

CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 350/2010

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

Date of Hearing: 23.6.2011

Date of Order: 16.9.2011

In the matter of:

Determination of transmission tariff for 400 kV D/C Raigarh-Raipur transmission line along with associated bays and combined assets of 400 kV D/C Raigarh- Raipur transmission line along with associated bays and 400 kV D/C Ranchi-Rourkela transmission line along with associated bays under East-West Transmission Corridor Strengthening Scheme for the period from the date of commercial operation 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 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. Chhattisgarh State Electricity Board, Raipur
8. Madhya Pradesh Audyogik Kendra Vikas Nigam Ltd.,
Indore

Respondents

The following were present:

1. Shri S.S.Raju, PGCIL
2. Shri M. M. Mondal, PGCIL
3. Shri J. Mazumder, PGCIL
4. Shri Rajiv Gupta, PGCIL

ORDER

This petition has been filed seeking approval for determination of transmission tariff for 400 kV D/C Raigarh-Raipur transmission line along with associated bays and combined assets of 400 kV D/C Raigarh-Raipur transmission line along with associated and 400 kV D/C Ranchi-Rourkela transmission line along with associated bays (hereinafter collectively referred to as "the transmission assets") under East-West Transmission Corridor Strengthening Scheme (hereinafter referred to as "the transmission scheme") for the period from the date of commercial operation 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, in respect of the assets being combined to calculate the transmission charges, to recover full depreciation (90% of the Gross Block) of the assets during their useful life (25 years for sub-station and 35 years for transmission line) reckoning from their actual dates of commercial operation and also permit the petitioner to treat the recovery of depreciation after achieving the useful life by an asset (to be reckoned from the actual date of commercial operation);

(b) Allow grossing up the base rate of return with the applicable tax rate as per the relevant Finance Acts 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 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 recover 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;

(e) Allow the petitioner to bill and adjust impact on loan due to change in interest rate on account of floating rate of interest applicable during the tariff period, if any, from the respondents; and

(f) Allow the petitioner to bill and recover license fee separately from the respondents;

2. The investment approval for the transmission scheme was accorded by the Government of India, Ministry of Power vide its letter dated 23.6.2006 at an estimated cost of ₹ 80370.00 lakh including IDC of ₹ 3695.00 lakh (based on 4th Quarter price level).

3. The details of transmission assets and their date of commercial operation are as under:

S.No.	Name of the asset	Date of commercial operation
1	400 kV D/C Raigarh-Raipur transmission line along with associated bays (Asset-I)	1.10.2010
2	Combined assets of 400 kV D/C Raigarh-Raipur transmission line along with associated and 400 kV D/C Ranchi-Rourkela transmission line along with associated bays (Combined Asset-II)	1.12.2010

4. In accordance with the procedure of the Commission issued under letter Ref No. C-7/189(204)/2009-CERC, dated 23.10.2009, the above assets under East-West Transmission Corridor Strengthening Scheme have been clubbed for the purpose of determination of transmission charges with notional date of commercial operation as 1.12.2010.

5. In the present petition tariff is being determined based on actual expenditure incurred up to the date of commercial operation and additional capital expenditure from the date of commercial operation to 31.3.2011 and projected additional capital expenditure to be incurred during 2011-12 and 2012-13 for the transmission assets.

6. The petitioner had filed Petition No. 284/2010 claiming transmission tariff from date of commercial operation to 31.3.2014 for Asset-I. In the present petition, the petitioner has combined 400 kV D/C Raigarh-Raipur transmission line along with associated and 400 kV D/C Ranchi-

Rourkela transmission line along with associated bays and has submitted fresh Auditor's certificate revising the capital cost for Asset-I claimed in Petition No. 284/2010. Revised tariff based on revised capital cost for Asset-I for the period 1.10.2010 to 30.11.2010 and tariff for Combined Assets -II are being allowed in the present petition.

7. The transmission tariff for Asset-I has been computed for the year 2010-11 on *pro rata* basis. This is applicable for two months viz. October 2010 and November 2010 in supersession of the tariff, allowed earlier, for Asset-I vide order dated 8.6.2011 in Petition No. 284/2010 for the tariff period 2009-2014. Tariff for Combined Assets-II with the Notional date of commercial operation as 1.12.2010 has been computed for the period 1.12.2010 to 31.03.2014.

8. Details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)	
Asset-I	
	2010-11 (Pro rata)
Depreciation	575.88
Interest on Loan	395.43
Return on equity	573.49
Interest on Working Capital	39.68
O & M Expenses	184.02
Total	1768.50

(₹ in lakh)

Combined Assets-II				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Depreciation	689.29	2126.72	2142.61	2143.72
Interest on Loan	474.37	1389.90	1271.42	1132.43
Return on equity	685.33	2114.44	2130.22	2131.33
Interest on Working Capital	47.89	147.23	147.48	146.85
O & M Expenses	228.58	725.00	766.43	810.12
Total	2125.46	6503.29	6458.16	6364.45

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

(₹ in lakh)

Asset-I	
	2010 – 11(Pro rata)
Maintenance Spares	55.21
O & M expenses	30.67
Receivables	589.50
Total	675.38
Rate of Interest	11.75%
Interest	39.68

(₹ in lakh)

Combined Assets-II				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Maintenance Spares	102.86	108.75	114.96	121.52
O & M expenses	57.15	60.42	63.87	67.51
Receivables	1062.73	1083.88	1076.36	1060.74
Total	1222.74	1253.05	1255.19	1249.77
Rate of Interest	11.75%	11.75%	11.75%	11.75%
Interest	47.89	147.23	147.48	90.26

10. No comments or suggestions have been received from the general public in response to the notices published by the petitioner

under section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Maharashtra State Electricity Distribution Company (MSEDCL) i.e. Respondent No. 2. The main issues raised by MSEDCL pertain to the petitioner's claim of additional capital expenditure, reimbursement of filing fee, service tax and licence fee. etc. The issues have been addressed in relevant paras of this order.

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

CAPITAL COST

12. As regards the capital cost, Regulation 7 (1) of the 2009 regulations provides as under.

"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 fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check."

13. The details of apportioned approved cost, admitted cost as on the date of commercial operation and projected additional capital expenditure claimed by the petitioner is given overleaf:-

(₹ in lakh)

Sl. No	1	2	3
Name of Asset	400 kV D/C Raigarh-Raipur transmission line along with associated bays (Asset-I)	400 kV D/C Ranchi-Rourkela transmission line along with associated bays (Asset-II)	Combined assets of 400 kV D/C Raigarh-Raipur transmission line along with associated and 400 kV D/C Ranchi-Rourkela transmission line along with associated bays (Combined Asset-II)
Apportioned approved cost	24855.51	21224.08	46079.59
Actual cost incurred as on actual/notional date of commercial operation	21308.44		
Projected Expenditure from 1.10.2010 to 30.11.2010	13.60	17048.17	38370.21*
Balance projected additional capital expenditure from the 1.12.2010 to 31.3.2010	1110.64	557.99	1668.63
Projected additional capital expenditure during 2011-12	305.00	254.98	559.98
Projected additional capital expenditure during 2012-13	-	41.99	41.99
Total estimated completion cost	22737.68	17903.13	40640.81
Basis	Auditor's certificate dated 10.5.2011	Auditor's certificate dated 25.3.2011	Including expenditure of ₹ 13.60 lakh from the date of commercial operation to 30.11.2010.

*Capital cost as on the date of commercial operation is inclusive of initial spares amounting to ₹ 258.83 lakh (₹ 178.85 lakh for Asset-I and ₹ 79.98 lakh for Asset-II) pertaining to sub-station.

Initial spares

14. Regulation 8 of the 2009 regulations *inter-alia* provides as under:-

"Initial Spares: Initial spares shall be capitalized as a percentage of the original project cost, subject to following ceiling norms:

(i) To (iii) ***

(iv) Transmission system

(a) Transmission line - 0.75%

(b) Transmission sub-station - 2.5%

(c) Series compensation devices and HVDC station - 3.5%"

15. It is noted that the capital cost as on date of commercial operation is inclusive of initial spares amounting to ₹ 258.83 lakh which is in excess of ₹ 156.52 lakh in terms of Regulation 8 of the 2009 regulations. The details of the initial spares are as under:

(₹ in lakh)

Particulars	Combined Capital Cost as on Cut-off date	Apportioned Initial Spares Claimed	Ceiling Limits as per regulation 8 the 2009 regulations	Initial Spares worked out	Excess Initial Spares Claimed (Disallowed)
	(a)	(b)	(c)	$(d) = \frac{(a-b) \times c}{100-c\%}$	$(e) = (b) - (d)$
Sub-Station	4238.89	258.83 (178.85+79.98)	2.5%	102.05	(-)156.78

16. Accordingly, combined capital cost has been considered for the purpose of tariff calculation after deducting excess initial spares. However, more assets are yet to be commissioned under transmission system associated with East West Transmission corridor in Western Region. Therefore, the ceiling limit of initial spares will be recalculated as per Regulation 8 of the 2009 regulations at the time of the commissioning of last asset of this project.

Time over-run

17. It is noticed that there is a delay of 15 months in commissioning of Asset-I and 17 months in the commissioning of Asset -II. The delay in respect of commissioning of Asset-I was examined in detail in the Commission's order dated 8.6.2011 in Petition No. 284/2010. For the

reasons elaborated in paras 13 to 17 of the said order dated 8.6.2011, the Commission had decided to condone delay of 8 months in the commissioning of the asset and made proportionate deduction in IDC and IEDC for the remaining period of delay. The above decision is applied in this order also as far as Asset-I is concerned.

18. As regards commissioning of Asset-II, the petitioner has attributed the delay of 17 months on account of time taken for obtaining forest clearance. From the material on record, it is observed that the case for forest clearance was submitted to the Nodal Officer, Jharkhand on 3.1.2006 long before the investment approval by the Ministry of Power. Forest clearance, however, was received on 4.8.2010. Against this, Ranchi- Rourkela line was commissioned on 1.12.2010 i.e. within four months of receipt of clearance. As 9 towers had to be erected and 10 k.m. of conductor stringing was to be done after obtaining forest clearance, we consider the time span of 4 months reasonable. Therefore, we condone the delay of 17 months in commissioning of the 400 kV D/C Ranchi-Rourkela transmission line along with associated bays.

19. We are of the view that the petitioner is responsible for time over-run of 7 months in respect of 400 kV D/C Raigarh-Raipur transmission line along with associated bay. Accordingly, we direct that the petitioner shall not be entitled for Interest During Construction

(IDC) and Incidental Expenses During Construction (IEDC) for the period of seven months. The petitioner has furnished a certificate from the Chartered Accountant which has indicated the IDC and IEDC in two spells i.e. up to 31.3.2010 and from 1.4.2010 till the date of commercial operation i.e. 30.9.2010. Accordingly, details of IDC and IEDC, which have not been allowed, are as under:

(₹ in lakh)

Detail of IDC and IEDC as per CA Certificate dated 10.5.2011		
	IEDC	IDC
From Date of Investment Approval to 31.03.2010	306.06	868.04
From 1.4.2010 to 30.9.2010	25.14	301.44
Total IDC and IEDC Claimed	331.20	1169.48
Detail of IDC and IEDC Disallowed for 7 months		
For month of March, 2010 (for 1 months)	6.80	19.29
From April, 2010 to September, 2010 (for 6 months)	25.14	301.44
Total Disallowed IDC and IEDC (for 7 months)	31.94	320.73

20. In view of the above, following capital expenditure has been considered for the purpose of tariff:

(₹ in lakh)

Name of Asset	Capital Cost Claimed by the Petitioner as on the date of commercial operation	Detail of IDC and IEDC Disallowed for 7 months from March 2010	Initial spares disallowed	Capital cost considered for the purpose of tariff as on date of commercial operation
Asset-I	21308.44	(-)352.67	-	20955.77
Combined Asset-II	38017.54	-	(-)156.78	37860.42

ADDITIONAL CAPITAL EXPENDITURE

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

“Additional Capitalization: (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"

22. The 2009 regulations further defines cut-off date as under:

"cut-off date means 31st 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 31st March of the year closing after 3 years of the year of commercial operation".

23. The details submitted by the petitioner in support of its claim for projected additional capital expenditure for the transmission line are given hereunder:-

	Years	Nature and details of expenditure	Amount (₹ in lakh)
Asset-I	2010-11	Building and other civil works- Final Retention payments (works has been completed but billed after the date of commercial operation)	0.70
		Transmission line- Final Retention payments (works has been completed but bills to be received)	640.89
		Sub-station Equipments- Final Retention payments (works has been completed but bills to be received)	482.65
		Total	1124.24
Combined Asset-II	2010-11	Building and other civil works- Final Retention payments (works has been completed but billed after the date of commercial operation)	0.70
		Transmission line- Final Retention payments (works has been completed	1167.22

		but bills to be received)	
		Sub-station Equipments- Final Retention payments (works has been completed but bills to be received)	495.12
		Power Line Communication Channel: Final Retention payments (works has been completed but bills to be received)	5.59
		Total	1668.63
	2011-12	Transmission line- Final Retention payments (works has been completed but bills to be received)	325.00
		Sub-station Equipments- Final Retention payments (works has been completed but bills to be received)	234.98
	2012-13	Sub-station Equipments- Final Retention payments (works has been completed but bills to be received)	41.99

24. MSEDCL has submitted that that huge sum is being claimed towards additional capital expenditure on account of final/retention payments without furnishing detailed breakup of the claim in spite of request by the beneficiaries. MSEDCL therefore has requested that the same may not be considered for tariff calculation in the absence of details. The petitioner in its rejoinder dated 18.2.2011 has submitted that the notional date of commercial operation of transmission asset is 1.12.2010 and proposed additional capital expenditure is within cut off date i.e 31.3.2013. According to the petitioner, the additional capital expenditure claimed pertains to final/retention payments are price variation and other adjustment which are within the original scope and are permitted as per Regulations 9 (1) of the 2009 regulations.

25. We have considered the submissions made by the MSEDCL and the petitioner. The above additional capital expenditures are in the nature of undischarged liabilities and are projected to be capitalised within the cut-off date of the transmission asset which is up to 31.3.2013 as computed in terms of Regulation 3 (11) of the 2009 regulations. Therefore, the projected additional capital expenditure incurred/proposed to be incurred during the years 2010-11, 2011-12 and 2012-13 are admissible under Regulation 9 (1) of the 2009 regulations and are accordingly allowed.

TOTAL CAPITAL COST

26. Based on the above, gross block as given hereunder has been considered for the purpose of tariff for the transmission asset, after allowing additional capital expenditure on works as claimed by the petitioner:-

(₹ in lakh)

Asset-I	Amount
Capital cost as on the date of commercial operation	21308.44
Less: IDC and IEDC	(-)352.67
Capital cost admissible for tariff determination	20955.77
Projected additional capital expenditure during 2010-11	1124.24
Capital cost as on 1.4.2011 to 2014	22080.01

(₹ in lakh)

Combined Asset-II	Amount
Capital cost as on the date of commercial operation	38017.54
Less: Initial spares	(-)156.78
Capital cost admissible for tariff determination	37860.76
Projected additional capital expenditure during 2010-11	1668.63
Capital cost as on 1.4.2011	39529.39
Projected additional capital expenditure during 2011-12	559.98
Capital cost as on 1.4.2012	40089.37
Projected additional capital expenditure during 2012-13	41.99
Capital cost as on 1.4.2013 and 1.4.2014	40131.36

DEBT- EQUITY RATIO

27. Regulation 12 of the 2009 regulations provides that,-

*"12. **Debt-Equity Ratio.** (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.

Explanation.- *The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*

(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.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."

28. Details of debt-equity in respect of the transmission assets as on the date of commercial operation are as under:

Particulars	Amount (₹ in lakh)	%
Asset-I		
Debt	14669.04	70.000
Equity	6286.73	30.000
Total	20955.77	100.00
Combined Asset-II		
Debt	26502.53	70.000
Equity	11358.23	30.000
Total	37860.76	100.00

29. As regards the additional capital expenditure, (referred to as "Ad Cap:" in the tables below, the debt-equity details are as under:

Normative		
Particulars	Amount (₹ in lakh)	%
Asset 1		
Additional capital expenditure for 2010 -11		
Debt	786.97	70.00
Equity	337.28	30.00
Total	1124.25	100.00
Additional capital expenditure for 2011 -12		
Debt	213.50	70.00
Equity	91.50	30.00
Total	305.00	100.00

Combined Asset-II		
Particulars	Amount (₹ in lakh)	%
Additional capital expenditure for 2010 - 11		
Debt	1168.05	70.00
Equity	500.59	30.00
Total	1668.64	100.00

Particulars	Amount (₹ in lakh)	%
Additional capital expenditure for 2011-12		
Debt	391.99	70.00
Equity	167.99	30.00
Total	559.98	100.00

Particulars	Amount (₹ in lakh)	%
Additional capital expenditure for 2012-13		
Debt	29.39	70.00
Equity	12.60	30.00
Total	41.99	100.00

RETURN ON EQUITY

30. Regulation 15 of the 2009 regulations as amended 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.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the 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 in accordance with Regulation 6 of these regulations."

31. The petitioner has computed return on equity on pre-tax basis on 11.33% MAT in accordance with tax rate applicable for the year 2008-09 and has claimed return on equity @ 17.481% .

32. The petitioner has prayed for grossing up of base rate of return with MAT rate as per the applicable Finance Act. It is clarified that the Commission has notified the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 on 21.6.2011. Accordingly, the petitioner shall be entitled to recover the shortfall, if any, in the annual fixed charges on account of Return on Equity due to change in applicable Minimum Alternate Tax in accordance with clause (5) of Regulation 15 of the 2009 regulations.

33. In view of the above, the following amount of equity has been considered for calculation of return on equity:-

(₹ in lakh)	
Asset-I	
	2010 - 11 (Pro rata)
Opening Equity	6286.73
Addition due to additional capital expenditure	337.27
Closing Equity	6624.00
Average Equity	6455.37
Return on Equity (Base Rate)	15.50%
Tax rate for the year 2008-09	11.33%
Rate of Return on Equity (Pre Tax)	17.481%
Return on Equity (Pre Tax)	564.23

(₹ in lakh)

Combined Asset-II				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Opening Equity	11358.23	11858.82	12026.81	12039.41
Addition due to additional capital expenditure	500.59	167.99	12.60	0.00
Closing Equity	11858.82	12026.81	12039.41	12039.41
Average Equity	11608.52	11942.81	12033.11	12039.41
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	676.43	2087.72	2103.51	2104.61

INTEREST ON LOAN

34. 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."

35. 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 has been deemed to be equal to the depreciation allowed for that period;

(c) As regards 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. Any change in rate of interest subsequent to 1.4.2009 will be considered at the time of truing up.

36. Further, as mentioned above, tariff is being allowed for Asset-I only for two months viz. October and November 2010. Accordingly, repayment of Normative Loan i.e. ₹ 188.87 lakh for Asset-I for two months has been considered as cumulative repayment of Normative Loan for Combined Asset-II as on the notional date of commercial operation i.e. 1.12.2010.

37. The detailed calculations in support of the weighted average rate of interest are contained in **Annexure-I** and **Annexure-II** to this order. The year-wise details of interest on loan have been worked out as under:-

(₹ in lakh)	
Asset-I	
	2010-11 (Pro rata)
Gross Normative Loan	14669.04
Cumulative Repayment up to Previous Year	0.00
Net Loan-Opening	14669.04
Addition due to additional capital expenditure	786.97
Repayment during the year	566.60
Net Loan-Closing	14889.41
Average Loan	14779.22
Weighted Average Rate of Interest on Loan	5.2650%
Interest	389.06

(₹ in lakh)

Combined Assets-II				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Gross Normative Loan	26502.53	27670.57	28062.56	28091.95
Cumulative Repayment up to Previous Year	188.87	869.20	2969.07	5084.84
Net Loan-Opening	26313.67	26801.37	25093.49	23007.12
Addition due to additional capital expenditure	1168.04	391.99	29.39	0.00
Repayment during the year	680.34	2099.87	2115.76	2116.87
Net Loan-Closing	26801.37	25093.49	23007.12	20890.24
Average Loan	26557.52	25947.43	24050.30	21948.68
Weighted Average Rate of Interest on Loan	5.2891%	5.2891%	5.2205%	5.0950%
Interest	468.22	1372.39	1255.54	1118.29

DEPRECIATION

38. 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."

39. The transmission assets were put under commercial operation on 1.10.2010 and 1.12.2010. Accordingly, the same 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** of the 2009 regulations. Depreciation of Asset-I for the two months viz. October and November 2010 has been considered as cumulative depreciation for the Combined Assets-II.

40. Depreciation during the period 2009-14 in respect of the transmission asset has been worked out as under:-

(₹ in lakh)	
Asset-I	
	2010 - 11 (Pro rata)
Opening Gross Block (As per last order/ date of commercial operation)	20955.77
Addition during 2009-14 due to Projected Additional Capital expenditure	1124.24
Closing Gross Block	22080.01
Average Gross Block	21517.89
Rate of Depreciation	5.2663%
Depreciable Value (90%)	19366.10
Remaining Depreciable Value	19366.10
Depreciation	566.60

(₹ in lakh)

Combined Assets-II				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Opening Gross Block (As per last Order/ date of commercial operation)	37860.76	39529.39	40089.37	40131.36
Addition during 2009-14 due to Projected Additional capital expenditure	1668.63	559.98	41.99	0.00
Closing Gross Block	39529.39	40089.37	40131.36	40131.36
Average Gross Block	38695.08	39809.38	40110.37	40131.36
Rate of Depreciation	5.2746%	5.2748%	5.2749%	5.2749%
Depreciable Value (90%)	34825.57	35828.44	36099.33	36118.23
Remaining Depreciable Value	34636.70	34959.24	33130.26	31033.39
Depreciation	680.34	2099.87	2115.76	2116.87

OPERATION & MAINTENANCE EXPENSES

41. Clause (g) of regulation 19 of the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and line. Norms prescribed in respect of the elements covered in the instant petition are as under:-

	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV Twin conductor D/C Transmission line (km)	0.627	0.663	0.701	0.741	0.783
400 kV Bay (₹ in lakh/ bay)	52.40	55.40	58.57	61.92	65.46

42. Based on the above norms, the following operation and maintenance expenses claimed by the petitioner have been allowed:-

(₹ in lakh)

Asset-I	
Name of Elements	2010-11 (Pro rata for two months)
400 kV D/C twin conductor transmission line (220.884 k.m)	24.41
400 kV Bays (4 bays)	36.93
Total	61.34

(₹ in lakh)

Combined Assets-II				
Name of Elements	2010-11 (Pro rata for four months)	2011-12	2012-13	2013-14
400 kV D/C twin conductor Transmission line (365.819(142.884+2.051+220.884) k.m)	80.85	256.44	271.07	286.44
400 kV Bays (8 bays)	147.73	468.56	495.36	523.68
Total	228.58	725.00	766.43	810.12

43. The petitioner has submitted that O & M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O & M expenses of the petitioner during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking was also considered while calculating the O & M charges for 2009-14 periods. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expenses, in case the impact of wage hike w.e.f. 1.1.2007 is more than 50%. With reference to the submission of the petitioner, it is clarified that if any such application is made, it will be dealt with in accordance with law.

INTEREST ON WORKING CAPITAL

44. 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 and this has been considered in the working capital.

(iv) Rate of interest on working capital: As per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 notified in June 2011, State Bank of India Base Rate Plus 350 Basis points as on 1.7.2010, @ 11.00% has been considered in these calculations, as the rate of interest on working capital.

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

(₹ in lakh)

Asset-I		
	2010-11 (Pro rata)	October 2010 to November 2010
Maintenance Spares	55.21	18.40
O & M expenses	30.67	10.22
Receivables	580.81	193.39
Total	666.06	222.02
Rate of Interest	11.00%	11.00%
Total	36.63	12.21

(₹ in lakh)

Combined Asset-II				
	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	102.86	108.75	114.96	121.52
O & M expenses	57.15	60.42	63.87	67.51
Receivables	1048.95	1070.22	1062.97	1047.65
Total	1,208.95	1,239.39	1,241.81	1,236.68
Rate of Interest	11.00%	11.00%	11.00%	11.00%
Interest	44.33	136.33	136.60	136.04

TRANSMISSION CHARGES

46. The transmission charges being allowed for the transmission assets are summarized below:

(₹ in lakh)

Asset-I		
	2010-11 (Pro rata)	October 2010 to November 2010
Depreciation	566.60	188.87
Interest on Loan	389.06	129.69
Return on equity	564.23	188.08
Interest on Working Capital	36.63	12.21
O & M Expenses	184.02	61.34
Total	1740.54	580.18

(₹ in lakh)

Combined Asset-II				
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Depreciation	680.34	2099.87	2115.76	2116.87
Interest on Loan	468.22	1372.39	1255.54	1118.29
Return on equity	676.43	2087.72	2103.51	2104.61
Interest on Working Capital	44.33	136.33	136.60	136.04
O & M Expenses	228.58	725.00	766.43	810.12
Total	2097.89	6421.32	6377.84	6285.93

47. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. MSEDCL has submitted that the prayer for reimbursement of filing fee may be rejected in view of the decision of the Commission in 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."

48. 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

49. The petitioner has prayed for reimbursement of service tax. The prayer has been opposed by MSEDCL on the ground that transmission is exempted from service tax by the Government of India vide notification dated 27.2.2010. We have already decided in our order dated 23.9.2010 in Petition No. 62/2009 that the petitioner is exempted from service tax as per the extant policy of the Government of India. Therefore, the prayer of the petitioner no more survives and is accordingly is rejected.

Licence fee

50. The petitioner has submitted that licence fee is a new component of cost to the transmission licensee and has become incidental to the petitioner with effect from 2008-09. The normative O & M rates in the 2009 regulations do not capture the cost associated with the licence fee and therefore, it should be allowed to be recovered from the respondents. It is clarified that the matter is under

consideration of the Commission and any decision taken will apply to this case also.

51. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondent in accordance with Regulation 33 of the 2009 regulations up to 30.6.2011. With effect from 1.7.2011, billing, collection and disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of inter-State transmission charges and losses) Regulations, 2010 and the Removal of Difficulties orders issued hereunder.

52. This order disposes of Petition No. 350/2010.

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

Annexure-I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN (₹ in lakh)		
	Details of Loan	2010-11
1	IBRD IV (Exchange Rate@Rs.45.29)	
	Gross loan opening	7521.76
	Cumulative Repayment up to DOCO/previous year	0.00
	Net Loan-Opening	7521.76
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	7521.76
	Average Loan	7521.76
	Rate of Interest	1.86%
	Interest	139.90
	Rep Schedule	30 half yealy instalments from 15.11.2013
2	IBRD IV ADDL (Exchange Rate@Rs.45.29)	
	Gross loan opening	274.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	274.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	274.00
	Average Loan	274.00
	Rate of Interest	1.96%
	Interest	5.37
	Rep Schedule	52 halfyealy instalments from 1.2.2013
3	Bond XXIX	
	Gross loan opening	1615.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1615.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1615.00
	Average Loan	1615.00
	Rate of Interest	9.20%
	Interest	148.58
	Rep Schedule	12 equal Annual Installment from 12.3.2013

4	Bond XXVIII	
	Gross loan opening	4411.00
	Cumulative Repayment up to DOOCO/previous year	0.00
	Net Loan-Opening	4411.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	4411.00
	Average Loan	4411.00
	Rate of Interest	9.33%
	Interest	411.55
	Rep Schedule	12 equal Annual Installment from 15.12.2012
5	Bond XXXIV (Drwal as on 21.10.2010)	
	Gross loan opening	0.00
	Cumulative Repayment upto DOOCO/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	955.52
	Repayment during the year	0.00
	Net Loan-Closing	955.52
	Average Loan	477.76
	Rate of Interest	8.84%
	Interest	42.23
	Rep Schedule	12 Annual Instalments from 31.10.2014
6	Bond XXX	
	Gross loan opening	148.00
	Cumulative Repayment upto DOOCO/previous year	0.00
	Net Loan-Opening	148.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	148.00
	Average Loan	148.00
	Rate of Interest	8.80%
	Interest	13.02
	Rep Schedule	12 Annual Instalments from 29.9.2013
	Total Loan	
	Gross loan opening	13969.77
	Cumulative Repayment upto DOOCO/previous year	0.00
	Net Loan-Opening	13969.77
	Additions during the year	955.52
	Repayment during the year	0.00
	Net Loan-Closing	14925.29
	Average Loan	14447.53
	Rate of Interest	5.2650%
	Interest	760.66

Annexure -II

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
(₹ in lakh)					
	Details of Loan	2010-11	2011-12	2012-13	2013-14
1	IBRD IV (Exchange Rate@Rs.45.29)				
	Gross loan opening	7521.76	7521.76	7521.76	7521.76
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	7521.76	7521.76	7521.76	7521.76
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	166.48
	Net Loan-Closing	7521.76	7521.76	7521.76	7355.28
	Average Loan	7521.76	7521.76	7521.76	7438.52
	Rate of Interest	1.72%	1.72%	1.72%	1.72%
	Interest	129.37	129.37	129.37	127.94
	Rep Schedule	30 half yearly installments from 15.11.2013			
2	IBRD IV (Exchange Rate@Rs.46.26)				
	Gross loan opening	6304.31	6304.31	6304.31	6304.31
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	6304.31	6304.31	6304.31	6304.31
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	139.54
	Net Loan-Closing	6304.31	6304.31	6304.31	6164.78
	Average Loan	6304.31	6304.31	6304.31	6234.55
	Rate of Interest	1.72%	1.72%	1.72%	1.72%
	Interest	108.43	108.43	108.43	107.23
	Rep Schedule	30 half yearly instalments from 15.11.2013			
3	IBRD IV ADDL (Exchange Rate@Rs.45.29)				
	Gross loan opening	274.00	274.00	274.00	274.00
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	4.63
	Net Loan-Opening	274.00	274.00	274.00	269.37
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	4.63	9.34
	Net Loan-Closing	274.00	274.00	269.37	260.03
	Average Loan	274.00	274.00	271.69	264.70
	Rate of Interest	1.96%	1.96%	1.96%	1.96%
	Interest	5.37	5.37	5.33	5.19
	Rep Schedule	52 half yearly installments from 01.02.2013			

4	Bond XXIX				
	Gross loan opening	2922.00	2922.00	2922.00	2922.00
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	243.50
	Net Loan-Opening	2922.00	2922.00	2922.00	2678.50
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	243.50	243.50
	Net Loan-Closing	2922.00	2922.00	2678.50	2435.00
	Average Loan	2922.00	2922.00	2800.25	2556.75
	Rate of Interest	9.20%	9.20%	9.20%	9.20%
	Interest	268.82	268.82	257.62	235.22
	Rep Schedule	12 equal Annual Installment from 12.03.2013			
5	Bond XXVIII				
	Gross loan opening	7983.00	7983.00	7983.00	7983.00
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	665.25
	Net Loan-Opening	7983.00	7983.00	7983.00	7317.75
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	665.25	665.25
	Net Loan-Closing	7983.00	7983.00	7317.75	6652.50
	Average Loan	7983.00	7983.00	7650.38	6985.13
	Rate of Interest	9.33%	9.33%	9.33%	9.33%
	Interest	744.81	744.81	713.78	651.71
	Rep Schedule	12 equal Annual Installment from 15.12.2012			
6	Bond XXXIV				
	Gross loan opening	1638.52	1638.52	1638.52	1638.52
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	1638.52	1638.52	1638.52	1638.52
	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	1638.52	1638.52	1638.52	1638.52
	Average Loan	1638.52	1638.52	1638.52	1638.52
	Rate of Interest	8.84%	8.84%	8.84%	8.84%
	Interest	144.85	144.85	144.85	144.85
	Rep Schedule	12 Annual Instalments from 31.10.2014			

7	Bond XXX				
	Gross loan opening	215.00	215.00	215.00	215.00
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	215.00	215.00	215.00	215.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	17.92
	Net Loan-Closing	215.00	215.00	215.00	197.08
	Average Loan	215.00	215.00	215.00	206.04
	Rate of Interest	8.80%	8.80%	8.80%	8.80%
	Interest	18.92	18.92	18.92	18.13
	Rep Schedule	12 Annual Instalments from 29.9.2013			
	Total Loan				
	Gross loan opening	26858.60	26858.60	26858.60	26858.60
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	913.38
	Net Loan-Opening	26858.60	26858.60	26858.60	25945.22
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	913.38	1242.03
	Net Loan-Closing	26858.60	26858.60	25945.22	24703.19
	Average Loan	26858.60	26858.60	26401.91	25324.21
	Rate of Interest	5.2891%	5.2891%	5.2205%	5.0950%
	Interest	1420.58	1420.58	1378.30	1290.27