Eastern Regional Power Committee Kolkata-33

Salient Decisions taken in 84th OCC meeting held on 16.04.13

- 1. All the constituents were requested to nominate one chief coordinator from respective control area with an additional nomination as coordinator from substation end before 23rd April, 2013 for the purpose of Testing and calibration of special energy meters and for survey work in relation to Automatic Meter Reading (AMR) project. All constituents agreed to intimate the same to powergrid through mail (er2_os@yahoo.co.in).
- 2. Members recognized the problem that in absence of Rajarhat S/S LILO arrangement of Farakka STPS-Jeerat 400kv S/C line for transferring power to Bangladesh may cause severe under voltage situation in WBSETCL network. To avoid overloading problem OCC advised WBSETCL to implement the remedies suggested in B6.
- 3. Increasing the power transfer capability of existing installations use of high temperature conductors are not in widespread use and supplied by a limited number of vendors. As such, certain guidelines need to be framed regarding the tendering procedure to be followed. All constituents were requested to give their views on this issue. Constituents felt that this issue could be placed in NPC for a national level decision. The issue was referred to 24th TCC meeting
- 4. All constituents were also requested to submit their action plan to put their eligible but till date not participating units in RGMO in the requisite format by next OCC.
- 5. It was decided to change the overvoltage settings of 400kV Koderma-Biharshariff and Maithon lines for proper coordination of overvoltage relays.
- 6. OCC requested all constituents to interact with BIS and get certified for electric plants (both thermal as well as hydro-electric) and electric lines as per CEA direction.
- 7. All the STUs were requested to place the DPR for up gradation/renovation of the protection system of their sub-stations at 220 kV and above level positively by end of April as decided in the meeting on 1st April, 2013. OCC was informed that the issue was also discussed in NPC in its first meeting on 15.04.13. There it was communicated that defaulting constituents may be barred from availing funding for the purpose if provided by GOI.

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

SI.	Particulars	Present Status
No.		
1	It was agreed that as per ERPC direction, all SLDCs/STUs to take up the issue with their embedded captive plants for compliance to provide required help to Load Despatch Centres for restoration of the grid during any disturbance and confirm their status to ERPC Secretariat by 25 January, 2013. (81 st OCC)	Till date compliances received from Haldia Power Station of Tata Power Co. Ltd, BSPHCL OPTCL, TISCO & BSP of DVC. Durgapur Steel Plant under DVC control area is yet to give their compliances.
2	OCC requested all constituents to share the details of existing islanding schemes under each control area with ERPC Secretariat and ERLDC positively by 25 January, 2013. (81 st OCC) OCC requested to all constituents to take appropriate actions at their end	WBPDCL, WBSETCL, JSEB & DVC informed that, no islanding schemes are present in their control area. OPTCL informed that, details of existing islanding schemes under their control area would be forwarded shortly. Powergrid informed that, priority list was received from all the constituents except BSEB,
	to establish the existing communication system (SCADA) with ERLDC healthy by June 2013 without fail.	JSEB and Sikkim.
4	OCC requested all utilities to submit the information on GT and ICT tap coordination as given in agenda item B5 latest by next OCC (80th OCC).	ERLDC informed that, station wise data will be compiled and placed in next OCC.
5	OCC felt the need of identifying some radial feeders in each of the constituents system which can be disconnected at the direction of ERLDC to prevent overdrawal. (77 th OCC)	It was informed that, OPTCL, DVC and WBPDCL had given the relevant information and other constituents were requested to submit the same by next OCC.

Minutes of 84th OCC Meeting held on 16.04.13 at ERPC, Kolkata

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

Member Secretary I/c, ERPC greeted the participants in the 84th OCC meeting, highlighted the major decisions taken in the 83rd OCC meeting and updated their status of implementation. OCC members were requested to take utmost care in executing the OCC decisions in time. After that the agenda items were taken up one by one.

Item no. A.1: Confirmation of minutes of 83rd OCC meeting of ERPC held on 25.03.13

The minutes were circulated vide letter dated 08.04.13 to all the constituents and also uploaded in ERPC website. No comment was received from the constituents.

Members may confirm the minutes.

Deliberation in the meeting

Members confirmed the minutes.

After that, as per the decision made in 15th PCC meeting held on 9th April, 2013 OCC members requested CESC to give presentation on Grid incidence happened on 3rd, 4th and 6th in CESC network. CESC gave the presentation, presentation is enclosed at **Annexure-I.** CESC was requested to give the presentation again before PCC in its next meeting. CESC agreed.

PART B :: NEW ISSUES

Item no. B1: a) Testing and calibration of special energy meter in Eastern Region--Powergrid

The testing and calibration of special energy meter installed in Eastern Region would be carried out by POWERGRID within six months in two groups from the date of award of work. For this purpose, as intimated by Powergrid, work order has been placed to M/s Yadav Measurement Pvt. Ltd. (YMPL) on 22.02.2013. Work is planned to start from 15.04.13 and will be completed tentatively by 21.08.13. Total no. of meters to be calibrated is 307 and the schedule of testing is attached in **Annexure-II.** No shutdown is required for this work. For testing and calibration of the meter the following are proposed for the nomination of nodal officer station-wise.

- 1) For verification of testing
- 2) Issuing of PTW for carrying the testing and calibration
- 3) Isolation CT & PT for testing of the meter.

b) Automatic Meter Reading (AMR) -- Powergrid

AS per minutes of 18th ERPC, Item No. B22 work of implementation of AMR system in Eastern Region was entrusted to CTU/POWERGRID. Accoringly, POWERGRID has placed LOA to M/s TCS for implementation of the project. Total 97 substation has been considered in LOA, however provision also exits in LOA installation of system at additional location.

M/s TCS requires to carry out site survey for finalizing the details like, communication requirement, installation requirement, cable requirement etc.

At this stage, followings are required to be provided from concern constituents where SEM meters are installed (i.e. NTPC, BSEB, GRIDCO, DVC, JSEB, WBSETCL, WBPDCL, NHPC, Sterlite,

MPL, Sikkim Power Deptt, DSTPP etc.), so that same can be provided to M/s TCS for further execution of project.

1. Nomination of nodal person for coordination and other requirement (format attached) – Annexure-II A

2. Contact details of person for each substation (format attached)—Annexure-II B

3. Necessary permission in favour of M/s TCS to carry out survey work as well as installation and commissioning of equipment related to AMR project (tentative schedule of survey is attached)— Annexure-II C

Constituents may give their nomination of Nodal officer substation-wise.

Deliberation in the meeting

For the purpose all the constituents were requested to nominate one chief coordinator from respective control area with an additional nomination as coordinator from substation end before 23rd April, 2013. All constituents agreed to intimate the same to powergrid through mail **(er2_os@yahoo.co.in)**. Powergrid requested all constituents to check the details given in annexure and communicate any additions/alterations if required. Powergrid was requested to interact with the nominated persons and take initiatives to complete both the works mentioned in item B1 (a) and B1(b) as per schedule placed in the OCC.

Item no.B2: Strengthening of ERTS with respect to Indo-Bangladesh Power Transmission Link For export of 500 MW power to Bangladesh --WBSETCL

AS decided by Govt. of India and Govt. of Bangladesh an export to the tune of 500 MW power from India to Bangladesh would be made. Powergrid has constructed one 400kv switching station at Berhampur with LILO of Farakka STPS-Jeerat 400kv S/C line. WBSETCL pointed out that export of 500 MW power to Bangladesh with this arrangement will cause huge overloading in the Farakka/Beerhampore/Jeerat/Subashgram section of 400kv line and also cause under voltage problem during peak load hours at Jeerat bus. Situation will be worsen in case of failure of Farakka STPS-Berhampore section of line. Thereby export of power to Bangladesh can not be sustained with present configuration of 400kv line with simultaneous retaining of supply to Kolkata, South and North 24 Pgs. and other districts of West Bengal. It will cause state power supply to suffer adversely. In order to avoid of congestion, creation/commissioning of one 400 KV S/s at Rajarhat by Powergrid was approved by Standing Committee to give active support to ERTS as well as a back up source of power for Kolkata and its adjoining area. It is understood that work progress of Rajarhat S/s is getting delayed whereas export of power to Bangladesh may commence early.

Under this condition for secured grid operation it is proposed to explore establishment of a 400 kv D/C connectivity with Berhampore 400kv S/s of Powergrid from nearby Sagardighi STPS of WBPDCL. At present installed capacity of Sagardighi is 600 MW and capacity is expected to be enhanced to 1600 MW by September, 2015. This connectivity will strengthen the Berhampur bus with adequate supply of power in order to accommodate export to Bangladesh. The length of line would be around 30 KM.

WBPDCL, WBSETCL & PGCIL may give their views.

Deliberation in the meeting

Members recognized the problem that in absence of Rajarhat S/S this LILO arrangement for transferring power to Bangladesh may cause severe under voltage situation in WBSETCL network. OCC, although felt the need for a separate connectivity as proposed by WBSETCL as an alternative, but put doubt on the possibility of construction of this additional connectivity in view of Land acquisition problem. Moreover, it was expressed that the proposal even if accepted by Standing committee of ER, then also it would be a time consuming affair. But it was informed that the export to Bangladesh is

going to be started tentatively in the month of June, 2013. So to avoid overloading problem OCC advised WBSETCL to implement the remedies mentioned in Item B6 at the earliest.

Item no.B3: Consensus on Conductor specification--DVC

Due to load growth and severe Right of Way problems encountered in the construction of new transmission lines it has become necessary to update the existing infrastructure especially at 132kv and 220kv voltage levels. Increasing the power transfer capability of existing installations involves the use of high temperature conductors which are not in widespread use and supplied by a limited number of vendors. As such, certain guidelines need to be framed regarding the tendering procedure to be followed and conductor's requirements to be specified.

Members may comment.

Deliberation in the meeting

All constituents were requested to give their views on this issue. Constituents felt that this issue could be placed in NPC for a national level decision. The issue was referred to 24th TCC meeting scheduled to be held on 26th April, 2013 for further guidance.

Item no.B4. : Augmentation of Transforming capacity of 220/132KV Birpara and Silliguri S/s.

As per Standing Committee Meeting (20.09.10) on Power System Planning for ER augmentation of 220/132kv Silliguri and Birpara S/S has been carried out by addition of 1 no. 160 MVA ICT in parallel to existing 100MVA ICT under ERSSS-IV. During 59th OCC, it was already pointed out that the transformation capacity of 100 MVA ICT at Silliguri (PG) is not sufficient to cater peak load of North Bengal and Sikkim because of degradation over its expected life span of 25 years. After reconditioning at site, the condition of transformer has not improved.

The condition of 100 MVA ICT at Birpara is also similar with sudden Hydrogen rise (up to 1000ppm against limit of 100ppm) which is also reconditioned at site.

As such, it is proposed that, in line with Malda S/s, Silliguri & Birpara S/s may be upgraded to 2x160 MVA transformation capacity, for which following is suggested:

1. Replacement of existing 100 MVA ICT at Siliguri with 160 MVA ICT along with necessary bay eqpt/protection system.

2. Replacement of existing MVA ICT at Birpara with 160 MVA ICT along with necessary bay eqpt/protection system.

The 100 MVA ICTs (2 nos.) may be kept as emergency spare for the time being.

Powergrid and WBSETCL may deliberate.

Deliberation in the meeting

WBSETCL informed that, they would review the proposal and further feedback will be given in next OCC.

Item no. B5: Restricted Governor Mode of Operation --- ERLDC

As per clause no 5.2(f) of IEGC, thermal and hydro units of ER are expected to operate under Restricted Governor mode w.e.f 01.08.2010. During deliberation In the 56th OCC meeting, It is observed that only OHPC applied to CERC for exemption of RGMO operation of their units. JSEB, OPGC, DVC, WBSEDCL, DPL and some stations of WBPDCL (Santhaldi TPS and Sagardighi TPS) neither implemented RGMO nor applied for exemption of their units from RGMO operation from CERC.

In 60th OCC meeting, KTPP informed that they had applied for exemption from participating in RGMO

operation which is incorporated in reports to be sent to NLDC.

Bandel TPS vide letter GM(B) DT 21.10.11 (received by ERLDC on 27.12.11) has sought for exemption from RGMO for Bandel unit#5(210 MW).

ERLDC is sending a monthly report to NLDC on status of Restricted Governor Mode operation of generators of Eastern Region for onward submission to Hon'ble CERC.

Further, It was agreed in 66th OCC meeting that all generating stations, who are not participating in RGMO would submit their action plan to put their units in RGMO in the following format by 30th September'11:

Constituents/Generators	Unit no	Action taken for implementing RGMO	Expected date of implementation of RGMO	Whether exemption asked from CERC

SLDCs were also requested to take up with respective generating station under their jurisdiction to furnish the action plan as stated above.

Till date no action plan as decided in 66th OCC meeting has been received.

Hon'ble CERC issued a suo-moto order on the subject on 04.10.11, which is self-explanatory. Action in this regard may please be taken on priority basis and same may be communicated.

In 72ndOCC, following generation stations have updated status in respect of putting their unit in RGMO MPL----- implemented

_ Mejia – mid April'12

Subsequently it was informed that Mejia#7 and FSTPP#6 have not implemented RGMO.

In the last meeting it was mentioned by MPL that their units could be on RGMO only w.e.f April, 2013. DVC may intimate RGMO status of DSTPS unit 1 & 2 and Mejia unit 7&8.

The present status of unit of ER under RGMO is placed in the meeting.

ERLDC may update.

Deliberation in the meeting

NTPC informed that, Farakka unit#6 would put in RGMO by May, 2013. WBPDCL informed that, Santaldih unit#6 is already in RGMO mode and Santaldih unit#5 is facing problem in implementation of the same. DVC informed that, Mejia and DSTPS units would put in RGMO mode by July, 2013. Updated status of units of ER under RGMO is placed in **Annexure-III**. All constituents were also requested to submit their action plan to put their eligible but till date not participating units in RGMO in the requisite format by next OCC.

Item no. B6: Low voltage in Jeerat/Subahsgram area of WBSETCL

It is being observed that low voltage is occurring at 400kV Jeerat and Subhasgram substations of WBSETCL during evening peak hours with the 400kV Bus voltages, dipping below 380kV with the minimum voltages even going below 370kV. To mitigate the low voltage problem in the area the following action plan is suggested:

a)WBSETCL may take necessary steps for installation of shunt capacitors at Transmission level and WBSEDCL may take action for installation of capacitor banks at the Distribution level to suitably mitigate low voltage problem in the area.

b) WBPDCL generating Stations(located near Jeerat / Subhasgram S/S) at KTPP, Bandel may be operated in lagging mode to generate MVARs for supplying to the Grid during the low voltage period, as per capability curve.

b)50MVAR Bus Reactor at 400kV Jeerat S/S may be taken out of service in case of low 400kV Bus voltage at Jeerat as per ERLDC instructions.

c)50MVAR Bus reactor at 400kV KTPP may be opened in case of low voltage at Jeerat/Subhasgram as per ERLDC instructions.

It has been observed that WBSETCL is resorting to opening of Bus reactor at Jeerat whenever Jeerat Bus voltage goes below 390kV without taking opening code from ERLDC. It needs to be noted that removal of any element from the Grid requires prior permission of ERLDC in form of an opening code and the same is mandated vide IEGC.

d) Presently, 50MVAR Line reactor at Jeerat end of 400kV FSTPP-Jeerat is kept under open condition. Opening of 50MVAR Line Reactor at Jeerat end of 400kV Jeerat-Bakreshwar also needs to be carried out considering the ensuing summer season.

e)Tap positions of all four 400/220kV, 315MVA ICTs at Jeerat may be changed from the present tap position of 13 to 11.

Members may deliberate.

Deliberation in the meeting

Members advised WBSETCL to implement the action plan suggested by ERLDC at earliest to mitigate the low voltage problem especially in view of transfer of power to Bangladesh through Berhampore neither with Rajarhat S/S in place nor with the additional connectivity of Sagadighi-Berhampore as proposed in item B(2) completed.

Item no. B7: Repeated tripping of 400kV Koderma-Biharshariff on over-voltage

Presently, 400kV Bus I & II at Koderma are coupled only vide tie breaker of 400kV Koderma-Biharshariff-I and 400kV Maithon-Koderma-II. The present overvoltage settings at Koderma end are as follows:

<u>Koderma-Maithon-I</u>	
Koderma - 115%, 5 sec	Maithon- 110%, 5sec
Koderma-Maithon-II	
Koderma - 115%, 5 sec	Maithon- 110%, 6sec
Koderma-Biharshariff-I	
Koderma-110%,5sec	Biharshariff- 110%, 5sec
Koderma-Biharshariff-II	
Koderma-110%, 5sec	Biharshariff- 112% 5, 5sec

As settings at Koderma end for 400kV Koderma-Biharshariff D/C are same, in case of initiation of overvoltage Stage-I at Koderma end, 400kV Koderma-Biharshariff both circuits are tripping, disrupting an important intra-regional corridor for transfer of power from ER to NR. Also, in case of tripping of any one of the circuit of 400kV Koderma-Biharshariff-I or 400kV Maithon-Koderma-II, the 400kV Bus-I & II at Koderma are getting decoupled leading to tripping of the important intra-regional corridor of Maithon-Koderma-Biharshariff.

Presently, as the two Buses are coupled only vide one tie-breaker, proper coordination of over-voltage coordination relays as a whole cannot be carried out at this stage. To mitigate the problem it is suggested to stagger the over-voltage settings of 400kV Maithon-Koderma-II and 400kV Koderma-

Biharshariff-I, so that the above lines are made to trip only at the last stage. Accordingly, it is proposed to immediately change the time grading of 400kV Biharsharifff-Koderma-I upwards to defer its tripping to last stage and also lower the setting of 400kV Maithon-Koderma-I to ensure that it trips immediately after tripping of 400kV Koderma-Biharshariff-II. Hence, it is proposed to raise setting of 400kV Koderma-Bihashariff-II to 112%, 5 sec at Koderma end and reduce setting of Koderma-Maithon-I to 110%,7 sec at Koderma end. It is felt that with above settings in case of o/v stage-I operation, the buses would remain coupled and 400kv Koderma-Biharshariff-II would trip first followed by 400kv Maithon-Koderma-I if over-voltage persists.

Members may deliberate.

Deliberation in the meeting

OCC revised the overvoltage settings of the lines for proper coordination of overvoltage relays. Revised settings are given as follows:

<u>Koderma-Maithon-I</u>	110%, 6sec
<u>Koderma-Maithon-II</u>	112%, 8sec
<u>Koderma-Biharshariff-I</u>	112%, 7sec
<u>Koderma-Biharshariff-II</u>	110%, 5sec

Members advised Powergrid to change the overvoltage setting in coordination with Koderma (DVC)

Item no. B8: Data regarding STU network including Grid substations loads and system constraints

It is important that data regarding lines under outage or kept open due to system constraints for all lines in the STU system, at least upto 132kV are correctly available at ERLDC for taking proper operational decisions and for purposes of system studies. Hence it is requested that the following data may be furnished by all STUs to ERLDC on monthly basis by the first week of the next month for the previous month:

- a) Updated network diagram of the STU network upto at least 132kV level
- b) Lines under outage or kept open due to system constraints, including any Bus splitting schemes implemented, so that the actual current STU network configuration can be properly visualized.
- c) Peak Loads in MW/MVAR at the various Grid substations, so that the LGB disposition of the network can be properly understood.
- d) Details of system constraints (if any) as observed in the STU network for the previous month.

ERLDC may update

Deliberation in the meeting

All constituents were requested to give the updated network diagram and switching pattern of the lines from 132 kV level. ERLDC informed that, OPTCL already giving this information. Constituents agreed to provide the information and requested ERLDC to circulate the format. ERLDC agreed.

Item no. B9: Certification through BIS as per IS 18001:2007 to all generating /transmission units.

As per CEA Notification No. CEA/TETD/MP/R/02/2011 dated 24th January, 2010 whereby accreditation of electric plants (both thermal as well as hydro-electric) and electric lines with IS 18001:2007

[Standard for Occupational Health & Safety Management System] certification through Bureau of Indian Standards (BIS), the only certification body has been made mandatory. Though a time frame of two years from the date of enforcement of the regulations has been allowed, only NTPC-Kahalgaon, NTPC-Talcher, NTPC-Kaniha, NHPC-Teesta & NHPC-Rangit have been certified with IS 18001 till date. Constituents not yet get certified under IS18001:2007 are to have interaction with BIS at the earliest towards this. The regulation is already uploaded at ERPC web site: <u>www.eastrpc.org</u>).

Deliberation in the meeting

OCC requested all constituents to interact with BIS with an intimation to ERPC and get certified as per CEA direction.

PART C :: ISSUES REFERRED FROM LAST OCCs

Item no. C1: Repeated tripping of 400kV Patna-Barh-II on over-voltage – ERLDC (Item No. B1 of 83rd OCC meeting)

It has been observed that 400kV Patna-Barh-II is tripping repeatedly on over-voltage with Stage-I overvoltage tripping being initiated at Barh end, and corresponding inter-trip being received at Patna end. In most of the situations voltage at Barh has been reported to be hovering around 436kV to 437kV during initiation of the tripping. Also as per information w.r.t over-voltage settings as available at ERLDC end, 400kv Patna-Barh-III presently has the lowest setting at 110%, 5 sec (delay).

In last OCC Powergrid mentioned that, trippings were reduced after the implementation of revised over voltage relay settings as decided in 82nd OCC. Powergrid added that, it would charge 125 MVAR reactor at Patna end and that may reduce the overvoltage problem further.

Powergrid and NTPC may update the status.

Deliberation in the meeting

Powergrid informed that, 125 MVAR reactor was charged at Patna end on 31st Mar, 2013. Powergrid added that, trippings were reduced after the implementation of revised over voltage relay settings along with charging of the reactor.

Item no. C2: Draft procedure for transmission element outage planning - ERLDC (Item No. B2 of 83rd OCC meeting)

Coordination for outages vide the RPC forum is an important function of RPCs and RLDCs. The above is done regularly in the OCC meetings and such coordination leads to availing of shutdowns/outages keeping the Grid security sacrosanct. However, considering the NEW grid running in synchronism and future formation of a PAN India grid it is essential that a well documented procedure for availing outages be developed as presently, shutdown taken in a remote corner of one region may affect the Grid/outages taken or proposed to be taken in another region.

Accordingly, a draft procedure for outage planning of transmission elements has been prepared and already uploaded in ERPC web site (**www.eastrpc.org**). All members are requested to go through the draft procedure and offer their views regarding the same. The procedure would be finalised after suitably incorporating the comments received from all the constituents.

In last OCC ERLDC gave the presentation and fruitful deliberations were held. During deliberation it was emphasized that procedure could be designed only within the provisions of IEGC. OCC requested all constituents to give their views at the earliest.

Members may share their views.

Deliberation in the meeting

House was informed that, it would be finalized on receipt of views from the constituents. OCC requested all constituents to give their views at the earliest.

Item no. C3: Long Outage of 132kV Rangit – Melli line of PDD Sikkim - ERLDC

(Item No. B3 of 83rd OCC meeting)

The 132kV Rangit-Melli S/C Line of Sikkim is under long outage since 1.9.2012. The Power Supply to Gangtok and Melli is thus presently maintained through 132kV sections between Shiliguri-Melli-Gangtok and Shiliguri-Kurseong-Rangit-Gangtok. Majority of these sections is on Double circuit tower. Outage of any of these sections affects power supply to Sikkim adversely as single section often gets overloaded. Further one ckt of the 132kV section of Shiliguri- NBU D/C is also under outage because of breaker compressor problem at Shiliguri end. With the augmentation of 220/132kV ITCs at Shiliguri, the power evacuation constraints to NBU as well as to Sikkim system might continue if Shiliguri-NBU is not made double Ckt. Under the aforesaid circumstances the normalisation of the following lines are extremely essential for reliable supply to Sikkim and NBU area

- 1. 132kV Rangit-Melli S/C
- 2. 132kV Shiliguri-NBU second circuit.

In last OCC,

- 1. OCC felt that Sikkim is not taking required action on this matter and thereby violating IEGC provisions. The matter was referred to TCC/ERPC for further guidance.
- 2. Powergrid informed that, relays had already been installed in Siliguri-NBU 132 kV line and the line would be put in service by 10th April 2013 after overhauling of breaker.

POWERGRID and PDD Sikkim may update the status, if any.

Deliberation in the meeting

- 1. Sikkim representative informed that, State Govt. is not ready to release fund for restoration of 132kV Rangit-Melli S/C and requested to consider this line as ISTS line. The matter was referred to TCC/ERPC for further guidance.
- 2. Powergrid informed that, Siliguri-NBU 132 kV line is in service.

Item no. C4: Interconnection of CESC Network (Nonadanga) at Subhasgram PowerGrid – ERLDC (Item No. B4 of 83rd OCC meeting)

A 220kV interconnection of CESC system is being established at Subhasgram 400k/220kV station of POWERGRID ERII. CESC has obtained connectivity for termination of its Haldia 600MW IPP at Subhasgram. The necessary bay extension work as well as commissioning of 400/220kV ICT at Subhasgram is almost under completion stage. Further 220kV interconnection from Subhasgram to EM bypass of CESC is also under progress. CESC being a DISCOM of West Bengal, The following issues require deliberation and finalised:

- i) Control area Demarcation in view of connectivity with CTU network.
- ii) Scheduling issues
- iii) Metering and settlement issues.
- iv) Telemetering and voice communication
- v) Operational issues at Subhasgram substation.

In last OCC it was decided to have a separate meeting with Powergrid, CESC, WBSETCL, WBPDCL, ERPC and ERLDC on 3rd April, 2013 at ERPC Secretariat for further deliberation.

Accordingly, separate meeting was held on 3rd April, 2013 at ERPC Secretariat. Minutes of the meeting are available at **Annexure-IV**.

Members may please note

Deliberation in the meeting

House was informed that all the requisite meters are already installed at respective places. It was clarified that the operating arrangements agreed to in the special meeting will continue till synchronization of Haldia. After which it would be reviewed afresh.

Item no. C5: Evacuation arrangement of DSTPS and Mejia B – ERLDC (Item No. B5 of 83rd OCC meeting)

The evacuation system of Mejia B and DSTPS is presently is as follows

- i) 400kV Mejia Maithon D/C
- ii) 400kV Mejia Jamshedpur S/C
- iii) 400kV Mejia-DSTPS S/C
- iv) 400kV DSTPS Jamshedpur S/C

With the present level of Mejia and DSTPS generation of over 1300 MW MW the N-1 security criteria is often not satisfied. During 21st TCC meeting PowerGrid proposed termination of both the ckts of Jamshedpur at DSTPS. This would have enable completion of original connectivity as planned for evacuation of DSTPS unit 1. In the meantime DSTPS unit II has also been declared commercial with effect from 5.3.2013. While DVC is still continuing the arrangement of evacuation with 400kV Mejia-DSTPS line whereas the 400kV DSTPS – Jamshedpur (2nd ckt) and Mejia – Maithon 3rd ckt are remaining unitlised rendering evacuation constrains for these stations. DVC may expedite action for releasing of Mejia-Maithon 3rd ckt and allow POWERGRID for termination of Jamshedpur second ckt at DSTPS at the earliest. DVC may further expedite completion of DSTPS-Ragunathpur D/C also for safe evacuation of its generation from DSTPS.

In last OCC DVC informed that, DSTPS-Ragunathpur would be completed within 3 months and requested OCC to allow connectivity with DSTPS-Jamshedpur. DVC was informed that 21st TCC/ERPC already cleared charging of DSTPS-Jamshedpur section and accordingly action could be taken at respective ends for carrying out TCC/ERPC decision.

Powergrid and DVC may deliberate.

Deliberation in the meeting

DVC informed that, shutdown concurrence is given to Powergrid. Powergrid informed that the line would be charged before 24th TCC meeting.

Item no. C6: Identification of feeders for distress load shedding - ERLDC (Item No. B1 of 82nd OCC meeting)

In 77th OCC meeting ERLDC had given the following agenda

Quote

While analysing the disturbances occurred on 30th and 31st July,12, it was noted that one of the reasons for above said disturbances is overdrawal of power from the grid. In order to avoid recurrence of such

disturbance due to overdrawal, it is felt essential to identify some radial feeders in each of the constituents system which can be disconnected at the direction of ERLDC to prevent overdrawal.

ERLDC will direct the SLDC of the violating constituent/s through written message to disconnect above said identified feeders in case overdrawal persist even after issuing 'C' type message or message issued to relieve system constraints. Constituents, after compliance of ERLDC direction, will confirm their action by written message.

Further following information are needed for the above said identified feeders

1. Quantum of load(both peak and off-peak) and area covered

While selecting such feeders, constituents need to consider the quantum and nature of essential load connected to that feeder. Further feeders in which UFRs are connected must not be included the list of those identified feeders.

Unquote

Constituents had agreed to look into the matter and revert back in 78th OCC meeting. The same is yet to receive.

In last OCC ERLDC informed that, OPTCL, DVC and WBPDCL had given the relevant information and other constituents were requested to submit the same by next OCC.

ERLDC may please update the latest status.

Deliberation in the meeting

JSEB informed that, identification of feeders is in progress and would be submitted by next OCC. All defaulting constituents were requested to submit the relevant information by next OCC.

Item no. C7: Need for Bus strengthening at Malda and Birpara consequent to augmentation of transformation capacity at North Bengal – ERLDC (Item No. B2 of 82nd OCC meeting)

Augmentation of transformation capacity has been already been carried out in North Bengal vide installation of additional 160MVA, 220/132kV ICTs at Siliguri, Birpara, Malda. Reconductoring work has also been taken up parallely for enabling secure off-take of additional power consequent to augmentation of the transformation capacity at the above substations.

In the 82nd OCC meeting, Powergrid had informed that, re-conductoring work at Siliguri had been completed and also the same was in progress at Birpara and Malda. WBSETCL had also informed that, re-conductoring work was is in progress at Birpara(WB) and would be completed by March' 2013. The same at Malda is expected to be completed by May' 2013.

In last OCC Powergrid informed that, re-conductoring work at Siliguri, Birpara and Malda was completed. WBSETCL had also informed that, re-conductoring work at Birpara(WB) and Malda would be completed by April' 2013.

Powergrid/WBSETCL may update the latest status.

Deliberation in the meeting

WBSETCL informed that, re-conductoring work at Birpara (WB) was completed and the same at Malda would complete shortly.

Item no. C8: Collection of Daily Energy Data – ERLDC

(Item No. B4 of 82nd OCC meeting)

As per decision taken in 75th OCC meeting, all constituents, ISGS, IPP and POWERGRID are to submit data as per format developed and circulated by ERLDC by 01:00 hrs for the preceding day. Following are the status

- 1. BSEB-data being collected over phone, not submitting in proper format
- 2. JSEB- data being collected over phone, not submitting in proper format
- 3. DVC-data are sent by fax.
- 4. OPTCL- not implemented
- 5. WBSETCL-not implemented. However Santhaldi, Bakreswar and CESC are sending data in specified format
- 6. NTPC Implemented
- 7. IPP- Only SEL is sending data in the specified format but the same has not been implemented by MPL and Adhunik Power.
- 8. POWERGRID- Implemented

In 82nd OCC, it was decided that ERLDC once again circulate the format and all utilities were requested to send their report in the format over e-mail. It was also informed that, all SLDCs should send the report of their respective control area after compilation.

Further, ERLDC mentioned that large DISCOs like Tisco and Jusco are not being monitored and requested JSEB to take up the issue. ERLDC requested all SLDCs to take appropriate action to monitor large Discos in their control area and give feedback in next OCC.

In 83rd OCC ERLDC informed that, most of the constituents sending the relevant data. ERLDC requested WBSETCL to send combined report instead of reports from individual plants.

JSEB explained that an official correspondence from ERPC forum in this regard may empower its SLDC to take appropriate action for monitoring Tisco and Jusco. OCC agreed.

In this regard, ERPC Secretariat vide letter dated 9th April, 2013 (Fax Msg. No. 224) requested Chairperson, TCC & Member (T&D), JSEB to do needful for submission of the requisite data as desired by grid operator for such DISCOs in the prescribed format positively without further delay.

ERLDC may update the latest status.

Deliberation in the meeting

ERLDC informed that, most of the constituents sending the relevant data. JSEB requested to take appropriate action for monitoring Tisco and Jusco and give feedback by next OCC.

Item no. C9: Submission of Grid Incidence Report as per specified format - ERLDC (Item No. B3 of 80th OCC meeting)

In 80th OCC meeting, it was noted that tripping report/s received from constituents was not as per requisite format. OCC in its 80th & 81st meeting impressed upon all utilities including Powergrid to submit the grid incidence report as per specified format, otherwise it would be treated as noncompliance of section 5.2 (r) of IEGC.

In 82nd OCC ERLDC informed that, proper format and time frame of grid incidence reports are being monitored from last month. It was found that, NTPC Barh, JSEB, Sterlite are not submitting the reports in proper format. Powergrid, WBPDCL, WBSETCL and OPTCL are submitting the reports in proper

format. ERLDC once again circulated the format and all utilities were requested to submit the grid incidence report in the format with in stipulated time in compliance of section 5.2(r) of IEGC. Status report will be placed by ERLDC in OCC meetings.

In last OCC ERLDC informed that, JSEB was not submitting in format with in stipulated time in compliance of section 5.2(r) of IEGC. JSEB informed that, as their sub-stations were failing to submit relevant information so, SLDC was not sending the reports in proper format with in stipulated time. JSEB assured to take appropriate action to comply with section 5.2(r) of IEGC.

ERLDC may update constituent wise latest status.

Deliberation in the meeting

ERLDC informed that, JSEB and Sterlite were not submitting the reports in proper format. Both are agreed to submit the reports in proper format within stipulated time.

Item no. C10: Grid disturbances in NEW grid on 30th and 31st July 2012- recommendation of ERPC (Item No. B2 of 81st OCC meeting)

In the 23rd ERPC meeting it was decided that:

i. All captive power plants in Eastern Region, which are connected to Eastern Grid, should provide required help to Load Dispatch Centres for restoration of the grid during any disturbance; otherwise, the Captive Plants will not be allowed to remain connected with Grid. Each SLDC/STU should take up the issue with their embedded captive plants for compliance of the aforesaid direction and confirm their status to ERPC Secretariat.

Till date Compliance received from

- 1. Haldia Power Station of Tata Power Co. Ltd
- 2. BSPHCL
- 3. Tisco (DVC)
- 4. BSP (DVC)
- 5. Aryan Ispat & Power Pvt. Ltd., Bomall, Sambalpur
- 6. Bhusan Power & Steel Ltd., Jharsududa
- 7. Bhusan Steel Ltd., Meramundali
- 8. HINDALCO, Hirakud
- 9. Jidal Stainless Ltd., Duburi
- 10. NALCO, Angul
- 11. RSP, Rourkela
- 12. Sterlite Energy, Jharsuguda (IPP)
- 13. Vedanta Aluminium Ltd., Jharsuguda

Members may explain their position.

Deliberation in the meeting

Durgapur Steel Plant under DVC control area is yet to give their compliances. During last Grid disturbance Durgapur Steel Plant with a capacity of 140 MW denied extending help. DVC informed that in spite of repeated persuasion Durgapur Steel Plant is failing to comply. The issue has been referred to 24th TCC for further course of action.

ii. All concerned stakeholders should take immediate measures to ensure total SCADA data availability to ERLDC.

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

The issue was discussed in last SCADA meeting on 14th February, 2013 and in last OCC Powergrid informed that, utilities were asked for priority list of their installation of RTUs. But Communications were not made to Powergrid. OCC requested all utilities to give the priority list of RTUs to Powergrid by 25 February, 2013. ERPC vide its letter dated 21st February, 2013 communicated to all the constituents regarding the status of communication system (SCADA) with ERLDC which needs restoration by June, 2013 and advised to take urgent action.

In last OCC Powergrid informed that, priority list was received from all the constituents except BSEB, JSEB and Sikkim. Constituent's wise status of communication system (SCADA) with ERLDC which needs to be restored by June, 2013 was circulated in the meeting and all the constituents were requested to take urgent action for restoration of communication system.

BSEB, JSEB and Sikkim may update their action plan.

Members may update their position.

Deliberation in the meeting

Detailed deliberation with ULDC/ERLDC the problem for BSEB/JSEB is curved out as follows:

A. Non availability of Telemetry of BSEB Substation:

- a) Priority list of BSEB needs RTUs installed at Khagaul, Koshi, Purnea, Barauni TPS, Dehri, Kamarnasa and Sultanganj. Under ULDC-ER project these were installed and the same were in RTU AMC maintenance till Augut-2012 and in healthy condition. On the request of BSEB said RTU location deleted from the scope of contract. BSEB also installed new C-264 RTU at Sultangunj S/s.
- b) Telemetry of most of RTUs are not reporting due to LILO of Transmission Line and subsequently non commissioning of PLCC links/interfacing between PLCC links between end S/s to LILO Substation.
- c) BSEB intimated that aforesaid RTU location are proposed to be integrated on Fiber Optic Network which is to be carried out by POWERGRIED. POWERGRID confirmed that consent for erection of Fiber Optic link is received in Feb-2013 (Till date no Agreement signed) and the same could be done by end of 2014.
- d) BSEB has intimated that contingency arrangement to establish communication System to make available the telemetry of aforesaid S/s was proposed for approval to management but the same is under process. BSEB assure to restore the telemetry by contingency arrangement

B. Non availability of Telemetry of JSEB Substation:

Priority list of JSEB needs RTUs installed at Ramchandrapur, Jamtara, Deoghar, Garwah, Patratu TPS and Tenughat TPS. ULDC ER informed the following status:

S/n	Name of RTU Locations	Reason for not Reporting
1	Ramchandrapur	Problem in PLCC linkbetween Ramch- Chandil
2	Jamtara	RTU panel shifted to new control room. JSEB requested to

		POWEGRGID to make available the telemetry of S/s in March-13.
		POWERGRID intimated that same could be done by June-13
3	Deoghar	Problem in PLCC linkbetween Deoghar- Jamtara
4	Garwah	Not reporting due to LILO of Garwah- Sonnagar PLCC link in Japla.
		Therefore, Telemetry to be restored on diverted PLCC route
		between Garwah- Daltengang- Ranchi by JSEB.
5	Patratu	RTU is reporting. (through Patratu- Hatia PLCC link).
6	Tenughat	PLCC Link problem between Tenughat- Patratu S/s.

The issue has been referred to 24th TCC for further course of action.

Item no.C11: Restoration of 400 kV Sagardighi-Parulia line-1

In last OCC WBSETCL and Powergrid informed that, the line would be restored by 5th April, 2013.

WBSETCL and Powergrid may update the latest status.

Deliberation in the meeting

WBSETCL and Powergrid informed that, the line was restored on 12th April, 2013.

Item no. C12: Commissioning of 220 kV bus bar protection at Ramchandrapur & Chandil substations (JSEB) – (Item No. B13 of 22nd TCC meeting)

JSEB informed that, work is in progress and it would be completed by end of April, 2013.

JSEB may update the latest status.

Deliberation in the meeting

JSEB informed that, work is in progress and 220 KV Busbar protection at 220 KV Chandil Sub-station would be completed by 30th April, 2013. The same at 220 kV Ramchandrapur Sub-station would be completed by 31st May, 2013.

Item No. C13: Procurement and installation of numerical relays by JSEB for Lalmatia substations (Item No. B14 of 22nd TCC meeting)

JSEB informed that, installation of relays is in progress and it would be completed by 31st Mar, 2013.

JSEB may update the latest status.

Deliberation in the meeting

JSEB informed that, installation of relays is in progress and it would be completed by 30th April, 2013.

Item no. C14: GT and ICT Tap coordination throughout the Easter Region --- ERLDC

A large number of 400KV substations in Eastern Region such as Ranchi, Maithon, Jamshedpur, Rourkela etc. experiencing over voltage most of the time. This leads to frequent tripping of number of 400KV lines on over voltage with consequent reduction of network redundancy. To prevent such over voltage problem, a review of the present tap position of all GTs and ICTs throughout the region is necessary. The present tap details with corresponding transformation ratio of GTs and ICTs available with ERLDC were circulated and all utilities are requested to check and inform the following for each GT/ICT:

	GT	ICT
1	No of Taps and corresponding voltage ratio	No of Taps and corresponding voltage ratio
2	Present Tap position	Present Tap position
3	MVA rating	MVA rating
4	Over load capacity	Over load capacity
5	Reactance and Resistance at nominal tap	Reactance and Resistance at nominal tap
	(in % of the transformer rating)	(in % of the transformer rating)

Till date Powergrid, NTPC, Tista-V, Rangit, BSEB, WBSETCL, WBPDCL, Sterlite and Adhunik Power had submitted the relevant information.

ERPC already compiled the data received by it and handed over to ERLDC for finalization.

In last OCC ERLDC informed that, data will be finalized and placed in next OCC.

ERLDC may update the status.

Deliberation in the meeting

JSEB representative informed that, JSEB will submit the relevant information before next OCC. ERLDC informed that, data will be finalized and placed in next OCC.

Item no. C15: Annual Outage plan of transmission element--- ERLDC

Draft LGBR was sent to CEA, New Delhi for approval. CEA has not yet communicated the generation target data as approved by the ministry. As soon as it comes Separate meeting will be convened at ERPC secretariat in April, 2013 for finalization after getting approved LGBR from CEA.

Members may please note.

Deliberation in the meeting

In the meeting it was informed that, MOP revised the Annual Generation target of ISGS Stations on all India basis and it would be around 965 Billion Units in the current year. Accordingly, LGBR will be revised and finalized.

Item no. C16: Damage of 63 MVAR shunt reactor bay at Tala end – DGPC

In 82nd OCC meeting, DGPC informed that, work order has been placed and the reactor would be in service by Mar, 2013.

In last OCC DGPC informed that, the reactor would be in service by 30th April, 2013

DGPC may update the status.

Deliberation in the meeting

DGPC informed that, the reactor is in service from 11th April, 2013.

Item no. C17: Review of load relief under various stages of UFR

As per decision taken in 77th OCC meeting, following are status of implementation of frequency setting and quantum of load to be shed through UFR to be adopted in ER grid. In the 83rd OCC, BSEB has updated the actual quantum of load relief. The revised table indicating the details of planned visa-vis actual UFR quanta are depicted below:

States	Stage-I	(48.8 Hz)	Stage-II	(48.6 Hz)	Stage-III (48.2 Hz)	
	Agreed	Actual	Agreed	Actual	Agreed	Actual
BSEB	80	88	80	82	115	122.5
JSEB	50	58	50	51	70	70
DVC	110	132.4	110	142.7	155	166.1
Odisha	150	160.5	150	158.5	208	209.5
WB (including	285	313	285	285	397	430
CESC)						
Total	675	751.9	675	719.2	945	998.1

Scheme for Emergency setting at 47.6 Hz will remain unchanged

All constituents are requested to inform ERLDC feeder wise operation of UFR for each stage, whenever operates.

Deliberation in the meeting

House was informed that, in its first meeting NPC decided stages of load relief under UFR is increased to 60%. Initially to start with it would be in the following 4 stages:

Stage-I	49.2 Hz 10% of load relief
Stage-II	49.0 Hz 10% of load relief
Stage-I	48.8 Hz 15% of load relief
Stage-I	48.6 Hz 15% of load relief

Item no. C18: Reactive Capability testing of generators – ERLDC

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

Maximum and minimum voltage observed (data taken from SCADA)

Plant	Maximum and Minimum voltage observed for March 13 (KV)
Farakka STPS	425, 411
Khalgaon STPS	431, 418
Talcher STPS	416, 401
MPL	429,418
Sterlite	433,420
Mejia B	430, 423
Bakreshwar TPS	406, 381
Kolaghat TPS	417,383

Generating stations have been monitored for sample dates in the month of March 13 :

Power Plant	Date for monitoring
Farakka STPS	4 th , 7 th and 17 th

Khalgaon STPS	4 th , 7 th and 18 th
Talcher STPS	10 th and 17 th
Teesta	17 th , 24 th
Bakreshwar TPS	17 th and 20 th
Kolaghat TPS	3^{rd} , 17^{th} and 28^{th}
Sagardighi TPS	4 th , 7 th and 17 th
MPL	17 th and 21 st
Mejia-B	15 th and 17 th
DSTPS	15 th and 17 th
Adhunik TPS	15 th and 17 th
Sterlite	17 th and 20 th

Performance analysis:

i. Farakka : Though there was absorption of reactive power through GTs, but the 200 MW unit starts injecting VAR in the system whenever voltage fall below 420 kV. MVAR data of unit 3 is not reporting since long.

ii. Kahalgaon : Both 210MW & 500MW units at khSTPP, absorbed VAR or injected zero VAR into the Grid for most of the time and hence performance of the units are satisfactory. MVAR data of unit 6 is not reporting since long.

iii. Talcher: - As there was absorption of reactive power through GT for most of the time hence performance of units are satisfactory.

iv. Sagardighi : Performance of unit 1 of sagardighi was unsatisfactory as it was continuously generating VAR even under high voltage condition.

- v. Bakreswar:- Performance of units at Bakreswar TPS was satisfactory
- vi. Mejia-B/DSTPS/Maithon-RB :- Absorption of MVAR towards GT observed
- vii. Teesta-V:- Performance of units at Teesta-V is satisfactory

viii. Sterlite:- Although Sterlite absorbs VAR during high voltage condition the same is not as per its capability.

Deliberation in the meeting

ERLDC presented the station wise performance of Reactive Capability Test. Presentation is enclosed at Annexure-V.

b) Schedule of Reactive Capability Test

In the last OCC meeting WBPDCL had informed that, reactive capability test of Santaldih Unit #6 would be carried out on 29th March, 2013. WBPDCL had further informed that, Kolaghat is ready for reactive capability test but the date of testing needs to be finalized. Also, FSTPP and DVC had expressed their inability to carry out reactive capability test at present due to coal shortage. Reactive capability test of Santaldih#6 is yet to be carried out. WBPDCL/FSTPP/DVC may intimate the revised dates for Kolaghat TPS.

Members may deliberate

Deliberation in the meeting

WBPDCL informed that, Reactive Capability Test of Kolaghat TPS is completed and found satisfactory. WBPDCL added that, reactive capability test of Santaldih Unit #6 would be carried out in April, 2013. DVC informed that, reactive capability test of Mejia TPS would be carried out in May, 2013

Item no. C19: Auto Reclosure Facility at Tala end

Enabling of single phase Auto reclosure facility at Tala end of all DGPC feeders connected with Indian grid was discussed in number of OCC meetings. In the 71st OCC meeting, DGPC informed that BHEL, in a meeting with DGPC in Bhopal, cleared the enabling of auto reclosures of all DGPC feeders connected to Indian Grid.

In the 78th OCC meeting, DGPC informed that they had test charged single phase auto reclosure features in Feeder-I on 6th November 2012, but it was not successful. DGPC informed the following target dates for enabling the auto-reclosures in Tala Feeders:

Feeder No.	Target Date
Feeder-I	By November 2012
Feeder-II	By December 2012
Feeder-III	By January 2013
Feeder-II	By February 2013

In 81st OCC Meeting, DGPC representative informed that, Auto reclosing scheme of Feeder-II was tested successfully on 14 January, 2013 but approval from competent authority for commissioning of the same is still waited.

In 82nd OCC DGPC informed that, on approval from their authority it may take one month for commissioning of the Feeder-II. ERLDC requested DGPC to put the Feeder –II auto reclosing feature in service by next OCC. DGPC added that, testing of rest of the feeders will be done after April, 2013.

In last OCC DGPC informed that, Auto reclosing scheme of Feeder-III & IV were tested successfully and found satisfactory. Testing of Feeder-I would be done in April, 2013. DGPC added that, all the feeders would put in service by May, 2013.

DGPC may update the latest status.

Deliberation in the meeting

DGPC informed that, all feeders would put in service as soon as their management approves.

Item no. C20: Procurement of spare transformers by Powergrid

The procurement of spare transformer and reactors by Powergrid as a part of disaster management plan in Eastern Region has been discussed and approved in various ERPC meetings (13th to 18th meeting). The latest status as informed by Powergrid is given below:

- Order for 4 number of spare transformers placed on : 19th July 2011
- Order for 1 number of spare reactor placed on: 11th July 2011
- Delivery is expected by 14 months from date of placement of order
- 315 MVA spare transformers at Biharshariff and Jamshedpur were already installed, while the same at Durgapur and Rourkella would be installed by March 2013
- One 80 MVAR reactor was already supplied to Rourkella.

In last OCC Powergrid informed the status of the following spare elements:

- a. 315 MVA transformer at Durgapur was commissioned
- b. 1 number of 150/160 MVA, 220/132 kV ICTs at Baripada would be installed by April, 2013
- c. 1 number of 50 MVA, 132/66 kV ICT at Gangtok reached Siliguri

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed the status of the following spare elements:

- a. 1 number of 150/160 MVA, 220/132 kV ICTs at Baripada would be installed by June, 2013
- b. 160 MVA ICT would reach Siliguri by next week

Item No. C21: Permanent connectivity of Dalkhola (WB)-Dalkhola (PG) and dismantling of ERS in Dalkhola (WB)-Dalkhola (PG) section

In the last OCC meeting, Powergrid informed that permanent connectivity of Dalkhola(PG)-Dalkhola(WB) would be completed by 15th April, 2013.

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed that permanent connectivity of Dalkhola(PG)-Dalkhola(WB) would be completed by 20th April, 2013.

Item no. C22: Status of PLCC channel in 400 kV Farakka-Jeerat line and 400 kV Farakka-Sagardighi

Channel-2 of PLCC link in 400 kV Farakka-Jeerat line at Jeerat end is not working since 01.09.10. PLCC at 400 kV Farakka-Sagardighi is also not working since long time.

In the last OCC meeting, Powergrid informed that, PLCC link in 400 kV Farakka-Jeerat line would be commissioned by March, 2013 and PLCC link 400 kV Farakka-Sagardighi line would be commissioned in April, 2013

Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed that, PLCC link of 400 kV Farakka-Jeerat line is in service. Powergrid added that, PLCC link of 400 kV Farakka-Sagardighi line has been repaired by ABB personnel and it is in service.

Item no. C23: Mock Black start exercises in Eastern Region --- ERLDC

i. As per clause no 5.8(b) of IEGC, mock exercise for Blackstart facilities to be carried out in every six months.

In 82nd OCC OHPC informed that, DG set of Upper Kolab HEP was installed and tested, yet to be commissioned. Mock Black start exercise would be carried out after March, 2013.

Mock Blackstart exercise of UpperKolab could not be carried out on 02/04/13 as decided in the 83rd OCC meeting. OHPC had also informed that the DG set at Upper Kolab was installed and tested but not yet commissioned.

OHPC may update the status.

Deliberation in the meeting

OHPC informed that Upper Kolab HEP is ready for Mock Black start exercise and it would be carried out in 1st week of May, 2013.

ii. It is mandatory for DG sets meant for black start to conduct test run on monthly basis and submit report to ERLDC. Test report for March'13 is yet to be received from constituents except Rangit and Teesta.

WBSETCL have sent report up to Oct'12. OPTCL, JSEB are yet to send any report. It was earlier decided that if test run report is not submitted by a particular utility, DG set of that utility will be considered as healthy and the onus of healthiness would lie with the utilities.

Constituents may note.

Deliberation in the meeting

Constituents noted.

Item no. C24: Status of "Third Party Protection Audit"

Till date the audit group had completed on-site auditing of 42 nos 400 kV, 1 HVDC and 11 nos 220 kV sub-stations. List of the observations were circulated in last OCC meeting and constituents were asked for compliances/Action plan on observations. List of the observations along with compliances received from the constituents are as placed and also available in ERPC website (**www.eastrpc.org**).

In addition to that, audit group had recently completed the on-site auditing of two 220 kV Substations (Biharshariff and Arra) and one HVDC station (Pasauli). One more 220 kV Sub-station (Howrah) would be done on 26th Mar, 2013.

NTPC updated compliances on observations. Updated constituents wise list is available in ERPC website (www.eastrpc.org). Constituents were requested to send their compliances/action plan latest by one week time. All STUs were also requested to estimate the timeline along with the fund requirement for complying observations in 3rd party audit, and for Renovation and Up gradation of Protection System of each sub-stations(at 220KV and above) under respective control area.

As per Ministry of Power directives a special meeting was conveyed on "Renovation and Upgradation of Protection System of STUs" on 01.04.13 at ERPC Secretariat. Minutes of the meeting are available at ERPC website. Formats of Scope of Work, cost estimation for upgradation of protection system and renovation/replacement work of Sub-stations are also circulated in the meeting and all the STUs are requested to place the proposals for all Sub-stations (220 kV and above) under its control area positively within a month.

On request from constituents, 10 more Sub-stations at 220 kV level were identified and schedule was prepared to carry out Third Party Audit. These Sub-stations were earlier not included in list of critical 220 kV Sub-stations of ER

I. Members may please note

- II. Constituents yet to submit the compliance/action plan for the balance observations may update the status at the earliest
- III. All the STUs are requested to place the DPR for up gradation/renovation of the protection system of their sub-stations at 220 kV and above level positively by end of April as decided in the meeting on 1st April, 2013.

Deliberation in the meeting

Till date Compliance/Action plan on observations from the following S/S s are yet to be received:

- Powergrid Maithon, Bolangir, Jaypore, Indravati, Rengali, Rourkela, Baripada, Binaguri, Birpara and Dalkhola;
- NHPC- Teesta-V;
- DVC- Koderma, Raghunathpur and Tisco;
- WBPDCL- Bakreswar, Sagardighi and Santaldih;
- WBSETCL- Howrah;
- BSEB- Bodhgaya and Biharshariff;
- IPPs- GMR and Sterlite;

All constituents once again requested to submit the compliance/action plan for the balance observations at the earliest. All the STUs were again requested to place the DPR for up gradation/renovation of the protection system of their sub-stations at 220 kV and above level positively by end of April as decided in the meeting on 1st April, 2013.

OCC was informed that the issue of DPR was also discussed in NPC in its first meeting on 15.04.13. There it was communicated that defaulting constituents may be barred from availing funding for the purpose if provided by GOI.

Item no. C25: Pollution mapping for Eastern Region - Powergrid

Inquiry committee on Grid Disturbance in Northern Region on 2nd Jan'2010, recommended Powergrid to complete pollution mapping in association with CPRI.

Details of pollution mapping including expenditure involved in implementation of the same are circulated in 83^{rd} OCC meeting. All constituents requested to give their views and comments on the matter and powergrid was requested to give a presentation on this subject in ensuing commercial/OCC meeting to be held on $10^{th/}$ 16th April, 2013 at ERPC Secretariat. Powergrid agreed to give the presentation.

Powergrid may give their presentation specifically elaborating on cost benefit analysis of the same.

Deliberation in the meeting

Powergrid gave presentation on this subject matter. Presentation is enclosed at **Annexure-VI**. Fruitful deliberations were held and constituents felt the degree of adversity of pollution in power sector. Powergrid, however, was requested to give presentation on the issue before TCC Members with Cost Benefit analysis.

Item no. C26: Automatic demand management

In 82nd OCC, ERLDC gave the presentation on behalf of Powergrid. Constituents principally agreed for the implementation of Automatic Demand Management System & GSES. Constituents felt that without effective automation in SLDC control area the implementation would not be feasible and unless exact schemes with objective set-up are finalized/placed it would not be possible to assess the fund requirement for this automation. OCC felt that under present day complex grid scenario

automatic operation is must but before finalizing detail deliberation is needed considering technical feasibilities along with the cost-benefit analysis of Automatic Demand Management System & GSES. OCC requested all the constituents to send their views on NLDC document of "Automatic Defense Plans for the All India Electricity Grids" to CERC with a copy to ERPC positively by 28-02-2013.

NTPC, DVC, OPTCL, OPGC, CESC, DPL had already communicated their views to CERC.

Members may note.

Deliberation in the meeting

Members noted.

Item no. C27: a) Non Availability of SCADA data from critical sub-stations

In previous OCC meeting, the agenda was raised regarding data's not available from important substations. As such, the following are the status of data and voice restoration:

Priority data

A. Patna 400 KV: No voice facility has been provided.

B. Poor SCADA data Visibility; JSEB: only Hatia, Chandil, Subrnreakha, Patratu & Lalmatia (JH) SCADA data normally reports to ERLDC.

C. Sasaram (New Bay): 765 KV – non of the elements data are available. 400KV – Balia I, Biharsariff III alongwith line & bus reactors data are not available.

New IPP

I.Sterlite Enegry Limited:- Gateway at SEL end yet to be configure for dual reporting.SOE signals, OLTC tap, VEL -1 (220 KV) line MW/MVAR not available.

II.Maithon Right Bank Power Ltd.:- Unit & GT Data is not proper updating at ERLDC. Generation voltage, SOE, OLTC tap potion, protection signals yet to be made available to ERLDC Kolkata also gateway at MPL end yet to be configure for dual reporting.

III.Mejia 'B' TPS:- 400 KV Bus -1 KV, HZ and MW/MVAR before GT not available. GT's MW/MVAR not updating properly.

IV.DSTPS (Andal):- MW/MVAR before GT not available. GT's MW/MVAR not updating properly.

V.NTPC Barh:- Data available except bus reactor MVAR :80. Voice facility is not available.

VI.Raghunathpur (DVC): No data available.

Pending issue

I.Baripada:- Voice communication not ok.

II.Gaya 765 KV: OLTC of all ICTs not available. Voice communication not provided.

III.PPSP Generation: Unit generation are available.

IV.Bidhanagar 400 Kv (W.B): No real time data is available.

V.TISCO -400 KV (DVC): Real time data available from DVC.

VI.Kharagpur - 400 KV (WBSETCL). Baripada -Kharagpur-Kolaghat charged on 28/04/12. No real time data is available from Kharagpur.

VII.Subhasgram(WB) –No real time data available.

VIII.Farakka NTPC:

Alstom attended the site jointly with NTPC on 03rd Dec 12 and rectified the CB points. Following SOE point are yet to rectified: Sagardighi line ,GT-2 & 3 CB, Station Transformer-III CB , Tie CB of Unit- IV status.220 KV Lalmatia line CB, ICT 400/220 KV LV site CB.

None of station transformers MW/MVAR, Unit Site LV Generations are available. GT-3 MVAR values are not available.

IX.Kahalgaon NTPC:

Following CB SOE point are not coming to ERLDC 400 KV: Gen-1 & ICT-1 Tie , Gen-1 Main, Tie of Gen-2 & Reactor-1, Gen-3 Main, Gen-4 Main .

Following analog points are not coming to ERLDC: MW/MVAR of 132 KV: Stn Xformer -3,4 &5, Colony Xformer 1 & 2, Unit LV side Generation of all Unit. Transducer replaced for GT-6 MVAR.

X.Talcher NTPC :

OLTC tap position of 400/220 KV ICT-2. 400/11 KV Stn Xfmr -1, 2 MW /MVAR and OLTC Tap position, 220/11 KV Stn Xfmr -1 MW/MVAR and OLTC Tap position not available

XI.Lalmatia NTPC:

OLTC tap position of 220/132 KV ICT and 132 /11 KV Stn Xfmr -1 & 2 not available.

XII.Melli (132 and 66 Kv): No Real time data and voice facilities are available from Sikkim's critical Substation since 2008.

XIII.Jeypore: 400/220 KV ICT 1 & 2 MW and MVAR incorrect

XIV.Mendhasal: 400 KV Baripda 1 & 2 line flow and Reactors value , Tap position of both 400 ICT not available

XV.Meeramundali: Tap position of both 400 ICT. JSPL 1 & 2, ICT-2 MW and MVAR value are not available.

XVI.Jeerat : Tap position of all three 400/220 KV ICT , not available.

XVII.Kolaghat: Tap position of both 400/220 KV ICT not available.

XVIII.Indravati HPS: Main CB of ICT- II line not correct. ICT-I &II OLTC Tap positions not available.

XIX.Banka: line reactors & bus reactor MVAR data not available.

XX.Angul: bus reactor MVAR data not available.

XXI.Ranchi: 125 MVAR bus reactor data not available.

XXII.Jhasurguda: All datas are not available.

Deliberation in the meeting

Members noted.

b) Extension of AMC (Annual Maintenance Contract): EMS/SCADA:

The Extension of Annual Maintenance Contract (AMC) for SCADA / EMS system established under ULDC scheme in Eastern Region in respect of OPTCL, DVC, WBSETCL, BSPHCL and Sikkim was placed on M/s. ALSTOM (erstwhile M/s. AREVA) on 28.03.2013. The period of contract is as detailed hereunder:

- 1) From 18.01.2013 to 17.01.2015 for ERLDC ,OPTCL, DVC and Sikkim
- 2) From 19.01.2013 to 18.01.2015 for WBSETCL and BSPHCL.
- 3) From 04.05.2013 to 03.05.2015 for JSEB.

The final payment schedule for third and fourth years would be as follows:

SI. No.	Description	BSEB	JSEB	OPTCL	WBSETCL	DVC	SIKKIM
1	Annual Charges (Alstom)	4610301	4349137	11740431	7030806	4890640	153306
2	Quarterly Service Charge	1152575	1087284	2935108	1757702	1222660	38327
3	Service Tax(on SI. No.2) & Cess	142458	134388	362779	217252	151121	4737
4	Total Service Charges (2 + 3) :	1295034	1221673	3297887	1974953	1373781	43064
5	ERLDC Quarterly verhead Charges (@8%of S.N. 2)	92206	86983	234809	140616	97813	3066
6	Service Tax (on SI. No. 5) & Cess	11397	10751	29022	17380	12090	379
7	Total ERLDC Overhead (5+6):	103603	97734	263831	157996	109902	3445
8	Bank Charges						
9	<u>Grand Total (4 + 7 + 8)</u>	1398636	1319406	3561718	2132950	1483683	46509

Members may update their position.

Deliberation in the meeting

ERLDC informed that, Areva has given discount on AMC charges. Savings of different constituents are as follows

	Anı	nual Char	ges	Two Years Charges			
	Previous	Actual	Savings	Previous	Actual	Savings	
BSEB	4991577	4610301	3,81,276	9983154	9220602	7,62,552	
JSEB	4708815	4349137	3,59,678	9417630	8698274	7,19,356	
OPTCL	12711376	11740431	9,70,945	25422752	23480862	19,41,890	
WBSETCL	7612260	7030806	5.81.454	15224520	14061611	11.62.909	
DVC	5295101	4890640	4.04.461	10590202	9781281	8.08.921	
SIKKIM	165985	153306	12 679	331970	306613	25 357	
ERLDC	29973686	27684178	22 89 508	59947372	55368356	45 79 016	
Total	65458800	60458800	50,00,000	130917600	120917600	10,00,0000	

PART D:: OPERATIONAL PLANNING

Item no. D1: Prolonged outage of power system elements in Eastern Region

Generating	UNIT	CAP(MW)	DATE	REASONS FOR	Restoration			
Station	NO			OUTAGE	Status			
STERLITE	4	600	18.12.12	TAKEN OUT FOR PG				
				TEST				
MEJIA	2	210	11.01.13	LOW SYSTEM				
				DEMAND				
MEJIA	1	210	08.02.13	TUBE LEAKAGE				

(i) Generating units:

(ii) Transmission elements

Name	Agency	Date of	Reason	Restor	ation Status
		Outage		Original	Latest
400 kV Sagardighi-Parulia -	WBPDCL	25.04.12	11 no tower	March'13	March'13
	MOSETO	44.06.40	collapse		
315MVA, 400/220 kV ICI –	WBSEICL	14.06.12	Fire Hazard	March'13	March'13
IV at Arambag					
132 kV CT i.r.o. 132 kV NBU	Powergri	10.12.10	Old relay needs	February'1	CT already
(WBSETCL)-Siliguri (PG)#1	d		to be replaced	2	replaced. Old
at Siliguri end					relay scheduled
					to be replaced
					by Mar'13.
132KV Rangit-Melli	Sikkim	1.9.12	Tower tilting at		No progress
			Loc.128		reported by
					NHPC. Sikkim
					representative
					is not present.
132KV Lalmatia-Sabour	JSEB	2.1.13	R-Ph CT burst		CT replaced on
			at Lalmatia		on Jan'13
400 KV DURGAPUR –		25.04.12	3 Nos Tower		Mar'13
SAGARDIGHI			collapsed		
400 KV BINAGURI -	Powergri	01.12.12	S/D availed by		70 km of 170
PURNEA – II	d		Powergrid for		km line was
			reconductoring		completed and
			work		the rest will be
					completed by
					June'13
400 KV BINAGURI - TALA –	DGPC	13.12.12	S/D taken by		Mar'13
IV			DGPC		
400 KV BINAGURI - TALA - II	DGPC	06.03.13	Kept open on		
			Overvoltage		

Concerned utilities may share the latest status.

Deliberation in the meeting

Concern utilities updated the dates and Members noted.

Item no. D2: Information regarding commissioning of new transmission element -- ERLDC

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

New generating units:

S.No.	Power Plant	Unit size	Expected date
2	GMR	1x350MW	February'13
3	Koderma	2x500MW	U#1 March'13
4	Corporate Power	1x257MW	
5	Teesta-III	1x200MW	
6	Raghunathpur	1x600MW	Mar'13

New transmission elements

SL No.	Transmission Line	Expected date
1	400 kV Maithon-Gaya D/C	Oct'13
2	400 kV Gaya Koderma D/C	Oct'13
3	400 kV DSTPS – Raghunathpur D/C	Mar'13
4	400 kV Raghunathpur-Ranchi D/C	
5	400 kV Meramandali-Dubri D/C	Pending in court
6	400 kV Corporate-Ranchi D/C	
7	220 kV Begusari-Purnea D/C	
8	220 kV Purnea(pg) Madhepur D/C	May'13
9	220 kV Dalkhola-Dalkhola (WB) D/C	25 th April'13
10	220 kV Dhanbad-Girdih D/C	Commissioned on 9 th April'13
11	220 kV Girdih-Koderma D/C	ROW problem

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

Deliberation in the meeting

Members noted

Item no. D3: Anticipated power supply position during May-13

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of **May-13** were prepared by ERPC Secretariat on the basis of LGBR for 2013-14, keeping in view that the units are available for generation and expected load growth etc. The details are placed for discussion.

Members may confirm.

Deliberation in the meeting

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

Item No. D4: Shutdown proposal of transmission lines and generating units for the month of May-13

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

Members may confirm.

Deliberation in the meeting

Approved maintenance programme of transmission elements during the month of May, 2013 is at **Annexure-VIII**. OCC requested ERLDC to allow Shutdown as per this programme but before allowing all the concerned affected utilities should be suitably informed.

PART E:: OTHER ISSUES

Item no. E1: Operation of UFR

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

Members may note.

Deliberation in the meeting

Members noted

Item no. E2: Commissioning of new units/transmission elements during the month of Mar /April, 2013

- 1. 50MVAR(3 x16.67MVAR) Line Reactor of 400kV Baripada-Keonjhar at Baripada charged for the first time at 16:55 hrs of 03/03/13.
- 2. DSTPS Unit#2 declared under COD w.e.f 00:00 Hrs of 05/03/13.
- 3. 132kV Biharshariff-Nawada transmission line loaded at 08:55 Hrs of 08/03/13.
- 4. 132kV Nanda Grid S/s(capacity 2 x 20 MVA) was commissioned vide LILO of 132kV Biharshariff-Rajgir Grid S/S at 16:35 Hrs of 16/03/13.
- 5. GT#2 of Adhunik Power and Natural Resources(IPP) first time back charged from 400kV side at 12:37hrs of 24.03.13.
- 6. Adhunik Power and Natural Resources(IPP)-Unit#2 synchronized for the first time at 15:59 Hrs of 29/03/13.
- 7. 400kV Meramundali-Bolangir successfully LILOed at Angul and first time charged at 17:29hrs of 30.03.13.
- 8. 400kV Ranchi-Raghunathpur-II, III bays at Ranchi end were charged for the first time at 20:31 Hrs and 20:35 Hrs of 30/03/13 respectively.
- 9. 220kV Ranchi-Gola I,II bays at Ranchi end were charged for the first time at 20:50Hrs and 20:55 Hrs of 30/03/13 respectively.
- 10. 125MVAR Bus reactor at Patna s/s (PG) first time charged at 21:20hrs of 30.03.13.
- 11. 400kV BSF-Purnea-D/C bays at Purnea end first time charged at 17:12 & 17:17hrs of 31.03.13.
- 12. 400kV BSF-Purnea-D/C bays along with 80MVAR Line reactor (ckt-I) at Biharshariff end first time charged at 19:13hrs of 31.03.13.
- 13. 400kV Rourkela-Raigarh-III successfully LILOed at Jharsuguda and first time charged at 22:50hrs of 31.03.13.
- 14. 80MVAR Line reactor along with 400kV Bay-3 at Binaguri of 400kV Binaguri-Bongaigaon-III, first time charged at 23:50hrs of 31.03.13.

- 15. 100MVA 220/132kV ICT KBUNL,Kanti.Muzzaffarpur was commissioned at 13:15 Hrs of 02/04/13. Total capacity at Kanti is now 3x 100MVA.
- 16. 50MVAR Bus Reactor-II at Koderma taken into service for the first time at 17:52 Hrs of 04/04/13.

Constituents may also note that 765kV Gwalior-Agra-I has been ugraded to 765kV on 24/03/13. With the above the entire Bina-Gwalior-Agra section has been upgraded to 765kV.

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

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

Deliberation in the meeting

Members noted

Item no. E3: Non-compliance of directions issued by SLDC --- ERLDC

Vide clause no 5.5.1.c)(h) of IEGC, non-compliance of SLDC directions by SEB/Distribution licenses/bulk consumers to curtail overdrawal are to be reported to ERLDC for incorporating the same in weekly report to be prepared and published by ERLDC.

All SLDCs are to inform ERLDC the instances of non–compliance of SLDC directions by SEB/Distribution licenses/bulk consumers to curtail overdrawal, within two days after the day of operation.

No report from any constituent has yet received. Hence ERLDC would be considering 'Nil' report for all constituents for March'13.

Members may note.

Deliberation in the meeting

Members noted

Item no. E4: Review of grid performance during the month of March'13

ERLDC may present the salient features of grid parameters during the month.

Deliberation in the meeting

ERLDC has presented the salient features of grid parameters of March'13. Members noted.

Item no. E5: Grid Incidences in ER system

Disturbance Place	Date & Time of occurrence	Generation loss (MW)	Load loss (MW)	Remark	Category
JSEB (Chandil) s/s	07.03.13, 19:40hrs	0	350	Power failure occurred at 132kV side of Chandil s/s due to tripping of all three 100MVA transformers. According to Chandil the loading of ICTs at that instance crossed the safe loading (180MW max) which caused the cascade tripping of all the ICTS. With the tripping of Chandil	GD-1

				-	
				ICTs, Transformers (2x150MVA, 220/132kV) at Ramchandrapur s/s got overloaded & tripped causing power failure on 132kV side of Ramchandrapur	
BSEB (Purnea, Kishanganj)	09.03.13, 17:42hrs	0	190	Due to fault in 220/132kV Purnea(PG) s/s 132kV Purnea(PG)-Purnea(BSEB)- I,II,III & 132kV Purnea(PG)-Kishanganj line tripped on operation of distance protection.Power flow (approx. 60MW) to Nepal through 132kV Purnea-Kishanganj-Kataiya-Duhabi also got interrupted.	GD-1
OPTCL (Meeramundali)	12.03.13, 23:56 hrs	0	110	At 23:55 hrs, 220 kV Meramundali- Bhanjanagar ckt-I, 220 kV Meramundali-Kaniha ckt-II and 220 kV Meramundali-Bidanasi Ckt tripped at Meramundali along with 400 kV Meramundali- Bolangir Ckt. and 400 kV Meramundali-Kaniha ckt-II. It is noticed that, 'R' Phase LA of Meramundali-Bidanasi ckt was burst with snapping of conductor between CVT and LA	GD-1
JSEB (Chandil) s/s	12.03.13, 09:45 hrs	0	170	Total power failure occurred at Chandil s/s due to tripping of 220kV Ranchi-Chandil line. All the 220kV & 132kV feeder emanating from Chandil tripped from remote end.	GD-1
JSEB (Chandil) s/s	12.03.13, 11:30 hrs	0	150	Again Total power failure occurred at Chandil s/s while charing of 220kV Ranchi-Chandil line.	GD-1
OPTCL (Mendhasal)	17.03.13, 13:10hrs	0	300	Due to tripping of 400kV Meeramundali-Mendhasal line on distance protection all lines emanating from Mendhasal tripped.	GD-1
WBSETCL (Arambag)	23.03.13, 14:37	0	1400	Due to tripping of 220kV Santaldih- New Biisnupur-I there was sudden inrush of power from Bidhannagr & Bakreswar causing overloading of all three 400/220kV ICTs of Arambagh s/s which therefore tripped on overcurrent protection	GD-2
OPTCL (Meeramundali)	26.03.13, 18:07	0	350	R-phase Lightning Arrestor of 400 kV Meramundali- Bolangir Ckt-I 80 MVAR line reactor burst and caught fire, damaging protection cables. All 400 kV feeders emanating from Meramundali Grid sub-station trinned	GD-1

Members may note

Deliberation in the meeting

Members noted

Meeting ended with thanks to the chair

Annexure-A

Participants in 84th OCC Meeting

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 16.04.13 (Tuesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
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2	U. R. Verma	GM	ERLOC	89@2496220	Equal con	lang.
3	D.K. SHARIVAR	ACM	Enzo	Q4330 601802	dikskrivestan 550 yehos.co.	a AZ Mauter
4	PSDAS	сМ	-do -	9633041837	psdus-psd. Q	A
5	S-BANERJEE	CM	ERLDC		0	Ky,
6	kuman Nikhil	Mgr (OS)	powerseid, ER-I	9431820218	Com	Burgalant
7	Biricaji Alonde	(. S. E(E)	Ave.	933286-1570	lemandel.dve agmail.am	Allond of
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9	SUDSP NAG	AGM (ORM)	N-PPC FORAFERA	9434039376	Audiprieg antpc. co. in	Day
10	A. Gaugopadlyo	y Engliser	NHP C Rougit	9932049476	ablished 372000 gabe	10. co. in they
11	Ashutosh Kr.	M(E)	NHPC Teesta - V	5800003626	aknhpc@gmail . Com	ALT
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15	Springery Kuna.	Aut. Mangee.	APNRL	90070-98131	n pun jay knowne. Castrinite group core	AP.
16	M.K. Thorken	St. Engineer	ERLPC	9432357832	3	m
17	G Chaurab my	CM	ERLDC	9433041815		vertery
18	Santann Sen	Manager	CESC	990301075	santanu, scol	Yeles-
19	Rabten	Sr. S.O	DURYCHP	00975-17653	6 rtsning@tale	Jul
20	K.S. Wangdi	Dy. EE	_de-	009751763858	6 Kowangliz	15@ Avlignes tol

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

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Participants in 84th OCC Meeting

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 16.04.13 (Tuesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature	
21	P.R.DE	AD	RPSO, CEA Kolkata	2334 0135		Re:	
22	Ashish Gibertal	Dy. Chief Ergri (Tenhini	CESC	9831054664	Rohish ghodel @ sp-ogsin.	After	
23	RAIJUL CITALIAN	no Digay	17	98320546	9.	Rug	
24	H.P. Mahayata	Manager	OHPC	9861164943	hpm. ohpe@ gmail. com	Hen/16/4	
25	PRASHANT KUMAR DAS	A.G.M (ELEC)	SLDC, BHUBANESM	9438907400	Prashantk-das@ yahoo-co-in	B	
26	P.K. Dosh	Sr. G. M. LP.S	SLDC, BBSR	9439907400	Acuema prachanta 20 yo hod co. in	Fair	
27	UN Mishra	GMCGreenII	GRIDOO, BOSSE	9437108917	Upendramistria5@gmail	ion July	
28	5. SIDDHANTA	Clon	WBPDCL	943303666		S.	
29	T. K.DE	A.CE	WESEDEL	9437870748		This	
30	A. Biscas	C.E.(A), 52.De	HBSETCL	9831093513		205	
31	G. Lol	Arenj	T. T. P.S. Lalbeni	9430153746		Ale	
32	R. A. Chowley	y Gr. M. Tran Sovision-	JSEB Ranchi	9431106955		Chan	
33	G.K.Choubey	BESE	BSPHCL	947000175	D	- Ekcuro	ubes
34	Ganezwara Lae	AEE	ERPC			Parada	
35	BK Prodhow	Dam	Pompo	9434742521		dh_	
36	B. SARKHEL	SE(PS)	ERPL	94330657	<i>H</i>	Sin	
37	J. BANDYOPA MYAY	*- SE(C)	ERPC			Je-	
38	S.R. singh	cmiosy	PECOER (RD)	7424740289	4.	2/2	
39	S. konar	Mgr	ERLDC	9933091859		Juan "	
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Participants in 84th OCC Meeting

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 16.04.13 (Tuesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
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43	S.K. MISHRA	DGM (05)	NTPC	943823207	SKMishnaos Ortpc.co.in	sole
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45	J. C. Patri	Ahm	NTOL	743759367)		Starty
46	R.P. Singh.	DSH (05)	NTPC	9431011366	mtpc, corio	Amila 4
47	Ugyan Panjoz	AETE	KH	-	heyen depe Cymail lou	18
48	Tenzin Wangda	50	KH P	-	terrinwangdakhe (c). g mail-Con.	the.
49	Sarren Clieder	SP	THP	~	Chocles Savani 276 Yahara	, Jult
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52	Kuonzang Dorji	Sr.Er	B-PC (70)	00975-17605483	kinzailegmaile	Muermange
53	R. Biswas	Sr. Mgv/ALDC	DPL	9434735985	raijanbisway) A gnaili com	pla
54	PP.K. Bash	DGM (opm)	KTMS WBPACL	9432013369	pkbose g. Wopdel.co.in	-Su_
55	A. K. Seigh	EEE	JSEB	997385020 8	alis. lapan	qu.
56	P. Bmoyi	DE	WBSEDU	9432141745	gmail: cu	K
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58	S' M. Sengerety	Tech Advisu	BSPHCL	9836020155		12
59	S. P. Datte.	AGM(NTPC)	ERPL	9432067022		sp#
60	S.M. Jha	E.E.	ERPL			8ygh

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Participants in 84th OCC Meeting

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 16.04.13 (Tuesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature
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63	HSBhattz.	GHeaders)	MPL	920483368	himadri. bhatta @ talapoper. Com	Hochally
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"Coming together is a beginning, staying together is progress, and working together is success." -Henry Ford

Annexure-I



PRESENTATION AGENDA





HP-Danity Generation

TESC






PRESENTATION AGENDA









PRESENTATION AGENDA



PRESENTATION AGENDA



LOADSHEDDING SCHEME

- There are two nos. of 220 kV interconnector circuits between BBGS and E.M S/S.
- If two circuits become out of service (circuit-1 off then circuit-2 trip or vice-versa or both circuit trip simultaneously), at that time CESC can shed required amount of load at 132 kV.



Trang

TESC



PRESENTATION AGENDA





HP-Berge Greetin

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TESC

HP Bergy Gaarma

IL CESC

IL:CESC

CASE STUDY-I SEQUENCE OF EVENT:- 1. Fault occurred on B-ph at 12:32 PM.	
SEQUENCE OF EVENT:- 1. Fault occurred on B-ph at 12:32 PM.	
1. Fault occurred on B-ph at 12:32 PM.	
2. Fault current was around 0.92 kA for all WBSETCL circuits	5.
 The fault current disappeared a er 60 ms from fault incep on point and a er that 3 ph currents were 599 A f WBSETCL circuits. At that me Ph-N voltage was 42.9 kV(56%). 	or all
 This caused opera on of Split Logic path-1 a er 350 ms i fault incep on point. 	from









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HP-Dauje Greeks

IL CESC

Schedule for testing of special energy meters in Eastern Region

SI.No.	Agency	Utility	Meter make	TYPE OF METERS	Date of	Duration of calibration in	Date of calibration	Coordina ting	Name of the Officer f	Co-ordinating rom PGCIL
-				TYPE-A (1Amp)	calibration start	Days	finish	station	Name	Mobile No
				Team 1						
1	Muzaffarpur (PG)	POWERGRID	L&T	10	15-Apr-13	7	22-Apr-13			
2	Kanti(BSEB)	BSEB	L&T	2	22-Apr-13	1	23-Apr-13			
3	Purnea(PG)	POWERGRID	L&T	6	23-Apr-13	4	27-Apr-13			
4	Purnea(BSEB)	BSEB	L&T	3	27-Apr-13	2	29-Apr-13			
5	Kishanganj(BSEB)	BSEB	L&T	2	29-Apr-13	1	30-Apr-13		-	
6	Kahalgaon NTPC	NTPC	L&T	41	30-Apr-13	27	28-May-13			
7	Sultanganj BSEB	BSEB	L&T	2	29-May-13	1	30-May-13			
8	Sabour BSEB	BSEB	L&T	1	30-May-13	1	31-May-13			
9	Biharshariff(PG)	POWERGRID	L&T	8	1-Jun-13	5	6-Jun-13			
10	Biharshariff(BSEB)	BSEB	L&T	5	6-Jun-13	3	9-Jun-13			
11	Rajgir(BSEB)	BSEB	L&T	1	9-Jun-13	1	10-Jun-13			
12	ARA(PG)	POWERGRID	L&T	5	11-Jun-13	3	14-Jun-13			
13	ARA(BSEB)	BSEB	L&T	1	14-Jun-13	1	15-Jun-13			
14	Khagual(BSEB)	BSEB	L&T	2	15-Jun-13	1	16-Jun-13			
15	Sasaram - PG	POWERGRID	L&T	6	16-Jun-13	4	20-Jun-13			
16	Dehri(BSEB)	BSEB	L&T	2	20-Jun-13	1	22-Jun-13			
17	Karamnasa(BSEB)	BSEB	L&T	2	22-Jun-13	1	23-Jun-13			
18	Mohania(BSEB)	BSEB	L&T	1	23-Jun-13	1	24-Jun-13			
19	Sonnagar(BSEB)	BSEB	L&T	2	24-Jun-13	1	25-Jun-13			
				Team 2						
1	Farakka NTPC	NTPC	L&T	22	15-Apr-13	15	29-Apr-13			
2	Malda(PG)	POWERGRID	L&T	5	30-Apr-13	3	4-May-13			
3	Malda(WBSETCL)	WBSETCL	L&T	2	5-May-13	1	6-May-13			
4	Binaguri (PG)	POWERGRID	L&T	16	7-May-13	11	18-May-13			
5	Siliguri(PG)	POWERGRID	L&T	6	19-May-13	4	23-May-13		6	
6	NBU(WBSETCL)	WBSETCL	L&T	2	24-May-13	1	25-May-13			
7	Birpara(PG)	POWERGRID	L&T	7	26-May-13	5	31-May-13			
8	Birpara(WBSETCL)	WBSETCL	L&T	2	1-Jun-13	1	2-Jun-13			
9	Rabangla(Sikkim)	SIKKIM	L&T	1	3-Jun-13	1	4-Jun-13			
10	Melli(Sikkim)	SIKKIM	L&T	4	5-Jun-13	3	7-Jun-13			
11	Kalimpomg(WB)	WBSETCL	L&T	1	8-Jun-13	1	9-Jun-13			
12	Gangtok(PG)	POWERGRID	L&T	6	10-Jun-13	4	14-Jun-13			
13	Rangit(NHPC)	NHPC	L&T	6	15-Jun-13	4	19-Jun-13			
14	Teesta(NHPC)	NHPC	L&T	7	20-Jun-13	5	25-Jun-13			
15	Malbase	BHUTAN	L&T	8	26-Jun-13	5	1-Jul-13			
16	Tala	BHUTAN	L&T	3	2-Jul-13	2	4-Jul-13			
								1		

1	Durganur(PG)	POWERGRID	1&T	6	6- Jul-13	4	10- Jul-13	
2	Parulia(DVC)	DVC	LAT	1	10-10-13	1	11-lul-13	
2	Waria(DVC)	DVC	LAT	1	12_lul_13	1	12-Jul-13	
J 	Bidhannagar(W/BSTCL)	WBSTCI	1.8.T	3	12-Jul-13	2	14 101 13	
5	Subbashgram(PG)	POWERCRID	LAT	3	12-Jul-13	1	14-Jul-13	
6		WREETCI		2	14-Jul-13	4	10-Jul 12	
0	Jeerat(WBSETCL)	WBSEICL	LOT	2	15-Jul-13	1	10-Jul-13	
1	Maithon(PG)	POWERGRID	L&I	4	16-Jul-13	3	19-Jul-13	
8	Kalyaneshwari(DVC)	DVC	L&T	1	19-Jul-13	1	20-Jul-13	
9	Baripada(PG)	POWERGRID	L&T	8	20-Jul-13	5	25-Jul-13	
10	Baripada(GRIDCO)	GRIDCO	L&T	1	25-Jul-13	1	26-Jul-13	
11	Balasore(GRIDCO)	GRIDCO	L&T	2	26-Jul-13	1	27-Jul-13	
12	Rourkella(PG)	POWERGRID	L&T	8	27-Jul-13	5	1-Aug-13	
13	Rourkella(GRIDCO)	GRIDCO	L&T	1	1-Aug-13	1	2-Aug-13	
14	Rairangpur(GRIDCO)	GRIDCO	L&T	1	2-Aug-13	1	3-Aug-13	
15	Budhipadar(GRIDCO)	GRIDCO	L&T	3	3-Aug-13	2	5-Aug-13	
16	Joda(GRIDCO)	GRIDCO	L&T	4	5-Aug-13	3	7-Aug-13	
17	Rengali(PG)	POWERGRID	L&T	5	7-Aug-13	3	11-Aug-13	
18	Talcher(NTPC) stage-I	NTPC	L&T	26	27-Jun-13	17	14-Jul-13	ER1 region TEAM 1 start this
19	Talcher(NTPC) stage-II	NTPC	L&T	9	14-Jul-13	6	20-Jul-13	
20	Jeypore(PG)	POWERGRID	L&T	- 8	20-Jul-13	5	26-Jul-13	
21	Jeynagar(GRIDCO)	GRIDCO	L&T	2	26-Jul-13	1	27-Jul-13	
22	Indravati(GRIDCO)	GRIDCO	L&T	1	27-Jul-13	1	28-Jul-13	

Annexure-II A

Contact details of Nodal Person for AMR Implementa

SI No	Name Of the	Name of the Authorized Person	Mobile No	E-mail-TD	Designation	Department
1						

Contact details of WBSEB for PGCIL-AMR Implementation

No Of Sub-Station- 11

	Name Of The Sub-	Name of the				
Sl No	station	Authorized Person	Mobile No	E-mail-ID	Designation	Department
1	BIDHANNAGAR					
2	BIRPARA					
3	DALKHOLA					
4	JEERAT					
5	KALIMPONG					
6	KOLAGHAT					
7	MALDA					
8	NBU					
9	RAMMAM					
10	SAGARDIGHI					
11	SANTALDIH					

Annexure-II C

Sl No	State	Name Of The Sub-station	Under Control	Total Meter	DCU	Tentative Date For Survey From	Tentative Date For Survey TO	
1	BIHAR	KISHANGANJ	BSEB	1	1	2. May 2013	3. May 2013	
2	BIHAR	PURNEA	BSEB	3	1	27. April 2013	27. April 2013	
3	BIHAR	PURNEA	PG	12	1	27. April 2013	1. May 2013	
4	BIHAR	SULTANGANJ	BSEB	5	1	27. May 2013	27. May 2013	
5	BIHAR	KAHALGAON	NTPC	43	3	29. May 2013	1. June 2013	
6	BIHAR	KAHALGAON	BSEB	1	1	3. June 2013	3. June 2013	
7	BIHAR	SABOUR	BSEB	1	1	4. June 2013	4. June 2013	
8	JHARKHAND	LALMATIA	JSEB	3	1	5. June 2013	5. June 2013	
9	SIKKIM	GANGTOK	PG	6	1	18. May 2013	18. May 2013	
10	SIKKIM	MELLI	SIKKIM	5	1	14. May 2013	15. May 2013	
11	SIKKIM	RANGIT	NHPC	9	1	16. May 2013	17. May 2013	
12	WEST BENGAL	BINAGURI	PG	16	1	8. May 2013	9. May 2013	
13	WEST BENGAL	BIRPARA	WBSEB	2	1	10. May 2013	11. May 2013	
14	WEST BENGAL	BIRPARA	PG	9	1	10. May 2013	11. May 2013	
15	WEST BENGAL	DALKHOLA	WBSEB	1	1	26. April 2013	26. April 2013	
16	WEST BENGAL	FARAKKA	NTPC	33	2	15. April 2013	20. April 2013	
17	WEST BENGAL	KALIMPONG	WBSEB	3	1	13. May 2013	13. May 2013	
18	WEST BENGAL	MALDA	PG	5	1	22. April 2013	25. April 2013	
19	WEST BENGAL	MALDA	WBSEB	2	1	22. April 2013	25. April 2013	
20	WEST BENGAL	NBU	WBSEB	2	1	4. May 2013	4. May 2013	
21	WEST BENGAL	SILIGURI	PG	7	1	6. May 2013	7. May 2013	
22	WEST BENGAL	RAMMAM	WBSEB	1	1	20. May 2013	20. May 2013	
23	WEST BENGAL	TEESTA	NHPC	7	1	21. May 2013	23. May 2013	
24	JHARKHAND	TTPS	GRIDCO	1	1	24. May 2013	24. May 2013	
25	WEST BENGAL	SAGARDIGHI	WBSEB	4	1	7. June 2013	8. June 2013	
26	BIHAR	DEHRI	BSEB	3	1	20. May 2013	21. May 2013	
27	BIHAR	ARAH	PG	6	1	23. April 2013	25. April 2013	
28	BIHAR	ARAH	BSEB	1	1	23. April 2013	25. April 2013	
29	BIHAR	BARH	NTPC	7	1	26. April 2013	27. April 2013	
30	BIHAR	BIHARSHARIFF	BSEB	6	1	22. May 2013	25. May 2013	
31	BIHAR	BIHARSHARIFF	PG	7	1	22. May 2013	25. May 2013	
32	BIHAR	DUMRAON	BSEB	1	1	29. April 2013	29. April 2013	
33	BIHAR	PATNA	PG	10	1	6. May 2013	10. May 2013	
34	BIHAR	MUZAFFARPUR	PG	10	1	20. April 2013	22. April 2013	
35	BIHAR	RAJGIR	BSEB	3	1	18. April 2013	19. April 2013	
36	BIHAR	MOHANIA	BSEB	1	1	28. May 2013	28. May 2013	
37	BIHAR	KANTI	BSEB	2	1	29. May 2013	29. May 2013	
38	BIHAR	KARAMNASA	BSEB	2	1	30. April 2013	30. April 2013	
39	BIHAR	KHAGAUL	BSEB	2	1	1. May 2013	1. May 2013	
40	BIHAR	PUSAULI	PG	10	1	2. May 2013	3. May 2013	
41	BIHAR	GAYA	PG	6	1	15. April 2013	17. April 2013	
42	BIHAR	SONENAGAR	BSEB	1	1	16. May 2013	17. May 2013	
43	BIHAR	RAMCHANDRAPUR	JSEB	3	1	27. May 2013	27. May 2013	
44	JHARKHAND	BARHI	DVC	1	1	22. May 2013	22. May 2013	
45	JHARKHAND	CHANDIL	JSEB	5	1	20. May 2013	21. May 2013	
46	JHARKHAND	DHANBAD	DVC	2	1	16. May 2013	17. May 2013	
47	JHARKHAND	MEJIA	DVC	7	1	29. April 2013	2. May 2013	
48	JHARKHAND	MAITHON RB	MPL	12	1	3. May 2013	4. May 2013	
49	JHARKHAND	MAITHON	PG	8	1	6. May 2013	8. May 2013	
50	JHARKHAND	MAITHON	DVC	1	1	9. May 2013	9. May 2013	

51	JHARKHAND	MANIQUE	DVC	2	1	10. May 2013	11. May 2013
52	JHARKHAND	PATRATU	JSEB	3	1	23. May 2013	24. May 2013
53	WEST BENGAL	BIDHANNAGAR	WBSEB	4	1	20. April 2013	20. April 2013
54	WEST BENGAL	DSTPS	DVC	4	1	25. April 2013	27. April 2013
55	WEST BENGAL	DSTPP	ANDAL	4	1	25. April 2013	27. April 2013
56	WEST BENGAL	DURGAPUR	PG	8	1	22. April 2013	24. April 2013
57	WEST BENGAL	K'NESWARI	DVC	11	1	13. May 2013	15. May 2013
58	JHARKHAND	TENUGHAT	JSEB	1	1	18. May 2013	18. May 2013
59	WEST BENGAL	PARULIA	DVC	1	1	22. April 2013	22. April 2013
60	WEST BENGAL	SANTALDIH	WBSEB	1	1	24. May 2013	25. May 2013
61	WEST BENGAL	PATRATU	DVC	1	1	23. May 2013	24. May 2013
62	WEST BENGAL	KOLAGHAT	DVC	1	1	17. April 2013	17. April 2013
63	WEST BENGAL	KOLAGHAT	WBSEB	1	1	17. April 2013	17. April 2013
64	WEST BENGAL	JEERAT	WBSEB	2	1	16. April 2013	16. April 2013
65	WEST BENGAL	WARIA	DVC	2	1	18. April 2013	19. April 2013
66	WEST BENGAL	SUBHASGRAM	PG	6	1	15. April 2013	15. April 2013
67	JHARKHAND	DEOGARH	JSEB	1	1	7. June 2013	7. June 2013
68	JHARKHAND	JAPLA	JSEB	1	1	3. June 2013	3. June 2013
69	JHARKHAND	GARWA	JSEB	1	1	4. June 2013	4. June 2013
70	JHARKHAND	GOELKERA	JSEB	1	1	5. June 2013	6. June 2013
71	JHARKHAND	HATIA	JSEB	1	1	10. June 2013	10. June 2013
72	JHARKHAND	JAMSHEDPUR	DVC	1	1	28. May 2013	30. May 2013
73	JHARKHAND	JAMSHEDPUR	PG	3	1	28. May 2013	30. May 2013
74	JHARKHAND	JAMTARA	JSEB	1	1	7. June 2013	8. June 2013
75	JHARKHAND	JINDAL	GRIDCO	1	1	31. May 2013	1. June 2013
76	JHARKHAND	KENDOPOSI	JSEB	1	1	3. June 2013	4. June 2013
77	JHARKHAND	RANCHI	PG	14	1	11. June 2013	15. June 2013
78	ODISHA	KEONJHAR	PG	4	1	17. June 2013	18. June 2013
79	ODISHA	BALASORE	GRIDCO	3	1	3. June 2013	4. June 2013
80	ODISHA	BARIPADA	PG	13	1	5. June 2013	8. June 2013
81	ODISHA	BARIPADA	GRIDCO	1	1	5. June 2013	8. June 2013
82	ODISHA	BUDHIPADAR	GRIDCO	4	1	17. June 2013	18. June 2013
83	ODISHA	INDRAVATI	PG	1	1	24. June 2013	25. June 2013
84	ODISHA	JEYPORE	GRIDCO	2	1	2. July 2013	5. July 2013
85	ODISHA	JEYPORE	PG	8	1	2. July 2013	5. July 2013
86	ODISHA	JODA	GRIDCO	3	1	17. June 2013	18. June 2013
87	ODISHA	M'MUNDALI	GRIDCO	5	1	10. June 2013	12. June 2013
88	ODISHA	MENDHASAL	GRIDCO	2	1	13. June 2013	14. June 2013
89	ODISHA	RAIRANGPUR	GRIDCO	1	1	19. June 2013	20. June 2013
90	ODISHA	RENGALI	GRIDCO	3	1	20. June 2013	22. June 2013
91	ODISHA	RENGALI	PG	6	1	20. June 2013	22. June 2013
92	ODISHA	ROURKELA	GRIDCO	1	1	21. June 2013	25. June 2013
93	ODISHA	ROURKELA	PG	10	1	21. June 2013	25. June 2013
94	ODISHA	INDRAVATI P/H	GRIDCO	1	1	24. June 2013	25. June 2013
95	ODISHA	STERLITE	STERLITE	8	1	8. July 2013	10. July 2013
96	ODISHA	TALCHER	NTPC	36	2	26. June 2013	29. June 2013
97	ODISHA	TARKERA	GRIDCO	2	1	26. June 2013	29. June 2013
98	ODISHA	BOLANGIR	PG	4	1	26. June 2013	28. June 2013

STATUS OF RGMO IN ER

ANNEXURE-III (Pg 1 of 3)

LIST OF GENERATING UNITS PARTICIPATING IN RGMO

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS	ERLDC Obeservation	
		1	200	Running under RGMO mode		
		2	200	Running under RGMO mode	Intermittent response observed	
	FARAKKA	3	200	Running under RGMO mode		
		4	500	Taken in RGMO at 12:09hrs of 01.08.10		
		5	500	Taken in at 11:30hrs of 04.08.10		
	KAHALGAON	1	210	Taken in at 00:00hrs of 01.08.10		
		2	210	Taken in at 00:00hrs of 01.08.10	Intermittent response observed	
		3	210	Running under RGMO mode		
NTPC		4	210	Running under RGMO mode		
		5	500	Running under RGMO mode		
		6	500	Taken in at 00:00hrs of 01.08.10		
		7	500	Running under RGMO mode		
		1	500			
		2	500			
		3	500		Intermittent response observed	
	TALCHER	4	500	All units are running under RGMO mode		
		5	500			
		6	500			
		1	170			
TEESTA	TEESTA	2	170	Taken in RGMO mode at 00:00hrs of 01.08.10	Response satisfactory	
		3	1/0			
DVC	MEJIA	4	210	Implemented(56Th OCC meeting)	Response not satisfactory	
		6	250	Implemented(69Th OCC meeting)		
		1	210			
		2	210			
	BAKRESWAR	3	210	RGMO implemented & in Service(56th OCC meeting)	Response observed on 31.01.12	
WBPDCL		4	210			
		5	210			
	SANTALDIH	6	250	RGMO implemented & in Service(72nd OCC meeting)	Under Obsevation	
		1	250			
CESC	BUDGE BUDGE	2	250	Unit # 1,2 in FGMO & 3 in RGMO	Response satisfactory	
		3	250			
Starlita	Ctorlito	1	600	DOMO implemented 8 in Service/72nd OCC meeting)	Under Observation	
Sternite	Sternite	2	600	Romo implemented & in Service(72nd Occ meeting)	Under Obsevation	
MPI	MPI	1	525	RGMO implemented & in Service(73rd OCC meeting)	Under Observation	
			12535		Onder Obsevation	

STATUS OF RGMO IN ER

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS
FSTPP	FARAKKA	6	500	Not Implemented
	CHANDRAPURA TPS	7	250	BCNO detail is alt sveilable
	CHANDRAPURA TPS	8	250	RGMO detail is it available
		1	210	Difficulties in implementing PGMO & evention not applied/56th
	BOKARO 'B'	2	210	OCC meeting)
		3	210	occ meeting)
		1	210	
51/0	MEJIA	2	210	Not implemented & exemption not applied(soth OCC meeting)
DVC		3	210	
		7	500	Not Implemented & exemption not applied
	WEJIA-D	8	500	Could not put in to RGMO (82nd OCC meeting)
	DSTPS	1	500	RGMO detail is n't available
		2	500	
	WARIA	4	210	Difficulties in implementing RGMO & exemption not applied(56th OCC meeting)
ISED		1	210	Difficulties in implementing RGMO & exemption not applied(56th
JJEB	TENUGHAT	2	210	OCC meeting)
OPGC	IBTPS	1	210	Not adequate response in RGMO(56th OCC meeting)
0100	IBTI 0	2	210	Not adequate response in Nomo(John Obo meeting)
		1	210	
		2	210	
	KOLAGHAT	3	210	Old Units, difficulties in implementing RGMO and exemption
		4	210	applied(60th OCC meting)
		5	210	
WBPDCL		6	210	
	BANDEL	5	210	Exemption applied from CERC
	SANTALDIH	5	250	RGMO detail is n't available
	DPL	7	300	Implemented but not yet tested(56Th OCC meeting)
	SAGARDIGHI	1	300	Not tested(56th OCC MEETING)
	0/10/11/0/11	2	300	
тот	AL CAPACITY		7930	

LIST OF THERMAL GENERATING UNITS NOT PARTICIPATING IN RGMO

STATUS OF RGMO IN ER LIST OF HYDRO GENERATING UNITS NOT PARTICIPATING IN RGMO

ANNEXURE-III

(Pg 3 of 3)

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS	ERLDC Obeservation
		1	20	Pondage capacity is to generate power upto 3 hours	
NHPC	RANGIT	2	20	only.Hence not under the perview of RGMO	
		3	20	· · · · · · · · · · · · · · · · · · ·	
		1	20		
21/2	MAITHON HPS	2	20	RGMO detail is n't available	No response
DVC		3	20		
	PANCHET HPS	1	40	RGMO detail is n't available	
		2	40		No response
JSEB	SUBARNREKHA	1	65	RGMO in place, But due to less availabilty of water ,RGMO	
		2	65	could not tested	
		1	49.5		
		2	49.5		
		3	24		
	BURLA	4	24	Applied for exemption(56th OCC meeting)	
		5	37.5		
		6	37.5		
		7	37.5		
	CHIPLIMA	1	24		
		2	24	Applied for exemption(56th OCC meeting)	
		3	24		
		1	60		
		2	60		
		3	60	Applied for exemption(56th OCC meeting)	
		4	60		
	BALIMELA	5	60		
		5	60		
OHPC		0	00		
		/	75		
		8	/5		
		1	80		
	UPPER KOLAB	2	80	Applied for exemption(56th OCC meeting)	
		3	80		
		4	80		
		1	50		
		2	50		
	RENGALI	3	50	Applied for exemption(56th OCC meeting)	
		4	50		
		5	50		
		1	150		
		2	150	Applied for exemption (56th OCC meeting)	
		3	150	Applied for exemption(John Oco meeting)	
		4	150		
		1	12.5		
		2	12.5		No response
	KAMMAM	3	12.5	KGWU detali is n't avallable	
WBSEDCL		4	12.5		
	PPSP	1,2,3,4	900	Not yet implemenetd & exemption not applied(56th OCC meeting)	
TOA	L CPACITY	L	3292	<u>-</u> .	
					•

EASTERN REGIONAL POWER COMMITTEE 14, GOLF CLUB ROAD, TOLLYGUNGE KOLKATA-700033

MINUTES OF THE MEETING ON "INTERCONNECTION OF CESC NETWORK (NONADANGA) AT SUBHASGRAM, POWERGRID" HELD ON 03.04.2013 AT ERPC, KOLKATA.

A 220kV interconnec on of CESC system is being established at Subhasgram 400k/220kV sta on of POWERGRID ERII. CESC has obtained connec vity for termina on of its Haldia 600MW IPP at Subhasgram. The necessary bay extension work as well as commissioning of 400/220kV ICT at Subhasgram is almost under comple on stage. Further 220kV interconnec on from Subhasgram to EM bypass of CESC is also under progress. Schema c diagrams are enclosed in **Annexure-I & II**.

The issue was discussed in 83rd OCC mee ng held on 25th March, 2013, wherein it was decided to have separate mee ng with Powergrid, CESC, WBSETCL, WBSEDCL, ERPC and ERLDC on 3rd April, 2013 at ERPC Secretariat for further delibera on.

CESC being a DISCOM of West Bengal, The following issues require delibera on and nalised:

- i) Control area Demarca on in view of connec vity with CTU network.
- ii) Scheduling issues
- iii) Metering and se lement issues.
- iv) Telemetering and voice communica on
- v) Opera onal issues at Subhasgram substa on.

Member Secretary I/c, ERPC greeted the par cipants of the mee ng. List of par cipants is at **Annexure-A**. Therea er, the agenda items were taken up.

Delibera on in the mee ng

On enquiry of Member Secretary I/c, ERPC, Powergrid informed that, One 315 MVA, 400/220 kV ICT and 220 kV bays at Subhasgram Sub-sta on are already commissioned. Powergrid added that, other 315 MVA, 400/220 kV ICT would be commissioned by **11**th April, 2013.

CESC informed that, 220 kV Subhasgram (PG)-EMSS (CESC) interconnec on line would be commissioned by end of April, 2013.

On the above issue,

WBSETCL and WBSEDCL opined that, CESC is an embedded system of West Bengal. As such they suggested that, 220 kV Subhasgram (PG)-EMSS (CESC) interconnec on line be considered as an addi onal connec vity between West Bengal and CTU system. Therefore, exis ng mechanism of scheduling and commercial se lements would remain undisturbed.

A er delibera on, this was accepted by all including ERLDC.

WBSETCL, WBSEDCL and CESC decided in the mee ng that, forthcoming issues if any arising out of this interconnec on would be se led mutually. ERLDC and Powergrid suggested for installa on of two nos addi onal SEMs at Subhasgram before commissioning of the 220 kV lines.

It was informed that, communica on (Data and Voice) is in place between Subhasgram (PG) to ERLDC. However, after laying the ber op c cables, Data and Voice communica on will be available to CESC, SLDC and ERLDC.

The Opera on and Maintenance etc. of CBs and ICTs at Subhasgram associated with the 220 kV Subhasgram (PG)-EMSS (CESC) interconnec on would be done by Powergrid on behalf of CESC on basis of agreement which will be completed in due course.

Participants in Meeting Interconnection of CESC Network (Nonadanga) at Subbhasgram Powergrid

Venue: ERPC Conference Room, Kolkata

Time: 11:00 hrs

Date: 03.04.13 (Wednesday)

Sl No	Name	Designation	Organization	Contact Number	Email	Signature	
1	AK Berndysfmeller.	MS I/C	ERPC	9433068533	mserpe poace Quie	Abaudyn.	
2	U.K. Verma	GM	ERLOC	8902496220	cejuallunas verna	lower	
3	Stat Marton	37.5-5.	रे सर रन	94330 41802	dikshriverten		nif
4	f.S.Das	СМ	FELOC	943304837	psdas-psd @yalo	H	
5	S. J. LAHIRI	CM	POWERARD	9434342001	Alahinin powerg	id india. 60 M	-
6	T. K. DE	A. C.E	WESFDUL	9433870748	2	The	
7	P. Banujin	DE	WIBSEDCL	9432140761	- preibantz & gmail.cn	Ne	
8	ef. Raichardhoi	GCE SLDE	WBSETCL	9433419696		a di	
9	J. Multorlyn	SE/SLOC	WBSETCL	905780502	dib bhatte	2.182-15	
10	P. Jah	CE; CPD	[1	943487214		Jach	
11	RCHARZAVAAN	DCnM	CGI	98410 54614		Raf	
12	B. B. CHARRAGARY	vf (20)	CESC	98310 95597	bijay. Chencedants	Boul.	
13	V. Kalyaurin	EE	Ed?(1	_	'Bol	
14	Gameswara Lae	AEE	ERPL			Cispada	
15	Shriyohargh	EIE	ERPL		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Jay gr	
16	B. SARKHEL	SE (PS)	ERC	9433*6572		Soul.	
17	J. BANDTOPH	SECO)	N 1			for	
18	BRPRATOHAN	DGM	POWERARID	9434742021		des .	
19	A. Birwas	C.E., SLDC	WBSETCL	9831093513		Ab.	
20							

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

[Page 1]



Annexuse - 11



3

FSTPP U#2, 17.03.13





FSTPP U#6, 17.03.13



KhSTPP U#1, 07.03.13



KhSTPP U#2, 07.03.13







TSTPP U#1, 17.03.13











KTPS U#3, 17.03.13













MPL U#1, 21.03.13













DSTPS U#1, 17.03.13

Adhunik U#1 22.03.13







Annexure-VI



Transmission

Pollution Characteristic of Insulator Strings of 1000kV State Grid Electric Power Research Institute : China We researched the pollution withstand voltage characteristic of 1000 kV insulator strings. Results show that the pollution withstand voltage characteristic of V type is better than that of I type; U 50% decreases with increment of NSDD U50% is higher in non-uniform pollution condition than uniform pollution condition.

The achievement is very important for type choice of insulator strings and pollution insulation configuration of EHV/UHV transmission line.

国家电网公司特高压交流输电关键技术研究项目(ZX07-09)~~

Analysis on Pollution Flashover in 500 kV Transmission Lines of East China Power Grid and Research on Optimal Configuration of External Insulation

Research on Optimal Configuration of External Insulation East China Electric Testing & Research Institute : Shanghal

Analysis show that insufficient creepage distance and irrational shed profiles are the principal reason of pollution flashover of transmission lines.

In order to confirm the secure operation of transmission lines the pollution tests of insulator strings with different types and different forms for 500kV transmission lines under different pollution extents are conducted and the withstand voltage curves of different specimens under polluted conditions are obtained. Pollution Flashover in Transmission Lines of East China Power Grid and Research on Optimal Configuration of External Insulation East China Electric Testing & Research Institute : Shanghal

The test results are available for reference to the configuration of external insulation as well as to correct selection of shape and arrangement of insulator strings for EHV transmission line.

By means of operational experiences of UHV transmission lines and experimental investigations and practical engineering applications, the contamination accumulation characteristic and creepage distance utilization coefficients of various insulators are researched, then reasonable external insulation configuration for 500 kV transmission lines in East China Power Grid are recommended.



HELEBORNE HOTLINE INSULATOR WASH









RTV SPRAY COAT ON INSULATORS

	Line in Argon and a shinks a birt of				
10.160	twee Generators	6858	6385	No. 10 10 10 10 10 10 10 10 10 10 10 10 10	Charter.
- 14	rhanting of HOOD/OMM wandates of her Line of HT BROOV, Yoldar Hick: MNDO Line				
	Boundary New York, And States (1996)	-	.8	04800.00	ista and the
	Factories Treaser in a second in carrying the provident field	-			74.996.00
-	Parameters & Description of the second of the second secon	Lotener	-	100005.06	·····································

28. C. With provide the second of the prime is all as a single building of the prime is a second second



Reduction in Trippings during winter fogs in NR1



FLASH OVER : THE PROCESS & SEQUENCE

FLASH OVER : THE PROCESS & SEQUENCE

- Surface current flows when polluted insulator is wet causing dry band on the surface of insulator
- Most of the voltage drop, thus occur across the dry band causing Spark-over (scintillation)
- When the current exceeds a particular value it leads to flashover
- Permanent solution is insulator of suitable design to withstand the accumulated pollution

Background

 Inquiry Committee on Grid Disturbance in Northern Region on 2nd Jan' 2010, recommended POWERGRID to complete pollution mapping in association with CPRI (Page 81)

19. Pollution mapping

POWERGRID has taken up with CPRI for getting the pollution mapping done for the entire country, in the 15" NRPC meeting held on 24" December, 2009 it was informed that CPRE had submitted the proposal for the approval to MoP. The committee recommends that the pollution mapping may be completed by POWERGRID in association with CPRI after getting the require approval. (Action-POWERGRID)

So, NRPC in its 18th meeting on 26th & 27th Nov 2010, recommended POWERGRID to effect the pollution mapping of the Northern region, in consultation with CPRI

Agenda Pollution mapping for Eastern region

With the objective of forming national pollution map, Pollution mapping is proposed for Eastern Region using methodology & funding mechanism similar to Northern region wherein NRPC agreed for a one time reimbursement of expenditure for pollution mapping

■ In NR, expenditure included award value of Rs 2.25 Crore awarded to CPRI plus additional direct expenses incurred by POWERGRID for purchase of instruments, training expenses, travel expenses etc.



- Estimated award value to CPRI to carry out pollution mapping in Eastern Region is about INR 3 Crores. Including cost of Test Eqpts & training expenses, total expenditure shall come around Rs 3.5 Crore.
- The mechanism adopted for Northern Region is as shown in subsequent slides



MODULE EXECUTED IN NORTHERN REGION (THROUGH CPRI)

Scope

- Survey & Module Preparation
- Site selection (Criteria by CPRI)
- Training of CTU/STU Personnel
- <u>Measurement</u> □ <u>Site Measurement</u> □ <u>Laboratory measurement</u>
 <u>by CPRI</u>
- ANALYSIS
- Development of Pollution map of N.Region

Criterion for site selection (by CPRI)

Entire geographical area is divided into grids and the location of sites is based on:

- □ Historical information on flashover
- Pollution source and type
- Distance of line from the pollution source

Based on above Guidelines 300 sites/locations are finalised for entire Northern region

Training of CTU/STU Personnel

- Training (including hands on) provided to the associated engineers of CTU/STU by CPRI
- Trained persons to carry out the pollution measurements

Measurement/Analysis

- Dummy Insulator samples installed on transmission line
- Measurements : 03 times in three seasons per year Repeat the same for next year also.

(i.e. total 6 samples for two years)

- Measurements include
 Eqvt Soluble Salt Deposit Density (ESDD)
 Non-soluble Salt Deposit Density (NSDD)
 Layer Conductance (at only 10 % of sites)
- CPRI to carry out chemical analysis of the pollutant –
 to identify chemical components of non-soluble salts
 X -Ray florescent analysis

Measurement/Analysis

- CPRI shall analyze results of tests at site & laboratory and determine the pollution levels
- Pollution map shall be produced on Survey of India geographical map of suitable scale
- CTU/STU shall arrange
 - dummy insulators
- Instruments
- Necessary manpower for
 - Installation of dummy insulators
 - Carry out measurements at site





Development of Pollution map of Northern Region

P.C.

 CPRI shall carryout the analysis of test result and estimate and map pollution levels geographical map of Northern Region



Annexure-VII

Anticipated Power Supply Position for the month of May-13

		ΡΔΡΤΙΟΠΙΔΡΥ	PEAK DEMAND	ENERGY
	SL.NO			
4		BULAD	MW	MO
1		BIHAR		
	i)	NET MAX DEMAND	2700	1360
	ii)	NET POWER AVAILABILITY- Own Source	156	115
		- Central Sector	1567	829
	iii)	SURPLUS(+)/DEFICIT(-)	-977	-416
	,			
2				
4	.,		1150	720
	1)		1150	730
	11)	NET POWER AVAILABILITY- Own Source	431	246
		- Central Sector	625	356
	iii)	SURPLUS(+)/DEFICIT(-)	-95	-128
3		DVC		
	i)	NET MAX DEMAND (OWN)	2600	1610
	ii)		4324	2337
	")	Control Soster	452	2557
		- Central Sector	400	319
		Long term Bi-lateral (Export)	1400	1041
	iii)	SURPLUS(+)/DEFICIT(-)	777	4
4		ORISSA		
	i)	NET MAX DEMAND	3700	2260
	ji)	NET POWER AVAILABILITY- Own Source	3033	1729
	,	- Central Sector	1094	622
	;;;)		107 4 107	01
	(11)	50KFL05(+)/ DEFICIT(-)	427	71
5		WEST BENGAL		
5.1		WBSEDCL		
	i)	NET MAX DEMAND (OWN)	5200	3160
	ii)	CESC's DRAWAL	868	302
	, iii)	TOTAL WBSEDCL'S DEMAND	6068	3462
	iv)	NET BOWER AVAILABILITY, Own Source	3673	2347
	17)	NET POWER AVAILABILITT- OWIT Source	5675	2347
		- Import from DPL	50	14
		- Central Sector	2509	1527
	v)	SURPLUS(+)/DEFICIT(-)	164	425
5.2		DPL		
	i)	NET MAX DEMAND	320	208
	ii)	NET POWER AVAILABILITY	370	222
)		570	14
	111)	SURPLUS(+)/DEFICIT(-)	50	14
5.3		CESC		
	i)	NET MAX DEMAND	1938	1041
	ii)	NET POWER AVAILABILITY - OWN SOURCE	1070	739
		FROM WBSEDCL	868	302
	iii)	TOTAL AVAILABILITY	1938	1041
	iv)	SURPLUS(+)/DEFICIT(-)	0	0
	,		ŭ	-
0		WEST DENGAL (WDSEDUL+DPL+LESU)		
		(excluding DVC's supply to WBSEDCL's command area)		
	i)	NET MAX DEMAND	7458	4409
	ii)	NET POWER AVAILABILITY- Own Source	5113	3307
		- Central Sector	2509	1527
	iii)	SURPLUS(+)/DEFICIT(-)	164	425
	,	.,		
7		SIKKIM		
'	D.		80	20
	1)		00	39
	11)	NET POWER AVAILABIL(1Y- UWN Source	U	U
		- Central Sector	127	70
	iii)	SURPLUS(+)/DEFICIT(-)	47	31
8		EASTERN REGION		
		At 1.03 AS DIVERSITY FACTOR		
	j)	ΝΕΤ ΜΑΧ DEMAND	17173	10/08
	"		1/1/5	1040
		Long term bi-lateral	1400	1041
	ii)	NET TOTAL POWER AVAILABILITY OF ER	17506	10416
		(INCLUDING C/S ALLOCATION)		
	iii)	PEAK SURPLUS(+)/DEFICIT(-) OF ER	333	8
	í í	(ji)-(j)		
		· · · · ·		

Annexure-VIII

EASTERN REGIONAL LOAD DESPATCH CENTRE KOLKATA

TRANSMISSION ELEMENTS SHUTDOWN APPROVED IN IN 84TH 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	Condition
1	400 KV ALLAHARAD SARNATH	4/12/2012	7:00	4/14/2012	18.00	ODR	DOW/ERCRID/ER I	FOR STRINGING OF 765KV SSRM-FATEHPUR (AS REQUESTED	
1	400 RV ALLAHABAD - SARNATH	4/13/2013	7.00	4/14/2013	18.00	ODB	FOWERGRID/ER-I	BY NR-I)	
2	400 KU/CERNA CARNIATU	4/12/2012	7.00	4/14/2012	18.00	000		FOR STRINGING OF 765KV SSRM-FATEHPUR (AS REQUESTED	
2	400 KV SSRIVI - SARINATH	4/15/2015	7.00	4/14/2015	18:00	ODB	POWERGRID/ER-I	BY NR-I)	
								FOR STRINGING OF 765KV SSRM-FATEHPUR (AS REQUESTED	
3	400 KV SSRM - ALLAHABAD	4/13/2013	7:00	4/14/2013	18:00	ODB	POWERGRID/ER-I	BY NR-I)	
								FOR STRINGING OF 765KV SSRM-FATEHPUR & TOWER	
4	765 KV GAYA-FATEHPUR	4/14/2013	7:00	4/18/2013	18:00	ODB	POWERGRID/ER-I	ERECTION WORK (AS REQUESTED BY NR-I)	Subject to NLDC Consent
5	400KV Rourkela - Ibarsuguda	4/16/2013	9.00	4/16/2013	17:00	ODB	POWERGRID/FR-II		
6	315MVA ICT-V at MALDA	4/16/2013	09:00HRS	4/16/2013	17:00HRS	ODB	POWERGRID/ER-II	Relay retrofiting	APPROVED BUT TO BE PREPONED THE SCHEDULE
7	315 MVA ICT-III AT Arambag	4/17/2013	7:00	4/17/2013	15:00	ODB	WRSETCI	MAINTENANCE WORK	AT NOVED BOT TO BE THEF ONED THE SCHEDOLE.
0		4/17/2013	0.20	4/17/2013	15.00	ODB	WBSETCL		
0		4/17/2013	9:30	4/17/2013	10:00	ODB	WBSETCL	REE IRIVIVIING WORK	
g	SUMIVA ICT-IV at MALDA	4/1//2015	09:00HKS	4/1//2015	17:00HRS	ODB	POWERGRID/ER-II	Relay retrolling.	Subject to WBSETCL consent
10	400 KV KTPP - ARAMBAG	4/18/2013	9:30	4/18/2013	16:00	ODB	WBSETCL	TREE TRIMMING WORK	
11	400 KV BIHARSARIFF - MUZAFFARPUR - I	4/18/2013	10:00	4/18/2013	14:00	ODB	POWERGRID/ER-I	AMP WORK	
12	400 KV New siliguri - Purnea - III&IV	4/18/2013	8.00	4/20/2013	16:00	ODB	POWERGRID/FR-II	Reconductoring work with GTACSR conductor in 400 KV N.	Subject to NLDC Consent & only 400 KV Purnea - Binaguri - I
12	400 KV New Singuri - Furrieu - Inderv	4/10/2015	8.00	4/20/2013	10.00	000	1 OWENGIND/ER-II	Siliguri(Binaguri) - N. Purnea Line (CKT-II)	will remain in sevice.
13	400 KV BIHARSARIFF - MUZAFFARPUR - II	4/19/2013	10:00	4/19/2013	14:00	ODB	POWERGRID/ER-I	AMP WORK	
14	400 KV KTPP - ARAMBAG	4/19/2013	9:30	4/19/2013	16:00	ODB	WBSETCL	TREE TRIMMING WORK	
15	400kV Baripada-Mendhasal Line-I&II	4/19/2013	8:00	4/19/2013	18:00	ODB	POWERGRID/FR-II	For OPTCL crossing line	OPTCL CONSENT REQUIRED
16	400 KV KTPP - KHARAGPUR	4/20/2013	9.30	4/20/2013	16:00	ODB	WRSETCI	TREE TRIMMING WORK	
17	21E MVA ICT Lat Rourkola	4/20/2012	0:00	4/20/2012	17:00	ODR	ROWERGRID/ER II	Numerical relay retrofitting	
1/	S15 WWA ICT-I at Roulkela	4/20/2013	5.00	4/20/2013	17.00	ODB	FOWERGRID/ER-II	Numerical relay recroitcing	
18	400 KV Purnea - Muzaffarpur - D/C	4/20/2013	8:00	4/21/2013	18:00	ODB	ENICL	Construction of Purnea - Biharsariff D/C	SUBJECT TO AVAILABILITY OF 400 KV MAITHON - KODERMA - BIHARSARIFF D/C & ER - NR TTC MAY BE REVISED
10	400 KV KTPP - KHARAGPUR	1/21/2013	0.30	4/21/2013	16:00	ODB	WRSETCI	TREE TRIMMING WORK	
15		4/21/2015	5.50	4/21/2013	10.00	000	WBSETCE	Reconductoring work with GTACER conductor in 400 KV/N	
20	132 KV Raiganj - Dalkhola D/C	4/21/2013	7:00	4/21/2013	16:00	ODB	POWERGRID/ER-II	Reconductoring work with GTACSR conductor in 400 KV N.	Subject to WBSETCL consent
								Siliguri(Binaguri) - N. Purnea Line (CK1-II)	
21	400 KV Angul - Meramandali	4/22/2013	9:00	4/22/2013	17:00	ODB	POWERGRID/FR-II	the Reactor bay will be connected to the line bay	Subject to NLDC Consent & HVDC gajuwaka flow will be
		., ==, =====		., ==, ====				and stability of switchyard will be checked	restricted to 500 MW
22	315 MVA ICT-II at Maithon	4/22/2013	9:00	4/22/2013	17:00	ODB	POWERGRID/ER-II	For retrofitting of numerical differential relay	Power Interruption;
23	220 KV BUS-I AT MALDA	4/22/2013	10:00	4/22/2013	13:00	ODB	POWERGRID/ER-II	For opening bus jumper & dismantling of bus isolator.	Subject to WBSETCL consent
24		4/22/2012	0.00	4/24/2012	10.00	OCP	DOWERCRID/ER I	FOR REPLACEMENT OF DAMAGED CONDUCTOR BETWEEN LOC	Subject to NLDC Concept
24	400 KV KHEG - FKK - I	4/22/2013	8.00	4/24/2013	19.00	OCB	FOWERGRID/ER-I	NO 20 & 27	Subject to NEDC consent
		. /		. 10.0 10.0 . 0				FOR BAY CONST WORK OF 400KV SSRM-DALTANGANJ LINE AT	
25	400 KV SASARAM - BALIA	4/22/2013	8:00	4/22/2013	17:00	ODB	POWERGRID/ER-I	SSRM	Subject to NLDC Consent
26	400 KV PPSP - ARMBAG - I	4/23/2013	9:30	4/23/2013	16:00	ODB	WBSETCL	MAINTENANCE WORK	
27	315 MVA ICT-II at Rourkela	4/23/2013	9.00	4/23/2013	17:00	ODB	POWERGRID/FR-II	Numerical relay retrofitting	
20		4/22/2012	10:00	4/22/2013	12:00	ODB	POWERCRID/ER II	For oppoing hus jumper & dismontling of hus isolator	Subject to WRSETCL concept
20	122 W/ Main Buc AT Siliguri	4/22/2012	11:00	2/24/2012	12:00	ODB	POWERCRID/ER II	EBSS IV construction	Subject to WBSETCE consent
25	132 KV Walli Bus AT Shiguti	4/23/2013	11.00	3/24/2013	15.00	ODB	POWERGRID/ER-II	ER35-IV CONSULCTION	
30	400 KV PPSP - BIDHANNAGAR - I	4/24/2013	9:30	4/24/2013	16:00	ODB	WBSETCL	MAINTENANCE WORK	
31	132 KV Rangit-Kurseong	4/24/2013	8:00	4/24/2013	17:30	ODB	POWERGRID/ER-II	Sag adjustment for right sagging of Loc 23-24-25	WBSETCL & SIKKIM CONSENT REQUIRED
32	132 KV Rangit-Gangtok	4/24/2013	8:00	4/24/2013	17:30	ODB	POWERGRID/ER-II	Sag adjustment for right sagging of Loc 23-24-25	WBSETCL & SIKKIM CONSENT REQUIRED
33	315 MVA ICT-I at Maithon	4/24/2013	9:00	4/24/2013	17:00	ODB	POWERGRID/ER-II	For retrofitting of numerical differential relay	Power Interruption;
24	400 kV Main Ruc II AT Rinaguri	4/24/2012	0.00	4/24/2012	18.00	ODR	DOWERCRID/ER II	Bus Bar Stability test and Bay construction work of BONG-III &	There will be no interruption in Rower flow
54	400 KV Walli Bus-li AT Billaguli	4/24/2013	5.00	4/24/2013	18.00	ODB	FOWERGRID/ER-II	IV bays by M/s IPPL	There will be no interruption in Fower now.
35	220 kV Bus-I AT Jeypore	4/24/2013	9:00	4/24/2013	17:00	ODB	POWERGRID/ER-II	Rectification of hot spot & AMP	No power interruption
36	400 KV PPSP - BIDHANNAGAR - II	4/25/2013	9:30	4/25/2013	16:00	ODB	WBSETCL	MAINTENANCE WORK	
	400 KV Rourkela - Ibarsuguda & 400 KV Sterlite - Raigarh(I II O-							Stringing beth LOC no 28/0 & 29/0 (LILO of Rourkela - Raigarh	
37	ii)	4/25/2013	8:00	4/26/2013	17:00	OCB	POWERGRID/ER-II	Lat Ibarcuruda)	Subject to NLDC consent & need ER-WR TTC revision.
	11)							Reconductoring work with GTACCR conductor in 400 KV/N	For reconductoring work & Approved AMD 2012 12
38	220 KV Malda - Dalkhola D/C	4/25/2013	7:00	4/26/2013	16:00	ODB	POWERGRID/ER-II	Reconductoring work with GTACSR conductor in 400 KV N.	For reconductoring work & Approved Aivir 2012-13,
								Siliguri(Binaguri) - N. Purnea Line (CK1-II)	scheduled in Dec 2013
39	132 KV Rangit-Gangtok	4/25/2013	8:00	4/26/2013	17:30	ODB	POWERGRID/ER-II	Sag adjustment for right sagging of Loc 23-24-25	Subject to WBSETCL consent
40	50MVAR MEIIA-LLR at Maithon	4/25/2013	9:00	4/25/2013	17:00	ODB	POWERGRID/FR-II	For retrofitting of numerical differential relay	Reactor needs to be switched off but no power interruption
		., _==, _====		.,,					in MEJIA-I liney
41	160 MVA ICT#2 at Siliguri	4/25/2013	10:00	4/25/2013	16:00	ODB	POWERGRID/ER-II	ERSS-IV construction	Subject to WBSETCL consent
	ADD IN (MALE DIS HIAT DISCOUNT)	1/25/2012	0.00	1/27/2012	40.00	000	DOMED COLD (FD. II	Bus Bar Stability test and Bay construction work of BONG-III&	These differences in the second second
42	400 KV Main Bus-II AT Binaguri	4/25/2013	9:00	4/2//2013	18:00	ODB	POWERGRID/ER-II	IV bays by M/s IPPL	There will be no interruption in Power flow.
-								FOR REPLACEMENT OF DAMAGED CONDUCTOR BETWEEN LOC	
43	400 KV KHLG – FKK - II	4/25/2013	8:00	4/27/2013	19:00	ОСВ	POWERGRID/ER-I	NO 20 & 27	Subject to NLDC Consent
44	160 MVA ICT#2 at Siliguri	4/26/2013	10.00	4/26/2013	16:00	ODB	POWERGRID/ER-II	ERSS-IV construction	Subject to WRSETCL consent
45		4/26/2012	0.20	4/26/2013	16:00	ODR	WRETCI	MAINTENANCE WORK	Subject to WEBETCE CONSENT
45	400 kV BUS CUUPLEK BKK. AT PPSP	4/20/2013	9.50	4/20/2013	10.00	ODB	WDSETCL	IVIAINTEINAINCE WUKK	
46	400 KV BUS Reactor at Rourkela	4/26/2013	9:00	4/26/2013	1/:00	UDB	POWERGRID/ER-II	Numerical relay retrofitting	
4/	220 KV Subhasgram(PG) - Subhasgram(WB) # 1	4/2//2013	7:00	4/19/2013	13:00	UDB	POWERGRID/ER-II	Rectification of hot spot	Subject to WBSETCL consent
48	160 MVA ICT#2 at Siliguri	4/27/2013	10:00	4/27/2013	16:00	ODB	POWERGRID/ER-II	ERSS-IV construction	Subject to WBSETCL consent
49	132 KV Rangit-Kurseong	4/27/2013	8:00	4/28/2013	17:30	ODB	POWERGRID/ER-II		Subject to WBSETCL & NHPCconsent
50	220 KV Subhasgram(PG) - Subhasgram(WB) # 2	4/28/2013	7:00	4/20/2013	13:00	ODB	POWERGRID/ER-II	Rectification of hot spot	Subject to WBSETCL consent

51	132 KV Raiganj - Dlakhola D/C	4/28/2013	7:00	4/28/2013	16:00	ODB	POWERGRID/ER-II	Reconductoring work with GTACSR conductor in 400 KV N. Siliguri(Binaguri) - N. Purnea Line (CKT-II)	Subject to WBSETCL consent
52	132 KV Main Bus AT MALDA	4/28/2013	7:00	4/28/2013	12:00	ODB	POWERGRID/ER-II	For opening bus jumper & dismantling of bus isolator.	Subject to WBSETCL & NHPCconsent
53	400 KV Rourkela - Raipur-I Main Bay(18)	4/29/2013	9:00	5/1/2013	17:00	ODB	POWERGRID/ER-II	Erection of Overhauled of R,Y & B-Pole Breaker	
54	400 kv Jamshedpur - Rourkela - 1 L/R	4/29/2013	9:00	4/29/2013	17:00	ODB	POWERGRID/ER-II	Numerical relay retrofitting	
55	220 KV BUS-I AT MALDA	4/29/2013	10:00	4/29/2013	13:00	ODB	POWERGRID/ER-II	For connecting bus jumper & erection of bus isolator	Subject to WBSETCL consent
56	400 KV Arambagh – BKTPP	4/30/2013	7:00	4/30/2013	15:00	ODB	WBSETCL	MAINTENANCE WORK	
57	132 KV Siliguri-Melli	4/30/2013	8:00	4/30/2013	17:30	ODB	POWERGRID/ER-II	For right sagging of Siliguri-Melli Circuit.	Subject to WBSETCL & Sikkim consent
58	400KV Binaguri - Purnea Circuit-II	4/30/2013	18:00	5/31/2013	18:00	осв	POWERGRID/ER-II	This is in continuation to earlier shutdown for re-conductoring work with GTACSR conductor in 400 kV Binaguri-Purnea Ckt-1	
59	220 KV BUS-II AT MALDA	4/30/2013	10:00	4/30/2013	13:00	ODB	POWERGRID/ER-II	For connecting bus jumper & erection of bus isolator	Subject to WBSETCL consent
60	400 KV KHLG – FKK – III & IV	4/30/2013	8:00	5/1/2013	18:00	осв	POWERGRID/ER-I	FOR REPLACEMENT OF 2 NO BENT LEGS AT LOC NO 7 CAUSED DUE TO THEFT OF TOWER MEMBER BY MISCREANTS	Subject to NLDC Consent
61	400 KV Rourkela - raigarh - I & 400 KV Sterlite - Raigarh(LILO- I)	5/1/2013	8:00	5/7/2013	17:00	ОСВ	POWERGRID/ER-II	Erection of Tapping point & Dead End Tower & string purpose.(LILO of Rourkela - Raigarh - I at Jharsuguda)	Subject to NLDC consent & need ER-WR TTC revision.
62	400KV Binaguri - Bongaigaon Ckt-II	5/1/2013	9:00	5/10/2013	18:00	ODB	POWERGRID/ER-II	For replacement of damaged insulator strings detected in PID test	Subject to NLDC Consent
63	400kV Baripada-Mendhasal -I	5/1/2013	9:00	5/11/2013	18:00	ODB	POWERGRID/ER-II	For replacement of broken insulators detected during patrolling	OPTCL CONSENT REQUIRED
64	132 KV malda (PG)- Malda (WB)#1	5/2/2013	7:00	5/2/2013	15:00	ODB	WBSETCL	MAINTENANCE WORK	Subject to WBSETCL consent
65	400kv Maithon- Mejia - II	5/2/2013	9:00	5/2/2013	17:00	ODB	POWERGRID/ER-II	AMP of LINE CT,Line Isolator,Bay CB,bay CT and Main bay ISOLator	S/D approved in 26.02.2013 but couldn't be availed due to system constraints at DVC Mejia: Power interruption
66	400KV Rourkela - Jharsuguda (SEL-1) BAY(19)	5/2/2013	9:00	5/4/2013	14:00	ODB	POWERGRID/ER-II	Erection of Overhauled of R-Pole Breaker	
67	125 MVAR BUS REACTOR AT PATNA	5/2/2013	9:00	5/3/2013	18:00	OCB	POWERGRID/ER-I	FOR ERECTION OF LM NEAR 125 MVAR B/R AT PATNA	
68	400 KV Kahalgaon - farkka # 4	5/2/2013	9:00	5/2/2013	17:30	ODB	NTPC	PM works & relay testing	Subject to NLDC Consent
69	132 KV Malda (PG) – Malda (WB)#1	5/3/2013	7:00	5/3/2013	15:00	ODB	WBSETCL	MAINTENANCE WORK	Subject to WBSETCL consent
70	400KV Maithon - Kahalgaon - I	5/3/2013	9:00	5/3/2013	17:00	ODB	POWERGRID/ER-II	AMP of LINE CT, Line Isolator,	Subject to NLDC Consent
71	100 MVA ICT#1 at Siliguri	5/3/2013	9	5/3/2013	17	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	Subject to WBSETCL consent
72	315 MVA ICT-1 at Rengali	5/3/2013	9:00	5/3/2013	17:00	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	
73	400KV BSF – BALIA - I	5/3/2013	8:00	5/3/2013	12:00	ODB	POWERGRID/ER-I	FOR AMP WORK AT BSF	Subject to NLDC Consent
74	400 KV RNC - SIDAT D/C	E /2 /2012	8-00	E/10/2012	18.00	ODR	DOW/ERCRID/ER I	FOR STRINGING OF 400 KV D/C(QUAD) RNC(OLD) - RNC(NEW)-	Subject to NLDC Concept
/4	400 RV RNC-SIFAT D/C	3/3/2013	8.00	3/10/2013	18.00	ODB	POWERGRID/ER-I	1 & 2 T/L RESPECTIVELY	Subject to NEDC consent
75	400 KV Kahalgaon - farkka # 3	5/3/2013	9:00	5/3/2013	17:30	ODB	NTPC	PM works & relay testing	Subject to NLDC Consent
76	132 KV Main Bus AT MALDA	5/5/2013	7:00	5/5/2013	12:00	ODB	POWERGRID/ER-II	For opening bus jumper & dismantling of bus isolator.	Total 132 KV bus will be dead and all running feeders will be dead for S/D period & Subject to WBSETCL consent.
77	220KV Biprpara - Chukha - I	5/5/2013	9:00	5/5/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
78	220KV Biprpara - Chukha - I	5/6/2013	9:00	5/6/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
79	400 KV KTPP- Arambagh	5/6/2013	7:00	5/6/2013	15:00	ODB	WBSETCL	MAINTENANCE WORK	
80	315 MVA ICT-2 at Rengali	5/6/2013	9:00	5/6/2013	17:00	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	
81	220KV Biprpara - Chukha - I	5/7/2013	9:00	5/7/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
82	400 kV ICT-I at Jeypore	5/7/2013	9:00	5/7/2013	17:00	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	No power interruption
83	132 KV Main Bus AT Siliguri	5/7/2013	11:00	5/8/2013	13:00	ODB	POWERGRID/ER-II	ERSS-IV construction	Subject to WBSETCL consent
84	220KV Biprpara - Chukha - I	5/8/2013	9:00	5/8/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
85	400 KV TALCHER - RENGALI - II	5/8/2013	9:00	5/10/2013	17:00	ODB	NTPC	AMC WORK	
86 87	400 KV Arambagh – Durgapur ICT-II(3X105 MVA) TRANSFORMER AT OHPC S/Y at Indravati	5/8/2013 5/8/2013	7:00 9:00	5/8/2013 5/8/2013	15:00 17:00	ODB ODB	WBSETCL POWERGRID/ER-II	MAINTENANCE WORK FOR MEASUREMENT OF TAN DELTA OF BUSHINGS AND AMP	
00		F (0 /2012	0.00	5 10 12042	47.00	000	DOWED COLD (FD. II	ACTIVITIES	Cubicates NIDC associate
68 80	22UNV DIPIPARA - UNUKNA - I	5/9/2013	9:00	5/9/2013	17:00	ODB		Insulator string replacement	Subject to NEDC CONSENT
00	100 IVIVA ICT#2 at Siliguri 315MVA ICT#1 at Binaguri	5/9/2013	10:00	5/9/2013	17:00	ODB		ERSS-IV CONSULCTION	Subject to WBSETCE CONSENT
JU 01	220K// Pipepara Chukha I	5/ 5/ 2013	9.00	5/5/2013	17:00	ODB		Inculator string conferences	Subject to NLDC concent
31	150 MAVA ICT#2 at Siliguri	5/10/2013	10:00	5/10/2013	16:00	ODB		EPSS M construction	Subject to WIPSETCL concent
02	Due reactor at Armhag	5/10/2015	7:00	5/10/2013	15.00	ODB			Subject to WESETCE CONSENT
55	400 k//ICT II at lawara	5/10/2013	0.00	5/10/2013	17:00	ODB	NOWERCRID/ER II	Retrofitting of differential relay work	No power interruption
34 0E	220K// Pipepara Chukha I	5/10/2013	9.00	5/10/2013	17:00	ODB		Inculator string confacement	Subject to NLDC concent
55 06	160 MVA ICT#2 at Siliguri	5/11/2015	10.00	5/11/2013	16:00	ODB		EBSS IV construction	Subject to WESETCL concent
97	125MVAR B/R-1 at Binaguri	5/11/2013	9.00	5/11/2013	17:00	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	Subject to WDSETCE CONSENT
98	400 KV TALCHER - ROURKELA - I	5/12/2013	9.00	5/14/2013	17.00	ODB		Restoration of reactor	Subject to NLDC Consent & FR-Sr ATC will revice
99	220KV Biproara - Salkati - I	5/12/2013	9.00	5/14/2013	17:00	ODB	POWERGRID/ER-II	Insulator replacement & tightening of insulator	Subject to NLDC consent
100	400 kh Barh-Patna # 4	5/13/2013	9:00	5/16/2013	17:00	OCB	NTPC	Breaker erection, commissioning & testing work	Subject to NLDC Consent
101	BUS REACTOR at Jeypore	5/13/2013	9:00	5/13/2013	17:00	ODB	POWERGRID/FR-II	Retrofitting of differential relay work	No power interruption
102	125MVAR B/R-2 at Binaguri	5/13/2013	9:00	5/13/2013	17:00	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	
103	125 MVAR BUS REACTOR AT PATNA	5/13/2013	9:00	5/14/2013	18:00	ODB	POWERGRID/ER-I	FOR BAY EXTENSION WORK OF 400KV PTN-KISHANGANG AT	
104	132 KV Malda (WB)- Malda (PG)#2	5/14/2013	7:00	5/14/2013	15:00	ODB	WRSETCI	MAINTENANCE WORK	Subject to WBSETCL consent
105	400 kb Bus Reactor-1	5/15/2012	9-30	5/15/2013	16-30	ODB	NTDC	PM & Relay testing	Subject to WDSETCE CONSENT
106	132 KV Malda (WB)- Malda (PG)#2	5/15/2013	7:00	5/15/2013	15.00	ODB	WRSETCI	MAINTENANCE WORK	Subject to WBSETCL consent
107	400 KV Arambagh - KTPP	5/15/2013	7:00	5/15/2013	15:00	ODB	WRSETCI	MAINTENANCE WORK	Subject to WDSEIGE CONSENT
108	220KV/Malda - Dalkhola - I	5/15/2013	7:00	5/15/2013	19.00	ODB	POWERGRID/ER-II	AMD Relay testing	Subject to WBSETCL consent
109	220KV Bipmara - Salkati - II	5/15/2013	9.00	5/17/2013	17:00	ODB	POWERGRID/ER-II	Insulator replacement & tightening of insulator	Subject to NLDC consent
110	220KV Malda - Dalkhola - II	5/16/2013	7:00	5/16/2013	19:00	ODB	POWERGRID/ER-II	AMP Relay testing	Subject to WBSETCL consent
111	100 MVA ICT#1 at Birpara	5/16/2013	9.00	5/16/2013	17:00	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	Subject to WBSETCL consent
	ac onpara	-, -0, -010	2.00	-, -0, -0	11.00	000	romanonio/an-ii	near on cangor uniterential relay WOIN	Subject to Trobe (Consent

112	400 KV KHLG – BSF - I	5/17/2013	8:00	5/17/2013	17:00	ODB	POWERGRID/ER-I	FOR RELAY RETROFITTING WORK WITH NUMERICAL RELAY AT BSF END (APPROVED IN 83 ^{rd OCC)}	Subject to NLDC Consent
113	220KV Biprpara - Chukha - II	5/18/2013	9:00	5/18/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
114	400 KV KHLG – BSF - II	5/18/2013	8:00	5/18/2013	17:00	ODB	POWERGRID/ER-I	FOR RELAY RETROFITTING WORK WITH NUMERICAL RELAY AT BSF END (APPROVED IN 83 ^{rd OCC)}	Subject to NLDC Consent
115	220KV Biprpara - Chukha - II	5/19/2013	9:00	5/19/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
116	160 MVA ICT#2 at Birpara	5/19/2013	9:00	5/19/2013	17:00	ODB	POWERGRID/ER-II	Retrofitting of differential relay work	Subject to WBSETCL consent
117	220KV Biprpara - Chukha - II	5/20/2013	9:00	5/20/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
118	400 KV Binaguri- Bongaigaon-I	5/20/2013	9:00	5/29/2013	17:00	ODB	POWERGRID/ER-II	Insulator replacement & tightening of insulator	Subject to NLDC Consent
119	220KV Biprpara - Chukha - II	5/21/2013	9:00	5/21/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
120	132KV Kahalgaon -Sabour	5/21/2013	9:00	5/21/2013	17:30	ODB	NTPC	PM works & relay testing	Subject to BSPHCL consent
121	400 Kv Arambagh – PPSP #1	5/21/2013	7:00	5/21/2013	15:00	ODB	WBSETCL	MAINTENANCE WORK	
122	220KV Biprpara - Chukha - II	5/22/2013	9:00	5/22/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
123	132 KV MAIN BUS AT PURNEA	5/22/2013	10:00	5/22/2013	18:00	ODB	POWERGRID/ER-I	FOR AMP WORK & CHECKING OF ELECTRICAL OPERATION , ALIGNMENT OF 05 NOS. BIMCO MAKE ISOLATORS AND EARTH SWITCH	Subject to BSPHCL consent
124	220KV Biprpara - Chukha - II	5/23/2013	9:00	5/23/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
125	220KV Biprpara - Chukha - II	5/24/2013	9:00	5/24/2013	17:00	ODB	POWERGRID/ER-II	Insulator string replacement	Subject to NLDC consent
126	400 KV KTPP- Jeerat	5/27/2013	7:00	5/27/2013	15:00	ODB	WBSETCL	MAINTENANCE WORK	
127	132KV Kahlgaon - Kahalgaon	5/28/2013	9:00	5/28/2013	17:30	ODB	NTPC	PM works & relay testing	
128	315 MVA ICT-I AT Arambag	5/28/2013	7:00	5/28/2013	15:00	ODB	WBSETCL	MAINTENANCE WORK	
129	100 MVA ICT-III AT PURNEA	5/30/2013	6:00	5/30/2013	18:00	ODB	POWERGRID/ER-I	FOR OLTC OVERHAULING	Subject to BSPHCL consent

GENERATING UNITS :

Agency	Station	Unit no.	Capacity (MW)	programme (As	Reason of S/d	Remarks
				25.04.2013 to	Capital	
DVC	Mejia TPS	2	210	04.06.2013	Overhauling	
						01.05.2013 to
NTPC	Farakka STPS	6	500		Overhauling	07.05.2013

SHUTDOWN DEFFERED IN 83rd OCC MEETING OF ERPC

	S/D PROPOSED IN OCC								
Sr. No	NAME OF THE ELEMENTS	DATE	TIME	DATE	TIME	REMARKS	S/D availed BY	Reason	Condition
									Shutdown may be be allowed during MAY as BHUTAN &
1	400 KV Malda - N. Purnea - I	5/20/2013	10:00	5/20/2013	18:00	ODB	POWERGRID/ER-II	FOR CONSTN. WORK OF 400KV BSF – PRN AT NPRN .	NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
									will improve.
2	400KV MLD FKK-1 & 400KV BUS-I AT MALDA	5/20/2013	7:00	5/20/2013	19:00	ODB	POWERGRID/ER-II	Relay testing and bay AMP nad Bus CVT replcement,CT replacement in BC bay.	Shutdown may be be allowed during MAY as BHUTAN &
									NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
									will improve.
3	400KV MALDA - FARKKA - I	5/21/2013	8:00	5/21/2013	19:00	ODB	POWERGRID/ER-II	PLCC panel, Coaxial cable and LMU replacement,end to end testing PLCC testing.	Shutdown may be be allowed during MAY as BHUTAN &
									NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
									will improve.
4	400KV MALDA - FARKKA - I	5/22/2013	8:00	5/22/2013	19:00	ODB	POWERGRID/ER-II	PLCC panel, Coaxial cable and LMU replacement,end to end testing PLCC testing.	Shutdown may be be allowed during MAY as BHUTAN &
									NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
									will improve.
5	400 KV Malda - N. Purnea - II	5/27/2013	10:00	5/27/2013	18:00	ODB	POWERGRID/ER-II	AMP	Shutdown may be be allowed during MAY as BHUTAN &
									NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
									will improve.
6	400KV MALDA - FARKKA - I	5/28/2013	9:00	5/28/2013	17:00	ODB	POWERGRID/ER-II	Relay testing,bay equipment AMP at Malda.	Shutdown may be be allowed during MAY as BHUTAN &
									NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
									will improve.
7	400KV MALDA - FARKKA - II	5/29/2013	9:00	5/29/2013	17:00	ODB	POWERGRID/ER-II	Relay testing,bay equipment AMP at Farakka end.	Shutdown may be be allowed during MAY as BHUTAN &
									NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
									will improve.
8	400KV Malda - Purnea - II	5/31/2013	7:00	5/31/2013	19:00	ODB	POWERGRID/ER-II	AMP,Relay testing.	Shutdown may be be allowed during MAY as BHUTAN &
									NER hydro availability will improve & Shutdown may be be
									allowed during JUNE as BHUTAN & NER hydro availability
L									will improve.