

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

MINUTES OF THE 26<sup>th</sup> OCC MEETING HELD AT ERPC, KOLKATA  
ON 16.05.2008 (FRIDAY) AT 11:00 HRS

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

**Shri R.K.Grover, Member Secretary, ERPC chaired the meeting. While welcoming the delegates in the 26<sup>th</sup> OCC meeting, he mentioned that the integrated grid frequency continued to hover around 75% of the time below 49.5 Hz during April'08 mostly due to increase in system demand with corresponding lower availability of generation. The under frequency stage-I operated in ER whenever instantaneous minimum frequency went below 48.5 Hz. particularly in the second fortnight of April'08. The load shedding through UFR operation in WBSETCL and OPTCL were found to be lower than expected load relief which required to be examined. Some of the important transmission lines of the constituent systems suffered outages due to nor'wester which are to be restored on urgent basis.**

**Thereafter, he requested Shri B.Sarkhel, EE to take up the agenda points for discussion.**

**ITEM NO.:1 CONFIRMATION OF THE MINUTES OF THE 25<sup>TH</sup> OCC MEETING OF ERPC HELD AT ERPC, KOLKATA ON 25.04.2008**

The minutes were circulated vide letter no. ERPC / SE (OPRN)/ OPERATION /2008/561-616 dated 30.04.2008.

Powergrid, ER-I, pointed out that the following modifications:

- i. Under item no. 4, “ Major Transmission Lines /Elements Outage In ER Grid – prolonged outage serial no.(i) i.e. 220kV PTPS-Bodhgaya T/C line – “ **No further development took place, JSEB was requested to take up with BD Department of Powergrid Corporate Centre – Gurgaon to expedite the issue ”** in place of

“ ...to take up with highest authority of Powergrid to expedite the issue.”

- ii. Under item no. 5 (VII), “ Grid incidences in ER system during March & April' 08”, the corrections are required to be made as below:

“ **The reason of tripping of CB of the 400kV Kahalgaon-Patna line-I was awaited from Kahalgaon, NTPC.**” in place of

“ .....of non-tripping of CB of the 400kV Kahalgaon-Patna line-I was awaited from Kahalgaon, NTPC. “

No other comments have been received from the constituents.

*Members may please discuss and the minutes of the above meeting may please be confirmed.*

**The minutes of the 25<sup>th</sup> OCC meeting was confirmed with the modifications proposed by Powergrid as mentioned above.**

**However, NTPC was requested to submit the reason of tripping of CB of the 400kV Kahalgaon-Patna line-I from Kahalgaon, NTPC end on 11.04.08 at 15:49 Hrs before 30.05.2008.**

## **ITEM NO: 2 REVIEW OF THE GRID PERFORMANCE DURING APRIL, 2008**

### **2.1 POWER SUPPLY POSITION:**

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

- From comparison of the generation figures of April' 08 with March' 08, it is observed that the net energy generation (MU) in Eastern Region (including contribution of Bhutan) has marginally increased on per day average basis.
- The net peak demand met has increased from 1071MW to 10853 MW
- The demand met during April'08 has increased by 132MW, as compared to March' 08. The percentage of Peak shortage of ER has reduced marginally.

The above variations are considered normal.

*Members may please note.*

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

**Members noted the above.**

**The generation figure (135MU) of Teesta HPS of NHPC in the month of April'08 was included at Annexure-II. On the query, NHPC representative stated that due problem in the 400 kV cable box at Teesta HPS, one of the unit remained out of operation.**

### **2.2 FREQUENCY:**

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

<b>Month</b>	<b>% of time of the month frequency remained</b>			
	<b>&lt;49.0 Hz</b>	<b>49.0-50.5 Hz</b>	<b>50.5-51 Hz</b>	<b>&gt;51.0 Hz</b>
March '08	19.39	80.54	0.07	0.00
<b>April'08*</b>	<b>29.77</b>	<b>70.22</b>	<b>0.01</b>	<b>0.00</b>
April '07	14.05	85.93	0.02	0.00

\* Maximum ( Inst.) Frequency : **50.53Hz** on 06.04.08 at 03:10 Hrs  
Minimum ( Inst.) Frequency : **48.39Hz** on 28.04.08 at 23:36 Hrs

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 April' 08 has considerably reduced as compared to previous month i.e. March' 08. However, it has also shown much deterioration over the corresponding month of the previous year (i.e. April'07).
- The percentage of time frequency below 49.0 Hz in the month of April' 08, has also shown deterioration to a great extent as compared to the month of March' 08 and April'07.

- o The percentage of time frequency above 50.50 Hz has observed insignificant.

The detailed daily frequency for the month of April' 08 is enclosed at Annexure-II.

ERLDC may please comment on frequency profile observed during April' 08.

*Members may please discuss.*

### **SUSTAINED LOW FREQUENCY IN THE SECOND FORTNIGHT OF APRIL' 08**

In the 2<sup>nd</sup> fortnight of April'08 it was observed that the frequency profile (below 49.0Hz ) deteriorated to a larger extent and increasing to 52 % of time (on average basis) as compared to 8 % of the time in the first fortnight of April' 08. Except on 29.04.08, the system frequency went below 48.5Hz on all the days from 26.04.08 to 30.04.08. During the period, lesser generation availability as well as increase in system demand was also observed particularly the generation of FSTPS, NTPC was affected due to water availability cycle of river Ganges (every 10 days period).

The following actions were taken by the constituent as proposed by ERLDC:

- i. All constituents were requested to immediately curtail their drawal as per schedule without waiting for ERLDCs instruction as soon as frequency went below 49.0Hz unless instructed otherwise by ERLDC due to system constraint.
- ii. All UFRs in the constituent systems were to put into service.
- iii. It was observed that frequency was dropping mostly after peak hours so, withdrawal of hydro generation, starting of pump storage units and timely load shedding were coordinated to ensure drawl as per schedule.
- iv. Advance /Day ahead STOA requisitions forwarded only after assessment of demand vis-à-vis availability of the respective constituent.
- v. Hydro potential required to be saved to the extent considering possible constraints.

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

***Members expressed concern over continued low frequency in the month of April'08 particularly in the 2<sup>nd</sup> fortnight of the month. The stage -I UFRs in the constituent system of ER mostly operated during 26.04.08 to 30.04.08.***

***It was explained that due to lower hydro generation availability during April'08, the frequency profile (below 49.0Hz) showed decline considerably as compared to corresponding month of previous year. Moreover, the consumption of this region had also shown improvement from 213MU to 243MU per day.***

### **2.3 ACTUAL DRAWAL VIS-À-VIS DRAWAL SCHEDULE**

The constituent wise actual drawal as against the drawal schedule for the month of April'08 as received from ERLDC is given as under:

Constituent/ System	Drawal Schedule (MU)	Actual Drawal (MU)	Total over drawal (+) / Underdrawal (-) (MU)
BSEB	608	610	2
JSEB	195	188	-7
GRIDCO	536	497	-39
DVC	-114	-149	-35
SIKKIM	27	19	-8
WEST BENGAL	286	181	-105
SR	112	116	4
NER	37	42	5
WR	187	267	80
NR	502	661	159

All drawal schedules are arrived at considering bilateral export.

### **Deliberation in the meeting**

**Regarding under drawal of DVC & West Bengal system, the following observations were cited :**

- ***Infirm generation available from Unit# V & VI (250MW) Mejia TPS of DVC during the month due to shortage of coal. The unit was oil synchronised on 30.09.07, coal fired on 31.03.08 and finally synchronised on 29.04.08.***
- ***Imposition of load restriction due to tower collapse of 132kV Chandrapura-Putki D/C line in DVC system.***
- ***Low water availability from river Ganges during water cycle (1<sup>st</sup> to 10<sup>th</sup> and 21<sup>st</sup> to 30<sup>th</sup> April'08) caused unit outage in FSTPS, NTPC.***
- ***Intermittent generation from new units of DPL, Sagardighi and Santaldih TPS in West Bengal.***

## **2.4 DETAILS OF POWER EXCHANGE WITH OTHER REGIONS**

The detail of net energy exchange of ER with other regions for the month of April' 08 as received from ERLDC is shown below:

### **MONTHLY AND CUMULATIVE EXPORT OF ENERGY FROM ER DURING APRIL '08** **(BASED ON SEM FIGURES)**

Region To	Export in MU		Export in MU during the same period last year		% Growth w.r.t same period last year	
	During Apr'08	Cumulative 2007 - 2008 (upto Apr'08)	During Apr '07	Cumulative 2006 - 2007 (upto Apr'07)	During the month	Cumulative 2007-08 (upto Apr'08)
NR	661	661	284	284	132.7	132.7
WR	267	267	418	418	-36.1	-36.1
SR	116	116	289	289	-59.8	-59.8
NER	42	42	-	-	-	-
<b>TOTAL</b>	<b>1086</b>	<b>1086</b>	<b>990</b>	<b>990</b>	<b>9.7</b>	<b>9.7</b>

**MONTHLY AND CUMULATIVE IMPORT OF ENERGY TO ER DURING APRIL '08  
(BASED ON SEM FIGURES)**

Region  From	Import in MU		Import in MU during the same period last year		% Growth w.r.t same period last year	
	During Apr'08	Cumulative 2007-2008 (upto Apr'08)	During Mar'07	Cumulative 2006 - 2007 (upto Apr'07)	During the month	Cumulative 2007-08 (upto Apr'08)
<b>NR</b>	-	-	-	-	-	-
<b>WR</b>	-	-	-	-	-	-
<b>SR</b>	-	-	-	-	-	-
<b>NER</b>	-	-	5	-	-	-
<b>TOTAL</b>	<b>0</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Net Export From ER</b>	<b>1086</b>	<b>1086</b>	<b>985</b>	<b>990</b>	<b>10.3</b>	<b>9.7</b>

It may be observed from the above statement that during the month of April'08 the energy export to NR has increased considerably. However, the export to WR & SR reduced by 36% & 60 % respectively. The net energy export from ER to other regions increased by 10.3 % only with respect to previous year.

*Members noted the above.*

**2.5 VOLTAGE PROFILE OF IMPORTANT SUB-STATIONS IN EASTERN REGION**

<b>Name of the sub-station</b>	<b>Maximum Voltage (kV)</b>	<b>Minimum Voltage (kV)</b>
400 kV PURNEA	429	403
400 kV BINAGURI	432	406
400 kV BIHARSHARIFF	427	397
400 kV DURGAPUR	431	411
400 kV PATNA	430	399
400 kV JEERAT	413	376
400 kV ARAMBAG	416	388

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

*Members may please note and discuss.*

**Deliberation in the meeting**

***On a query for over voltage experienced particularly in Binaguri & Purnea s/s of Powergrid for which 400kV S/C operation of the entire Tala transmission system continued, it was stated by Powergrid that the proper compensation by installation of reactors would be provided at Binaguri s/s as planned by CEA and expected in due course.***

**2.6 UFR OPERATION IN ER**

Except on 29.04.08, the system frequency went below 48.5Hz on all the days from 26.04.08 to 30.04.08. A preliminary analysis of the schedule quantum of load relief vis-à-vis the actual maximum relief obtained through UFR stage-I (48.5Hz, Instantaneous) was carried out by ERLDC on 26.04.08 & 27.04.08 which are tabulated below:

Constituents	Scheduled Quantum (MW)	Actual Load Relief (MW) on	
		26.04.08 (18:50 HRS)	27.04.08 (00:10 Hrs)
BSEB	30	7	11
JSEB	17	Nil	7
DVC	56	50	28
OPTCL	77	14	29
West Bengal (including CESC)	120	66 (WBSETCL 24MW CESC 42MW)	46 (WBSETCL 20MW CESC 26MW)
<b>Total</b>	<b>300</b>	<b>137</b>	<b>121</b>

UFRs were also operated on 28.04.08 and 30.04.08 but the feeder wise details of which are yet to be received from the constituents (except WBSETCL & DVC).

It may be concluded the quantum of UFR operation in Orissa and West Bengal were not sufficient as per the desired relief.

*In view of analysis / comparison of actual list of feeders under UFRs operated against the feeders under UFRs installed of the respective systems, all the constituents are requested to submit the details for the period 26.04.08 to 30.04.08.*

**Deliberation in the meeting**

***It was mentioned that for the first time in this year, the stage -I UFR (48.5Hz) in ER operated during 26.04.08 to 30.04.08 whenever the instantaneous minimum system frequency went below 48.5 Hz . BSEB & CESC submitted the report of UFR operation on all the days as above. OPTCL & WBSETCL reported non-operation of UFR stage-I only at Liluah s/s and Bargarh, Jajpur Road & Bhadrak s/s. It was decided that this would be examined and report to ERPC by the respective constituent shortly.***

***ERPC requested all the constituents to keep the UFRs in service and maintain its healthiness in order to achieve desired load relief (Stage-I - Maximum 300MW). The upward revision of UFR Stage-I from 48.5 to 48.6Hz in ER has also required to be implemented once it is decided in next ERPC meeting. The system frequency found mostly below 49.0Hz. during night lean hours when hydro generation were reduced and UP (NR) started overdrawing to the tune of 1000MW and above.***

**ITEM NO: 3 IMPORTANT EVENTS**

- I. 315 MVA,400/220kV ICT-II at Baripada s/s of Powergrid was loaded for the first time at 13:50 Hrs of 30.04.08**
- II. Mejia unit# VI(250MW) of DVC was synchronized on 29.04.08**

*Members may please intimate any other development / important event that took place during the month of April' 08.*

**Deliberation in the meeting**

***Members noted the above, however the commercial declaration of Mejia unit no. VI of DVC would be intimated in due course.***

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

Sl. No	Description	Date of Outage	Reason	Remarks
<b>Lines / Elements under outage</b>				
1.	220kV Bakreshwar-Bidhannagar D/C	13.04.08	Tower collapse ( 3 nos.)	<i>It was learnt that the restoration is expected within two months. <b>The line restored on 14.05.08 at 10:02 Hrs.</b></i>
2.	220kV Bakreshwar-Gokarna D/C	02.05.08	Tower collapse (2 nos.)	<i>It was learnt that the restoration is expected within two months. <b>The line-II restored on 10.05.08 and line-I is yet to restore respectively.</b></i>
3.	220kV Bakreshwar-Satgachia D/C line I & II	13.04.08	Tower collapse (4 nos.)	<i><b>The lines restored on 27.04.08 at 22:57 &amp; 22:59 Hrs respectively.</b></i>
4.	132kV Durgapur-Barjora line-II	10.05.08	Tower collapse (1 no.)	<i><b>The line restored on 15.05.08.</b></i>
5.	400kV Farakka-Durgapur line-II	08.05.08	Tower collapse (2 nos.)	<i>Powergrid may please intimate the present status. <b>The line restored on ERS on 14.05.08 and expected to be restored on normal towers by end of May'08.</b></i>
6.	150 MVA ICT-I at Bodhgaya	04.03.08	Fire hazard in Bodhgaya s/s	<i>Although there is no evacuation constraint ( 2 nos. ATRs are available) at Bodhgaya s/s. It was learnt that M/s AREVA will undertake the R &amp; M works of the ICT-I., BSEB may please furnish target date of restoration. <b>R &amp; M works of the ICT ordered and expected within 15-24 months.</b></i>
7.	220kV Talcher TPS-Joda line-II	26.08.07	CB bursting at Talcher TPS	<i>In the previous meeting, OPTCL requested NTPC to expedite the installation of one 220kV CB for early restoration of Talcher –Joda line-II. The new CB is expected by October'08. NTPC may please intimate the present status. <b>NTPC agreed to expedite the installation of a new CB Talcher end.</b></i>
<b>Prolonged Outage</b>				
1.	220kV PTPS-Bodhgaya T/C	2005	Tower collapse and conductor theft	<i>Powergrid intimated that the cost estimate for restoration is under consideration of Corporate Engineering Department. In the previous OCC meeting, JSEB was requested to take up with highest authority of Powergrid to expedite the issue. <b>JSEB / Powergrid may please intimate the present status JSEB agreed to take up with BD department of Powergrid corporate office for submission of cost estimate.</b></i>
2.	220/132kV, 100MVA ICT-I at Dehri	31.10.2001	Problem in tap changer	<i>Work order was placed to M/s CGL but it is learnt that the problem might be in winding. So restoration would be delayed further. BSEB may please indicate the present position. <b>Since the matter is under litigation the item would be deleted at present.</b></i>
3.	220/132kV, 100MVA ICT-I at Fatuah	22.04.2002	Problem in transformer winding	<i>Work order issued for repair which is expected by June'08. BSEB may please indicate the present position. <b>It is expected by August'08 after repair.</b></i>
4.	220/132kV, 100MVA ICTs, at Ramchandrapur			<i>It was learnt that the ICT would be ready by 25<sup>th</sup> May, 2008. JSEB was requested to intimate the present status. <b>It was restored on 12.05.08 at 11:15 Hrs.</b></i>

## **ITEM NO:5 GRID INCIDENCES IN ER SYSTEM DURING APRIL & MAY '08**

- I. At 18:35 Hrs of 20.04.08 both running units at Waria TPS (units#3& 4) tripped reportedly on CT bursting of 132kV Waria-Ramkanali line.

*DVC may please furnish the detailed report.*

- II. At 12:10 Hrs of 24.04.08 all running units at CTPS units #1,2, 3 of DVC tripped. Bokaro 'B' unit#3 was also tripped. All 220kV lines from CTPS including 220kV Bokaro'B'-Jamshedpur D/C and 132kV Barhi-Biharshariff reportedly tripped.

*DVC may please furnish the detailed report.*

### **Deliberation in the meeting**

***DVC representative stated that the disturbances on the above two occasions are under examination by their Testing Department. However, the report of the disturbance occurred on 11.05.08 due to fault in 132kV CTPS - Rajabera line was submitted in the meeting.***

***OCC desired that the reports of all the above incidences are to be submitted for discussion in the ensuing Protection Committee meeting which will be held at Siliguri on 23.05.08.***

- III. At 16:13 Hrs of 01.05.08 400kV Jeypore-Gazuwaka D/C, 400kV Indravati (PG)-Indravati(UI HEP), 220kV Jeypore-Jeynagar D/C tripped leading to tripping of HVDC Gazuwaka.

*Powergrid/ OPTCL/ OHPC may please furnish detailed report.*

### **Deliberation in the meeting**

***The detailed report of the above incident is awaited from Powergrid. However, OPTCL was of the opinion that the over voltage was probably caused due to isolation of load on tripping of HVDC Jeypore-Gazuwaka lines.***

***Powergrid was requested to submit the detailed report of the above incident at the earliest.***

- IV. At 23:53 Hrs of 03.05.08, 400kV FSTPP-Durgapur-II, 400kV FSTPP-KhSTPP-I, 400kV FSTPP-KhSTPP-II tripped with relays indicating zone-II fault from Durgapur /KhSTPP and fault locator showing 99%. Details of relays operated at FSTPP end have not yet been received. 400kV Bus-I at FSTPP also became dead on tripping of all connected breakers. Due to tripping of 400kV FSTPP-KhSTPP D/C, 400kV FSTPP-Malda D/C was temporarily overloaded but the same was immediately controlled. CT bursting of 400kV FSTPP-Durgapur-II at FSTPP end was reported.

*FSTPP/ KhSTPP / Powergrid may please furnish the detailed report.*

### **Deliberation in the meeting**

***The detailed report was submitted by FSTPS, NTPC in the meeting. It was explained that 400kV R-phase CT for 400kV Farakka-Durgapur***

**line-II was replaced with ABB make new CT and charged at 16:02 Hrs on 03.05.08. The new CT found to be caught fire at 23:50 Hrs on the same day. The bus differential relay operated and all the feeders breakers connected with bus-I opened, however, there was no tripping of any of the five running units.**

**ERLDC observed that the tripping of 400kV Farakka-Kahalgaon line-I & II caused heavy power flow (above 600MW per circuit) through 400kV Farakka-Malda line I & II which had to be controlled through backing down of generation in FSTPS.**

**OCC desired that the above incidents would also be discussed in the ensuing Protection Committee meeting to be held on 23.05.08.**

- V. At 15:30 Hrs of 06.05.08 all running units and all outgoing lines from TTPS of NTPC tripped.

*NTPC/ OPTCL may please furnish the detailed report.*

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

**The detailed report was submitted by SLDC,OPTCL in the meeting. It was explained that due to storm and heavy rain the disturbance started at 15:20Hrs when 220kV TTPS-TSTPS Kaniha) feeder tripped on zone-II, E/F Distance protection from TTPS end. At 15:44 Hrs 220kV Theruvalli-Bhanjanagar line-I tripped on distance protection, zone-I, E/F in R-phase at Bhanjanagar end due to snapping of earth wire at location no.524 which fell on R-phase line conductor. At 16:00 Hrs all the 220kV feeders and ICT-I connected to 220kV bus-A of Meramundali 400kV s/s tripped due to snapping of R-phase pipe jumper causing a bus fault. Subsequently, 3 running units of NALCO tripped and started drawal around 300MW through 220kV NALCO-TTPS line and got tripped( 220kV Nalco-Rengali was earlier tripped at 15:45 Hrs from both ends on E/F, distance protection) . Thereafter, all the running units of TTPS tripped probably due to jerk followed by tripping of all the 220kV and 132kV lines from TTPS end (except 132kV TTPS-Angul line). Due to sudden load crash the autotransformers of Chandraka, Bidanasi & Narendrapur tripped due to over flux relay operation.**

**The restoration process started from 16:30Hrs after charging of ICT-I at Meramundali and the system restored by 21:30Hrs when all the units of TTPS synchronized with the grid.**

**OCC appreciated the detailed report with single line diagram showing the affected areas and relay indications as submitted by OPTCL. It was requested that henceforth, all the constituents should prepare and analyse the tripping incident of their respective system for submission to ERPC. The incident was also referred for discussion in the ensuing Protection Committee meeting.**

**ITEMNO:6 IMPLEMENTATION OF RECOMMENDATIONS OF PROTECTION COMMITTEE BY BSEB/JSEB**

BSEB may please inform the present status of procurement of new relays for Bodhgaya s/s.

BSEB may also please intimate the installation of bus differential protection at Biharshariff s/s with the help of M/s AREVA.

JSEB may please intimate the delivery schedule of new relays and CBs of Patratu TPS.

**Deliberation in the meeting**

***BSEB representative assured that the procurement order of new relays for Bodhgaya s/s would be placed to M/s AREVA within a week's time. The delivery of new relays would be 3 / 4 months thereafter, the work of replacement / retrofitting would be taken up. Regarding installation of bus differential protection at Biharshariff s/s M/s AREVA was requested to depute engineer for installation and commissioning of the same which is still awaited.***

***JSEB has also confirmed the issuance of work order for new relays of Patratu TPS from M/s AREVA.***

**ITEM NO:7 OPERATIONAL PLANNING**

**(A) REVIEW OF SHUTDOWN PROPOSALS, AS APPROVED IN LAST (25<sup>TH</sup> ) OCC MEETING OF ERPC vis-à-vis ACTUAL SHUTDOWN/ NORMALISATION OF THE TRANSMISSION SYSTEM FOR APRIL' 08**

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

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

**Deliberation in the meeting**

***OCC members noted the above.***

***Bakreswar TPS of WBPDCCL pointed out the discrepancy in outage report ( Annexure-IIIA, Sl. No.16 & 21) of the minutes of 25<sup>th</sup> OCC meeting held on 25.04.08 as under:***

***BKTPS UNIT NO.III (210MW) 16.03.08(05:41Hrs) ,16.03.08(12:11Hrs)- Plant shutdown with HP-LP by pass in service for GT bushing job.***

***BKTPS UNIT NO.II (210MW) 18.03.08 (13:09Hrs) ,18.03.08(18:35Hrs)- Generator inter-turn fault, class-I operated.***

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

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

*Members please discuss and finalise the proposed programme.*

**Deliberation in the meeting**

***KTPS, WBPDC requested for emergency shutdown of 400kV Kolaghat –Baripada S/C line from 07:00 Hrs to 12:00Hrs on 17.05.08 for rectification of loose connection of CT outgoing terminal ( B-phase) and wave trap (Y-phase) which was detected by thermo graphic survey which was agreed to.***

***The shutdown of Farakka unit no. III (200MW) as proposed by NTPC would continue from 25.06.08 for 33 days.***

***All the shutdown proposals as approved after deliberation in the meeting is indicated in Annexure-III B.***

**(C) LGBR FOR THE MONTH OF MAY & JUNE (FOR THE YEAR 2008-09)**

**i. Anticipated Peak Demand (MW) and Energy Requirement (MU) for the months of May & June '08**

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability for the months of May & June '08 has been prepared by ERPC Secretariat on the basis of finalized LGBR for 2008-09, keeping in view the units 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 members were requested to indicate any change in the peak (MW) and energy (MU) figures of requirement and availability and corresponding surplus / deficit of their respective system for the month of May & June '08 within 10 days. If no feedback is received from any of the constituent the figures indicated in Annexure-IV would be treated as final.***

**ITEM NO.8 ISSUE RAISED BY**

**ERLDC**

**POSSIBLE LINE OVERLOADING DURING MONSOON MONTHS**

With the synchronisation of Teesta Stage-V HEP 510 MW units, the Tala Transmission system is expected to carry more power during monsoon months. The demand in Northern grid is also expected to pick up during monsoon and with high hydro generation in ER, it is expected that 400kV Purnea-Muzaffarpur D/C line will be carrying around 800MW/circuit during July/August'08. It is also expected that 400kV Farakka-Kahalgaon D/C line loading will also remain above 400MW/circuit during this period. Any outage of one circuit in one of these corridors might lead to overloading the other corridor beyond its safe limit. Under the circumstances, the availability and healthiness of 400kV Purnea-Muzaffarpur D/C line along with TCSC and Farakka-Kahalgaon D/C line is extremely essential during the monsoon months. *Powergrid and NTPC may deliberate on the issue.*

### **Deliberation in the meeting**

***ERLDC apprehended possible overloading of 400kV Muzaffarpur-Gorakhpur inter-regional tie line between ER & NR during monsoon months (possibly from 15<sup>th</sup> July,2008 onwards) because of expected injection from NER, TEESTA & TALA HPS to the tune of 1800MW. In such circumstances, there would be occasional backing down instructions to FSTPS, KHSTPS,DVC and WBPDC units in order to control the power flow through 400kV Farakka-Kahalgaon D/C and Purnea-Muzaffarpur D/C line. Powergrid was requested to put TCSC and FSC of Tala transmission system into operation for safe loading of the lines during monsoon.***

### **NHPC**

#### **TRIPPING OF RUNNING UNIT AT RANGIT HEP ON 08.05.08**

At 13:41 Hrs of 08.05.08 the running unit (20MW) at Rangit HEP tripped on loss evacuation path. As per report of Rangit HEP 132kV Rangit-Siliguri tripped on Distance Protection Zone-I, B-Phase and 66kV Rangit-Melli on O/C & E/F from Rangit end. The other line circuit breakers (132kV Rangit-Rammam, Rangit-Melli, Rangit-Gangtok s/c) were manually opened from Rangit HEP on observation of loss of line voltage due to tripping from remote end. It was also learnt that 132kV Rangit-Rammam line tripped from Rammam end in zone-III, B- phase, 132kV Rangit-Siliguri line tripped on Siliguri end in zone-I, B-Phase and 132kV Siliguri-Melli line from Siliguri end in zone-I, B-Phase at 76.1Km.

Rangit HEP has requested for revision of schedule as per actual for Blocks 55, 56 and 57 of 08.05.08.

*Members may please discuss.*

### **Deliberation in the meeting**

***It was decided that the tripping incident would be discussed in the next Protection Committee meeting for its remedial measures.***

***On the request of NHPC, OCC agreed to allow the revision of schedule of Rangit HPS for the three blocks i.e. 55, 56 & 57 of 08.05.08, maintaining station generation as actual generation.***

### **POWERGRID**

Within a span of two months, there were seven (7) nos. of tripping incidences of 220kV Ranchi-Chandil line on fault in B-Phase in the distance ranging from 40km to 84 km. As a result, the ICTs of Ranchi substation of Powergrid experienced the excessive fault current frequently to clear the fault and overstressed. JSEB was requested to do the line patrolling and resolve the problem.

*JSEB may please elaborate.*

**Deliberation in the meeting**

***Powergrid pointed out that the fault locator of Ranchi s/s indicated existence of fault in B-phase of 220kV Ranchi –Chandil line at a distance in between 76Km to 84Kms.***

***OCC desired that JSEB should identify the fault and immediately take remedial measures and report.***

**ITEM NO.9 MISCELLANEOUS**

**A. 66kV RANGIT – MELLI LINE – DISMANTLING OF 20 MVA TRANSFORMER AT RANGIT END**

A meeting was held on 10.04.08 between Govt. of Sikkim and Rangit HPS of NHPC regarding dismantling of 132/66kV, 20MVA autotransformer of Govt. of Sikkim to utilize at their Gyalshing s/s. The said transformer is a property of Govt. of Sikkim and was installed at Rangit HPS during the year 2000 as the existing 10MVA autotransformer was not sufficient to cater the load to 66kV Rangit – Melli line. So, 132 /66 kV 10MVA autotransformer which is a property of Rangit HPS will be energized in place of 20MVA autotransformer for meeting the auxiliary and station load of Rangit HPS. The line breaker of 66kV Rangit –Melli line at Rangit end shall be remained open and back charged from Melli end.

***NHPC/ Govt. of Sikkim may please intimate the present status.***

**Deliberation in the meeting**

***NHPC representative confirmed that on the insistence of Govt. of Sikkim for dismantling of existing 20MVA, 132/66kV autotransformer at NHPC end, only 10MVA autotransformer would be placed and 66kV Rangit-Melli line would be charged from Melli end, keeping open of the line CB from Rangit end. It was also learnt that a number of Tee –connections exist in the said line for supplying power at different sub-stations of Sikkim.***

***After dismantling of 20MVA autotransformer at Rangit end, the 66kV Rangit-Melli line could not be considered as tie line since it would feed power to only sub-stations of Sikkim from Melli s/s. However, the issue was referred to Commercial Committee for further deliberation.***

**B. UTILISATION OF 220kV INTER-REGIONAL LINES**

The issue of operationalization of 220kV Balimela-Upper-Sileru s/c line between Orissa and Andra Pradesh which remained unutilized since long, was discussed in detail in the previous OCC meeting. In order to revive the line for its synchronous mode of operation, GM, ERLDC proposed to constitute a committee comprising OHPC, OPTCL, GRIDCO, ERLDC and ERPC.

*OHPC may please opine and OCC members may please constitute the committee nominating engineers to look into the possible aspects of operationalisation.*

**Deliberation in the meeting**

***OCC desired that the matter shall be taken up with SRPC by ERPC Secretariat before constitution of the committee in ER for the mode of operation of 220kV Balimela-Upper Sileru (SR) s/c line.***

**C. BLACK START RESTORATION PROCEDURE FOR ER GRID**

As per ERPC decision the 5<sup>th</sup> and last workshop on the above subject is proposed to be conducted by ERLDC at Ranchi tentatively on 06.06.08 under JSEB system area comprising Tenughat TPS, Patratu TPS, Powergrid ERTS-I etc.

*JSEB may please confirm.*

**Deliberation in the meeting**

***JSEB confirmed that the above workshop would be held at Ranchi on 06.06.08 as proposed by ERLDC.***

***ERLDC requested JSEB to invite the authority of CPPs and Railways under its jurisdiction in the workshop for fruitful deliberation.***

**D. TOTAL INTERRUPTION IN POWER SUPPLY TO BOKARO STEEL PLANT ( BSL) FROM DVC ON 11.05.08**

SAIL reported total interruption in power supply from DVC to Bokaro steel plant at 11:23 Hrs which caused huge production loss. The incident was initiated by a fault in 132kV CTPS –Rajabera line which could not be cleared in time resulting in tripping of all units of CPP at BSL.

*DVC may please opine.*

**Deliberation in the meeting**

***SAIL representative pointed out that the fault in 132kV CTPS – Rajabera line of DVC which was not cleared in time resulted in tripping of all lines originating from CTPS 132kV s/s. Delayed tripping of the fault caused voltage dip associated with tripping of all the units of CPP at BSL. The DVC power was restored after a gap of one hour.***

***DVC submitted the detailed report of their investigation team in the meeting. It was decided that the report shall be analysed and discussed in the ensuing Protection Committee meeting for remedial measures, if required.***

**E. REPLACEMENT OF PLCC PANELS OF 400kV KAHALGAON-BIHARSHARIF LINE-I&II AT KAHALGAON END**

NTPC informed that existing panels of protection coupler ( BPL make ) used for 400kV Kahalgaon – Biharsharif line 1&2 are old, obsolete in design and their spares are not available. These are to be replaced with new ones at both ends otherwise it will affect the availability, reliability and security of the system.

Constituents have already agreed to the replacement of PLCC panels at Biharsharif end by Powergrid( Reference Item no. 15. of MOM of 5<sup>th</sup> ERPC and 4<sup>th</sup> TCC ).

It is proposed that constituents may discuss for replacement of PLCC panels of Kahalgaon – Biharsharif line 1&2 at Kahalgaon end also by Powergrid because both end panels have to be replaced simultaneously by same make panels .

*Members may please discuss and decide.*

**Deliberation in the meeting**

***NTPC proposed for replacement of existing protection coupler ( BPL make ) used for 400kV Kahalgaon – Biharsharif line 1&2 at Kahalgaon end because these are old, obsolete in design and their spares are not readily available. Powergrid has already undertaken the job of replacement of the same for both ends of 400kV Farakka-Durgapur line as well as at Biharsharif end. In order to match the above, Powergrid was requested to take up the replacement of Kahalgaon end PLCC panels.***

***It was decided that NTPC should place the agenda points in the Commercial Committee meeting for deliberation and approval.***

**ITEM NO.10 ANY OTHER POINTS**

- i. CHPC representative presented the introduction of load rejection scheme of CHPC units in the event of outage/ tripping of 220kV export feeders (220kV Chukha-Birpara D/C & Chukha-Malbase-Birpara S/C). The detailed scheme is enclosed in Annexure-V for information. OCC appreciated the endeavor of CHPC authority to avoid the tripping of machines on over speed due to load rejection.***
- ii. JSEB raised a point of discussion for using of optical fiber of JSEB by Powergrid under ULDC project. JSEB was requested to put up the issue to SCADA O &M Committee meeting.***

**ITEM NO.11 DATE AND VENUE OF THE NEXT (27<sup>th</sup>) OCC MEETING OF ERPC**

**It was decided that the next (27<sup>th</sup>) OCC meeting of ERPC will be held on 20.06.2008 at ERPC, Kolkata.**

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LIST OF PARTICIPANTS IN THE 26<sup>th</sup> OCC MEETING HELD AT ERPC, KOLKATA ON 16.05.2008

Sl. No.	ORGANISATION	NAME	DESIGNATION
1.	BSEB	Shri G.K.CHOUBEY	EEE /SLDC
		Shri S.K.SENGUPTA	EEE
2.	JSEB	Shri A.K.CHATTERJEE	CE
		Shri S.K.MISHRA	EEE /SLDC
		Shri S.P.SINGH	EEE/SLDC
3.	DVC	Shri D.MUKHERJEE	CE (E) /CLD
4.	WBSETCL	Shri D.GANGULY	CE/SLDC
		Shri A.BISWAS	SE(E)
		Shri P.K.KUNDU	SE(E)
5.	WBSEDCL	Shri P.MUKHOPADHYAY	ADDL.CE
6	WBPDCCL	Shri P.K.SIKDER	DGM(O)
		Shri A.K.DE	DGM(O)/CORPORATE
		Shri GOPINATH MAJI	SR.MGR(E)
		Shri S.SINHA	MGR(P)
7.	CESC	Shri R.CHAKRAVARTY	MANAGER
8.	NTPC	Shri L.AGARWAL	AGM(OS)
		Shri R.KUMAR	DGM(OS)
		Shri S.DASGUPTA	DGM, FSTPS
9.	SAIL	Shri T.BANERJEE	AGM (O)
		Shri P.BISWAS	SR.MGR
10.	OPTCL	Shri B.N.MAHAPATRA	GM/SLDC
		Shri S.K.DAS	AGM/SLDC
11.	OHPC	Shri B.C.PADHI	SR GM (E)
		Shri B.P.GANTAYAT	DY.MANAGER
12	OPGCL	Shri B.JENA	SR.MGR(E)
13.	TALA HEP	Shri P.DORJI	AEE
14.	DGPC/CHPC	Shri P.L.CHAMLAGAI	EE(M)
15.	NHPC	Shri V.K.SINHA	CE(O&M) /FARDABAD
		Shri S.DAS	AE(E) /RANGIT
16.	GOVT. OF SIKKIM	Shri H.B.PRADHAN	EE
17.	POWERGRID	Shri B.S.PANDEY	GM(OS)/ER-II
		Shri S.K.PRAMANIK	DGM)/ER-I
		Shri S.K.SINGH	CH.MANAGER(O)
		Shri S.J. LAHIRI	CH.MGR- ER-II
18.	ERLDC	Shri D.K.SRIVASTAVA	DGM(O)
		Shri P.MUKHOPADHYAY	DGM
		Shri D.De	CM
		Shri S.KONAR	DY.MGR
19.	ERPC	Shri R.K.GROVER	MS -in-Chair
		Shri J.BANDHOPADHYAY	SE
		Shri S.N.KAYAL	SE
		Shri B.C.MALLICK	SE
		Shri B.SARKHEL	EE(O)
		Shri S.K.GHOSH	EE
		Shri A.ROY	EE
		Shri S.P.DATTA	DGM/NTPC
		Shri D.K.MITRA	EE
		Shri K.K.BHATTACHARYA	EE
		Shri S.S.GHOSH	EE
		Shri S.M.JHA	EE
		Shri P.N.SARKAR	AD-I
Shri S.KEJRIWAL	AD-I		
Shri S.ROY	AD-II		

**Programme of Maintenance Of Transmission Lines And Generating Units as approved for the Month Of June, 2008**

Organization	Name of the Element	From		To		Remarks
		Date	Time	Date	Time	
FSTPS,NTPC	Unit no-III (200MW)	25.06.08		30.06.08		<b>Approved</b> Unit Overhauling to continue for 33 days
	400kV Farakka-Jeerat line-I	04.06.08	0930	04.06.08	1630	<b>Approved</b> Relay Testing
	400kV Farakka-Malda line-I	05.06.08	0930	05.06.08	1730	<b>Approved</b> Line Maintenance
DVC	Unit# III (140MW)	18.06.08		02.08.08		<b>Approved</b> Capital O/H for 45 days
DTPS	Unit# I (210MW)	20.06.08		31.07.08		Capital O/H for 40 days
BTPS	Unit# I (210MW)	20.06.08		31.07.08		Capital O/H for 40 days
MTPS	Unit# II (210MW)	20.05.08		09.06.08		Annual O/H for 20 days
WBPDCL	Unit# III (120MW)	01.06.08		30.06.08		<b>Approved</b> Short Maintenance
STPS	Unit# III (120MW)	01.06.08		30.06.08		<b>Approved</b> Short Maintenance
BTPS	Unit# IV	15.06.08		31.07.08		-Do-
OHPC	Unit#II	02.05.08		30.05.08		<b>Approved</b> Annual Maintenance
Upper Indravati	Unit#II	02.05.08		30.05.08		Annual Maintenance
Burla	Unit# VII	22.04.08		04.06.08		Annual Maintenance
Balimela	Unit# III	05.05.08		04.06.08		Annual Maintenance
Upper Kolab	Unit# II	05.05.08		04.06.08		Annual Maintenance
Rengali	Unit# I	14.05.08		08.06.08		Annual Maintenance
<b>PROLONGED SHUTDOWN OF UNITS IN THE CONSTITUENT SYSTEMS</b>						
OHPC	Unit- III	04.11.06		TO CONTINUE		Abnormal Sound in turbine
Chiplima	Unit- III	04.11.06		TO CONTINUE		Abnormal Sound in turbine
JSEB	Unit-III	01.08.03		TO CONTINUE		Boiler renovation
PTPS	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
Tenughat TPS	Unit-I (210MW)	13.06.07		No definite programme		Capital Maintenance

ODB: On daily basis , OCB: On continuous basis

