

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.152 of 2010

**Coram: Dr. Pramod Deo, Chairperson
Shri S.Jayaraman, Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

Date of Hearing: 24.8.2010

Date of Order: 24.11.2010

In the matter of:

Approval under Regulation 86 for determination of transmission tariff for Bhadrawati-Chandrapur 400 kV D/C transmission line including bays at Bhadrawati (PowerGrid) switching station (extensions) and Chandrapur (MSEB) switchyard in Western Region for the period from 1.4.2009 to 31.3.2014.

And

In the matter of:

Power Grid Corporation of India Limited, Gurgaon

.....Petitioner

Vs

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

.....Respondents

Advocates/Representatives present:

1. Shri U.K.Tyagi, PGCIL
2. Mrs. Sangeeta Edwards, PGCIL
3. Shri M.M. Mondal, PGCIL



ORDER

This petition has been filed seeking approval of transmission tariff in respect of Bhadrawati- Chandrapur 400 kV D/C transmission line including bays at Bhadrawati (Power Grid) switching station (extension) and Chandrapur (MSEB) switchyard (extension) (hereinafter “the transmission line”) in Western Region for the period from 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 regulations”). The petitioner has also sought the following reliefs:

- (a) Invoke the provision of Regulation 44(Power to Relax) of the 2009 regulations, for relaxation of Regulation 15(3), thereof so that grossing up the base rate of ROE may be allowed considering the tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per the relevant Finance Acts and accordingly allow consequential impact of tariff on account of truing to be billed and settled directly with the beneficiaries every year in the tariff block.
- (b) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and publishing of notices in newspapers in terms of Regulation 42 of the 2009 regulations, and other expenditure (if any) in relation to the filing of petition.
- (c) Allow the petitioner to bill and recover Service Tax on Transmission charges separately from the respondents, if petitioner is subjected to such service tax.



(d) Allow the petitioner to bill and adjust impact in Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2009-14 period, if any, from the respondents.

(e) Pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

2. The investment approval for the transmission line was accorded by Board of Directors of the petitioner company's vide letter dated 13.7.2004 at an estimated cost of ₹ 3338 lakh, which included IDC of ₹.150 lakh. Subsequently, the approval for the revised cost estimates was accorded by the Board of Directors of the petitioner company vide Memorandum dated 29.1.2007 for an estimated cost of ₹ 4109 lakh, including IDC of ₹ 47.00 lakh. The transmission line was declared under commercial operation on 1.5.2006.

3. Transmission charges for the transmission line approved by the order dated 28.5.2008 in Petition No. 145/2007 were revised by the Commission vide its order dated 18.6.2009 in Petition No. 56/2009 for the period 1.4.2007 to 31.3.2009 after accounting for additional capital expenditure incurred up to 31.3.2008. Subsequently, the tariff was further revised vide the Commission's order dated 7.4.2010 in Petition No. 314/2009 taking into account the additional capital expenditure incurred during 2008-09.



4. The petitioner has claimed the following transmission charges:

(₹. In lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	199.74	199.74	199.74	199.74	199.74
Interest on Loan	179.92	164.22	148.43	132.54	116.67
Return on equity	194.49	194.49	194.49	194.49	194.49
Interest on Working Capital	23.15	23.47	23.82	24.20	24.62
O & M Expenses	223.66	236.46	250.00	264.29	279.39
Total	820.96	818.38	816.48	815.26	814.91

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

(₹ In lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	33.55	35.47	37.50	39.64	41.91
O & M expenses	18.64	19.71	20.83	22.02	23.28
Receivables	136.83	136.40	136.08	135.88	135.82
Total	189.02	191.58	194.41	197.54	201.01
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	23.15	23.47	23.82	24.20	24.62

6. None of the respondents has filed reply to the petition.

CAPITAL COST

7. As per clause (2) of Regulation 7 of the 2009 regulations, the project cost admitted by the Commission for determination of tariff prior to 1.4.2009 shall form the basis for determination of tariff.

8. The petitioner has claimed the capital expenditure of ₹ 3779.90 lakh, which was admitted vide order dated 7.4.2010 in Petition No. 314/2009. The same has been



considered for the purpose of tariff calculation in this petition. Besides, the petitioner has not claimed any additional capitalization.

DEBT- EQUITY RATIO

9. Clause (2) of Regulation 12 of the 2009 regulations *inter alia* provides that,-

“(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.”

10. Details of Debt-Equity of asset as on 1.4.2009 are as per following:-

As Admitted on Date of commercial operation		
	Amount (Rs. Lakh)	%
Debt	2667.32	70.57%
Equity	1112.58	29.43%
Total	3779.90	100.00%

RETURN ON EQUITY

11. Regulation 15 of the 2009 regulations provides that,-

“15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation:

*Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:*

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.



(3) *The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:*

Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up separately for each year of the tariff period along with the tariff petition filed for the next tariff period.

(4) *Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:*

Rate of pre-tax return on equity = Base rate / (1-t)

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

Illustration.-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 11.33% including surcharge and cess:

Rate of return on equity = 15.50/ (1-0.1133) = 17.481%

(ii) In case of generating company or the transmission licensee paying normal corporate tax @ 33.99% including surcharge and cess:

Rate of return on equity = 15.50/ (1-0.3399) = 23.481%.”

12. Return on Equity has been calculated as follows: Base rate/(1-t), where Base Rate is 15.5% and 't' is normal tax rate for the period 2008-09 applicable to the petitioner which is under MAT i.e. 10%+ surcharge@10%+3%Education Cess.

13. Petitioner's prayer to invoke the provision of Regulation 44 of the 2009 regulations for relaxation of Regulation 15(3) thereof so that grossing up the base rate of ROE may be allowed considering the tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per the relevant Finance Acts, has already been taken cognizance of in the Commission's order dated 3.8.2010 in Petition No. 17/2010



wherein a decision has been taken to address the issue raised by the petitioner.

Relevant portion of the said order is extracted as under:

“We are of the view that this issue of ‘grossing up the base rate with the normal tax rate for the year 2008-09’ is generic in nature and therefore, it will be appropriate to make suitable provisions in the 2009 regulations to cater to any future changes in the tax rate. Accordingly, we direct the staff of the Commission to prepare and submit draft amendment to the 2009 regulations for allowing grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis. Any under/over recovery on account of direct settlement of tax liability shall be subject to the final adjustment at the time of true up exercise.”

14. Details of return on equity calculated based on the above provision is as under:

(₹. In lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	1112.58					
Addition due to Additional Capitalisation	0.00					
Opening Equity	1112.58	1112.58	1112.58	1112.58	1112.58	1112.58
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00
Closing Equity		1112.58	1112.58	1112.58	1112.58	1112.58
Average Equity		1112.58	1112.58	1112.58	1112.58	1112.58
Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09	11.330%					
Rate of Return on Equity (Pre Tax)		17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)		194.49	194.49	194.49	194.49	194.49

INTEREST ON LOAN

15. Regulation 16 of the 2009 regulations provides that,-

“16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.



(2) *The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.*

(3) *The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:*

(4) *Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed,.*

(5) *The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:*

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

(7) *The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*

(8) *The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.*

(9) *In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:*

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

16. In these calculations, 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 average loan have been considered as per the petition.*

(b) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period.

(c) Moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

(d) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

17. Details of the calculation of Interest on Loan are as under:

(₹. In lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	2667.32					
Addition due to Additional Capitalisation	0.00					
Gross Normative Loan	2667.32	2667.32	2667.32	2667.32	2667.32	2667.32
Cumulative Repayment upto Previous Year		317.05	516.79	716.54	916.28	1116.03
Net Loan-Opening		2350.27	2150.53	1950.78	1751.04	1551.29
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00
Repayment during the year		199.74	199.74	199.74	199.74	199.74
Net Loan-Closing		2150.53	1950.78	1751.04	1551.29	1351.55
Average Loan		2250.40	2050.65	1850.91	1651.16	1451.42
Weighted Average Rate of Interest on Loan		7.9952%	8.0081%	8.0189%	8.0272%	8.0379%
Interest		179.92	164.22	148.42	132.54	116.66

DEPRECIATION

18. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner, namely:

“17. (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided.....

Provided.....

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

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

19. Depreciation has been worked out on the basis of admitted capital expenditure of ₹ 3779.90 lakh as on 31.3.2009.

20. For the period from 1.4.2009 to 31.3.2014, the depreciation works out to



₹.199.74 lakh each year by applying rate of depreciation of 5.2844% as shown below:

(₹. In lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block		3779.90	3779.90	3779.90	3779.90	3779.90
Rate of Depreciation		5.2844%	5.2844%	5.2844%	5.2844%	5.2844%
Depreciable Value	90%	3401.91	3401.91	3401.91	3401.91	3401.91
Remaining Depreciable Value		3084.86	2885.12	2685.37	2485.63	2285.88
Depreciation		199.74	199.74	199.74	199.74	199.74

OPERATION & MAINTENANCE EXPENSES

21. Clause (g) of Regulation 19 the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and line. The petitioner has calculated the operation and maintenance expenses in accordance with the above norms and the same are allowed as such.

22. The petitioner has further submitted that license fee has been a new component of cost to the transmission licensee under O&M stage of the project and has become incidental to the petitioner only from 2008-09 only. According to the petitioner no such expenditure was payable during the period 2004-08 and therefore, the norms for O&M expenses evolved on the basis of the expenditure incurred during 2003-04 to 2007-08 do not contain any component corresponding to license fee. The petitioner has accordingly requested that license fee may be allowed to be recovered separately from the respondents.

23. The petitioner has made similar requests in some of the earlier petitions as well. Decision on reimbursement of license fee as and when taken will be applicable in this case.



INTEREST ON WORKING CAPITAL

24. As per the 2009 regulations the components of the working capital and the interest thereon are discussed hereunder:

(i) Receivables: As per Regulation 18(1)(c)(i) of the 2009 regulations, receivables will be equivalent to two months' average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(ii) Maintenance spares: Regulation 18(1)(c)(ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O & M expenses from 1.4.2009. The value of maintenance spares works out to ₹ 33.55 lakh as on 1.4.2009.

(iii) O & M expenses: Regulation 18(1) (c) (iii) of the 2009 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital: As per Regulation 18(3) of the 2009 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 1.4.2009 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 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

25. Necessary computations in support of interest on working capital are appended herein below:

(₹. In lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	33.55	35.47	37.50	39.64	41.91
O & M expenses	18.64	19.71	20.83	22.02	23.28
Receivables	136.83	136.40	136.08	135.88	135.82
Total	189.02	191.57	194.41	197.55	201.01
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	23.15	23.47	23.82	24.20	24.62

TRANSMISSION CHARGES

26. The transmission charges being allowed for the transmission lines are summarized below:

(₹. In lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	199.74	199.74	199.74	199.74	199.74
Interest on Loan	179.92	164.22	148.42	132.54	116.66
Return on equity	194.49	194.49	194.49	194.49	194.49
Interest on Working Capital	23.15	23.47	23.82	24.20	24.62
O & M Expenses	223.66	236.46	250.00	264.29	279.39
Total	820.97	818.38	816.47	815.27	814.91

Application fee and the publication expenses

27. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with our decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee from the beneficiaries. Accordingly, expenses incurred by the petitioner on application filing fees and publication of notices in connection with the present petition shall be directly recovered from the beneficiaries on pro rata basis.

Service Tax

28. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on Transmission charges separately from the respondents. Presently, transmission service has been exempted from service tax by Government of India vide its notification No. 20/2010 dated 27.2.2010 read with notification No.45/2010 dated 20.7.2010. Therefore, the prayer made by the petitioner in this regard has become infructuous.

29. The transmission charges allowed in this order shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with Regulation 33 of the 2009 regulations.

30. This order disposes of Petition No. 152/2010.

Sd/-
(M.Deena Dayalan)
Member

Sd/-
(V.S.Verma)
Member

Sd/-
(S.Jayaraman)
Member

Sd/-
(Dr. Pramod Deo)
Chairperson

