

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 103/TT/2012

Coram:

**Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member**

**Date of Hearing: 13.08.2012
Date of Order : 04.11.2013**

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 for determination of Transmission Tariff for 400 kV D/C (QUAD) Mauda- Wardha TL with associated bays at Wardha Sub-station (anticipated date of commercial operation: 1.2.2012) under Mauda TS in Western Region for tariff block 2009-14 period.

And

In the matter of:

Power Grid Corporation of India Limited,
"Saudamani", Plot No.2,
Sector-29, Gurgaon -122 001.

...Petitioner

Vs

1. NTPC Limited, New Delhi
NTPC Bhawan, Scope Complex
7, Institutional Area
Lodi Road, New Delhi-110 003
2. Madhya Pradesh Power Trading Company Ltd.,
Shakti Bhawan, Rampur
Jabalpur-482 008
3. Maharashtra State Electricity Distribution Company Limited,
Prakashgad, 4th floor
Andehri (East), Mumbai-400 052



4. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan
Race Course Road, Vadodara-390 007
5. Electricity Department, Government of Goa,
Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403 001
6. Electricity Department,
Administration of Daman and Diu, Daman-396 210
7. Electricity Department, Administration of Dadra Nagar Haveli, U.T.,
Silvassa-396 230
8. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013
9. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd., 3/54,
Press Complex, Agra-Bombay Road
Indore -452 008

.....Respondents

Representatives of the Petitioner : Shri S S Raju, PGCIL
Shri M.M. Mondal, PGCIL
Mrs. Sangeeta Edwards, PGCIL
Shri D. Nikhandia, PGCIL

Counsel for the Respondents : Nil

ORDER

This petition has been filed by Power Grid Corporation of India Limited (PGCIL) for determination of transmission tariff for 400 kV D/C (QUAD) Mauda-Wardha TL with associated bays at Wardha Sub-station (hereinafter referred to as "the transmission system") under Mauda Transmission System in Western Region for tariff block 2009-2014, under Regulation 86 of the Central Electricity Regulatory



Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

2. The administrative approval and expenditure sanction to the transmission project was accorded by Board of Directors of the petitioner vide letter C/CP/Mauda dated 6.2.2010 for ₹ 46938 lakh, including IDC of ₹ 3553 lakh (based on 3rd quarter price level).

3. The scope of work covered under the project broadly includes construction of following transmission line and Sub-station:-

Transmission line

- i. Mauda STPS-wardha 400 kV D/C (Quad) line
- ii. Mauda STPS-Khaperkheda (MSETCL) 400 kV D/C (Quad) line

Sub-Station

- i. Extension of 400/220 kV Wardha Sub-station
- ii. Extension of 400 kV Khaperkheda (MSETCL) Sub-station.

4. The petitioner has submitted that Mauda- Khaperkheda transmission line and Sub-station extension have been dropped from the scope of work as decided in 14th WRPC meeting. Subsequently, vide affidavit dated 16.8.2012, the petitioner has submitted revised scope of work and the revised cost estimate of ₹25893 lakh including IDC of ₹ 1343 lakh based on April, 2012 price level.

5. The transmission assets covered in the instant petition after modification of scope of work are as follows:-

Transmission Line

Name (End Point Location)	Voltage class (kV)	Length (km)	Type (S/C or D/C)
Mauda-Wardha	400 kV	124.705	D/C

Sub-Station

Name of Sub-station	Voltage class (kV)	No. of bays
Wardha Sub-station	400 kV	2

6. The petitioner, vide affidavit dated 16.8.2012, has also submitted that the transmission asset, i.e. 400 kV D/C (QUAD) Mauda-Wardha TL with associated bays at Wardha Sub-station, has been commissioned in two parts i.e. Mauda–Wardha Circuit–I on 1.4.2012 and Mauda–Wardha Circuit–II on 1.6.2012. The petitioner has also submitted Management Certificates and funding pattern as per the actual date of commercial operation for Circuit –I and Circuit –II.

7. The tariff has been accordingly computed in the following manner:-

- i) Circuit –I of 400 kV Mauda- Wardha D/C line along with bay at Wardha for 1.4.2012 to 31.5.2012.(hereinafter referred to as **Asset-I**)

- ii) 400 kV D/C Mauda- Wardha D/C line along with bay at Wardha from Notional date of commercial operation 1.6.2012 to 31.3.2013 and for 2013-14 (hereinafter referred to as **Combined Asset**)

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

(₹ in lakh)

Combined Asset			
Particulars	2011-12	2012-13	2013-14
Depreciation	218.05	1336.80	1349.15
Interest on Loan	268.68	1574.81	1464.98
Return on equity	223.85	1372.35	1385.15
Interest on Working Capital	16.18	98.15	97.17
O & M Expenses	41.37	262.39	277.32
Total	768.13	4644.50	4573.77

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

(₹ in lakh)

Combined Asset			
Particulars	2011-12	2012-13	2013-14
Maintenance Spares	37.23	39.36	41.60
O & M expenses	20.69	21.87	23.11
Receivables	768.13	774.08	762.30
Total	826.05	835.31	827.01
Interest	97.06	98.15	97.17
Rate of Interest	11.75%	11.75%	11.75%

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 petitioner has been filed by Respondent No. 3, Maharashtra State Electricity Distribution Company Limited (MSEDCL), vide affidavit dated 2.4.2012. MSEDCL has raised the issue of higher initial spares, reimbursement of publication fee and O&M expenses. The objections raised by MSEDCL are dealt in the relevant paragraphs of this order.

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

Capital cost

12. Regulation 7(1) (a) of the 2009 Tariff Regulations provides as under:-

“(1) Capital cost for a project shall include:

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

13. The details of capital cost, as on the date of commercial operation and estimated additional capital expenditure projected to be incurred for the assets, claimed by the petitioner are summarized below:-

(₹ in lakh)					
Name of the Asset	Revised cost estimates	Cost Up to date of commercial operation/ Notional date of commercial operation*	Cost upto 31.5.2012	Additional capital expenditure from 1.6.2012-31.3.2013	Estimated completion cost
Asset-I Circuit –I	25893.00	16512.22	185.95	1681.83	18380.00
Circuit –II			6836.01	597.97	7433.98
Combined Asset	25893.00		23534.18	2279.80	25813.98

*As per the Management Certificate dated 31.7.2012, the major portion of the expenditure is booked against Circuit-I.

Cost variation

14. The estimated completion cost of the transmission assets covered in the petition is within the revised cost estimates. However, there is an increase in cost by 253% (₹881.50 lakh) under the head "Preliminary investigation, Right of way, forest clearance, PTCC, general civil works, compensation". The petitioner has submitted, vide affidavit dated 12.12.2011, that the cost variation is due to variation in the FR cost, which is based on the previous price index, and the actual assessment by revenue and concerned authorities at the current price index as well as future projections. The petitioner, vide affidavit dated 16.8.2012, has submitted the break-up of the items under the head "Preliminary investigation, right of way, forest clearance, PTCC, general civil works, compensation etc. The details are as follows:-

(₹ in lakh)		
Cost of Crop & PTCC compensation	As per FR	As per Estimate/Actual
Preliminary Survey	12.50	5.00
Crop Compensation	61.41	375.00
Tree Compensation & cutting		230.00
PTCC & Railway Charges & Other	62.50	137.00
Forest		
Compensatory Afforestation		9.00
Tree cutting		1.50
Medicinal plantation	113.30	2.00
NPV		122.00
TOTAL	249.71	881.50

15. It is observed that though there is no cost over-run, there is huge variation between the FR cost and the estimated completion cost of certain items. The cost estimates of the petitioner are not realistic not only in this petition but also in other

similar petitions. In our view the petitioner should adopt a prudent procedure to make cost estimates of different elements of the transmission projects more realistic.

Treatment of Initial Spares

16. The capital cost of Asset-I, as on the date of commercial operation, is inclusive of initial spares. The petitioner has claimed initial spares for sub-station and transmission line amounting to ₹38.14 lakh and ₹31.38 lakh respectively. The initial spares for transmission line are within the ceiling limits. However, the initial spares pertaining to sub-station exceed the ceiling limit specified in Regulation 8 of 2009 Tariff Regulations.

17. The petitioner has submitted that Wardha Sub-station is a green field sub-station and was commissioned in 2009. The petitioner has also submitted that usually in a green field sub-station large number of bays and sub-stations are commissioned, but in the instant case only two bays for Mauda-Wardha TL are commissioned which is an extension project of the sub-station. The initial spares norms specified by the Commission for the green field projects of the nature of extension work, as in the instant case, are not sufficient. The petitioner has requested to allow initial spares beyond the ceiling limit specified in Regulation 8 of the 2009 Tariff Regulations by invoking the power to relax provided under Regulation 44 of the 2009 Tariff Regulations.

18. MSEDCL submitted that the maintenance spares must be allowed as per the 2009 Tariff Regulations.

19. We have considered the submission of the petitioner and the respondent. It is observed that the petitioner has claimed initial spares for Wardha Sub-station more than the ceiling norms specified in the 2009 Tariff Regulations. Further, the petitioner has not submitted the detailed break-up of initial spares for the Sub-station including extension of associated bays. The initial spares norms specified in the 2009 Tariff Regulations are based on the information provided by the petitioner on the basis of its diversified asset base. Further, the extension of bays is not a specialized installation which would require higher initial spares and hence we are of the view that there is no need to invoke the provision "Power to Relax" of Regulation 8 of the 2009 Tariff Regulations. Accordingly, the initial spares are limited to the norms specified in the 2009 Tariff Regulations.

20. The initial spares allowed for sub-station includes the cost of land, building, civil works and PLCC. The details of the initial spares claimed and allowed in Asset-I are given below:-

(₹ In lakh)					
Particulars	Cost as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 2009 of 2009 Tariff Regulations	Initial spares worked out as per ceiling norms	Excess initial spares claimed
Sub Station	1014.73	38.14	2.50%	25.04	13.10

21. The capital cost as on the date of commercial operation is considered for the purpose of calculating tariff after deducting excess initial spares and the details are as follows:-

(₹ in lakh)

Name of the Asset	Cost up to date of commercial operation	Excess spares deducted	Capital cost considered for tariff calculation
Circuit I of 400 kV Mouda-Wardha D/c line along with bay at Wardha (hereinafter referred to as "Asset-I")	16512.22	13.10	16499.12
Circuit II of 400 kV Mouda-Wardha D/c line along with bay at Wardha	6836.01	0.00	6836.01
400 kV D/C Mouda-Wardha D/c line along with bay at Wardha (hereinafter referred to as "Combined Asset")		23335.13+185.95	23521.08*

*The capital cost as on the notional date of commercial operation of Combined Asset, i.e. 1.6.2012, is considered for the purpose for tariff calculation.

Projected additional capital expenditure

22. Regulation 9(1) of the 2009 Tariff Regulations provides as under:-

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

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

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

23. As per 2009 Tariff Regulations,

"'cut-off date' means 31st March of the year closing after two years of the year of commercial operation of the project, and in case the project is put under commercial operation in the last quarter of a year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation."

Therefore, the cut-off date for the above mentioned assets is 31.3.2015.

24. The petitioner has claimed projected additional capital expenditure amounting to ₹2279.80 lakh for the year 2012-2013. The additional Capital expenditure claimed falls within the cut-off date. Hence, it has been considered for the purpose of tariff calculation.

Debt- equity ratio

25. Regulation 12 of the 2009 Tariff Regulations provides as under:-

“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 modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

26. Details of debt equity ratio as on notional date of commercial operation are given overleaf:-

(₹ in lakh)

Apportioned approved cost			As on date of commercial operation	
	Amount	%	Amount	%
Debt	18125.10	70.00	16464.76	70.00
Equity	7767.90	30.00	7056.32	30.00
Total	25893.00	100.00	23521.08	100.00

27. Details of the debt-equity ratio as on 31.3.2014 are as under:-

(₹ in lakh)

	As on 31.3.2014	
	Amount	%
Debt	18060.62	70.00%
Equity	7740.26	30.00%
Total	25800.88	100.00%

Return on equity

28. Regulation 15 of the 2009 Tariff Regulations provides as under:-

"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% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall 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 Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be:

(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.

(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 financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations."

29. The petitioner has submitted that as per the Investment Approval (I.A.) dated 26.2.2013, the transmission assets were scheduled to be commissioned within 32 months from the date of I.A. Accordingly, the scheduled date of commissioning works out to 25.10.2012, i.e. by 1.11.2012. Both Circuit-I and Circuit-II were commissioned within the scheduled date of commissioning, on 1.4.2012 and 1.6.2012, respectively. The transmission assets were commissioned within the scheduled period of 32 months. The petitioner has prayed for additional return on equity of 0.5% as the transmission assets were commissioned within 32 months as stipulated in the Appendix-II under Regulation 15 (2) of the 2009 Tariff Regulations. As the transmission assets were commissioned within 32 months as stipulated in Appendix-II of the 2009 Tariff Regulations, additional return on equity of 0.5% is allowed.

30. Average equity and return on equity worked out is as given below:-

(₹ in lakh)

Description	Equity as on date of commercial operation	Average equity considered during 2012-13	ROE during 2012-2013 (Pro-rata)	Equity considered during 2013-2014	ROE during 2013-2014
Asset-I	4949.74	5229.90	157.28*	-	-
Combined Asset	7056.32	7398.29	1112.46#	7740.26	1396.65

*Prorata for 2 months. # Prorata for 10 months

31. The following amount of equity has been allowed for calculation of return of equity:-

(₹ in lakh)

Particulars	Asset-I	Combined Asset	
	2012-13	2012-13 (pro-rata)	2013-14
Opening Equity	4949.74	7056.32	7740.26
Addition due to Additional Capital Expenditure	560.33	683.94	0.00
Closing Equity	5510.07	7740.26	7740.26
Average Equity	5229.90	7398.29	7740.26
Return on Equity (Base Rate)	16.00%	16.00%	16.00%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	18.044%	18.044%	18.044%
Return on Equity (Pre Tax)	943.68	1112.46	1396.65

Interest on loan

32. Regulation 16 of the 2009 Tariff 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.”

33. In these calculations, interest on loan has been worked out as per details given hereunder:-

- (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 yearly repayment for the tariff period 2009-14 has been considered to be equal to the corresponding depreciation allowed for that period; and
- (c) Weighted average rate of interest on actual loan worked out as above has been applied on the notional average loan during the year to arrive at the interest on loan.

34. Detailed calculation of the weighted average rate of interest has been given in the Annexure I and II to this order.

35. Details of the interest on loan worked on the above basis are as under:-

(₹ in lakh)

Particulars	Asset	Combined asset	
	2012-13	2012-13 (pro-rata)	2013-14
Gross Normative Loan	11549.38	16464.76	18060.62
Cumulative Repayment upto Previous Year	0.00	153.03	1235.59
Net Loan-Opening	11549.38	16311.73	16825.03
Addition due to Additional capital expenditure	1307.45	1595.86	0.00
Repayment during the year	918.18	1082.56	1358.06
Net Loan-Closing	11938.65	16825.03	15466.97
Average Loan	11744.02	16568.38	16146.00
Weighted Average Rate of Interest on Loan	9.2870%	9.2845%	9.2853%
Interest	1090.66	1281.91	1499.21

Depreciation

36. Regulation 17 (4) of the 2009 Tariff Regulations provides as under:-

(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.

37. The transmission assets covered in the petition were put under commercial operation as on 1.4.2012 and 1.6.2012 and accordingly 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 Tariff Regulations.

38. Depreciation of Asset-I i.e. ₹153.03 lakh for the month of April and May has been considered as Cumulative Depreciation for the Combined Asset

39. Details of the depreciation worked out are given hereunder:-

Particulars	(₹ in lakh)		
	Asset 2012-13	Combined asset 2012-13 (pro-rata)	2013-14
As per Last Order	16499.12	23521.08	25800.88
Addition during 2009-14 due to Projected Additional Capitalisation	1867.78	2279.80	0.00
Gross Block	18366.90	25800.88	25800.88
Average Gross Block	17433.01	24660.98	25800.88
Rate of Depreciation	5.2669%	5.2677%	5.2636%
Depreciable Value	15689.71	22194.88	23220.79
Remaining Depreciable Value	15689.71	22041.85	21985.20
Depreciation	918.18	1082.56	1358.06

Operation & maintenance expenses

40. Clause (g) of regulation 19 of the 2009 Tariff Regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and transmission line. Norms prescribed in respect of the elements covered in the instant petition are given overleaf:-

(₹ in lakh per km.)

Element	2009-10	2010-11	2011-12	2012-13	2013-14
Single circuit (Bundled conductor with four or more sub conductors)	0.537	0.568	0.600	0.635	0.671
Double circuit (Bundled conductor with four or more sub-conductors)	0.940	0.994	1.051	1.111	1.174
400 kV	52.40	55.40	58.57	61.92	65.46

41. Based on the above norms, the petitioner has calculated the following operation and maintenance expenses, which are allowed:-

(₹ in lakh)

Element	2012-13	2013-14
124.705 km S/C Quad Conductor TL (date of commercial operation : 1.4.2012)	(Pro-rata for 2 months) 13.197	
1 No 400 kV bay (date of commercial operation : 1.6.2012)	10.32	
124.705 km D/C Quad Conductor TL (date of commercial operation : 1.6.2012)	(Pro-rata for 10 months) 115.456	146.403
2 No's 400 kV bays (date of commercial operation : 1.6.2012)	103.200	130.920
Total O&M for Assets	242.173	277.323

42. The O&M expenses are calculated by considering Circuit-I as S/C line (Quad Conductor) along with 400 kV associated bay which was commissioned on 1.4.2012 (Pro rata for 2 months). From 1.6.2012, the O&M was given by considering the asset as D/C line (Quad conductor) along with associated 2 nos 400 kV bays (Pro-rata for 10 months).

43. MSEDCL submitted that the O&M must be allowed as per the norms specified in the 2009 Tariff Regulations.

44. The petitioner has submitted that O & M expenses for the year 2009-14 had been arrived on the basis of normalized actual O & M expenses during the period 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O & M expenses for the tariff period 2009-14.

45. The Commission has given effect to the impact of pay revision in the 2009 Tariff Regulations by factoring 50% on account of pay revision of the employees of PSUs after extensive stakeholders' consultation. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. However, in case the petitioner approaches with any such application, the same shall be dealt with in accordance with law.

Interest on working capital

46. As per the 2009 Tariff 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 Tariff Regulations, receivables will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of 2 months' transmission charges 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 Tariff 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 Tariff 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 in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

As per 2009 Tariff Regulations, SBI Base Rate (10.00%) Plus 350Bps i.e. 13.50% has been considered as the rate of interest on working capital.

47. Necessary computations in support of interest on working capital are given hereunder:-

Particulars	Asset		combined asset	
	2012-13	for the month of April and May 2013	2012-13 (pro-rata)	2013-14
Maintenance Spares	21.16	3.53	39.36	41.60
O & M expenses	11.76	1.96	21.87	23.11
Receivables	528.23	88.04	756.84	773.36
Total	561.15	93.52	818.06	838.07
Interest	75.75	12.63	88.62	108.95

(₹ in lakh)

Transmission charges

48. The transmission charges being allowed for the transmission assets are summarized hereunder:-

(₹ in lakh)

Particulars	Asset		Combined Asset	
	2012-13	for the month of April and may 2013	2012-13 (pro-rata)	2013-14
Depreciation	918.18	153.03	1082.56	1358.06
Interest on Loan	1090.66	181.78	1281.91	1499.21
Return on equity	943.68	157.28	1112.46	1396.65
Interest on Working Capital	75.75	12.63	88.62	108.95
O & M Expenses	141.08	23.51	218.65	277.32
Total	3169.36	528.23	3784.21	4640.19

Filing fee and the publication expenses

49. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. MSEDCL submitted that the application and publication expenses must be reimbursed as per the 2009 Tariff Regulations. In accordance with the Commission's order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee directly from the beneficiaries on *pro-rata* basis. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis.

Licence fee

50. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents.

51. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations.

Service tax

52. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. We consider the prayer of the petitioner pre-mature and accordingly the petitioner's prayer is rejected.

Sharing of transmission charges

53. The 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 as amended from time to time.

54. This order disposes of Petition No. 103/TT/2012.

sd/-

**(M. Deena Dayalan)
Member**

sd/-

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



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN for ASSET-I

(₹ in Lakh)

	Details of Loan	2012-13	2013-14
1	Bond XXXII		
	Gross loan opening	500.00	500.00
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	41.67
	Net Loan-Closing	500.00	458.33
	Average Loan	500.00	479.17
	Rate of Interest	8.84%	8.84%
	Interest	44.20	42.36
	Rep Schedule	12 annual installments from 29.03.2014	
2	Bond XXXIV		
	Gross loan opening	4000.00	4000.00
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	4000.00	4000.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	4000.00	4000.00
	Average Loan	4000.00	4000.00
	Rate of Interest	8.84%	8.84%
	Interest	353.60	353.60
	Rep Schedule	12 annual installments from 21.10.2014	
3	Bond XXXV		
	Gross loan opening	5826.00	5826.00
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	5826.00	5826.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	5826.00	5826.00
	Average Loan	5826.00	5826.00
	Rate of Interest	9.64%	9.64%
	Interest	561.63	561.63
	Rep Schedule	12 annual installments from 31.05.2015.	

4	Bond XXXVII		
	Gross loan opening	1232.55	1232.55
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	1232.55	1232.55
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1232.55	1232.55
	Average Loan	1232.55	1232.55
	Rate of Interest	9.25%	9.25%
	Interest	114.01	114.01
	Rep Schedule	12 annual installments from 26.12.2015	
	Total Loan		
	Gross loan opening	11558.55	11558.55
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	11558.55	11558.55
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	41.67
	Net Loan-Closing	11558.55	11516.88
	Average Loan	11558.55	11537.72
	Rate of Interest	9.2870%	9.2878%
	Interest	1073.44	1071.60

Annexure-II**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET-III
(₹ in Lakh)**

	Details of Loan	2012-13	2013-14
1	Bond XXXII		
	Gross loan opening	700.00	700.00
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	700.00	700.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	58.33
	Net Loan-Closing	700.00	641.67
	Average Loan	700.00	670.83
	Rate of Interest	8.84%	8.84%
	Interest	61.88	59.30
	Rep Schedule	12 Annual instalments from 29.03.2014	
2	Bond XXXV		
	Gross loan opening	8100.00	8100.00
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	8100.00	8100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	8100.00	8100.00
	Average Loan	8100.00	8100.00
	Rate of Interest	9.64%	9.64%
	Interest	780.84	780.84
	Rep Schedule	12 Annual instalments from 31.05.2015	
3	Bond XXXVII		
	Gross loan opening	1901.56	1901.56
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	1901.56	1901.56
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1901.56	1901.56
	Average Loan	1901.56	1901.56
	Rate of Interest	9.25%	9.25%
	Interest	175.89	175.89
	Rep Schedule	12 Annual instalments from 26.12.2015	

4	Bond XXXIV		
	Gross loan opening	5630.00	5630.00
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	5630.00	5630.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	5630.00	5630.00
	Average Loan	5630.00	5630.00
	Rate of Interest	8.84%	8.84%
	Interest	497.69	497.69
	Rep Schedule	12 Annual instalments from 21.10.2014	
5	Bond XL		
	Gross loan opening	12.20	12.20
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	12.20	12.20
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	12.20	12.20
	Average Loan	12.20	12.20
	Rate of Interest	9.30%	9.30%
	Interest	1.13	1.13
	Rep Schedule	12 Annual instalments from 29.08.2016	
	Total Loan		
	Gross loan opening	16343.76	16343.76
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00
	Net Loan-Opening	16343.76	16343.76
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	58.33
	Net Loan-Closing	16343.76	16285.43
	Average Loan	16343.76	16314.59
	Rate of Interest	9.2845%	9.2853%
	Interest	1517.44	1514.86