

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

**MINUTES OF THE 36<sup>th</sup> OCC MEETING HELD AT HOTEL OBEROI, GRAND,  
KOLKATA ON 24.03.2009 (TUESDAY) AT 11:00 HRS**

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**List of participants is enclosed in Annexure-I.**

**Shri B.B. Chakrabarti, Vice President (SO), CESC welcomed the delegates to the 36<sup>th</sup> OCC meeting. He thanked Member Secretary for offering CESC to host 36<sup>th</sup> OCC meeting & hoped that fruitful & meaningful discussions will take place in this meeting.**

**Vice President, CESC (SO) mentioned that CESC is the 1st city based distribution company in India and is almost a 110 years old organization. CESC is a vertically integrated organization with generation, distribution & coal mines. It provides electricity to 2.2 Million of people in a licensed area of 567 sq km. Fifty (50 %) of its coal requirement is met through its captive mines. It has met peak demand of 1450 MW. It has got 1413 ckt. Km of transmission & distribution network, most of its distribution network is through cables. CESC has brought down it's T&D losses from 22.8 % in 2000-01 to 14 % in 2007-08. Average demand growth in CESC licensed area is 3 to 3.5 %. CESC introduced GIS in 1993, Optical Fibre & SCADA in 1994. It has recently established a call centre which works on 24X7 basis. CESC's Budge Budge power station had achieved a PLF of 100.4 % in 2007 - 08 and received best PLF award from Prime Minister. Budge Budge power station got registered with United Nation Forum Convention for Climate Change in 2002. It is the first coal based thermal power station, in the developing countries, to get recognized for its carbon credit in 2006. Third (3<sup>rd</sup>) Unit of Budge Budge is expected to be synchronized by Aug-Sep, 2009. CESC is going to set up a power station (2X300 MW) in Haldia. He stated that CESC is facing ROW problem for its evacuation line from Budge Budge i.e. 220 KV D/C Budge Budge - Kasba Trans. line (85 ckt. Km.). He then requested Member Secretary to start usual business of OCC.**

**Member Secretary, ERPC thanked CESC for making excellent arrangements for holding 36<sup>th</sup> OCC meeting. He expressed that, CESC's development is almost contemporary to the development of power distribution in London. He congratulated CESC for achieving the best PLF award in India and the first carbon credit award in the developing countries.**

**Thereafter, he requested Shri. S. N. Kayal, SE (operation), ERPC to take up agenda points for discussions.**

**ITEM NO. 1 CONFIRMATION OF THE MINUTES OF THE 35<sup>th</sup> OCC MEETING OF ERPC HELD AT FSTPS, NTPC, FARAKKA ON 18.02.2009**

The minutes were circulated vide letter no. ERPC / SE (OPRN)/ OPERATION/2009/6475 – 6521 dated 27-02-2009.

No comments have been received from any of the constituents. Hence the minutes of the above meeting are confirmed.

**ITEM NO. 2 REVIEW OF THE GRID PERFORMANCE DURING FEBRUARY, 2009**

**2.1 POWER SUPPLY POSITION :**

The power supply position of Eastern Region for the months of February'09 & January'09 is indicated at **Annexure-I**.

- From comparison of the generation figures of February'09 with January'09, it is observed that the net energy generation (MU) in Eastern Region (including contribution of Bhutan) has increased on per day average basis.
- The net peak demand met has increased from 10742 MW to 10989 MW
- The demand met during February'09 has increased by 247 MW, as compared to January'09. The percentage of Peak shortage of ER has decreased.

The above variations are considered normal.

*Members may please note.*

**Members noted the above.**

**2.2 FREQUENCY:**

The frequency profile of ER for the month of February'09 and for the months of February'08 & January'09 (for comparison) is tabulated below:

Month	% of time of the month frequency remained			
	<49.0 Hz	49.0-50.5 Hz	50.5-51 Hz	>51.0 Hz
January'09	2.11	97.83	0.06	0.00
<b>February'09</b>	<b>3.25</b>	<b>96.69</b>	<b>0.06</b>	<b>0.00</b>
February' 08	17.17	82.83	0.00	0.00

\*Maximum ( Inst.) Frequency : **50.76 Hz** on 11.02.09 at 04:08Hrs

Minimum ( Inst.) Frequency: **48.77 Hz** on 27.02.09 at 00:03Hrs

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 February'09 has decreased as compared to the previous month i.e. January'09 and has increased with respect to the corresponding month of the previous year (i.e. February'08).

- The percentage of time frequency below 49.0 Hz has increased to 3.25 % in the month of February, as compared to 2.11 % in January' 09 and has decreased as compared to the corresponding month of the previous year (i.e. February'08).
- The percentage of time frequency remained above 50.50 Hz in the months of February'09 is insignificant.

The detailed daily frequency for the month of February'09 is enclosed at **Annexure-II**.

*Members may please discuss.*

### **2.3 VOLTAGE PROFILE OF IMPORTANT SUB-STATIONS IN EASTERN REGION**

<b><i>Name of the sub-station</i></b>	<b><i>Maximum Voltage (kV)</i></b>	<b><i>Minimum Voltage (kV)</i></b>
400 kV PURNEA	434	409
400 kV BINAGURI	433	409
400 kV BIHARSHARIFF	431	406
400 kV DURGAPUR	422	406
400 kV PATNA	431	388
400 kV JEERAT	415	376

It may be noted that during the month of February'09, voltages at Binaguri, Purnea, Patna, Biharshariff, Durgapur s/s remained on higher side, whereas minimum voltage (376 KV) at Jeerat s/s was observed on lower side particularly during peak hours.

*Members may please note and discuss.*

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

***GM, ERLDC expressed that peak demand of the region has crossed 12,000 MW in the month of March. He pointed out that the frequency of the Region remained IEGC band for 97.83 and 96.69% respectively in the month of January & February'09 mainly due to injection by Western Region***

### **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 February'09.

***Members noted the above.***

**2.5 WATER LEVEL IN MAJOR HYDRO RESERVOIRS IN THE EASTERN REGION DURING FEBRUARY' 2009**

Name of the Reservoirs	Level in mtrs. on last day of the month	
	28.02.09	29.02.08
<b>Hirakud</b>	186.74	187.95
<b>Balimela</b>	443.67	452.75
<b>Rengali</b>	116.09	114.15
<b>Upperkolab</b>	850.03	851.15
<b>Indravati</b>	632.70	633.17
<b>Subarnarekha</b>	583.51	583.43

*Members noted the above.*

**ITEM NO. 3 Important Events**

- I. FSC of 400kV Ranchi-Sipat I & II at Ranchi end were taken into service for the first time on 01.03.2009 and are accordingly under commercial operation w.e.f 01.03.09.

*Members may kindly note.*

*Members noted the above.*

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

Sl. No	Description	Date Outage	Reason	Remarks
<b>Lines / Elements under outage</b>				
1.	315 MVA ICT-II at Maithon	16.06.08	Failure of R & Y Phase LA.	<p><i>The transformer was initially expected to be in service by December'08. Subsequently, Powergrid committed to bring the ICT by January'09. Subsequently, Powergrid representative informed that dehydration of the ICT had started and the same was expected to be in place by 10<sup>th</sup> Feb'09 &amp; then by 15<sup>th</sup> March.</i></p> <p><i>The same has however not yet been restored PowerGrid may please intimate the present status.</i></p> <p><b>GM, ER-II, PowerGrid informed that the ICT will be in operation by 31<sup>st</sup> March,2009.</b></p>
2.	Tie bay of 400kV KhSTPP-Patna-I at KhSTPP end.	-	--	<p><i>Expected by March'09.</i></p> <p><b>GM,ER-II, PowerGrid informed that the Tie Bay will be restored by 15<sup>th</sup> April,2009.</b></p>

**Restoration of ICT at Maithon needs to be done at the earliest in view of urgency of requirement.**

**ITEM NO. 4B Major units outage /Maintenance:**

No major units are under long term outage. FSTPP Unit#3 was restored on 07.03.09 after GT replacement.

*Members noted the above.*

**ITEM NO. 5 A GRID INCIDENCES IN ER SYSTEM DURING FEBRUARY,2009.**

**I. Repeated tripping of units in DVC system:**

**a) Tripping of all running units in CTPS and Bokaro 'B' on 11.02.09:**

On 11.02.09 at 07:10 Hrs due to suspected Bus fault at CTPS, 220kV CTPS-Mejia D/c, 220kV CTPS-Kalyneshwari D/C, 220kV CTPS-Bokaro 'B' D/C, 220/132 kV ICTs at CTPS tripped. With 132kV Panchet –Ramkanali and 132kV Maithon-Patherdih D/c previously under open condition, western part of DVC system including CTPS and Bokaro 'B' remained synchronized to the grid through 132kV CTPS-Waria and 132kV CTPS–Ramkanali-Waria sections and 220kV Joda-Jamshedpur S/c. 132kV CTPS-Waria and 132kV CTPS-Ramkanali-Waria sections and 220 kV Joda-Jamshedpur S/C tripped at 07:17 hrs and 07:27 hrs respectively. As a result of above trippings, the western part got islanded with Bokaro 'B' and CTPS units with the islanded frequency touching 47.65 Hz. The island survived till 07:40 hrs when it ultimately collapsed on load generation imbalance. Running units # 1,2,3 at Bokaro 'B' and units# 1,2 at CTPS 132kV side tripped. Loss of generation was around 650MW with corresponding loss of load affecting Coal/Steel/mines/railways.

*Members may please discuss & deliberate.*

**Deliberation in the meeting**

**The above disturbance was discussed in the last OCC meeting. DVC has recently submitted a report on the above disturbance which is enclosed in Annexure – V (a).**

***It is reported that the sky wire of L# 203 (220 KV CTPS – Kalyaneswari) snapped from the top of the tower and fell over the top conductor (R Phase). All the 220 KV lines of CTPS tripped from the remote end. There was no tripping of any line at CTPS end. From the report submitted by DVC it is further learnt that DC (-) was missing at the line 203 protection scheme.***

***At this Member secretary advised DVC to be more vigilant and carry out proper maintenance of DC supply of the protection scheme.***

***GM, ERLDC opined that timely action could have saved such cascading tripping & interconnection between eastern part & western part of DVC should be constantly monitored to avoid such incidences.***

**b) Tripping of units at Mejia TPS on 22.02.09:**

After synchronization of Mejia Unit#2 at 06:25 Hrs, 220kV Bus differential protection of Main Bus-I operated at 06:27 Hrs and the following units / lines connected with Main Bus-I tripped:

1. Mejia units#1,2,3 with around 380MW generation
2. 220kV Mejia-Chandrapura (L-201)
3. 220kV Mejia - Barjora (L-230)
4. 220kV Mejia -Burnpur (L-232)
5. 220kV Mejia - Waria (L-221)
6. Station supply Transformer B & C
7. Mejia Unit#4 tripped with a delay.

The remaining lines and units on Main Bus-II survived including Mejia Unit#5 (Mejia Unit#6 was out of service prior to the incident). It was reported that Mejia Unit#4 was on Bus-II but some of its auxiliaries were being fed from Bus-I. The nature of loss of auxiliaries was such that the unit tripped with a delay.

System frequency fell to 48.95Hz from 49.16Hz as a result of the trippings. Immediate generation loss at Mejia TPS was around 380MW on tripping of Units# 1,2,3. Unit#4,5 remained on bar with around 435MW and generation at Unit#4 got reduced gradually to 150MW which ultimately tripped at 06:48 Hrs. Total loss of generation on tripping of Units# 1,2,3,4 was 590MW. Inspection was carried out at Mejia TPS switchyard and no permanent damages were observed and there were no breakdowns. All tripped lines/ units were restored by 23.02.09.

The following may be clarified w.r.t the incident:

- 1) Delayed tripping of Mejia Unit#4

**c) Tripping of units at Mejia TPS on 24.02.09:**

At 08:50 Hrs of 24.02.09 Mejia Units# 1,2,3 tripped while Units#4,5 survived (Unit#6 was previously out) reportedly due to failure of AC supply of compressors. Total loss of generation due to above trippings was 600MW. Tripped units were restored by same day.

*Members may please discuss & deliberate.*

DVC may explain the simultaneous tripping of three units detailing out the scheme of AC supply for compressors and indicating possible rectification measures which could be taken to prevent such recurrences in future.

**Deliberation in the meeting**

***DVC has recently submitted a report on the disturbances on 22.02.2009 & 24.02.2009 which is enclosed in Annexure – V (b)***

***The above report was not conclusive. DVC was requested to submit a detailed report.***

## **II. Repeated tripping of units at Tenughat and Patrattu TPS:**

### **a) Tripping of units at Tenughat/Patrattu on 23.02.09**

At 22:10 hrs of 23.02.09 both running units at Tenughat TPS tripped due to fire hazard in CW pump. Patrattu Unit#4 also tripped.

*JSEB may furnish further details regarding the Fire Hazard indicating the extent of damages.*

### **b) Tripping of units at Tenughat/Patrattu on 28.02.09**

At 09:35 Hrs of 28.02.09 all running units of JSEB (2X210 MW at Tenughat and Patrattu TPS units 1,4,6,7) tripped reportedly on occurrence of fault in Chandil S/s. All outgoing lines for Chandil tripped. Total loss of generation for JSEB was 579MW. Load shedding was imposed and SHPS Units#1,2 were synchronized at 10:40 Hrs and 10:50 Hrs for management of the contingency. All tripped lines/units were restored by 01.03.09. Synchronisation of PTPS unit#7 and PTPS unit# 6 were however delayed. 220kV Ranchi-Chandil was declared breakdown after occurrence of the incident.

*JSEB may explain the cascade trippings indicating whether the origin was due to an uncleared fault in 220kV Chandil-Ranchi line also furnishing reasons for delayed synchronization of units.*

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

***JSEB representative was requested to submit a detailed analysis report on the above incidences.***

## **III. Tripping of running units at Teesta on 25.02.09:**

At 18:19 Hrs of 25.02.09 400kV Teesta-Binaguri-II tripped on receipt of DT at Teesta. 400Kv Teesta- Binaguri-I was previously out on overvoltage and due to above tripping running units at Teesta Units#1,3 tripped on loss of evacuation path. It was reported that breakers at Binaguri end remained closed and there was no change in PLCC counter at Binaguri.

NHPC vide letter dtd. 28.02.09 has indicated that the above is a false tripping which occurs repeatedly.

*Powergrid/NHPC may deliberate regarding receipt of DT at Teesta when breakers at Binaguri remained closed. Rectification measures to be put in place may also be suggested to prevent such occurrences in future.*

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

***GM,ER-II, PowerGrid informed that BPL engineers are already working on the PLCC panels at Binaguri end, they will check the Teesta end, if necessary, to sort out the problem.***

#### **IV. Tripping of units at IBTPS and Korba (E) & Korba(W) on 05.03.09:**

At 12:27 Hs of 05.03.09 400kV Korba (W)-Bhilai tripped (400kV Korba (NTPC)-Korba (W) was previously under shutdown). Simultaneously, 220kV Budhipaar-Raigarh and 220kV Budhipadar-Korba II & III tripped from Raigarh and Korba ends only. This led to isolation of Korba (W) and Korba (E) from WR and ER systems and the isolated system collapsed. High generation loss in WR system occurred due to tripping of Korba(E) and Korba (W). IB TPS unit#1 with generation of 190MW tripped reportedly on excitation problem at the same time.

*OPTCL may explain the tripping of IBTPS Unit#1 alongwith relay indications. As the disturbance took place due to fault on WR side ERPC may like to discuss the issue with WRPC for corrective action.*

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

***OPTCL representative confirmed that there was no tripping in OPTCL system & IB TPS unit#1 tripped due to problem in excitation system.***

#### **V. Tripping of lines from Chandil on 09.03.09:**

At 20:01 Hrs of 09.03.09 220kV Ramchandrapur-Chandil, 220kV Ranchi-Chandil, 220kV Ramchandrapur-Joda, 2x315MVA ICTs at Jamshedpur tripped.

*JSEB may furnish further details regarding the incident indicating origin of the fault and sequence of events.*

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

***JSEB representative informed that trippings of the lines was due to wrong operation at Chandil.***

### **ITEMNO.5B FOLLOW UP AFOLLOCTION OF THE PREVIOUS GRID INCIDENTENCES IN EASTERN REGION**

#### **Committee report on repeated cascade trippings in South Orissa System**

A committee consisting of representatives from ERLDC, Powergrid, OPTCL was formed to investigate the repeated cascade trippings and collapse of South Orissa system. The committee meeting was held in Bhubaneswar on 19<sup>th</sup> January'09, where detailed deliberations took place. Subsequently, a second meeting was held on 04<sup>th</sup> March'09 at ERLDC. The recommendation of the committee are enclosed at Annexure- VI.a

Members may deliberate.

***Members noted the recommendation & analysis report of the committee given in Annexure VIa & VIb.***

## **ITEM NO. 6 OPERATIONAL PLANNING**

### **(A) REVIEW OF SHUTDOWN PROPOSALS, AS APPROVED IN LAST (35<sup>th</sup> ) OCC MEETING OF ERPC vis-à-vis ACTUAL SHUTDOWN/ NORMALISATION OF THE TRANSMISSION SYSTEM FOR FEBRUARY' 2009**

The actual shutdown as availed by the constituents on the basis of finalised programme during the month of February'09 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.*

***Members noted the above.***

### **(B) SHUTDOWN PROPOSAL OF TRANSMISSION LINES AND GENERATING UNITS FOR THE MONTH OF MARCH'09.**

The shut down proposals which are received by ERPC for the month of March' 09 are given at **Annexure – III B**.

*Members may please discuss and finalize the proposed programme.*

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

***All the shutdown proposals as approved after deliberation in the meeting for the month of April,2009 are depicted in Annexure – IIIB.***

### **(C) LGBR FOR THE MONTH OF MARCH'09 & APRIL'09 (FOR THE YEAR 2009-10)**

#### **Anticipated Peak Demand (MW) and Energy Requirement (MU) for the months of March'09 & April'09.**

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the months of March'09 & April'09 has been prepared by ERPC Secretariat on the basis of finalized LGBR for 2009-10, 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**

***OCC meeting was followed by a meeting on LGBR where detailed discussion on peak demand (MW) vis-à-vis availability & energy requirement vis-à-vis availability (MU) in respect of all the constituents of the region were discussed. Details of the discussion is given in the minutes of LGBR meeting.***

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

Daily report from NTPC and other constituents regarding Coal supply position and details of generation loss on account of coal shortage are not being received. The same was agreed to by constituents in the last OCC meeting. Constituents are once again requested to furnish figures for loss of generation in MU and maximum generation loss in MW for a day on daily basis alongwith coal stock position in the Power Stations.

Sl. No	Name of Constituents	Coal Stock Position	Daily Requirement	Loss of Generation Figures for Feb'09
1.	BSEB	Not Furnished		Not Furnished
2.	JSEB	-DO-		-DO-
2.	TVNL	2607 MT as on 09.03.09	6700 MT	NIL
3.	WBPDC Kolaghat TPS Santalidih TPS			36.504 MU in Jan'09 3.127 MU in Jan'09
4.	CESC BUDGE BUDGE TITAGARH SOUTHERN NEW COSSIPORE	124882 MT as on 09.03.09 46863 MT as on 09.03.09 30770 MT as on 09.03.09 25253 MT as on 09.03.09	7500 MT 3600 MT 2500 MT 1700 MT	NIL NIL NIL NIL
5.	OPTCL ( Ib TPS)	204091 MT as on 19.03.09	8500 MT	NIL
6.	NTPC FSTPS KhSTPP TSTPS	Not Furnished		- 254.14 MU -
7.	DVC	-DO-		-DO-

### **Deliberation in the meeting**

***Member Secretary advised all the constituents to furnish the above data (loss of generation due to coal shortage in particular) as the matter is now being monitored by MOP. GM, ERLDC emphasised on submission of coal shortage figure as scheduling will be different for the power station, declaring coal shortage from 1<sup>st</sup> April,2009. A mock exercise will take place on 27<sup>th</sup>March'2009 in this regard.***

***CESC representative informed the house that CESC is importing coal Indonesia to meet their coal shortage.***

**ITEM NO. 8 POWER SUPPLY TO AGRICULTURE SECTOR**

STATE	AGRICULTURE DEMAND	AGRICULTURE DEMAND MET	SHORTFALL
West Bengal	80 MU/month (Average demand between mid Jan to mid March'09)	80 MU	NIL
BIHAR	Not Furnished	Not Furnished	
JHARKHAND	- DO -	- DO -	
ORISSA	- DO -	- DO -	
SIKKIM	- DO -	- DO -	
	- DO -	- DO -	

**ITEM NO. 9 ISSUE RAISED BY****A. BSEB**

N.F.Railways has requested Shut Down of 132kV Purnea (PG)-Kishanganj (BSEB) transmission line (Loop In section of 132 KV Purnea (PG) – Dalkhola (WBSETCL), 132 KV Purnea (PG) – Dalkhola (WBSETCL) has been LILoed at Kishanganj ) for a week to raise its height over Purnea - Katihar Broadgauge railway line near Bellouri.

From Kishanganj power is extended to 132 KV Forbisganj (BSEB) S/Stn.

Forbisganj S/Stn is also connected to 132 KV Purnea (BSEB) S/Stn through 132kV Purnea (BSEB)-Forbisganj (S/C) Trans line. Power is further extended to Duhabi ( Nepal) from Forbisganj through 132 kV Forbisganj – Kataya – Duhabi S/Stn (Nepal)

During the above Shut Down (in absence of 132kV Purnea (PG)-Kishanganj line) all the load of 132 KV Forbisganj S/stn, Kishanganj S/stn & Duhabi S/stn (Nepal) load will switch over on 132kV Purnea- Forbisganj (S/C) transmission line. Total load comes out is detailed below:-

Sl.No.	Name of Grid Sub-station	Load ( in MW)
1	Forbisganj	8
2	Kishanganj	12
3	Kataya	12
4	Nepal Load	60/70
	Total Load	92/102 MW

132kV Purnea- Forbisganj (S/C) transmission line can not take this 90 to 100 MW load.

So in order to materlise the above shut down BSEB require assistance of 30 to 40 MW power from Dalkola (WBSETCL) (during shutdown period only).This may be provided by Dalkola Grid S/S. In future W.B (if required for any reason) can also avail power from BSEB.

*Members may kindly discuss.*

**Deliberation in the meeting**

***Member Secretary advised BSEB representative to discuss the feasibility of the proposal with the concerned PowerGrid &WBSETCL officials and then discuss the matter in the OCC forum if necessary.***

**B. ERLDC**

**(i) Restoration of FSCs at Jeypore**

FSCs at Jeypore end for each of the following lines are under outage w.e.f the date mentioned below:

- a) 400kV Jeypore-Meramundali w.e.f 21.11.08
- b) 400kV Jeypore-Gazuwaka-I w.e.f 12.11.08
- c) 400kV Jeypore-Gazuwaka -II w.e.f 05.12.08

It is emphasized that necessary action for early restoration of above FSCs may kindly be taken at the earliest considering onset of higher demand in summer and improved system stability. Powergrid may indicate the time schedule for the same.

**Deliberation in the meeting**

***PowerGrid representative informed that due to malfunction of capacitor in the FSC, all the FSCs (BHEL Make) are kept out of service. BHEL engineers will attend the problem in the 1<sup>st</sup> week of April, 2009. The FSCs are expected to be in service by 13 th April.***

**(ii) Blackstart and restoration procedure for ER system**

ERLDC had updated the existing Black Start Restoration procedure for ER system. The same is being circulated for comments and views from the constituents for further updation/correction, if any.

All power plant authorities are requested to check the correctness of start-up power, survival power and minimum auxiliary power requirements as mentioned in the procedure. Priority-wise preferred path for extending start-up power may also be confirmed.

All load-serving constituents may indicate their tentative plans for restoring their respective systems, after receipt of assistance from external sources or by utilizing their own black start facilities wherever available.

Coal India Ltd, Eastern, East-Central, East-Coast and South Eastern railway authorities may kindly confirm correctness of the

details furnished for their respective systems, in the restoration manual.

Comments/suggestions on updating/refining may kindly be forwarded to ERLDC by a fortnight.

Also Black Start of Purulia PSP has not been considered in restoration procedure for lack of sufficient information/data. However, for Black Start of PPSP necessary studies have been carried out at ERLDC for checking feasibility of charging 400kV from PPSP 400kV S/s. Being strategically located, ERLDC is of opinion that in the event of any major disturbance, black start at PPSP would be of immense help for system restoration and providing start up power to a number of power stations in the neighbouring system. Under the circumstances, it is proposed that the black start facility available at PPSP may be tested for a trial run.

*Members may kindly deliberate.*

**Deliberation in the meeting**

***GM, ERLDC proposed to hold a meeting with WBSETCL, WBSEDCL & PSPP officials to discuss the issue of inclusion of PSP in black start restoration procedure shortly. WBSETCL & WBSEDCL representatives, present in the meeting, agreed to the proposal.***

**(iii) Conditions not envisaged regarding SPS for HVDC Talcher-Kolar**

The following conditions are not envisaged regarding SPS for HVDC Talcher-Kolar:

- a. In case of prolonged outage/shutdown of one Pole ER grid is forced to absorb extra power of TSTPP stage-II which causes additional loading of ER lines. SPS 450 or SPS 1000 is unable to sense the quantum of additional power of TSTPP-II already being evacuated through ER system and accordingly in case of tripping of the other Pole an additional burden of 1000MW or 450MW is put on ER grid.
- b. In case of toggling to SPS 450 from SPS 1000 when one Pole is under shutdown/outage, input from the Pole under shutdown/outage has to be disabled to prevent tripping of unit in TSTPP-II. Under such circumstances tripping of the other Pole will be sensed as a single Pole tripping only and appropriate relief may not be available if generation of TSTPP Stage-II is high.

Accordingly, it is felt that the condition of tripping of the only available Pole in case of prolonged outage/shutdown of one Pole may be incorporated in SPS schemes and suitable backing down

ensured depending upon current level of injection of TSTPP Stage-II power to ER grid.

It is felt that a committee constituting of members from ERLDC,ERPC, NTPC, Powergrid may be incorporated for above purpose.

### **Deliberation in the meeting**

***Member Secretary requested GM, ERLDC to prepare a preliminary scheme, in consultation with NTPC & PowerGrid, to address the issue (Incorporating the condition of tripping of the only pole available in case of prolonged outage/shutdown of one pole & ensuring suitable backing down). The issue can then be referred to CEA for their consideration.***

### **C. POWERGRID**

#### **TRIPPING OF 315 MVA ICT-I & II AT JAMSHEDPUR**

315 MVA ICT-I & II at Jamshedpur sub-station tripped on 10.03.09 and 16.03.09 due to non-operation of protection system at Ramchandrapur /Chandil sub-station of JSEB. In fact, it has been gathered that due to fault in 220kV Chandil line & in Chandil sub-station, the same was not cleared by the protection system of both Ramchadrapur & Chandil substations due to which both the ICTs at Powergrid end have tripped causing avoidable disturbances in the JSEB system. On both the occasions, it is observed that huge fault current passed through the ICTs.

*Powergrid request JSEB to rectify the fault in their system.*

***JSEB representative assured to take necessary measure to avoid such disturbances.***

### **D. JSEB**

JSEB vide their letter no.34 C.E.(T) / JSEB dated 04.03.09(Copy enclosed) has intimated that JSEB would avail its share at 220kV level from Dumka project (1200MW) being established by CESC in Jharkhand. It is also highlighted that DPR on Dumka Project (1200MW), generation at which will be stepped up to 400kV for evacuation, does not have any 220kV switchyard provision. As JSEB intends to draw their share directly from Dumka generation switchyard at 220kV to meet their load growth / demand in the adjoining areas and this appears to be very cost effective for the state of Jharkhand, provision of 220kV switchyard facility should be included as part of the Dumka generation switchyard. This issue was discussed in the SCM held at Bhubaneswar on 03.12.08, and it was further addressed to you through our letter of 06.02.09 and we have not yet received any response from CESC.

In this context it is suggested that CESC should include the provision of 400/220kV, 2x315 MVA ICTs and 4 nos. 220kV line bays in their DPR so as to JSEB can draw their requisite quantum of share which is 25% of the plant capacity, at 220kV level and for that commercial arrangement and O & M related issues should be shorted out mutually be CESC and JSEB.

In the case JSEB draw part of their share through the proposed 220kV level (for which generation tariff should be worked out bilaterally with the approval of the JSERC) and for the balance share to be drawn through 400kV system, JSEB should bear the Regional transmission charges as per CERC guidelines.

***Member Secretary advised JSEB & CESC to discuss the issue among themselves & explore the amenable solution.***

#### **E. NHPC**

Teesta-Binaguri feeder-II tripped on 25.02.09 at 18:18:45 hrs due to Direct Trip signal received. At the time of tripping, Unit no. 1 & 3 were running at full load and feeder-II was wheeling the total power. Due to tripping of the feeder-II both the generating units tripped. The PLCC Direct trip receive counter of Channel-II (Tx/Rx: 180/204 KHz) of BPL make PLCC panel is found increased from 432 to 434. Direct Trip Receive command had been observed on numerous occasions even during, Feeder-II was in discharged condition.

As this type of false tripping is occurring repeatedly, Powergrid is requested to look into the matter and take necessary action to rectify the same at the earliest.

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

***GM,ER-II, PowerGrid informed that BPL engineers are already working on the PLCC panels at Binaguri end, they will check the Teesta end, if necessary, to sort out the problem.***

#### **F. COAL INDIA LTD.**

BCCL and ECL, subsidiaries of CIL are suffering from frequent load restriction imposed by DVC in these days. It is again being imposed from 02.03.09 and continued till today i.e. 03.03.09. On telephonic discussion with CE (CLD), DVC on date it was made to understand that imposition of restriction was due to low generation of DVC. On surfing the ERLDC site for on line power position it is noted that the generation of the day (03.03.09) of DVC at 15:20 Hrs was around 1650MW when DVC was exporting about 150MW. In this scenario it is not understood why DVC is continuing restriction and was not withdrawing the load restriction to BCCL and ECL.

We work in an industry with hazardous mines which are highly gassy and watery particularly the BCCL and ECL mines. Due to restricted power supply, operation of the pumps and ventilators are disturbed resulting safety of the mines in danger.

We are also going through the production drive months when erratic power supply affects valuable production hours resulting in loss of production thereby restricting supply of required quantity of coal to power houses including DVC.

Your kind intervention is sought for uninterrupted power supply to these coal feeders on priority basis considering the hazardous nature of the mines and ensuring production months.

**Deliberation in the meeting**

***CE (CLD), DVC informed that DVC had to resort to load restriction on all the feeders including Coal India feeders due to low generation of DVC.***

***Member Secretary advised DVC not to put load restriction on feeders involving hazardous (gassy & watery) mines.***

**ITEM NO. 10 DATE AND VENUE OF THE NEXT (37<sup>th</sup>) OCC MEETING OF ERPC.**

**Next (37<sup>th</sup>) OCC will be held in ERPC conference hall, the date of the OCC meeting will be intimated shortly.**

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**ANNEXURE-III B**

**Programme of Maintenance Of Transmission Lines And Generating Units as approved for the Month of April' 2009**

Organization	Name of the Element	From		To		Remarks
		Date	Time	Date	Time	
<b>NTPC</b>						
<b>Farakka</b>						
Farakka Unit – I (220 MW)		01.04.09		05.05.09		Unit Overhauling
400 KV Bus Reactor – I		08.04.09	09:30	08.04.09	16:30	Reactor Testing
400 KV Bus Reactor – II		14.04.09	09:30	14.04.09	16:30	Reactor Testing
220 KV Farakka Lalmatia Transmission line		09.04.09 (ODB)		09.04.09 (ODB)		
<b>Kahalgaon</b>						
400 KV Kahalgaon – Farakka Line - II		15.04.09 (ODB)		15.04.09 (ODB)		Preventative Maintenance
132 KV Kahalgaon – Sabour Trans. Line		22.04.09 (ODB)		22.04.09 (ODB)		- DO -
<b>Talcher</b>						
400 KV TSTPS – Rengali # 2		02.04.09 (OCB)		03.04.09 (OCB)		Planned Maintenance
400/220 KV ICT # 2		07.04.09 (OCB)		09.04.09 (OCB)		
<b>PowerGrid ER – I</b>						
<b>Power Grid ER – II</b>						
50 MVA ICT – I at Birpara S/Stn		18.04.09 OCB	09:00	19.04.09 OCB	17:00	Annual Maintenance Work
132 KV WBSETCL – I line of at Birpara		18.04.09	09:00	19.04.09	17:00	Annual maintenance Work
<b>WBPDCL</b>						
<b>TVNL</b>						
<b>Unit - I</b>		04-04-09		08-04-09		Work in Governing system
<b>OHPC</b>						
Burla Unit # I		16.03.09		15.04.09		Annual Maintenance
Rengali Unit # I		18.08.08		31.05.09		Generator Fault
Unit # II		15.01.09		06.04.09		Annual Maintenance
Upper Indravati Unit # II		02.04.09		30.04.09		-DO-
Unit # IV		02.05.09		31.05.09		-DO-
<b>DGPC</b>						
<b>CHPC</b>						
Unit – I		01.04.09		24.04.09		
220 KV Chukha – Birpara Line – I		30.03.09 (ODB)		03.04.09 (ODB)		
220 KV Chukha – Birpara Line - II		04.04.09 (ODB)		08.04.09 (ODB)		

**PROLONGED SHUTDOWN OF UNITS IN THE CONSTITUENT SYSTEM**

<b>OHPC Chiplima</b>	Unit - III	04.1.06		TO CONTINUE		Abnormal sound in turbine
<b>PTPS</b>	Unit-III	01.08.03		TO CONTINUE		Boiler renovation
	Unit -IV	17.09.05		TO CONTINUE		Boiler renovation & Turbine O/H
	Unit- V	23.05.04		TO CONTINUE		Boiler renovation
	Unit -VIII,IX,X	17.10.05		TO CONTINUE		Capital Maintenance

ODB: On daily basis , OCB: On continuous basis