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

MINUTES OF THE 33rd OCC MEETING HELD AT ERPC, KOLKATA ON 17.12.2008 (WEDNESDAY) AT 11:00 HRS

List of participants is enclosed in Annexure-I.

Shri R.K. Grover, Member Secretary, ERPC welcomed the delegates in the 33rd OCC meeting. He expressed that the grid frequency remained comfortable in November,2008. He reviewed demand, generation & the tariff existing in the Eastern Region states.
Thereafter, he requested Shri S. N. Kayal, SE (operation) to take up the agenda points for discussion.

ITEM NO. 1 CONFIRMATION OF THE MINUTES OF THE 32ND OCC MEETING OF ERPC HELD AT ERPC, KOLKATA ON 12.11.2008

The minutes were circulated vide letter no. ERPC / SE (OPRN)/ OPERATION/2008/4856-90 dated 27/28-11-2008 .

No comment is received from any of the constituents. If there are no comments, the minutes of the above meeting may please be confirmed.

ITEM NO. 2 REVIEW OF THE GRID PERFORMANCE DURING NOVEMBER, 2008

2.1 POWER SUPPLY POSITION :

The power supply position of Eastern Region for the months of November'08 & October'08' is indicated at **Annexure-I.**

- From comparison of the generation figures of' November'08 with October'08, it is observed that the net energy generation (MU) in Eastern Region (including contribution of Bhutan) has decreased on per day average basis.
- The net peak demand met has decreased from 11,284.MW to 10,777 MW
- The demand met during November'08 has decreased by 507 MW, as compared to October'08. The percentage of Peak shortage of ER has decreased marginally.

The above variations are considered normal.

Members may please note.

Deliberation in the meeting

Members noted the above.

2.2 FREQUENCY:

The frequency profile of ER for the month of November' 08 and for the months of October'08& November' 07 (for comparison) is tabulated below:

	% of time of the month frequency remained			
Month	**<49.0 Hz**	**49.0-50.5 Hz**	**50.5-51 Hz**	**>51.0 Hz**
October'08	9.13	90.80	0.07	0.00
November'08	**1.18**	**98.82**	**0.00**	**0.00**
November,07	10.93	89.07	0.00	0.00

*****Maximum (Inst.) Frequency : **50.61 Hz** on 24.11.08 at 05:07Hrs
Minimum (Inst.) Frequency : **48.77 Hz** on 12.11.08 at 03:18Hrs

From the above table following may be observed:

- The percentage of time frequency profile in the IEGC band (i.e. 49.0 to 50.5 Hz.) during the month of November'08 has increased as compared to the previous month i.e. October'08 and with respect to the corresponding month of the previous year (i.e. November'07).
- The percentage of time frequency below 49.0 Hz has decreased to 1.18 % in the month of November' 08, as compared to 9.13 % in October '08 and to the corresponding month of the previous year (i.e.November'07).
- The percentage of time frequency remained above 50.50 Hz in both the months of October'08 & November'08 is insignificant.

ERLDC may please comment on frequency profile observed during Nov'08

Members may please discuss.

Deliberation in the meeting

Members discussed & noted the frequency profile during Nov'08.

2.3 VOLTAGE PROFILE OF IMPORTANT SUB-STATIONS IN EASTERN REGION

Name of the sub-station	***Maximum Voltage (kV)***	***Minimum Voltage (kV)***
400 kV PURNEA	436	415
400 kV BINAGURI	434	411
400 kV BIHARSHARIFF	428	402
400 kV DURGAPUR	426	404
400 kV PATNA	430	400
400 kV JEERAT	421	384

It may be noted that during the month of November' 08, voltages at Binaguri, Biharshariff, Durgapur, Patna and Purnea s/s remained on higher side, whereas minimum voltage (384 KV) at Jeerat s/s was observed on lower side particularly during peak hours.

Members may please note and discuss.

Deliberation in the meeting

Members noted the above.

2.4 UFR OPERATION IN ER

As System frequency remained above 48.5 Hz no UFR operation took place in ER grid during the month of November'08.

ITEM NO. 3 Important Events

1. As per discussions in the 26th Standing committee meeting on Transmission Planning held on 13/10/08 it was decided to shift Sasaram HVDC Back to back station to Kolhapur to accommodate creation of 765KV Sasaram S/s. Accordingly, 400KV AC bypass at HVDC Sasaram was successfully taken into trial operation w.e.f 10:00 Hrs of 01/12/08. 220KV Sasaram-Sahupuri previously in radial mode was taken into closed loop at 11:00 Hrs of 01/12/08 by closing 220Kv Bus coupler at Sahupuri(UPPCL). During the period of trial operation of 400KV AC bypass, HVDC Sasaram would be available for operation whenever required and switching from AC mode to HVDC mode would be possible within 30 minutes. The trial operation would continue to be tested under different operating conditions as winter fog and load crash conditions in NR upto winter season by which time the fog conditions in NR are expected to be over. On successful completion of trial operation and starting of dismantling activity of HVDC Sasaram, the inter-regional connection points would be 400KV Sasaram-Sarnath and 400KV Sasram-Allahabad lines.

Deliberation in the meeting

Members noted the above.

ITEM NO. 4A MAJOR TRANSMISSION LINES/ELEMENTS OUTAGES IN ER GRID

Sl. No	Description	Date Outage	Reason	Remarks
Lines / Elements under outage				
1.	315 MVA ICT-II at Maithon	16.06.08	Failure of R & Y Phase LA & Fire Hazard	***Expected by 15th January,2009 December'08. PowerGrid representative informed that the ICT will be restored by 15th***

				January,2009.
2.	220 kV Talcher TPS-Joda line-II	26.08.07	CB bursting at Talcher TPS	***. NTPC representative intimated that the line was restored on 28th Nov.***
3.	150 MVA ICT-I at Bodhgaya	04.03.08	Fire hazard in Bodhgaya S/Stn.	***Procurement of new 150MVA ICT in progress. Expected by April, 2010.***
Prolonged Outage				
1.	220/132 kV, 100MVA ICT-I at Fatuah	22.04.2002	Problem in Transformer winding	*Expected by January,2009.*

ITEM NO. 4B Major units outage /Maintenance:

STATION	NO.	CAPACITY	DATE	REASONS FOR OUTAGE	EXPECTED DATE OF RESTORATION
Kolaghat	4	210	09.10.08	GT Maintenance	End of December,2008
Kolaghat	6	210	26.11.08	Stator Earth Fault	End of January,2009
Mejia TPS	5	250	03.11.08	Coal Handling Plant Problem	NA
Bakreshwar	4	210	21.11.08	Ash Problem	NA

Deliberation in the meeting

Members noted the above.

ITEM NO. 5 GRID INCIDENCES IN ER SYSTEM DURING NOVEMBER'08.

I. Fire hazard at Bodhgaya S/s on 07.11.08:

On 07.11.08 at 08:13 Hrs, failure of 220kV bus coupler CT at Bodhgaya occurred leading to fire hazard in cable trench and tripping of 220kV Biharshraiff –Bodhgaya D/c. As 220kV Bodhgaya S/s was being fed radially from Biharshariff, total power failure at 220kV Bodhgaya substation occurred and power supply was disrupted at Bodhgaya, Gaya, Patna (part), Rafigunj, Sonenagar, Garwah. 220kV Biharshariff-Bodhgaya-I & II were restored at 12:35 hrs and 13:50 hrs of the same day.

BSEB may intimate further details indicating the extent of damages suffered and present status.

Deliberation in the meeting

BSEB representative informed that the fire was extinguished & cable replacement work is in progress.

II. Tripping of all units at Balimela & Upper-Kolab & total loss of supply at Jeynagar S/s on 08/11/08:

On 08.11.08 at 19:25 Hrs failure of LA of 220Kv Jeynagar-Balimela-II at Jeynagar end occurred leading to tripping of 220Kv Jeypore-Jeynagar D/c, 220Kv Theruvelli-Jeynagar- I & II, 220Kv Jeynagar-UpperKolab D/C, 220KV UpperKolab-Thruvelli, 400Kv TSTPP-Meramundali-II. As a result Balimela and UpperKolab HPS got isolated and all running units at Balimela PH(units#3,4,5,6), UpperKolab(units#2,3,4) generating around 273MW and 175MW respectively tripped. Loss of load was 130MW(approx.) at Jeynagar S/s. All tripped lines including 220Kv Balimela-Jeynagar-II were restored by 21:31 Hrs of the same day.

Tripping of outgoing lines from Jeynagar/UpperKolab on LA failure of 220KV Jeynagar-Balimela-II at Jeynagar end may be deliberated.

Deliberation in the meeting

OPTCL representative informed that the LA was 12 to 13 years old & bushing of the LA which had been damaged was replaced.

III. Tripping of all 132kv lines from Maithon HPS on 09/11/08:

On 09.11.08 at 18:20 Hrs, bursting of CB of 132KV Maithon-Jamtara led to tripping of all 132KV lines from Maithon HPS. Load throw off to the tune of 200MW occurred and supply to areas as Kalipahari, Ramkanali,Balihari were disrupted. All tripped lines were restored by 21:00 Hrs.

DVC may furnish further details.

Deliberation in the meeting

DVC representative informed that tripping of all 132 KV lines from Maithon HPS was due to bus fault at 132 KV Maithon HPS switchyard, detailed report in this regard is still awaited.

IV. Tripping of all units at KTPP on 15/11/08:

On 15.11.08 at 11:59 Hrs, top part of 220Kv Bus-III isolator at KTPP got dislocated leading to 220KV Bus fault and 220Kv/132KV Bus at KTPP became dead with tripping of all running units on KTPP 220KV Bus viz. Units 1,2,3. 400/220/33KV ICTs at KTPP also tripped. It was reported that on tripping of 400/220/33KV ICTs at KTPP, Station Auxilliary supply for units on 400KV Bus, being fed from 33Kv Tertiary was affected leading to further tripping of KTPP Units on 400KV Bus viz. Units#5, 6(Unit#4 previously out) at 12:05 Hrs and generation at KTPP became Nil. Total loss of generation at KTPP was to the

tune of 750MW. CESC got isolated at 11:59 Hrs and was synchronized at 12:37 Hrs.

WBSETCL may furnish further details regarding the incident indicating extent of damages and the present status. WBSETCL may also discuss remedial measures to be taken to prevent recurrence of similar incident in future.

Deliberation in the meeting

WBSETCL representative informed that detailed report is still awaited. It was learnt that the post insulator of the isolator broke down and the cause of failure of post insulator is to be investigated.

V. Tripping of 2x120MW units at Tenughat TPS on 24/11/08:

On 24.11.08 at 22:02 Hrs both running units at Tenughat tripped due to fault in 6.6KV system leading to failure of Auxillary supply. Tripped units at Tenughat TPS were synchronized by 16:23 Hrs.

JSEB may furnish further details regarding the trippings with suggestion regarding remedial measures for preventing such further occurances.

Deliberation in the meeting

Tenughat representative informed that auxillary supply failed due to the flashing of instrument air compressor motor & subsequent drop in pressure of instrument air.

VI. Tripping of all units at TALA HEP on 30/11/08:

On 30.11.08 at 19:25 Hrs 400Kv Tala-Binaguri-II and 400Kv TALA-Malbase tripped (400Kv TALA-Binaguri-I & IV were previously kept open due to high voltage) leading to tripping of all running units at TALA HEP. For Tala-Binaguri-II, Direct Trip was reported to have been received at Binaguri end. The tripped lines were restored by 20:40 hrs.

THPA/Powergrid may furnish further details.

Deliberation in the meeting

THPA representative informed that tripping was due to fault in 400 KV XLPE cable from generator – portyard.

VII. Tripping of Pole-I of HVDC Talcher-Kolar on 03/12/08:

On 03.11.08 at 13:37 Hrs, Pole-I of HVDC Talcher-Kolar tripped on 'DC Over Voltage Stage-II'. Before tripping HVDC Bipole power was of the order of 1247MW and after tripping power through Pole-II came down to 1062MW on MR mode. The Pole-I was normalised at 14:22 Hrs after thorough checking but tripped again 13 minutes later on 'DC Over Voltage Stage-II'.On further investigation it was revealed that the DC voltage at Talcher rose to around 516KV while at the same time Kolar(inverter) end DC voltage fell to 367KV. It was later reported that two Nos. optodynes(for measuring DC voltage) at Kolar end were faulty resulting in low voltage output at Kolar (for Pole-I) leading to high voltage output at Talcher(converter end). Pole-I was restored and deblocked at 00:10 Hrs after rectification work at Kolar.

Deliberation in the meeting

Members noted the sequence of events.

VIII. Collapse of South Orissa system on 05/12/08:

On 05.12.08 at 16:13 Hrs of 220KV Meramundali-Bhanjanagar D/c tripped at Meramundali end on overcurrent relay indication. Simultaeneously, all running units at Balimela(#8), U.Kolab(#1), Indravati(#3) tripped and all 220/132KV Substations of GRIDCO in South Orissa system became dead. Immediately, 400KV Jeypore-Gazuwaka-II tripped followed by 400KV Jeypore-Meramundali S/c and 400Kv Jeypore-Gazuwaka-I all on 3-Ph, Zone-I, and both Poles at HVDC Gazuwaka got blocked. Also, 400KV Rengali-Indravati S/c tripped on overvoltage at Rengali end and 400KV Indravati and Jeypore Substations became dead. Power supply was disrupted at Jeynagar, Theruvelli, Narendrapur, Bhanjanagar, Bidanasi, Chandaka command areas. Restoration was completed by 18:50 Hrs.

OPTCL/Powergrid may furnish detailed report indicating source of fault and sequence of events leading to cascade tripping of 400KV /220KV lines in South Orissa system and also deliberate upon remedial measures to be taken to prevent such cascade tripings in future.

Deliberation in the meeting

OPTCL representative submitted a report indicating source of fault & sequence of events. The report is included in Annexure – V.

ITEM NO. 6 OPERATIONAL PLANNING

(A) REVIEW OF SHUTDOWN PROPOSALS, AS APPROVED IN LAST (32nd) OCC MEETING OF ERPC vis-à-vis ACTUAL SHUTDOWN/ NORMALISATION OF THE TRANSMISSION SYSTEM FOR NOVEMBER' 2008

The actual shutdown as availed by the constituents on the basis of finalised programme during the month of November '08 as well as planned / emergency shutdown as received from ERLDC is indicated at **Annex-III A.**

Members may please note and also furnish the additional / missing information, if any.

Deliberation in the meeting

Members noted the above.

(B) SHUTDOWN PROPOSAL OF TRANSMISSION LINES AND GENERATING UNITS FOR THE MONTH OF DECEMBER'08.

The shut down proposals which are received by ERPC for the month of December' 08 are given at **Annexure – III B**.

Members may please discuss and finalize the proposed programme.

Deliberation in the meeting

Members noted the above.

(C) LGBR FOR THE MONTH OF DECEMBER'08 & JANUARY'09 (FOR THE YEAR 2008-09)

Anticipated Peak Demand (MW) and Energy Requirement (MU) for the months of December'08 & January'09.

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the months of December'08 & January'09 has been prepared by ERPC Secretariat on the basis of finalized LGBR for 2008-09, keeping in view that the units are available for generation and expected load growth etc. The details are shown at **Annexure-IV**.

Members may please note and indicate any discrepancy of the figures arrived at.

Deliberation in the meeting

Members noted the above.

ITEM NO. 7 COAL SUPPLY TO POWER STATIONS IN EASTERN REGION

FURNISHING OF LOSS OF GENERATION DUE TO COAL SHORTAGE

Loss of generation due to coal shortage is monitored by MOP and reports regarding the same needs to be furnished to MOP from time to time. Accordingly, constituents are requested to furnish figures for loss of generation due to shortage of coal on daily basis. Figures may be furnished for each thermal station indicating total daily loss of generation in MU and maximum loss of generation in MW during peak hours of the day.

Deliberation in the meeting

NTPC representative agreed to submit loss of generation figures on monthly basis.

ITEM NO. 8 ISSUE RAISED BY

POWERGRID
SHUTDOWN OF 400 KV BIHARSHARIFF – BALAIA TRANS LINE

During the devastating flood in last monsoon, tower at location No.3/0 in 400kV Biharshariff – Balia D/C Transmission line was in danger condition. The tower was islanded in the middle of the river Panchanan during the flash flood. All out efforts were made by providing sufficient and adequate sand bags, bamboo barricades and by possible means for protecting the tower footing like diverting the flow etc. With all the efforts, the tower was somehow saved. After receding the flood water the tower location 3/0 supposedly relocated at the mid-stream of the new river was critically examined and found that the tower may collapse at any point of time. It may be noted here that placement of ERS towers are also not possible due to river flow.

As a permanent solution, a new tower location foundation (Pile foundation) was casted and part of tower erection was also completed (without availing shutdown). Now the balance tower erection and re-stringing work is required to be taken up on an urgent basis as the tower location 3/0 is critically danger position. The erection /stringing gang with complete T & P and required materials are being mobilized at site to take up the job on war footing basis. Further, simultaneous works shall be carried out to set right the other locations affected by the flood. It is proposed that a shutdown may kindly be permitted for 400kV D/C Biharshariff - Balia Transmission line from 26.12.2008 to 30.01.2009 on continuous basis. During the said period, the other interconnecting transmission line with Northern Region shall be in service. Being a natural calamity, it is proposed that the shutdown may be treated as a

force majeure event as the damage caused by the flood was beyond the control of Powergrid.

Deliberation in the meeting

After detailed deliberation the constituents agreed to treat the above shutdown as a force measure. Member Secretary advised PowerGrid to complete the job in the shortest possible time.

BSEB

DATE OF COMMISSIONING SEMs

PGCIL is requested to intimate the date of commissioning of newly purchased L & T make SEMs in each tie lines / generating stations of the Eastern Region along with the programme for installation of rest meters as the SEMs have reportedly been purchased some months back. Further, the utilization of old /replaced SEMs may also be explored if so possible.

Deliberation in the meeting

Powergrid representative informed that newly purchased L & T make SEMs have already been installed in all the states of Eastern Region except Jharkhand & part of DVC system, which will be completed by January, 2009.

NHPC

FREQUENT TRIPPING OF 400 KV TEESTA-BINAGURI ON RECEIPT DIRECT TRIP COMAND FROM BINAGURI

On 17.11.08 the Circuit Breaker of Teesta-Binaguri Feeder-II tripped at 9:34 Hrs on direct trip received from Binaguri end. This caused the tripping of two generating units (Units#1&3) at Teesta due to the operation of over frequency protection relay. The same type of tripping had occurred on 13.11.08 also. Teesta end is frequently receiving direct trip signal for line#2 during its outage in last few days. Powergrid is requested to look into the matter and take corrective action.

Deliberation in the meeting

Powergrid representative assured to look into the matter.

ITEM NO. 9 STATUS OF TRANSMISSION LINES AND GENERATING UNITS

a) 220 KV Fatuah – Khagul Line

Presently, 220 KV Patna – Fatuah line is open while 220 KV Patna – Khagul line is charged with Khagul load being fed radially from Patna end. BSEB/ Powergrid may furnish present status of availability of 220 KV Patna – Fatuah line.

Deliberation in the meeting

BSEB representative informed that PLCC equipments are yet to be installed in 22o KV Patna – Fatuah transmission line. The date of commissioning communication equipments will be intimated shortly.

b) Generating Units / Transmission Lines under construction

	Name of Generating Units/ Transmission Line	Expected Date of Synchronisation
1.	CTPS Unit # 7 & 8	Oil synchronization by March'09
2	KhSTPP Unit # 7	By March'2009
3	400 KV Ranchi – Sipat D/C Trans. Line	By December'2008
4	400 KV Ranchi – Rourkella D/C Trans. Line	BY November'2009
5.	400 KV Durgapur – Jamshedpur 2nd circuit	NA
6	400 KV Durgapur – Maithon S/C Trans Line	NA

ITEM NO. 10 DATE AND VENUE OF THE NEXT (34th) OCC MEETING OF ERPC.

Date and venue of 34th OCC would be notified shortly.

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Annexure-I

LIST OF PARTICIPANTS IN THE 32nd OPERATION COORDINATION COMMITTEE MEETING (OCC) OF EASTERN REGIONAL POWER COMMITTEE (ERPC) HELD ON 17.12.2008 AT ERPC KOLKATA

ORGANISATION	NAME	DESIGNATION
BIHAR		
BSEB	Shri D.K.SINGH	EEE/SLDC
JHARKHAND		
JSEB	Shri R.M.TIWARY	ESE/SLDC
TVNL	Shri R.K.PRASAD	AEE(MTP)
WEST BENGAL		
WBSETCL	Shri D.GANGULY	CE /SLDC
	Shri A.BISWAS	SE/SLDC
WBSEDCL	Shri M.S.PAL	DY. CE(COMML)
	Shri P.P.BISWAS	SE, ALDC
WBPDCL	Shri A.G.THAKURTA	MANAGER
CESC	Shri R.CHAKRABORTY	MANAGER
ORISSA		
GRIDCO	Shri N.KHAN	L.O
OPTCL	Shri B.N.MAHAPATRA	SR.G.M(PS)/SLDC
	Shri S.K.DAS	AGM/SLDC
OPGCL	Shri D.VENKATA GIRI	SR.MGR
OHPC	Shri B.C.PADHI	SR.GM(E)
DVC	Shri D.MUKHERJEE	CE-I(€)/CLD
NTPC	Shri P.MEDIRATTA	DGM(EEMG)
	Shri RAKESH KUMAR	DGM(OS)
NHPC	Shri S.K.MISHRA	DM (E)/TEESTA
	Shri S.ADHIKARI	SE(E) /RANGIT
POWERGRID		
ERTS-I	Shri S.K.PRAMANIK	DGM(OS)

POWERGRID		
ERTS-II	**Shri B.K.PRADHAN**	**CH.MGR(OS)**
	Shri S.J.LAHIRI	**CH.MGR(OS/IT)**
BHUTAN		
DGPC	**Shri M.PRASAD**	**AEE**
CHPC	**Shri K.TENZIN**	**JE**
BPC	**Shri S.PENJI**	**SR.MGR**
	Shri SHERUB	**ENGINEER**
SAIL	**Shri R.PANDEY**	**SR.MGR**
ERLDC	**Dr. L.Hari**	**GM**
	Shri D.K.SRIVASTAVA	**DGM**
	Shri S.KONAR	**DY.MANAGER**
ERPC	**Shri R.K.GROVER**	**MEMBER SECRETARY**
	Shri J.BANDHOPADHYAY	**SE (C)**
	Shri S.N.KAYAL	**SE (O)**
	Shri B.C.MALLICK	**SE (PS)**
	Shri S.M.JHA	**EE (SPAR)**
LAISION OFFICER OF BSEB	**Shri S.K.SENGUPTA**	**EEE,BSEB**