

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 309/2010**

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

**Date of Hearing: 26.4.2011**

**Date of Order: 13.5.2011**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations'1999, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations'2009, for Tariff determination for the 1x125 MVAR Bus Reactor at Khandwa and 1x125 MVAR Bus Reactor at Dehgam along with bays associated under WRSS VII Transmission Scheme in Western Region from period from 1.4.2009 to 31.3.2014.

**And**

**In the matter of:**

PowerGrid Corporation of India Ltd., Gurgaon **...Petitioner**

Vs

1. Madhya Pradesh Power Trading company Ltd., Jabalpur
2. Maharashtra State Electricity Distribution Company Ltd., Mumbai
3. Gujarat Urja Vikas Nigam Ltd. Vadodara
4. Electricity Department. Goa, Panaji
5. Electricity Deptt. Administration of Daman and Diu, Daman
6. Electricity Deptt., Govt. of UT of Dadra and Nagar Haveli, Silvassa
7. Chattisgarh State Electricity Board, Raipur.
8. Madhya Pradesh Audyogik Kendra Vikas Nigam Ltd., Indore **..... Respondents**

**The following was present:**

Shri. U K Tyagi, PGCIL  
Shri Rajeev Gupta, PGCIL  
Shri. S S Raju, PGCIL  
Shri B Vamsi

**ORDER**

This petition has been filed seeking approval of transmission tariff in respect of 1x125 MVAR Bus Reactor at Khandwa (hereinafter referred to as



“the single asset”) and 1x125 MVAR Bus Reactor at Dehgam along with bays associated (both the assets collectively referred to hereinafter as “the combined assets”) under WRSS VII Transmission Scheme in the Western Region for the period from 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 regulations”). The petitioner has also sought the following reliefs:

(a) Allow the petitioner, in case of the assets being combined, to calculate the transmission charges to recover full depreciation (90% of the gross block) of the assets during the useful life (25 years for S/S and 35 years for Transmission lines) reckoning from the actual date of commissioning and permit the petitioner to treat the recovery of depreciation after achieving the useful life by an asset in accordance with para 9.1 of the petition.

(b) Allow grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis.

(c) Approve reimbursement of expenditure towards petition filling fee and publishing of notices in newspapers in terms of regulation 42 of the 2009 regulations and other expenditure (if any) in relating to filling of petition.

(d) Allow the petitioner to bill and recover Service Tax on transmission charges separately from the respondents if at any time exemption from Service Tax is withdrawn and transmission of power is notified as a taxable service.

(e) Allow the petitioner to bill and recover Licensee fee separately from the respondents

(f) Allow the petitioner to bill and adjust the impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2009-14, if any, 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. Investment approval for the transmission scheme was accorded by the Board of Directors of the petitioner company vide their letter dated 25.2.2008 at an estimated cost of ₹ 3205 lakh including IDC of ₹ 169 lakh based on 3<sup>rd</sup> quarter, 2007 price level.

3. Date of commercial operation of the components whose Transmission charges are being determined in this petition are as under:

<b>Detail of the asset</b>	<b>Date of commercial operation</b>	<b>Remarks</b>
1x125 MVAR Bus Reactor at Khandwa along with associated bays	1.10.2010	Within schedule as per the investment approval
and 1x125 MVAR Bus Reactor at Dehgam along with associated bays	1.11.2010	

4. The petitioner has claimed the following transmission charges:

(₹ in lakh)

Single Asset	
	2010-11 (Pro Rata)
Depreciation	17.10
Interest on Loan	17.53
Return on equity	16.98
Interest on Working Capital	2.36
O & M Expenses	27.70
<b>Total</b>	<b>81.67</b>

Combined Assets				
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation	32.88	94.53	102.73	105.43
Interest on Loan	33.33	91.41	92.56	87.49
Return on equity	32.66	93.89	102.03	104.72
Interest on Working Capital	4.19	11.20	11.88	12.22
O & M Expenses	46.17	117.14	123.84	130.92
<b>Total</b>	<b>149.23</b>	<b>408.17</b>	<b>433.04</b>	<b>440.78</b>

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

(₹ in lakh)

Single Asset	
	2010-11 (Pro-rata)
Maintenance Spares	8.31
O & M expenses	4.62
Receivables	27.22
<b>Total</b>	<b>40.15</b>
Interest	<b>2.36</b>
Rate of Interest	11.75%

Combined Assets				
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Maintenance Spares	16.62	17.57	18.58	19.64
O & M expenses	9.23	9.76	10.32	10.91
Receivables	59.69	68.03	72.17	73.46
<b>Total</b>	<b>85.54</b>	<b>95.36</b>	<b>101.07</b>	<b>104.01</b>
Interest	4.19	11.20	11.88	12.22
Rate of Interest	11.75%	11.75%	11.75%	11.75%

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

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

### **CAPITAL COST**

8. Clause 7(1) of the 2009 regulations provides as under:

*“7. Capital Cost. (1) Capital cost for a project shall include:*

*(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;*

*(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and*

*(c) additional capital expenditure determined under regulation 9:*

*Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.”*

9. Details of the apportioned approved cost as on date of commercial operation and estimated additional capitalization projected to be incurred for the assets covered in this petition are summarized below:

**(₹ in lakh)**

Name of the asset	Apportioned Approved Cost	Expenditure as on date of commercial operation	Projected expenditure during				Total Estimated Completion cost
			1.10.10 to 31.10.10	2010-11	2011-12	2012-13	
Bus Reactor at 400/220 kV Khandwa	1589.42	491.49*	94.20	218.12	130.40	70.67	1004.52
Bus Reactor at 400/220 kV Dehgam	1615.53	717.36*	-	165.22	78.00	31.77	992.35
Combined asset of Bus Reactor at 400/220 kV Dehgam (Notional DOCO: 01.11.2010)	3204.95	1303.05*	383.34	208.04	102.44		1996.87

\*Capital cost as on Date of Commercial operation is inclusive of initial spares of ₹ 111.80 lakh ( ₹ 55.87 lakh and ₹ 55.93 lakh for the individual assets)

10. As per the Auditors certificate dated 11.11.2010, the petitioner has claimed initial spares of ₹ 111.80 lakh ( ₹ 55.87 lakh and ₹ 55.93 lakh) in respect of the above mentioned assets. The above stated cost of Initial spares amounting to ₹ 111.80 lakh is in excess by ₹ 63.46 lakh as ceiling limit defined in clause 8 of the 2009 regulations as per the detail given bellow:

**(₹ in lakh)**

<b>Project Cost as on Cut off date</b>	<b>Apportioned Initial Spares Claimed</b>	<b>Ceiling Limits as per clause 8 of the 2009 regulations</b>	<b>Initial Spares worked out</b>	<b>Excess Initial Spares (Diaallowed)</b>
(a)	(b)	(c)	$(d)=*((a-b)*c) / (100-c)\%$	$(e)=(b)-(d)$
1996.87	111.80 (55.93+55.87)	2.5%	48.34	<b>63.46</b>

11. Based on the above, the capital cost for the purpose of tariff determination has been reduced by the amount of excess cost included in the Initial Spares.

12. After the above stated adjustment towards excess initial spares, the capital expenditure of ₹ 491.49 lakh for the Single Asset as on 1.10.2010 and ₹ 1239.59 lakh for Combined Assets as on 1.11.2010 has been considered for tariff determination for 2009-14 period.

### **ADDITIONAL CAPITAL EXPENDITURE**

13. With regard to additional capital expenditure, clause 9(1) of the 2009 regulations prescribes as under:

*“Additional Capitalisation: (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- (i) Undischarged liabilities;*
- (ii) XXX*
- (iii) XXX*
- (iv) XXX*
- (v) XXX”*

14. Besides, the 2009 regulations defines cut-off date as under:

*“cut-off date means 31<sup>st</sup> march of the year closing after 2 years of the year of commercial operation of the project, and incase of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31<sup>st</sup> March of the year closing after 3 years of the year of commercial operation”.*

15. The petitioner has claimed additional capital expenditure amounting to ₹ 383.34 lakh, ₹ 208.04 lakh and ₹ 102.44 lakh for the year 2010-11 (from the date of commercial operation to 31.3.2011), 2011-12 and 2012-13 respectively. Since the above stated expenditures are all within the cut-off date, the same are allowed for the purpose of tariff calculation.

### **DEBT- EQUITY RATIO**

16. Clause (1) of Regulation 12 of the 2009 regulations *inter alia* provides that,-

- (1) *For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:*

*Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.*

- (2) XXX.

17. Details of debt-equity claimed by the petitioner are as under:-

**(₹ in lakh)**

	Approved Cost		Capital Cost as on Date of commercial operation	
<b>Single Asset</b>				
Debt	1112.59	70.00%	344.04	69.999%
Equity	476.83	30.00%	147.45	30.001%
<b>Total</b>	<b>1589.42</b>	<b>100.00%</b>	<b>491.49</b>	<b>100.00%</b>
<b>Combined Assets</b>				
Debt	2243.46	70.00%	912.12	69.999%
Equity	961.48	30.00%	390.93	30.001%
<b>Total</b>	<b>3204.95</b>	<b>100.00%</b>	<b>1303.05</b>	<b>100.00%</b>

18. As there is a difference between the capital as claimed by the petitioner and that allowed herein above, correspondingly, there is a difference in debt equity details also, as provided hereunder:

**(₹ in lakh)**

	Approved		Capital Cost as on date of commercial operation	
<b>Single Asset</b>				
Debt	1112.59	70.00%	344.04	70.000%
Equity	476.83	30.00%	147.45	30.000%
<b>Total</b>	<b>1589.42</b>	<b>100.00%</b>	<b>491.49</b>	<b>100.00%</b>
<b>Combined Assets</b>				
Debt	2243.46	70.00%	867.71	70.000%
Equity	961.48	30.00%	371.87	30.000%
<b>Total</b>	<b>3204.95</b>	<b>100.00%</b>	<b>1239.59</b>	<b>100.00%</b>

19. As regards the additional capital expenditure, debt-equity ratio of 70:30 has been applied as per the following details:

**(₹ in lakh)**

	Actual		Normative	
	₹ lakh	%	₹ lakh	%
<b>Single Asset</b>				
<b>Add Cap for 2010-11</b>				
Debt	0.00	0.00%	218.62	70.00%
Equity	0.00	0.00%	93.70	30.00%
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>312.32</b>	<b>100.00%</b>



(₹ in lakh)

Combined Assets				
Add Cap for 2010-11				
	Actuals		Normative	
Debt	0.00	0.00%	268.34	70.00%
Equity	0.00	0.00%	115.00	30.00%
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>383.34</b>	<b>100.00%</b>
Add Cap for 2011-12				
Debt	0.00	0.00%	145.63	70.00%
Equity	0.00	0.00%	62.41	30.00%
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>208.04</b>	<b>100.00%</b>
Add Cap for 2012-13				
Debt	0	0.00%	71.71	70.00%
Equity	0	0.00%	30.73	30.00%
<b>Total</b>	<b>0</b>	<b>0.00%</b>	<b>102.44</b>	<b>100.00%</b>

## RETURN ON EQUITY

20. 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.



21. Return on equity has been calculated based on Average equity consequent to additional capital expenditure during the period 2010-11 to 12-13. Return on Equity has been calculated as follows- Base rate/(1-t), where Base Rate is 15.5% and 't' is normal tax rate for the period 2008-09 applicable to PowerGrid which is under MAT i.e. 10%+ surcharge@10%+3%Education Cess.

22. The petitioner has also prayed that it may be allowed to gross up the base rate of ROE as per the Finance Acts of the relevant years. This prayer has already been taken cognizance of in the Commission's order dated 3.8.2010 in Petition No. 17/2010 wherein a decision has been taken to address the issue raised by the petitioner. Relevant portion of the said order is extracted as under:

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

23. Pending decision on revision of MAT rate, ROE has been computed as per Regulation 15 of the 2009 regulations, and pre-tax ROE of 17.481% has been considered.

24. As the single asset has been commissioned on 1.10.2010, RoE in respect of the same has been calculated for six months in the year 2010-

11. Detailed calculation of the ROE in respect the transmission assets is as under:

**(₹ in lakh)**

<b>Single Asset</b>	
	<b>2010-11 (Pro rata)</b>
Opening Equity	147.45
Addition due to Additional Capitalisation	93.70
Closing Equity	241.14
Average Equity	194.30
Return on Equity (Base Rate )	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%
Rate of Return on Equity (Pre Tax )	17.481%
<b>Return on Equity (Pre Tax)</b>	<b>16.98</b>

**(₹ in lakh)**

<b>Combined Assets</b>				
	<b>2010-11 (Pro rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Opening Equity	371.88	486.88	549.29	580.02
Addition due to Additional Capitalisation	115.00	62.41	30.73	0.00
Closing Equity	486.88	549.29	580.02	580.02
Average Equity	429.38	518.08	564.66	580.02
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax )	17.481%	17.481%	17.481%	17.481%
<b>Return on Equity (Pre Tax)</b>	<b>31.27</b>	<b>90.57</b>	<b>98.71</b>	<b>101.39</b>

## **INTEREST ON LOAN**

25. 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."*

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

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.

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

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

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

(e) The interest on Loan has been calculated on the basis of rate prevailing as on 1.4.2009/date of commercial operation. Any subsequent change in rate of Interest will be considered at the time of truing up.

(f) As mentioned hereinabove, tariff is to be allowed for the Single Asset only for the month of October'2010. Repayment of Normative Loan i.e. ₹ 2.85 lakh for the Single Asset for the month of October 2010 has been considered as cumulative Repayment of Normative Loan for Combined Assets as on Notional date of commercial operation i.e. 1.11.2010.

27. Detailed calculation of the weighted average rate of interest in respect of the two transmission assets are annexed to this order as **Annexure –I** and **Annexure – II**. Details of the calculation of Interest on Loan are given overleaf.

(₹ in lakh)

Single Asset	
	2010-11 (Pro rata)
Gross Normative Loan	344.04
Cumulative Repayment upto Previous Year	0.00
Net Loan-Opening	344.04
Addition due to Additional Capitalisation	218.62
Repayment during the year	17.10
Net Loan-Closing	545.57
Average Loan	444.81
Weighted Average Rate of Interest on Loan	7.8816%
<b>Interest</b>	<b>17.53</b>

Combined Assets				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Gross Normative Loan	867.71	1136.05	1281.68	1353.38
Cumulative Repayment upto Previous Year	2.85	34.34	125.52	224.90
Net Loan-Opening	864.86	1101.71	1156.16	1128.48
Addition due to Additional Capitalisation	268.34	145.63	71.71	0.00
Repayment during the year	31.49	91.18	99.38	102.08
Net Loan-Closing	1101.71	1156.16	1128.48	1026.40
Average Loan	983.29	1128.93	1142.32	1077.44
Weighted Average Rate of Interest on Loan	7.7888%	7.8106%	7.8422%	7.8671%
<b>Interest</b>	<b>31.91</b>	<b>88.18</b>	<b>89.58</b>	<b>84.76</b>

## DEPRECIATION

28. 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.”

29. The assets involved in the petition were commissioned on 1.10.2010 and 1.11.2020. Accordingly they will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III. Depreciation of Asset-1 for the month of October’2010 has been considered as cumulative Depreciation for the Combine Asset-2.

30. As the single asset has been commissioned on 1.10.2010, depreciation in respect of the same has been calculated for six months in the year 2010-11. Based on the above, depreciation for the period the tariff period has been worked out are as under:

(₹ in lakh)

Single Asset		
		2010-11 (Pro rata)
Opening Gross Block (As per Last Order/DOCO)	491.49	491.49
Addition during 2009-14 due to Projected Additional Capitalisation		312.32
Closing Gross Block		803.81
Average Gross Block		647.65
Rate of Depreciation		5.2800%
Depreciable Value	90%	582.89
Remaining Depreciable Value		582.89
<b>Depreciation</b>		<b>17.10</b>

₹ in lakh)

Combined Assets					
		2010-11 (Pro rata)	2011-12	2012-13	2013-14
Opening Gross Block (As per Last Order/DOCO)		1239.59	1622.93	1830.97	1933.41
Addition during 2009-14 due to Projected Additional Capitalisation		383.34	208.04	102.44	0.00
Closing Gross Block		1622.93	1830.97	1933.41	1933.41
Average Gross Block		1431.26	1726.95	1882.19	1933.41
Rate of Depreciation		5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	90%	1288.13	1554.25	1693.97	1740.06
Remaining Depreciable Value		1285.28	1519.91	1568.45	1515.17
<b>Depreciation</b>		<b>31.49</b>	<b>91.18</b>	<b>99.38</b>	<b>102.08</b>

## **OPERATION & MAINTENANCE EXPENSES**

31. Clause (g) of Regulation 19 the 2009 regulations prescribes the following norms for operation and maintenance expenses based on the type of sub-station and line. It is seen that the petitioner has claimed O&M charges based on the above norms. Accordingly, O&M charges have been allowed @ ₹ 27.70 lakh (pro-rata) for the year 2010-11 for the Single asset and @ ₹ . 46.17 lakh, ₹ 117.14 lakh, ₹ 123.84 lakh and ₹ 130.92 lakh for 2010-11 (Pro rata), 2011-12, 2012-13 and 2013-14 respectively for the combined assets.

32. As stated above, the petitioner has reserved 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%. This issue is premature at this stage. Petition, if any filed by the petitioner will be dealt with in accordance with the provisions of law.

## **INTEREST ON WORKING CAPITAL**

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

(h) **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.

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

(₹ in lakh)

Single Asset	
	2010-11 For October 2010
Maintenance Spares	1.39
O & M expenses	0.77
Receivables	4.54
<b>Total</b>	<b>6.69</b>
Rate of Interest	11.75%
Interest	<b>0.39</b>

(₹ in lakh)

Combined Assets				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Maintenance Spares	16.62	17.57	18.58	19.64
O & M expenses	9.23	9.76	10.32	10.91
Receivables	57.98	66.35	70.53	71.87
<b>Total</b>	<b>83.83</b>	<b>93.68</b>	<b>99.43</b>	<b>102.41</b>
Rate of Interest	11.75%	11.75%	11.75%	11.75%
Interest	<b>4.10</b>	<b>11.01</b>	<b>11.68</b>	<b>12.03</b>

### TRANSMISSION CHARGES

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

(₹ in lakh)

Single Asset	
	2010-11 (Pro rata)
Depreciation	2.85
Interest on Loan	2.92
Return on equity	2.83
Interest on Working Capital	0.39
O & M Expenses	4.62
<b>Total</b>	<b>13.61</b>

Combined Assets				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Depreciation	31.49	91.18	99.38	102.08
Interest on Loan	31.91	88.18	89.58	84.76
Return on equity	31.27	90.57	98.71	101.39
Interest on Working Capital	4.10	11.01	11.68	12.03
O & M Expenses	46.17	117.14	123.84	130.92
<b>Total</b>	<b>144.95</b>	<b>398.07</b>	<b>423.19</b>	<b>431.19</b>

## **APPLICATION FEE AND THE PUBLICATION EXPENSES**

36. 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.

37. Accordingly, expenses incurred by the petitioner on application filing fees and publication of notices in connection with the present petition shall be directly recovered from the beneficiaries on pro rata basis.

## **SERVICE TAX**

38. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on Transmission charges separately from the respondents if at any time exemption from Service tax is withdrawn and transmission of Power is notified as a taxable Service. This prayer of the petitioner is premature. If such a contingency as foreseen by the petitioner arises, the issue will be decided in accordance with law.

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

40. This order disposes of Petition No. 309/2010.

Sd/-

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

Sd/-

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

Sd/-

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

## Annexure – 1

(₹ In lakh)

CALCUATION OF WEIGHTED AVERAGE RATE OF INTEREST		
	Details of Loan	2010-11
<b>1</b>	<b>Bond XXXI</b>	
	Gross loan opening	<b>79.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>
	Net Loan-Opening	79.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	79.00
	Average Loan	79.00
	Rate of Interest	8.90%
	Interest	7.03
	Rep Schedule	
<b>2</b>	<b>Bond XXXIII</b>	
	Gross loan opening	<b>219.15</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>
	Net Loan-Opening	219.15
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	219.15
	Average Loan	219.15
	Rate of Interest	8.64%
	Interest	18.93
	Rep Schedule	
<b>3</b>	<b>Bond XXXIII (ADD CAP For 2010-2011 Drawls on 31.03.2011)</b>	
	Gross loan opening	<b>0.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>
	Net Loan-Opening	0.00
	Additions during the year	65.95
	Repayment during the year	0.00
	Net Loan-Closing	65.95
	Average Loan	32.98
	Rate of Interest	8.64%
	Interest	2.85
	Rep Schedule	



<b>4</b>	<b>ADB III (Exchange Rate @ 45.44)</b>	
	Gross loan opening	<b>45.89</b>
	Cumulative Repayment upto DOCO/previous year	<b>1.42</b>
	Net Loan-Opening	44.47
	Additions during the year	0.00
	Repayment during the year	0.76
	Net Loan-Closing	43.71
	Average Loan	44.09
	Rate of Interest	1.72%
	Interest	0.76
	Rep Schedule	
	<b>Total Loan</b>	
	Gross loan opening	344.04
	Cumulative Repayment upto DOCO/previous year	1.42
	Net Loan-Opening	342.62
	Additions during the year	65.95
	Repayment during the year	0.76
	Net Loan-Closing	407.81
	Average Loan	375.22
	Rate of Interest	<b>7.8816%</b>
	<b>Interest</b>	29.57

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

(₹ in lakh)

	Details of Loan	2010-11	2011-12	2012-13	2013-14
<b>1</b>	<b>Bond XXXI</b>				
	Gross loan opening	<b>214.00</b>	<b>214.00</b>	<b>214.00</b>	<b>214.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	214.00	214.00	214.00	214.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	17.83
	Net Loan-Closing	214.00	214.00	214.00	196.17
	Average Loan	214.00	214.00	214.00	205.08
	Rate of Interest	8.90%	8.90%	8.90%	8.90%
	Interest	19.05	19.05	19.05	18.25
	Rep Schedule	12 Annual instalments from 25.02.2014.			
<b>2</b>	<b>Bond XXXIII</b>				
	Gross loan opening	<b>573.60</b>	<b>573.60</b>	<b>573.60</b>	<b>573.60</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	573.60	573.60	573.60	573.60
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	573.60	573.60	573.60	573.60
	Average Loan	573.60	573.60	573.60	573.60
	Rate of Interest	8.64%	8.64%	8.64%	8.64%
	Interest	49.56	49.56	49.56	49.56
	Rep Schedule	12 annual installments from 08.07.2014			
<b>3</b>	<b>ADB III (Exchange Rate @ 45.44)</b>				
	Gross loan opening	<b>45.89</b>	<b>45.89</b>	<b>45.89</b>	<b>45.89</b>
	Cumulative Repayment upto DOCO/previous year	<b>1.42</b>	<b>2.18</b>	<b>3.82</b>	<b>5.61</b>
	Net Loan-Opening	44.48	43.71	42.08	40.29
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.76	1.64	1.79	1.97
	Net Loan-Closing	43.71	42.08	40.29	38.32
	Average Loan	44.10	42.90	41.18	39.30
	Rate of Interest	1.72%	1.72%	1.72%	1.72%
	Interest	0.76	0.74	0.71	0.68
	Rep Schedule	Half yearly Instalments from 15.01.2010			

<b>4</b>	<b>ADB III (Exchange Rate @ 44.93</b>				
	Gross loan opening	<b>78.63</b>	<b>78.63</b>	<b>78.63</b>	<b>78.63</b>
	Cumulative Repayment upto DOCO/previous year	<b>2.43</b>	<b>3.73</b>	<b>6.54</b>	<b>9.64</b>
	Net Loan-Opening	76.20	74.90	72.09	68.99
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	1.31	2.81	3.10	3.41
	Net Loan-Closing	74.90	72.09	68.99	65.58
	Average Loan	75.55	73.49	70.54	67.28
	Rate of Interest	1.72%	1.72%	1.72%	1.72%
	Interest	1.30	1.26	1.21	1.16
	Rep Schedule	Half yearly Instalments from 15.01.2010			
	<b>Total Loan</b>				
	Gross loan opening	912.12	912.12	912.12	912.12
	Cumulative Repayment upto DOCO/previous year	3.85	5.91	10.36	15.25
	Net Loan-Opening	908.28	906.21	901.76	896.88
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	2.07	4.45	4.89	23.22
	Net Loan-Closing	906.21	901.76	896.88	873.66
	Average Loan	907.24	903.99	899.32	885.27
	Rate of Interest	<b>7.7888%</b>	<b>7.8106%</b>	<b>7.8422%</b>	<b>7.8671%</b>
	<b>Interest</b>	70.66	70.61	70.53	69.64