

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

**Petition No.111/2009
With I. A. No. 6/2010**

Coram:

1. Shri S.Jayaraman, Member
2. Shri V.S.Verma, Member
3. Shri M.Deena Dayalan, Member

DATE OF HEARING: 16.12.2010

DATE OF ORDER: 11.3.2011

In the matter of

Determination of transmission tariff for Kakrapar Transmission System 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 Company Ltd., Jabalpur
 2. Maharashtra State Electricity Distribution Co. Ltd., Mumbai
 3. Gujarat Urja Vikas Nigam Ltd., Vadodara
 4. Electricity Deptt., Govt., of Goa, Panaji
 5. Electricity Department, Administration of Daman and Diu, Daman
 6. Electricity Department, Administration of Dadra Nagar Haveli, Silvassa
 7. Chhattisgarh State Electricity Board, Raipur
 8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd. Indore
-Respondents**

The following were present:

1. Shri M.M. Mondal, PGCIL
2. Shri Rajiv Gupta, PGCIL
3. Shri Rakesh Prasad, PGCIL



ORDER

The petition has been filed for approval of tariff for Kakrapar Transmission System (hereinafter referred to as 'the transmission system') in Western Region for the period 1.4.2009 to 31.3.2014, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 regulations"). The petitioner has also filed Interlocutory application No. 6/2010 for revision and amendment of transmission tariff petition No. 111/2009. The petitioner has made the following additional prayers:-

- (a) To approve reimbursement of petition filing fee, licence fee and publication of notices in the newspaper as per the 2009 regulations; and
- (b) To consider and approve for inclusion of service tax as one of the components to be recovered in transmission charges.

2. The transmission system for evacuation of power from Kakrapar Atomic Power Project in Western Region was approved by Central Government in Department of Atomic Energy vide letter dated 24.1.1991 at an estimated cost of ₹5700.00 lakh. The implementation of the transmission system was commenced by Nuclear Power Corporation, but was subsequently completed by the petitioner. .



3. The transmission system was declared under commercial operation from December 1992 to August 1993. Transmission charges up to 31.3.2009 in respect of the transmission system were approved vide order dated 19.10.2005 in Petition No. 115/2004 and same were subsequently revised by the Commission vide order dated 14.3.2008 by way of implementation of the judgment of the Hon'ble Appellate Tribunal for Electricity dated 16.5.2007 in Appeal No. 121 of 2005. The applicant has not claimed any additional capital expenditure in respect of the transmission system.

4. The petitioner has claimed the transmission charges for the transmission system as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	96.87	96.87	96.87	96.87	96.87
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	434.49	434.49	434.49	434.49	434.49
Interest on Working Capital	25.23	26.04	26.90	27.81	28.76
O & M Expenses	283.03	299.14	316.43	334.45	353.54
Total	839.62	856.54	874.69	893.62	913.66

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	42.45	44.87	47.46	50.17	53.03
O & M expenses	23.59	24.93	26.37	27.87	29.46
Receivables	139.94	142.76	145.78	148.94	152.28
Total	205.98	212.56	219.61	226.98	234.77
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	25.23	26.04	26.90	27.81	28.76

6. The petitioner has published the notices in the Financial Express, Navsakti, Loksatta, Jansatta, Sonaparant, Navhind Times, Daman Ganga Times, Sandesh, Haribhoomi and Hitavada on 23.6.2010 as required under Section 64 of the Electricity Act, 2003 (the Act) read with Regulation 3 (6) of the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004 as amended from time to time. No comments or suggestions have been received from the public in response to the public notice.

7. No reply has been filed by any respondents.

CAPITAL COST

8. As per the last proviso to clause (2) of Regulation 7 of the 2009 regulations, "in case of the existing projects, 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. The petitioner has claimed the capital expenditure of ₹4971.00 lakh as on 1.4.2009, which was admitted vide order dated 19.10.2005 read with order dated 14.3.2008 in Petition No. 115/2004.



10. Accordingly, gross block of ₹4971.00 lakh as on 1.4.2009 has been considered as the capital cost for the purpose of tariff.

DEBT- EQUITY RATIO

11. Clause (2) of Regulation 12 of the 2009 regulations *inter alia* 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.”

12. The petitioner has claimed tariff based on debt-equity ratio of 50:50 as admitted as on 31.3.2009 vide order dated 19.10.2005 read with order dated 14.3.2008 in Petition No. 115/2004. The same debt-equity ratio has been considered for the purpose of tariff during the period 2009-14.

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."

14. The petitioner has computed return on equity on pre-tax basis on 11.33% MAT in accordance with tax rate applicable for the year 2008-09 and claimed return on equity of ₹434.49 lakh each year during the tariff period @ 17.481% against the equity base of ₹2485.50 lakh. This has been found to be in order. Accordingly, the petitioner shall be entitled to return on equity @ ₹434.49 lakh each year during the tariff period, as claimed.

15. In regard to MAT, the Commission vide its order dated 3.8.2010 in Petition No. 17/2010 has already taken a decision to amend the 2009 regulations for allowing grossing up of the base rate of return with the applicable tax rate as per the Finance Act for the relevant year and for direct settlement of tax holidays of between the generating company/transmission licensee and the beneficiaries/long-term transmission customers on year to year basis. The process



of amendment to the 2009 regulations is under way and it will address the grievance of the petitioner with regard to the MAT rate.

INTEREST ON LOAN

16. 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."

17. There is no interest on loan as entire loan has been repaid prior to 31.3.2004.

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.

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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."

19. In accordance with para 18 of the order 19.10.2005 in Petition No. 115/2004, the entire loan was repaid during the period 2001-14 and depreciation was worked out by spreading the balance depreciable value over the remaining useful life of the asset. The same methodology has been adopted in the present petition for calculating the depreciation for the purpose of determination of tariff.

20. For the period 1.4.2009 to 31.3.2014 the depreciation works out to ₹96.87 lakh each year by applying rate of depreciation of 5.2913% as shown below:

(₹ in lakh)

Details of Depreciation		Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Gross block as per order dated 19.10.2005 read with order dated 14.3.2008		4971.00	4971.00	4971.00	4971.00	4971.00	4971.00
Addition during 2009-14 due to projected Additional Capitalisation			0.00	0.00	0.00	0.00	0.00
Gross block as on 31.3.2009			4971.00	4971.00	4971.00	4971.00	4971.00
Average gross block			4971.00	4971.00	4971.00	4971.00	4971.00
Rate of Depreciation			5.2913%	5.2913%	5.2913%	5.2913%	5.2913%
Depreciable Value	90%		4473.90	4473.90	4473.90	4473.90	4473.90
Balance useful life			17	16	15	14	13
Remaining Depreciable Value			1646.73	1549.86	1453.00	1356.13	1259.26
Depreciation			96.87	96.87	96.87	96.87	96.87

OPERATION & MAINTENANCE EXPENSES

21. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 220 kV D/C single conductor transmission line and 220 kV bays are prescribed for O & M expenses:

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
220 kV Single conductor transmission line (₹ in lakh/per ckt.km.)	0.269	0.284	0.301	0.318	0.336
220 kV bays (₹ in lakh per bay)	36.68	38.78	41.00	43.34	45.82

22. The petitioner has claimed O & M expenses for 234 ckt.km. and 6 bays which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
220 kV Single conductor transmission line (234 Ckt.km)	62.95	66.46	70.43	74.41	78.62
220 kV bays (6 bays)	220.08	232.68	246.00	260.04	274.92
Total	283.03	299.14	316.43	334.45	353.54

23. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expense in case the impact of wage hike w.e.f 1.1.2007 is more than 50%. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expenses in case the impact of wage hike w.e.f. 1.1.2007 is more than 50%. With reference to

the submission of the petitioner, it is clarified that if any such application is made, it will be dealt with in accordance with law.

INTEREST ON WORKING CAPITAL

24. 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 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 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 ₹39.75 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 O&M expenses 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 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. The 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	42.45	44.87	47.46	50.17	53.03
O & M expenses	23.59	24.93	26.37	27.87	29.46
Receivables	139.94	142.76	145.78	148.94	152.28
Total	205.98	212.56	219.62	226.97	234.77
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	25.23	26.04	26.90	27.80	28.76

TRANSMISSION CHARGES

26. The transmission charges being allowed for the transmission asset are summarised below:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	96.87	96.87	96.87	96.87	96.87
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	434.49	434.49	434.49	434.49	434.49
Interest on Working Capital	25.23	26.04	26.90	27.80	28.76
O & M Expenses	283.03	299.14	316.43	334.45	353.54
Total	839.62	856.53	874.69	893.61	913.66

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 on pro rata basis. The petitioner shall also be entitled for reimbursement of publication expenses from the beneficiaries on pro rata basis.

Service Tax

28. The petitioner has prayed to consider and approve for inclusion of service tax as one of the components to be covered in transmission charges. 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, the prayer of the petitioner is premature and is accordingly rejected.

Licence fee

29. The petitioner has prayed for reimbursement of the licence fee as it is an extra cost on the petitioner. It is clarified that a view in the matter is yet to be taken by the Commission.

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

31. This order disposes of Petition No. 111/200 with I.A. No. 6/2010.

Sd/-
(M. Deena Dayalan)
Member

Sd/-
(V.S.Verma)
Member

Sd/-
(S.Jayaraman)
Member

