

EASTERN REGIONAL POWER COMMITTEE

AGENDA FOR THE 9TH TCC MEETING OF ERPC

Date: 10.04.2009 (Friday)

Venue : ITC Fortune Resort, Port Blair

ITEM NO.1 CONFIRMATION OF THE MINUTES OF 8th TCC MEETING OF ERPC HELD ON 20.11.2008 AT BODHGAYA

The minutes of 8th TCC meeting of ERPC were circulated vide letter no. ERPC/Committee/2008/5190-5228 dated 22.12.2008. No comments have been received on the minutes of the meeting.

Members may please confirm the minutes of 8th TCC meeting.

ITEM NO.2 HIGHLIGHTS OF GRID PERFORMANCE FOR THE PERIOD NOVEMBER'08 TO FEBRUARY'09

(A) FREQUENCY :

Frequency profile for the period November'08 to February'09 and for the corresponding period of previous year (i.e. November'07 to February'08) are shown below:

Month	% of time of the month frequency remained							
	< 49.0 Hz		49.0--50.5 Hz		50.5—51.0 Hz		>51.0 Hz	
	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
November	10.93	1.18	89.07	98.82	0	0	0	0
December	12.17	0.63	87.83	99.32	0	0.05	0	0
January	19.72	2.11	80.28	97.82	0	0.07	0	0
February	17.16	3.25	82.84	96.69	0	0.06	0	0

From the above table it may be observed that :

- Frequency profile below 49.0 Hz and within the IEGC band, i.e. 49.0 to 50.5 Hz, has shown considerable improvement in comparison with the same period of last year. The frequency profile above 50.5 Hz during the above months was found to be insignificant.

The reason of improvement of frequency profile is mainly due to substantial amount of capacity addition in Eastern Region as well as in the country and low system demand in ER due to winter season.

(B) PERFORMANCE REVIEW

Description	Average (MU)/Month			Feb'08	Feb'09	% Increase
	Nov'07 to Feb'08	Nov'08 to Feb'09	% Increase			
Net Generation (MU)/Month	6720	7451	10.9	6661	7201	8.1
Net Central Sector Thermal Generation (MU)/Month	2068	2320	12.2	2072	2359	13.8
Import from CPPs in (MU)/Month	137	219	59.9	156	225	44.2
ER Consumption (MU)/Month	5726	6206	8.4	5741	6155	7.2
Net Export to Outside Region (MU)/Month including transmission loss	1132	1465	29.4	1075	1271	18.2
Regional Peak Demand Met (MW)	10408	11229	7.9	10408	11229	7.9
Peak Export (MW)	2570	3582	39.4	2383	2968	24.5

Generation : During the period under review, the overall generation in Eastern Region was increased by about 11% compared to the same period of the last year mainly due to generation from newly commissioned units of Mejia Unit # 5 & Unit # 6 (250 MW each) of DVC, Unit # 7 (300 MW) of DPL, Sagardighi TPS Unit # 1&2 (300 MW each) of WBPDC, Kahalgaon STPS Unit # 5&6 (500 MW each) of NTPC and infirm generation from few new Units in State Sector.

Demand : The Regional energy consumption and Peak met during the period under review were increased by 8.4% and 8% respectively compared to the same period of the last year.

(C) EXPORT**MONTHLY AND CUMULATIVE EXPORT OF POWER FROM ER (BASED ON SEM FIGURES)**

Region	Export in MU		Export in MU		% Growth *	
	During Feb'09	Cumulative (Nov'08 to Feb'09)	During Feb'08	Cumulative (Nov'07 to Feb'08)	During Feb'09	Cumulative (Nov'08 to Feb'09)
To						
NR	723.11	3505.54	831.57	3842.55	(-)13.04	(-)8.77
WR	153.87	638.9	210.52	955.98	(-)26.91	(-)33.17
SR	282.27	1454.42	0	0		
NER	72.7	146.13	22.55	56.55	222.29	158.41
TOTAL	1231.95	5744.99	1064.64	4855.08	15.72	18.33

* As compared to same period of last year.

Export to the outside region was increased mainly due to higher percentage of allocation of KhSTPP power of unit no.5&6 and also increased in generation of ISGS thermal generation in ER..

**MONTHLY AND CUMULATIVE IMPORT OF POWER BY ER
(BASED ON SEM FIGURES)**

Region	Import in MU		Import in MU		% Growth *	
	During Feb'09	Cumulative (Nov'08 to Feb'09)	During Feb'08	Cumulative (Nov'07 to Feb'08)	During Feb'09	Cumulative (Nov'08 to Feb'09)
From						
NR	0	0	0	0	-	-
WR	0	0	0	0	-	-
SR	0	0	30.05	421.34	(-)100	(-)100
NER	0	40.69		88.35	(-)	(-)53.94
TOTAL	0	40.69	30.05	509.69	(-)100	(-)92.02
Net Export from ER	1231.95	5704.3	1034.59	4345.39	19.08	31.27

* As compared to same period of last year.

(D) IMPORTANT EVENTS

- Sagardighi Unit#2 (300 MW) of WBPDCCL was declared under commercial operation w.e.f . 04.11.2008.
- 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 Sasaram-Allahabad lines.
- KhSTPP Unit-VI (Stage-II) was declared commercial w.e.f 00:00 Hrs of 30.12.08 and revised allocation of power for KhSTPP (Stage -I) and FSTPP were implemented accordingly.

- 400kV Ranchi-Sipat-II was charged for the first time from Ranchi end at 19:48 Hrs of 31.12.08. The line was later charged from Sipat end and synchronised at Ranchi end at 13:12 Hrs of 01.01.09. These lines will provide another path for evacuation of power from ER to WR.
- 400kV Ranchi-Sipat-I was charged for the first time from Ranchi end at 11:51 Hrs of 03.01.09. The line was then later charged from Sipat end and synchronised at Ranchi end at 12:51 Hrs of 03.01.09.
- 400kV Ranchi-Sipat-I and II were declared commercial w.e.f 01.01.2009
- Terms and conditions of tariff for the period 2009-14 have been released by CERC and the same is applicable w.e.f 01.04.2009.
- 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.

ITEM NO. 3 FREQUENT TRIPPING OF LINES FROM BUDHIPADAR ALONWITH IB UNITS DUE TO EVACUATION CONSTRAINTS IN CHATTISHGARHSEB/WESTERN REGION

There is no redundancy in CSEB network for evacuation of power generated in Korba East & Jindal complex in Chattishgarh. Outage of one or more elements of these evacuation routes lead to overloading of the remaining paths resulting in their cascade tripping & **huge inrush of power into Orissa system**. This in-turn leads to islanding of Korba / Jindal complex & **tripping of other lines in West Orissa together with IB units**.

The issue was deliberated in the 8th TCC meeting. Due to recurrence of similar incident on 05.03.09 the matter was once again taken up for discussion in the 36th OCC meeting wherein the following issues emerged:

Under normal conditions, there is a surplus of the order of 700 to 900MW around Korba /Jindal complex in CSEB system, of which 500-600 MW is evacuated through different 220kV lines within WR. Outage of one or more elements of these evacuation routes leads to overloading of remaining lines, resulting in their cascade tripping, high injection of power into ER grid through 220kV Budhipadar-Korba (E) / Raigarh T/C and islanding of Korba (E) and Budhipadar complex. Under the circumstances, the following remedial measures were suggested:

Measures suggested to be taken in WR

Strengthening / augmentation of the evacuation system of Korba / Jindal complex in Western Region.

- Inter connection between Raigarh (PG) & Raigarh (CSEB) will enhance the reliability of the evacuation system

Measures suggested to be taken in OPTCL

- Expediting the commissioning of 400kV IB-Meramundali D/C line
- Exploring possibility of reconfiguring OPTCL network around Budhipadar
- Proper coordination and checking of the distance protection relays

of lines emanating from Budhipadar 220kV S/S

In line with the decision taken in the last TCC meeting, a meeting among with CSEB, OPTCL,OPGC, ERPC, ERLDC, WRPC and WRLDC is proposed to be held on 21.04.09, at Mumbai.

Members may like to deliberate.

ITEM NO. 4 REPEATED CASCADE TRIPPINGS IN SOUTH ORISSA SYSTEM

There were number of disturbances in South Orissa System in December, 2008 for which 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 submitted a report to ERPC on 18th March'09. This recommendation of the committee was deliberated in the 36th OCC meeting held on 24.03.09.

Recommendations of the committee on disturbances in South Orissa.

- i. The R and B phase CVTs at OHPC end of 400kV Indravati (PG)-Indravati HPS have been producing higher than actual output voltages as already identified by the working group constituted by the 22nd OCC. The group conducted joint testing of the CVTs during 20.01.08 to 21.01.08, when the B-ph CVT output at Indravati HPS was found to be erroneous. Accordingly, OCC members in their 24th meeting," desired that OHPC should replace the faulty B-phase CVT and install numeric relays for Main-I protection at both ends of the line at the earliest as suggested in the report"

Thus replacement of CVT at Indravati HPS needs to be take up by OHPC with topmost priority to prevent unwarranted trippings.

(Action: OHPC)

- ii. The numerical relays, DRs and RTUs at all 220kV and 400kV substations should be time synchronised through GPS clock. Analysis of disturbance is not possible without such time synchronisation. OPTCL / POWERGRID to purchase requisite number of GPS clocks & ensure synchronisation of DR & EL's alongwith Numerical relays. If any.

(Action: OPTCL/POWERGRID)

- iii. Black –start facility at Balimela and U.Kolab HPSs needs to be developed to facilitate early restoration of S.Orissa system subsequent to any collapse / islanding.

(Action: OHPC)

- iv. Telemetry of live data from unit 7 and 8 of Balimela HPS is not yet available. SLDC,OPTCL to take up the issue with OHPC authorities on priority basis and ensure that such data are made available to both ERLDC and SLDC at the earliest.

(Action: OHPC/SLDC)

TCC may advise the concerned utilities for appropriate and expenditure actions.

ITEM NO. 5 COAL SUPPLY TO POWER STATIONS IN EASTERN REGION

Daily report on coal stock position & generation loss on account of coal shortage are not being received from some of the constituents. All the constituents are requested to furnish the above data (loss of generation due to coal shortage in particular) as the matter is now being monitored by MOP. Scheduling will be different for the power station, declaring coal shortage from 1st April, 2009.

Coal report, as received, is tabulated below :

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-

ITEM NO. 6 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		Live Storage in MCM	Energy in MU
	28.02.09	29.02.08		
Hirakud	186.74	187.95		
Balimela	443.67	452.75		
Rengali	116.09	114.15		
Upperkolab	850.03	851.15		
Indravati	632.70	633.17		
Subarnarekha	583.51	583.43		

The live storage and corresponding energy available may also be included.

ITEM NO. 7 SYSTEM STRENGTHENING WORK OF EASTERN REGION

(A) PROPOSAL OF WBSETCL & WBSEDCL:

400 KV Durgapur – Parulia - Maithon – Ranchi – PPSP – Durgapur D/C loop may be considered as system strengthening work of ER and

transmission charges for the same may be shared by beneficiaries of Eastern Region. This ring consists of following line:

- i) 400 kV Durgapur- Parulia D/C, - Existing State Sector lines
- ii) 400 kV Parulia – Maithon D/C, - Under construction as State Sector lines
- iii) 400 kV Maithon – Ranchi D/C, - Central Sector lines
- iv) 400 kV Ranchi – PPSP D/C, - Approved by Standing Committee as State Sector lines
- v) 400 kV PPSP – Durgapur D/C, --- Existing---

WBSEB requested that this 400 kV D/C ring should be considered in ER strengthening scheme and transmission charge should be shared by ER constituents as it would be strengthening the ER grid.

Members may please discuss.

(B) PROPOSAL OF JSEB

JSEB requested for provision of 400/220 kV, 2X315 MVA ICTs and 4 nos. 220 kV line bays at Dumka generation switchyard (1200 MW) being established by CESC in Jharkhand, for availing share of 25% of plant capacity by JSEB. The cost would be borne by JSEB.

Members may please discuss.

COMMERCIAL MATTERS :

ITEM NO.8 SCHEDULING OF POWER FROM MEJIA UNIT NO.6 OF DVC TO NR CONSTITUENTS

As per Allocation Order of CEA dated 25.09.08 & 26.09.08, MoP in its communication dated 18.07.08 (in connection with allocation of Tala power), approved the restoration of power from Farakka and Kahalgaon Stage-I to Eastern Region in phases as and when Mejia Unit # 6 become operational. With the commercial declaration of Mejia TPS U # 6 by DVC with effect from 00:00 hrs of 24.09.2008, CEA vide its allocation order(s) as above revised allocation of firm share of Farakka STPP and Kahalgaon STPP Stage-I to Eastern Region and Northern Region constituents in connection with Tala allocation. Further, CEA also intimated regarding the allocation of 150 MW from Mejia U # 6 (250 MW) to beneficiaries of Northern Region and requested all concerned to implement the above allocation with effect from 00:00 Hrs. of 01.10.2008. Accordingly, ERPC Secretariat endorsed the above allocation order of CEA to all concerned and implementation of the same has been made effective from 01.10.08 duly.

But, communications have been received from several constituents of NR and CEA by ERPC, indicating that scheduling of power to the tune of 150 MW is not taking place due to non-declaration of availability by DVC from Mejia Unit # 6 and NR is deprived of their legitimate claim of power and incurring loss thereby. It is also learnt that DVC also had taken up the matter with MoP and DVC was informed by MoP in their letter dated 14.10.2008 that their request would not be agreed upon at this stage and

revised allocation order communicated by MoP in its letter dated 18.07.2008 stands unaltered. In line with above, ERPC Secretariat in its letter dated 16.02.2009 also requested DVC to take immediate action in this regard. However, ERPC has stuck to the scheduling of 150 MW to ER as per the original order.

Deliberations in the 9th Commercial Sub-Committee meeting

Superintending Engineer (Comml), ERPC explained in details the issues involved in scheduling of power from Mejia TPS U # 6 of DVC to NR constituents. He also drew the attention of the members regarding the letter issued by MoP, GoI dated 19.03.2009 addressed to Chairman, DVC wherein it has been stated “It has been decided with the approval of Hon’ble Minister of power that DVC shall immediately schedule 100 MW power from Mejia TPS U # 6 to Delhi till further orders”. Chief Engineer (Comml), DVC informed that they have already initiated necessary action for scheduling of 100 MW power from Mejia U # 6 to Delhi.

It was clarified by General Manager, ERLDC that DVC should intimate the power to be exported to Delhi on time block-wise at DVC periphery for the purpose of scheduling everyday.

DVC and ERLDC are requested to intimate the latest status in this regard.

ITEM NO.9 SETTLEMENT OF DISCREPANCY IN JOINT METER READINGS OF TALA AND BINAGURI ENDS FOR TALA ENERGY RECEIPTS FOR THE PERIOD FROM DECEMBER’06 TO MARCH’08 (EXCEPTING FEW MONTHS) AND ASSOCIATED REVISION OF REGIONAL ENERGY ACCOUNTING (REA)

There were discrepancies noticed in the monthly joint energy meter readings of 400 kV Tala–Binaguri Lines I & IV for the period between December’06 to March’08 barring few months. It was pointed out in the respective monthly REA issued by ERPC, for Tala energy receipt, that the same would be revised once the discrepancies are sorted out by the concerned agencies. Accordingly, the reconciliation work in this regard actually commenced between PTC and Tala HPS authority from mid 2007 onwards with active participation from ERPC and other concerned agencies. Thereafter, ERPC Secretariat convened Special meetings from time to time, e.g., at Siliguri on 10.10.2007, THPA office at Gedu, Bhutan on 11.12.2008, ERPC office on 14.01.09 and POWERGRID office on 17.03.09 with participants from Tala HPS authority, PTC, POWERGRID(ER-II), ERLDC besides ERPC Secretariat to sort out the above discrepancies. In the above meetings, problem areas were identified, suitable measures suggested so that similar discrepancies could be reduced. The process of implementation of suggested measures have been initiated with the aim to complete the process by March’2009. The key measures suggested in the meetings were as under :

- A) All the Main and Check meters at both the ends of 400 kV Tala – Binaguri Lines I to IV should be Special Energy Meters (SEM) of same make, same type and same accuracy class.

- B) Similarly, all the required meters (SEM) connected to and from Malbase Sub-station of Bhutan should be ensured by respective concerned parties that they are of similar make, type and accuracy class as above.
- C) For the discrepancies in the joint meter readings of the past period i.e. for the period from December'06 to March'08, an amicable solution was found out which has been agreed to by both PTC and Tala HPS representatives (In the monthly REA issued by ERPC Secretariat, a fixed 1.34% line loss, where applicable, was considered in all the concerned months due to discrepancies in the monthly energy meter readings).

In line with above decision, for the past period from December'06 to March'08, all the respective monthly REAs for Tala energy receipts at Binaguri end will be subjected to revision as per agreed methodology. Accordingly, the effect of changes in the monthly the revised REA for the respective months for Tala Energy Receipts are prepared and shown below:

MONTH	TALA RECEIPT IN MWH		ADDITIONAL BOOKING IN MWH
	AS PER REA	AS PER REVISION	
December'06	128556.662	128728.859	172.197
January'07	81188.846	81429.513	240.667
February'07	70119.420	70220.153	100.733
March'07	114895.955	114999.922	103.967
April'07	175674.956	175964.918	289.962
May'07	203444.058	203910.823	466.765
June'07	278312.287	278837.353	525.066
July'07	455222.393	455640.604	418.211
August'07	599141.279	599926.927	785.648
September'07	586550.466	587329.668	779.202
October'07	408737.557	409317.097	579.540
November'07	184600.392	184803.898	203.506
January'08	74207.692	74216.206	8.514
March'08	73212.805	73223.822	11.017
Grand Total	3433864.768	3438549.763	4684.995

Deliberations in the 9th Commercial Sub-Committee meeting

Member Secretary, ERPC appraised the members regarding the discrepancy in the joint meter reading of Tala and Binaguri ends for the period between December'06 to March'08 and the actions taken by ERPC Secretariat for the resolutions of the same. He also informed that settlement had already taken place between PTC and THPA based on the consensus decision. He requested the beneficiaries of the Tala to accept additional booking to the extent of 4684.995 MWH as shown in the agenda to be apportioned among the beneficiaries in proportion of the respective shares in Tala.

Utility members present in the meeting appreciated the initiative taken by ERPC Secretariat towards the settlement of discrepancies and agreed for

the revision of REA as indicated in the agenda with the approval of TCC and ERPC.

As decided in the Commercial Sub-Committee meeting, the issue is placed before TCC and members may please discuss and agree.

ITEM NO.10 ISSUES PERTAINING TO CERC TARIFF REGULATIONS 2009

A) DETERMINATION OF MAXIMUM PEAK HOUR EX-POWER PLANT MW SCHEDULE.

As per Clause 21 (4) of CERC Tariff Regulation 2009

Quote

In case of fuel shortage in a thermal generating station, the generating company may propose to deliver a higher MW during peak-load hours by saving fuel during off-peak hours. The concerned Load Despatch Centre may then specify a pragmatic day-ahead schedule for the generating station to optimally utilize its MW and energy capability, in consultation with the beneficiaries. DCi in such an event shall be taken to be equal to the maximum peak-hour ex-power plant MW schedule specified by the concerned Load Despatch Centre for that day.

Unquote

The following issues need deliberation :

- i) Certifying fuel shortage;
- ii) Methodology of preparation of schedule during peak hours;
- iii) Duration of peak hour, etc.

ERLDC may please opine and members may discuss.

Deliberations in the 9th Commercial Sub-Committee meeting

It was suggested by Director (R&T), WBSEDCL that till the tariffs are finalized by CERC, the existing methodology of scheduling of ISGS stations under condition of coal shortage should be adhered to.

It was unanimously agreed that the peaking hours should be 3 hours continuous between 17.00 hrs to 23.00 hrs peak period. The present notification is silent on time period.

It converged from the deliberation that the issue noted in this agenda needs clarification from CERC. ERPC Secretariat has been authorized by Commercial Sub-Committee to take up the issue with CERC for clarification. It was, further, decided to place it in the TCC meeting for deliberation.

As per decision in the Commercial Sub-Committee meeting, ERPC Secretariat has already requested CERC for clarification on the issue.

Members may please discuss and deliberate.

B) DETERMINATION OF DCi FOR HYDRO POWER STATION

As per CERC Tariff Regulation 2009 Clause 22 (3), Plant Availability Factor Achieved during the Month in Percentage (PAFM) shall be computed based on Declared Capacity (in ex-bus MW) for the day which the stations can deliver at least 3 hours as certified by Nodal Despatch Centre after the day is over.

The following issues are required to be addressed :

- i) Whether the 3 hours would be during the peak hours ?
- ii) Whether this 3 hours would be continuous or not ?
- iii) Methodology to be adopted by RLDC for certifications of DCi.

Deliberations in the 9th Commercial Sub-Committee meeting

After deliberations, it was decided that ERPC Secretariat would also approach CERC for necessary clarifications on the issues involved.

As per decision in the Commercial Sub-Committee meeting, ERPC Secretariat has already requested CERC for clarification on the issue.

Members may please discuss and deliberate.

C) CERTIFICATION OF MONTHLY AVAILABILITY FACTOR OF TRANSMISSION SYSTEM.

As per the procedure for calculation of Transmission System Availability Factor for a Month (TAFM), transmission licensee shall calculate above factor, got verified by RLDC and certified by Member Secretary, RPC of the region concerned.

POWERGRID may please elaborate the procedure to be followed as per CERC Tariff Regulations 2009.

Deliberations in the 9th Commercial Sub-Committee meeting

POWERGRID explained the methodology to be followed for calculation of Transmission System Availability Factor for a month (TAFM) and the reflection of the same in the subsequent REAs.

Members may please note.

D) RAISING OF BILL BY GENERATING COMPANY / TRANSMISSION LICENSEE FOR THE PERIOD FROM 01.04.2009 TILL APPROVAL OF TARIFF BY CERC IN ACCORDANCE WITH CERC REGULATION 2009.

As per Clause 5 (3) of the CERC Tariff Regulations :

Quote

In case of the existing projects, the generating company or the transmission licensee, as the case may be, shall continue to provisionally

bill the beneficiaries or the long-term customers with the tariff approved by the Commission and applicable as on 31.3.2009 for the period starting from 1.4.2009 till approval of tariff by the Commission in accordance these regulations :

Provided that where the tariff provisionally billed exceeds or falls short of the final tariff approved by the Commission under these regulations, the generating company or the transmission licensee, as the case may be, shall refund to or recover from the beneficiaries or the transmission customers, as the case may be, within six months along with simple interest at the rate equal to short-term Prime Lending Rate of State Bank of India on the 1st April of the concerned/respective year.

Unquote

Deliberations in the 9th Commercial Sub-Committee meeting

Drawing the attention of the members to the agenda item, Superintending Engineer (Comml), ERPC requested al the ISGS, ISTS and their beneficiaries to advise ERPC regarding preparation of REA with effect from 01.04.2009. After detailed deliberation all the ISGS, ISTS and their beneficiaries present in the meeting unanimously decided that till the finalization of tariff by CERC, existing tariff will be applicable with the new norms specified in the CERC (Terms & Conditions of Tariff) Regulations 2009.

Members may deliberate and agree.

ITEM NO.11 A) SEMINAR ON “REDUCTION OF ATC LOSSES – ISSUES & CHALLENGES“ ON 05.12.2008 – REGARDING PAYMENT

As per the decision of the 7th ERPC meeting held at Ranchi on 26.7.2008 an one day workshop was organized by ERPC/ GRIDCO at Bhubaneswar on “Reduction of ATC Losses – Issues & challenges“. As advised by ERPC (vide ERPC letter no ERPC/MS/Seminar/2009/5748-49 dated 22.01.09) an amount of Rs.184991.00 (One lakh eighty four thousand nine hundred and ninety one only) has been released from Reactive Power Pool account in favour of GRIDCO on 11.2.2009 for meeting a part of the expenditure incurred during the Seminar .

Commercial Sub-Committee may approve the above expenditure.

Deliberations in the 9th Commercial Sub-Committee meeting

Commercial Sub-Committee agreed subject to approval of TCC and ERPC.

As decided in the Commercial Sub-Committee meeting, the TCC may approve the above expenditure.

B) PAYMENT OF UI -- PRESENT STATUS

Summary of UI Receipt/Payment status for bills up to 27.03.09 as received from ERLDC is indicated at **Annexure-I** . In pursuant to Hon’ble CERC orders dated 4th June, 2008 and 15th March,2009, on 31st March,2009 BSEB has paid the principle outstanding dues for the year

2007-08 alongwith interest amount of Rs.1134.86118 lakh due to delayed payment of UI charges. In addition to that, BSEB has also paid Rs.3066.58191 lakh as the current (2008-09) principal outstanding UI dues upto 15.03.2009.

Members may please note and discuss.

C) DISBURSEMENT OF PAYMENT OF INTEREST FOR UI ACCOUNT

During the last TCC meeting held at Bodhgaya, ERLDC apprised regarding the payment of UI interest to the beneficiary constituents. It is to inform that such interest on UI pool has been earned through efficient fund management system. The interest earned has been reconciled with the Bank for the period are as follows :-

2005 – 06 :: Rs.30,67,746/-

2006 – 07 :: Rs.76,13,675/-

2007 – 08 :: Rs.35,67,307/-

The total accrued amount of UI interest is Rs.1,42,48,728/-. The year-wise accrued interest and payable amount to the various beneficiaries is indicated below . The payment has been released to all concerned on 11.09.08 for the year 2005 – 06 and 2006 – 07 and for the year 2007 – 08 on 09.01.2009.

Total interest disbursed to the constituents				
	2005-06	2006-07	2007-08	Total Amount (Rs)
BSEB	190137	553942	85283	829362
JSEB	164020	1022494	77101	1263615
DVC	1084591	1516500	452917	3054008
GRIDCO	382517	2517197	1893977	4793691
SIKKIM	55502	55247	49466	160215
WBSEB	740482	1372820	734682	2847984
NTPC	447038	572540	202202	1221780
NHPC	3459	2935	71679	78073
Total	3067746	7613675	3567307	14248728

This is for information to the TCC members.

D) REACTIVE ENERGY CHARGES -- PRESENT STATUS

The updated position of Receipt/Payment in the pool as on 20.03.09 considering bills up to 08.03.09 as received from ERLDC is indicated at **Annexure – II** .

Members may please note and discuss.

E) I.R.E. POOL ACCOUNT OF ER WITH OTHER REGIONS.

The status of settlement of IRE account between ER- SR & ER- NR as received from ERLDC is indicated below:-

Settlement of IRE account with SR has taken place till 02.11.08 and an amount of Rs 17732.26295 lakhs has been received by ER from SR and the amount disbursed to POWERGRID for giving transmission benefits to ER Beneficiaries. Enclosed statement at Annexure- shows the details of IRE disbursements and the transmission benefit given to ER beneficiaries as settled as per ER and SR IRE account. Further an amount of Rs. 12503.50975 lakhs is to be received from SR IRE Pool Account to settle ER- SR IRE account up to week 48 i.e., up to 01.03.09.

The net IRE amount to be received from NR upto 26.08.06 is Rs 11264.63780 lakhs. Out of the said outstanding amount, an amount of Rs 6621.89377 lakhs has already been received from NR..A statement indicating apportionment of transmission charge benefit to be allowed to ER beneficiaries against payment of Rs.6621.89377 lakhs is shown at **Annexure-III** . With the above payment the IRE outstanding between ER and NR shall be settled for 2004-05 in full and 2005-06 in part.

Further an outstanding amount of Rs. 4642.74403 lakhs is required to be received from NR pool as IRE payment. Moreover on reconciliation of the UI and IRE account an amount of Rs 219.11643 lakhs available as pool balance on account of inter- regional payment settlement and the interest amount accrued in IRE. This amount has also been disbursed to POWERGRID for giving transmission benefits to ER beneficiaries in proportion to the weighted average share for the corresponding years.

Members may please note.

F) POOL BALANCE DUE TO CAPPING UI RATE.

The status of pool balance due to capping of UI rate of thermal ISGS as received from ERLDC is indicated below :

ER UI pool has accrued a total pool balance of **Rs 12025.78663 lakhs** due to capping of UI of thermal ISGSs of ER. Out of this total pool balance an amount of **Rs 7563.04267 lakhs** has been utilized for payment of outstanding dues as per CERC directive. Balance amount of **Rs 4462.74396 lakhs** is presently available in the ER pool.

Members may please note.

G) WORKSHOP ON BLACK START & RESTORATION PROCEDURE, SCHEDULING & SYSTEM OPERATION, RELIABILITY ISSUES & METERING AND SETTLEMENT SYSTEMS FOR ER GRID

In order to keep pace with the recent development in power sector and functioning of load dispatching, it is essential that the operators of various beneficiaries of ER get the opportunity to develop themselves. Keeping this in mind continuous training/workshops are required to be organized in ER. ERLDC proposes to organize 4 nos one day workshop on subjects

like Black start and system restoration procedure, system operation & scheduling, SCADA (application/ data validation / state estimator), Reliability (TTC/ATC, system studies), metering & settlement system etc. The first workshop on Black start and System restoration is proposed to be organized on the next day of monthly OCC meeting to be held during the month of April.

The expenditure for conducting such workshops (approximately Rs 40000.00 per workshop) may be utilized from Reactive Pool Account.

Commercial Sub-Committee may please approve the same.

Deliberations in the 9th Commercial Sub-Committee meeting

Commercial Sub-Committee agreed subject to approval of TCC and ERPC.

As decided in the Commercial Sub-Committee meeting, the issue is placed before TCC and members may please discuss and agree.

ITEM NO.12 MICROWAVE COMMUNICATION SYSTEM UNDER ER-ULDC PROJECT–ALTERNATE COMMUNICATION ARRANGEMENT DUE TO VACATION OF ALLOCATED MW FREQUENCY AS PER GOI DECISION.

ULDC, Eastern Region has been established by POWERGRID, which is in commercial operation since September, 2005 through mix of Microwave & fibre optic communication links. Recently, Ministry of Communication, GoI, has informed that spectrum in the frequency band 2.3 to 2.4 GHz band, which is being used for ULDC links, are to be vacated as per GoI mandate as this band needs to be auctioned for Broadband Wireless Access Service. In view of the development, as a long term solution, POWERGRID has proposed to implement a comprehensive Fibre Optic (OPGW) based communication network to replace the existing MW based network for all constituents including Central sector. The matter has been discussed in 4th SCADA O&M Committee meeting as well as in the last TCC meeting of ERPC held at Bodhgaya. As the countdown for making alternate communication arrangement has already begun, it is requested that the ER beneficiaries' constituents may please give in principle approval of POWERGRID proposal. The matter was also discussed in the last TCC meeting of ERPC held at Bodhgaya, where tentative estimated cost of Rs.122.20 crores for the network was projected. Constituent wise details of cost break-up for ER are given below :

Rs. in Crore

Total Cost	OPGW	UGFO	TOTAL	122.2049
	Km	km	Km	
DVC	207	10	217	15.48
WBSEB	388	0	388	27.68
CS	253	10	263	18.76
BSEB	447	20	467	33.32
OPTCL	373	5	378	26.97
	1668	45	1713	122.20

* This includes equipment cost also.

Deliberations in the 9th Commercial Sub-Committee meeting

It was pointed out by ERPC Secretariat that the issue was discussed in the 8th TCC meeting held on 29.11.2008 at Bodhgaya wherein “After detailed deliberation, it was agreed that POWERGRID and all utility constituents through their respective State Government would approach MoP, GoI for funding the project through the fund of the Central Government”.

It was explained by ERPC Secretariat that the issue is under active consideration of TCC and as such the entire issue may be placed by POWERGRID in the TCC meeting.

POWERGRID may like to elaborate .

Members may please discuss and decide.

ITEM NO.13 A) ISSUES RAISED BY POWERGRID

POWERGRID, ERTS-II, Kolkata submitted following agenda points for discussion in the Commercial Sub-Committee meeting. POWERGRID also reported that the items were discussed in the 35th OCC meeting held at Farakka, NTPC.

I) REPLACEMENT OF CIRCUIT BREAKERS

- a) There are **26 no. 220kV ABCBs** in CTS system at BIRPARA, DALKHOLA & SILIGURI S/S of POWERGRID commissioned around 1986 and thus completed 23 years in service and lately started giving frequent leakage/maintenance problem due to ageing. ABB has long back stopped production of ABCBs but continued service support for 20 years till recently. Now ABB has stopped the spare support w.e.f. January'09. Hence in order to ensure reliable evacuation of Chukha power & supply at 220kV level, the ABCBs have to be replaced immediately else their outage may result in prolonged outage of feeders. Such replacements have already been done in other regions.
- b) There are 02 nos. NGEF make and 04 nos. TELK make **220KV SF6 CBs** are in service at 400/220KV Durgapur S/S commissioned around 1990 and are giving frequent problems due to ageing problem. M/s

NGEF and TELK have stopped production and also spare support. Hence in order to ensure reliable evacuation of power and supply at 220 KV level, the TELK and NGEF make CBs have to be replaced immediately else their outage may result in prolonged outage of feeders. Such replacements have already been done in other regions.

Cost of replacement of 32 sets (26 + 06) CBs @ Rs. 16 lakhs/set will be Rs. 5.12 Crore. Considering the *salvage value* of existing CBs @ 10% of its original value (Rs 5 lakhs/set) the total salvage value comes to **Rs 16 lakhs**. Hence total cost of replacement of CBs after deducting the salvage value will be **Rs 5 Crores**.

Deliberations in the 9th Commercial Sub-Committee meeting

Commercial Sub-Committee agreed for replacement of 32 sets of circuit breakers at a total cost of Rs.5 crores subject to the approval of TCC and ERPC.

As decided, the issue is placed in the TCC and members may discuss and agree.

II) REPLACEMENT OF GAPPED LIGHTNING ARRESTORS (LAs)

There are around 200 no. gapped LAs in service at various stations of ER-II. There are increasing incidences of bursting of the LAs in service & failure during charging. It shows their ineffectiveness to handle the surges while in service as well as the switching surges. These LAs have already served 15 years in service & their performance is not reliable. This has been established through a study as published in IEEE publication of 1996. The study establishes deterioration of such LAs after 10 years and the degradation was evident in such LAs of 13 years in service. *The study has recommended progressive replacement of all such Gapped LAs of 13 or more years in service, with Metal Oxide LAs.*

If these LAs are not replaced, they may pose danger to the Residual Life of costly equipments like transformers & reactors and as well as may cause huge damage. As such POWERGRID proposes to replace the gapped LAs immediately with more reliable MOX Arresters. The cost of replacement of 191 no of gapped typed LA of different voltage level will be **Rs 1.95 Crore after deducting the salvage value @ 10% of its original cost.**

Deliberations in the 9th Commercial Sub-Committee meeting

Commercial Sub-Committee agreed for replacement of 191 nos. of gapped type Lightning Arrestors at a total cost of Rs.1.95 crores subject to the approval of TCC and ERPC.

POWERGRID may like to elaborate .

As decided, the issue is placed in the TCC and members may discuss and agree.

III) REPLACEMENT OF PLCC (SPEECH & PROTECTION COUPLER & FOR BOTH ENDS)

BPL make old type PLCC panels are installed in Chukha Transmission System and JTTS. Due to design obsolescence, the spares are not available. These PLCC panels are required to be replaced. These PLCC have already served more than twenty years in service & their performance is not reliable. Hence in order to ensure reliable evacuation of Chukha power & supply at 220kV level, and JTTS at 400KV level the BPL make PLCCs have to be replaced immediately else their outage may result cascade trippings & grid disturbances. Such replacements have already been done in other regions. Cost of replacement of BPL make panels in CTS as well as JTTS will be as follows **after deducting the salvage value @ 10% of its original cost.**

i) Cost of replacement of BPL make 220KV & 400KV Panels of CTS & JTTS of ER-II = **Rs. 2.79 Crore**

ii) Cost of replacement of BPL make 220KV pertaining to said line but belongs to other Region / Constituent (Rs 0.83 Crore only) as per detailed given below

Cost Appropriation :

POWERGRID,ER-I	= Rs. 2080840.00
POWERGRID,NER	= Rs. 2080840.00
CHUKHA HPS	= Rs. 2080840.00
BHUTAN POWER CORP.	= Rs. 2080840.00

Kind attention of ERPC and the Constituent members are invited towards capital addition for carrying out replacement of the phased out, inoperative & obsolete CBs, LAs & PLCCs to ensure reliability & security.

POWERGRID requests for kind consent of the Constituents for replacement of the above equipments at an estimated cost of Rs. 10.16 Crores (9.74 for ER-II + 0.42 POWERGRID, ER-I & NER) to increase the life expectancy of the equipments installed in the S/S for their smooth and trouble free operation. However, the replacement will be carried out in phased manner, i.e. in the time frame of 2 to 3 years.

Deliberations in the 9th Commercial Sub-Committee meeting held on 23.03.09

Commercial Sub-Committee agreed for replacement of PLCC (Speech and Protection Couplers) as given in the agenda subject to the consent of TCC, ERPC, NERPC, CHPC and BPC.

POWERGRID may like to elaborate.

As decided, the issue is placed in the TCC and members may discuss and agree.

B) ISSUES RAISED BY ERLDC

AWARD OF LONG TERM SERVICE AGREEMENT (LTSA) FOR EMS/SCADA SYSTEM IN EASTERN REGION.

The EMS/SCADA system installed in the RLDC and SLDC are under extended warranty till 15th June, 2009. After the expiry of the paid extended warranty, Annual maintenance contract has to be awarded for smooth functioning of the system. The matter was discussed in 5th SCADA O&M meeting held on 23rd, January, 2009 and it has been decided that the AMC may be awarded under two major packages, (i) Control Center equipments along with software (ii) RTUs and other associated systems. It was also decided that AMC of the Control Centre equipments and software may be done through OEM and the processing may be coordinated by ERLDC. AMC of the RTUs and associated systems may be done through Limited Tendering process to be coordinated by POWERGRID.

- a) In line with the decision, a draft MOU has been circulated which is required to be signed between ERLDC and the constituents (copy enclosed) as has been done in other region for co-ordination during the execution of AMC. An overhead charge for ERLDC @16% on the AMC charges has been mentioned in the MOU. However, the same shall be charges after discussion with the constituents and approval by POWERGRID management. The same may be cleared by the commercial committee for placing the MOU to the Board for approval.
- b) ERLDC has taken up with the OEM vendor for the budgetary quotation and the vendor has submitted their budgetary offer for the AMC for 3 years which is as detailed below :

Sr. No.	Offer price (in Lakhs)	% of derived capital cost
1 st year	691.50	8.14
2 nd year	707.00	8.32
3 rd year	851.52	10.02

It is felt that the system should run at least for another 5- 6 years and it has been decided to process for AMC initially for 3 years to be made extendable for another 2 years with mutual agreement for optimization in maintenance charges. ERLDC is in the process of taking administrative approval for finalization the AMC through negotiation as per Works & Procurement Policy of POWERGRID.

- c) Sikkim has not paid the AMC charges of Rs.76,217/- for the extended warranty period (paid warranty). The award was placed based on the original scope of contract. In such case award of AMC for further 3 years may be deferred. Representative from Sikkim may confirm.

Deliberations in the 9th Commercial Sub-Committee meeting

General Manager, ERLDC explained in details the need for entering into Long Term Service Agreement (LTSA) for EMS / SCADA system in Eastern Region. In this connection, he drew the attention of the members to the draft MOU for approval.

After detailed deliberations, the utility constituents of the Eastern Region requested that the overhead charge for ERLDC should be limited to 10% on AMC charge as has reportedly been done in case of Northern Region and Southern Region. General Manager, ERLDC assured that he would take up the matter with POWERGRID in this regard.

Representative from Sikkim informed in the meeting that payment amounting to Rs.76217/- towards AMC charges for the extended warranty period has already been released by Government of Sikkim.

ERLDC requested for approval from TCC/ ERPC for the above arrangement of AMC of SCADA /EMS by OEM and also ERLDC may like to intimate the latest status overhead charge for ERLDC.

Members may please discuss and decide.

ITEM NO.14 ANY OTHER POINT WITH PERMISSION OF THE CHAIR

STATUS OF REACTIVE CHARGES

RECEIVABLE IN ER POOL AS PER PUBLISHED A/C UPTO 08.03.09 (2008-09)
AS ON 20.03.09

CONSTITUENT	AMOUNT RECEIVABLE IN THE POOL (Rs.)	AMOUNT RECEIVED IN THE POOL (Rs.)	OUTSTANDING (Rs.)
WBSETCL	3642957	2726849	916108
GRIDCO	223311	223311	0
TOTAL	3866268	2950160	916108
Amount available in Reactive A/C as on 27.03.09		Rs.9661287	

Annexure-III

Statement of Transmission Benefit for ER Beneficiaries towards ER-SR IRE
As on 20.03.09 ,TOTAL ER - SR IRE SETTLEMENT AMOUNT RS.17732.26295 LACS
considering Reconciliation of bill up to 02.11.08

Figures in Rs.Lac

DATE	BSEB	JSEB	DVC	GRIDCO	SIKKIM	WBSETCL	TOTAL
2008-09							
2-Sep-08	1995.65447	554.18100	248.41879	1208.24231	211.50073	1556.76663	5774.766
14-Nov-08	3014.32124	820.13328	365.14231	1803.51363	316.31827	2315.88018	8635.306
23-Dec-08	1148.36219	323.38365	134.52644	673.11957	117.37729	925.42097	3322.190
TOTAL	6158.33790	1697.69793	748.08754	3684.87551	645.19629	4798.06778	17732.262

Statement of Transmission Benefit for ER Beneficiaries towards ER-NR IRE
TOTAL IRE RECEIVABLE FROM NR IS 11264.63780 LACS

DATE	BSEB	JSEB	DVC	GRIDCO	SIKKIM	WBSETCL	TOTAL
2003-04							
8-Jun-04	17.63283	2.30265	4.58601	13.53857	1.37925	15.42960	54.866
16-Nov-06	168.9531015	22.06547694	43.94168603	129.722082	13.2172049	147.844479	525.746
Sub Total	186.58593	24.36813	48.52770	143.26066	14.59645	163.27408	580.616
2004-05							
16-Nov-06	248.2453203	121.8828602	56.83789679	177.687646	18.8440315	202.99485	826.496
18-Dec-06	64.51379	31.67482	14.77099	46.17732	4.89717	52.75413	214.788
27-Feb-09	675.81000	331.80750	154.73250	483.72750	51.30000	552.62250	2250.000
18-Mar-09	44.46448	21.83106	10.18052	31.82653	3.37525	36.35944	148.036
Sub Total	1033.03359	507.19624	236.52191	739.41900	78.41645	844.73092	3439.316
2005-06							
18-Mar-09	906.26362	228.71252	105.11929	589.60475	62.96750	709.29504	2601.966
Sub Total	906.26362	228.71252	105.11929	589.60475	62.96750	709.29504	2601.966
Total	2125.88313	760.27689	390.16890	1472.28441	155.98040	1717.30004	6621.896