

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 217/2010**

**Coram: Shri S.Jayaraman, Member  
Shri V.S.Verma, Member**

**Date of Hearing: 13.1.2011**

**Date of Order: 15.3.2011**

**In the matter of:**

Approval under Regulation 86 of Central Electrical Regulatory Commission (Conduct of Business) Regulations, 1999 for determination of Transmission Tariff for combined Asset-1 comprising 400/220 kV Damoh S/S along with bays and 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh S/S and combined Asset-2 comprising 400/220 kV ICT-I at Damoh S/S along with bays and 400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh S/S under WRSS-IV Transmission Scheme in Western Region for the tariff block 2009-14.

**And**

**In the matter of:**

Power Grid Corporation of India Ltd, Gurgaon .....**Petitioner**

**Vs**

1. Madhya Pradesh Power Trading Company, Jabalpur
2. Maharashtra State Electricity Distribution Company Ltd., Mumbai
3. Gujarat Urja Vikas Nigam Ltd. Vadodara
4. Electricidty Department, Govt. of 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 Power Distribution Co. Ltd. Raipur.
8. Madhya Pradesh Audyogik Kendra Vikas Nigam Ltd. Indore ...**Respondent**

**The following were present:**

1. Shri.M M Mondal, PGCIL
2. Shri Rajeev Gupta, PGCIL
3. Shri R R Patel, PGCIL
4. Shri Rakesh Prasad, PGCIL



## ORDER

This petition has been filed seeking approval of transmission tariff in respect of combined Asset-1 comprising 400/220 kV Damoh S/S along with bays and 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh S/S and combined Asset-2 comprising 400/220 kV ICT-I at Damoh S/S along with bays and 400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh S/S under WRSS-IV Transmission Scheme in Western Region (hereinafter collectively referred to as “the transmission assets”) for the tariff block 2009-14. based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 regulations”). The petitioner has also sought the following reliefs:

- (a) Invoke the provisions of Regulation 44(Power to Relax) of the 2009 regulations, for relaxation of clause (3) of regulation 15 thereof so that grossing up the base rate of Return on Equity (ROE) may be allowed considering the revised rate of MAT, surcharge, any other cess, charges, levies etc. as per the relevant Finance Acts and accordingly allow consequential impact of tariff on account of truing up, to be billed and settled directly with the beneficiaries every year in the tariff block.
- (b) Allow the petitioner to recover full depreciation (90% of the gross block) of the assets during its useful life.
- (c) Approve the reimbursement, of expenditure, by the beneficiaries towards petition filing fee, and publishing of notices in newspapers in terms of Regulation 42 of the 2009 regulations, and other expenditure (if any) in relation to the filing of petition.
- (d) Allow the petitioner to bill and adjust the impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2009-14 period if any.

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

(f) 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 scheme was accorded by Board of Directors of petitioner company vide its letter dated 19.4.2006, at an estimated cost of ₹ 9722.00 lakh, including IDC of ₹ 441.00 lakh at the IV th quarter 2005 price level

3. Details of the elements for which tariff is being awarded vide this order together with their notional date of commercial operation are as under:

<b>Asset</b>	<b>Element</b>	<b>Actual date of commercial operation</b>	<b>Notional date of commercial operation</b>
Asset - 1	(a) 400/220 kV Damoh S/S along with bays	1.9.2008	1.1.2009
	(b) 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh S/S	1.1.2009	
Asset - 2	(a) 400/220 kV ICT-I at Damoh S/S along with bays	1.9.2008	1.12.2008
	(b) 400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh S/S	1.12.2008	

4. Transmission charges for the transmission assets for the period upto 31.3.2009, including additional capital expenditure during 2008-09, were approved by the Commission vide order dated 16.3.2010 in Petition No. 167/2009.

5. The petitioner has claimed the following transmission charges:

(₹ in lakh)

Asset -1					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	212.45	225.86	235.97	235.97	235.97
Interest on Loan	258.10	253.98	244.83	222.59	200.39
Return on equity	218.12	231.43	241.47	241.47	241.47
Interest on Working Capital	16.97	17.60	17.98	17.69	17.40
O & M Expenses	52.40	55.40	58.57	61.92	65.46
<b>Total</b>	<b>758.04</b>	<b>784.27</b>	<b>798.82</b>	<b>779.64</b>	<b>760.69</b>
Asset - 2					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	174.72	192.16	200.48	200.48	200.48
Interest on Loan	209.43	219.65	214.10	195.23	176.43
Return on equity	177.85	200.40	210.72	210.72	210.72
Interest on Working Capital	27.96	29.94	31.20	31.84	32.55
O & M Expenses	324.88	343.48	363.14	383.88	405.84
<b>Total</b>	<b>914.84</b>	<b>985.63</b>	<b>1019.64</b>	<b>1022.15</b>	<b>1026.02</b>

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

(₹ in lakh)

Asset 1					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	7.86	8.31	8.79	9.29	9.82
O & M expenses	4.37	4.62	4.88	5.16	5.46
Receivables	126.34	130.71	133.14	129.94	126.78
<b>Total</b>	<b>138.57</b>	<b>143.64</b>	<b>146.81</b>	<b>144.39</b>	<b>142.06</b>
Interest	16.97	17.60	17.98	17.69	17.40
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Asset 2					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M expenses	27.07	28.62	30.26	31.99	33.82
Receivables	152.47	164.27	169.94	170.36	171.00
<b>Total</b>	<b>228.27</b>	<b>244.41</b>	<b>254.67</b>	<b>259.93</b>	<b>265.70</b>
Interest	27.96	29.94	31.20	31.84	32.55
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%

7. Reply to the petition has been filed by Madhya Pradesh Power Trading Company Ltd. (MPPTCL) viz. respondent No. 1 and Maharashtra state Electricity Distribution Company Ltd (MSEDCL) viz respondent No. 2.

8. MPPTCL in its reply has contended that the date of commercial operation of the transmission assets are on or before 1.4.2009 and therefore, the cut-off date of transmission assets shall be 31.3.2010. According to the respondent, additional capital expenditure amounting to ₹ 776.32 lakh proposed to be incurred during 2010-11 is not admissible as the same is beyond the cut-off date. MPPTCL has further invited the Commission's attention to paras 17 to 22 of its order dated 16.3.2010 in Petition No. 167/2009 wherein it has been stated that the Petitioner would adjust the liquidated damages as and when received from the contractor. MPPTCL has asked for the details in this regard.

9. MSEDCL, in its reply, has pointed out that a huge sum is being claimed towards additional capital expenditure towards Final/Retention payments. Generally such final/retention payments comprise security deposits, performance deposits, liquidated damages, etc. According to the respondent release of the amount earlier withheld does not amount to additional expenditure. Besides, the respondent has pointed out that the CBEC has since exempted service tax on transmission and hence the prayer need not be considered by the Commission while determining transmission and wheeling charges. MSEDCL has also objected to the claim for recovery of depreciation after achieving the useful life of the assets. As regards the prayer for reimbursement of filing fee and other expenditure in relation to filing of petition, the respondent has submitted that the same has been declined by the Commission vide its order dated 11.9.2008 in Petition No. 129/2005 and hence may not be considered in the present petition. The respondent has also requested that the petitioner be directed to indicate the provision under which reimbursement of licence fee has been sought.

10. The petitioner, in its rejoinder to the reply by MPPTCL has submitted that recovery of liquidated damages from the contractor is still in progress. With reference to the reply by MSEDCL, the petitioner has invited attention to para 7 and Form 9 of the petition wherein the details of additional capital expenditure have been provided. The petitioner has also clarified that only final retention payments have been claimed as part of additional capital expenditure as permitted under clause 9(1) of the 2009 regulation. Regarding Service Tax, the petitioner has submitted that it may be allowed to bill and recover the same if at any time, the exemption is withdrawn and transmission is notified as a taxable service. As regards the prayer for recovery of depreciation the petitioner has pointed out that where ever the assets are being combined, for the purpose of calculating tariff, the date of commercial operation of the element commissioned at the latest becomes the notional date of commercial operation of the combined asset. However, the useful life of the equipment in the transmission asset and depreciation shall continue to be governed by the respective actual date of commercial operation only. Accordingly, after completing the technical life of the various equipment starting from the actual date of commercial operation, full depreciation (90% of the gross block) would deem to be recovered and balance depreciation will be applicable for the remaining assets. Reiterating the submissions made in the petition, the petitioner has prayed that transmission tariff be approved in full as prayed for in the petition.

11. The submissions by the parties in the reply and the rejoinder thereto are being addressed in the respective paragraphs hereunder.

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

### **CAPITAL COST**

13. 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.

14. Details of the capital cost approved vide order dated 16.3.2010 in Petition No.167/2009 in respect of the four elements combined as two assets are as under:

(₹ in lakh)		
S. No.	Asset	Approved Capital Cost as on 31.3.2009
1.	400/220 kV Damoh S/S along with bays Asset 1(a)	2264.95
2.	400/220 kV ICT-I at Damoh S/S along with bays. Asset 2(a)	1891.41
3.	400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh S/S Asset 2(b)	1266.68
4.	400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh S/S Asset 1(b)	1831.92

15. The above cost has been considered for the purpose of computation of tariff in this order. Although admitted cost for 400/220 kV ICT-I at Damoh S/S along with bays as on 31.3..2009 is ₹ 1891.41 lakh against financial approved package ₹ 1550.36 lakh, it is seen that the admitted capital cost of WRSS-IV Transmission Scheme as on 31.3.2009 is ₹ 7254.97 lakh which is well within the Financial Approved Package of ₹ 9469.47 lakh

16. Accordingly, the capital cost as on 1.4.2009 in respect of the two assets is as under:

(₹ in lakh)	
Particulars	Admitted Capital Cost as on 1.4.2009
Combine Asset - 1	4096.87
Combine Asset - 2	3158.09

## **ADDITIONAL CAPITAL EXPENDITURE**

17. Regulation 9 of 2009 regulations provides for computation of additional capital expenditure as under:

“9. **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) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and
- (v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier



communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009.”

18. Details of the projected additional capital expenditure (hereinafter referred to as “Add Cap”) claimed by the petitioner are as under:

(₹ in lakh)

Name of the Asset	Year	Nature	Amount (In Lakh)	Details of Expenditure
400/220 kV Damoh S/S along with bays <b>(Asset 1)</b>	2009-10	Building & Civil Works	0.02	Final/ Retention payments.
		Sub-Station	33.34	
	2010-11	Sub-Station	103.97	
400/220 kV ICT-I at Damoh S/S along with bays. <b>(Asset 2)</b>	2009-10	Sub-Station	51.55	Final/ Retention payments.
		PLCC	1.44	
	2010-11	Sub-Station	159.32	
400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh S/S <b>(Asset 2)</b>	2009-10	Building & Civil Works	331.01	Final/ Retention payments.
		Sub-Station	82.46	
	2010-11	Building & Civil Works	213.00	
		Sub-Station	21.20	
400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh S/S <b>(Asset 1)</b>	2009-10	Sub-Station	90.43	Final/ Retention payments.
		PLCC	1.01	
	2010-11	Sub-Station	278.83	
<b>Total</b>			<b>1367.58</b>	

19. It is apparent from the above that the petitioner has claimed the additional capitalisation during 2009-10 and 2010-11 for final/retention payment. Since the notional dates of commercial operation of Asset I and Asset II are 1.1.2009 and 1.12.2008, the cut-off date of these assets extends upto 31.3.2010 as per the

2004 tariff regulations. Therefore, the additional capital expenditure incurred/projected to be incurred during 2009-10 is covered under Regulation 9(1)(i) of 2009 regulations and is accordingly allowed. As regards the expenditure to be incurred during 2010-11, the same falls beyond the cut-off date and is therefore not covered under Regulation 9(1)(i) of 2009 regulations. However, in view of our decision in order dated 8.2.2011 in Petition No.176/2010, we allow the additional expenditure during 2010-11 to be capitalised by relaxing the provisions of Regulation 9(2) of 2009 regulations.

20. The following capital cost after including the additional capital expenditure has been considered for the purpose of computation of tariff in this order:

(₹ in lakh)

<b>ASSET-1</b>					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block as on 31.3.2009	4096.87	4221.67	4604.47	4604.47	4604.47
Additional Capital Expenditure	124.80	382.80	0.00	0.00	0.00
Gross Block	4221.67	4604.47	4604.47	4604.47	4604.47
<b>ASSET -2</b>					
Gross Block as on 31.3.2009	3158.09	3624.55	4018.07	4018.07	4018.07
Additional Capital Expenditure	466.46	393.52	0.00	0.00	0.00
Gross Block	3624.55	4018.07	4018.07	4018.07	4018.07

### **DEBT- EQUITY RATIO**

21. 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.”*

22. Details of debt-equity of the four elements comprising the two assets as on 1.4.2010 are as under:

Combined Asset-1	Approved		Claimed by petitioner as on 31.3.2009	
Asset (a)	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	1778.58	70.00%	1585.47	70.00%
Equity	762.25	30.00%	679.49	30.00%
<b>Total</b>	<b>2540.83</b>	<b>100.00%</b>	<b>2264.95</b>	<b>100.00%</b>
Asset (b)	Approved		Admitted as on DOCO	
Asset (b)	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	2095.01	70.00%	1282.34	70.00%
Equity	897.86	30.00%	549.58	30.00%
<b>Total</b>	<b>2992.87</b>	<b>100.00%</b>	<b>1831.92</b>	<b>100.00%</b>
Combined Asset-2	Approved		Admitted as on DOCO	
Asset (a)*	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	1085.25	70.00%	1324.01	70.00%
Equity	465.11	30.00%	567.40	30.00%
<b>Total</b>	<b>1550.36</b>	<b>100.00%</b>	<b>1891.41</b>	<b>100.00%</b>
Asset (b)	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	1669.79	70.00%	886.68	70.00%
Equity	715.62	30.00%	380.00	30.00%
<b>Total</b>	<b>2385.41</b>	<b>100.00%</b>	<b>1266.68</b>	<b>100.00%</b>
<b>Grand Total</b>	<b>9469.47</b>		<b>7254.96</b>	

23. Following debt-equity ratio claimed by the petitioner is allowed:

Particulars	Approved		As Admitted on 31.03.2009	
Combined Asset-1	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	3873.59	70.00%	2867.81	70.00%
Equity	1660.11	30.00%	1229.07	30.00%
<b>Total</b>	<b>5533.70</b>	<b>100.00%</b>	<b>4096.88</b>	<b>100.00%</b>

Particulars	Approved		As Admitted on 31.03.2009	
Combined Asset-2	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	2755.04	70.00%	2210.69	70.00%
Equity	1180.73	30.00%	947.40	30.00%
<b>Total</b>	<b>3935.77</b>	<b>100.00%</b>	<b>3158.09</b>	<b>100.00%</b>

24. As regards the additional capital expenditure during 2009-10 and 2010-11 for the transmission assets, the same has been segregated in the debt-equity ratio of 70:30 in our tariff calculations.

25. Based on the above, the equity base for the computation of tariff, consequent to allowing additional capital expenditure (referred to as “ACE” in the table below) is as under:

Description	Equity on 1.4.2009	Notional equity due to ACE for the period 2009-10	Total equity considered for tariff calculations for the period 2009-10*	Notional equity due to ACE for the period 2010-11	Total equity considered for tariff calculations for the period 2010-11*	Total equity considered for tariff calculations for the period 2011-14*
Combined Asset-1	1229.07	37.44	1247.78	114.84	1323.92	1381.34
Combined Asset-2	947.41	139.94	1017.38	118.06	1146.37	1205.40

### **RETURN ON EQUITY**

26. 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where  $t$  is the applicable tax rate in accordance with clause (3) of this regulation.

27. Petitioner's prayer to invoke the provisions of Regulation 44 of the 2009 regulations for relaxation of Regulation 15(3) thereof so that grossing up the base rate of ROE may be allowed considering the tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per the relevant Finance Acts, has already been taken cognizance of in the Commission's order dated 3.8.2010 in Petition No. 17/2010 wherein a decision has been taken to address the issue raised by the petitioner by issuing appropriate amendment to the 2009 regulations. Pending decision on revision of MAT rate, ROE has been computed as per Regulation 15 of the 2009 regulations at the pre-tax ROE of 17.481%. Detailed calculation of the ROE in respect the transmission assets is as under:

(₹ in lakh)

Asset - 1						
		2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity	1229.06	1229.06	1266.50	1381.34	1381.34	1381.34
Addition due to Additional Capitalisation		37.44	114.84	0.00	0.00	0.00
Closing Equity		1266.50	1381.34	1381.34	1381.34	1381.34
Average Equity		1247.78	1323.92	1381.34	1381.34	1381.34
Return on Equity (Base Rate )		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09		11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax )	11.33%	17.481%	17.481%	17.481%	17.481%	17.481%
<b>Return on Equity (Pre Tax)</b>		<b>218.12</b>	<b>231.43</b>	<b>241.47</b>	<b>241.47</b>	<b>241.47</b>
Asset - 2						
		2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity	947.41	947.41	1087.35	1205.40	1205.40	1205.40
Addition due to Additional Capitalisation		139.94	118.06	0.00	0.00	0.00
Closing Equity		1087.35	1205.40	1205.40	1205.40	1205.40
Average Equity		1017.38	1146.37	1205.40	1205.40	1205.40
Return on Equity (Base Rate )		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)		11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax )	11.33%	17.481%	17.481%	17.481%	17.481%	17.481%
<b>Return on Equity (Pre Tax)</b>		<b>177.85</b>	<b>200.40</b>	<b>210.72</b>	<b>210.72</b>	<b>210.72</b>

## **INTEREST ON LOAN**

28. 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.”*

29. 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) If the moratorium period has been 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 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 rate as on 1.4.2009. Any change in rate of Interest subsequent to 1.4.2009 will be considered at the time of truing up.

30. Details of the calculation of Interest on Loan are as under:

(₹ in lakh)

Asset – 1						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	2867.81	2867.81	2955.17	3223.13	3223.13	3223.13
Cumulative Repayment upto Previous Year		61.52	273.97	499.83	735.80	971.77
Net Loan-Opening		2806.29	2681.19	2723.29	2487.33	2251.36
Addition due to Additional Capitalisation		87.36	267.96	0.00	0.00	0.00
Repayment during the year		212.45	225.86	235.97	235.97	235.97
Net Loan-Closing		2681.19	2723.29	2487.33	2251.36	2015.40
Average Loan		2743.74	2702.24	2605.31	2369.35	2133.38
Weighted Average Rate of Interest on Loan		9.4069%	9.3990%	9.3972%	9.3944%	9.3932%
<b>Interest</b>		<b>258.10</b>	<b>253.98</b>	<b>244.83</b>	<b>222.59</b>	<b>200.39</b>

(₹ in lakh)

Asset – 2						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	2210.68	2210.68	2537.21	2812.67	2812.67	2812.67
Cumulative Repayment upto Previous Year		54.68	229.40	421.56	622.04	822.52
Net Loan-Opening		2156.00	2307.80	2391.11	2190.63	1990.15
Addition due to Additional Capitalisation		326.52	275.46	0.00	0.00	0.00
Repayment during the year		174.72	192.16	200.48	200.48	200.48
Net Loan-Closing		2307.80	2391.11	2190.63	1990.15	1789.67
Average Loan		2231.90	2349.46	2290.87	2090.39	1889.91
Weighted Average Rate of Interest on Loan		9.3833%	9.3488%	9.3458%	9.3394%	9.3354%
<b>Interest</b>		<b>209.43</b>	<b>219.65</b>	<b>214.10</b>	<b>195.23</b>	<b>176.43</b>

## **DEPRECIATION**

31. 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.*

*Provided that.....*

*Provided further that.....*

*(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.”*

32. Notional dates of commercial operation of the two assets being 1.1.2009 and 1.12.2008, the same will complete 12 years beyond 2013-14.





Therefore depreciation has been worked out annually based on straight line method and at rates specified in Appendix - III.

33. For the period 1.4.2009 to 31.3.2014 the depreciation worked out are as under:

(₹ in lakh)

Asset – 1						
		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.1080%	5.1180%	5.1247%	5.1247%	5.1247%
Depreciable Value	90%	3729.26	3957.68	4129.94	4129.94	4129.94
Remaining Depreciable Value		3667.74	3683.70	3630.10	3394.14	3158.17
<b>Depreciation</b>		<b>212.45</b>	<b>225.86</b>	<b>235.97</b>	<b>235.97</b>	<b>235.97</b>
Asset – 2						
		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.1520%	5.0285%	4.9894%	4.9894%	4.9894%
Depreciable Value		3052.19	3439.18	3616.26	3616.26	3616.26
Remaining Depreciable Value		2997.51	3209.78	3194.70	2994.23	2793.75
<b>Depreciation</b>		<b>174.72</b>	<b>192.16</b>	<b>200.48</b>	<b>200.48</b>	<b>200.48</b>

### **OPERATION & MAINTENANCE EXPENSES**

34. Clause (g) of Regulation 19 the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and transmission line. The petitioner has calculated the operation and maintenance expenses in accordance with the above norms which have been allowed. The O & M expenses have been allowed as under:

(₹ in lakh)

ASSET 1					
Element	2009-10	2010-11	2011-12	2012-13	2013-14
1 no. 400 kV Bus Reactor Bay	52.40	55.40	58.57	61.92	65.46
<b>O&amp;M expenses</b>	<b>52.40</b>	<b>55.40</b>	<b>58.57</b>	<b>61.92</b>	<b>65.46</b>
ASSET 2					
Element	2009-10	2010-11	2011-12	2012-13	2013-14
2 nos. 400 kV bay	104.80	110.80	117.14	123.84	130.92
6 nos. 220 kV bay	220.08	232.68	246.00	260.04	274.92
<b>O&amp;M expenses</b>	<b>324.88</b>	<b>343.48</b>	<b>363.14</b>	<b>383.88</b>	<b>405.84</b>

### **INTEREST ON WORKING CAPITAL**

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

(i) **Receivables:** As per Regulation 18(1)(c)(i) of the 2009 regulations, receivables will be equivalent to two months' average billing calculated

on target availability level. The petitioner has claimed the receivables on the basis of 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

**(ii) Maintenance spares:** Regulation 18(1)(c)(ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O & M expenses from 1.4.2009. The value of maintenance spares has accordingly been worked out.

**(iii) O & M expenses:** Regulation 18(1) (c) (iii) of the 2009 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

**(iv) Rate of interest on working capital:** As per Regulation 18(3) of the 2009 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

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

(₹ in lakh)

Asset - 1					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	7.86	8.31	8.79	9.29	9.82
O & M expenses	4.37	4.62	4.88	5.16	5.46
Receivables	126.34	130.71	133.14	129.94	126.78
<b>Total</b>	138.57	143.64	146.80	144.39	142.06
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	<b>16.97</b>	<b>17.60</b>	<b>17.98</b>	<b>17.69</b>	<b>17.40</b>

<b>Asset – 2</b>					
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M expenses	27.07	28.62	30.26	31.99	33.82
Receivables	152.47	164.27	169.94	170.36	171.00
<b>Total</b>	<b>228.28</b>	<b>244.42</b>	<b>254.67</b>	<b>259.93</b>	<b>265.70</b>
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	<b>27.96</b>	<b>29.94</b>	<b>31.20</b>	<b>31.84</b>	<b>32.55</b>

## **TRANSMISSION CHARGES**

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

(₹ in lakh)

<b>Asset – 1</b>					
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	212.45	225.86	235.97	235.97	235.97
Interest on Loan	258.10	253.98	244.83	222.59	200.39
Return on equity	218.12	231.43	241.47	241.47	241.47
Interest on Working Capital	16.97	17.60	17.98	17.69	17.40
O & M Expenses	52.40	55.40	58.57	61.92	65.46
<b>Total</b>	<b>758.05</b>	<b>784.27</b>	<b>798.82</b>	<b>779.63</b>	<b>760.69</b>
<b>Asset - 2</b>					
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	174.72	192.16	200.48	200.48	200.48
Interest on Loan	209.43	219.65	214.10	195.23	176.43
Return on equity	177.85	200.40	210.72	210.72	210.72
Interest on Working Capital	27.96	29.94	31.20	31.84	32.55
O & M Expenses	324.88	343.48	363.14	383.88	405.84
<b>Total</b>	<b>914.84</b>	<b>985.62</b>	<b>1019.63</b>	<b>1022.15</b>	<b>1026.01</b>

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

38. 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.

39. 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**

40. 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, the exemption from Service tax is withdrawn and transmission of power is notified as a taxable service.

41. This prayer is premature. The petitioner is at liberty to approach the Commission as per the provisions of law as and when such a contingency arises.

### **SHARING OF TRANSMISSION CHARGES**

42. 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.

43. This order disposes of Petition No. 217/2010.

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

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

## Annexure

<b>Name of the Company:</b>		<b>PGCIL</b>				
<b>Name of the Tr. System:</b>		<b>Asset 1 -Combined assets of 400/220 kV Damoh S/S along with bays associated and 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh S/S</b>				
<b>Notional DOCO:</b>		<b>01.01.2009</b>				
<b>Petition No.:</b>		<b>217/2010</b>				
<b>Tarrif setting Period:</b>		<b>2009-14</b>				
<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN</b>						
(Rs. in Lacs)						
	<b>Details of Loan</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond-XXVII</b>					
	Gross loan opening	1736.00	<b>1736.00</b>	<b>1736.00</b>	<b>1736.00</b>	<b>1736.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>144.67</b>	<b>289.33</b>
	Net Loan-Opening	1736.00	1736.00	1736.00	1591.33	1446.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	144.67	144.67	144.67
	Net Loan-Closing	1736.00	1736.00	1591.33	1446.67	1302.00
	Average Loan	1736.00	1736.00	1663.67	1519.00	1374.33
	Rate of Interest	9.47%	9.47%	9.47%	9.47%	9.47%
	Interest	164.40	164.40	157.55	143.85	130.15
	Rep Schedule	12 Annual instalments from 31.03.2012				
<b>2</b>	<b>Bond XXVIII (Short term Bridge Loan [29-09-2008 to 14-12-2008] from Bank of Baroda Replaced by Bond XXVIII from 15.12.2008)</b>					
	Gross loan opening	1122.00	<b>1122.00</b>	<b>1122.00</b>	<b>1122.00</b>	<b>1122.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>93.50</b>
	Net Loan-Opening	1122.00	1122.00	1122.00	1122.00	1028.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	93.50	93.50
	Net Loan-Closing	1122.00	1122.00	1122.00	1028.50	935.00
	Average Loan	1122.00	1122.00	1122.00	1075.25	981.75
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	104.68	104.68	104.68	100.32	91.60
	Rep Schedule	12 Annual instalments from 15.12.2012				
<b>3</b>	<b>Bond XXXI (AddCap for 2009-10 Drawl on 25.02.2010)</b>					
	Gross loan opening	0.00	<b>64.00</b>	<b>64.00</b>	<b>64.00</b>	<b>64.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	64.00	64.00	64.00	64.00



	Additions during the year	64.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	5.33
	Net Loan-Closing	64.00	64.00	64.00	64.00	58.67
	Average Loan	32.00	64.00	64.00	64.00	61.33
	Rate of Interest	8.90%	8.90%	8.90%	8.90%	8.90%
	Interest	2.85	5.70	5.70	5.70	5.46
	Rep Schedule	12 Annual instalments from 25.02.2014				
<b>4</b>	<b>Bond XXX (AddCap for 2009-10 Drwal on 29.09.2009)</b>					
	Gross loan opening	0.00	23.35	23.35	23.35	23.35
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	23.35	23.35	23.35	23.35
	Additions during the year	23.35	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	1.95
	Net Loan-Closing	23.35	23.35	23.35	23.35	21.40
	Average Loan	11.68	23.35	23.35	23.35	22.38
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	1.03	2.05	2.05	2.05	1.97
	Rep Schedule	12 Annual instalments from 29.09.2013				
	<b>Total Loan</b>					
	Gross loan opening	2858.00	2945.35	2945.35	2945.35	2945.35
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	144.67	382.83
	Net Loan-Opening	2858.00	2945.35	2945.35	2800.68	2562.52
	Additions during the year	87.35	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	144.67	238.17	245.45
	Net Loan-Closing	2945.35	2945.35	2800.68	2562.52	2317.07
	Average Loan	2901.68	2945.35	2873.02	2681.60	2439.79
	<b>Weighted Average Rate of Interest</b>	<b>9.4069%</b>	<b>9.3990%</b>	<b>9.3972%</b>	<b>9.3944%</b>	<b>9.3932%</b>
	<b>Interest</b>	<b>272.96</b>	<b>276.83</b>	<b>269.98</b>	<b>251.92</b>	<b>229.17</b>



<b>Name of the Company:</b>	<b>PGCIL</b>
<b>Name of the Tr. System:</b>	<b>Asset-2 Combined of ICT-I 400/220 kV Damoh S/S and 400/220 kV, 315 MVA 2nd ICT alongwith associated 400 kV &amp; 220 kV bays at Damoh S/S</b>
<b>Notional DOCO:</b>	<b>01.12.2008</b>
<b>Petition No.:</b>	<b>217/2010</b>
<b>Tarrif setting Period:</b>	<b>2009-14</b>

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

(Rs. in Lacs)

	<b>Details of Loan</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond-XXVII</b>					
	Gross loan opening	1464.00	<b>1464.00</b>	<b>1464.00</b>	<b>1464.00</b>	<b>1464.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>122.00</b>	<b>244.00</b>
	Net Loan-Opening	1464.00	1464.00	1464.00	1342.00	1220.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	122.00	122.00	122.00
	Net Loan-Closing	1464.00	1464.00	1342.00	1220.00	1098.00
	Average Loan	1464.00	1464.00	1403.00	1281.00	1159.00
	Rate of Interest	9.47%	9.47%	9.47%	9.47%	9.47%
	Interest	138.64	138.64	132.86	121.31	109.76
	Rep Schedule	12 Annual instalments from 31.03.2012				
<b>2</b>	<b>Bond XXVIII (Short term Bridge Loan [29-09-2008 to 14-12-2008] from Bank of Baroda Replaced by Bond XXVIII from 15.12.2008)</b>					
	Gross loan opening	739.00	<b>739.00</b>	<b>739.00</b>	<b>739.00</b>	<b>739.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>61.58</b>
	Net Loan-Opening	739.00	739.00	739.00	739.00	677.42
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	61.58	61.58
	Net Loan-Closing	739.00	739.00	739.00	677.42	615.83
	Average Loan	739.00	739.00	739.00	708.21	646.63
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	68.95	68.95	68.95	66.08	60.33
	Rep Schedule	12 Annual instalments from 15.12.2012				
<b>3</b>	<b>Bond XXXI (AddCap for 2009-10 Drawl on 25.02.2010)</b>					
	Gross loan opening	0.00	<b>155.87</b>	<b>155.87</b>	<b>155.87</b>	<b>155.87</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	155.87	155.87	155.87	155.87
	Additions during the year	155.87	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	12.99
	Net Loan-Closing	155.87	155.87	155.87	155.87	142.88



	Average Loan	77.94	155.87	155.87	155.87	149.38
	Rate of Interest	8.90%	8.90%	8.90%	8.90%	8.90%
	Interest	6.94	13.87	13.87	13.87	13.29
	Rep Schedule	12 Annual instalments from 25.02.2014				
<b>4</b>	<b>Bond XXX (AddCap for 2009-10 Drwal on 29.09.2009)</b>					
	Gross loan opening	0.00	<b>170.65</b>	<b>170.65</b>	<b>170.65</b>	<b>170.65</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	170.65	170.65	170.65	170.65
	Additions during the year	170.65	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	14.22
	Net Loan-Closing	170.65	170.65	170.65	170.65	156.43
	Average Loan	85.33	170.65	170.65	170.65	163.54
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	7.51	15.02	15.02	15.02	14.39
	Rep Schedule	12 Annual instalments from 29.09.2013				
	<b>Total Loan</b>					
	Gross loan opening	2203.00	2529.52	2529.52	2529.52	2529.52
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	122.00	305.58
	Net Loan-Opening	2203.00	2529.52	2529.52	2407.52	2223.94
	Additions during the year	326.52	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	122.00	183.58	210.79
	Net Loan-Closing	2529.52	2529.52	2407.52	2223.94	2013.14
	Average Loan	2366.26	2529.52	2468.52	2315.73	2118.54
	<b>Weighted Average Rate of Interest</b>	<b>9.3833%</b>	<b>9.3488%</b>	<b>9.3458%</b>	<b>9.3394%</b>	<b>9.3354%</b>
	<b>Interest</b>	222.03	236.48	230.70	216.28	197.77

