

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 24/2010

Coram:

1. Shri S.Jayaraman, Member
2. Shri M.Deena Dayalan, Member

DATE OF HEARING: 29.4.2010

DATE OF ORDER: 1.6.2010

In the matter of

Revision of transmission tariff due to additional capital expenditure incurred during 2008-09 for 400 kV Circuit-I of Teesta (Stage-V)-Siliguri transmission system associated with Teesta (Stage-V) in Eastern Region.

And in the matter of

Power Grid Corporation of India Limited, Gurgaon **..Petitioner**
Vs

1. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Board, Kolkata
3. Grid Corporation of Orissa Ltd., Bhubaneswar
4. Damodar Valley Corporation , Kolkata
5. Power Department, Govt. of Sikkim, Gangtok
6. Jharkhand State Electricity Board, Ranchi

.... Respondents

The following were present:

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M.Mondal, PGCIL
3. Shri S.K.Nirajan, PGCIL
4. Shri R.Prasad, PGCIL
5. Shri R.B.Sharma, Advocate, BSEB

ORDER

This petition has been filed for revision of transmission tariff on account of additional capital expenditure in respect of 400 kV Circuit-I of Teesta (Stage-V)-Siliguri transmission system (the transmission system) associated with Teesta (Stage-V) (hereinafter referred to as "the transmission line") in Eastern Region during the period from 1.4.2008 to

31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as "the 2004 regulations"). The petitioner has also prayed for reimbursement of the petition filing fee, licence fee and other expenditure in connection with the filing of the petition.

2. The investment approval for the transmission system was accorded by Board of Directors of the petitioner company vide Memorandum dated 25.2.2004 at an estimated cost of Rs. 20875 lakh, which was revised to Rs. 31558 lakh under Memorandum dated 17.10.2008. The transmission line was declared under commercial operation on 1.2.2008.

3. The transmission charges for the transmission line was approved by the Commission vide order dated 16.3.2009 in Petition No. 130/2008 after considering of additional capital expenditure incurred during 2007-08. The summary of the transmission charges approved by the said order dated 16.3.2009 is extracted hereunder:

(Rs. in lakh)

	2007-08 (Pro rata)	2008-09
Depreciation	83.56	521.07
Interest on Loan	207.74	1286.71
Return on Equity	135.97	847.78
Advance against Depreciation	0.00	0.00
Interest on Working Capital	13.11	80.90
O & M Expenses	10.15	63.40
Total	450.53	2799.86

4. The relevant details of the capital expenditure of the transmission assets claimed by the petitioner are as under:

(Rs. in lakh)

Capital Expenditure as on 1.4.2008 (As per order dated 16.3.2009 in Petition No. 130/2008)	Additional Capital Expenditure during 2008-09	Capital expenditure as on 31.3.2009
20185.23	3128.69	23313.92

5. Based on the above additional capital expenditure, the petitioner has claimed the revised transmission charges for the year 2008-09 as under:

(Rs. in lakh)

	2008-09
Depreciation	561.32
Interest on Loan	1406.95
Return on Equity	913.48
Advance against Depreciation	0.00
Interest on Working Capital	85.62
O & M Expenses	63.40
Total	3030.77

6. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:

(Rs. in lakh)

	2008-09
Maintenance Spares	188.51
O & M expenses	5.28
Receivables	505.13
Total	698.92
Rate of Interest	12.25%
Interest	85.62

7. BSEB in its reply dated 22.2.2010 has submitted that the additional capital expenditure claimed in the petition are mainly on account of retention/final payments and a confirmation be taken from the petitioner that no part of the claim belongs to any other category not covered by Regulation 53 of the 2004 regulations. The petitioner in its rejoinder has confirmed that the expenditure shown in the petition for the year 2008-09

has been claimed as per Regulation 53 (2) of the 2004 regulation on account of final/retention payments. In view of the clarification of the petitioner, the objection of BSEB no more survives. The concern expressed by BSEB regarding wage revision and reimbursement of filing fee have been dealt with subsequently in this order.

CAPITAL COST

8. The details submitted by the petitioner in support of its claim for additional capital expenditure are given hereunder:

Year	Amount (Rs. in lakh)	Nature and details of expenditure
2008-09	Transmission line = Rs. 3128.69 lakh Sub-station	Retention/ final payments
	Total = Rs. 3128.69 lakh	

9. It is found that the additional capital expenditure claimed is in respect of committed liabilities. These are part of the deferred liabilities relating to works/services which have since materialised, and are within the original scope of work. Therefore, the additional expenditure sought to be capitalised is allowed under clauses (1) and (2) of Regulation 53 of the 2004 regulations.

Initial spares

10. Clause (1) of the Regulation 52 of the 2004 regulations *inter alia* provides that,-

“(1) Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include

capitalized initial spares subject to a ceiling norm as 1.5% of original project cost”.

11. The details of actual expenditure incurred and spares included therein by the petitioner as per original scope of project up to 31.3.2009 are as under:-

	Particulars	Capital Expenditures (Rs in lakh)					Remarks
		Up to the date of commercial operation	From the date of commercial operation to 31-3-2008	From 1-4-2008 to 31-3-2009	Total	Initial Spares included therein	
1	400 KV Ckt – I of Teesta (Stage-V)–Siliguri line under Transmission system associated with Teesta (Stage – V) in Eastern Region	18664.24	1520.99	3128.69	23313.92	51.52	Final transmission tariff up to date of commercial operation and add cap up to 31.3.2008 allowed vide petition No. 130/2008
2	Circuit – II of 400 Kv, D/C Teesta (stage-V) – Siliguri Transmission Line and 315 MVA, 400/220 Kv	3640.34	--	46.68	3687.02	--	Final transmission tariff from date of commercial operation to 31.3.2009 allowed vide petition No. 164/2009
3	ICT – II at Baripada Sub-Station along with associated bays	892.01	--	253.03	1145.04	19.97	
4	Shifting of 50 MVAR Reactor from Rengali to Baripada end.	-	-	-	-	-	Yet to be commissioned

12. In regard to Serial No. 1, 2, and 3 above, total actual expenditure incurred by the petitioner for the transmission assets up to 31.3.2009 is Rs. 28145.98 lakh and cost of spares included therein is Rs. 71.49 lakh. The total cost without initial spares is Rs. 28074.49 lakh and cost of spares included therein is Rs. 71.49, which is within the ceiling of 1.5% up to the cut of date of 31.3.2009 as per the 2004 regulations. Shifting of 50 MVAR Reactor from Rengali to Baripada end is yet to be commissioned. The overall ceiling limit as per the original scope of the project shall be reviewed after filing the tariff petition by the petitioner for this purpose.

TOTAL CAPITAL COST

13. Based on the above, capital cost for the purpose of tariff for the transmission line as on 31.3.2009 works out as under:

(Rs. in lakh)

Capital expenditure as on 1.4.2008	Additional expenditure 2008-09	capital during	Capital expenditure as on 31.3.2009
20185.23		3128.69	23313.92

DEBT- EQUITY RATIO

14. The petitioner has considered the amount of additional capitalization in the debt-equity ratio of 70:30. This has been found to be in order. Accordingly, for the purpose of tariff, equity considered for the transmission assets is as under:

(Rs. in lakh)

Equity as on 1.4.2008	Notional equity due to additional expenditure during 2008-09	Total equity considered as on 31.3.2009	Average equity for 2008-09
6055.54	938.61	6994.14	6524.84

RETURN ON EQUITY

15. As per clause (iii) of Regulation 56 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

16. Equity as given in the table under para 11 above has been considered. The tariff for the year 2008-09 has been allowed on average

equity. Accordingly, revised return on equity of Rs. 913.48 lakh has been allowed for the year 2008-09.

INTEREST ON LOAN

17. Clause (1) of Regulation 56 of the 2004 regulations *inter alia* provides that,-

"(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 54.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 54 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.

(c) The transmission licensee shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(e) In case of dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the transmission licensee during pendency of any dispute relating to re-financing of loan;

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The transmission licensee shall not make any profit on account of re-financing of loan and interest on loan;

(h) The transmission licensee may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa, at its own cost and gains or losses as a result of such swapping shall accrue to the transmission licensee:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest."

18. In our calculation, the interest on loan has been worked out as detailed below:

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual loan have been considered as per the petition.

(b) Notional loan arising out of additional capitalization for the year 2008-09 has been added in loan amount as on the date of commercial operation to arrive at total notional loan. This adjusted gross loan has been considered as normative loan for tariff calculations.

(c) Tariff has been worked out considering normative loan and normative repayments. Normative repayments have been worked out by the following formula:

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$

(d) Moratorium in repayment of loan has been considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation during the year, it has been considered as moratorium and depreciation during the year has been deemed as normative repayment of loan during the year.

(e) Weighted average rate of interest on actual loan worked out as per (a) above has been applied on the average loan during the year to arrive at the interest on loan.

(f) Short- term loan from State Bank of India was replaced by Bond XXVI w.e.f. 7.3.2008. Therefore, for the year 2008-09 and Short Term Bridge Loan from Bank of Borada from 29.09.2008 to 14.12.2008 was replaced by Bond XXVIII w.e.f. 15.12.2008. Weighted average rate of interest based on number of days for these loans has been considered while working out the weighted average rate of interest on actual loans.

19. Based on above, revised interest on loan for the year 2008-09 has been worked out as under:

(Rs. in lakh)	
Details	2008-09
Gross Normative Loan-Opening	14129.69
Cumulative Repayment up to Previous Year	83.56
Net Loan-Opening	14046.13
Addition due to Additional Capitalisation	2190.08
Repayment during the year	561.32
Net Loan-Closing	15674.89
Average Loan	14860.51
Weighted Average Rate of Interest on Loan	9.47%
Interest	1406.95

20. The detailed calculations in support of the weighted average rate of interest are contained in Annexure attached.

DEPRECIATION

21. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:

"(i) The value base for the purpose of depreciation shall be the historical cost of the asset.

(ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis."

22. Depreciation allowed has been worked out as below:

(Rs. in lakh)	
	2008-09
Gross block as on 1 st April of the year	20185.23
Addition due to Additional Capitalisation	3128.69
Gross Block	23313.92
Rate of Depreciation	2.5808%
Depreciable Value	19574.62
Balance Useful life of the asset	-
Remaining Depreciable Value	19491.06
Depreciation	561.32

ADVANCE AGAINST DEPRECIATION

23. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule

24. It is provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year. It is further provided that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

25. Petitioner has not claimed Advance Against Depreciation and accordingly, Advance Against Depreciation has not been considered.

OPERATION & MAINTENANCE EXPENSES

26. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for O & M expenses:

	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses (Rs in lakh per ckt-km)	0.227	0.236	0.246	0.255	0.266
O&M expenses (Rs in lakh per bay)	28.12	29.25	30.42	31.63	32.90

27. O&M expenses as taken for the tariff calculations as per order 16.3.2009 in Petition No. 130/2008 have been considered, since line length and number of bays remain unchanged.

INTEREST ON WORKING CAPITAL

28. The components of the working capital and the interest thereon are discussed hereunder:

(i) Maintenance spares

Regulation 56(v) (1) (b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. The maintenance spares as considered in the order dated 16.3.2009 in Petition No. 130/2008 have been considered.

(ii) O & M expenses

Regulation 56(v)(1)(a) of the 2004 regulations provides for operation and maintenance expenses for one month as a component of working capital. O&M expenses as considered in the order dated 16.3.2009 in Petition No. 130/2008 have been considered.

(iii) Receivables

As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level. Accordingly, in the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(iv) Rate of interest on working capital

As per Regulation 56(v) (2) of the 2004 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is

payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2007, which is in accordance with the 2004 regulations and has been allowed.

29. The necessary computations in support of revised interest on working capital, as revised, are appended herein below:

(Rs. in lakh)	
	2008-09
Maintenance Spares	188.51
O & M expenses	5.28
Receivables	505.13
Total	698.92
Rate of Interest	12.25%
Interest	85.62

TRANSMISSION CHARGES

30. The revised transmission charges being allowed for the transmission line for the year 2008-09 are summarised below:

(Rs. in lakh)	
	2008-09
Depreciation	561.32
Interest on Loan	1406.95
Return on Equity	913.48
Advance against Depreciation	0.00
Interest on Working Capital	85.62
O & M Expenses	63.40
Total	3030.77

31. The petitioner shall recover from the respondent the additional transmission charges in one instalment and these charges shall be shared in accordance with the 2004 regulations.

32. The petitioner has also sought reimbursement of filing fee paid. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 (Suo-motu) has decided that petition filing fee shall not be reimbursed during the tariff period 2004-09 as the same has been factored in the O & M norms. Accordingly, filing fee has not been allowed to be reimbursed. The decision on licence fee as and when taken shall be communicated separately.

33. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2004 regulations.

34. This order disposes of Petition No. 24/2010.

Sd/-
(M.DEENA DAYALAN)
MEMBER

sd/-
(S.JAYARAMAN)
MEMBER

Details of calculations in support of the weighted revised average rate of interest.

(Rs. in lakh)

	Details of Loan	2008-09
1	Bond XVII	
	Gross Loan opening	10.00
	Cumulative Repayment up to the date of commercial operation/previous year	0.00
	Net Loan-Opening	10.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	10.00
	Average Loan	10.00
	Rate of Interest	7.39%
	Interest	0.74
	Repayment Schedule	10 Annual instalments from 22-9-2009
2	Bond XIX	
	Gross Loan opening	1400.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	1400.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1400.00
	Average Loan	1400.00
	Rate of Interest	9.25%
	Interest	129.50
	Repayment Schedule	12 Annual instalments from 24-7-2010
3	Bond XX	
	Gross Loan opening	3800.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	3800.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	3800.00
	Average Loan	3800.00
	Rate of Interest	8.93%
	Interest	339.34
	Repayment Schedule	12 Annual instalments from 07-9-2010
4	Bond XXIII	
	Gross Loan opening	2850.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	2850.00
	Additions during the year	0.00

	Repayment during the year	0.00
	Net Loan-Closing	2850.00
	Average Loan	2850.00
	Rate of Interest	9.25%
	Interest	263.63
	Repayment Schedule	12 Annual instalments from 09-2-2011
5	Bond XXIV	
	Gross Loan opening	191.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	191.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	191.00
	Average Loan	191.00
	Rate of Interest	9.95%
	Interest	19.00
	Repayment Schedule	12 Annual instalments from 26-3-2011
6	Bond XXV	
	Gross Loan opening	2462.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	2462.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2462.00
	Average Loan	2462.00
	Rate of Interest	10.10%
	Interest	248.66
	Repayment Schedule	12 Annual instalments from 12-6-2011
7	Bond XXVI (W.E.F. 07.03.2008 in replacement of short term SBI Loan)	
	Gross Loan opening	2352.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	2352.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2352.00
	Average Loan	2352.00
	Rate of Interest	9.30%
	Interest	218.74
	Repayment Schedule	12 Annual instalments from 7.3.2012
8	Bond XXVI (W.E.F. 07.03.2008 in replacement of short term SBI Loan)	
	Gross Loan opening	453.00

	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	453.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	453.00
	Average Loan	453.00
	Rate of Interest	9.30%
	Interest	42.13
	Repayment Schedule	12 Annual instalments from 07.03.2012
9	Short Term Bridge Loan from BOB wef 29.09.2008 to 14.12.2008 @ 12.5% replaced by Bond XXVIII @ 9.33% from 15.12.2008 (Add-Cap for 2008-09 Drawl on 15.12.2008)	
	Gross Loan opening	0.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	3047.00
	Repayment during the year	0.00
	Net Loan-Closing	3047.00
	Average Loan	1523.50
	Rate of Interest	10.66%
	Interest	162.35
	Repayment Schedule	12 Annual instalments from 15-12-2012
	Gross Loan opening	13518.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	13518.00
	Additions during the year	3047.00
	Repayment during the year	0.00
	Net Loan-Closing	16565.00
	Average Loan	15041.50
	Rate of Interest	9.47%
	Interest	1424.09