

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No.173/2010**

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

**DATE OF HEARING: 26.10.2010**

**DATE OF ORDER: 14.12.2010**

**In the matter of**

Determination of transmission tariff for combined stage-I asset consisting of (a) 220 kV Allahabad Rewa Road D/C Transmission line Ckt-I; (b) 220 kV Allahabad-Rewa Road transmission line Ckt-II; (c ) LILO of 220 kV Modipuram-Nara transmission line; (d) LILO of 220 kV Modipuram-Simbholi transmission line and (e) 220 kV Allahabad-Phulpur S/C transmission line **(Asset-I)**; and Stage-II asset consisting of 220 kV S/C Meerut-Shatabdinagar transmission line **(Asset-II)** under Transmission System associated with 220 kV system strengthening Scheme in UP in Northern Region for the tariff period 2009-14.

**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 in respect of combined stage-I asset consisting of (a) 220 kV Allahabad Rewa Road D/C transmission line Ckt-I; (b) 220 kV Allahabad-Rewa Road transmission line, Ckt-II; (c ) LILO of 220 kV Modipuram-Nara transmission line; (d) LILO of 220 kV Modipuram-Simbholi transmission line; and (e) 220 kV Allahabad-Phulpur S/C transmission line **(Asset-I)** and Stage-II asset consisting of 220 kV S/C Meerut-Shatabdinagar transmission line **(Asset-II)** under Transmission System (the transmission system) associated with 220 kV System Strengthening Scheme in Uttar Pradesh 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 invoke the provision of Regulation 44 of the 2009 regulations for relaxation of regulations 15 (3) of the 2009 regulations so that grossing up the base rate shall be considering the revised rate of MAT as per the Finance Act, 2009 for the year 2009-10 and as per the Finance Act, 2010 for the year 2010-11 and subsequent years and allow consequential impact on tariff for 2009-14 period accordingly;

(b) In case of assets being combined to calculate the transmission charges, allow it to recover full depreciation (90% of the gross block) of the assets during its useful life (25 years for sub-station and 35 years for transmission lines) reckoning from its actual date of commercial operation and to permit to treat the recovery of depreciation after achieving the useful life by an asset (to be reckoned from the actual date of commercial operation) in accordance with para 4.0 of the petition;

(c) To approve reimbursement of petition filing fee and publication of notices in the newspaper as per the 2009 regulations;

(d) Allow to bill and recover the service tax on transmission charges separately from the respondents;

(e) Allow 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; and

(f) Allow reimbursement of licence fee separately from the respondents.

2. The annual transmission charges for the period from 1.4.2004 to 31.3.2009 were determined by the Commission in its following orders at a gross block of ₹2046.49 lakh and ₹344.86 lakh for Asset-I and Asset-II, respectively as on 31.3.2009:

Asset	Capital Cost Admitted by the Commission		Order's of the Commission
	Combined Stage-I with Notional date of commercial operation: 1.6.2004 (Asset-I)	Stage-II with Notional date of commercial operation: 1.1.2006 (Asset-II)	
(a) 220 kV Allahbad-Rewa Road D/C Transmission Line ckt-I	110.07	-----	Dated 9.5.2006 in Petition No. 133/2005
(b) 220kV Allahbad-Rewa Road D/C Transmission Line ckt-II	50.46	-----	Dated 9.3.2007 in IA No. 8/2007 in Petition No. 133/2005
(c) LILO of 220 kV Modipuram-Nara transmission Line	107.13	-----	Dated 9.3.2007 in IA No. 8/2007 in Petition no. 133/2005
(d) LILO of 220 kV Modipuram-Simbholi Transmission Line	283.61	-----	Dated 9.3.2007 in IA No. 8/2007 in Petition No. 133/2005
(e) 220kV Allahabad-Phulpur S/C Transmission Line	1495.22	-----	Dated 26.10.2006 in Petition No. 130/2005
(f) 220 kV S/C Meerut-Shatabdinagar Transmission Line	0.00	344.86	Dated 8.6.2009 in Petition No. 31/2009
	2046.49	344.86	

3. The revised cost estimate for the transmission system was approved by Ministry of Power under its letter dated 15.5.2001 at an estimated cost of ₹15090.00 lakh which included IDC of ₹1975.00 lakh.

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

(₹ in lakh)

	Asset-I					Asset-II				
	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	108.09	108.09	108.09	108.09	108.09	19.27	19.27	19.27	19.27	19.27
Interest on Loan	80.05	71.10	62.15	53.19	44.22	13.91	12.14	10.36	8.59	6.81
Return on Equity	105.03	105.03	105.03	105.03	105.03	20.38	20.38	20.38	20.38	20.38
Interest on Working Capital	6.66	6.50	6.35	6.20	6.05	1.19	1.16	1.13	1.09	1.06
O & M Expenses	10.90	11.51	12.19	12.91	13.64	1.47	1.56	1.65	1.75	1.84
<b>Total</b>	<b>310.73</b>	<b>302.23</b>	<b>293.81</b>	<b>285.42</b>	<b>277.03</b>	<b>56.22</b>	<b>54.51</b>	<b>52.79</b>	<b>51.08</b>	<b>49.36</b>

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

(₹ in lakh)

	Asset-I					Asset-II				
	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	1.64	1.73	1.83	1.94	2.05	0.22	0.23	0.25	0.26	0.28
O & M expenses	0.91	0.96	1.02	1.08	1.14	0.12	0.13	0.14	0.15	0.15
Receivables	51.79	50.37	48.97	47.57	46.17	9.37	9.09	8.80	8.51	8.23
<b>Total</b>	<b>54.34</b>	<b>53.06</b>	<b>51.82</b>	<b>50.59</b>	<b>49.36</b>	<b>9.71</b>	<b>9.45</b>	<b>9.18</b>	<b>8.92</b>	<b>8.66</b>
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	6.66	6.50	6.35	6.20	6.05	1.19	1.16	1.12	1.09	1.06

6. 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

7. Uttar Pradesh Power Corporation Ltd. (UPPCL) has made following submission:

- (i) No floating rate of interest have been contracted;
- (ii) The petitioner be directed to recalculate the figures of interest on loan in Form 13A since the beneficiaries have been over charged on account of higher value of net normative loan during the year 2009-10;
- (iii) In regard to levy of income tax on the asset during 2009-11 under Section 80-IA of the Income Tax Act, 1961, UPPCL has submitted that Section 80-IA of Income Tax Act, 1961 provides 100% deduction in respect of profits for 10 consecutive

assessment years and assessee may opt for any 10 years out of 15 years beginning with the year in which the undertaking starts the eligible activity in respect of an undertaking which starts transmission or distribution by laying a network of new transmission or distribution lines during 1.4.1999 to 31.3.2011. In the present case, the date of commercial operation of Asset-I and Asset-II is between 1.1.2003 to 1.6.2004 and 1.1.2006, respectively, therefore, no income tax should be leviable on these assets. Thus, the grossing up of base rate of return on equity in respect of income tax is not at all justified;

- (iv) In regard to treatment of depreciation of combined assets, UPPCL has submitted that the Commission should issue guidelines for the same and the 2009 regulations be amended;
- (iii) Licence fee being the onus of the licensee, it should not be passed over to the beneficiaries;
- (iv) The prayer of petitioner in regard to bill and recover the service tax is not tenable since the Government of India vide its notification No. 11/2010 dated 27.2.2010 and read with notification No. 45/2010 dated 20.7.2010 has exempted the transmission of electricity from service tax; and

- (v) In regard to floating rate of interest, UPPCL has submitted that the 2009 regulation provide only for swapping of loans in the interest of consumers. Therefore, the prayer made by the petitioner is not tenable

8. We have carefully considered the objections of UPPCL. The tariff of the transmission assets including treatment of depreciation and floating rate of interest has been determined in this order strictly in accordance with the provisions of the 2009 regulations. As regards the reimbursement of licence fee, a view in the matter is yet to taken by the Commission. As regards the MAT rate, service tax and O & M expenses, the same has been dealt with in later part of the order.

### **CAPITAL COST**

9. 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.

10. The petitioner has claimed the capital expenditure of ₹2046.49 lakh and ₹344.86 lakh for Asset-I and Asset-II, respectively. The petitioner has not claimed any projected additional capital expenditure.

11. Accordingly, gross block of ₹2046.49 lakh and ₹344.86 lakh for Asset-I and Asset-II, respectively as on 31.3.2009 has been considered for the purpose of tariff.

### DEBT- EQUITY RATIO

12. 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.”

13. The petitioner has claimed tariff based on debt-equity ratio of 70.64:29.36 and 66.19:33.81 for Asset-I and Asset-II, respectively as admitted as on 31.3.2009. The same debt-equity ratio has been considered for the purpose of tariff.

### RETURN ON EQUITY

14. 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 =  $15.50 / (1 - 0.3399) = 23.481\%$ ."

15. 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 ₹105.03 lakh and ₹20.38 lakh each year during the tariff period @ 17.481% against the equity base of ₹600.83 lakh and ₹116.58 lakh for Asset-I and Asset-II, respectively. This has been found to be in order. Accordingly, the petitioner shall be entitled to return on equity @ ₹105.03 lakh and ₹20.38 lakh each year for Asset-I and Asset-II, respectively during the tariff period, as claimed.

16. 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**

17. 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."

18. The interest on loan has been worked out as detailed below:

(i) 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 the petition;

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

(iii) 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;

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

(v) The interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009. The weighted average rate of interest as on 1.4.2009 shall be basis for the purpose of calculation of interest as per the 2009 regulations. Therefore, interest of loan has been calculated based on the floating rate as on 1.4.2009. Any charge in rate of interest subsequent to 1.4.2009 will be considered at the time of truing up.

19. Based on the above, the year-wise details of interest worked out are given hereunder:

(₹ in lakh)

Details of loan	Asset-I						Asset-II					
		2009-10	2010-11	2011-12	2012-13	2013-14		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	1445.66	1445.66	1445.66	1445.66	1445.66	1445.66	228.28	228.28	228.28	228.28	228.28	228.28
Cumulative Repayment up to Previous Year		404.76	512.85	620.94	729.04	837.13		66.87	86.14	105.41	124.68	143.96
Net Loan-Opening		1040.90	932.80	824.71	716.62	608.53		161.41	142.14	122.87	103.60	84.32
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Repayment during the year		108.09	108.09	108.09	108.09	108.09		19.27	19.27	19.27	19.27	19.27
Net Loan-Closing		932.80	824.71	716.62	608.53	500.43		142.14	122.87	103.60	84.32	65.05
Average Loan		986.85	878.76	770.66	662.57	554.48		151.77	132.50	113.23	93.96	74.69
Weighted Average Rate of Interest on Loan		8.1115%	8.0910%	8.0642%	8.0276%	7.9746%		9.1674%	9.1609%	9.1523%	9.1402%	9.1220%
<b>Interest</b>		<b>80.05</b>	<b>71.10</b>	<b>62.15</b>	<b>53.19</b>	<b>44.22</b>		<b>13.91</b>	<b>12.14</b>	<b>10.36</b>	<b>8.59</b>	<b>6.81</b>

20. The detailed calculations in support of the weighted revised average rate of interest for Asset-II are contained in **Annexure-I and Annexure-II** attached.

### **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.

xxxx

(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. Asset-I and Asset-II were declared under commercial operation on 1.4.2004 and 1.1.2006, respectively and accordingly they will complete 12 years beyond 2013-14. Thus, depreciation has been calculated annually

based on Straight line method and rates specified in **Appendix-III** of the 2009 regulations.

23. Depreciation for the periods 1.4. 2009 to 31.3.2014 works out to ₹108.09 lakh for Asset-I by applying the rate of depreciation of 5.2818%.

Depreciation in respect of Asset-II for the period 1.4.2009 to 31.3.2014 has been worked out as ₹19.27 lakh by applying rate of depreciation 5.5882%.

The computation of depreciation is given in the table below:

( ₹ in lakh)

Depreciation	Asset-I						Asset-II					
	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14		
As per last orders	2046.49	2046.49	2046.49	2046.49	2046.49	2046.49	344.86	344.86	344.86	344.86	344.86	344.86
Addition during 2009-14 due to projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Gross block as on 31.3.2009	2046.49	2046.49	2046.49	2046.49	2046.49	2046.49		344.86	344.86	344.86	344.86	344.86
Average gross block	2046.49	2046.49	2046.49	2046.49	2046.49	2046.49		344.86	344.86	344.86	344.86	344.86
Rate of Depreciation	5.2818%	5.2818%	5.2818%	5.2818%	5.2818%	5.2818%		5.5882%	5.5882%	5.5882%	5.5882%	5.5882%
Depreciable Value	90%	1841.84	1841.84	1841.84	1841.84	1841.84		310.37	310.37	310.37	310.37	310.37
Remaining Depreciable Value		1437.08	1328.99	1220.90	1112.80	1004.71		246.04	226.77	207.50	188.23	168.96
Depreciation		<b>108.09</b>	<b>108.09</b>	<b>108.09</b>	<b>108.09</b>	<b>108.09</b>	<b>958.73</b>	<b>19.27</b>	<b>19.27</b>	<b>19.27</b>	<b>19.27</b>	<b>19.27</b>
Cumulative Depreciation/ Advance against Depreciation		512.85	620.94	729.04	837.13	945.22		83.60	102.87	122.14	141.42	160.69

### **OPERATION & MAINTENANCE EXPENSES**

24. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV S/C Twin conductor, 400 kV, D/C Twin

conductor, 220 kV D/C, Single conductor transmission lines, 400 kV and 220 kV bays and are prescribed for O & M expenses:

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
220 kV S/C single conductor transmission line (₹ in lakh/per ckt.km.)	0.179	0.189	0.2	0.212	0.224
220 kV D/C single conductor transmission line (₹ in lakh/per ckt.km.)	0.269	0.284	0.301	0.318	0.336

25. The petitioner's entitlement to O & M expenses for Asset-I and Asset-II has been worked out as given hereunder:

(₹ in lakh)

		Year				
		2009-10	2010-11	2011-12	2012-13	2013-14
<b>Asset-I</b>	220 kV S/C single conductor transmission line (38.733 ckt.km.)	6.94	7.33	7.75	8.22	8.69
	220 kV D/C single conductor transmission line (14.735 ckt.km.)	3.96	4.18	4.44	4.69	4.95
	<b>Total</b>	<b>10.90</b>	<b>11.51</b>	<b>12.19</b>	<b>12.91</b>	<b>13.64</b>
<b>Asset-II</b>	220 kV S/C single conductor transmission line (8.234 ckt.km.)	1.47	1.56	1.65	1.75	1.84
	<b>Grand total</b>	<b>12.38</b>	<b>13.07</b>	<b>13.84</b>	<b>14.65</b>	<b>15.48</b>

26. 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.

27. The 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 thane will be applicable to the present case also.

### **INTEREST ON WORKING CAPITAL**

28. 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 ₹1.64 lakh and ₹0.22 lakh as on 1.4.2009 for Asset-I and Asset-II, respectively.



**(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 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 for both the assets, which is in accordance with the 2009 regulations and has been allowed.

29. The necessary computations in support of interest on working capital are appended hereinbelow:

(₹ in lakh)

	Asset-I					Asset-II				
	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	1.64	1.73	1.83	1.94	2.05	0.22	0.23	0.25	0.26	0.28
O & M expenses	0.91	0.96	1.02	1.08	1.14	0.12	0.13	0.14	0.15	0.15
Receivables	51.79	50.37	48.97	47.57	46.17	9.37	9.08	8.80	8.51	8.23
Total	54.33	53.06	51.81	50.58	49.35	9.71	9.45	9.18	8.92	8.66
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	<b>6.66</b>	<b>6.50</b>	<b>6.35</b>	<b>6.20</b>	<b>6.05</b>	<b>1.19</b>	<b>1.16</b>	<b>1.12</b>	<b>1.09</b>	<b>1.06</b>

### TRANSMISSION CHARGES

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

(₹ in lakh)

	Asset-I					Asset-II				
	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	108.09	108.09	108.09	108.09	108.09	19.27	19.27	19.27	19.27	19.27
Interest on Loan	80.05	71.10	62.15	53.19	44.22	13.91	12.14	10.36	8.59	6.81
Return on Equity	105.03	105.03	105.03	105.03	105.03	20.38	20.38	20.38	20.38	20.38
Interest on Working Capital	6.66	6.50	6.35	6.20	6.05	1.19	1.16	1.12	1.09	1.06
O & M Expenses	10.90	11.51	12.19	12.91	13.64	1.47	1.56	1.65	1.75	1.84
Total	<b>310.73</b>	<b>302.23</b>	<b>293.81</b>	<b>285.42</b>	<b>277.03</b>	<b>56.22</b>	<b>54.51</b>	<b>52.79</b>	<b>51.08</b>	<b>49.36</b>

### **Application fee and the publication expenses**

31. 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.

32. 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.

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

#### **Service Tax**

34. 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.

35. 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.

36. This order disposes of Petition No. 173/2010.

**sd/-**  
**(V.S.Verma)**  
**Member**

**sd/-**  
**(S.Jayaraman)**  
**Member**

**sd/-**  
**(Dr. Pramod Deo)**  
**Chairperson**



## CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

## Asset-I

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
<b>1</b>	<b>Bond X</b>					
	Gross loan opening	35.00	35.00	35.00	35.00	35.00
	Cumulative Repayment upto DOCO/previous year	14.58	17.50	20.42	23.33	26.25
	Net Loan-Opening	20.42	17.50	14.58	11.67	8.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2.92	2.92	2.92	2.92	2.92
	Net Loan-Closing	17.50	14.58	11.67	8.75	5.83
	Average Loan	18.96	16.04	13.13	10.21	7.29
	Rate of Interest	10.90%	10.90%	10.90%	10.90%	10.90%
	Interest	2.07	1.75	1.43	1.11	0.79
	Rep Schedule	12 Annual Instalment from 21.06.2004				
<b>2</b>	<b>Bond XI Option I</b>					
	Gross loan opening	39.00	39.00	39.00	39.00	39.00
	Cumulative Repayment upto DOCO/previous year	13.00	16.25	19.50	22.75	26.00
	Net Loan-Opening	26.00	22.75	19.50	16.25	13.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	3.25	3.25	3.25	3.25	3.25
	Net Loan-Closing	22.75	19.50	16.25	13.00	9.75
	Average Loan	24.38	21.13	17.88	14.63	11.38
	Rate of Interest	9.80%	9.80%	9.80%	9.80%	9.80%
	Interest	2.39	2.07	1.75	1.43	1.11
	Rep Schedule	12 Annual Instalment from 7.12.2005				
<b>3</b>	<b>Bond XIII Option-I</b>					
	Gross loan opening	314.00	314.00	314.00	314.00	314.00
	Cumulative Repayment upto DOCO/previous year	78.50	104.67	130.83	157.00	183.17
	Net Loan-Opening	235.50	209.33	183.17	157.00	130.83
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	26.17	26.17	26.17	26.17	26.17
	Net Loan-Closing	209.33	183.17	157.00	130.83	104.67
	Average Loan	222.42	196.25	170.08	143.92	117.75
	Rate of Interest	8.63%	8.63%	8.63%	8.63%	8.63%
	Interest	19.19	16.94	14.68	12.42	10.16
	Rep Schedule	12 Annual Instalment from 31.7.2006				
<b>4</b>	<b>PNB II</b>					
	Gross loan opening	20.00	20.00	20.00	20.00	20.00
	Cumulative Repayment upto DOCO/previous year	8.33	10.00	11.67	13.33	15.00
	Net Loan-Opening	11.67	10.00	8.33	6.67	5.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00

	Repayment during the year	1.67	1.67	1.67	1.67	1.67
	Net Loan-Closing	10.00	8.33	6.67	5.00	3.33
	Average Loan	10.83	9.17	7.50	5.83	4.17
	Rate of Interest	9.35%	9.35%	9.35%	9.35%	9.35%
	Interest	1.01	0.86	0.70	0.55	0.39
	Rep Schedule	12 Annual Instalment from 08.03.2005				
5	<b>Bond XII</b>					
	Gross loan opening	417.00	417.00	417.00	417.00	417.00
	Cumulative Repayment upto DOCO/previous year	139.00	173.75	208.50	243.25	278.00
	Net Loan-Opening	278.00	243.25	208.50	173.75	139.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	34.75	34.75	34.75	34.75	34.75
	Net Loan-Closing	243.25	208.50	173.75	139.00	104.25
	Average Loan	260.63	225.88	191.13	156.38	121.63
	Rate of Interest	9.70%	9.70%	9.70%	9.70%	9.70%
	Interest	25.28	21.91	18.54	15.17	11.80
	Rep Schedule	12 Annual Instalment from 28.3.2006				
6	<b>OBC</b>					
	Gross loan opening	17.00	17.00	17.00	17.00	17.00
	Cumulative Repayment up to DOCO/previous year	7.08	8.50	9.92	11.33	12.75
	Net Loan-Opening	9.92	8.50	7.08	5.67	4.25
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	1.42	1.42	1.42	1.42	1.42
	Net Loan-Closing	8.50	7.08	5.67	4.25	2.83
	Average Loan	9.21	7.79	6.38	4.96	3.54
	Rate of Interest	9.60%	9.60%	9.60%	9.60%	9.60%
	Interest	0.88	0.75	0.61	0.48	0.34
	Rep Schedule	12 Annual Instalment from 22.3.2005				
7	<b>Bond XV</b>					
	Gross loan opening	574.00	574.00	574.00	574.00	574.00
	Cumulative Repayment upto DOCO/previous year	95.67	143.50	191.33	239.17	287.00
	Net Loan-Opening	478.33	430.50	382.67	334.83	287.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	47.83	47.83	47.83	47.83	47.83
	Net Loan-Closing	430.50	382.67	334.83	287.00	239.17
	Average Loan	454.42	406.58	358.75	310.92	263.08
	Rate of Interest	6.68%	6.68%	6.68%	6.68%	6.68%
	Interest	30.36	27.16	23.96	20.77	17.57
	Rep Schedule	12 Annual Instalment 23.02.2008				
	<b>Total Loan</b>					
	Gross loan opening	1416.00	1416.00	1416.00	1416.00	1416.00
	Cumulative Repayment upto DOCO/previous year	356.17	474.17	592.17	710.17	828.17
	Net Loan-Opening	1059.83	941.83	823.83	705.83	587.83
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	118.00	118.00	118.00	118.00	118.00
	Net Loan-Closing	941.83	823.83	705.83	587.83	469.83

Average Loan	1000.83	882.83	764.83	646.83	528.83
Rate of Interest	<b>8.1115%</b>	<b>8.0910%</b>	<b>8.0642%</b>	<b>8.0276%</b>	<b>7.9746%</b>
<b>Interest</b>	81.18	71.43	61.68	51.92	42.17



## ANNEXURE-II

## Asset-II

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
<b>1</b>	<b>Bond X</b>					
	Gross loan opening	4.00	4.00	4.00	4.00	4.00
	Cumulative Repayment upto DOCO/previous year	1.67	2.00	2.33	2.67	3.00
	Net Loan-Opening	2.33	2.00	1.67	1.33	1.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.33	0.33	0.33	0.33	0.33
	Net Loan-Closing	2.00	1.67	1.33	1.00	0.67
	Average Loan	2.17	1.83	1.50	1.17	0.83
	Rate of Interest	10.90%	10.90%	10.90%	10.90%	10.90%
	Interest	0.24	0.20	0.16	0.13	0.09
	Rep Schedule	12 Annual Instalment from 21.8.2004				
<b>2</b>	<b>BONDS XI- Option- I</b>					
	Gross loan opening	4.00	4.00	4.00	4.00	4.00
	Cumulative Repayment upto DOCO/previous year	1.33	1.67	2.00	2.33	2.67
	Net Loan-Opening	2.67	2.33	2.00	1.67	1.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.33	0.33	0.33	0.33	0.33
	Net Loan-Closing	2.33	2.00	1.67	1.33	1.00
	Average Loan	2.50	2.17	1.83	1.50	1.17
	Rate of Interest	9.80%	9.80%	9.80%	9.80%	9.80%
	Interest	0.25	0.21	0.18	0.15	0.11
	Rep Schedule	12 Annual Instalment from 7.12.2005				
<b>3</b>	<b>Bonds XII</b>					
	Gross loan opening	46.00	46.00	46.00	46.00	46.00
	Cumulative Repayment up to DOCO/previous year	15.33	19.16	22.99	26.82	30.65
	Net Loan-Opening	30.67	26.84	23.01	19.18	15.35
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	3.83	3.83	3.83	3.83	3.83
	Net Loan-Closing	26.84	23.01	19.18	15.35	11.52
	Average Loan	28.75	24.92	21.09	17.26	13.43
	Rate of Interest	9.70%	9.70%	9.70%	9.70%	9.70%
	Interest	2.79	2.42	2.05	1.67	1.30
	Rep Schedule	12 Annual Instalment from 28.3.2006				
<b>4</b>	<b>Bonds- XIII- option- I</b>					

	Gross loan opening	56.00	<b>56.00</b>	<b>56.00</b>	<b>56.00</b>	<b>56.00</b>
	Cumulative Repayment upto DOCO/previous year	14.00	<b>18.67</b>	<b>23.33</b>	<b>28.00</b>	<b>32.67</b>
	Net Loan-Opening	42.00	37.33	32.67	28.00	23.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	4.67	4.67	4.67	4.67	4.67
	Net Loan-Closing	37.33	32.67	28.00	23.33	18.67
	Average Loan	39.67	35.00	30.33	25.67	21.00
	Rate of Interest	8.63%	8.63%	8.63%	8.63%	8.63%
	Interest	3.42	3.02	2.62	2.22	1.81
	Rep Schedule	12 Annual Instalment from 31.7.2006				
5	<b>Oriental Bank of Commerce</b>					
	Gross loan opening	2.00	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>
	Cumulative Repayment upto DOCO/previous year	0.83	<b>1.00</b>	<b>1.17</b>	<b>1.33</b>	<b>1.50</b>
	Net Loan-Opening	1.17	1.00	0.83	0.67	0.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.17	0.17	0.17	0.17	0.17
	Net Loan-Closing	1.00	0.83	0.67	0.50	0.33
	Average Loan	1.08	0.92	0.75	0.58	0.42
	Rate of Interest	9.60%	9.60%	9.60%	9.60%	9.60%
	Interest	0.10	0.09	0.07	0.06	0.04
	Rep Schedule	12 Annual Instalment from 22.3.2005				
6	<b>PNB-II</b>					
	Gross loan opening	2.00	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>
	Cumulative Repayment upto DOCO/previous year	0.83	<b>1.00</b>	<b>1.17</b>	<b>1.33</b>	<b>1.50</b>
	Net Loan-Opening	1.17	1.00	0.83	0.67	0.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.17	0.17	0.17	0.17	0.17
	Net Loan-Closing	1.00	0.83	0.67	0.50	0.33
	Average Loan	1.08	0.92	0.75	0.58	0.42
	Rate of Interest	9.35%	9.35%	9.35%	9.35%	9.35%
	Interest	0.10	0.09	0.07	0.05	0.04
	Rep Schedule	12 Annual Instalment from 8.3.2005				
	<b>Total Loan</b>					
	Gross loan opening	114.00	114.00	114.00	114.00	114.00
	Cumulative Repayment upto DOCO/previous year	34.00	43.50	52.99	62.49	71.99
	Net Loan-Opening	80.00	70.50	61.01	51.51	42.01
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	9.50	9.50	9.50	9.50	9.50
	Net Loan-Closing	70.50	61.01	51.51	42.01	32.52
	Average Loan	75.25	65.76	56.26	46.76	37.27
	Rate of Interest	<b>9.1674%</b>	<b>9.1609%</b>	<b>9.1523%</b>	<b>9.1402%</b>	<b>9.1220%</b>



Interest	6.90	6.02	5.15	4.27	3.40
----------	------	------	------	------	------

