

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.187/2010

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

Date of Hearing: 30.11.2010

Date of Order: 23.3.2011

In the matter of

Determination of transmission tariff for combined assets of (i) 40% Fixed Series Compensation package for 400 kV D/C Khandwa-Seoni transmission line at Khandwa sub-station and 400 kV D/C Sipat-Raipur transmission line along with sub-station bays at Raipur and Sipat; and (ii) 315 MVA, 400/220 kV ICT with associated 220 kV bays associated with Itrasi (PG) (MPPTCL) Ckt-II and 220 kV bays , associated with Itrasi (PG)-Bhopal (MPTCL) Ckt-II associated with WRSS-I scheme in Western Region for the period from 1.4.2009 to 31.3.2014.

And in the matter of

Power Grid Corporation of India Limited, Gurgaon **..Petitioner**
Vs

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

.....Respondents

The following were present:

1. Shri M.M. Mondal, PGCIL
2. Shri Rajiv Gupta, PGCIL
3. Shri Prashant Sharma, PGCIL



4. Shri Rakesh Prasad, PGCIL

ORDER

The petition has been filed for approval of tariff for combined assets of (i) 40% Fixed Series Compensation package for 400 kV D/C Khandwa-Seoni transmission line at Khandwa sub-station (**Asset-I**) and 400 kV D/C Sipat-Raipur transmission line along with sub-station bays at Raipur and Sipat (**Asset-IA**); and (ii) 315 MVA, 400/220 kV ICT with associated 220 kV bays associated with Itrasi (PG) (MPPTCL) Ckt-II and 220 kV bays, associated with Itrasi (PG)-Bhopal (MPPTCL) Ckt-II (**Asset-II**) (hereinafter collectively referred to as the "transmission assets") associated with WRSS-I scheme (the transmission scheme) in Western Region for the period from 1.4.2009 to 31.3.2014, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 regulations") after accounting for additional capital expenditure incurred during 2009-10 and 2010-11. 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 of ROE may be allowed considering the tax rates, viz, MAT, surcharge, any other cess, charges, levies etc as per the relevant Finance Act and accordingly allow



consequential impact on tariff on account of truing up, to be billed and settled directly with the beneficiaries every year in the tariff block;

- (b) In case of the assets being combined to calculate the transmission charges, allow to recover full depreciation (90% of the gross block) of the asset during its useful life (25 years for sub-station and 35 years for transmission lines) reckoning from its actual date of the commercial operation and also 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);
- (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, if the petitioner is subjected to such service tax; and
- (e) Allow reimbursement of licence fee separately from the respondents.

2. The investment approval for the transmission scheme was accorded by Board of Directors of the petitioner company vide its letter dated 12.8.2004, at



an estimated cost of ₹19921 lakh, which included IDC of ₹1085 lakh at the 1st quarter 2004 price level. Subsequently, the Board of Directors vide its Memorandum dated 26.12.2006 accorded approved for revised cost estimate of ₹23800 lakh, including IDC of ₹1732 lakh at the 3rd quarter 2008 price level. The notional date of the commercial operation of the transmission assets has been taken as 1.8.2008.

3. The annual transmission charges up to 31.3.2009 in respect of the transmission scheme were approved vide order dated 19.4.2010 in Petition No. 168/2009 based on admitted capital cost of ₹20170.36 lakh for Asset-I and Asset-IA and ₹2867.59 lakh for Asset-II.

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	1080.45	1095.93	1096.61	1096.61	1096.61	153.74	158.43	161.44	161.44	161.44
Interest on Loan	1255.12	1171.78	1070.11	966.78	863.58	175.67	166.76	155.51	140.29	125.09
Return on Equity	1072.38	1087.76	1088.43	1088.43	1088.43	151.92	156.58	159.57	159.57	159.57
Interest on Working Capital	91.43	91.51	90.65	89.80	89.03	18.16	18.63	19.01	19.22	19.45
O & M Expenses	407.90	431.27	455.95	482.02	509.52	162.44	171.74	181.57	191.94	202.92
Total	3907.28	3878.25	3801.75	3723.64	3647.17	661.93	672.14	677.10	672.46	668.47

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	61.18	64.69	68.39	72.30	76.43	24.37	25.76	27.24	28.79	30.44
O & M expenses	33.99	35.94	38.00	40.17	42.46	13.54	14.31	15.13	16.00	16.91
Receivables	651.21	646.38	633.63	620.61	607.86	110.32	112.02	112.85	112.08	111.41
Total	746.39	747.01	740.02	733.08	726.75	148.23	152.09	155.22	156.87	158.76
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	91.43	91.51	90.65	89.80	89.03	18.16	18.63	19.01	19.22	19.45

6. In accordance with the public notice issued by the petitioner on 2.7.2010 as required under Section 64 of the Electricity Act, 2003 (the Act) read with Regulation 3 (6) of the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004, no comments or suggestions have been received from the general public in response to the public notice.

7. Reply to the petition has been filed by Maharashtra State Electricity Distribution Company Limited (MSEDCL). The main issues raised by MSEDCL pertains to the petitioner's claim of additional capital expenditure, recovery of depreciation, reimbursement of filing fee, publication expenses, service tax and licence fee. etc. The issues have been addressed in relevant paras of this order.

CAPITAL COST

8. Last proviso to clause (2) of Regulation 7 of the 2009 regulations provides as under:

“Provided that in case of the existing projects, capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14 as may be admitted by the Commission, shall form the basis for determination of tariff”.

9. The petitioner has claimed the tariff after accounting for additional capital expenditure as under:

(₹ in lakh)					
	Apportioned approved cost as on 31.3.2009	Admitted capital cost as on 31.3.2009	Projected additional capital expenditure incurred during 2009-10	Projected additional Capital expenditure incurred during 2010-11	Total estimated capital expenditure as on 31.3.2014
Asset-I	5284.49	5184.07	81.74	4.56	5270.37
Asset-IA	15524.89	14986.29	479.20	21.04	15486.53
Asset-II	2990.42	2867.59	63.50	114.08	3045.17
Total	23799.80	23037.95	624.44	139.68	23802.07

ADDITIONAL CAPITAL EXPEDNTURE

10. Regulation 9 of the 2009 regulations provides as under:

“(1) The capital expenditure incurred or projected to be incurred, on the following counts with in 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 regulating 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 the tariff.

(2) The capital expenditure incurred on the following counts after the cut-off-date, 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) *****
- (iv) *****
- (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 the transmission system."

11. The details submitted by the petitioner in support of its claim for Projected additional capital expenditure for the transmission assets are given as under:

	Years	Nature and details of expenditure	Amount (₹ in lakh)
Asset-I	2009-10	Sub-station - Final Balance and retention payments	81.74
	2010-11	Sub-station - Final Balance and retention payments	4.56
		Total	86.30
Asset-IA	2009-10	Transmission line - Balance and retention payments	393.48
		Sub-station - Balance and retention payments.	85.72
		Total	479.20
	2010-11	Transmission line - Balance and retention payments	21.00
		Sub-station - Balance and retention payments.	0.04
		Total	21.04
Asset-II	2009-10	Sub-station - Final Balance and retention payments	63.50
	2010-11	Sub-station - Final Balance and retention payments	114.08
		Total	175.31

12. MSEDCL in its reply has submitted that additional capital expenditure may not be allowed in the absence of details of final/retention payments. In response, the petitioner in its rejoinder has submitted that the category-wise details has already been furnished at para 7 and Form 9 of the petition. The petitioner has also submitted that only final/retention payments have been claimed as per Regulation 9 (1) of the 2009 regulations.

13. The petitioner vide its affidavit dated 4.10.2010 has submitted that the additional capital expenditure projected during the year 2010-11 on account of final/balance retention payments is within the original scope of work. Due to contractual exigencies and other reasons beyond the control, it has to make provisions for release of balance/retention payment beyond 2008-09 and the same is covered under the Regulation 9 (1) of the 2009 regulations.

14. It can be seen that the estimated capital cost of Asset-II exceeds its apportioned approved cost by ₹54.75 lakh and the total estimated capital cost of all the three assets taken together exceed their approved cost by ₹2.27 lakh. Therefore, in order to restrict the total estimated capital cost with in the approved cost, the estimated capital cost of Asset-II is being reduced by ₹ 2.27 lakh and this reduction is being carried out in the projected additional capital expenditure to be incurred during the period 2010-11.

15. In regard to admissibility of undischarged liabilities, it is observed that the cut off date of the transmission assets reckoned from the notional date of commercial operation is 31.3.2010 as per the 2009 tariff regulations. However, the expenditure projected to be incurred during 2010-11 are beyond the cut off date for which there is no provision in Regulation 9 (2) of the 2009 regulations. We have decided in our order dated 8.2.2011 in Petition No. 176/2010 to relax Regulation 9 (2) of the 2009 regulations to admit the expenditure incurred after the cut-off date, particularly the expenditure pertaining to retention and balance payments. Accordingly, the expenditure projected to be incurred during 2010-11 is allowed by relaxing the provisions of Regulation 9 (2) of the 2009 regulations. In all, an amount of ₹ 761.85 lakh has been allowed to be capitalized during 2009-14.

TOTAL CAPITAL COST

16. Based on the above, gross block as given below has been considered for the purpose of tariff for the transmission asset, after allowing restricted additional capital expenditure as indicated in the para 14 above:

	Admitted capital cost as on 31.3.2009	Capital expenditure incurred during 2009-10	Capital expenditure incurred during 2010-11	Total capital expenditure as on 31.3.2014
Asset-I	5184.07	81.74	4.56	5270.37
Asset-IA	14986.29	497.20	21.04	15486.53
Asset-II	2867.59	63.50	111.81	3045.17
Total	23037.95	624.44	137.41	23802.07

(₹ in lakh)

17. It is clarified that Asset-I and Asset-IA have been clubbed as Asset-I for the purpose of determination of transmission charges with notional DOCO as 11.8.2008. Accordingly, capital cost for Asset-I ₹ 20170.36 lakh and Asset-II ₹ 2867.59 lakh has been considered for the calculation of tariff.

DEBT- EQUITY RATIO

18. Clause (2) of Regulation 12 of the 2009 regulations *inter alia* provides as under:-

“(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.”

19. The petitioner has claimed tariff based on debt-equity ratio of 70:30 as admitted on 31.3.2009 vide order dated 19.4.2010 in Petition 168/2009. The petitioner has further claimed the amount of additional capital expenditure in the debt-equity ratio of 70:30 for the year 2009-10 and 2010-11. For the purpose of tariff, equity considered for the transmission asset is as under:

(₹ in lakh)							
	Equity as on 1.4.2009	Notional equity due to additional capital expenditure for the period 2009-10	Average equity for 2009-10	Notional equity due to additional capital expenditure for the period 2010-11	Average equity for 2010-11	Equity for the period 2011-14	Average equity for 2011-14
Asset-I	6050.39	168.28	6134.53	7.68	6222.51	6226.35	6226.35
Asset-II	859.54	19.05	869.07	33.54	895.36	912.13	912.13

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

term transmission customers on year to year basis. The process of amendment to the 2009 regulations is under way and will address the grievance of the petitioner with regard to the MAT rate.

22. The difference in return on equity as claimed by the petitioner and as considered is due to restricting the additional capital expenditure of ₹ 2.27 lakh for the period 2010-11. Accordingly, the return on equity has been computed as per the existing provision of Regulation 15 (3) of 2009 regulation 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
Opening Equity as on 1.4.2009	6050.39	6218.67	6226.35	6226.35	6226.35	859.54	878.59	912.13	912.13	912.13
Addition due to Additional Capitalisation	168.28	7.68	0.00	0.00	0.00	19.05	33.54	0.00	0.00	0.00
Closing Equity	6218.67	6226.35	6226.35	6226.35	6226.35	878.59	912.13	912.13	912.13	912.13
Average Equity	6134.53	6222.51	6226.35	6226.35	6226.35	869.07	895.36	912.13	912.13	912.13
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	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%	11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	1072.38	1087.76	1088.43	1088.43	1088.43	151.92	156.52	159.45	159.45	159.45

INTEREST ON LOAN

23. Regulation 16 of the 2009 regulations provides as under:

"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."

24. The interest on loan has been worked out as detailed below:
- (i) Details of net outstanding loan as on 31.3.2009, cumulative repayment up to 31.3.2009, repayment schedule for the loans, rate of interest etc. have been taken from the order dated 19.4.2010 in Petition No. 168/2009 for working out weighted average rate of interest;
 - (ii) Bonds XXX and XXXI have been considered in actual loan portfolio for additional capital expenditure during 2009-10;
 - (iii) Tariff has been worked out considering normative loan and normative repayments. Depreciation allowed have been taken as normative repayment for the tariff period 2009-14; and
 - (iv) Weighted average rate of interest on actual loan has been worked out as per above and applied on the average loan during the year to arrive at the interest on loan.

25. The detailed calculations in support of the weighted revised average rate of interest are contained in **Annexure-I and Annexure-II** attached to this



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

(₹ in lakh)

Details of loan	Asset-I						Asset-II					
	Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14	Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	14119.97	14119.97	14512.63	14530.55	14530.55	14530.55	2008.05	2008.05	2052.50	2130.77	2130.77	2130.77
Cumulative Repayment up to Previous Year		438.97	1519.42	2615.35	3711.96	4808.56		87.88	241.62	399.99	561.32	722.64
Net Loan-Opening		13681.00	12993.21	11915.20	10818.59	9721.99		1920.17	1810.88	1730.77	1569.45	1408.13
Addition due to Additional Capitalisation		392.66	17.92	0.00	0.00	0.00		44.45	78.27	0.00	0.00	0.00
Repayment during the year		1080.45	1095.93	1096.61	1096.61	1096.61		153.74	158.37	161.32	161.32	161.32
Net Loan-Closing		12993.21	11915.20	10818.59	9721.99	8625.38		1810.88	1730.77	1569.45	1408.13	1246.81
Average Loan		13337.11	12454.21	11366.90	10270.29	9173.68		1865.52	1770.83	1650.11	1488.79	1327.47
Weighted Average Rate of Interest on Loan		9.4107%	9.4087%	9.4143%	9.4134%	9.4136%		9.4165%	9.4132%	9.4158%	9.4144%	9.4142%
Interest		1255.12	1171.78	1070.11	966.78	863.58		175.67	166.69	155.37	140.16	124.97

DEPRECIATION

26. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner:

"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."

27. MSEDCL has submitted that petitioner should clarify that the claim towards recovery of depreciation has been achieved as per 2009 regulations. In response, the petitioner has submitted that as per 2009 regulations, the useful life of transmission line is 35 years and 25 years is for sub-station. The depreciation is calculated annually as per Regulation 17 of the 2009 regulations. The petitioner has also submitted that wherever the assets are combined for the purpose of calculating the transmission charges, the date of commercial operation of the assets commissioned at the latest becomes the notional date of commercial operation of the combined asset for the purpose of determination of transmission charges.

28. The depreciation has been worked out on the admitted capital cost of ₹23037.95 lakh as on 31.3.2009. Accordingly, depreciation works out is as under:

(₹ in lakh)												
Details of loan	Asset-I						Asset-II					
	Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14	Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
As per last order	20170.36	20170.36	20731.30	20756.90	20756.90	20756.90	2867.59	2867.59	2931.09	3042.90	3042.90	3042.90
Addition during 2009-14 due to projected Additional Capitalisation		560.94	25.60	0.00	0.00	0.00		63.50	111.81	0.00	0.00	0.00
Gross block as on 31.3.2009		20731.30	20756.90	20756.90	20756.90	20756.90		2931.09	3042.90	3042.90	3042.90	3042.90
Average gross block		20450.83	20744.10	20756.90	20756.90	20756.90		2899.34	2987.00	3042.90	3042.90	3042.90
Rate of Depreciation		5.2831%	5.2831%	5.2831%	5.2831%	5.2831%		5.3027%	5.3020%	5.3016%	5.3016%	5.3016%
Depreciable Value	90%	18405.75	18669.69	18681.21	18681.21	18681.21	90%	2609.41	2688.30	2738.61	2738.61	2738.61
Remaining Depreciable Value		17966.78	17150.27	16065.86	14969.25	13872.65		2521.53	2446.67	2338.62	2177.29	2015.97
Depreciation		1080.45	1095.93	1096.61	1096.61	1096.61		153.74	158.37	161.32	161.32	161.32

OPERATION & MAINTENANCE EXPENSES

29. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV D/C twin conductor transmission line and 400 kV and 220 kV bay are prescribed for O & M expenses:

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C twin conductor transmission line (₹ in lakh/per ckt.km.)	0.627	0.663	0.701	0.741	0.783
400 kV bays (₹ in lakh/per bay)	52.40	55.40	58.57	61.92	65.46
220 kV bays (₹ in lakh/per bay)	36.68	38.78	41.00	43.34	45.82

30. The petitioner's entitlement to O & M expenses has been worked out as given hereunder:

Asset-I

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV S/C, twin conductor transmission line (149.12 ckt/km)	93.50	98.87	104.53	110.50	116.76
400 kV bays (6 bays)	314.40	332.40	351.42	371.52	392.78
Total	407.90	431.27	455.95	482.02	509.52

Asset-II

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV bays (one bay)	52.40	55.40	58.57	61.92	65.46
220 kV bays (three bays)	110.04	116.34	123.00	130.02	137.46
Total	162.44	171.74	181.57	191.94	202.92

31. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expense in case the impact of wage hike w.e.f 1.1.2007 is more than 50%. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expenses in case the impact of wage hike w.e.f. 1.1.2007 is more than 50%. With reference to the submission of the petitioner, it is clarified that if any such application is made, it will be dealt with in accordance with law.

INTEREST ON WORKING CAPITAL

32. 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 of annual transmission charges. 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 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 specified in Regulation 19 of the 2009 regulations. The value of maintenance spares has been accordingly 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 O&M expenses of the respective year which has been considered for computing the working capital.

(iv) **Rate of interest on working capital:** As per Regulation 18(3) of the 2009 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate

of State Bank of India as on 1.4.2009 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

33. The necessary computations in support of interest on working capital are given 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
Maintenance Spares	61.19	64.69	68.39	72.30	76.43	24.37	25.76	27.24	28.79	30.44
O & M expenses	33.99	35.94	38.00	40.17	42.46	13.54	14.31	15.13	16.00	16.91
Receivables	651.21	646.37	633.63	620.61	607.86	110.32	111.99	112.79	112.01	111.35
Total	746.39	747.00	740.01	733.08	726.75	148.22	152.06	155.15	156.80	158.70
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	91.43	91.51	90.65	89.80	89.03	18.16	18.63	19.01	19.21	19.44

TRANSMISSION CHARGES

34. 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	1080.45	1095.93	1096.61	1096.61	1096.61	153.74	158.37	161.32	161.32	161.32
Interest on Loan	1255.12	1171.78	1070.11	966.78	863.58	175.67	166.69	155.37	140.16	124.97
Return on Equity	1072.38	1087.76	1088.43	1088.43	1088.43	151.92	156.52	159.45	159.45	159.45
Interest on Working Capital	91.43	91.51	90.65	89.80	89.03	18.16	18.63	19.01	19.21	19.44
O & M Expenses	407.90	431.27	455.95	482.02	509.52	162.44	171.74	181.57	191.94	202.92
Total	3907.28	3878.24	3801.75	3723.64	3647.16	661.93	671.95	676.72	672.08	668.10

Application fee and the publication expenses

35. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. MSEDCL has submitted that the filing fee should be allowed as per Hon`ble Commission`s order dated 11.9.2008 in Petition No. 129/2005. It is clarified that the said decision was applicable to the tariff period 2004-09. However, Regulation 42 of the 2009 regulation provides for reimbursement of filing fees and expenses on publication of notices as may be allowed at the discretion of the Commission. We have decided the following in our order dated 11.1.2010 in Petition No. 109/2009:

"85. The Commission after careful consideration has decided that filing fee will be reimbursed in the following cases:

- (a) Main petitions for determination of tariff;*
- (b) Petitions for revisions of tariff due to additional capital expenditure.;*
- (c) Petitions for truing up of expenditure.*

Filing fees paid for filing the Review Petitions, Interlocutory Applications and other Miscellaneous Applications will not be reimbursed in tariff. The Commission has decided to reimburse the expenses on publication of notices as such expenses are incurred to meet the statutory requirement of transparency in the process of determination of tariff."

36. In accordance with the said decision, the petitioner shall be entitled to recover the filing fee from the beneficiaries on pro rata basis. The petitioner shall also be entitled for reimbursement of publication expenses from the beneficiaries on pro-rata basis.

Service Tax

37. The petitioner has prayed for reimbursement of service tax, if it is subjected to such tax in future. As the petitioner has no liability for service tax at present, the prayer is infructuous and is accordingly rejected.

Licence fee

38. The petitioner has prayed for reimbursement of licence fee as it is an extra cost on the petitioner. MSEDCL has objected the prayer of the petitioner. In this connection, it is clarified that , a view in the matter is yet to be taken by the Commission.

39. 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.

40. This order disposes of Petition No.187/2010.

Sd/-	Sd/-	Sd/-	Sd/-
(M.Deena Dayalan) Member	(V.S.Verma) Member	(S.Jayaraman) Member	(Dr. Pramod Deo) Chairperson

Annexure-I

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
1	Bond XX					
	Gross loan opening	3560.00	3560.00	3560.00	3560.00	3560.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	296.67	593.33	890.00
	Net Loan-Opening	3560.00	3560.00	3263.33	2966.67	2670.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	296.67	296.67	296.67	296.67
	Net Loan-Closing	3560.00	3263.33	2966.67	2670.00	2373.33
	Average Loan	3560.00	3411.67	3115.00	2818.33	2521.67
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%
	Interest	317.91	304.66	278.17	251.68	225.18
	Rep Schedule	12 Annual Instalments from 7.9.2010				
2	Bond XXI					
	Gross loan opening	1156.00	1156.00	1156.00	1156.00	1156.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	96.33	192.67	289.00
	Net Loan-Opening	1156.00	1156.00	1059.67	963.33	867.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	96.33	96.33	96.33	96.33
	Net Loan-Closing	1156.00	1059.67	963.33	867.00	770.67
	Average Loan	1156.00	1107.83	1011.50	915.17	818.83
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	100.92	96.71	88.30	79.89	71.48
	Rep Schedule	12 Annual Instalments from 11.10.2010				
3	Bond XXII					
	Gross loan opening	779.00	779.00	779.00	779.00	779.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	64.92	129.83	194.75
	Net Loan-Opening	779.00	779.00	714.08	649.17	584.25
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	64.92	64.92	64.92	64.92
	Net Loan-Closing	779.00	714.08	649.17	584.25	519.33
	Average Loan	779.00	746.54	681.63	616.71	551.79
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	67.62	64.80	59.17	53.53	47.90
	Rep Schedule	12 Annual Instalments from 07.12.2010				
4	Bond XXIV					
	Gross loan opening	1740.00	1740.00	1740.00	1740.00	1740.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	145.00	290.00	435.00

	Net Loan-Opening	1740.00	1740.00	1595.00	1450.00	1305.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	145.00	145.00	145.00	145.00
	Net Loan-Closing	1740.00	1595.00	1450.00	1305.00	1160.00
	Average Loan	1740.00	1667.50	1522.50	1377.50	1232.50
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	173.13	165.92	151.49	137.06	122.63
	Rep Schedule	12 Annual Instalments from 26.03.2011				
5	Bond XXV					
	Gross loan opening	3720.00	3720.00	3720.00	3720.00	3720.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	310.00	620.00
	Net Loan-Opening	3720.00	3720.00	3720.00	3410.00	3100.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	310.00	310.00	310.00
	Net Loan-Closing	3720.00	3720.00	3410.00	3100.00	2790.00
	Average Loan	3720.00	3720.00	3565.00	3255.00	2945.00
	Rate of Interest	10.10%	10.10%	10.10%	10.10%	10.10%
	Interest	375.72	375.72	360.07	328.76	297.45
	Rep Schedule	12 annual Instalments from 12.06.2011				
6	Bond XXVI					
	Gross loan opening	1581.00	1581.00	1581.00	1581.00	1581.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	131.75	263.50
	Net Loan-Opening	1581.00	1581.00	1581.00	1449.25	1317.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	131.75	131.75	131.75
	Net Loan-Closing	1581.00	1581.00	1449.25	1317.50	1185.75
	Average Loan	1581.00	1581.00	1515.13	1383.38	1251.63
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	147.03	147.03	140.91	128.65	116.40
	Rep Schedule	12 annual Instalments from 07.03.2012				
7	Bond XXVIII					
	Gross loan opening	1755.37	1755.37	1755.37	1755.37	1755.37
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	146.28
	Net Loan-Opening	1755.37	1755.37	1755.37	1755.37	1609.09
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	146.28	146.28
	Net Loan-Closing	1755.37	1755.37	1755.37	1609.09	1462.81
	Average Loan	1755.37	1755.37	1755.37	1682.23	1535.95
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	163.78	163.78	163.78	156.95	143.30
	Rep Schedule	12 Annual Instalments from 15.12.2012				
8	Bond XXX AddCap 2009-10 31.03.2010					
	Gross loan opening	0.00	357.55	357.55	357.55	357.55
	Cumulative Repayment up to the	0.00	0.00	0.00	0.00	0.00

	date of commercial operation /previous year					
	Net Loan-Opening	0.00	357.55	357.55	357.55	357.55
	Additions during the year	357.55	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	29.80
	Net Loan-Closing	357.55	357.55	357.55	357.55	327.75
	Average Loan	178.78	357.55	357.55	357.55	342.65
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	15.73	31.46	31.46	31.46	30.15
	Rep Schedule	12 annual Instalments from 29.09.2013				
9	Bond XXXI AddCap 2009-10 31.03.2010					
	Gross loan opening	0.00	35.11	35.11	35.11	35.11
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	35.11	35.11	35.11	35.11
	Additions during the year	35.11	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	2.93
	Net Loan-Closing	35.11	35.11	35.11	35.11	32.18
	Average Loan	17.56	35.11	35.11	35.11	33.65
	Rate of Interest	8.90%	8.90%	8.90%	8.90%	8.90%
	Interest	1.56	3.12	3.12	3.12	2.99
	Rep Schedule	12 annual Instalments from 25-02.2014				
	Total Loan					
	Gross loan opening	14291.37	14684.03	14684.03	14684.03	14684.03
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	602.92	1647.58	2838.53
	Net Loan-Opening	14291.37	14684.03	14081.11	13036.45	11845.50
	Additions during the year	392.66	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	602.92	1044.67	1190.95	1223.67
	Net Loan-Closing	14684.03	14081.11	13036.45	11845.50	10621.83
	Average Loan	14487.70	14382.57	13558.78	12440.97	11233.66
	Weighted Average Rate of Interest	9.4107%	9.4087%	9.4143%	9.4134%	9.4136%
	Interest	1363.40	1353.21	1276.46	1171.11	1057.50

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

Annexure-II

Asset-II

		(₹ in lakh)				
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	BONDS XX					
	Gross loan opening	340.00	340.00	340.00	340.00	340.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	28.33	56.67	85.00
	Net Loan-Opening	340.00	340.00	311.67	283.33	255.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	28.33	28.33	28.33	28.33
	Net Loan-Closing	340.00	311.67	283.33	255.00	226.67
	Average Loan	340.00	325.83	297.50	269.17	240.83
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%
	Interest	30.36	29.10	26.57	24.04	21.51
	Rep Schedule	12 Annual Instalments from 07.09.2010				
2	Bond- XXI					
	Gross loan opening	70.00	70.00	70.00	70.00	70.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	5.83	11.67	17.50
	Net Loan-Opening	70.00	70.00	64.17	58.33	52.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	5.83	5.83	5.83	5.83
	Net Loan-Closing	70.00	64.17	58.33	52.50	46.67
	Average Loan	70.00	67.08	61.25	55.42	49.58
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	6.11	5.86	5.35	4.84	4.33
	Rep Schedule	12 Annual Instalments from 11.10.2010				
3	Bond- XXII					
	Gross loan opening	80.00	80.00	80.00	80.00	80.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	6.67	13.33	20.00
	Net Loan-Opening	80.00	80.00	73.33	66.67	60.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	6.67	6.67	6.67	6.67
	Net Loan-Closing	80.00	73.33	66.67	60.00	53.33
	Average Loan	80.00	76.67	70.00	63.33	56.67
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	6.94	6.65	6.08	5.50	4.92
	Rep Schedule	12 Annual Instalments from 07.12.2010				
4	Bond- XXIV					
	Gross loan opening	190.00	190.00	190.00	190.00	190.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	15.83	31.67	47.50
	Net Loan-Opening	190.00	190.00	174.17	158.33	142.50



	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	15.83	15.83	15.83	15.83
	Net Loan-Closing	190.00	174.17	158.33	142.50	126.67
	Average Loan	190.00	182.08	166.25	150.42	134.58
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	18.91	18.12	16.54	14.97	13.39
	Rep Schedule	12 Annual Instalments from 26.03.2011				
5	Bond- XXV					
	Gross loan opening	410.00	410.00	410.00	410.00	410.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	34.17	68.33
	Net Loan-Opening	410.00	410.00	410.00	375.83	341.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	34.17	34.17	34.17
	Net Loan-Closing	410.00	410.00	375.83	341.67	307.50
	Average Loan	410.00	410.00	392.92	358.75	324.58
	Rate of Interest	10.10%	10.10%	10.10%	10.10%	10.10%
	Interest	41.41	41.41	39.68	36.23	32.78
	Rep Schedule	12 Annual Instalments from 12.06.2011				
6	Bond- XXVI					
	Gross loan opening	566.00	566.00	566.00	566.00	566.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	47.17	94.33
	Net Loan-Opening	566.00	566.00	566.00	518.83	471.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	47.17	47.17	47.17
	Net Loan-Closing	566.00	566.00	518.83	471.67	424.50
	Average Loan	566.00	566.00	542.42	495.25	448.08
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	52.64	52.64	50.44	46.06	41.67
	Rep Schedule	12 Annual Instalments from 07.03.2012				
7	XXVIII					
	Gross loan opening	12.00	12.00	12.00	12.00	12.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	1.00
	Net Loan-Opening	12.00	12.00	12.00	12.00	11.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	1.00	1.00
	Net Loan-Closing	12.00	12.00	12.00	11.00	10.00
	Average Loan	12.00	12.00	12.00	11.50	10.50
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	1.12	1.12	1.12	1.07	0.98
	Rep Schedule	12 Annual Instalments from 15.12.2012				
8	XXVIII (ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008)					
	Gross loan opening	330.63	330.63	330.63	330.63	330.63

	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	27.55
	Net Loan-Opening	330.63	330.63	330.63	330.63	303.08
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	27.55	27.55
	Net Loan-Closing	330.63	330.63	330.63	303.08	275.53
	Average Loan	330.63	330.63	330.63	316.85	289.30
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	30.85	30.85	30.85	29.56	26.99
	Rep Schedule	12 Annual Instalments from 15.12.2012				
9	Bond- XXX (ADDCAP FOR 2009-2010 DRAWL ON 31-MAR-2010)					
	Gross loan opening	0.00	44.45	44.45	44.45	44.45
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	44.45	44.45	44.45	44.45
	Additions during the year	44.45	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	3.70
	Net Loan-Closing	44.45	44.45	44.45	44.45	40.75
	Average Loan	22.23	44.45	44.45	44.45	42.60
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	1.96	3.91	3.91	3.91	3.75
	Rep Schedule	12 Annual Instalments from 29.9.2013				
	Total Loan					
	Gross loan opening	1998.63	2043.08	2043.08	2043.08	2043.08
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	56.67	194.67	361.22
	Net Loan-Opening	1998.63	2043.08	1986.41	1848.41	1681.86
	Additions during the year	44.45	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	56.67	138.00	166.55	170.26
	Net Loan-Closing	2043.08	1986.41	1848.41	1681.86	1511.60
	Average Loan	2020.86	2014.75	1917.41	1765.14	1596.73
	Rate of Interest	9.4165%	9.4132%	9.4158%	9.4144%	9.4142%
	Interest	190.29	189.65	180.54	166.18	150.32