be provided immediately.</li> </ul>

		ODISH	A		
n	Locations identified	Dummy Insulator	Remarks		

Utility

No of

	location in scope	identified	Insulator installation	
POWER GRID ER-II	43	Identified	Under progress	
STU	164	0	No information received	<ul> <li>No data has been received till now.</li> <li>Location needs to be identified</li> <li>immediately. And dummy insulator</li> <li>installation to be carried out immediately.</li> </ul>

SIKKIM						
Utility	No of location in scope	Locations identified	Dummy Insulator installation	Remarks		
POWERG RID ER- II	3	Identified	Under progress			
STU	6	0	No information received	<ul> <li>Details of Coordinator for Sikkim State are not known and needs to be provided.</li> <li>Data from 6 No's of location needs to be provided. And dummy insulator installation to be carried out immediately.</li> </ul>		

# Latest status on non-availability of SCADA data

The latest status as updated in the 99<sup>th</sup> OCC meeting is as given below:

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

SL no	Name of Utility	kV	Name of station	Reason reporting	for	not	Latest status
1	DVC	220	CTPS–B (2 x 250 MW)	Except GT flow, no data			DVC/Powegrid informed that procurement of RTU is in progress.

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

SL no	Name of Utility	KV	Name of station	Reason for non reporting	Latest status
1	NTPC	400	Farakka: (3x200+2x500MW)		NTPC agreed to make available these data by July, 2014.
2	OPTCL	220	Vedanta (9x135 MW)	No status points are available.	CB Status point Rectified. Isolators status and KV /HZ meausrands yet to be rectified.

iii) The List of RTU supplied under BSEB, data is faulty/ intermittent:

S/n	Name of RTU locations	Latest status
1	Jakkanpur, Khagaul RTU, Dumraon, Karmnasha, Sitamarhi, , Purnea & Koshi	Now, All RTUs are communicating. Intermittency of GPRS related issue has been taken up with Airtel.
2	Hathidah, Lakhisarai & Darbhanga	Hathidah & Lakhisarai is now reporting. Due to re-conductoring work in Darbhanga- Samastipur T/L, Darbhanga is not reporting temporarily.
3	Samastipur	Now reporting.
4	BTPS	RTU dismantled. Renovation/overhauling work is going on. SAS is expected to be operational by the end of October, 2014.
5	Begusarai, Rajgir and Hajipur 220 kV	Begusarai & Rajgir is reporting
6	Jagdishpur, Sipara, Madhepura	RTU has been supplied by PGCIL under Sub-transmission project of Bihar but commissioning is left out. Powergrid has committed for its commissioning in the last meeting held at Patna on 30.06.14
7	Siwan, Valmikinagar, Gopalganj, Darbhanga, Kisanganj and Arrah	RTU along with communication has been included in the scope of work of Powergrid under up gradation/ replacement scheme of ULDC. It was scheduled to be completed by June end.

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

S/n	Name of RTU Locations	Latest status
1	Ramchadrapur RTU, Jamtara RTU, Deoghar RTU, Garwarah RTU, Patartu RTU, Tenughat RTU, Goelkera, Jaduguda, Kendposhi, Rajkharswan, Subarnrekha	the OPGW link on

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

S/n	Name of RTU Locations	Latest status
1	Nalco	OPTCL informed that work will be completed by Oct' 14.

### vi) Non Availability of SCADA data from critical sub-stations

New IPP ( Complete data failure )

- I. Chuzachen HPS: Data reporting.
   (PLCC link intermittent between Chuzachen Rangpo Gangtok.)
- II. Maithon Right Bank Power Ltd.: Restored.(Equipment problem.)
- III. SEL.: Restored. ( Equipment problem .)
- IV. JITPL (Angul): Restored. ( Data Restored on 26/05/14. )

### vii) RTU telemetry provided but data are intermittent / new element not wired .

- I. Sagardighi TPS : ( Data Restored on 26/05/14. )
- II. NHPC Teesta: Restored.
   (PLCC link intermittent between Teesta Rangpo Binaguri.)
- III. NHPC Rangit : No measurands are available for Gangtok 132 KV feeder in Rangit RTU (Feeders not wired with existing RTU. Action : Powergrid.)

Powergrid informed that work is in progress. OCC advised to finish the same by 31<sup>st</sup> July, 2014. Powergrid agreed.

IV. Sasaram 765 KV: Restored.
 ( Communication Links between Biharshariff – Sasaram are intermittent. )

- V. Ranchi 765 KV : Restored. PLCC Communication Links between – Ranchi ( Namkum) – Ranchi ( Beru) are intermittent.
- VI. Lalmatia JSEB: MW / MVAR/ OLTC tap of 220/132 KV ICT –II not available.
  Feeders not wired with Lalmatia RTU of NTPC . Bay own by JSEB (JUSNL). Action : JSEB (JUSNL).

OCC advised to finish the same by 31<sup>st</sup> July, 2014.

VII. Mendhasal: 400 KV Baripda 1 & 2 line flow and Reactors data, Tap position of both 400 ICTs not available since charging of bays.
 Feeders not wired with Mendhasal RTU of OPTCL. Action : OPTCL

OPTCL informed that work is in progress and data will be made available soon.

- VIII. JSL (Meramundali -400): Most of the data not available .JSL is not entertaining, OCC advised to take up in next TCC/ERPC.
  - IX. Jhasurguda 400: Data reporting is highly intermittent.
     Intermittent PLCC communication link between Jharsuguda Rourkela . Also GPRS data reporting very poor.

Powergrid informed that work is in progress. OCC advised to finish the same by 31<sup>st</sup> July, 2014.

- X. Angul 400: Restored. PLCC communication Link problem between Angul – Bolangir.
- XI. Bolangir 400 : **Restored.** Communication Link problem between ERLDC – Baolangir.
- XII. DVC :

(Old RTU not working .New RTU not commissioned Action : DVC .)

- Ramgarh : Communication pending.- by Aug'14
- Putki: work in progress
- > Patherdiah
- ➢ Kalipahari

DVC informed that, CTU has to take appropriate action as these are under priority list RTU.

## viii) Sub - Stations (765 & 400 kV) Telemetry not provided :

I. Bidhan Nagar 400 (WB): Data integrated. **RTU not commissioned** 

II. Khargpur 400 (WB): Data integrated **RTU not provided for data telemetry.** 

#### ix) Sub - Stations (220 & 132 kV) Telemetry not provided :

- I. OPTCL:
  - BPSL data not available.
    - ( Data started reporting since 26<sup>th</sup> May 2014 )
- II. WBSETCL

### (RTU not provided for data telemetry, Action : WBSETCL )

- Subhasgram: Data integrated.
- New Bishnupur: Data integrated.
- ➢ New Town: Data integrated.
- > Bantala: RTU reached at site. Commissioning work will start soon.
- ➤ Krishna Nagar: RTU will reach at site soon.
- ➤ Kalingpong: RTU will reach at site soon.
- ➤ Karseong: RTU reached at site commissioning will start soon.
- ➤ CESC S/s: EM 220 kV
- CESC S/s :Kasba-132 kV, EM-132 kV Jadavpur, Chakmir, Majerhat and CESC Belur.

# WBSETCL informed that work will be completed by 15<sup>th</sup> August, 2014.

III. DVC

### (RTU not provided for data telemetry, Action : DVC.)

- Burnpur: Work in Progress
- Dhanbad : Work in progress
- > Chandil (Manique): RTU commissioned, yet to be integrated.
- IV. JSEB

### (RTU not provided for data telemetry, Action : JSEB.)

- ➢ Hatia New
- Manique (Chandil)
- ➢ Japla

# **Eastern Regional Power Committee**

# Minutes of Special Meeting on "Optimization of GT tap position" held on 27.06.14 at ERPC, Kolkata

List of participants is at **Annexure-A.** Member Secretary I/c, ERPC welcomed all the participants to this meeting. In the meeting a brief presentation was given by ERPC for Reactive power and Voltage control and followed by detailed presentation by ERLC on the issue. Detailed deliberations were held and following are recorded:

- 1. Maintaining grid voltage within permissible limits is the responsibility of all the utilities including grid operator.
- 2. Generators ensured participation in Reactive Power management within capability curve.
- 3. Maximum-minimum limit of Tap changing of GT as per grid standards of CEA were ascertained for concerned generators.
- 4. Maintenance of Grid Voltage within limit as per CEA grid Standards is ensured.
- 5. In case Grid voltage goes beyond a level at which synchronization of unit becomes impossible even with tap-changing, concerned generators then could contact ERLDC before synchronizing their units so that appropriate action could be taken to reduce the grid voltage by other methods like opening of lightly loaded long transmission lines etc.
- 6. Adhunik, Mejia and MPL were requested to increase one tap position as given below:

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

Adhunik, Mejia and DSTPS agreed.

7. On DSTPS, DVC informed that, to ensure the voltage profile of DSTPS within the limits for their synchronization of units, the improvement of voltage profile will be checked first by opening 400 kV DSTPS-Jamshedpur line during shutdown of the units.

- 8. Because of non-availability of MPL SCADA data, analysis of its performance on Reactive Power management was not possible and therefore decision on Tap changing was withheld. MPL was requested to submit MW, MVAr, voltage data of both HV and LV side of GT/Generator terminal for the past months and GT tap details for analysis, so that decision on the required tap position could be decided in next OCC. MPL agreed to provide the required data to ERLDC.
- 9. Generating utilities felt that VAR absorption on continuous basis (which is leading pf operation) is not desirable as per the various technical references and expressed that other possibilities to reduce the voltage levels need to be explored.
- 10. It was informed that, 2x125 MVAR switchable bus reactors at 400 kV Jamshedpur are already approved in standing committee and Powergrid is on job.
- 11. DVC informed that, they are also installing one ICT each at Mejia and DSTPS and the work is in progress.
- 12. It was felt that the commissioning of these reactors & ICTs will be very helpful in reducing the voltage levels in and around Jamshedpur and also improve the voltage profile at in around Adhunik, Maithon and Jamshedpur.
- 13. Till commission of the elements mentioned in item 11 & 12 all nearby generators (DSTPS & Mejia of DVC, Adhunik & MPL) were advised to support the grid by absorbing the VAR to the maximum possible extents. All generating units agreed.

Meeting ended with vote of thanks to the chair.

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#### Annexure-C.1

Proposed Maintenance Programme of thermal units during Aug, 2014.

				8 8/		
SYSTEM	POWER STATION	Unit NO.	Effective Capacity	Maintenance Programme	Remarks	No.of Days
BSEB	MTPS	Unit No 1	110	15.08.2014 to 08.09.2014	Annual Overhauling	25
DVC	BTPS (B)	Unit No 1	210	16.08.2014 to 05.09.2014	AOH	20
	Mejia TPS	Unit No 4	210	25.08.2014 to14.09.2014	AOH	20
SEL		Unit No.2	600	01.08.2014 to 30.092014	Annual Overhaul	61

#### EASTERN REGIONAL LOAD DESPATCH CENTRE KOLKATA

#### TRANSMISSION ELEMENTS OUTAGE APPROVED IN 99TH OCC MEETING OF ERPC

	S/D APPROVED IN OCC								
Sr. No	NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S/D availed BY	Reason	SUBJECT TO CONSENT FROM AGENCY
1	220 KV D/C BTPS - JAMSHEDPUR (DVC) & 220 KV D/C BTPS - RAMGARH (DVC )	20-07-2014	08:00	21-07-2014	18:00	ODB	ER-I	FOR STRINGING WORK OF 400 KV D/C BOKARO - KODERMA TL AT LOC.88/0- 89/0.	DVC
2	400 KV PTN - BALIA- 2	20-07-2014	07:00	31-08-2014	18:00	ODB	ER-I	FOR INSTALLATION OF OPGW WORK. S/D IS REQUIRED FOR ENSURING SAFE WORKING CONDITION DUE TO RAINY SEASON.	NLDC
3	A/R OF 400 KV KHLG - BANKA - 2	20-07-2014	07:00	30-08-2014	18:00	ODB	ER-I	FOR INSTALLATION OF OPGW WORK.	NLDC/ After completion of Gaya pemanent arrangement
4	765 KV GAYA - FATEHPUR	20-07-2014	07:00	10-08-2014	18:00	ODB	ER-I	FOR INSTALLATION OF OPGW WORK IN GAYA - SSRM SECTION.	NLDC/ After completion of Gaya pemanent arrangement
5	220 KV S/C RAMCHANDRAPUR - JODA LINE	20-07-2014	09:00	20-07-2014	15:00	ODB	ER-I	ERECTION OF GANTRY BEAM IN CHAIBASA S/S( THE SAID LINE IS CROSSING S/S SITE).	OPTCL
6	400KV Berhampore-Farakka Line	20-07-2014	10:00	20-07-2014	14:00	ODB	ER-II	Replacement of Pad connector of Line Isolator (89 L, B phase)	NLDC/WBSETCL
7	400kV Maithon Koderma ckt-2	21-07-2014	08:00	22-07-2014	18:00	OCB	POWERGRID	Permanent shutdown of the said circuit will be taken, On restoration, Line will be charged as Gaya-Maithon Ckt-2 on its designated DIA	NLDC
В	400kV Maithon Koderma ckt-2	21-07-2014	08:00	22-07-2014	18:00	OCB	POWERGRID	Permanent shutdown of the said circuit will be taken, On restoration, Line will be charged as Gaya-Koderma Ckt-2 terminated in the DIA of Maithon-1 at GAYA	NLDC
9	220 KV KANIHA - RENGALI	21-07-2014	09:00	22-07-2014	18:00	OCB	NTPC	RELAY RETROFITTING WORK	OPTCL
10	400 KV BINAGURI - BONGAIGAON - D/C	21-07-2014	07:00	22-07-2014	17:00	ODB	ENICL/NER	CONSTRUCTION OF BINAGURI - BONGAIGAON - D/C	
11	A/R 132 KV RANGIT 0 GANGTOK	21-07-2014	09:00	20-08-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	SIKKIM
12	A/R 400 KV BINAGURI - TEESTA	21-07-2014	09:00	20-08-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	
13	A/R 400 KV BOLANGIR - ANUGUL	21-07-2014	09:00	20-08-2014	17:00	ODB	ER-II	OPGW STRINGING WORK	
14	220 KV RANCHI - HATIA - II	22-07-2014	09:30	22-07-2014	17:30	ODB	ER-I	FOR ATTENDING LINE ISOLATOR ALIGNMENT AT PG/RNC END	JHARKHANDA
15	132 KV D/C KONAR - HAZARIBAG ROAD (DVC)	22-07-2014	08:00	23-07-2014	18:00	ODB	ER-I	FOR STRINGING WORK OF 400 KV D/C BOKARO - KODERMA TL AT LOC.44/0- 44A/0.	DVC
16	132 KV D/C BTPS - KONAR -BARHI (DVC)	22-07-2014	08:00	23-07-2014	18:00	ODB	ER-I	FOR STRINGING WORK OF 400 KV D/C BOKARO - KODERMA TL AT LOC.94/0- 95/0.	DVC
17	132 KV S/C SIWAN - MASRAKH T/L (BSPTCL)	22-07-2014	08:00	23-07-2014	18:00	ODB	ER-I	FOR POWERLINE CROSSING OF 800 KV HVDC LINE & 400 KV BARH - GORAKHPUR LINE.	BIHAR
18	400 KV JSR - RKL - I	22-07-2014	09:00	22-07-2014	15:00	ODB	ER-I	TO MAKE LILO OF 400 KV JSR - RKL - I THROUGH UP TO SUBSTATION (CHAIBASA) GANTRY	
19	220 KV D/C BTPS - CTPS (DVC)	23-07-2014	08:00	24-07-2014	18:00	ODB	ER-I	FOR STRINGING WORK OF 400 KV D/C BOKARO - KODERMA TL AT LOC.91/0- 92/0.	DVC
20	400kV Biharsharif-Gaya	23-07-2014	08:00	25-07-2014	18:00	ОСВ	POWERGRID	Permanent shutdown of the said circuit will be taken, On restoration, Line will be charged as Sasaram-Biharsharif Ckt-4	NLDC
21	400kV Biharsharif-Gaya	23-07-2014	08:00	01-08-2014	18:00	OCB	POWERGRID	Permanent shutdown of the said circuit will be taken, On restoration, Line will be charged as 765kV Gaya-Ballia. This will involve removal from ERS at GAYA end and interchange of GAYA-BALLIA with Sasaram-Biharsharif D/C	NLDC
22	400kV Sasaram-Ballia	23-07-2014	08:00	25-07-2014	18:00	ОСВ	POWERGRID	Permanent shutdown of the said circuit will be taken. On restoration, Line will be charged as Sasaram-Biharsharif Ckt-4	NLDC
23	400kV Sasaram-Ballia	23-07-2014	08:00	01-08-2014	18:00	осв	POWERGRID	Permanent shutdown of the said circuit will be taken, On restoration, Line will be charged as 765kV Gaya-Ballia. This will involve removal from ERS at GAYA end and interchange of GAYA-BALLIA with Sasaram-Biharsharif D/C	NLDC
24	400kV Biharsharif-Sasaram ckt-3	23-07-2014	08:00	26-07-2014	18:00	ODB	POWERGRID	Shutdown of the said circuit is required for charging of Biharsharif-Sasaram Ckt-4 and 765kV Gaya-Ballia Line	NLDC
25	132 KV BUDHIPADAR - TARKERA & 132 KV KUCHINDA - SAMBALPUR	23-07-2014	08:00	23-07-2014	17:00	ODB	ER-II	POWER-LINE CROSSING OF 765KV ANGUL-JSG LINE-I	OPTCL
26	132 KV S/C RAJKHARSWA - KENDUPOSI (JSEB)	24-07-2014	09:00	24-07-2014	17:00	ODB	ER-I	FOR POWERLINE CROSSING OF LILO OF JSR - RKL 2 AT LOC. 9/0 - 10/0	JHARKHANDA
27	220 KV KANIHA - TTPS	24-07-2014	09:00	25-07-2014	18:00	OCB	NTPC	RELAY RETROFITTING WORK	OPTCL
28	132 KV D/C KONAR - HAZARIBAG ROAD (DVC)	25-07-2014	08:00	26-07-2014	18:00	ODB	ER-I	FOR STRINGING WORK OF 400 KV D/C BOKARO - KODERMA TL AT LOC.51/0- 52/0.	DVC
29	132 KV BUDHIPADAR - SUNDERGARH	25-07-2014	08:00	25-07-2014	17:00	ODB	ER-II	POWER-LINE CROSSING OF 765KV ANGUL-JSG LINE-I	OPTCL
30	100 MVA ICT - III AT PURNEA	25-07-2014	08:00	09-09-2014	17:00	OCB	ER-I	REPLACEMENT WITH 160 MVA ICT	BIHAR

<b></b>	1			1	1	1		Shutdown of the said aircuit is required for charging of 76510/ Caus Pollis Line	1
31	400kV Biharsharif-Sasaram Ckt-4	26-07-2014	08:00	26-07-2014	18:00	ODB	POWERGRID	Shutdown of the said circuit is required for charging of 765kV Gaya-Ballia Line	NLDC
32		26-07-2014	08:00	28-07-2014	18:00	OCB	ER-I	For Lilo Work of 400 KV KHG - BSF - II at lakhisarai	NLDC
22	400 KV KAHALGAON - LAKHISARAI - II	26-07-2014	08:00	28-07-2014	18:00	OCB	FR-I		NIDC
33	400 KV RANCHI - NEWRANCHI - III & IV	26-07-2014	08:00	28-07-2014	18:00	ODB	ER-I	OPGW STRINGING WORK	NEDC
34								Dermanent shutdown of the said sizevit will be taken. On restoration, Line will be	
35	400kV Maithon-Koderma Ckt-1	27-07-2014	08:00	29-07-2014	18:00	OCB	POWERGRID	charged as Gaya-Maithon Ckt-1 on its own DIA	NLDC
36	400kV Maithon-Koderma Ckt-1	27-07-2014	08:00	28-07-2014	18:00	OCB	POWERGRID	Permanent shutdown of the said circuit will be taken, On restoration, Line will be charged as Gaya-Koderma Ckt-1 on its own DIA	NLDC
37	400kV Koderma-Gaya Ckt-2	27-07-2014	08:00	28-07-2014	18:00	OCB	POWERGRID	Shutdown of the line is required for sharping with original how of Kodorme 2 at	NLDC
20	220KV BUDHIPADAR - TARKERA - D/C	27-07-2014	08:00	27-07-2014	17:00	ODB	ER-II		OPTCL
30	400 KV JSR - ANDAL -II	28-07-2014	09:30	28-07-2014	13:30	ODB	ER-I		DVC
37								FOR STRINGING WORK OF 400 KU D/C ROKADO, KODERAA TI AT LOC (2/0	
40	132 KV D/C KONAR - HAZARIBAG ROAD (DVC)	28-07-2014	08:00	29-07-2014	18:00	ODB	ER-I	63/0.	DVC
41	220 KV KANIHA - MERAMUNSDALI - I	28-07-2014	09:00	29-07-2014	18:00	OCB	NTPC	RELAY RETROFITTING WORK	OPTCL
42	220 KV BUDHIPADAR - KORBA - III	28-07-2014	09:00	30-07-2014	18:00	ODB	WR	DIVERSSION OF 220 KV LINE FOR SE RAILWAY	
43	400KV RENGALI-INDRAVATI	30-07-2014	08:00	30-07-2014	18:00	ODB	ER-II	POWER-LINE CROSSING OF 765KV ANGUL-JSG LINE-I,AT LOCN 95/0-96/0	NLDC
44	765 KV 3*80 MVAR B/R -II AT NEW RANCHI	31-07-2014	08:00	02-08-2014	18:00	ODB	ER-I	ERECTION , TESTING AND COMMISSIONING WORK OF AUX. BUSES & SWITCHING SCHEME OF SPARE REACTOR.	NLDC
45	220 KV KANIHA - MERAMUNSDALI - II	31-07-2014	09:00	01-08-2014	18:00	OCB	NTPC	RELAY RETROFITTING WORK	OPTCL
46	Maithon Durgapur #1	31-07-2014	09:00	31-07-2014	17:00	ODB	ER-II	Line and Bay AMP	
47	400 KV D/C LILO OF ROURKELA - RAIGARH AT JHARSUGUDA		08:00	31-07-2014	17:00	ODB	ER-II	POWER-LINE CROSSING OF 765KV ANGUL-JSG LINE-I	NLDC
			+			1			
48	400KV MTN-KHG-I Line with LR	01-08-2014	09:00	01-08-2014	17:00	ODB	ER-II		NLDC
49	400 KV BSF - MUZ - I & II	01-08-2014	08:00	02-08-2014	18:00	ODB	ER-I	FOR POWERLINE CROSSING OF 400 KV BARH - GORAKHPUR LINE.	
50	132 KV D/C BTPS - KONAR (DVC)	01-08-2014	08:00	02-08-2014	18:00	ODB	ER-I	FOR STRINGING WORK OF 400 KV D/C BOKARO - KODERMA TL AT LOC.67/0- 68/0.	DVC
51	A/R OF 220 KV ARA - KHAGAUL D/C	01-08-2014	07:00	30-08-2014	18:00	ODB	ER-I	FOR INSTALLATION OF OPGW WORK.	BIHAR
52	A/R KEONJHAR - RENGALI	01-08-2014	09:00	31-08-2014	17:00	ODB	FR-II	OPGW STRINGING WORK	
						1	50.1	FOR ERECTION OF EQUIPMENTS IN MAIN BAY OF UPCOMING 400 KV KHLG -	
53	400 KV BUS - 2 AT LAKHISARAI	03-08-2014	09:00	03-08-2014	16:00	ODB	ER-I	LAKHISARAI - 2 AT LAKHISARAI.	
								PIR removal of main Bay CB .S/D required for crane movement. Line will be	
54	400KV MTN-RTPS(DVC)	03-08-2014	09:00	03-08-2014	17:00	ODB	ER-II		DVC
	· · ·							removal work	
		00.00.001.4	aa aa		10.00	000	<b>FD</b> 1	EOR STRINCING WORK OF 400 KV D/C POKARO - KODERMA TI AT LOC 02/0	01/0
55	132 KV D/C CHANDRAPURA - GOLA (L10-L11 OF DVC)	03-08-2014	08:00	04-08-2014	18:00	ODB	ER-I	93/0.	DVC
56	400 KV KTPP - JERAT	03-08-2014	05:00	03-08-2014	12:00	ODB	WBSETCL	MAINTENANCE WORK	
57	400 KV BARH - PATNA -3 & 4	04-08-2014	08:00	05-08-2014	18:00	ODB	ER-I	FOR POWERLINE CROSSING OF 400 KV BARH - GORAKHPUR LINE.	NLDC
58	315MVA ICT-II at maithon	04-08-2014	09:00	04-08-2014	17:00	ODB	ER-II	LA replacement work & 220KV CT Connector replacement work	DVC
59	400 KV JSR - ANDAL -I	04-08-2014	10:00	04-08-2014	12:00	ODB	ER-I	FOR MAINTENANCE OF LINE ISOLATOR AT JSR END.	DVC
60	400kv Fkk-Malda ckt-1	04-08-2014	09:00	04-08-2014	17:30	ODB	NTPC	PM & Relay Testing	NLDC
61	315 MVA ICT - 1 AT JERAT	04-08-2014	07:00	04-08-2014	15:00	ODB	WBSETCL	MAINTENÁNCE WÖRK	
62	765 KV 3*80 MVAR B/R -I AT NEW RANCHI	05-08-2014	08:00	12-08-2014	18:00	ODB	ER-I	ERECTION, TESTING AND COMMISSIONING WORK OF AUX. BUSES & SWITCHING SCHEME OF SPARE REACTOR.	NLDC
	132 KV BTPS - GOLA (DVC) &		1		1	1		EOD STRINCING WORK OF 400 KV D/C POKADO, KODEDMA TI AT LOC 90/0	
63	132 KV BTPS - GOMIA (DVC)	05-08-2014	08:00	06-08-2014	18:00	ODB	ER-I	90/0.	DVC
64	400KV ANGUL-BOLANGIR S/C LINE	05-08-2014	08:00	05-08-2014	18:00	ODB	ER-II	POWER LINE CROSSING OF 765KV ANGUL-JSG D/C LINE,AT LOCN 33/0-34/0	NLDC
65	765 KV NEWRANCHI - DHARAMJAYAGARH	05-08-2014	09:00	06-08-2014	18:00	ODB	WR	CONSTRUCTION OF 765 KV JHARSUGUDA - DHARAMJAYAGARH	
66	220KV MTN-DHN-I	06-08-2014	09:00	06-08-2014	17:00	ODB	ER-II	Y-PH CVT replacement	DVC
67	132 KV ARA - JAGDISHPUR (OF BSPTCL)	06-08-2014	10:00	06-08-2014	14:00	ODB	ER-I	FOR AMP WORKS	BIHAR
68	400kv Kh-Maithon ckt-2	06-08-2014	09:30	06-08-2014	17:30	ODB	NTPC	PM & Relay Testing.	NLDC
69	315 MVA ICT - II AT ARAMBAG	06-08-2014	07:00	06-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
70	132 KV ARA - ARA (MAINLY OF BSPTCL)	07-08-2014	10:00	07-08-2014	14:00	ODB	ER-I	FOR AMP WORKS	BIHAR
71	125 MVAR B/R - II AT PATNA	07-08-2014	10:00	09-08-2014	18:00	ODB	ER-I	FOR ERECTION OF KISHANGANJ - 1 BAY	
72	315 MVA ICT - II AT JERAT	07-08-2014	07:00	07-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
73	220 KV SILIGURI - DALKHOLA - D/C	07-08-2014	08:00	15-08-2014	17:00	OCB	ER-II	ERECTION OF NEW TOWER	
74	315MVA ICT-I at Maithon	08-08-2014	08:00	08-08-2014	12:00	ODB	ER-II	220KV Y& B-Ph Bushing inspection	DVC
75	220 KV BSF - TENUGHAT LINE	08-08-2014	08:00	09-08-2014	18:00	ODB	ER-I	FOR STRINGING WORK OF 400 KV D/C BOKARO - KODERMA TL AT LOC.58/0-59/0 & 76/0-77/0.	JHARKHANDA
76	315 MVA ICT - III AT ARAMBAG	08-08-2014	07:00	08-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
77	132 KV D/C SIWAN - GOPALGANJ T/L (BSPTCL)	09-08-2014	08:00	10-08-2014	18:00	ODB	ER-I	FOR POWERLINE CROSSING OF 400 KV BARH - GORAKHPUR LINE.	BIHAR
78	400 KV BAKRESWAR - ARAMBAG	10-08-2014	07:00	10-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
<u></u>						1.00			

79	400 KV PATNA - BARH - 1	11-08-2014	09:00	12-08-2014	19:00	ODB	ER-I	FOR DISMANTLING OF ITS LINE REACTOR AT PATNA	NLDC
00	400kv Bus Reactor-1 alongwith 400kv Fkk-Sagardighi Line	11-08-2014	07:00	11-08-2014	15:30	ODB	NTPC	PM & Relay Testing of Bus Reactor. Since main CB of Sagardighi line is not	NLDC
80	400kv Bus Reactor- Falongwith 400kv Fkk-sagai digni Line	11-06-2014	07:00	11-06-2014	15:30	ODB	NIPC	available, hence S/D of Sagardighi line is also required.	NEDC
81	400 KV RANCHI - ROURKELA -II	12-08-2014	09:00	12-08-2014	17:00	ODB	ER-I	FOR REPLACEMENT OF INSULATOR STRINGS AT DIFFERENT LOC. DAMAGED BY	
01								MISCREANT	
82	315 MVA ICT - IV AT ARAMBAG	12-08-2014	07:00	12-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
83	400 KV PATNA - BARH - 2	12-08-2014	09:00	13-08-2014	19:00	ODB	ER-I	FOR DISMANTLING OF ITS LINE REACTOR AT PATNA	NLDC
84	765/400 KV 3*500 MVA ICT - II AT NEW RANCHI	13-08-2014	08:00	16-08-2014	18:00	ODB	ER-I	ERECTION, TESTING AND COMMISSIONING WORK OF AUX. BUSES & SWITCHING SCHEME OF SPARE TRANSFORMER.	NLDC
85	400 KV JSR - RKL -II	13-08-2014	09:00	13-08-2014	15:00	ODB	ER-I	TO MAKE LILO OF 400 KV JSR - RKL - 2 THROUGH UP TO SUBSTATION GANTRY.	
86	315 MVA ICT - III AT JERAT	13-08-2014	07:00	13-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
87	400KV MTN-KHG-II Line with LR	14-08-2014	09:00	14-08-2014	17:00	ODB	ER-II	PRD inspection/leakge arrest/PRD replacement of LR,Line CVT replacement	NLDC
88	315 MVA ICT - 1 AT KHARAGPUR	14-08-2014	07:00	14-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
89	400kv Kh-Farakka ckt-4	16-08-2014	09:30	16-08-2014	17:30	ODB	NTPC	PM & Relay Testing.	NLDC
90	220KV MTN-Kalyaneshwari-I	16-08-2014	09:00	16-08-2014	17:00	ODB	ER-II	Line isolator remote operation checking	DVC
91	132 KV BARH - HATIDAH LINE (BSPTCL)	17-08-2014	08:00	18-08-2014	18:00	ODB	ER-I	FOR POWERLINE CROSSING OF 400 KV BARH - GORAKHPUR LINE.	BIHAR
92	220KV MTN-Kalyaneshwari-II	18-08-2014	09:00	18-08-2014	17:00	ODB	ER-II	Replacement of CVT due to humming sound	DVC
93	765/400 KV 3*500 MVA ICT - I AT NEW RANCHI	18-08-2014	08:00	19-08-2014	18:00	ODB	ER-I	ERECTION , TESTING AND COMMISSIONING WORK OF AUX. BUSES & SWITCHING SCHEME OF SPARE TRANSFORMER .	NLDC
94	220 KV S/C RAMCHANDRAPUR - JODA LINE	18-08-2014	09:00	19-08-2014	17:00	ODB	ER-I	DIVERSION OF 220 KV S/C RAMCHANDRAPUR JODA LINE BY PROVIDING ERS ( WHICH IS CROSSING CHAIBASA S/S SITE).	OPTCL
95	400kv Fkk-Berhampur Line	18-08-2014	09:00	18-08-2014	17:30	ODB	NTPC	PM & Relay Testing	NLDC
96	400 KV JSR - ADHUNIK - I	19-08-2014	09:30	19-08-2014	17:30	ODB	ER-I	FOR MAIN BAY & LINE BAY MAINTENANCE WORK AT JSR.	ADHUNIK
97	315 MVA ICT - 2 AT KHARAGPUR	19-08-2014	07:00	19-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
98	400 Kv Maithon - Durgapur #2	20-08-2014	09:00	20-08-2014	17:00	ODB	ER-II	Line and Bay AMP	
								FOR TOWER RECTIFICATION WORK AT LOC. 50/0. DUE TO MEMBERS CUT /THEFT	
99	765 KV RANCHI - DHARAMJAYGARH LINE	20-08-2014	07:00	27-08-2014	18:00	OCB	ER-I	IN HARDCORE NAXALITE AREA, THE TOWER LEG BECAME BENT. FOR FIXING OF	NLDC
77	705 KV KANCHI - DHAKAIVIJATGAKH LINE	20-00-2014	07.00	27-00-2014	18.00	OCB	LK-I	TOWER MEMBERS & TOWER RECTIFICATION WORK CONTINUOUS S/D IS	NEDC
								REQUIRED.	
100	400kv Kh-Banka Ckt-1	20-08-2014	09:30	20-08-2014	17:30	ODB	NTPC	PM & Relay Testing.	NLDC
101	315 MVA ICT - IV AT JERAT	20-08-2014	07:00	20-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
								SF6 Gas Leakage Arresting work. S/D required for crane movement. Line will be	
102	400 Kv MTN-MEJIA 3	21-08-2014	09:00	23-08-2014	17:00	ODB	ER-II		DVC
				_				leakage arresting work	
103	400 KV BUS - 1 AT JSR	21-08-2014	09:30	21-08-2014	17:30	ODB	ER-I	AMP OF 400 KV BUS - I & BUS - I SIDE ISOLATOR .	
104	125 MVAR B/R - I AT PATNA	21-08-2014	10:00	23-08-2014	18:00	ODB	ER-I	FOR ERECTION OF KISHANGANJ - 2 BAY	l
105	400 Kv KHARAGPUR - BARIPADA	24-08-2014	05:00	24-08-2014	15:00	ODB	WBSETCL	MAINTENANCE WORK	
106	400KV MTN-MPL-II	25-08-2014	09:00	25-08-2014	17:00	ODB	ER-II		MPL
107	132 KV D/C VAISHALI - SHEETALPUR T/L (BSPTCL)	26-08-2014	08:00	27-08-2014	18:00	ODB	ER-I	FOR POWERLINE CROSSING OF 400 KV BARH - GORAKHPUR LINE.	BIHAR

#### Annexure-C.2

#### Anticipated Power Supply Position for the month of Aug-14

	SL.NO	P A R T I C U LA R S	PEAK DEMAND	ENERGY
		BIHAR	MW	MU
1	i)	NET MAX DEMAND	2650	1338
	ii)	NET POWER AVAILABILITY- Own Source	160	43
	11)	- Central Sector	1609	1106
	iii)	SURPLUS(+)/DEFICIT(-)	-881	-190
	111)	SUKFLUS(+)/DEFICIT(-)	-001	-190
2	.\		1000	700
	i)	NET MAX DEMAND	1080	700
	ii)	NET POWER AVAILABILITY- Own Source	524	182
		- Central Sector	610	389
	iii)	SURPLUS(+)/DEFICIT(-)	54	-128
3		DVC		
	i)	NET MAX DEMAND (OWN)	2670	1655
	ii)	NET POWER AVAILABILITY- Own Source	4409	2691
		- Central Sector	413	298
		Long term Bi-lateral (Export)	2069	1539
	iii)	SURPLUS(+)/DEFICIT(-)	84	-205
4		ORISSA		
	i)	NET MAX DEMAND	3600	2192
	ii)	NET POWER AVAILABILITY- Own Source	3116	1966
		- Central Sector	900	598
	iii)	SURPLUS(+)/DEFICIT(-)	415	372
5		WEST BENGAL		
5 5.1		WBSEDCL		
5.1	i)	NET MAX DEMAND (OWN)	5305	2944
	i) ii)	CESC'S DRAWAL	700	2944 228
	-	TOTAL WBSEDCL'S DEMAND	6005	3172
	iii)	NET POWER AVAILABILITY- Own Source	3840	1831
	iv)	- Import from DPL	-90	23
		- Central Sector	-90 1891	1370
	v)	SURPLUS(+)/DEFICIT(-)	-364	52
5.2		DPL		
	i)	NET MAX DEMAND	300	225
	ii)	NET POWER AVAILABILITY	210	248
	iii)	SURPLUS(+)/DEFICIT(-)	-90	23
5.3		CESC		
	i)	NET MAX DEMAND	1810	985
	ii)	NET POWER AVAILABILITY - OWN SOURCE	1070	727
	,	FROM WBSEDCL	740	228
	iii)	TOTAL AVAILABILITY	1810	955
	iv)	SURPLUS(+)/DEFICIT(-)	0	-30
6		WEST BENGAL (WBSEDCL+DPL+CESC)		
		(excluding DVC's supply to WBSEDCL's command area)		
	.`		7/45	1451
	i)	NET MAX DEMAND	7415	4154
	ii)	NET POWER AVAILABILITY- Own Source	5120	2806
	iii)	- Central Sector SURPLUS(+)/DEFICIT(-)	1891 -404	1370 22
	,			
7		SIKKIM		
	i)	NET MAX DEMAND	95	39
	ii)	NET POWER AVAILABILITY- Own Source	16	2
		- Central Sector	128	87
	iii)	SURPLUS(+)/DEFICIT(-)	50	50
8		EASTERN REGION		
		At 1.03 AS DIVERSITY FACTOR		1
-		NET MAX DEMAND	17000	10079
-	i)			
	i)	Long term Bi-lateral	2069	1539
-	i)	Long term Bi-lateral	2069	1539
~	i) ii)	NET TOTAL POWER AVAILABILITY OF ER	2069 16337	9999
-				