

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 307/2009

Coram:

1. Dr. Pramod Deo, Chairperson
2. Shri S.Jayaraman, Member
3. Shri V.S.Verma, Member

DATE OF HEARING: 23.2.2010

DATE OF ORDER: 8.4.2010

In the matter of

Revision of transmission tariff due to additional capital expenditure incurred during 2008-09 for 400 kV S/C Vindhyachal-Korba Ckt-II along with associated bay equipment at Vindhyachal and Korba switchyards in Western Region.

And in the matter of

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

1. Madhya Pradesh Power Transmission Company Ltd
2. Maharashtra State Electricity Distribution Company Ltd.,
Mumbai
3. Gujarat Urja Vikas Nigam Ltd., Baroda
4. Electricity Deptt., Government of Goa, Panaji
5. Electricity Deptt., Administration of Daman & Diu, Daman
6. Electricity Deptt., Administration of Dadra Nagar Haveli, Silvassa
7. Chhattisgarh State Electricity Board, Raipur
8. Madhya Pradesh Audyogik Kandra Vikas Nigam (Indore) Ltd,
Indore

.....Respondents

The following were present:

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M.Mondal, PGCIL
3. Shri Avinesh M.Pangi, PGCIL
4. Shri Ramchandra, PGCIL

ORDER

This petition has been filed for revision of transmission tariff on account of additional capital expenditure in respect of 400 kV S/C

Vindhyachal-Korba transmission line, Ckt II, along with associated bays equipment at Vindhyachal and Korba switchyards (the transmission line) in Western 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 line was accorded by Board of Directors of the petitioner company vide Memorandum dated 19.2.2004 at an estimated cost of Rs.16402 lakh, which included IDC of Rs. 878.00 lakh. The transmission line was to be completed by February 2007. Subsequently, approval for the revised cost estimate was accorded by Board of Directors of the petitioner company vide letter dated 10.7.2007 for an estimated cost of Rs. 21253 lakh, which included IDC of Rs. 1447 lakh. The transmission line was declared under commercial operation on 1.6.2007.

3. The transmission charges for the transmission line were approved by the Commission vide its order dated 9.4.2009 in Petition No. 127/2008 for the period 1.11.2007 to 31.3.2009 after accounting for additional capital expenditure incurred up to 31.3.2007. The summary of the revised transmission charges approve by the said order dated 27.5.2009 is extracted hereunder:

(Rs. in lakh)

	2007-08 (Pro rata)	2008-09
Depreciation	398.27	488.92
Interest on Loan	797.54	954.32
Return on Equity	625.30	767.37
Advance against Depreciation	0.00	0.00
Interest on Working Capital	59.72	73.46
O & M Expenses	114.13	142.67
Total	1994.96	2426.75

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	Additional Capital Expenditure during 2008-09	Capital expenditure as on 1.4.2009
18270.64 (As per order dated 9.4.2009)	350.55	18892.72

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	494.34
Interest on Loan	966.07
Return on Equity	774.73
Advance against Depreciation	0.00
Interest on Working Capital	73.97
O & M Expenses	142.67
Total	2451.78

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	183.34
O & M expenses	11.89
Receivables	408.63
Total	603.86
Rate of Interest	12.25%
Interest	73.97

7. MPPTCL, the first respondent herein, in its reply has submitted that the additional capital expenditure may be allowed, subject to prudence check but its servicing may be approved on actual debt and equity employed in accordance with Regulations 53 and Regulations 54 of the 2004 regulations.

8. We have considered the submission made by the MPPTCL. Note 3 of the Regulations 53 provides that any expenditure admitted by the Commission for determination of tariff on account of new works shall be serviced in the normative debt-equity ratio specified in Regulation 54. As per Regulation 54, in case of all projects, debt-equity ratio as on the date of commercial operation shall be 70:30 for determination of tariff. Therefore, the additional capital expenditure shall also be serviced in the ratio of 70:30. Accordingly, servicing of the additional capital expenditure in the debt equity ratio of 70:30 by the petitioner in the present petition is in conformity with the provisions of Note 3 under Regulation 53 read with Regulation 54 of the 2004 regulations.

CAPITAL COST

9. 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. 189.42 lakh	Final and retention payments
	Sub-station = Rs. 154.42 lakh	
	PLCC = Rs. 6.71 lakh	
	Total = Rs. 350.55 lakh	

10. 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.

TOTAL CAPITAL COST

11. 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 1.4.2009
18270.64		350.55	18892.72

DEBT- EQUITY RATIO

12. 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	Equity addition due to additional capital expenditure during 2008-09	Total equity considered as on 31.3.2009	Average equity for 2008-09
5481.19	105.17	5586.36	5533.77

RETURN ON EQUITY

13. 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.

14. Equity as given in the table under para 12 above has been considered. The tariff for the year 2008-09 has been allowed on average equity. Accordingly, revised return on equity of Rs. 774.73 lakh has been allowed for the year 2008-09.

INTEREST ON LOAN

15. 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."

16. 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 order dated 9.4.2009 in Petition No. 127/2008. Bond XXVIII and XXIX have been utilised for part funding of additional capital expenditure during 2008-09.

(b) Notional loan arising out of additional capitalization for the year 2008-09 has been added in loan amount as on 31.3.2008 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 ICICI was replaced by Bond XXVI w.e.f. 7.3.2008. Therefore, for the year 2007-08, 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.

17. 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	12789.45
Cumulative Repayment up to Previous Year	398.27
Net Loan-Opening	12391.18
Addition due to Additional Capitalisation	245.39
Repayment during the year	494.34
Net Loan-Closing	12142.23
Average Loan	12266.71
Weighted Average Rate of Interest on Loan	7.8755%
Interest	966.07

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

DEPRECIATION

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

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

(b) 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.

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

(d) 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.

20. Depreciation allowed has been worked out as below:

(Rs. in lakh)	
	2008-09
Gross block as on 1 st April of the year	18270.64
Addition due to Additional Capitalisation	350.55
Gross Block	18621.19
Rate of Depreciation	2.6799%
Depreciable Value	16601.32
Balance Useful life of the asset	-
Remaining Depreciable Value	16203.06
Depreciation	494.34

ADVANCE AGAINST DEPRECIATION

21. 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

22. 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.

23. The petitioner has not claimed Advance Against Depreciation and, thereafter, Advance Against Depreciation has not been considered.

OPERATION & MAINTENANCE EXPENSES

24. 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

25. O&M expenses as taken for the tariff calculations as per order dated 9.4.2009 in Petition No. 127/2008 have been considered, since line length and number of bays remain unchanged.

INTEREST ON WORKING CAPITAL

26. 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 petitioner has claimed maintenance spares after accounting for additional capital expenditure. For the purpose of computation of maintenance spares, the historical cost is being taken as the cost on the date of commercial operation. Accordingly, maintenance spares have been worked out on the historical cost and providing escalation from the date of commercial operation.

(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 9.4.2009 in Petition No. 127/2008 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.

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

(Rs. in lakh)

	2008-09
Maintenance Spares	183.34
O & M expenses	11.89
Receivables	408.63
Total	603.86
Rate of Interest	12.25%
Interest	73.97

TRANSMISSION CHARGES

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

(Rs. in lakh)

	2008-09
Depreciation	494.34
Interest on Loan	966.07
Return on Equity	774.73
Advance against Depreciation	0.00
Interest on Working Capital	73.97
O & M Expenses	142.67
Total	2451.78

29. 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.

30. 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 O & M norms. The decision applied in the present case also. The decision on licence fee shall be communicated separately.

31. 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.

32. This order disposes of Petition No. 307/2009.

Sd/-
(V.S.VERMA)
MEMBER

sd/-
(S.JAYARAMAN)
MEMBER

sd/-
(DR.PRAMOD DEO)
CHAIRPERSON

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

		(Rs. in lakh)
Details of Loan		2008-09
1	Bond-XVII	
	Gross Loan opening	9416.00
	Cumulative Repayment up to the date of commercial operation/previous year	0.00
	Net Loan-Opening	9416.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	9416.00
	Average Loan	9416.00
	Rate of Interest	7.39%
	Interest	695.84
	Repayment Schedule	10 Annual instalments from 22.9.2009
2	Bond-XX	
	Gross Loan opening	2000.00
	Cumulative Repayment up to the date of commercial operation/previous year	0.00
	Net Loan-Opening	2000.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2000.00
	Average Loan	2000.00
	Rate of Interest	8.93%
	Interest	178.60
	Repayment Schedule	12 Annual instalments from 7.9.2010
3	Bond-XXII	
	Gross Loan opening	100.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	8.68%
	Interest	8.68
	Repayment Schedule	12 Annual instalments from 07.12.2010
4	Bond-XXIII	
	Gross Loan opening	700.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	700.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	700.00
	Average Loan	700.00
	Rate of Interest	9.25%
	Interest	64.75
	Repayment Schedule	12 Annual instalments from 9.2.2011

5	Bond-XXV	
	Gross Loan opening	67.00
	Cumulative Repayment up to date of commercial operation/previous year	0.00
	Net Loan-Opening	67.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	67.00
	Average Loan	67.00
	Rate of Interest	10.10%
	Interest	6.77
	Repayment Schedule	12 Annual instalments from 12-6-2011
4	Bond- XXVI w.e.f 7.03.08 in replacement of 8.00% bridge loan from ICICI bank w.e.f 20.8.2007	
	Gross Loan opening	720.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	720.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	720.00
	Average Loan	720.00
	Rate of Interest	9.30%
	Interest	66.96
	Repayment Schedule	12 Annual instalments from 7-3-2012
5	Bond- XXIX (Addcap for 2008-09 Drawl on 12.0.2009)	
	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	140.00
	Repayment during the year	0.00
	Net Loan-Closing	140.00
	Average Loan	70.00
	Rate of Interest	9.20%
	Interest	6.44
	Repayment Schedule	12 Annual instalments from 12.3.2013
6	Bond- XXVIII (Addcap 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	210.00
	Repayment during the year	0.00
	Net Loan-Closing	210.00
	Average Loan	105.00
	Rate of Interest	9.33%

Interest	9.80
Repayment Schedule	12 Annual instalments from 15.12.2012
Total Loan	
Gross Loan opening	13003.00
Cumulative Repayment up to the date of commercial operation /previous year	0.00
Net Loan-Opening	13003.00
Additions during the year	350.00
Repayment during the year	0.00
Net Loan-Closing	13353.00
Average Loan	13178.00
Rate of Interest	7.8755%
Interest	1037.84