

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 122/2010

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

Date of Hearing: 16-09-2010

Date of Order: 6-1-2011

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 for transmission tariff for Kishenpur Moga transmission system in Northern 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. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitaran Nigam Ltd., Jaipur
3. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
4. Jodhpur Vidyut Vitaran Nigam Ltd, Jaipur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Electricity Board, Patiala
7. Haryana Power Purchase Centre, Panchkula
8. Power Development Department, Govt. of J&K, Jammu
9. Uttar Pradesh Power Corporation Ltd, Lucknow
10. Delhi Transco Ltd, New Delhi
11. BSES Yamuna Power Limited, New Delhi
12. BSES Rajdhani Power Ltd., New Delhi
13. North Delhi Power Ltd., New Delhi
14. Chandigarh Administration, Chandigarh
15. Uttarakhand Power Corporation Ltd, Dehradun
16. North Central Railway, Allahabad
17. New Delhi Municipal Council, New Delhi

..... **Respondents**



The following was present:

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M. Mondal, PGCIL
3. Shri S S Raju, PGCIL
4. Shri Neeraj Kumar, PGCIL
5. Shri R K Gupta, PGCIL

ORDER

This petition has been filed seeking approval for determination of transmission tariff for Kishenpur Moga transmission system in Northern Region (hereinafter called “the transmission system”) 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 clause (3) of regulation 15 thereof so that grossing up the base rate of ROE may be allowed considering the revised rate of 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 up, to be billed and settled directly with the beneficiaries every year in the tariff block.
- (b) Allow the petitioner to recover, in the case of assets being combined to calculate the transmission charges, full depreciation of the assets during the useful life reckoning from the date of actual date of commercial operation.
- (c) Approve the reimbursement by the beneficiaries, of expenditure 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.

(d) Allow the petitioner to bill and recover Service Tax on Transmission charges separately from the respondents, if petitioner is subjected to such service tax.

(e) Allow the petitioner to bill and adjust impact on 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.

(f) Allow the petitioner to bill and recover licence fee separately from the respondents

(g) 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 transmission system has three elements whose dates of commercial operation and admitted capital costs are as under:

S.No	Name of the transmission line	Date of commercial operation	Admitted Capital cost (₹ in lakh)
1	800 kV Kishenpur – Moga transmission line – I along with associated bays (Asset I)	1.5.2000	43625.95
2	800 kV Kishenpur – Moga transmission line – II along with associated bays (Asset II)	1.2.2001	40529.84
3	420 k V 63 MVAR Bus reactor at Kishenpur sub-station & 400/220 kV, 250 MVA ICT III at Moga sub station along with associated bays (Asset III)	1.3.2000	1585.33
	Total		85741.12

3. Transmission charges for the transmission system for the period up to 31.3.2009, were initially approved by the Commission vide order dated 24.2.2006 in Petition No. 84/2004. Subsequently, the transmission tariff were revised vide order dated 19.5.2008 by way of implementation of judgment dated 4.10.2006 of the Hon'ble Appellate Tribunal for Electricity in Appeal No 135/2005 and some other judgments which were considered *judgments in rem*.

4. In this petition, the petitioner has claimed the following transmission charges:

(₹.in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	4468.79	4468.79	4468.79	4468.79	936.50
Interest on Loan	1938.42	1632.05	1324.39	1017.62	824.65
Return on equity	2310.24	2310.24	2310.24	2310.24	2310.24
Interest on Working Capital	212.53	207.92	203.35	198.95	123.38
O & M Expenses	616.46	651.90	688.92	728.71	770.20
Total	9546.44	9270.90	8995.69	8724.31	4964.97

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	92.47	97.78	103.34	109.31	115.53
O & M expenses	51.37	54.33	57.41	60.73	64.18
Receivables	1591.07	1545.15	1499.28	1454.05	827.50
Total	1734.91	1697.27	1660.03	1624.09	1007.21
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	212.53	207.92	203.35	198.95	123.38

6. Only UPPCL viz. respondent No. 9 has filed reply to the petition. The respondent in its reply dated 15.9.2010 objected to the prayers of the petitioner in respect of the

issue of charging the impact of floating rate of interest, reimbursement of application filing fee, licensee fee, service tax etc. Subsequently, the respondent filed another reply dated 15.10.2010 wherein it questioned the calculations of the petitioner regarding depreciation and objected to the request for relaxation of norms for calculation of O&M expenses consequent to wage revision.

7. Having heard the representatives of the parties and examined the material on records, we proceed to dispose of the petition.

CAPITAL COST

8. Eighth proviso to clause (2) of Regulation 7 of the 2009 regulations, extracted hereunder provides that the project cost admitted by the Commission for determination of tariff prior to 1.4.2009 shall form the basis for determination of tariff.

“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff.”

9. As per the order dated 24.2.2006 and amendment dated 19.5.2008 in Petition No. 84/2004, the admitted capital expenditure was ₹ 85741.12 lakh and there is no projected additional capital expenditure thereafter. Accordingly, capital expenditure of ₹ 85741.12 lakh as on 1.4.2009 has been considered for tariff determination for 2009-14 period.

DEBT- EQUITY RATIO

10. Clause (2) of Regulation 12 of the 2009 regulations provides as under:

“(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.”

11. Details of debt-equity of the transmission system as on 1.4.2009 are as under:-

Asset I	Admitted as on 31.03.2009	
	Amount (₹ in lakh)	%
Debt	38588.40	88.45%
Equity	5037.55	11.55%
Total	43625.95	100.00%
Asset II	Admitted as on 31.03.2009	
	Amount (₹ in lakh)	%
Debt	32532.49	80.27%
Equity	7997.35	19.73%
Total	40529.84	100.00%
Asset III	Admitted as on 31.03.2009	
	Amount (₹ in lakh)	%
Debt	1404.53	88.60%
Equity	180.80	11.40%
Total	1585.33	100.00%
Combined	Admitted as on 31.03.2009	
	Amount (₹ in lakh)	%
Debt	72525.42	84.59%
Equity	13215.70	15.41%
Total	85741.12	100.00%

12. Based on the above, debt equity ratio of 84.59:15.41 has been considered for tariff calculations in this order.

RETURN ON EQUITY

13. 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 tried 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 = $15.50 / (1 - 0.3399) = 23.481\%$."

14. The petitioner has computed Return on Equity (ROE) on pre- tax basis on 11.33% MAT in accordance with the tax rate applicable for 2008-09 and has claimed return on equity @ 17.481%.

15. The petitioner has further prayed for grossing up the base rate considering the revised rate of MAT as per the Finance Act, 2009, which would work out to pre-tax ROE at 18.674% for the year 2009-10. ROE for the year 2010-11 and subsequent years of the tariff block, has been sought by grossing up of the base rate considering the revised rate of MAT as per the Finance Act, 2010. This would lead to pre tax ROE at 19.358%.

16. 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 by issuing suitable amendment to the 2009 regulations.

17. Details of return on equity calculated are as under:

		(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	13215.70					
Addition due to additional capital expenditure	0.00					
Opening Equity	13215.70	13215.70	13215.70	13215.70	13215.70	13215.70
Addition due to additional capital expenditure		0.00	0.00	0.00	0.00	0.00
Closing Equity		13215.70	13215.70	13215.70	13215.70	13215.70
Average Equity		13215.70	13215.70	13215.70	13215.70	13215.70
Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09		11.33%	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)		17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)		2310.24	2310.24	2310.24	2310.24	2310.24

INTEREST ON LOAN

18. 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.”

19. In these calculations, interest on loan has been worked out as detailed below:

(a) Details of net outstanding loan as on 31.3.2009, cumulative repayment up to 31.3.2009, repayment schedule for the loans, rate of interest etc. have been taken from the order dated 24.2.2006 and amendment dated 19.5.2008 in Petition No. 84/2004 for working out weighted average rate of interest.

(b) For loans with floating interest rates, rates of interest as on 1-4-2009 have been considered.

(c) Tariff is worked out considering normative loan and normative repayments. Depreciation allowed has been taken as normative repayment for the tariff period 2009-14.

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

20. Details of the interest on loan worked on the above basis is as under:

		(₹. In lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	72525.42					
Addition due to additional capital expenditure	0.00					
Gross Normative Loan	72525.42	72525.42	72525.42	72525.42	72525.42	72525.42
Cumulative Repayment upto Previous Year		38400.23	42869.02	47337.81	51806.60	56275.38
Net Loan-Opening		34125.19	29656.40	25187.61	20718.82	16250.04
Addition due to additional capital expenditure		0.00	0.00	0.00	0.00	0.00
Repayment during the year		4468.79	4468.79	4468.79	4468.79	936.51
Net Loan-Closing		29656.40	25187.61	20718.82	16250.04	15313.53
Average Loan		31890.80	27422.01	22953.22	18484.43	15781.78
Weighted Average Rate of Interest on Loan		6.0783%	5.9516%	5.7700%	5.5053%	5.2254%
Interest		1938.42	1632.06	1324.40	1017.62	824.65

DEPRECIATION

21. 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.

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(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.”

22. Date of commercial operation of the transmission system is 1.2.2001 and accordingly these assets will complete 12 years on 1.2.2013. Accordingly depreciation during the period 2009-10 to 2012-13 has been calculated as per Straight Line Method. For year 2013-14 depreciation has been calculated based on the remaining depreciable value to be recovered in the remaining life of the asset.

23. Details of the depreciation worked out are as under:

		(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.2120%	5.2120%	5.2120%	5.2120%	5.2120%
Depreciable Value	90	76878.50	76878.50	76878.50	76878.50	76878.50
Elapsed Life (Beginning of the year)		8	9	10	11	12
Balance useful life of the asset (Beginning of the year)	34	26	25	24	23	22
Remaining Depreciable Value		38478.27	34009.48	29540.69	25071.90	20603.11
Depreciation		4468.79	4468.79	4468.79	4468.79	936.51

OPERATION & MAINTENANCE EXPENSES

24. 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 at ₹ 616.46 lakh,

₹ 651.90 lakh, ₹ 688.92 lakh, ₹ 728.71 lakh and ₹ 770.20 lakh for year 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively, which is in accordance with the above norms and the same are therefore allowed as such.

25. The petitioner has submitted that O & M expenditure for the year 2009-14 had been arrived at on the basis of normalized actual O & M expenses during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O & M charges for the tariff period 2009-14. The petitioner has further submitted that it reserves the right to approach the Commission for suitable revision in the norms for O & M expenditure in case the impact of wage hike w.e.f 1.1.2007 is more than 50%. The petitioner has further submitted that in O & M norms for the period 2009-14, the cost associated with license fees had not been captured and therefore licence fee be allowed to be recovered separately from the respondents.

26. We observe that these issues have been raised by the petitioner in other petitions also. A view is yet to be taken by the Commission on reimbursement of the cost of wage hike and reimbursement of licence fees. The decision as and when taken will be applicable to the present case also.

INTEREST ON WORKING CAPITAL

27. 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 has accordingly been worked out.

(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.

28. Necessary computations in support of interest on working capital are appended hereinbelow:

	(₹. in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	92.47	97.79	103.34	109.31	115.53
O & M expenses	51.37	54.33	57.41	60.73	64.18
Receivables	1591.07	1545.15	1499.28	1454.05	827.50
Total	1734.91	1697.26	1660.03	1624.08	1007.21
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest	212.53	207.91	203.35	198.95	123.38

TRANSMISSION CHARGES

29. 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	4468.79	4468.79	4468.79	4468.79	936.51
Interest on Loan	1938.42	1632.06	1324.40	1017.62	824.65
Return on equity	2310.24	2310.24	2310.24	2310.24	2310.24
Interest on Working Capital	212.53	207.91	203.35	198.95	123.38
O & M Expenses	616.46	651.90	688.92	728.71	770.20
Total	9546.43	9270.90	8995.69	8724.31	4964.98

Application fee and the publication expenses

30. 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.

31. 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 beneficiary on pro rata basis.

Service Tax

32. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on Transmission charges separately from the respondents.

33. Presently, service tax on transmission service has been exempted 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, prayer made by the petitioner in this regard has become infructuous .

34. The transmission charges allowed 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.

35. This order disposes of Petition No. 122/2010.

Sd/-

M.Deena Dayalan
Member

Sd/-

V.S.Verma
Member

Sd/-

S.Jayaraman
Member

Sd/-

Dr. Pramod Deo
Chairperson

