

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 122/2009**

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

**Date of Hearing: 21.10.2010**

**Date of Order: 13.1.2011**

**In the matter of**

Approval of transmission tariff for 400 kV S/C Chamera-I Kishenpur Transmission Line 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 were present:**

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M. Mondal, PGCIL
3. Shri Rajiv Gupta, PGCIL
4. Shri Rakesh Prasad, PGCIL

**ORDER**

The petition has been filed for approval of tariff for 400 kV S/C Chamera-I Kishenpur transmission line (the transmission line) in Northern Region for the period 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 made the following additional prayers:-

- (a) To approve reimbursement of petition filing 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 annual transmission charges for the transmission line for the period up to 31.3.2009 were approved by the Commission in its order dated 6.9.2005 in Petition No. 99/2004 and thereafter, no projected additional capital expenditure is involved for the transmission line. The transmission line was declared under commercial operation on 1.10.1997.



3. The petitioner has claimed the transmission charges as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	434.77	186.72	186.72	186.72	186.72
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	845.03	845.03	845.03	845.03	845.03
Interest on Working Capital	33.71	28.94	29.37	29.82	30.29
O & M Expenses	140.68	148.69	157.23	166.24	175.72
<b>Total</b>	<b>1454.19</b>	<b>1209.38</b>	<b>1218.35</b>	<b>1227.81</b>	<b>1237.76</b>

4. 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	21.10	22.30	23.58	24.94	26.36
O & M expenses	11.72	12.39	13.10	13.85	14.64
Receivables	242.37	201.56	203.06	204.64	206.29
Total	275.19	236.25	239.74	243.43	247.29
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
<b>Interest</b>	<b>33.71</b>	<b>28.94</b>	<b>29.37</b>	<b>29.82</b>	<b>30.29</b>

5. None of the reply has been filed any respondents. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003.

### **CAPITAL COST**

6. 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.



7. The petitioner has claimed the capital expenditure of ₹8271.00 lakh, which was admitted vide order dated 6.9.2005 in Petition No.99/2004. The petitioner has not claimed any projected additional capital expenditure during 2009-14.

8. Accordingly, gross block of ₹8271.00 lakh as on 31.3.2009 has been considered as the capital cost for the purpose of tariff.

### **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. The petitioner has claimed tariff based on debt-equity ratio of 41.55:58.45 as admitted as on 31.3.2009 vide order dated 6.9.2005 in Petition No. 99/2004. The same debt-equity ratio has been considered for the purpose of tariff during the period 2009-14.

### **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. 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 ₹845.03 lakh each year during the tariff period @ 17.481% against the equity base of ₹4834.00 lakh. This has been found to be in order. Accordingly, the petitioner shall be entitled to return on equity @ ₹845.03 lakh each year during the tariff period, as claimed.



13. 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 liability 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 regulation is under way and will address the grievance of the petitioner with regard to the MAT rate.

#### **INTEREST ON LOAN**

14. 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."

15. There is no interest on loan as actual loan and notional loan has been paid prior to 31.3.2009.

### **DEPRECIATION**

16. 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."

17. The petitioner has calculated depreciation for the period 2009-10 as per Straight line method and from 2010-11 onwards depreciation has been calculated based on the remaining depreciable value to be recovered in the remaining life of the assets. It appears that the petitioner has considered the elapsed life of the asset at the end of the year 2009-10.

18. It is noted that the Commission vide para 21 and 22 of its order dated 31.7.2003 in Petition No. 39/2002 had assigned the weighted average life and balance useful life of the asset, and vide para of the order dated 6.9.2005 in Petition No. 99/2004 had further defined the remaining useful life of the asset as on 1.4.2004. For the purpose of calculation, the balance useful life as on 1.4.2009 has been arrived at in same manner. It is further noted that the entire loan was repaid prior to 1.4.2004, therefore, for the period 2004-09 remaining depreciable





value was spread over the balance useful life of the asset. Consequently, being an existing project, the same method has also been applied for the period 2009-14.

19. In the 2009 regulations, lease hold land has been considered while calculating the gross block for yearly depreciation which was not considered during the period for 2004-09 .

20. There is difference in the depreciation as worked out and claimed by petitioner. Therefore, the period 1.4.2009 to 31.3.2014 the depreciation works out to ₹199.12 lakh each year by applying rate of depreciation of 5.2566% 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 6.9.2005		8271.00	8271.00	8271.00	8271.00	8271.00	8271.00
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			8271.00	8271.00	8271.00	8271.00	8271.00
Average gross block			8271.00	8271.00	8271.00	8271.00	8271.00
Rate of Depreciation			5.2566%	5.2566%	5.2566%	5.2566%	5.2566%
Depreciable Value	90%		7443.90	7443.90	7443.90	7443.90	7443.90
Elapsed Life			12	13	14	15	16
Weighted Balance Useful life of the asset			20	19	18	17	16
Remaining Depreciable Value			3982.41	3783.29	3584.17	3385.05	3185.93
<b>Depreciation</b>			<b>199.12</b>	<b>199.12</b>	<b>199.12</b>	<b>199.12</b>	<b>199.12</b>

## OPERATION & MAINTENANCE EXPENSES

21. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV S/C, Twin conductor and 400 kV bays are prescribed for O & M expenses:

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV S/C, Twin conductor (₹ in lakh/ km)	0.358	0.378	0.400	0.423	0.447
400 kV bay (₹ lakh/bay)	52.40	55.40	58.57	61.92	65.46

22. The petitioner has claimed O & M expenses for 100.23 ckt. Km and two bays. 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
400 kV S/C, Twin conductor transmission line ( 100.23 ckt km)	35.88	37.89	40.09	42.40	44.80
400 kV bay (two bays)	104.80	110.80	117.14	123.84	130.92
<b>Total</b>	<b>140.68</b>	<b>148.69</b>	<b>157.23</b>	<b>166.24</b>	<b>175.72</b>

23. The petitioner has submitted that O & M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O & M expenses of the petitioner 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 was also considered while calculating the O & M charges for 2009-14 periods. 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 ₹21.10 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	21.10	22.30	23.58	24.94	26.36
O & M expenses	11.72	12.39	13.10	13.85	14.64
Receivables	202.27	203.67	205.17	206.74	208.40
Total	235.10	238.37	241.86	245.53	249.41
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
<b>Interest</b>	<b>28.80</b>	<b>29.20</b>	<b>29.63</b>	<b>30.08</b>	<b>30.55</b>

## **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	199.12	199.12	199.12	199.12	199.12
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	845.03	845.03	845.03	845.03	845.03
Interest on Working Capital	28.80	29.20	29.63	30.08	30.55
O & M Expenses	140.68	148.69	157.23	166.24	175.72
<b>Total</b>	<b>1213.63</b>	<b>1222.04</b>	<b>1231.01</b>	<b>1240.47</b>	<b>1250.42</b>

### **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.

28. 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.

29. As regards the reimbursement of licence fee, a view in the matter is yet to be taken by the Commission.

### **Service Tax**

30. The prayer of the petitioner for reimbursement of service tax has become infructuous as transmission service has been exempted from the ambit of the service tax.



## Licence fee

31. The petitioner has prayed to allow reimbursement of licence fee separately from the respondents. A view in the matter is yet to taken by the Commission.

32. 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.

33. This order disposes of Petition No. 122/2009.

SD/-

**(M.Deena Dayalan)**  
**Member**

SD/-

**(V.S.Verma)**  
**Member**

SD/-

**(S.Jayaraman)**  
**Member**

SD/-

**(Dr. Pramod Deo)**  
**Chairperson**

