Eastern Regional Power Committee
Kolkata-33

Salient Decisions taken in the 81st OCC meeting held on 18.01.13

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. In case compliance remains pending, then it would be communicated to TCC/ERPC.

2. It was decided to communicate the detail scheme for implementation of the Bakreswar Islanding Scheme along with road map to task force constituted for reviewing the same.

3. OCC advised ERPC Secretariat to take up the matter with Chairman OPTCL as the status of healthiness of existing islanding schemes of CPPs under OPTCL control area is yet to be received by ERPC Secretariat from OPTCL till date.

4. OCC requested all other constituents once again to share the details of existing islanding schemes under each control area with ERPC Secretariat and ERLDC positively by 25 January, 2013.

5. OCC advised ERLDC to strictly comply with ERPC decision so far as allowing connection of new elements with ISTS grid without adequate data telemetry and voice communication is concerned.

6. OCC requested to all constituents to take appropriate actions at their end to establish the existing communication system (SCADA) with ERLDC healthy by June 2013 without fail. To monitor the status of progress OCC advised ERLDC to convene SCADA committee meeting every month starting from February, 2013.

7. OCC requested all utilities to submit their GT & ICT tap details, as sought by ERLDC latest by 25th January, 2013.

8. OCC requested all the utilities to send their outage plan for the year 2013-14 immediately.

9. OCC advised all SLDCs/Distribution Company to send their views on Implementation of the Automatic Demand Management Scheme to ERPC Secretariat/ERLDC positively by 5th February, 2013 following CERC Petition No. 249/MP/2012 issued an Order on 14th January, 2013 wherein RPCs were directed to discuss the aforesaid issue at the SLDC/Distribution Company level.

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

Sr. No	Particulars	Status
1	OCC proposed to constitute a sub-committee with representative from each transmission utility of Eastern Region, ERLDC and ERPC Secretariat and referred this ensuing TCC for ratification for monitoring of ongoing transmission project (80th OCC)	In 23rd TCC meeting members decided not to form another new Sub-Committee for monitoring of construction of new transmission elements as CEA is already monitoring the status of construction of ongoing transmission elements. It was also decided that latest status of construction of transmission elements may be discussed in the existing Sub-Committee meeting.
2	It was agreed that all utilities including Powergrid should submit the grid incidence report as per specified format, otherwise it would be treated as non-compliance of section 5.2 (r) of IEGC (80th OCC).	In 81st OCC meeting ERLDC informed that latest status of different utilities in this regard would be placed in 82nd OCC meeting.
3	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).	*Powergrid, BSEB (Partly), Tista-V, Rangit, WBPDCL, NTPC Farakka and Khahalgaon submitted the relevant information . Rest of the utilities and IPPs were requested to submit the same by 25th January, 2013.*
4.	Transmission utilities (viz. Powergrid, Powerlink, OPTCL, DVC, WBSETCL etc) would send their annual outage plan for the year 2013-14 (80th OCC).	*Powergrid and WBSETCL had submitted the outage plan. DVC representative informed in 81st OCC that DVC will submit the same by 25th January, 2013.*
5.	All utilities should submit their proposal on automatic demand management measures to ERPC Secretariat by next OCC (80th OCC).	*In 81st OCCC SLDCs/distribution company were again requested to send their views on the issue to ERPC secretariat/ERLDC positively by 5th February, 2013*

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

After welcoming the participants to the 81st OCC meeting, Sh. Ankan Bandyopadhyaya, Member Secretary I/c, ERPC highlighted the major decisions taken in the last OCC meeting. After that, took up the agenda items one by one.

Item no. A.1: Confirmation of minutes of 80th OCC meeting of ERPC held on 12.12.12

The minutes were circulated vide letter dated 18.12.12 to all the constituents and also uploaded in ERPC website. NTPC requested for amendment of Item no. C3 of the minutes vide FAX message on dated 26.12.12. In the minutes it is recorded that NTPC in principle agreed to absorb VAR as per capability curve. But NTPC mentioned that in the meeting it stated "NTPC units are absorbing VAR during high voltage period and it will be absorbing VAR during high voltage within the capability curve." And accordingly NTPC requested for a correction in the said minute.

Members may please consider the amendment of the minutes.

Deliberation in the meeting

Members agreed for the amendment.

PART B :: NEW ISSUES

Item no. B1: Charging of one circuit of 132 kV PTPS (DVC)-PTPS (JSEB) line- DVC

DVC informed that there are two nos of 132 kV interstate tie lines between DVC (Patratu) and JSEB (Patratu) viz. Line#84 and Line#85. The replacement work of the bay and breaker for line#84 has been completed from JSEB end and JSEB is ready to charge the line from their end. PGCIL has also completed the commissioning of required nos of meters both at JSEB and DVC end for registering the tie flow energy. But till date Line #84 is not charged from JSEB end.

DVC & JSEB may elucidate the problem.

Deliberation in the meeting

After deliberation, it was decided that Line #84 is to be charged from both ends.

ERLDC also requested both DVC and JSEB to install separate CT's therefore, separate check meter's arrangement could be provided.

Item no. B2: Grid disturbances in NEW grid on 30th and 31st July 2012- recommendation of ERPC

Detailed deliberations on grid disturbances of 30th and 31st July 2012 were held in 22nd ERPC meeting and there it was decided that:

i. All captive power plants in Eastern Region, which are connected to Eastern Grid, should provide required help to Load Despatch Centres for restoration of the grid during any disturbance; otherwise, the Captive Plants will not be allowed to remain connected with Grid. This decision would be communicated by Member Secretary I/c, ERPC to all SLDCs for onward transmission to the Captive Power Plants.

In the recently concluded ERPC meeting ERPC decided that each SLDC/STU should take up the issue with their embedded captive plants for compliance of the aforesaid ERPC direction and confirm their status to ERPC Secretariat by next OCC.

ii. More islanding schemes should be planned in Eastern Region for ensuring adequate start up power during such large scale disturbance. These schemes should be discussed and finalized in sub-committee meetings and placed in next ERPC meeting.

On New islanding schemes a special meeting was held in ERPC, Kolkata on 07/12/2012 wherein new schemes on Bakreswar and Bandel TPS of WBPDCL and Chandrapura TPS of DVC were envisaged and discussed.

The issue was placed before recently concluded 23 rd TCC and ERPC meeting. ERPC in-principle agreed for new islanding schemes for Bakreswar TPS (WBPDCL), Bandel TPS (WBPDCL) and Chandrapura TPS (DVC).

ERPC decided to take the implementation of new islanding scheme in Bakreswar TPS and Chandrapura TPS in first phase and advised WBPDCL and DVC to place road map for the same in next OCC meeting.

On existing Islanding schemes ERPC accepted the decision of TCC and accordingly advised OPTCL to submit the status of healthiness of existing islanding schemes of CPPs under their control area to ERPC Secretariat positively by first week of January-13.

ERPC also advised PTC to collect the information on existing islanding scheme in Bhutan Grid and forward the same to ERPC Secretariat and ERLDC by next OCC meeting.

Further ERPC in tune with TCC advised constituents to share the details of existing islanding schemes under each control area with ERPC Secretariat and ERLDC positively by next OCC so that, a composite document could be prepared for future reference.

ERPC advised WBSETCL to take up the issue of islanding scheme with Tata Power (Haldia). In this regard, WBSETCL suggested that an islanding scheme for DPL system could also be conceived. DPL also endorsed WBSETCL's view. WBSETCL and DPL were requested to submit a proposal in this regard to ERPC Secretariat for further discussion in sub-committee meetings.

On DVC's proposal for designing an islanding scheme with DVC as a whole ERPC considered the views of TCC but before taking a final call advised DVC to place their proposal to ERPC Secretariat for discussion in sub-committee meetings.

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

In its 23rd meeting ERPC noted with satisfaction that data telemetry (SCADA) to ERLDC had improved since the last ERPC meeting. ERPC while ratifying TCC decision also reiterated that no new elements should be allowed to be connected with ISTS grid without adequate data telemetry and voice communication.

ERPC also directed all utilities to take appropriate actions at their end to establish the existing communication system (SCADA) with ERLDC healthy by June 2013 without fail. In doing so, it was agreed in the meeting, that concerned utilities could approach PGCIL, if needed, and PGCIL in that case would assist in proper restoration.

In this regard, PGCIL informed that up gradation of SCADA/EMS system in ULDC scheme in Eastern Region would be completed by December 2014. ERPC requested PGCIL to explore completing the same at an earlier date.

ERPC noted that establishment of voice communication with ERLDC, NLDC (India) and Bhutan (NLDC) were in progress.

ERPC also advised generators not to inject VAR during high voltage condition.

Concerned members may update and OCC may decide further course of action on aforesaid issues.

Deliberation in the meeting

I. *Member secretary I/C informed that till date compliances to ERPC decision is yet to be received from SLDCs/STUs. OCC advised all SLDCs/STUs to take up the issue with their embedded captive plants for compliance of the aforesaid ERPC direction and confirm their status to ERPC Secretariat by 25 January, 2013. In case compliance remains pending, then it would be communicated to TCC/ERPC.*

II. *WBPDCL presented the road map for the implementation of islanding scheme of Bakreswar TPS. Presentation & road map are placed in* ***Annexure-IV****. During presentation ERLDC suggested to include one more logic for shut down of partial load when the load is greater than the generation. WBPDCL agreed to look into it in*

discussion with SLDC. ERLDC also requested Sterlite to share the logic part of their islanding scheme with WBPDCL.

In the meeting, WBPDCL assured that for implementation of the Bakreswar Islanding Scheme all the requisite devices/equipment including requirements under WBSETCL control area would be provided by it through Capex but subsequent installation/operation/maintenance of the same under WBSETCL area would be the responsibility of WBSETCL. WBSETCL agreed. OCC decided to communicate the detail scheme along with road map to task force constituted for reviewing the islanding schemes.

DVC informed that, DVC will submit the road map for the implementation of islanding scheme of Chandrapura TPS before 25th January, 2013.

OCC noted with concern that Status of healthiness of existing islanding schemes of CPPs under OPTCL control area is yet to be received by ERPC secretariat from OPTCL. OCC advised Secretariat to take up the matter with Chairman OPTCL.

PTC vide their letter C/PTC/M&TFG/ERPC/17426 dated 18.01.2013 had given the details about the islanding/load shedding scheme in Bhutan Grid.

OCC requested all other constituents once again to share the details of existing islanding schemes under each control area with ERPC Secretariat and ERLDC positively by 25 January, 2013.

WBSETCL informed that, Tata Power (Haldia) had submitted the islanding scheme and WBSETCL will present the scheme in next OCC. DPL also prepared the islanding scheme in discussion with WBSETCL and it will also be placed in next OCC.

On queries NTPC informed the islanding scheme for Farakka was already envisaged and it is in the final stage of clearance from engineering wing. Once finalized it would be placed before next OCC. However the draft scheme was handed over to ERPC Secretariat and ERLDC.

DVC informed that, DVC will submit the islanding scheme of the DVC as a whole to ERPC Secretariat by next OCC.

III. *OCC advised ERLDC to strictly comply with ERPC decision so far as allowing connection of new* elements with ISTS grid without adequate data telemetry and voice communication is concerned.

All constituents were requested to take appropriate actions at their end to establish the existing communication system (SCADA) with ERLDC healthy by June 2013 without fail. To monitor the status of progress OCC advised ERLDC to convene SCADA committee meeting every month starting from February, 2013.

PART C :: ISSUES REFERRED FROM LAST OCCs

Item no.C1: Restoration of 400 kV Sagardighi-Parulia line-1

400 kV Sagardighi-Parulia-1 line of WBPDCL is out since 25th April'12 due to tower failures caused by Norwester. The restoration work has been given to Powergrid on consultancy basis. The restoration of the line is regularly monitored in the OCC meeting and the line is expected to be restored by March 2013.

However, in the 79th & 80th OCC meeting, Powergrid pointed out that around 25 km of the line spanning mid sections (Location 191-246) of the same was not covered under any antitheft charging and conductors were getting stolen. Powergrid informed that it had made several communications/deliberations with WBPDCL It was understood that, it was decided in the joint meeting with WBPDCL, WBSETCL and Powergrid to keep this section under anti theft charging by extending power supply from nearby WBSETCL lines. However, the same is yet to be done. Now, any conductor theft of healthy section would delay the restoration of the line. OCC took serious note of the matter and referred the matter to ensuing TCC/ERPC meeting.

In its 23rd meeting TCC members felt the need for urgent restoration of the line. In TCC WBSETCL assured to look into the issue and extend all possible help for anti-theft charging of the healthy section of the line.

WBSETCL and Powergrid may update the latest status.

Deliberation in the meeting

Powergrid informed that anti theft charging of different sections of the line is in process and it would complete by 31st January, 2013. It was also informed that the restoration of the line would complete by March'13.

Item no. C2: Switching of 400 KV Baripada-Mendhasal D/C

One ckt of 400 KV Baripada-Mendhasal D/C is generally kept open due to high voltage at Baripada end. It is observed that whenever there is need for switching off ckt, lot of time is taken for affecting the switching at Mendhasal. It was gathered that OPTCL personnel in the Mendhasal s/s do not attend switching operation of the line and PGCIL personnel from nearby s/s has to come and do the switching operation causing delay in switching operation.

The issue was discussed in the 73rd OCC meeting. OPTCL informed that they had requested PGCIL to hand over the control panel and related schematic diagram of their 400 kV Baripada-Mendhasal D/c. The handing over process was under progress and after completion of the same, OPTCL personnel in the Mendhasal S/s would attend the switching operation of the line.

The issue was again discussed in the 80th OCC meeting. In the meeting, Powergrid pointed out that two bays at Mendhasal substation belongs to Powergrid. As per normal practice, Powergrid had submitted a draft MOU to OPTCL in the month of September 2011 for maintenance of these two bays. However, in the pretext of one or another, the MOU is not

getting signed by OPTCL. As MOU is not signed, OPTCL is not attending switching operation for these bays at Mendhasal s/s.

80th OCC took note of the matter, and consequential delay in switching operation of Baripada-Mendhasal line at Mendhasal and referred the matter to TCC.

In 23rd TCC OPTCL and Powergrid agreed to sort out the issue bilaterally and TCC advised both the parties to place the development status before OCC.

OPTCL and Powergrid may update.

Deliberation in the meeting

Powergrid informed that, while discussing the matter OPTCL had raised several pending issues which are not related to the operation. In this regard, ERPC member secretary I/C informed Powergrid to communicate the issues to ERPC Secretariat, so that the same would be communicated to Chairman, ERPC & Chairman OPTCL for further advice.

Item no. C3: Commissioning of 220 kV bus bar protection at Ramchandrapur & Chandil substations (JSEB) – (Item No. B.13 of 22nd TCC meeting)

- Due to non-availability of Bus Bar protection at both the sub-stations, the bus fault frequently occurred and cleared by the protection of the ICTs of Jamshedpur 400kV substation (Powergrid).
- In the 18th TCC meeting held on 30.06.2011 at Ranchi it was decided that a group with representation from ERLDC, ERPC, Powergrid and JSEB would study the feasibility of installation of bus bar protection at Ramchandrapur & Chandil 220 kV sub-stations of JSEB.
- The report submitted by the study group suggested that the bus bar protection is feasible if spare core of the CT with high knee point voltage is available at Ramchandrapur S/S and spare CT core as well as interposing CT is made available at Chandil S/s.
- JSEB agreed in the 20th TCC meeting to accord priority for installation of the same both for Ramchandrapur and Chandil. ERPC vide its letter dated 06.03.2012 requested Member (T & D), JSEB to initiate action for implementation at the earliest.
- In the previous TCC meeting held on 24.08.2012, JSEB intimated that implementation of bus bar protection for both the above sub-station would be completed by **December 2012**.

In the recently concluded TCC meeting JSEB informed that work order has already been awarded and work will be completed by Jan'13.

JSEB may update the status.

Deliberation in the meeting

JSEB representative informed that, within a week material will reach the site and the work will be completed by 1st week of February, 2013.

Item No. C4: Procurement and installation of numerical relays by JSEB for Lalmatia substations

(Item No. B.14 of 22nd TCC meeting)

In 23rd TCC meeting JSEB informed that work order has already been awarded and work will be completed by Jan'13.

JSEB may update the status.

Deliberation in the meeting

JSEB representative informed that, the work will be completed by 1st week of February, 2013.

Item no. C5: Formation of a sub-committee to monitor status of ongoing Transmission Elements

In 80th OCC meeting ERLDC pointed out that in the past, it was observed that transmission elements coming in the ISTS network could not be utilized due to non-availability of matching transmission network in the intra-state network. Besides, there were instances when there was a huge time gap between transmission planning and execution and thus creating bottlenecks in the system.

In light of above, members felt that need for monitoring the status of upcoming transmission elements in ISTS as well as in intra-state network in a coordinated manner. This would facilitate better co-ordination between various utilities and also optimize transmission asset utilization.

Accordingly, OCC proposed to constitute a sub-committee with representative from each transmission utility of Eastern Region, ERLDC and ERPC Secretariat and referred this ensuing TCC for ratification.

In 23rd TCC meeting members decided not to form another new Sub-Committee for monitoring of construction of new transmission elements as CEA is already monitoring the status of construction of ongoing transmission elements. It was also decided that latest status of construction of transmission elements may be discussed in the existing Sub-Committee meeting.

Members may note

Deliberation in the meeting

Members noted. However OCC decided that since onwards all the utilities should communicate status of upcoming transmission elements in ISTS as well as in intra-state network *including generating stations in their area of operation in the next two years horizon to ERPC Secretariat and ERLDC. The same should be updated in every OCC.*

Item no. C6: Tripping of Farakka-Kahalgaon-IV without any indication --- ERLDC

In 80th OCC meeting the issue was discussed and In this meeting, NTPC informed that the issue was taken up with manufacturer (ABB) on 04.12.12 during their site visit and ABB were looking into the issue. (ABB had swapped the PLCC card G4AC of channel 1 and channel 2 at Kahalgaon end).

NTPC and ERLDC may intimate any such recurrence on the same.

Deliberation in the meeting

ERLDC informed that, the issue was resolved.

Item no. C7: 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 (in % of the transformer rating)	Reactance and Resistance at nominal tap (in % of the transformer rating)

In the last OCC ERLDC emphasized the need for tap-coordination among all utilities and requested all utilities to check the Annexure and submit the information as desired above.OCC requested all utilities to submit the information latest by next OCC. Till date feedback from constituents are still due.

Members may share with OCC their problems, if any, in submitting the information.

Deliberation in the meeting

Powergrid, BSEB (Partly), Tista-V, Rangit, WBPDCL, NTPC Farakka and Khahalgaon submitted the relevant information. Rest of the utilities and IPPs were requested to submit the same by 25th January, 2013.

Item no. C8: Annual Outage plan of transmission element--- ERLDC

Section 5.7.1 © of IEGC 2010 mandates preparation of annual outage plan of transmission element and generating unit as per process elaborated in section 5.7.4 of IEGC 2010.

Eastern Region does not have annual outage plan of transmission element at present and in absence of the same, it is becoming difficult to assess Total Transfer Capability (TTC) in inter-regional link to be declared three months in advance for the purpose of approval of STOA.

In the last OCC ERPC Secretariat informed that section 5.7.4 mandates preparation of annual outage plan for both generating stations and transmission elements and all concerned utilities are mandated to submit their outage plan to RPC Secretariat by 30th November each year. However, transmission utilities never send their outage plans.

In 80th OCC It was decided that transmission utilities (viz. Powergrid, Powerlink, OPTCL, DVC, WBSETCL etc) would send their outage plan for the year 2013-14 by third week December,2012.

House may get appraised with the latest status.

Deliberation in the meeting

Powergrid and WBSETCL had submitted the outage plan. DVC representative informed that DVC will submit the same by 25th January, 2013. ERLDC informed that IPPs and Sterlite don't have separate outage plan. OCC requested rest of the utilities to submit the same immediately.

Item no. C9: Damage of 63 MVAR shunt reactor bay at Tala end – DGPC

In 80th OCC DGPC informed that without the 63 MVAR reactor, voltage level at Tala was to the tune of 420 kV and as a result, some high voltage alarm signal is getting activated. ERLDC opined that 420 kV voltage is not so high at 400 kV (nominal) level, and many a generator in Eastern Region were living with this sort of condition. Further, opening one circuit of Tala-Binaguri to contain over-voltage would deplete the system, which is not at all desirable.

Accordingly, DGPC was requested to review the settings of high voltage alarm signal and also expedite restoration of the reactor.

DGPC and ERLDC may update.

Deliberation in the meeting

DGPC representative informed that, the reactor will be in service by Feb'13. It was also informed that DGPC did not change the over voltage settings and the over voltage alarm was set at 105% with 5 sec delay.

Item no. C10: 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. As

intimated by Odisha in the 80th OCC meeting, shifting of load from stage-II to III had been carried out. Accordingly, the revised details of planned vis-a-vis actual UFR quantum 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	87	80	67	115	40
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 CESC)	285	313	285	285	397	430
Total	675	739.9	675	684.2	945	879.6

In light of above,

i. Bihar may intimate status of implementation of revised load relief in Stage-II & Stage-III.
ii. Further, all constituents are requested to inform ERLDC feeder wise operation of UFR for each stage, whenever operates.

Deliberation in the meeting

JSEB and BSEB updated the load relief as given in the above Table.

Bihar representative assured that they were taking steps to connect additional feeders under Stage-II and Stage-III to achieve target load relief by next OCC.

Item no. C11: Reactive Capability Testing of generators – ERLDC

a) **Review of reactive power generation/drawal performance of generators**

Reactive power generation vis-à-vis 400kV station bus voltages of units at the following generating stations were monitored.

Generating stations have been absorbed VAR during high voltage condition.

Plant	Maximum and Minimum voltage observed for Dec 12 (KV)
Farakka STPS	425, 412
Talcher STPS	421, 403
Kolaghat TPS	426, 401
Bakreshwar TPS	411, 394

Generating stations have been monitored for sample dates in the month of Dec '12

Plant	Dates for Dec 2012
Kahalgaon STPS	7, 8, 14
Sagardighi STPS	7, 9, 14
Mejia-B	1 to 31

Performance analysis:
i. Kahalgaon : There was absorption of reactive power by the machines. Further, the sharing of VARs among the units is unequal. VAR data of U#6 is reporting erroneously since long.

ii. Sagardighi : Performance of unit at sagardighi is unsatisfactory as it was not absorbed VAR during high voltage condition.

iii. Mejia-B : Performance of unit at Mejia-B is unsatisfactory as it was not absorbed VAR during high voltage condition for entire month.

MW, MVAR data was not available from MPL and Sterlite for verifying the reactive capability performance of their units.

Defaulting generators may respond.

Deliberation in the meeting

ERLDC exhibited the reactive performance of the generators. Station wise responses of defaulting generators were given below:

i. *ERLDC informed that, Kahalgaon unit 5 generating VAR at 420 kV*
ii. *ERLDC informed that, VAR absorption of Sagardighi is not satisfactory. WBSETCL informed that Sagardighi unit 2 rotor having problem and will be rectified soon.*
iii. *ERLDC informed that, VAR absorption of Mejia-B is also not satisfactory. DVC informed that unit was actually absorbing VAR during high voltage scenario but due to faulty transducer a wrong indication is coming . ERLDC requested DVC to submit the copy of the log book of the generator.*
iv. *ERLDC also informed that MPL unit is still not updating MW and MVAR. MPL agreed to look into it. It was also informed that Sterlite data of both MW and MVAR are available to ERLDC.*

b) Schedule for reactive capability tests

In 80h OCC meeting, it was intimated that the test for Santaldih U#5 could not be carried out in December 2012.WBPDCL added that test for both U#5 and U#6 would be taken up after annual overhauling of unit#6. Regarding reactive capability testing of one 500MW unit at FSTPP, NTPC pointed out the coal problem was being faced by Farakka and informed that the test for Farakka could be done only after coal stock position becomes stable. DVC also expressed their inability to carry out the test for DSTPS. Presently, the coal stock position of FSTPP has improved.

FSTPP may kindly intimate the tentative program for reactive capability test. WBPDCL and DVC also update their status.

Deliberation in the meeting

NTPC Farakka and DVC expressed their inability to carry out the test due to shortage of coal. WBPDCL informed that both reactive capability test of Santaldih U#5 and U#6 could be carried out on 3rd or 4th Feb'13.

Item no. C12: 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 the last OCC Members requested DGPC to enable the single phase auto reclosure in the Tala feeders by next OCC.

DGPC may update the status.

Deliberation in the 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. It was also informed that testing for Auto reclosing for Feeder-I was unsuccessful. DGPC assured that test on rest of the feeders will be completed by Mar'13.

Further, DGPC requested powergrid to change the dead time at Binaguri end and Peowergrid agreed to look into it.

Item no. C13: Automatic demand management measures

The issue of Automatic Demand Management was discussed in the 77th OCC meeting. The issue is also elaborately covered under section 5.4.2 of IEGC. Section 5.4.2 (e) of IEGC is reproduced below:

"*In order to maintain the frequency within the stipulated band and maintaining the network security, the interruptible loads shall be arranged in four groups of loads, for scheduled power cuts/load shedding, loads for unscheduled load shedding, loads to be shed through under frequency relays/ df/dt relays and loads to be shed under any System Protection Scheme identified at the RPC level. These loads shall be grouped in such a manner that there is no overlapping between different Groups of loads. In case of certain contingencies and/or threat to system security, the RLDC may direct any SLDC/ SEB/distribution licensee or bulk consumer connected to the ISTS to decrease drawal of its control area by a certain quantum. Such directions shall immediately be acted upon. SLDC shall send compliance report immediately after compliance of these directions to RLDC.*"

In view of recent grid disturbances, the issue of demand management has assumed greater significance and needs attention from all stakeholders. In this regard, loads for scheduled power cuts/load shedding will be decided by each SLDCs and need not be identified in advance. Loads to be shed under UFR mechanism has already been identified and implemented by all the states in Eastern Region. Apart from above, loads to be shed under SPS will be taken care, as and when, ERPC decides so. The only category of load, which remains to be identified from your side, is the feeders/loads for unscheduled load shedding, which can be controlled for demand management purposes. Identification of these feeders will help you to manage your drawal from the central grid in more meaningful manner and thus avoid any unwarranted action, like demand disconnection, by RLDC.

Accordingly, ERPC Secretariat vide FAX message dated 10.10.2012 and 19.11.2012 requested all SLDCs to submit a draft proposal identifying various feeders/loads, which can be controlled from demand management purposes for further deliberation.

CESC had already expressed their inability to identify additional feeders for automatic demand management measures.

In the last OCC utilities agreed to submit their proposal on automatic demand management measures to ERPC Secretariat by next OCC but till date proposals are still awaited.

Members may decide the further course of action.

Deliberation in the meeting

In the meeting it was informed that, CERC on Petition No.249/MP/2012 issued an order on 14th January, 2013 wherein RPCs were directed to discuss the issue of "implementation of the Automatic Demand Management Scheme at the SLDC/distribution company level. Accordingly OCC advised all SLDCs/distribution company to send their views on the issue to ERPC secretariat/ERLDC positively by 5th February, 2013. Further it was also decided that a separate meeting on 5th February, 2013 at ERPC secretariat will be convened to have a detailed deliberation on the views, queries of SLDCs/distribution companies on the subject of Automatic Demand Management.

Item no. C14: 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 the last OCC meeting, Powergrid informed the status of the following spare elements:

a. 2 numbers of 150/160 MVA, 220/132 kV ICTs at Baripada & Siliguri would be installed by March 2013
b. 1 number of 50 MVA, 132/66 kV ICT at Gangtok would be installed by February 2013.

Powergrid may update the status.

Deliberation in the meeting

Powergrid informed the status of the following spare elements:

a) 315 MVA transformer at Durgapur would be installed by Jan'13
b) 1 number of 150/160 MVA, 220/132 kV ICTs at Baripada would be installed by with in a week
c) 1 number of 50 MVA, 132/66 kV ICT at Gangtok would be installed by March 2013.

Item No. C15: Permanent connectivity of Dalkhola (WB)-Dalkhola(PG) and dismantling of ERS in Dalkhola(WB)-Dalkhola(PG) section

In the 22nd ERPC, Powergrid informed that permanent connectivity of Dalkhola (WB) with Dalkhola(PG) would be completed by December 2012.

In the last OCC, Powergrid informed that XLPE cable was dispatched in first week of December 2012 and permanent connectivity of Dalkhola(PG)-Dalkhola(WB) would be completed by January 2013.

Powergrid may update the status.

Deliberation in the meeting

Powergrid informed that XLPE cable will reach the site within a week and permanent connectivity of Dalkhola(PG)-Dalkhola(WB) would be completed by March 2013.

Item no. C16: Procurement of ICTs for Chukha Transmission system by Powergrid

The following augmentation works under the scope of PGCIL (for which transmission charges would be borne by WBSETCL) were already concurred by the Standing Committee Meeting (20-09-10) on Power System Planning for Eastern Region:

i. Additional 1X160 MVA, 220/132kV Transformer with associated bays at 220/132kV Siliguri Substation.
ii. Replacement of 1X50 MVA, 220/132kV Transformer by 1X160MVA, 220/132kV Transformer at 220/132kV Birpara Substation.
iii. Replacement of 2X50 MVA, 220/132kV Transformer by 2X160MVA, 220/132kV Transformer at 220/132kV Malda Substation**.**

In the last OCC, Powergrid informed that

i. 160 MVA transformer at Siliguri would be commissioned by 31st January 2013.
ii. 160 MVA transformer at Birpara was already uploaded in plinth and would be commissioned by 7th January 2013.

iii. One 160 MVA transformer at Malda was dispatched and had reached Dhanbad. It would be installed by February 2013.

Powergrid may update the status.

Deliberation in the meeting

Powergrid informed that-

i. 160 MVA transformer at Siliguri would be commissioned by 31st December 2013.
ii. 160 MVA transformer at Birpara would be commissioned by 20th January 2013.
iii. One 160 MVA transformer at Malda is in advanced stage of commissioning. 2nd ICT would be expected to be commissioned by 15th March, 2013.

Item no. C17: 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, Powergrid informed that order for new PLCC in both the lines had been placed and would be commissioned by February 2013.

Powergrid may update the status.

Deliberation in the meeting

Powergrid informed that new PLCC panels were dispatched to the site and would be commissioned by February 2013.

Item no. C18: Restricted Governor Mode of Operation --- ERLDC

In the last OCC, DVC informed that BHEL representative did not turn up and the issue could not be sorted out. However, DVC assured to take it up further and hoped that Mejia#8 would be put into RGMO by 1st week of January 2013. In the 79th OCC meeting, MPL informed that they had put their units on RGMO on 6th and 9th November 2012 and put the units in RGMO on continuous basis w.e.f. mid of December 2012.

The latest position of RGMO in ER as provided by ERLDC is at **Annexure-I**

Therefore,

- DVC and MPL may inform the status of implementation of RGMO in Mejia#8 and MPL#2.
- All concerned are requested to update the status of RGMO to ERLDC and ERPC.

Deliberation in the meeting

DVC representative informed that Mejia#8 would be put into RGMO by 1st week of January 2013. MPL informed that they had put their units in RGMO mode but digital signal is not working and it would be available by April 2013.

Item no. C19: 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 the last OCC meeting it was decided to carry out mock blackstart of Teesta after restoration of Birpara ICT. Mock Black Start on Upper Kolab HEP, OHPC is also due.

Teesta and Upper Kolab HEP, OHPC may suggest date for conducting the test.

ii. It is mandatory for DG sets meant for black start to conduct test run on monthly basis and submit report to ERLDC. 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. Test report for Dec'12 is yet to be received from Constituents except Rangit and Teesta. WBSETCL sent report up to Oct'12. OPTCL, JSEB yet to send any report.

Members may note.

Deliberation in the meeting

NHPC informed that Teesta is ready for the Mock Black start exercise and it was decided to conduct the same on 24th February, 2013.

OHPC also informed that, DG set of Upper Kolab HEP is now available and the Mock Black start exercise would be carried out the 1st/2nd week of Februaay,2013.

Item no. C20: Non- availability of SCADA data from critical sub-stations --- ERLDC

In 80th OCC meeting it was deliberated that real time telemetering from many stations are not available at ERLDC. As such, the following are the status of data and voice restoration,

Priority data

i. Purnea 400 Kv: ICT-2 OLTC made available, Voice communication not available.

ii. Patna 400 Kv: No voice facility has been provided

iii. Poor SCADA data Visibility; JSEB: only Hatia,Chandil , Patratu, Subrnreakha, Lalmatia (JH) SCADA data are reporting to ERLDC

iv. NHPC Rangit: No data and voice communication are available

New IPP

i. Sterlite Enegry Limited:- No DCS (Unit) data's are available since 10th Dec 2012 . 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. :- 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 SEL 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.

iv. DSTPS (Andal):- MW/MVAR before GT not available

v. NTPC Barh:- No Real time data and voice facilities are available .PLCC link made ready by POWERGRID

vi. Raghunathpur (DVC): No data available

Pending issue

i. Baripada:- Voice communication not Ok.Data is not reporting after shut down of Rengali- Baripda Line.

ii. Gaya 765 KV: OLTC of 400/220 KV ICT made available to ERLDC .Still 1500 MVA ICT's OLTC tap positiio yet to integrate with ERLDC. Voice communication not provided.

iii. PPSP Generation: After GT generation are yet to be provided by M/s PPSP.

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

v. Koderma TPS: Data started reporting. TISCO -400 KV (DVC): Line test charged on 28/04/12. No real time data available from DVC.

vi. TISCO -400 KV (DVC): Line test charged on 28/04/12. No real time data available from DVC.

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

viii. Bolangir (N): Bus KV voltage, Line Reactor & Bus Reactor values are not coming correct.

ix. 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- 2 & 3 MVAR values are not available.

x. Kahalgaon NTPC : (Alstom & Ms NTPC are on the job)

a. 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 ,Gen-5 Main ,Gen-5 Tie, Gen-6 Main , Gen-6 Tie, Gen-7 Main & Gen-7 Tie.
b. Following analog points are not coming to ERLDC: MW/MVAR of 132 KV :Stn Xformer -3,4 &5, Colony Xformer 1 & 2. LV side Generation of all Unit
GT -6 MVAR not available.

xi. Talcher NTPC : LV side generation of Unit 3,4,5 & 6 made available to ERLDC. Unit 1 & 2 LV side generation yet to make available to ERLDC . 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

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

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

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

xv. Maithon : OLTC tap position of 400/220 KV ICT-2 not available.

xvi. Mendhasal : **400 KV Baripda 1 & 2 line and Reactors**. Tap position of both 400 ICT not available

xvii. Meeramundali: Tap position of both 400 ICT , HZ of Bus -2 (400 KV) not available. ICT-2 MW and MVAR value are not available.

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

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

xx. Indravati HPS: Indrvati PG line flow incorrect. Main CB of ICT-I,II & Indrvati PG line not correct.ICT-I &II OLTC Tap positions not available.

PMU Data Integration: (Target Date 31st Dec 2012 as informed to MOP)

I. **Jamshepur :** PMU commissioned with Maithon & Rourkela-I feeders and started reporting to NRLDC since 07/01/2013.

II. **Ranchi:** PMU commissioned with of Sipat-I & Maithon line and started reporting to NRLDC since 07/01/2013.

ERLDC may update the latest status since last OCC.

Deliberation in the meeting

ERLDC highlighted the improvement in respect of data availability from Srerlite and Maithon.

JSEB informed that data would be available once battery bank for Chandil, Ramchandrapur and Kendposi (JSEB) system are restored. It was assured that the same would be installed within a week.

During deliberation discussions were also held on "SCADA data of TSTPS to SRLDC". It was informed that data of TSTPS is available to ERLDC. But to make it available to SRLDC on their requisition, NTPC informed that a meeting convened by SRPC was held at TSTPS on 17/09/12. Wherin ER-ULDC agreed to explore the possibility of providing data to SRLDC. OCC requested NTPC and ER-ULDC to look into the matter.

NHPC raised voice communication problem faced by it at Rangit after liloing of Rangit-Siliguri line at Kharshiong. OCC requested concerned utilities to look into the matter for earliest restoration.

PART D:: OPERATIONAL PLANNING

Item no. D 1: Prolonged outage of power system elements in Eastern Region

Name	Agency	Date of Outage	Reason	Restoration Status	
				Original	***Latest***
400 kV Sagardighi-Parulia -1	WBPDCL	25.04.12	11 no tower collapse	March'13	March'13
315MVA, 400/220 kV ICT –IV at Arambag	WBSETCL	14.06.12	Fire Hazard	March'13	March'13
132 kV CT i.r.o. 132 kV NBU (WBSETCL)-Siliguri (PG)#1 at Siliguri end	Powergrid	10.12.10	Old relay needs to be replaced	February'12	CT already replaced. Old relay scheduled to be replaced by Feb'13.
132KV Rangit-Melli	Sikkim	1.9.12	Tower tilting at Loc.128		No progress reported by NHPC. Sikkim representative is not present.
132KV Lalmatia-Sabour	JSEB	2.1.13	R-Ph CT burst at Lalmatia		

Concerned utilities may share the latest status.

Deliberation in the meeting

Members updated the status and it is placed as given in the table.

Item no. D 2: Information regarding commissioning of new transmission element -- ERLDC

As per information available with ERLDC, the following Generating station and transmission elements are expected to be connected shortly to ER grid.

New generating units:

S.No.	Power Plant	Unit size	Expected date
1	Adhunik Power	2x270MW	1st unit already synchronized & will be declared on COD shortly. 2nd unit may be synchronized in March,13
2	GMR	1x350MW	February'13
3	Koderma	2x500MW	U=1 March'13
4	Corporate Power	1x257MW	NA
5	Teesta-III	1x200MW	NA

6	Raghunathpur	1x600MW	Mar'13
7	DSTPS	2x500MW	U=2 Jan'13

New transmission elements

SL No.	Transmission Line	Expected date
1	400 kV Maithon-Gaya D/C	Held up due to forest clearance.
2	400 kV Maithon- Koderma D/C	June'13
3	400 kV DSTPS – Raghunathpur D/C	Mar'13
4	400 kV Raghunathpur-Ranchi D/C	
5	400 kV Meramandali-Dubri D/C	Held up due to legal issues
6	400 kV Corporate-Ranchi D/C	
7	220 kV Begusari-Purnea D/C	
8	220 kV Purnea(pg) Madhepura D/C	Mar'13
9	220 kV Dalkhola-Dalkhola (WB) D/C	Mar'13
10	220 kV Dhanbad-Girdih D/C	Forest clearance obtained. Expected by Mar'13
11	220 kV Girdih-Koderma D/C	
12	220 kV Patna(pg) - Sipara D/C	Commissioned on 17-01-13
13	LILO of 400KV Biharshariff-Kahalgaon at Banka	Oct'12
14	LILO of 400KV Baripada-Rengali at Keonjhar	Dec'12

Concerned utilities may update the likely date of synchronization.

Deliberation in the meeting

Members updated the status and it is placed as given in the table.

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

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of February-13 were prepared by ERPC Secretariat on the basis of finalized LGBR for 2012-13, keeping in view that the units are available for generation and expected load growth etc. The details are placed for discussion at **Annexure-II.**

Members may confirm.

Deliberation in the meeting

Members noted.

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

Shutdown proposals of the generating stations and transmission elements for the month of February'13 are placed for discussion at Annexure-III of agenda**.**

Members may finalize the programme.

Deliberation in the meeting

Approved maintenance programme of generating stations and transmission elements during the month of February'13 is at **Annexure-III** of minutes. Besides, ERLDC informed that they would be required shutdown of Teesta U#II w.e.f 28.1.2013 to 05.02.2013 & Teesta U#III w.e.f 08.02.2013 to 15.02.2013.

PART E:: OTHER ISSUES

Item no. E1: UFR operation during the month of December'12

Since system frequency did not touch 48.8 Hz in December'12, UFR did not operate.

Members may note.

Deliberation in the meeting

Members noted

Item no. E2: Commissioning of new units/transmission elements during the month of December 2012

1. 132 KV Kurseong s/stn (WBSETCL) first time charged on 10/12/12 at 19:37 hrs vide LILO of 132 KV Rangit-Siliguri S/C at Kurseong.
2. 30 MVA, 132/33 KV Transformer of Kurseong(WBSETCL) first time charged on 10/12/12 at 21:34 hrs.
3. 132 KV Biharsharif-Shekhpura S/C(39.2km)(Bihar State power transmission Co ltd) first time loaded on 13.12.12 at 16:40 hrs.
4. 50 MVA, 132/33 KV Transformer of Sitamarhi(Bihar State power transmission Co ltd) first time loaded on 12.12.12 at 13:15 hrs.
5. 20 MVA, 132/33 KV Transformer of Belagunj(Bihar State power transmission Co ltd) first time loaded on 10.12.12 at 18:50 hrs.
6. 132 KV Darbhanga-Phoolparas(70 KM)(Bihar State power transmission Co ltd) first time loaded on 06.12.12 at 14:52 hrs.
7. 3rd 100MVA 220/132KV ICT at Dehri charged and loaded for the first time at 17:56Hrs of 24/12/12.
8. 220/132Kv 160MVA ICT at Siliguri first time charged on 28/12/12 from 220KV side and loaded for first time on 31/12/12 at 09:14 Hrs.
9. 400/132Kv, 200MVA ICT-II at Banka charged for the first time at 18:01 Hrs of 31/12/12.
10. 315MVA ICT-III at Subhasgram first time charged on no load at 10:16 hrs of 02/01/13.

Members may note.

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 direction by SEB/Distribution licenses/bulk consumers to curtail overdrawal is to be reported to ERLDC for incorporating the same in weekly report to be prepared and published by ERLDC.

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

No report from any constituent received. Hence ERLDC consider 'Nil' report for all Constituent for December'12.

Members may note.

Deliberation in the meeting

Members noted

Item no. E4: Grid incidences during the month of December'12

Disturbance Place	Date & Time of occurrence	Generation loss (MW)	Load loss (MW)	Remark	Category
Disturbance in OPTCL system	10/12/12 22:55 Hr	350	0	Y-ph Jumper snapping of 220 KV Budhipadar - SPS ckt – I leads to tripping of 220 KV IB – Budhipadar ckt I,II,III & IV & 220 Kv Budhipadar – Bhusan – I. Due to loss of evacuation path both running units at IBTPS also tripped.	GD-1

Members may note.

Deliberation in the meeting

Item no. E5: Review of grid performance during the month of January'13

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

Item no. E6: Any other points

i) Change over from DVC (Mython Hydel) to NTPC supply at Baidyanath dahm/GSS- Eastern Railway agenda

On the issue a special meeting was held on 22.11.12. In line with the decision taken in this special meeting concerned parties agreed to hold the Separate Meeting at Baidynathdham/GSS sometimes around 2nd week of February. OCC

requested JSEB to intimate ERPC the latest status of bus-modification work at their end at the earliest.

ii) Participation of members in subcommittee meeting

The issue of non-participation/poor-participation of member constituents in different subcommittee meetings of ERPC was viewed with concern by ERPC in its 23rd meeting held on 22nd December, 2012. ERPC directed Secretariat to prepare a list on non-participating utilities during the next three/four months and place the same before ERPC in its next meeting.

Accordingly 81st OCC has taken a serious note on the non-participation of representatives from OPTCL, Gridco & Sikkim. OCC requested all utilities to attend the monthly OCC meeting regularly without fail.

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LIST OF GENERATING UNITS PARTICIPATING IN RGMO

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS	ERLDC Obeservation
NTPC	FARAKKA	1	200	Running under RGMO mode	Intermittent response observed
		2	200	Running under RGMO mode	
		3	200	Running under RGMO mode	
		4	500	Kept 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	Intermittent response observed
		2	210	Taken in at 00:00hrs of 01.08.10	
		3	210	Running under RGMO mode	
		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	
	TALCHER	1	500	All units are running under RGMO mode	Intermittent response observed
		2	500		
		3	500		
		4	500		
		5	500		
		6	500		
DVC	MEJIA	4	210	Implemented(56Th OCC meeting)	Response not satisfactory
		5	250		
		6	250	Implemented(69Th OCC meeting)	
WBPDCL	BAKRESWAR	1	210	RGMO implemented & in Service(56th OCC meeting)	Response observed on 31.01.12
		2	210		
		3	210		
		4	210		
		5	210		
	SANTALDIH	6	250	RGMO implemented & in Service(72nd OCC meeting)	Under Obsevation
CESC	BUDGE BUDGE	1	250	Unit # 1,2 in FGMO & 3 in RGMO	Response satisfactory
		2	250		
		3	250		
Sterlite	Sterlite	1	600	RGMO implemented & in Service(72nd OCC meeting)	Under Obsevation
		2	600		
		3	600		
MPL	MPL	1	525	RGMO implemented & in Service(73rd OCC meeting)	Under Obsevation
TOTAL CAPACITY			12025		

LIST OF THERMAL GENERATING UNITS NOT PARTICIPATING IN RGMO

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS
FSTPP	FARAKKA	6	500	Not Implemented
DVC	CHANDRAPURA TPS	7	250	RGMO detail is n't available
	CHANDRAPURA TPS	8	250	
	BOKARO 'B'	1	210	Difficulties in implementing RGMO & exemption not applied(56th OCC meeting)
		2	210	
		3	210	
	MEJIA	1	210	Not Implemented & exemption not applied(56th OCC meeting)
		2	210	
		3	210	
	MEJIA-B	7	500	Not Implemented & exemption not applied
	WARIA	4	210	Difficulties in implementing RGMO & exemption not applied(56th OCC meeting)
JSEB	TENUGHAT	1	210	Difficulties in implementing RGMO & exemption not applied(56th OCC meeting)
		2	210	
OPGC	IBTPS	1	210	Not adequate response in RGMO(56th OCC meeting)
		2	210	
WBPDCL	KOLAGHAT	1	210	Old Units,difficulties in implementing RGMO and exemption applied(60th OCC meting)
		2	210	
		3	210	
		4	210	
		5	210	
		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)
		2	300	
TOTAL CAPACITY			6430	

LIST OF GENERATING UNITS PARTICIPATING IN RGMO

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS	ERLDC Obeservation
TEESTA	TEESTA	1	170	Taken in RGMO mode at 00:00hrs of 01.08.10	Response satisfactory
		2	170		
		3	170		
TOTAL CAPACITY			510		

LIST OF HYDRO GENERATING UNITS NOT PARTICIPATING IN RGMO

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS	ERLDC Obeservation
NHPC	RANGIT	1	20	Pondage capacity is to generate power upto 3 hours only.Hence not under the perview of RGMO	
		2	20		
		3	20		
DVC	MAITHON HPS	1	20	RGMO detail is n't available	No response
		2	20		
		3	20		
	PANCHET HPS	1	40	RGMO detail is n't available	No response
		2	40		
JSEB	SUBARNREKHA	1	65	RGMO in place,But due to less availabilty of water ,RGMO could not tested	
		2	65		
OHPC	BURLA	1	49.5	Applied for exemption(56th OCC meeting)	
		2	49.5		
		3	24		
		4	24		
		5	37.5		
		6	37.5		
		7	37.5		
	CHIPLIMA	1	24	Applied for exemption(56th OCC meeting)	
		2	24		
		3	24		
	BALIMELA	1	60	Applied for exemption(56th OCC meeting)	
		2	60		
		3	60		
		4	60		
		5	60		
		6	60		
		7	75		
		8	75		
	UPPER KOLAB	1	80	Applied for exemption(56th OCC meeting)	
		2	80		
		3	80		
		4	80		
	RENGALI	1	50	Applied for exemption(56th OCC meeting)	
		2	50		
		3	50		
		4	50		
		5	50		
	INDRAVATI	1	150	Applied for exemption(56th OCC meeting)	
		2	150		
		3	150		
		4	150		
WBSEDCL	RAMMAM	1	12.5	RGMO detail is n't available	No response
		2	12.5		
		3	12.5		
		4	12.5		
	PPSP	1,2,3,4	900	Not yet implemenetd & exemption not applied(56th OCC meeting)	
TOTAL CAPACITY			3231.5		

STATUS OF RGMO IN ER

LIST OF THERMAL GENERATING UNITS NOT PARTICIPATING IN RGMO

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS
FSTPP	FARAKKA	6	500	**Not Implemented**
DVC	CHANDRAPURA TPS	7	250	**RGMO detail is n't available**
	CHANDRAPURA TPS	8	250	
	BOKARO 'B'	1	210	**Difficulties in implementing RGMO & exemption not applied(56th OCC meeting)**
		2	210	
		3	210	
	MEJIA	1	210	**Not Implemented & exemption not applied(56th OCC meeting)**
		2	210	
		3	210	
	MEJIA-B	7	500	**Not Implemented & exemption not applied**
	WARIA	4	210	**Difficulties in implementing RGMO & exemption not applied(56th OCC meeting)**
JSEB	TENUGHAT	1	210	**Difficulties in implementing RGMO & exemption not applied(56th OCC meeting)**
		2	210	
OPGC	IBTPS	1	210	**Not adequate response in RGMO(56th OCC meeting)**
		2	210	
WBPDCL	KOLAGHAT	1	210	**Old Units,difficulties in implementing RGMO and exemption applied(60th OCC meting)**
		2	210	
		3	210	
		4	210	
		5	210	
		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)**
		2	300	
TOTAL CAPACITY			**6430**	

STATUS OF RGMO IN ER

ANNEXURE-I

LIST OF HYDRO GENERATING UNITS NOT PARTICIPATING IN RGMO

CONSTITUENT	STATION	UNIT	CAPACITY	STATUS OF RGMO AS INFORMED BY STATIONS	ERLDC Obeservation
NHPC	RANGIT	1	20	**Pondage capacity is to generate power upto 3 hours only.Hence not under the perview of RGMO**	
		2	20		
		3	20		
DVC	MAITHON HPS	1	20	**RGMO detail is n't available**	No response
		2	20		
		3	20		
	PANCHET HPS	1	40	**RGMO detail is n't available**	No response
		2	40		
JSEB	SUBARNREKHA	1	65	**RGMO in place,But due to less availabilty of water ,RGMO could not tested**	
		2	65		
OHPC	BURLA	1	49.5	**Applied for exemption(56th OCC meeting)**	
		2	49.5		
		3	24		
		4	24		
		5	37.5		
		6	37.5		
		7	37.5		
	CHIPLIMA	1	24	**Applied for exemption(56th OCC meeting)**	
		2	24		
		3	24		
	BALIMELA	1	60	**Applied for exemption(56th OCC meeting)**	
		2	60		
		3	60		
		4	60		
		5	60		
		6	60		
		7	75		
		8	75		
	UPPER KOLAB	1	80	**Applied for exemption(56th OCC meeting)**	
		2	80		
		3	80		
		4	80		
	RENGALI	1	50	**Applied for exemption(56th OCC meeting)**	
		2	50		
		3	50		
		4	50		
		5	50		
	INDRAVATI	1	150	**Applied for exemption(56th OCC meeting)**	
		2	150		
		3	150		
		4	150		
WBSEDCL	RAMMAM	1	12.5	**RGMO detail is n't available**	No response
		2	12.5		
		3	12.5		
		4	12.5		
	PPSP	1,2,3,4	900	**Not yet implemenetd & exemption not applied(56th OCC meeting)**	
TOAL CPACITY			**3232**		

Annexure-II

Revised Anticipated Power Supply Position for the month of
Feb-13

SL.NO		PARTICULARS	PEAK DEMAND MW	ENERGY MU
1		**BIHAR**		
	i)	NET MAX DEMAND	2195	1100
	ii)	NET POWER AVAILABILITY- Own Source	157	83
		- Central Sector	1276	718
	iii)	SURPLUS(+)/DEFICIT(-)	-761	-299
2		**JHARKHAND**		
	i)	NET MAX DEMAND	1215	630
	ii)	NET POWER AVAILABILITY- Own Source	540	261
		- Central Sector	348	186
	iii)	SURPLUS(+)/DEFICIT(-)	-327	-184
3		**DVC**		
	i)	NET MAX DEMAND (OWN)	2605	1460
	ii)	NET POWER AVAILABILITY- Own Source	3526	2044
		- Central Sector	285	177
		Long term Bi-lateral (Export)	1030	692
	iii)	SURPLUS(+)/DEFICIT(-)	177	68
4		**ORISSA**		
	i)	NET MAX DEMAND	3680	2070
	ii)	NET POWER AVAILABILITY- Own Source	2548	1326
		- Central Sector	940	547
	iii)	SURPLUS(+)/DEFICIT(-)	-192	-197
5		**WEST BENGAL**		
5.1		**WBSEDCL**		
	i)	NET MAX DEMAND (OWN)	4550	2250
	ii)	CESC's DRAWAL	724	132
	iii)	TOTAL WBSEDCL's DEMAND	5274	2382
	iv)	NET POWER AVAILABILITY- Own Source	3908	1844
		- Import from DPL	212	-3
		- Central Sector	1066	600
	v)	SURPLUS(+)/DEFICIT(-)	-89	58
5.2		**DPL**		
	i)	NET MAX DEMAND	315	240
	ii)	NET POWER AVAILABILITY	527	237
	iii)	SURPLUS(+)/DEFICIT(-)	212	-3
5.3		**CESC**		
	i)	NET MAX DEMAND	1574	669
	ii)	NET POWER AVAILABILITY - OWN SOURCE	850	537
		FROM WBSEDCL	724	132
	iii)	TOTAL AVAILABILITY	1574	669
	iv)	SURPLUS(+)/DEFICIT(-)	0	0
6		**WEST BENGAL (WBSEDCL+DPL+CESC)** **(excluding DVC's supply to WBSEDCL's command area)**		
	i)	NET MAX DEMAND	6439	3159
	ii)	NET POWER AVAILABILITY- Own Source	5285	2618
		- Central Sector	1066	600
	iii)	SURPLUS(+)/DEFICIT(-)	-88	58
7		**SIKKIM**		
	i)	NET MAX DEMAND	115	45
	ii)	NET POWER AVAILABILITY- Own Source	16	6
		- Central Sector	99	48
	iii)	SURPLUS(+)/DEFICIT(-)	0	9
8		**EASTERN REGION** **At 1.03 AS DIVERSITY FACTOR**		
	i)	**NET MAX DEMAND**	15775	8464
		Long term Bi-lateral	1030	692
	ii)	**NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)**	14618	7920
	iii)	**PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)**	-1157	-544

EASTERN REGIONAL LOAD DESPATCH CENTRE
KOLKATA

ANNEXURE-III

SHUTDOWN ALLOWED IN 81st 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	REMARK
1	400 kV New Siliguri-Purnea CKT-III	02/01/2013	08:00 hrs	28/02/2013	18:00 hrs	OCB	POWERGRID ER - II	For reconductoring work	
2	400 KV KHG - BARH - II BAY 22	17/01/2013	09:30	17/01/2013	16:30		NTPC/BARH	PREVETIVE MAINTANANCE	
3	400 KV KHG - BARH - II BAY 23	18/01/2013	09:30	18/01/2013	16:30		NTPC/BARH	PREVETIVE MAINTANANCE	
4	400 kV Baripada-Rengali Line	19/01/2013	9:00: hrs	24/01/2013	17:30: hrs	OCB	POWERGRID ER - II	For erection 02 nos S/C Tower and stringing at tapping point for LILO at Keonjhar s/s	
5	220 kV main Bus-II at Subhasgram	19/01/2013	07:00 hrs	19/01/2013	15:00 hrs	ODB	POWERGRID ER - II	CESC Construction work	
6	220 KV Durgapur- DVC #2 line at Durgapur	19/01/2013	9:30 hrs	19-01-13	18:00 hrs	ODB	POWERGRID ER - II	AMP work	
7	220 kV Main Bus -I at Malda	19/01/2013	10:00 hrs	19-01-13	13:00 hrs	ODB	POWERGRID ER - II	For removal of dropper & Isolator of ICT-II bay (89M1)	
8	132 KV NBU - SILIGURI(PG)	20/01/2013	06:00	20/01/2013	15:00		WBSETCL	Winter Maintenance work	
9	132 KV KOLAGHAT - HIZLI - D/C	20/01/2013	05:00	20/01/2013	16:00		WBSETCL	FOR STRINGING WORK OF 220 KV D/C MEDINAPUR - KHARGAPUR(WB)	
10	315 MVA ICT-I at Maithon	20/01/2013	09:00 hrs	20/01/2013	16:00 hrs	ODB	POWERGRID ER - II	AMP of 400 kV & 220 kV bays & CT DGA sampling	
11	220 kV WBSETCL-I bay at Subhasgram	20/01/2013	07:00 hrs	20/01/2013	15:00 hrs	ODB	POWERGRID ER - II	Rectification of hot spot & AMP	
12	315 MVA ICT-I at Maithon	20/01/2013	09:00 hrs	20/01/2013	18:00 hrs	ODB	POWERGRID ER - II	AMP of 400 kV & 220 kV bays & CT DGA sampling	
13	400 kV Durgapur- Bidhannagar line with L/R at Durgapur	20/01/2013	8:00 hrs	20-01-13	17:30 hrs	ODB	POWERGRID ER - II	Reactor LA replacement work and NGR LA replacement work as per OS and SIR recommendation. Replacement of OTI as per NTAMC requirement. Replacement of MOG and Leakage arresting work.	
14	132 kV Main Bus at Malda	20/01/2013	10:00 hrs	20-01-13	16:00 hrs	ODB	POWERGRID ER - II	Removal of 132 kV Bus isolator of ICT-II; Removal of 132 kV transfer bus conductor and new conductor stringing; Changing of dropper	TOTAL POWER INTERUPTION AT MALDA 132 KV
15	132 kV Birpara-WBSETCL-I	21/01/2013	9:00 hrs	21/01/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP	
16	315 MVA ICT - II AT BAKRESWAR	21/01/2013	06:00	21/01/2013	15:00		WBSETCL	Winter Maintenance work	
17	220 KV SANTALDIH - CHANDIL	21/01/2013	06:00	21/01/2013	15:00		WBSETCL	Winter Maintenance work	
18	132 KV NBU - NJP - SILIGURI(PG)	21/01/2013	06:00	21/01/2013	15:00		WBSETCL	Winter Maintenance work	
19	400 KV BUS – I AT MUZAFFARPUR	21/01/2013	10:00	21/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
20	125 MVAR B/R – I AT GAYA	21/01/2013	08:00	21/01/2013	17:00		POWERGRID ER - I	FOR CONST. WORK AT GAYA S/S	
21	125 MVAR B/R – II AT GAYA	21/01/2013	08:00	21/01/2013	17:00		POWERGRID ER - I	FOR CONST. WORK AT GAYA S/S	
22	100 MVA ICT-I at Birpara	21/01/2013	9:00 hrs	21/01/2013	17:00 hrs	ODB	POWERGRID ER - II	ERSS-IV works.	
23	220 kV Main Bus 2 at Durgapur	21/01/2013	9:30 hrs	21/01/2013	18:00 hrs	ODB	POWERGRID ER - II	AMP work, During S/D, 220 kV DVC #1 will remain in out of service.	
24	220 kV Main Bus -2 at Malda	21/01/2013	10:00 hrs	21/01/2013	13:00 hrs	ODB	POWERGRID ER - II	For removal of dropper & Isolator of ICT-II bay (89M2)	
25	400 kV D/C Andal-Jamshedpur	21/01/2013	9:00 hrs	21/01/2013	17:30 hrs	ODB	POWERGRID ER - II	For carrying out the cross jumpering work at Loc. 113	
26	400 kv Biharasarii - Sasarm - iii	21/01/2013	08:00	21/01/2013	17:30		POWERGRID ER - I	construction of P urnea bay at biharsariff	SUBJECT TO NLDC CONSENT
27	132 kV Birpara-WBSETCL-II	22/01/2013	9:00 hrs	22/01/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP	
28	315 MVA ICT - II AT BAKRESWAR	22/01/2013	06:00	22/01/2013	15:00		WBSETCL	Winter Maintenance work	
29	220 KV DALKHOLA(WB) - DALKHOLA(PG)	22/01/2013	05:00	22/01/2013	16:00		WBSETCL	Winter Maintenance work	
30	400 KV BUS – I AT MUZAFFARPUR	22/01/2013	10:00	22/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
31	400 KV EAST BUS – I at PUSAULI	22/01/2013	08:00	22/01/2013	17:30		POWERGRID ER - I	FOR BUS EXTENSION WORK RELATED TO 400 KV INTERCONNECTION COMMISSIONING WORKS. AT SSRM.	
32	315 MVA ICT– I AT RANCHI	22/01/2013	10:00	22/01/2013	17:00		POWERGRID ER - I	BAY CONSTN. WORK OF 220 KV RNC – GOLA D/C AT RNC	
33	400 KV BANKA – BSF - I	22/01/2013	08:00	22/01/2013	18:00		POWERGRID ER - I	FOR COMMISSIONING OF LR-I	**SUBJECT TO NLDC CONSENT
34	125 MVAR B/R – I AT GAYA	22/01/2013	08:00	22/01/2013	17:00		POWERGRID ER - I	FOR CONST. WORK AT GAYA S/S	
35	125 MVAR B/R – II AT GAYA	22/01/2013	08:00	22/01/2013	17:00		POWERGRID ER - I	FOR CONST. WORK AT GAYA S/S	
36	220 kV S/C Malbase-Birpara TL	22/01/2013	9:00: hrs	25/01/2013	17:00: hrs	OCB	POWERGRID ER - II	For TL line diversion between section Loc. 52 to 55 (Release of ERS Tower)	
37	400 KV Kahelgaon-I Bay at Maithon	22/01/2013	09: hrs	22/01/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP of LINE BAY	
38	ICT #2 Tie bay (417) at Durgapur	22/01/2013	9:30 hrs	22-01-13	18:00 hrs	ODB	POWERGRID ER - II	AMP works. During S/D Power flow will maintain through 418 (Main bay)	
39	132 kV Main Bus at Gangtok	22/01/2013	9:00 hrs	22/01/2013	15:00 hrs		POWERGRID ER - II	AMP	
40	66 kV Main Bus at Gangtok	22/01/2013	9:00 hrs	22/01/2013	15:00 hrs		POWERGRID ER - II	AMP	
41	400 kV Main bay CB of 315 MVA ICT-II at Baripada	22/01/2013	9:00: hrs	22/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
42	400/132 KV ICT - 1 AT BARH	22/01/2013	09:30	22/01/2013	16:30		NTPC/BARH	PREVETIVE MAINTANANCE	
43	220 KV WARIA - BIDHANAGAR I & II	22/01/2013	09:00	28/01/2013	16:30	OCB	DVC	TO ATTAND TOWER BEND	
44	400 KV BINAGURI - PURNEA - III	22/01/2013	10:00	22/01/2013	17:00		POWERLINK	For changing insulators at railway crossing betn loc 50 & 51as a precautionary measure to avoid any mis happening of 400 kv purnea - siliguri - iii	
45	132 kV Main Bus at Malda	23/01/2013	10:00 hrs	23/01/2013	16:00 hrs	ODB	POWERGRID ER - II	Erection of new bus isolator of ICT-II bay; changing of 132 kV transfer bus conductor;	TOTAL POWER INTERUPTION AT MALDA 132 KV

46	315 MVA ICT - II AT BAKRESWAR	23/01/2013	06:00	23/01/2013	15:00		WBSETCL	Winter Maintenance work	
47	400 KV BUS – I AT MUZAFFARPUR	23/01/2013	10:00	23/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
48	400 KV EAST BUS – I at PUSAULI	23/01/2013	08:00	23/01/2013	17:30		POWERGRID ER - I	FOR BUS EXTENSION WORK RELATED TO 400 KV INTERCONNECTION COMMISSIONING WORKS. AT SSRM.	
49	400 KV BANKA – BSF - II	23/01/2013	08:00	23/01/2013	18:00		POWERGRID ER - I	FOR COMMISSIONING OF LR-II	**SUBJECT TO NLDC CONSENT
50	220KV Maithon- Kalyaneshwari-I Line	23/01/2013	09:00	23.01.2013	17:00 hrs	ODB	POWERGRID ER - II	AMP	
51	220 kV Birpara-Salakhati-I at Birpara	23/01/2013	9:00 hrs	23/01/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP	SUBJECT TO NLDC CONSENT
52	400 kV Main bay CB of MDSL Line -II at Baripada	23/01/2013	9:00: hrs	23/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
53	400/132 KV ICT - 1 AT BARH	23/01/2013	09:30	23/01/2013	16:30		NTPC/BARH	PREVETIVE MAINTANANCE	
54	400 KV BINAGURI - PURNEA - III	23/01/2013	10:00	23/01/2013	17:00		POWERLINK	For changing insulators at railway crossing betn loc 50 & 51as a precautionary measure to avoid any mis happening of 400 kv purnea - siliguri - iii	
55	220 kV Main Bus -1 at Malda	24/01/2013	10:00 hrs	24/01/2013	13:00 hrs	ODB	POWERGRID ER - II	For connection of dropper & erection of new isolator of ICT-II bay (89M1)	
56	315 MVA ICT - II AT BAKRESWAR	24/01/2013	06:00	24/01/2013	15:00		WBSETCL	Winter Maintenance work	
57	400 KV BUS – I AT MUZAFFARPUR	24/01/2013	10:00	24/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
58	HVDC B TO B STATION AT PUSAULI	24/01/2013	08:00	24/01/2013	18:00		POWERGRID ER - I	FOR 765 KV / 400 KV BAY EXTN. COMMISIONING WORK AT SSRM	SUBJECT TO NLDC CONSENT
59	400 KV BANKA – KHG - I	24/01/2013	08:00	24/01/2013	18:00		POWERGRID ER - I	FOR COMMISSIONING OF BR	**SUBJECT TO NLDC CONSENT
60	125 MVAR B/R – I AT GAYA	24/01/2013	08:00	24/01/2013	17:00		POWERGRID ER - I	FOR CONST. WORK AT GAYA S/S	
61	125 MVAR B/R – II AT GAYA	24/01/2013	08:00	24/01/2013	17:00		POWERGRID ER - I	FOR CONST. WORK AT GAYA S/S	
62	220KV Maithon- Kalyaneshwari-II Line	24/01/2013	09:00	24/01/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP	
63	50 MVA ICT-I at Gangtok	24/01/2013	9:00 hrs	24/01/2013	15:00 hrs	ODB	POWERGRID ER - II	AMP	
64	ICT #2 Main bay (418) at Durgapur	24/01/2013	9:30 hrs	24/01/2013	18:00 hrs	ODB	POWERGRID ER - II	AMP works. During S/D Power flow will maintain through 417 (Tie bay)	
65	220 kV Birpara-Salakhati-II at Birpara	24/01/2013	9:00 hrs	24/01/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP	SUBJECT TO NLDC CONSENT
66	400 kV Tie bay CB of MDSL Line -II and JSPR-II at Baripada	24/01/2013	9:00: hrs	24/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
67	400 KV BINAGURI - PURNEA - IV	24/01/2013	10:00	24/01/2013	17:00		POWERLINK	For changing insulators at railway crossing betn loc 50 & 51as a precautionary measure to avoid any mis happening of 400 kv purnea - siliguri - iv	
68	400 KV BINAGURI - PURNEA - IV	24/01/2013	10:00	24/01/2013	17:00		POWERLINK	For changing insulators at railway crossing betn loc 50 & 51as a precautionary measure to avoid any mis happening of 400 kv purnea - siliguri - iv	
69	160 MVA ICT-I at Baripada	25/01/2013	9:00: hrs	25/01/2013	17:00: hrs	ODB	POWERGRID ER - II	AMP	
70	400 kV Main bay CB of 315 MVA ICT-I at Baripada	25/01/2013	9:00: hrs	25/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
71	400KV BUS-1 at Rengali	25/01/2013	9:00: hrs	25/01/2013	17:00: hrs		POWERGRID ER - II	BUS-2 WILL BE IN SERVICE	
72	220 kV Main Bus -2 at Malda	25/01/2013	10:00 hrs	25/01/2013	13:00 hrs	ODB	POWERGRID ER - II	For connection of dropper & erection of new isolator of ICT-II bay (89M2)	
73	400 KV SGTPP-S'GRM(PG) & 400 KV JRT-S'GRM(PG) CKT	25/01/2013	06:00	25/01/2013	15:00		WBSETCL	Stringing work of S'GRM(PG)-SAITALA-EM (CESC) CKT	
74	315 MVA ICT - II AT BAKRESWAR	25/01/2013	06:00	25/01/2013	15:00		WBSETCL	Winter Maintenance work	
75	HVDC B TO B STATION AT PUSAULI	25/01/2013	08:00	25/01/2013	18:00		POWERGRID ER - I	FOR 765 KV / 400 KV BAY EXTN. COMMISIONING WORK AT SSRM	SUBJECT TO NLDC CONSENT
76	400 KV BANKA – KHG - II	25/01/2013	08:00	25/01/2013	18:00		POWERGRID ER - I	FOR COMMISSIONING OF BR	**SUBJECT TO NLDC CONSENT
77	400 KV MTN –Mejia (LILO) and Mejia –JSR Line	25/01/2013	09:00	25/01/2013	17:00 Hrs.	ODB	POWERGRID ER - II	Repairing of damaged conductor in both Circuit damaged by miscreants.	
78	50 MVA ICT-II at Gangtok	25/01/2013	9:00 hrs	25/01/2013	15:00 hrs	ODB	POWERGRID ER - II	AMP	
79	220KV BUS Coupler Bay at Maithon	25/01/2013	9:00: hrs	25/01/2013	17:00: hrs	ODB	POWERGRID ER - II	AMP	
80	220 KV CHUKHA - BIRPARA - III	25/01/2013	09:30	30/01/2013	16:30	OCB	CHUKHA	ANNUAL MAINTENANCE WORK	
81	400KV BUS-2 at Rengali	26/01/2013	9:00: hrs	26/01/2013	17:00: hrs		POWERGRID ER - II	BUS-1 WILL BE IN SERVICE	
82	400 KV SGTPP-S'GRM(PG) & 400 KV JRT-S'GRM(PG) CKT	26/01/2013	06:00	26/01/2013	15:00		WBSETCL	Stringing work of S'GRM(PG)-SAITALA-EM (CESC) CKT	SHIFTED TO 28
83	315 MVA ICT - II AT BAKRESWAR	26/01/2013	06:00	26/01/2013	15:00		WBSETCL	Winter Maintenance work	
84	400 kV Bidhannagar Main bay at Durgapur	26/01/2013	9:30 hrs	26-01-13	18:00 hrs	ODB	POWERGRID ER - II	AMP works. During S/D Power flow will maintain through 408 Tie bay	
85	400 KV JAMSHEDPUR - ROURKELA - II	27/01/2013	08:00	27/01/2013	17:00		POWERGRID ER - I	BAY CONST. WORK OF 400 KV JSR – BARIPADA LINE	
86	400kv RENGALI-INDRAVATI MAIN BAY at Rengali	27/01/2013	9:00: hrs	27/01/2013	17:00: hrs		POWERGRID ER - II	INDRAVATI TIE BAY WILL BE IN SERVICE.	
87	400 KV SGTPP-S'GRM(PG) & 400 KV JRT-S'GRM(PG) CKT	27/01/2013	06:00	27/01/2013	15:00		WBSETCL	Stringing work of S'GRM(PG)-SAITALA-EM (CESC) CKT	
88	400 KV MAIN BUS - I AT BAKRESWAR	27/01/2013	06:00	27/01/2013	15:00		WBSETCL	Winter Maintenance work	
89	220 kV WBSETCL Ckt-II Bay at Subhasgram	27/01/2013	07:00 hrs	27/01/2013	15:00 hrs	ODB	POWERGRID ER - II	Rectification of hot spot & AMP	
90	400 kV Farakka-Durgapur-I Tie bay at Durgapur	27/01/2013	10:00 hrs	10--02-13	17:00 hrs	OCB	POWERGRID ER - II	Construction Work; For balance erection & commissioning of SgTPP-II Ckt.	
91	Rourkela-Jamshedpur-II Line	27/01/2013	9:00: hrs	27/01/2013	17:00: hrs	ODB	POWERGRID ER - II	LA replacement	
92	132 KV SILIGURI - KURSEAONG	27/01/2013	09:00	02/02/2013	17:00	OCB	POWERGRID ER-II	TOWER RE-ERECTION AT LOC - 194	SUBJECT TO SIKKIM APPROVAL

93	132 KV SILIGURI - MELLI	27/01/2013	09:00	02/02/2013	17:00	OCB	POWERGRID ER-II	TOWER RE-ERECTION AT LOC - 194	SUBJECT TO SIKKIM APPROVAL
94	400 KV JAMSHEDPUR - ROURKELA - II	28/01/2013	08:00	28/01/2013	17:00		POWERGRID ER - I	BAY CONST. WORK OF 400 KV JSR – BARIPADA LINE	
95	400kv RENGALI-INDRAVATI TIE BAY at Rengali	28/01/2013	9:00: hrs	28/01/2013	17:00: hrs		POWERGRID ER - II	INDRAVATI MAIN BAY WILL BE IN SERVICE	
96	400 KV MAIN BUS - I AT BAKRESWAR	28/01/2013	06:00	28/01/2013	15:00		WBSETCL	Winter Maintenance work	
97	220 KV DURGAPUR - WARIA - I	28/01/2013	06:00	28/01/2013	15:00		WBSETCL	Winter Maintenance work	
98	400 KV BUS –II AT MUZAFFARPUR	28/01/2013	10:00	28/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
99	400 KV Main bay CB of JSPR-II at Baripada	28/01/2013	9:00: hrs	28/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
100	400 KV FARAKKA - SAGARDIGHI	28/01/2013	09:30	28/01/2013	16:30		NTPC/FSTPP	RELAY TESTING	
101	400 kV Baripada-Rengali Line	29/01/2013	9:00: hrs	30/01/2013	17:30: hrs	OCB	POWERGRID ER - II	Coommissioning of Kenojhar s/s and PLCC system at rengali	
102	400 KV MAIN BUS - I AT BAKRESWAR	29/01/2013	06:00	29/01/2013	15:00		WBSETCL	Winter Maintenance work	
103	220 KV DURGAPUR - PARULIA	29/01/2013	06:00	29/01/2013	15:00		WBSETCL	Winter Maintenance work	
104	400 KV BUS –II AT MUZAFFARPUR	29/01/2013	10:00	29/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
105	400 kV Bidhannagar/ICT-I Tie at Durgapur	29/01/2013	9:30 hrs	29-01-13	18:00 hrs	ODB	POWERGRID ER - II	AMP works. During S/D Power flow will maintain through Main bay	
106	400 kV Main bay CB of MDSL Line -I at Baripada	29/01/2013	9:00: hrs	29/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
107	400 KV MAIN BUS - II AT BAKRESWAR	30/01/2013	06:00	30/01/2013	15:00		WBSETCL	Winter Maintenance work	
108	400 KV BUS –II AT MUZAFFARPUR	30/01/2013	10:00	30/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
109	400 kV Tie bay CB of MDSL Line -I - - JSPR-I at Baripada	30/01/2013	9:00: hrs	30/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
110	400 kV Jeerat-Farakka Line	31/01/2013	09:00 hrs	31/01/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP, Relay testing	
111	400 KV Meramundali – Bolangir Line	31/01/2013	9:00: hrs	31/01/2013	17:00: hrs	ODB	POWERGRID ER - II	For attending the balance construction i.e. correction of alignment of line and bus side isolators and earth switch and checking of remote operation of the bay equipments.	SUBJECT TO NLDC CONSENT
112	400 KV MAIN BUS - II AT BAKRESWAR	31/01/2013	06:00	31/01/2013	15:00		WBSETCL	Winter Maintenance work	
113	400 KV BUS –II AT MUZAFFARPUR	31/01/2013	10:00	31/01/2013	16:00		POWERGRID ER - I	FOR AMP WORKS	
114	400 kV ICT - I Main bay at Durgapur	31/01/2013	9:30 hrs	31-01-13	18:00 hrs	ODB	POWERGRID ER - II	AMP works. During S/D Power flow will maintain through 408 Tie bay	
115	400 kV Main bay CB of SPR-I at Baripada	31/01/2013	9:00: hrs	31/01/2013	17:00: hrs		POWERGRID ER - II	AMP	
116	50 MVAR BUS REACROR – II AT JSR	01/02/2013	09:00	01/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (04 NOS.)	
117	400 KV Jeypore– Bolangir Line	01/02/2013	9:00: hrs	01/02/2013	17:00: hrs	ODB	POWERGRID ER - II	For attending the balance construction i.e. correction of alignment of line and bus side isolators and earth switch and checking of remote operation of the bay equipments.	SUBJECT TO NLDC CONSENT
118	400 KV MAIN BUS - II AT BAKRESWAR	01/02/2013	06:00	01/02/2013	15:00		WBSETCL	Winter Maintenance work	
119	400 KV MALDA – PURNEA - I	01/02/2013	10:00	04/02/2013	18:00	OCB	POWERGRID ER - I	FROR BAY CONSTN. WORK RELATED TO 400 KV BSF – PRN LINE AT NPRN END.	
120	Bus Reactor Bay(22) at Rourkela	01/02/2013	8:00: hrs	01/02/2013	18:00: hrs		POWERGRID ER - II	LA replacement work also will be carried out along with AMP work	
121	50 MVAR BUS REACROR – II AT JSR	02/02/2013	09:00	02/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (04 NOS.)	
122	400 KV RANCHI – MAITHON (RB) - I	02/02/2013	07:00	02/02/2013	18:00		POWERGRID ER - I	FOR REPLACEMENT OF BROKEN INSULATORS DAMAGED BY MISCREANTS AT DIFF LOCATION	
123	50 MVAR BUS REACROR – I AT JSR	03/02/2013	09:00	03/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (03 NOS.)	
124	400 KV RANCHI – MAITHON (RB) - I	03/02/2013	07:00	03/02/2013	18:00		POWERGRID ER - I	FOR REPLACEMENT OF BROKEN INSULATORS DAMAGED BY MISCREANTS AT DIFF LOCATION	
125	50 MVAR BUS REACROR – I AT JSR	04/02/2013	09:00	04/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (03 NOS.)	
126	400 KV ARAMBAG - DURGAPUR	04/02/2013	06:00	04/02/2013	15:00		WBSETCL	Winter Maintenance work	
127	400 KV RANCHI – MAITHON (RB) - I	04/02/2013	07:00	04/02/2013	18:00		POWERGRID ER - I	FOR REPLACEMENT OF BROKEN INSULATORS DAMAGED BY MISCREANTS AT DIFF LOCATION	
128	315 MVA ICT-I at Rourkela	04/02/2013	8:00: hrs	04/02/2013	18:00: hrs	ODB	POWERGRID ER - II	LA replacement work also will be carried out along with AMP work	
129	400 kV Farakka-Durgapur- I line	04/02/2013	9:00 hrs	09/02/2013	17:30 hrs	OCB	POWERGRID ER - II	Re-alignment of 400 KV Farakka- Durgapur-I and SGTPP line	
130	400 KV DURGAPUR - PPSP - II	05/02/2013	06:00	05/02/2013	15:00		WBSETCL	Winter Maintenance work	
131	400 KV BIHARSHARIF – SASARAM - I	05/02/2013	10:00	05/02/2013	14:00		POWERGRID ER - I	FOR AMP WORKS AT BSF	SUBJECT TO NLDC CONSENT
132	220 KV SASARAM – ARA - I	05/02/2013	10:00	05/02/2013	14:00		POWERGRID ER - I	FOR AMP WORKS AT ARA	
133	MAITHON - GAYA-I REACTOR at Maithon	05/02/2013	09: hrs	05/02/2013	17:00 hrs	ODB	POWERGRID ER - II	. REACTOR CB, REACTOR ISOLATOR,	
134	Durgapur-Jamshedpur Main bay at Durgapur	05/02/2013	9:30 hrs	05-02-13	18:00 hrs	ODB	POWERGRID ER - II	AMP works. During S/D Power flow will maintain through Tie bay(405)	
135	ICT-II Tie(14) Bay at Rourkela	05/02/2013	9:00: hrs	05/02/2013	17:00: hrs		POWERGRID ER - II	AMP Work	
136	220 kV Balasore-I bay CB at Baripada	05/02/2013	9:00: hrs	05/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
137	400KV ICT-1 MAIN BAY at Rengali	05/02/2013	9:00: hrs	06/02/2013	17:00: hrs		POWERGRID ER - II	ICT-1&2 TIE BAY WILL BE IN SERVICE.	
138	400 kv RANCHI – MAITHON LINE	06/02/2013	10:00	06/02/2013	14:00	ODB	POWERGRID ER - I	FOR BAY COSTN. WORK OF 125 MVAR BUS REACTOR AT RNC END	
139	400 KV DURGAPUR - PPSP - I	06/02/2013	06:00	06/02/2013	15:00		WBSETCL	Winter Maintenance work	
140	220 KV SASARAM – ARA - II	06/02/2013	10:00	06/02/2013	14:00		POWERGRID ER - I	FOR AMP WORKS AT ARA	
141	MAITHON - GAYA-II REACTOR at Maithon	06/02/2013	9:00: hrs	06/02/2013	17:00 hrs	ODB	POWERGRID ER - II	REACTOR CB, REACTOR ISOLATOR	
142	315 MVA ICT-II at Rourkela	06/02/2013	8:00: hrs	06/02/2013	18:00: hrs		POWERGRID ER - II	LA replacement work also will be carried out along with AMP work	

143	ICT-II Main(15) Bay at Rourkela	06/02/2013	9:00: hrs	06/02/2013	17:00: hrs		POWERGRID ER - II	AMP Work	
144	220 kV Balasore-II bay CB at Baripada	06/02/2013	9:00: hrs	06/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
145	400 KV Malda -N.Purnea CKT-II	06/02/2013	10:00 hrs	06/02/2013	18:00 hrs	ODB	POWERGRID ER - II	AMP	
146	400 KV DURGAPUR - PARULIA	07/02/2013	06:00	07/02/2013	15:00		WBSETCL	Winter Maintenance work	
147	400 KV BIHARSHARIF – SASARAM - II	07/02/2013	10:00	07/02/2013	14:00		POWERGRID ER - I	FOR AMP WORKS AT BSF	SUBJECT TO NLDC CONSENT
148	132 KV ARA - DUMRAON	07/02/2013	10:00	07/02/2013	14:00		POWERGRID ER - I	FOR AMP WORKS AT ARA	
149	400 KV RANCHI – MAITHON (RB) - II	07/02/2013	07:00	07/02/2013	18:00		POWERGRID ER - I	FOR REPLACEMENT OF BROKEN INSULATORS DAMAGED BY MISCREANTS AT DIFF LOCATION	
150	Durgapur-Jamshedpur / Bus Reactor Tie bay at Durgapur	07/02/2013	9:30 hrs	07-02-13	18:00 hrs	ODB	POWERGRID ER - II	AMP works. During S/D Power flow will maintain through Main bay	
151	ICT-II(8) 220 KV side at Rourkela	07/02/2013	9:00: hrs	07/02/2013	17:00: hrs		POWERGRID ER - II	No power interruption during AMP work	
152	220 kV Bus Coupler bay CB at Baripada	07/02/2013	9:00: hrs	07/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
153	400 KV Malda -N.Purnea CKT-I	07/02/2013	10:00 hrs	07/02/2013	18:00 hrs	ODB	POWERGRID ER - II	AMP	
154	400 KV B/R - II FARAKKA	07/02/2013	09:30	07/02/2013	16:30		NTPC/FSTPP	REACTOR & RELAY TESTING	
155	50 MVA ICT-I at Malda	07/02/2013	9:00: hrs	07/03/2013	17:00: hrs	OCB	POWERGRID ER - II	For replacement of 50 MVA ICT-I under ERSS-IV	
156	315 MVA ICT - I AT DURGAPUR	08/02/2013	06:00	08/02/2013	15:00		WBSETCL	Winter Maintenance work	
157	400 KV BSF – SASARAM - III	08/02/2013	08:00	08/02/2013	18:00		POWERGRID ER - I	FOR 400 KV DALTANGANJ BAY CONSTRUCTION WORK AT SSRM.	SUBJECT TO NLDC CONSENT
158	132 KV ARA - ARA	08/02/2013	10:00	08/02/2013	14:00		POWERGRID ER - I	FOR AMP WORKS AT ARA	
159	100 MVA ICT – I AT PRN S/S	08/02/2013	10:00	08/02/2013	16:00		POWERGRID ER - I	AMP WORKS	
160	400 KV RANCHI – MAITHON (RB) - II	08/02/2013	07:00	08/02/2013	18:00		POWERGRID ER - I	FOR REPLACEMENT OF BROKEN INSULATORS DAMAGED BY MISCREANTS AT DIFF LOCATION	
161	Mejia-II Bay at Maithon	08/02/2013	09: hrs	08/02/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP of LINE BAY	
162	Bus transfer bay(5) 220 KV side at Rourkela	08/02/2013	9:00: hrs	08/02/2013	17:00: hrs		POWERGRID ER - II	AMP work	
163	220 kV side CB of 315 MVA ICT-II at Baripada	08/02/2013	9:00: hrs	08/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
164	400KV ICT- 1&2 TIE BAY at Rengali	08/02/2013	9:00: hrs	09/02/2013	17:00: hrs		POWERGRID ER - II	ICTS WILL BE IN SERVICE THROUGH MAIN BAY	
165	400 KV BUS REACTOR AT DURGAPUR	09/02/2013	06:00	09/02/2013	15:00		WBSETCL	Winter Maintenance work	
166	100 MVA ICT – II AT PRN S/S	09/02/2013	10:00	09/02/2013	16:00		POWERGRID ER - I	AMP WORKS	
167	400 KV RANCHI – MAITHON (RB) - II	09/02/2013	07:00	09/02/2013	18:00		POWERGRID ER - I	FOR REPLACEMENT OF BROKEN INSULATORS DAMAGED BY MISCREANTS AT DIFF LOCATION	
168	Bus Coupler bay(2) 220 KV side at Rourkela	09/02/2013	9:00: hrs	09/02/2013	17:00: hrs		POWERGRID ER - II	AMP work	
169	400 KV FARAKKA – KAHALGAON - I	11/02/2013	09:30	13/02/2013	16:30	OCB	NTPC/KHSTPP	CT & CVT REPLACEMENT	*SUBJECT TO NLDC CONSENT
170	400 KV RANCHI - RAGHUNATHPUR	10/02/2013	09:00	10/02/2013	13:00		POWERGRID ER - I	AMP WORK	
171	100 MVA ICT –III AT PRN S/S	10/02/2013	10:00	10/02/2013	16:00		POWERGRID ER - I	AMP WORKS	
172	400 KV FARAKKA – KAHALGAON - I	11/02/2013	09:30	11/02/2013	16:30		NTPC/FSTPP	RELAY TESTING	*SUBJECT TO NLDC CONSENT
173	400 KV MAITHON - RAGHUNATHPUR	11/02/2013	09:00	11/02/2013	18:00	ODB	POWERGRID ER - I	TO ATTEND LINE DEFECTS	
174	400 kV Durgapur-Jamshedpur line, 400 kV Durgapur-Bidhannagar line, 220 kV Durgapur-Bidhannagar line at Durgapur	11/02/2013	9:00 hrs	10-03-13	17:30 hrs	OCB	POWERGRID ER - II	Re-alignment of 400 KV Durgapur-Jamshedpur and Bidhannagar line	SUBJECT TO WBSETCL CLEARANCE
175	220 kV transfer bus coupler bay CB at Baripada	11/02/2013	9:00: hrs	11/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
176	400KV ICT-2 MAIN BAY at Rengali	11/02/2013	9:00: hrs	12/02/2013	17:00: hrs		POWERGRID ER - II	ICT-1&2 TIE BAY WILL BE IN SERVICE.	
177	400 KV SASARAM – BALIA	12/02/2013	08:00	12/02/2013	18:00		POWERGRID ER - I	FOR 400 KV DALTANGANJ BAY CONSTRUCTION WORK AT SSRM.	SUBJECT TO NLDC CONSENT
178	220 KV RANCHI – CHANDIL - I	12/02/2013	09:00	12/02/2013	13:00		POWERGRID ER - I	AMP WORK	
179	220KV Maithon- Dhanbad-II Line	12/02/2013	09:00	12/02/2013	17:00 hrs	ODB	POWERGRID ER - II	AMP	
180	400kv Rourkela-Raigarh -I & Rourkela-Jamshedpur-I Tie Bay(17) at Rourkela	12/02/2013	9:00: hrs	12/02/2013	17:00: hrs		POWERGRID ER - II	AMP Work	
181	220 kV side CB of 315 MVA ICT-I at Baripada	12/02/2013	9:00: hrs	12/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
182	220 KV TSTPP - MERAMUNDALI - II	12/02/2013	09:30	13/02/2013	16:30	OCB	NTPC/TAL	AMP WORK	
183	400 KV FARAKKA - DURGAPUR - I	18/02/2013	09:30	18/02/2013	16:30		NTPC/FSTPP	RELAY TESTING	
184	765 KV GAYA - FATEHPUR	13/02/2013	08:00	13/02/2013	18:00		POWERGRID ER - I	FOR BAY CONSTN. WORKS RELATED TO 765 KV SASARAM – FATEHPUR – II LINE AT SSRM END.	SUBJECT TO NLDC CONSENT
185	ICT-I (11) 220 KV Side at Rourkela	13/02/2013	9:00: hrs	13/02/2013	17:00: hrs		POWERGRID ER - II	AMP Work	
186	220 kV side CB of 160 MVA ICT-I at Baripada	13/02/2013	9:00: hrs	13/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
187	765 KV GAYA - FATEHPUR	14/02/2013	08:00	14/02/2013	18:00		POWERGRID ER - I	FOR BAY CONSTN. WORKS RELATED TO 765 KV SASARAM – FATEHPUR – II LINE AT SSRM END.	SUBJECT TO NLDC CONSENT
188	315 MVA ICT - 1 at Rengali	14/02/2013	9:00: hrs	14/02/2013	17:00: hrs	ODB	POWERGRID ER - II	AMP	
189	220 kV side CB of 160 MVA ICT-II at Baripada	14/02/2013	9:00: hrs	14/02/2013	17:00: hrs		POWERGRID ER - II	AMP	
190	315 MVA ICT - 1 at Rengali	14/02/2013	9:00: hrs	14/02/2013	17:00: hrs		POWERGRID ER - II		
191	765 KV GAYA - FATEHPUR	15/02/2013	08:00	15/02/2013	18:00		POWERGRID ER - I	FOR BAY CONSTN. WORKS RELATED TO 765 KV SASARAM – FATEHPUR – II LINE AT SSRM END.	SUBJECT TO NLDC CONSENT
192	220 KV NEW PURNEA – PURNEA - II	15/02/2013	10:00	15/02/2013	14:00		POWERGRID ER - I	FOR AMP WORKS	
193	220 KV Rourkela-Tarkera Ckt-I Line	15/02/2013	9:00: hrs	15/02/2013	17:00: hrs	ODB	POWERGRID ER - II		
194	220 KV TSTPP - MERAMUNDALI - I	15/02/2013	09:30	16/02/2013	16:30	OCB	NTPC/TAL	AMP WORK	
195	220 KV NJP - BINAGURI - I	16/02/2013	06:00	16/02/2013	15:00		WBSETCL	Winter Maintenance work	
196	220 KV Rourkela-Tarkera Ckt-IILine	16/02/2013	9:00: hrs	16/02/2013	17:00: hrs	ODB	POWERGRID ER - II		
197	315 MVA ICT-2 at Rengali	16/02/2013	9:00: hrs	16/02/2013	17:00: hrs	ODB	POWERGRID ER - II	AMP	
198	220 KV NJP - BINAGURI - I	17/02/2013	06:00	17/02/2013	15:00		WBSETCL	Winter Maintenance work	
199	ICT-I & Bus Reactor Tie(23) Bay at Rourkela	18/02/2013	9:00: hrs	18/02/2013	17:00: hrs		POWERGRID ER - II	AMP Work	
200	400 KV JSR – MEJIA LINE	19/02/2013	09:00	19/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (01 NO.)	
201	220 KV RANCHI – HATIA - II	19/02/2013	09:00	19/02/2013	13:00		POWERGRID ER - I	AMP WORK	

202	Rourkela-SEL-I with Line Reactor	19/02/2013	9:00: hrs	19/02/2013	17:00: hrs	ODB	POWERGRID ER - II		SUBJECT TO NLDC CONSENT
203	400 kV Malda-Farakka II Line at Malda	19/02/2013	9:00 hrs	19-02-13	17:00 hrs	ODB	POWERGRID ER - II	Tan delta of CT, CVT & Grading capacitor at both end; CT DGA oil sample collection from Farakka end	
204	220 KV TSTPP - TTPS	19/02/2013	09:30	20/02/2013	16:30	OCB	NTPC/TAL	AMP WORK	
205	400 KV BARH - PATNA - II BAY 33	19/02/2013	09:30	19/02/2013	16:30		NTPC/BARH	PM JOB OF CTs, CVTs, LINE ISOLATOR, CB, LONE OUTAGE REQUIRED	400 KV BARH - KHG - II WILL BE OUT
206	3x 105 MVA ICT-I at Jeypore	20/02/2013	9:00: hrs	20/02/2013	17:00: hrs	ODB	POWERGRID ER - II	AMP works	
207	400 KV BARH - PATNA - II BAY 34	20/02/2013	09:30	20/02/2013	16:30		NTPC/BARH	PM JOB OF CTs, CVTs, LINE ISOLATOR, CB, LONE OUTAGE NOT REQUIRED	
208	400 KV KAHALGAON - MAITHON - I	21/02/2013	09:30	23/02/2013	16:30	OCB	NTPC/KHSTPP	CT & CVT REPLACEMENT	WILL BE DISCUSSED IN NEXT OCC
209	400 KV JSR – MAITHON LINE	21/02/2013	09:00	21/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (03 NOS.)	SUBJECT TO NLDC CONSENT
210	ICT-II(3X105 MVA) TRANSFORMER AT OHPC S/Y at Indravati	21/02/2013	9:00: hrs	21/02/2013	17:00: hrs	ODB	POWERGRID ER - II	FOR MEASUREMENT OF TAN DELTA OF BUSHINGS AND AMP ACTIVITIES	
211	400/132 KV, BARH	21/02/2013	09:30	21/02/2013	16:30		NTPC/BARH	PM JOBS OF CB	
212	400 KV JSR – MAITHON LINE	22/02/2013	09:00	22/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (03 NOS.)	SUBJECT TO NLDC CONSENT
213	132 KV MAIN BUS AT PRN S/S	22/02/2013	09:00	22/02/2013	17:00		POWERGRID ER - I	AMP WORKS	
214	220 KV BUS COUPLER AT KANIHA	22/02/2013	09:30	20/02/2013	16:30		NTPC/TAL	AMP WORK	
215	400 kV Bus coupler, 400 kV Bus-I & 400 kV Malda-Farakka I Line at Malda	22/02/2013	8:00 hrs	22-02-13	16:00 hrs	ODB	POWERGRID ER - II	Tan delta of CT & replacement of Y-ph CT; Relay testing; Erection of Bus-I CVT; Tightness checking of Bus-I	
216	400 KV FARAKKA - KAHALGAON - III	22/02/2013	09:30	24/02/2013	16:30	OCB	NTPC/FSTPP	RELAY PARAMETERISATION, TESTING & SCHEME CHECKING	SUBJECT TO NLDC CONSENT
217	400/132 KV BARH	23/02/2013	09:30	23/02/2013	16:30		NTPC/BARH	PM JOBS OF BUS REACTOR & BUS REACTOR WILL BE OUT	B/R WILL BE OUT
218	400 KV KAHALGAON - MAITHON - II	25/02/2013	09:30	27/02/2013	16:30	OCB	NTPC/KHSTPP	CT & CVT REPLACEMENT	WILL BE DISCUSSED IN NEXT OCC
219	400 KV FARAKKA – KAHALGAON - II	25/02/2013	08:00	26/02/2013	18:00	OCB	POWERGRID ER - I	FOR REPLACEMENT OF DAMAGED CONDUCTOR BETWEEN LOC. NO. 20 TO 26.	SUBJECT TO NLDC CONSENT
220	400kV Jeypore-Indravati Line	25/02/2013	9:00: hrs	25/02/2013	17:00: hrs	ODB	POWERGRID ER - II	for replacing 01 no. 400 kV CVT in the R-phase of Indravati Line CVT due to drift in secondary volatge	
221	315 MVA ICT – I AT JSR	26/02/2013	09:00	26/02/2013	17:30		POWERGRID ER - I	FOR ABB CT REPLACEMENT (02 NOS.)	
222	220 KV TSTPP - RENGALI	26/02/2013	09:30	27/02/2013	16:30	OCB	NTPC/TAL	AMP WORK	
223	220 KV TRANSFERBUS AT KANIHA	28/02/2013	09:30	28/02/2013	16:30		NTPC/TAL	AMP WORK	
224	400 KV TEESTA - BINAGURI - I	16/01/2013	09:00	07/02/2013	16:30	OCB	NHPC/TEESTA	REPLACEMENT WORK OF ACTIVE PART OF CB	*SD EXTENDED TO 07/02/13

* Revised

** 400 KV BANKA - BIHARSARIFF - I & II & 400 KV BANKA - KAHALGAON - I & II need ER - NR TTC revision (ER-NR LTA may be curtailed).
These shutdown are to be approved when NR LTA availability from ER ISGS/DVC LTA are low to avoid NR LTA curtailement.

ISLANDING SCHEME AT BAKRESWAR TPS & BANDEL TPS

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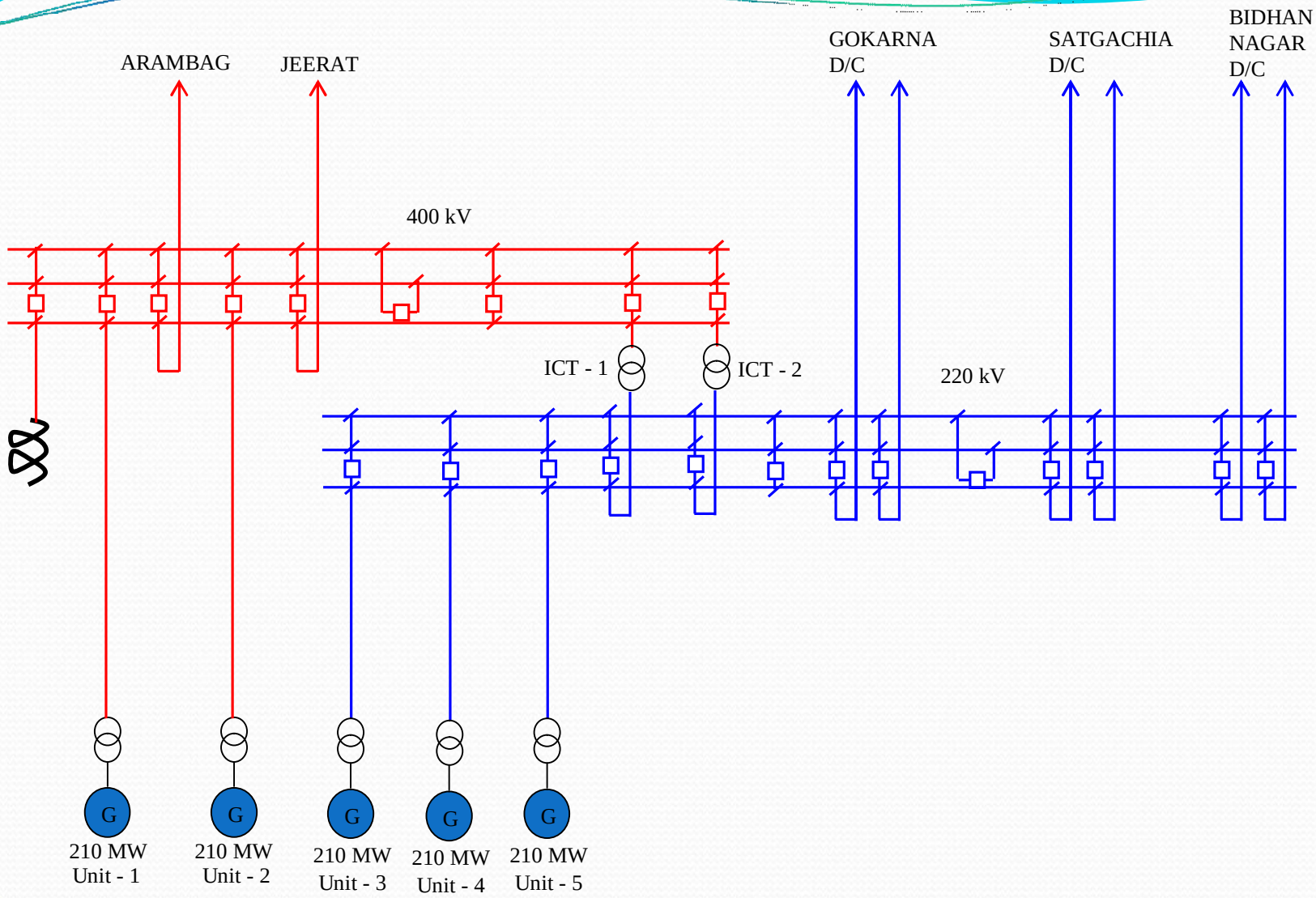
OVERALL SWYD SLD (Bakreswar TPP)



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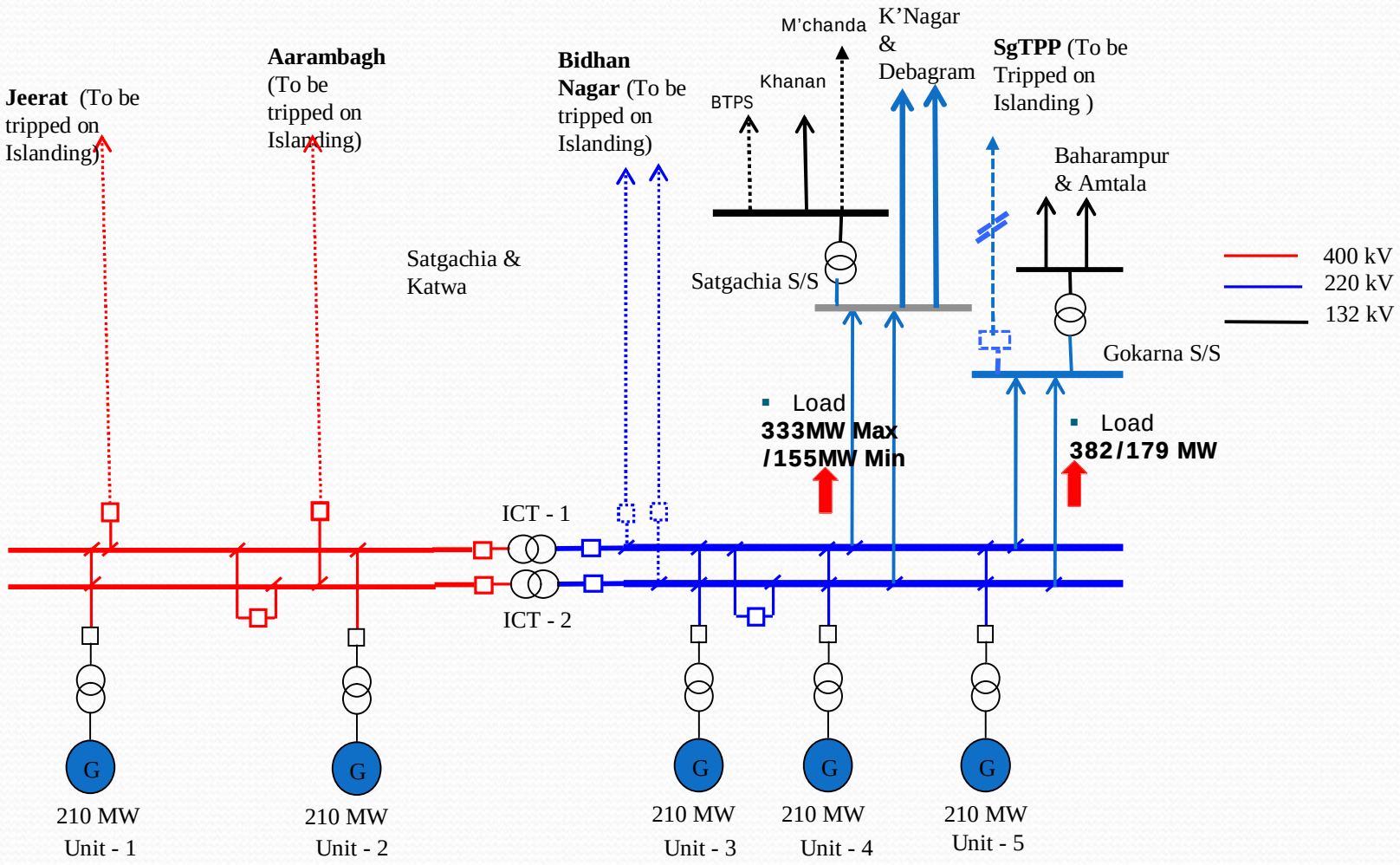
OVERALL PLANT SLD (Bakreswar TPP)



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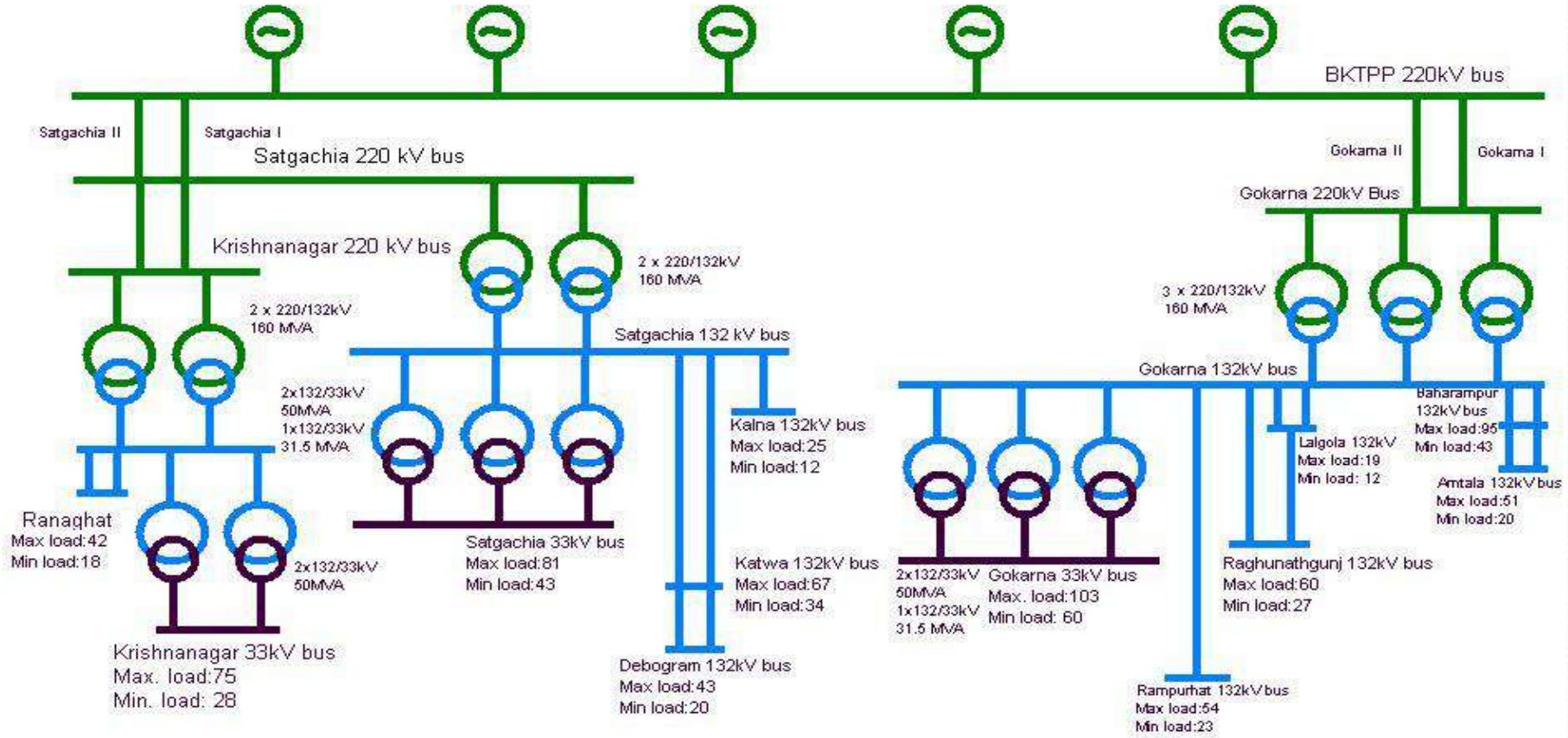
Scheme layout for Load Distribution BkTPP



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LOAD DISTRIBUTION BkTPP

Islanding with units of Bakreswar Thermal Power Station along with Load of Satgachia S/S, Krishnanagar S/S, Ranaghat S/S, Debagram S/S, Katwa S/S, Gokarna S/S, Behrampur S/S, Amtala S/S, Raghunathgunj S/S, Rampurhat S/S, Lalgola S/S & Kalna S/S.

Sl. No.	Name of S/S	Summer Peak Load	Winter Off-Peak Load
1)	Satgachia 220 KV S/S	81 MW	43 MW
2)	Krishnanagar 220 KV S/S	75 MW	28 MW
3)	Ranaghat 132 KV S/S	42 MW	18 MW
4)	Debagram 132 KV S/S	43 MW	20 MW
5)	Katwa 132 KV S/S	67 MW	34 MW
6)	Kalna 132 KV S/S	25 MW	12 MW
	Total (on BkTPP-Satgachia double circuit)	**333 MW**	**155 MW**
7)	Gokarna 220 KV S/S	103 MW	60 MW
8)	Behrampur 132 KV S/S	95 MW	43 MW
9)	Amtala 132 KV S/S	51 MW	20 MW
10)	Rampurhat 132 KV S/S	54 MW	23 MW
11)	Raghunathgunj 132 KV S/S	60 MW	27 MW
12)	Lalgola 132 KV S/S	19 MW	06 MW
Total (on BkTPP-Gokarna double circuit)		**382 MW**	**179 MW**
	Total	**715 MW**	**343 MW**

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ISLANDING FREQUENCY & SELECTED LINE OUTAGE BkTPP

- Islanding frequency : 47.7 Hz with time delay 500 m.Secs.
- Load generation balance will in Auto Speed-Droop mode.
- On stabilization, system will go back to Load Control Mode for Synchronizatio with GRID
- Trip of Lines through UFR relay at 47.7 Hz.
  - 400 KV BkTPP-Arambag ckt,
  - 400 KV BkTPP-Jeerat ckt,
  - 220 KV BkTPP-Durgapur ckts,
  - 220 KV Gokarna-Sagardighi ckts,
  - 132 KV Satgachia-Khanyan ckt,
  - 132 KV Satgachia-Bandel ckt
  - 132 kV Satgachia-Mahachanda ckts

Trip thro' UFR at BkTPP end

Trip thro' UFR at Gokarna end

Trip thro' UFR at Satgachia end

- Load balance in under loading of generators by under frequency relay in extreme cases:
  - 1st Stage: 47.5 Hz (instantaneous) Pre-selected 33kV feeders cut-off at Gokarna/ Satgachia S/S as to be decided by SLDC.

BRIEF OPERATION PHILOSOPHY (Bakreswar TPP)

- Islanding on UF, UF+df/dt(neg.), OF, OF+dfdt(pos.), UV, DOC (towords 400kV grid), DOP etc.
- Islanding will trigger PMS system. Post Islanding Power & Load will be calculated.
- if the mismatch is nearly (±5%) the generation of one or multiple of one then direct tripping of one or multiple of one will be issued to stabilise the balance system.
- If the mismatch is greater than one unit's generation then one unit tripping with Steam Bypass (from PMS via DCS).
- If the mismatch is less than one unit's generation then Steam Bypass (from PMS via DCS).
- Network contingency will be handled by PMS for every power network, if it is forming during the grid disturbance time.

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BRIEF OPERATIONAL ACTION (Bakreswar TPP)

- Sensing source of Islanding situation initiation:

  1. Frequency setting 47.7 Hz and Time delay 0.5 sec. [as discussed with SLDC dt.02/11/2012]
  [UFR setting Stg-I/-II/-III :48.8/48.6/48.2Hz & CESC isolation: 47.9Hz]
  2. df/dt ……Hz/sec [to be decided later]
  3. 400kV MB-1 & MB-2 PT as sensing source.

- Action for creation of Island:

  1. Tripping command to selected Feeders [400kV BkTPP-Jeerat S/C, 400kV BkTPP-Arambag S/C , 220kV BkTPP-Bidhannagar D/C.
  2. Tripping Command also to be is issued to Isolate 220kV Sagardighi-Gokarna D/C Line .
  3. Command to all TG control for change over to droop mode.

- Load Balance (Power Management System action-PMS) after Islanding:

  Input:

  (i) All Feeder load & Breaker open/close status
  (ii) All generator load & Breaker status.
  (iii) HP/LP Bypass open demand from DCS.
  (iv) Other feedback from DCS as required.

- Action for load balance:

  (a) Unit Tripping direct as per scheme if required.
  (b) HP/LP Bypass open demand to DCS
  (c) Load reduction command to DCS
  (d) Remote end UFR operation at 47.5Hz

- Synchronizing with GRID

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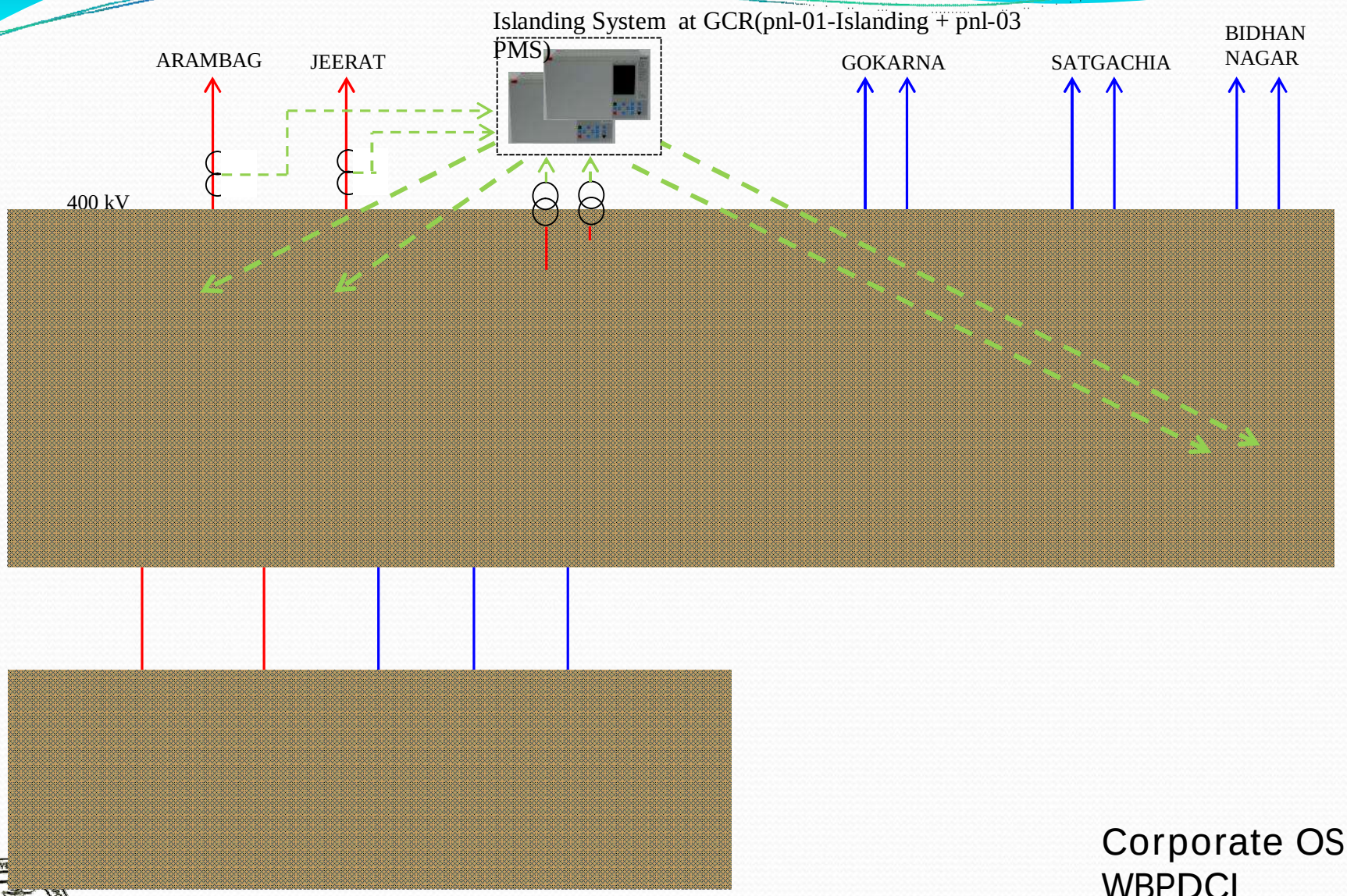
PART-1 (ISLANDING) (Bakreswar TPP)



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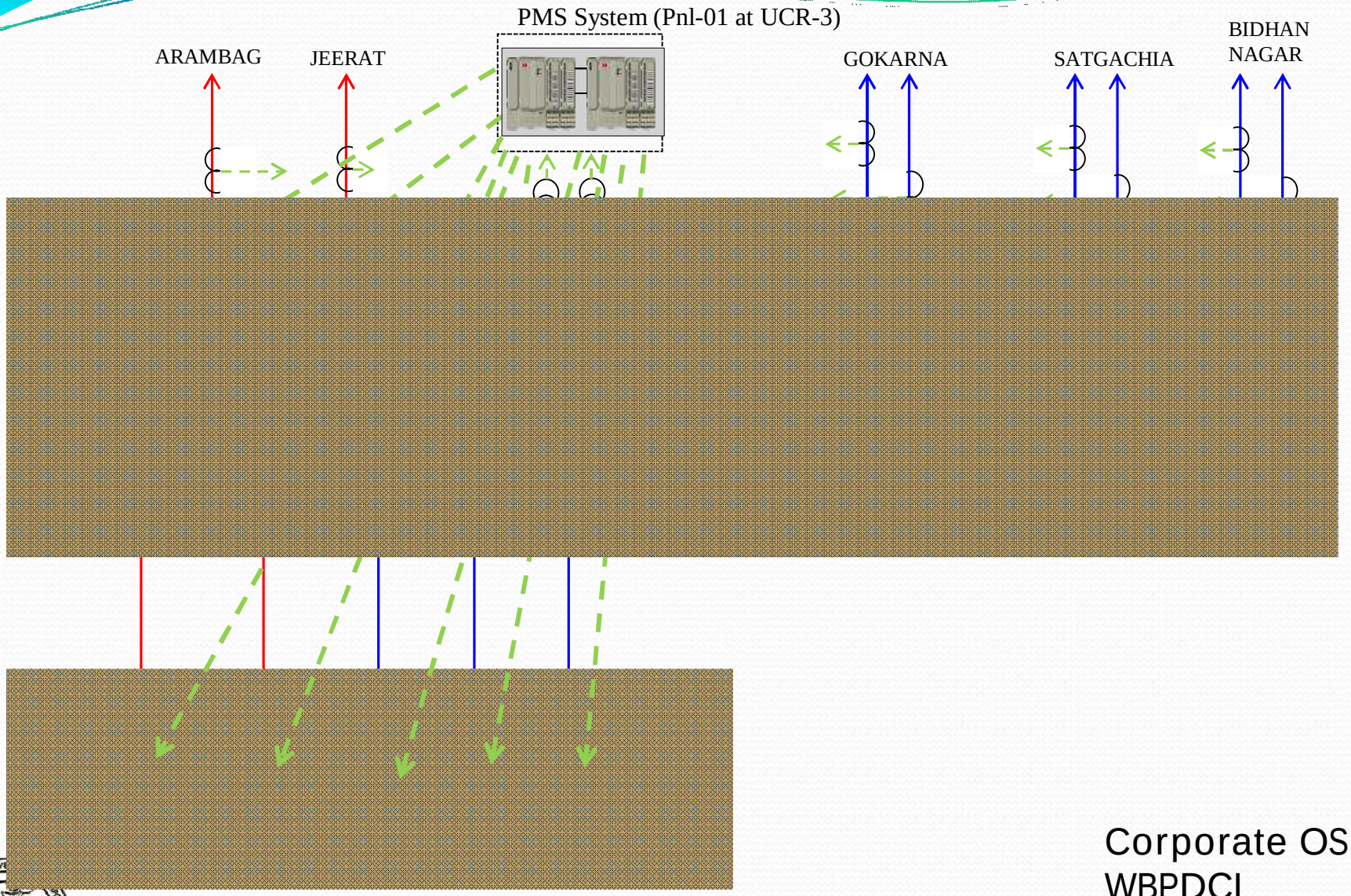
PART - 2 (POWER MANAGEMENT) (Bakreswar TPP)



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ISLANDING SCHEME IMPLEMENTATION BAKRESWAR TPS

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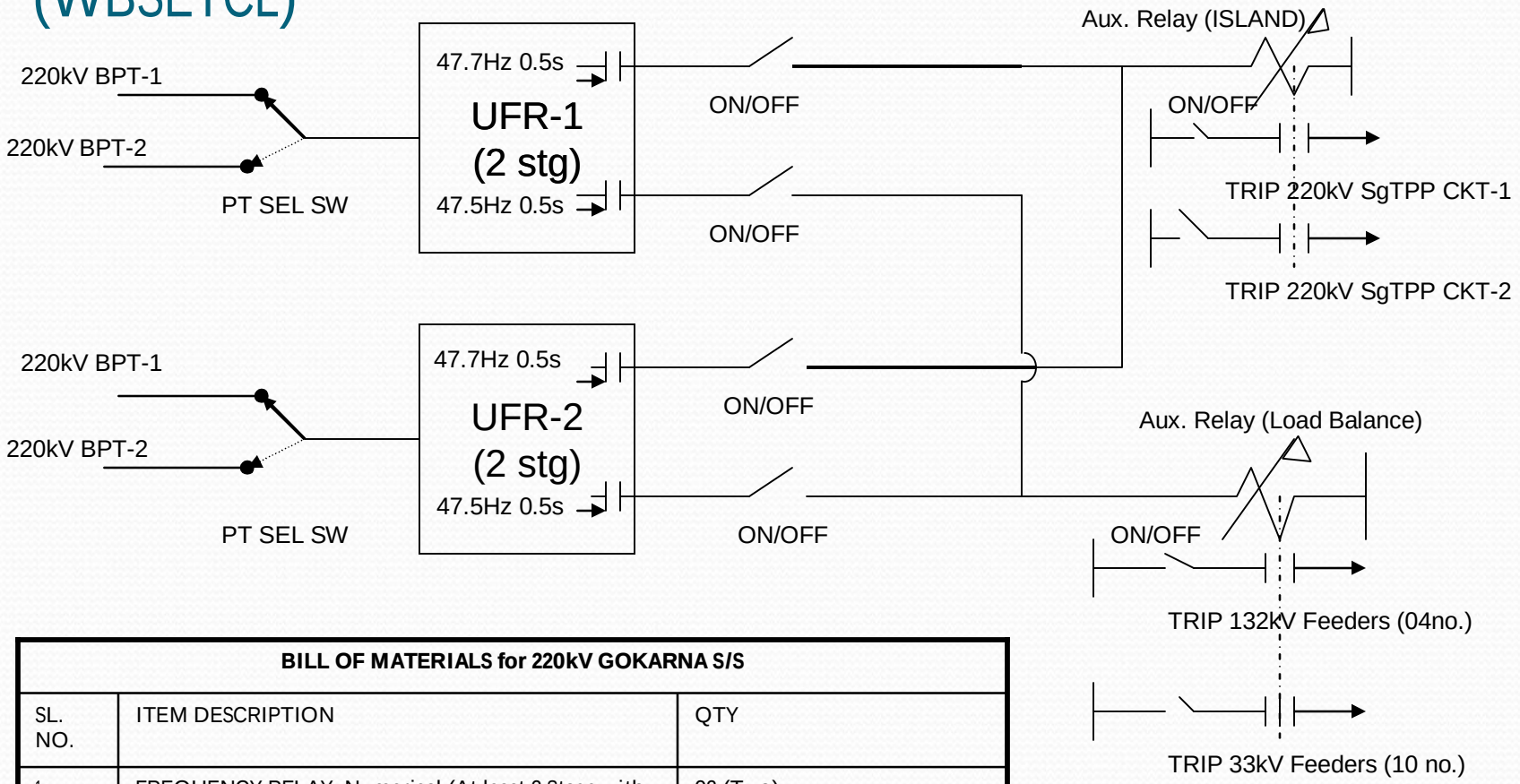
MPLIMENTATION OF ISLANDING SCHEME OF BAKRESWAR TPS

SL. No.	Job Description	Status	Schedule	Actual	Remarks
1	Approval of ERPC Board	apprvd		Dec'12	MOM yet to recv.
2	Proposal for Adm. Approval under Capex Fund	Placed	½ month		
3	Prepare of Tech. spec, Scope of work, and QR for vendor selection	In process	1½ months		
4	NIT ,evaluation & placement of WO	↓	2 months		
5	Supply of Material at site	↓	3 months		
6	Installation & pre-commission	↓	2 month		
7	Performance Testing	↓	2 week		

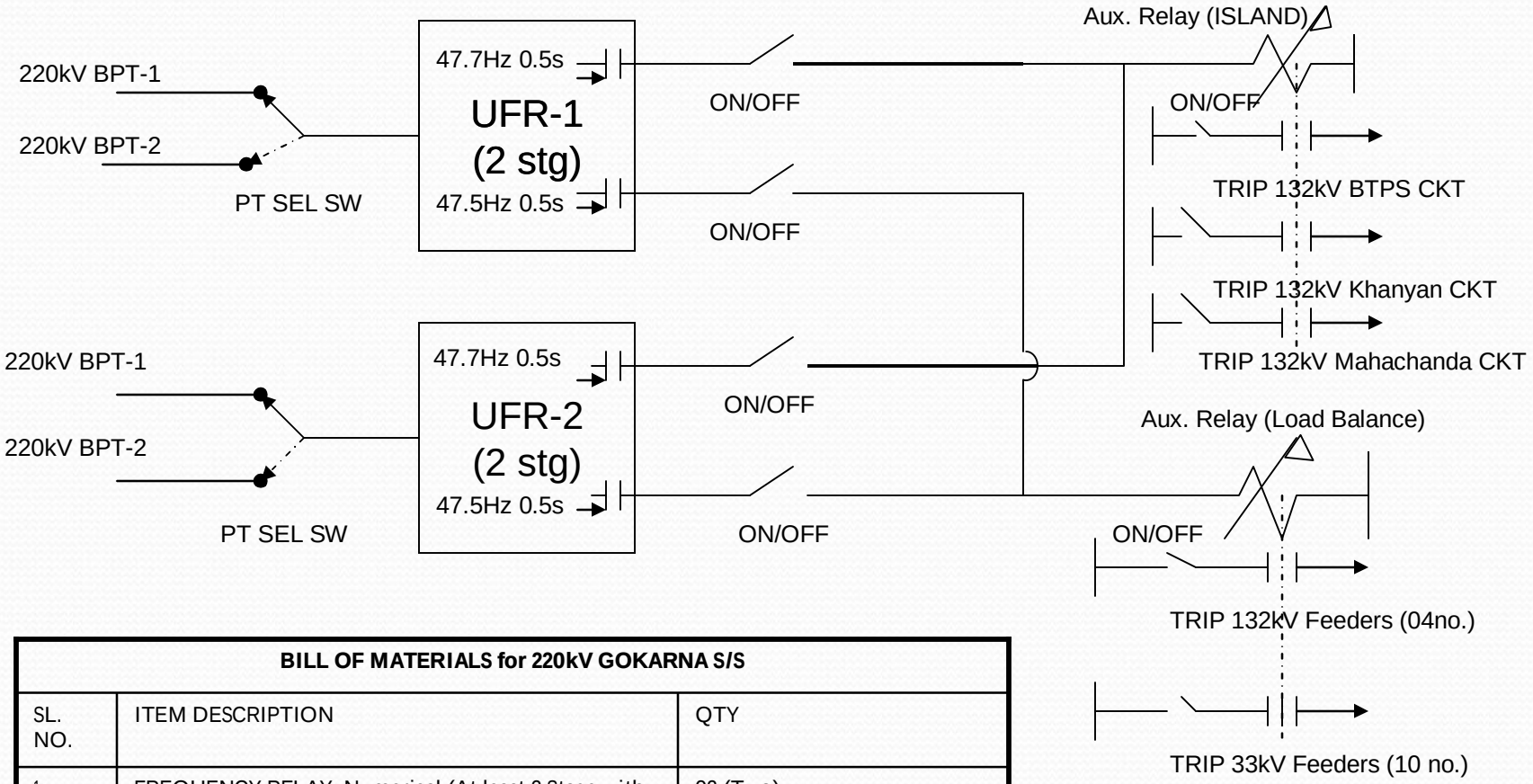
Scheme proposed to be implemented at Gokarna S/S (WBSETCL)



BILL OF MATERIALS for 220kV GOKARNA S/S		
SL. NO.	ITEM DESCRIPTION	QTY
1	FREQUENCY RELAY, Numerical (At least 2 Stage with in-built Timer)	02 (Two)
2	BPT Selector Switch	02 (Two)
3	Freq. Relay Cut-Off Switch	04 (Four)
4	Feeder Trip Selector Switch	14 (Fourteen)
5	High Speed Trip Aux. Relay (S/R, Flagged type)	04 (Four)

Note: Selection of Feeders to be decided by SLDC

Scheme proposed to be implemented at Satgachia S/S (WBSETCL)

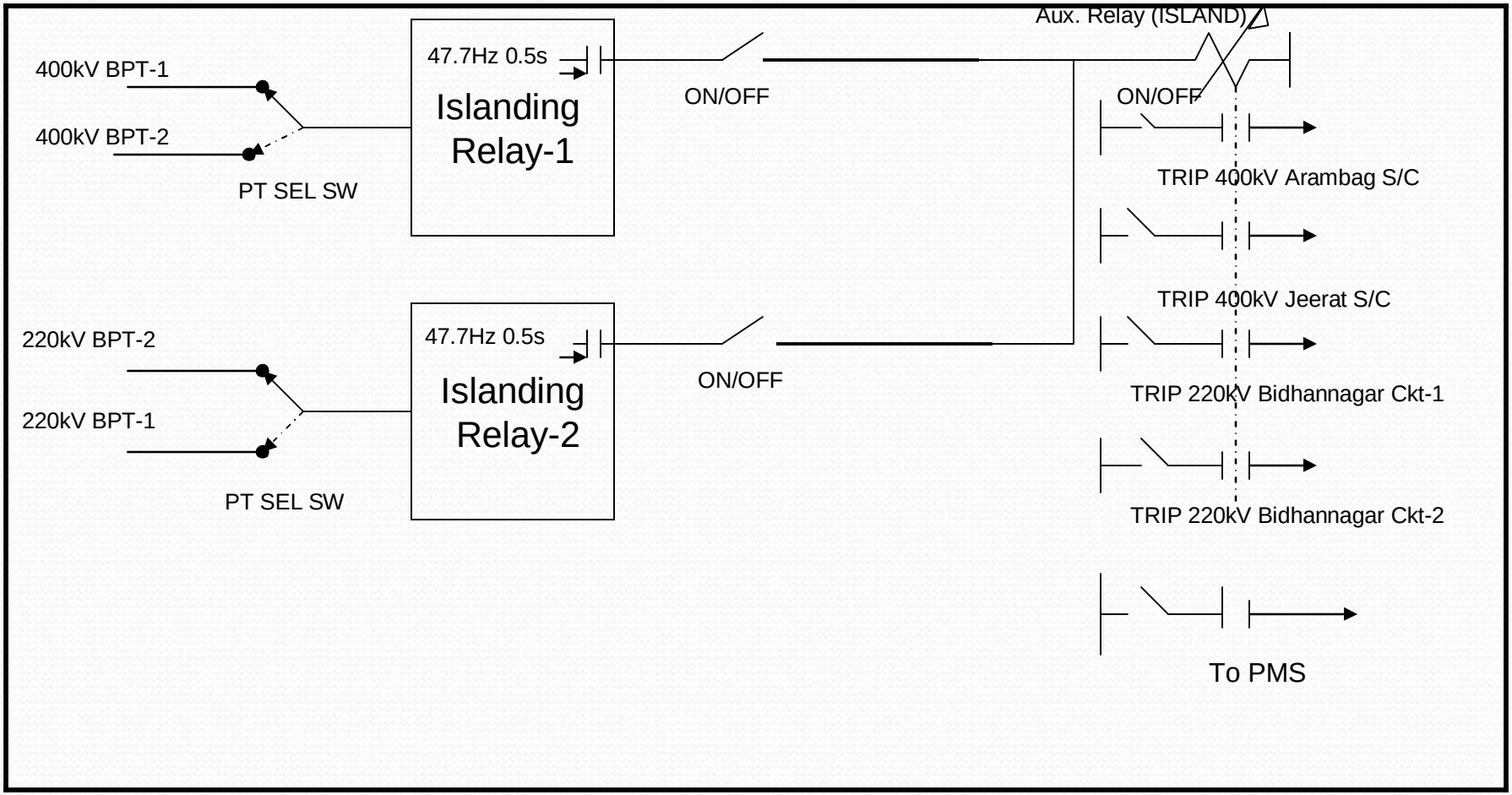


BILL OF MATERIALS for 220kV GOKARNA S/S		
SL. NO.	ITEM DESCRIPTION	QTY
1	FREQUENCY RELAY, Numerical (At least 2 Stage with in-built Timer)	02 (Two)
2	BPT Selector Switch	02 (Two)
3	Freq. Relay Cut-Off Switch	04 (Four)
4	Feeder Trip Selector Switch	14 (Fourteen)
5	High Speed Trip Aux. Relay (S/R, Flagged type)	04 (Four)

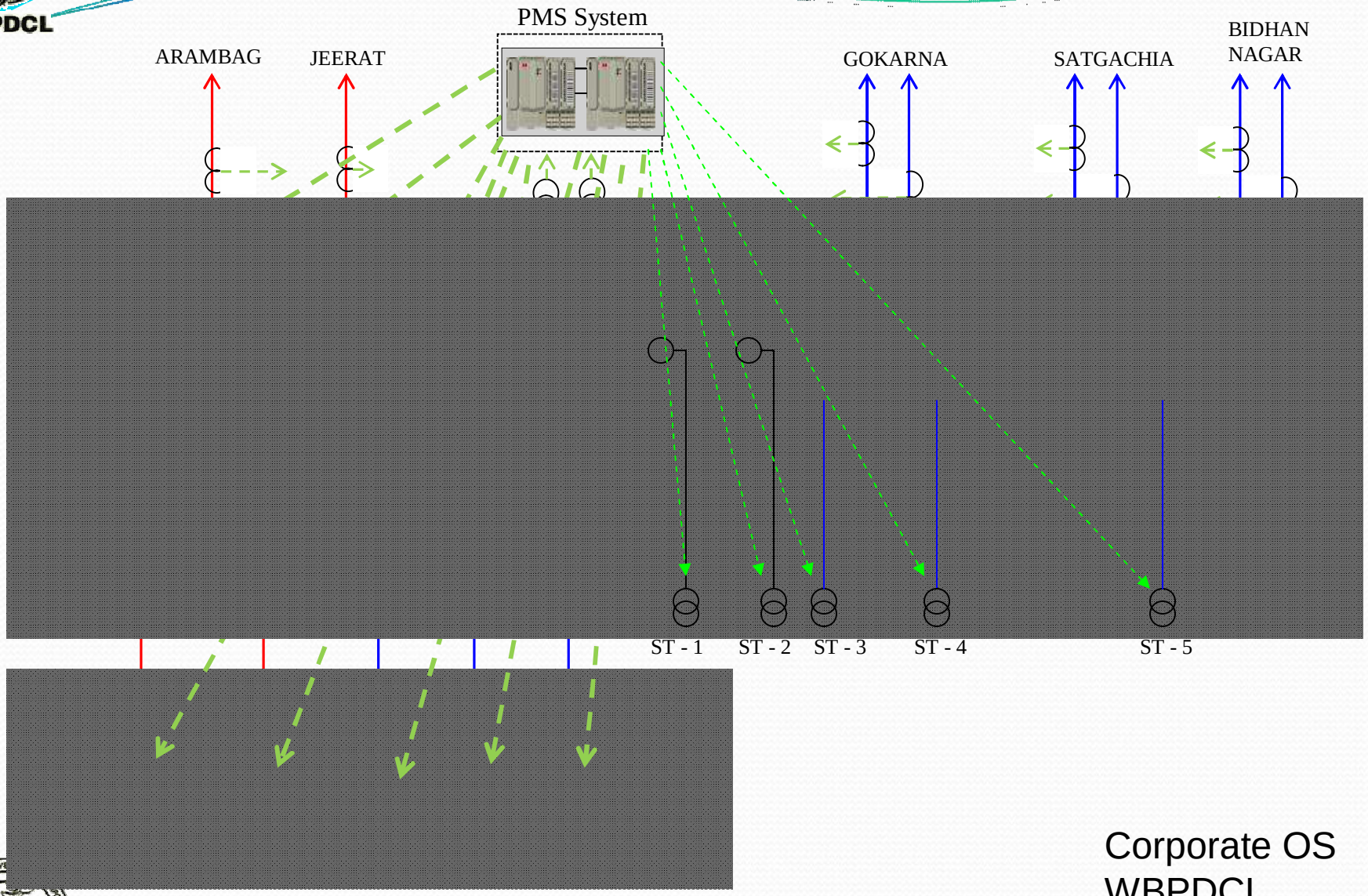
Note: Selection of Feeders to be decided by SLDC

Sl.	Bill of Material (Bakreswar TPP)	UOM	Qty.
1	Operator Work Station	Nos.	1
2	Engineering Work Station	Nos.	1
3	A4 Printer	Nos.	1
4	UTP cables for HMI Interface	mtr.	200
5	Aspect Servers	Nos.	1
6	Connectivity Servers	Nos.	1
7	Panel to Mount the above	set	5
8	Ethernet Switch RS900	Nos.	4
9	Patch Chord - FO	Nos.	10
10	**800xA Hardwire & Software (as per BOM enclosed)**	**set**	**1**
11	**High end functionality software - Network determination, Contingency based generation shedding etc.**	**set**	**1**
12	LIU	Nos.	4
13	Consoles for OWS	Nos.	1
14	Printer table	Nos.	1
15	Operator table	Nos.	1
16	Inter panel wiring	set	5
17	RM monitor for servers	Nos.	1
18	Transducer	Nos.	22
19	Grid Islanding Relay	Nos.	2
20	DV/DT Relay	Nos.	1
21	RXMS Hi-speed tripping Relay	Nos.	84
22	4Cx1.5 sq.mm, CU,(A), Cable	mtr.	4500
23	10Cx1.5 sq.mm, CU,(A), Cable	mtr.	2500
24	4Cx4 sq.mm, CU,(A), Cable	mtr.	500
25	10Cx2.5 sq.mm, CU,(A), Cable	mtr.	1000
26	6Cx2.5 sq.mm, CU,(A), Cable	mtr.	500
27	12F FO SM A Cable	mtr.	2000

Scheme for Islanding of Bakreswar TPS (WBPDCL)



(POWER MANAGEMENT) (Bakreswar TPP)



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Network Configuration after Islanding for PMS (Load Balance)

Sl. No.	Feeders
1	GENERATOR-1 (Ex-bus)
2	GENERATOR-2 (Ex-bus)
3	GENERATOR-3 (Ex-bus)
4	GENERATOR-4 (Ex-bus)
5	GENERATOR-5 (Ex-bus)
6	GOKARNA CKT-1 (Export)
7	GOKARNA CKT-2 (Export)
8	SATGACHIA CKT-1 (Export)
9	SATGACHIA CKT-2 (Export)
10	33kV ST-1 (Station Aux.)
11	33kV ST-2 (Station Aux.)
12	220kV ST-3 (Station Aux.) #
13	220kV ST-4 (Station Aux.)
14	220kV ST-5 (Station Aux.)
15	33kV SURI CKT (Export) #

Case	LOGIC
1	If the Load-Generation mismatch i.e. Total Generation (Ex-bus) –Total Export (Sent out + Stn. Aux) is nearly ±5% of one generator or multiple of generators in combination then that Generator or multiple combination will be tripped (GCB) directly to stabilise the balance system.
2	If the Load-Generation mismatch i.e. Total Generation (Ex-bus) –Total Export (Sent out + Stn. Aux) is grater than one unit generation then one unit tripping (GCB) & other with Steam Bypass to stabilise the system
3	If the mis-match i.e. Total Generation (Ex-bus) – Total Export (Sent out + Stn. Aux) is less than one unit generation then Steam Bypass will act to stabilise the system.

Note: DETAIL LOGIC & FLOW CHART ON LOAD BALANCE WILL BE PLACED ON ENGINEERING STAGE