

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 426/TT/2014

Coram:

**Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

**Date of Hearing : 03.02.2016
Date of Order : 26.02.2016**

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for assets under Vindhyachal Stage-II Transmission System in Western Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

Power Grid Corporation of India Ltd.
'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon -122 001 (Haryana).

.....Petitioner

Versus

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur, Jabalpur-482008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor, Andheri(East), Mumbai-400052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara- 390007



4. Electricity Department
Govt. Of GOA,
Vidyut Bhawan, Panaji- 403001
5. Electricity Department
Administration of Daman & Diu,
Daman- 396210
6. Electricity Department
Administration of Dadar Nagar Haveli,
U.T., Silvassa- 396230
7. Chhattisgarh State Electricity Board
P.O Sunder Nagar, Dangania, Raipur
Chhatisgaarh-492013
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay road
Indore-452008.....**Respondents**

The following were present:-

For Petitioner: Shri Shashi Bhushan, PGCIL
Mohd. Mohsin, PGCIL
Shri A.M. Pavgi, PGCIL
Shri M. M. Mondal, PGCIL
Shri Rakesh Prasad, PGCIL

For Respondent: None

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner"), for trueing up of capital expenditure under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") based on actual capital expenditure for the period from 1.4.2009 to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms



and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 for assets under Vindhyachal Stage-II Transmission System in Western Region.

2. The respondents are distribution and transmission licensees who are procuring transmission service from the petitioner, mainly beneficiaries of the Western Region.

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 (“the Act”). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 3.2.2016. None of the respondents have filed their reply. The petitioner has submitted additional information vide affidavit dated 12.2.2016.

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

5. The brief facts of the case are as follows:-

(a) Investment approval was accorded by Ministry of Power vide its letter dated 6.10.1995 at a total capital investment of ₹65771 lakh, including IDC of ₹11029 lakh. The petitioner has built the transmission asset in the Western Region. The date of commercial operation of the transmission system has been taken as on 1.4.2000.



(b) The tariff from 1.4.2004 to 31.3.2009 was allowed vide order dated 14.2.2006 in Petition No. 73/2004 in accordance with CERC (Terms and Conditions of Tariff) Regulations, 2004. Further, the said order was amended vide order dated 29.4.2008 on account of change in admitted capital cost.

(c) The tariff for the 2009-14 period was allowed vide order dated 5.5.2011 in Petition No. 191/2010 in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

| (₹ in lakh) | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Depreciation | 3240.11 | 3240.11 | 3250.63 | 820.80 | 830.59 |
| Interest on Loan | 1818.81 | 1578.78 | 1347.76 | 1212.19 | 1155.64 |
| Return on equity | 892.65 | 892.65 | 903.10 | 924.38 | 935.22 |
| Interest on Working Capital | 189.86 | 188.62 | 188.23 | 139.41 | 143.09 |
| O & M Expenses | 1315.67 | 1390.95 | 1470.65 | 1554.74 | 1643.39 |
| Total | 7457.09 | 7291.10 | 7160.36 | 4651.51 | 4707.93 |

(d) The Commission, vide order dated 5.5.2011 in Petition No. 191/2010, has determined the tariff for the tariff period 2009-14 based on admitted capital cost of ₹62343.23 lakh as on 31.3.2009.

(e) The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.

(f) The instant petition was filed on 28.10.2014.



TRUING UP OF ANNUAL FIXED CHARGES FOR TARIFF PERIOD 2009-14

6. Clause (3) of the Regulation 6 of the 2009 Tariff Regulations provides as under:-

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors”.

7. The petitioner has submitted the information as required under the 2009 Tariff Regulations for truing up of annual fixed charges for 2009-14 tariff period. The trued up tariff for 2009-14 tariff period has been worked out in the subsequent paragraphs.

Capital Cost

8. The petitioner has claimed admitted capital cost of ₹62343.23 lakh as on 31.3.2009 for the purpose of tariff.

9. Last proviso to Clause (2) of Regulation 7 of the 2009 Tariff Regulations provides that:-

“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding undischarged liability, if any, as on 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.”

10. The capital cost admitted as on 31.3.2009 vide order dated 5.5.2011 in Petition No. 191/2010 has been considered as the opening capital cost as on 1.4.2009 for determination of tariff in accordance with Regulation 7 of the 2009



Tariff Regulations. The admitted capital cost of ₹62343.23 lakh as on 31.3.2009 has been considered to work out the trued up tariff for the tariff period 2009-14.

Additional Capital Expenditure

11. The petitioner has claimed additional capitalization under Regulation 9(2) of the 2009 Tariff Regulations.

12. Clause (2) of Regulation 9 of the 2009 Tariff Regulations provides that:-

“9. Additional Capitalisation.

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

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;
- ...

(v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system: “

13. The petitioner has claimed additional capitalization of ₹28.32 lakh and ₹30.38 lakh for 2010-11 and 2012-13 respectively towards entry tax and tower strengthening. In addition to the above, tower strengthening work has also been proposed during 2014-15 and 2015-16. In response to Commission's query regarding the copy of supporting documents for payment made towards entry tax, the petitioner vide affidavit dated 12.2.2016 submitted the copy of challan of SBI for payment made towards entry tax during 2010-11. Further, the petitioner



submitted that entry tax was deposited as per demand raised by the Government of Madhya Pradesh for a number of projects including the instant asset. Further, during the hearing the Commission sought the reasons for decrease in additional capitalization. The petitioner has submitted that additional capitalization for tower strengthening for Vindhyachal-Satna and Satna-Bina portion was approved by the Commission on the recommendation of CEA. The CEA report had stated that tower strengthening was required only in case of failure in Satna-Bina portion. The petitioner further submitted that after assessment of Satna-Bina portion, it was observed that there was no failure on the same and therefore no tower strengthening was done in Satna-Bina portion and the same was restricted to Vindhyachal-Satna portion. Further, on reassessment, it was observed that the requirement for tower strengthening reduced from 400 MT to 225 MT, due to which the additional capitalization towards tower strengthening has reduced.

14. The total capital cost of ₹62401.93 lakh including actual additional capitalisation claimed by the petitioner is well within the overall approved cost of ₹65771 lakh. Hence, considering the submissions made by the petitioner, we have allowed additional capitalization under Regulation 9(2)(i) and 9(2)(v) of the 2009 Tariff Regulations and accordingly capital cost for the purpose of tariff has been worked out as under:-dn in the table below:-



(₹ in lakh)

| Cost as per Investment Approval is ₹65771 lakh | | | | | | | | |
|--|--------------------------------------|---------------------------|---------|---------|---------|---------|---------------------------------|------------------------------------|
| Particulars | Admitted capital cost as on 1.4.2009 | Additional capitalisation | | | | | Total additional capitalisation | Total capital cost as on 31.3.2014 |
| | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | | |
| Approved in order dated 5.5.2011 | 62343.23 | 0.00 | 0.00 | 398.53 | 413.29 | 0.00 | 811.82 | 63155.05 |
| Approved in this order | 62343.23 | 0.00 | 28.32 | 0.00 | 30.38 | 0.00 | 58.70 | 62401.93 |

Debt: Equity

15. Clause 2 of Regulation 12 of the 2009 Tariff Regulations provides that:-

“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.”

16. The petitioner has claimed trued up Annual Fixed Charge based on debt-equity ratio of 91.81:8.19 as on 31.3.2009, admitted by the Commission in its order dated 5.5.2011 in Petition No. 191/2010, as opening debt:equity ratio as on 1.4.2009. The transmission assets covered in the instant petition are existing assets, as the COD is prior to 1.4.2009. The admitted debt:equity ratio of 91.81:8.19 as on 31.3.2009 has been considered as opening debt:equity ratio as on 1.4.2009 for the purpose of truing up of the approved tariff of tariff period 2009-14, as given under:-

(₹ in lakh)

| Funding | Amount | (%) |
|---------|----------|--------|
| Debt | 57236.85 | 91.81 |
| Equity | 5106.38 | 8.19 |
| Total | 62343.23 | 100.00 |



17. With respect to additional capitalization, the petitioner has claimed the debt:equity ratio of 70:30 for 2009-14 tariff period. The petitioner was directed to confirm that the actual equity infused for additional capitalization during the 2009-14 tariff period was not less than 30%. The petitioner has submitted that the actual equity infused for the additional capitalization during the tariff period 2009-14 is more than 30% of the capital cost. Further, as per Regulation 12(1) of Tariff Regulations'2009 equity deployed more than 30% shall be treated as deemed loan. Accordingly, equity has been claimed by the petitioner up to 30% of additional capitalization of the respective year as normative equity. The overall debt equity ratio as on 31.3.2014 for the instant transmission set including additional capitalization is as under:-

| (₹ in lakh) | | |
|--------------|-----------------|---------------|
| Funding | Amount | (%) |
| Debt | 57277.94 | 91.79 |
| Equity | 5123.99 | 8.21 |
| Total | 62401.93 | 100.00 |

Interest on Loan ("IOL")

18. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The Commission in its earlier order dated 29.1.2015 in Petition No. 165/TT/2013 has held that:-

“...in case of floating rate of interest, any change in the rates of interest during the tariff period will be considered at the time of true up”.

19. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest. We have considered the submissions of the petitioner and accordingly calculated the IOL based on actual



interest rate submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-

| (₹ in lakh) | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 5.5.2011 | 1818.81 | 1578.78 | 1347.76 | 1212.19 | 1155.64 |
| As claimed by petitioner | 1656.60 | 1258.20 | 1067.79 | 994.08 | 1015.82 |
| Allowed after true up | 1656.59 | 1258.20 | 1067.78 | 994.10 | 1015.82 |

20. The reduction in IOL is on account of reduced actual additional capitalization and lower weighted average rate of interest.

Return on Equity ("ROE")

21. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provide that:-

"(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 year during



the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

22. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 5.5.2011. However, for truing up purpose, the computation of RoE for the tariff period 2009-14 has been done on the basis of actual MAT rate applicable during 2009-14. The petitioner has submitted the variation in the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-

| Particulars | MAT Rate (t) % | Grossed up ROE (Base rate/(1-t)) % |
|-------------|----------------|---------------------------------------|
| 2009-10 | 16.995 | 18.674 |
| 2010-11 | 19.931 | 19.358 |
| 2011-12 | 20.008 | 19.377 |
| 2012-13 | 20.008 | 19.377 |
| 2013-14 | 20.961 | 19.610 |

23. Accordingly, the ROE as trued up is as shown in the table below:-

| Particulars | (₹ in lakh) | | | | |
|------------------------------------|-------------|---------|---------|---------|---------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 5.5.2011 | 892.65 | 892.65 | 903.10 | 924.38 | 935.22 |
| As claimed by petitioner | 953.56 | 989.31 | 991.11 | 991.99 | 1004.81 |
| Allowed after true up | 953.57 | 989.32 | 991.11 | 991.99 | 1004.81 |

24. The variation in return on equity is due to increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

Depreciation

25. Clause (42) of Regulation 3 of the 2009 Tariff Regulations defines useful life as follows:-



“‘useful life’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

| | |
|------------------------------|-----------|
| | |
| (c) AC and DC sub-station | 25 years |
| (d) Hydro generating station | 35 years |
| (e) Transmission line | 35 years” |

26. Clause (4) of Regulation 17 of the 2009 Tariff Regulations provides as follows:-

"17. Depreciation:

...
(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.”

27. The Commission, in its order dated 5.5.2011, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations.

28. The weighted average useful life of the transmission asset has been considered as per Regulation 3 (42) and 17 (4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 32 years. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under.

| (₹ in lakh) | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 5.5.2011 | 3240.11 | 3240.11 | 3250.63 | 820.80 | 830.59 |
| As claimed by petitioner | 3240.11 | 3240.86 | 3241.61 | 795.93 | 796.65 |
| Allowed after true up | 3240.11 | 3240.86 | 3241.61 | 795.94 | 796.66 |



Operation & Maintenance Expenses (“O&M Expenses”)

29. The petitioner has computed O&M expenses for the assets mentioned in the petition and in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The O&M Expenses claimed by the petitioner for tariff period 2009-14 is same as that approved in the tariff order dated 5.5.2011 in Petition No. 191/2010. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and they are as follows:-

| (₹ in lakh) | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 5.5.2011 | 1315.67 | 1390.95 | 1470.65 | 1554.74 | 1643.39 |
| As claimed by petitioner | 1315.67 | 1390.95 | 1470.65 | 1554.74 | 1643.39 |
| Allowed after true up | 1315.67 | 1390.95 | 1470.65 | 1554.74 | 1643.39 |

Interest on working capital (“IWC”)

30. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest of working capital.

31. The petitioner has submitted that the rate of interest on working capital has been considered as 12.25% as per clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.



32. The Commission, vide order dated 5.5.2011 in Petition No. 191/2010, has approved rate of interest on working capital as 12.25% as applicable for 2008-09. In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation prior to 1.4.2009, shall be equal to short-term Prime Lending Rate as applicable as on 1.4.2009. State Bank of India short-term Prime Lending Rate on 1.4.2009 was 12.25%. Therefore, interest rate of 12.25% has been considered to work out the interest on working capital in the instant case.

33. The IWC true up is as under:-

| (₹ in lakh) | | | | | |
|----------------------|---------------|---------------|---------------|---------------|---------------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Maintenance Spares | 197.35 | 208.64 | 220.60 | 233.21 | 246.51 |
| O & M expenses | 109.64 | 115.91 | 122.55 | 129.56 | 136.95 |
| Receivables | 1225.61 | 1177.22 | 1159.20 | 745.42 | 766.93 |
| Total | 1532.60 | 1501.77 | 1502.35 | 1108.19 | 1150.39 |
| Rate of Interest (%) | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 |
| Interest | 187.74 | 183.97 | 184.04 | 135.75 | 140.92 |

| (₹ in lakh) | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 5.5.2011 | 189.86 | 188.62 | 188.23 | 139.41 | 143.09 |
| As claimed by petitioner | 187.74 | 183.97 | 184.04 | 135.75 | 140.92 |
| Allowed after true up | 187.74 | 183.97 | 184.04 | 135.75 | 140.92 |

34. The variation in IWC is on account of variation in receivables due to variation in additional capitalisation and variation in ROE on account of applicable MAT rate during 2009-14 tariff period.



ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

35. The detailed computation of the various components of the trued up annual fixed charges after the detailed scrutiny for the transmission asset for the tariff period 2009-14 is allowed as below:-

| (₹ in lakh) | | | | | |
|---|----------|----------|----------|----------|----------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Gross Block | | | | | |
| Gross Opening Block | 62343.23 | 62343.23 | 62371.55 | 62371.55 | 62401.93 |
| Additional Capitalisation | 0.00 | 28.32 | 0.00 | 30.38 | 0.00 |
| Gross Closing Block | 62343.23 | 62371.55 | 62371.55 | 62401.93 | 62401.93 |
| Average Gross Block | 62343.23 | 62357.39 | 62371.55 | 62386.74 | 62401.93 |
| | | | | | |
| Depreciation | | | | | |
| Rate of Depreciation (%) | 5.197 | 5.197 | 5.197 | 1.276 | 1.277 |
| Depreciable Value | 55593.31 | 55606.05 | 55618.79 | 55632.46 | 55646.14 |
| Elapsed Life (Beginning of year) | 9 | 10 | 11 | 12 | 13 |
| Weighted Balance Useful life | 23 | 22 | 21 | 20 | 19 |
| Remaining Depreciable Value | 25602.18 | 22374.81 | 19146.70 | 15918.76 | 15136.49 |
| Depreciation | 3240.11 | 3240.86 | 3241.61 | 795.94 | 796.66 |
| | | | | | |
| Interest on Loan | | | | | |
| Gross Normative Loan | 57236.85 | 57236.85 | 57256.67 | 57256.67 | 57277.94 |
| Cumulative Repayment upto Previous Year | 29991.13 | 33231.24 | 36472.10 | 39713.70 | 40509.64 |
| Net Loan-Opening | 27245.72 | 24005.61 | 20784.58 | 17542.97 | 16768.30 |
| Additional Capitalisation | 0.00 | 19.82 | 0.00 | 21.27 | 0.00 |
| Repayment during the year | 3240.11 | 3240.86 | 3241.61 | 795.94 | 796.66 |
| Net Loan-Closing | 24005.61 | 20784.58 | 17542.97 | 16768.30 | 15971.64 |
| Average Loan | 25625.66 | 22395.09 | 19163.77 | 17155.63 | 16369.97 |
| Weighted Average Rate of Interest on Loan | 6.4646 | 5.6182 | 5.5718 | 5.7946 | 6.2054 |
| Interest | 1656.59 | 1258.20 | 1067.78 | 994.10 | 1015.82 |
| | | | | | |
| Return on Equity | | | | | |
| Opening Equity | 5106.38 | 5106.38 | 5114.88 | 5114.88 | 5123.99 |
| Additional Capitalisation | 0.00 | 8.50 | 0.00 | 9.11 | 0.00 |
| Closing Equity | 5106.38 | 5114.88 | 5114.88 | 5123.99 | 5123.99 |
| Average Equity | 5106.38 | 5110.63 | 5114.88 | 5119.43 | 5123.99 |
| Return on Equity (Base Rate) (%) | 15.50 | 15.50 | 15.50 | 15.50 | 15.50 |
| Tax rate for the year (%) | 16.995 | 19.931 | 20.008 | 20.008 | 20.961 |



| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Rate of Return on Equity (%) | 18.674 | 19.358 | 19.377 | 19.377 | 19.610 |
| Return on Equity (Pre Tax) | 953.57 | 989.32 | 991.11 | 991.99 | 1004.81 |
| | | | | | |
| Interest on Working Capital | | | | | |
| Maintenance Spares | 197.35 | 208.64 | 220.60 | 233.21 | 246.51 |
| O & M expenses | 109.64 | 115.91 | 122.55 | 129.56 | 136.95 |
| Receivables | 1225.61 | 1177.22 | 1159.20 | 745.42 | 766.93 |
| Total | 1532.60 | 1501.77 | 1502.35 | 1108.19 | 1150.39 |
| Interest | 187.74 | 183.97 | 184.04 | 135.75 | 140.92 |
| | | | | | |
| Annual Transmission Charges | | | | | |
| Depreciation | 3240.11 | 3240.86 | 3241.61 | 795.94 | 796.66 |
| Interest on Loan | 1656.59 | 1258.20 | 1067.78 | 994.10 | 1015.82 |
| Return on Equity | 953.57 | 989.32 | 991.11 | 991.99 | 1004.81 |
| Interest on Working Capital | 187.74 | 183.97 | 184.04 | 135.75 | 140.92 |
| O & M Expenses | 1315.67 | 1390.95 | 1470.65 | 1554.74 | 1643.39 |
| Total | 7353.68 | 7063.29 | 6955.18 | 4472.52 | 4601.60 |

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

36. The petitioner has claimed the transmission charges as under:-

| (₹ in lakh) | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 798.79 | 803.70 | 806.53 | 806.51 | 806.53 |
| Interest on Loan | 1009.46 | 1189.27 | 1127.66 | 1063.14 | 998.62 |
| Return on equity | 1007.33 | 1012.79 | 1015.73 | 1015.73 | 1015.73 |
| Interest on Working Capital | 147.91 | 155.07 | 156.63 | 158.08 | 159.64 |
| O & M Expenses | 1504.24 | 1554.57 | 1606.08 | 1659.34 | 1714.39 |
| Total | 4467.73 | 4715.40 | 4712.63 | 4702.80 | 4694.91 |

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

| (₹ in lakh) | | | | | |
|--------------------|---------|---------|---------|---------|---------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Maintenance Spares | 225.64 | 233.19 | 240.91 | 248.90 | 257.16 |
| O & M expenses | 125.35 | 129.55 | 133.84 | 138.28 | 142.87 |
| Receivables | 744.62 | 785.90 | 785.44 | 783.80 | 782.49 |
| Total | 1095.61 | 1148.64 | 1160.19 | 1170.98 | 1182.52 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|----------------------|---------------|---------------|---------------|---------------|---------------|
| Rate of Interest (%) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest | 147.91 | 155.07 | 156.63 | 158.08 | 159.64 |

Capital Cost

38. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify as follows:-

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.”

“(3) The Capital cost of an existing project shall include the following:

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

39. The petitioner has claimed capital expenditure of ₹62401.93lakh as on 31.3.2014. The trued up capital cost of ₹62401.93 lakh as on 31.3.2014 is considered to workout tariff for tariff period 2014-19.

Additional Capital Expenditure

40. Clause 3(ix) of Regulation 14 of the 2014 Tariff Regulations provides as follows:-

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

- (ix) 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 due to obsolesce of



technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and”

41. The petitioner has claimed additional capitalization of ₹85.52 lakh and ₹100.00 lakh during 2014-15 and 2015-16 towards tower strengthening under Clause 3(ix) of Regulation 14 of the 2014 Tariff Regulations.

42. As the total capital cost of ₹62587.45 lakh including additional capital expenditure during 2014-19 period is well within the approved apportioned cost of ₹65771 lakh, we have considered the petitioner’s submission and have considered additional capitalisation of ₹85.52 lakh and ₹100.00 lakh during 2014-15 and 2015-16 in accordance with Clause 3(ix) of Regulation 14 of the 2014 Tariff Regulations.

| Particulars | Capital cost as on 31.3.2014 | Projected additional Capital Expenditure (2014-19) | | | | | | Capital Cost as on 31.3.2019 |
|-------------|------------------------------|--|--------|-------|-------|-------|--------|------------------------------|
| | | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | Total | |
| Asset | 62401.93 | 85.52 | 100.00 | 0.00 | 0.00 | 0.00 | 185.52 | 62587.45 |

Debt:Equity Ratio

43. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-

“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”



44. The admitted debt:equity ratio of 91.79:8.21 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

| Particulars | Amount (in ₹ lakh) | (%) |
|--------------|--------------------|---------------|
| Debt | 57277.94 | 91.79 |
| Equity | 5123.99 | 8.21 |
| Total | 62401.93 | 100.00 |

45. Further, normative debt:equity ratio of 70:30 has been proposed for additional capitalization for the tariff period 2014-19. The details of the debt:equity as on 31.3.2019 including additional capitalization is as follows:-

| (₹ in lakh) | | |
|--------------|-----------------|---------------|
| Particulars | Amount | (%) |
| Debt | 57407.80 | 91.72 |
| Equity | 5179.65 | 8.28 |
| Total | 62587.45 | 100.00 |

Interest on Loan ("IOL")

46. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced as under:-

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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.”

47. It was observed that actual loan has been completely repaid during 2014-15, hence no actual loan but normative loan is still outstanding. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014 for 2014-15. Further for 2015-19 we have considered the last available weighted average rate of interest as per first proviso to clause (5) of Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL has been worked out and allowed as follows:-

| | (₹ in lakh) | | | | |
|---|----------------|---------------|---------------|---------------|---------------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Gross loan opening | 57277.94 | 57337.80 | 57407.80 | 57407.80 | 57407.80 |
| Cumulative Repayment upto previous year | 41306.30 | 42105.10 | 42908.80 | 43715.32 | 44521.84 |
| Net Loan-Opening | 15971.64 | 15232.70 | 14499.00 | 13692.48 | 12885.96 |
| Additions during the year | 59.86 | 70.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 798.80 | 803.71 | 806.52 | 806.52 | 806.52 |
| Net Loan-Closing | 15232.70 | 14499.00 | 13692.48 | 12885.96 | 12079.44 |
| Average Loan | 15602.17 | 14865.85 | 14095.74 | 13289.22 | 12482.70 |
| Rate of Interest (%) | 6.4699 | 6.4699 | 6.4699 | 6.4699 | 6.4699 |
| Interest | 1009.45 | 961.81 | 911.98 | 859.80 | 807.62 |

Return on Equity(“ROE”)

48. Clause (1)& (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.



(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system”

“25. Tax on Return on Equity:

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

49. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

50. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.



51. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE determined by the Commission is given below:-

| (₹ in lakh) | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Opening Equity | 5123.99 | 5149.65 | 5179.65 | 5179.65 | 5179.65 |
| Additional Capitalisation | 25.66 | 30.00 | 0.00 | 0.00 | 0.00 |
| Closing Equity | 5149.65 | 5179.65 | 5179.65 | 5179.65 | 5179.65 |
| Average Equity | 5136.82 | 5164.65 | 5179.65 | 5179.65 | 5179.65 |
| Return on Equity (Base Rate) (%) | 15.50 | 15.50 | 15.50 | 15.50 | 15.50 |
| MAT rate for the year (%) | 20.961 | 20.961 | 20.961 | 20.961 | 20.961 |
| Rate of Return on Equity (Pre Tax) (%) | 19.610 | 19.610 | 19.610 | 19.610 | 19.610 |
| Return on Equity (Pre Tax) | 1007.33 | 1012.79 | 1015.73 | 1015.73 | 1015.73 |

Depreciation

52. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating



station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. 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”

“(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** 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 the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

53. The petitioner has computed depreciation considering capital expenditure of ₹62401.93lakh as on 31.3.2014 for the tariff period 2014-19.

54. We have considered the submission made by the petitioner with reference to depreciation. Depreciation is allowed as provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed is given hereunder:-

| (₹ in lakh) | | | | | |
|---|----------|----------|----------|----------|----------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Opening Gross block | 62401.93 | 62487.45 | 62587.45 | 62587.45 | 62587.45 |
| Additional Capitalisation | 85.52 | 100.00 | 0.00 | 0.00 | 0.00 |
| Gross block at the end of the year | 62487.45 | 62587.45 | 62587.45 | 62587.45 | 62587.45 |
| Average gross block | 62444.69 | 62537.45 | 62587.45 | 62587.45 | 62587.45 |
| Freehold Land | 572.89 | 572.89 | 572.89 | 572.89 | 572.89 |
| Rate of Depreciation (%) | 1.279 | 1.285 | 1.289 | 1.289 | 1.289 |
| Depreciable Value | 55684.62 | 55768.10 | 55813.10 | 55813.10 | 55813.10 |
| Elapsed Life of the assets at beginning of the year | 14 | 15 | 16 | 17 | 18 |
| Weighted Balance Useful life of the assets | 18 | 17 | 16 | 15 | 14 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|
| Remaining Depreciable Value | 14378.32 | 13663.01 | 12904.30 | 12097.78 | 11291.26 |
| Depreciation | 798.80 | 803.71 | 806.52 | 806.52 | 806.52 |

Operation & Maintenance Expenses ("O&M Expenses")

55. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner's entitlement to O&M expenses have been worked out as given hereunder:-

| (₹ in lakh) | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| O&M Expense for line | | | | | |
| Norm (₹ lakh/km) | | | | | |
| Double Circuit (Twin and Triple Conductor) | 0.707 | 0.731 | 0.755 | 0.780 | 0.806 |
| Single Circuit (Twin and Triple Conductor) | 0.404 | 0.418 | 0.432 | 0.446 | 0.461 |
| Asset (km) | | | | | |
| 400 kV D/C Vindhyachal Satna ckt-I and II | 267 | 267 | 267 | 267 | 267 |
| 400 kV D/C Satna-Bina ckt-I and II | 276 | 276 | 276 | 276 | 276 |
| 400 kV S/C Korba Raipur ckt-II | 199 | 199 | 199 | 199 | 199 |
| 400 kV D/C LILO of Korba Bhilai III at Raipur | 9 | 9 | 9 | 9 | 9 |
| 400 kV D/C LILO of ckt-II of D/C Bhilai Candrapur line at Raipur | 12 | 12 | 12 | 12 | 12 |
| Total O&M Expense (line) (₹lakh) | 479.144 | 495.466 | 511.788 | 528.674 | 546.323 |
| O&M Expense for Bay | | | | | |
| Norm (₹lakh/Bay) | | | | | |
| 220 kV | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Bays | | | | | |
| 220 kV | 17 | 17 | 17 | 17 | 17 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|----------------|----------------|----------------|----------------|----------------|
| Total O&M expense (Bay) (₹lakh) | 1025.10 | 1059.10 | 1094.29 | 1130.67 | 1168.07 |
| Total O&M expense (Line and bays) (₹ lakh) | 1504.24 | 1554.57 | 1606.08 | 1659.34 | 1714.39 |

56. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner Company is due during 2014-19 and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

57. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

58. The details of O&M Expenses allowed are given hereunder:-

| (₹ in lakh) | | | | | |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| O&M Expenses Allowed | 1504.24 | 1554.57 | 1606.08 | 1659.34 | 1714.39 |



Interest on Working Capital ("IWC")

59. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:

"28. Interest on Working Capital

(c)(i) Receivables equivalent to two months of fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(iii) Operation and maintenance expenses for one month"

"(5)Bank Rate' means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;"

60. The petitioner has submitted that it has computed Interest on working capital for the tariff period 2014-19 considering the SBI Base Rate as on 1.4.2014 plus 350 basis points. The rate of interest on working capital considered is 13.50%.

61. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The interest on working capital as determined by the Commission is shown in the table below:-

| (₹ in lakh) | | | | | |
|----------------------|---------------|---------------|---------------|---------------|---------------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Maintenance Spares | 225.64 | 233.18 | 240.91 | 248.90 | 257.16 |
| O & M expenses | 125.35 | 129.55 | 133.84 | 138.28 | 142.87 |
| Receivables | 744.62 | 747.12 | 748.66 | 749.13 | 749.92 |
| Total | 1095.61 | 1109.85 | 1123.41 | 1136.31 | 1149.94 |
| Rate of Interest (%) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest | 147.91 | 149.83 | 151.66 | 153.40 | 155.24 |



Annual Transmission Charges

62. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarised below:-

| | (₹ in lakh) | | | | |
|--|-------------|----------|----------|----------|----------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Gross Block | | | | | |
| Opening Gross Block | 62401.93 | 62487.45 | 62587.45 | 62587.45 | 62587.45 |
| Additional Capitalisation | 85.52 | 100.00 | 0.00 | 0.00 | 0.00 |
| Closing Gross Block | 62487.45 | 62587.45 | 62587.45 | 62587.45 | 62587.45 |
| Average Gross Block | 62444.69 | 62537.45 | 62587.45 | 62587.45 | 62587.45 |
| | | | | | |
| Depreciation | | | | | |
| Rate of Depreciation (%) | 1.279 | 1.285 | 1.289 | 1.289 | 1.289 |
| Depreciable Value | 55684.62 | 55768.10 | 55813.10 | 55813.10 | 55813.10 |
| Elapsed Life (Beginning of the year) | 14 | 15 | 16 | 17 | 18 |
| Weighted Balance Useful life of the assets | 18 | 17 | 16 | 15 | 14 |
| Remaining Depreciable Value | 14378.32 | 13663.01 | 12904.30 | 12097.78 | 11291.26 |
| Depreciation | 798.80 | 803.71 | 806.52 | 806.52 | 806.52 |
| | | | | | |
| Interest on Loan | | | | | |
| Gross Normative Loan | 57277.94 | 57337.80 | 57407.80 | 57407.80 | 57407.80 |
| Cumulative Repayment upto Previous Year | 41306.30 | 42105.10 | 42908.80 | 43715.32 | 44521.84 |
| Net Loan-Opening | 15971.64 | 15232.70 | 14499.00 | 13692.48 | 12885.96 |
| Additions | 59.86 | 70.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 798.80 | 803.71 | 806.52 | 806.52 | 806.52 |
| Net Loan-Closing | 15232.70 | 14499.00 | 13692.48 | 12885.96 | 12079.44 |
| Average Loan | 15602.17 | 14865.85 | 14095.74 | 13289.22 | 12482.70 |
| Weighted Average Rate of Interest on Loan | 6.4699 | 6.4699 | 6.4699 | 6.4699 | 6.4699 |
| Interest | 1009.45 | 961.81 | 911.98 | 859.80 | 807.62 |
| | | | | | |
| Return on Equity | | | | | |
| Opening Equity | 5123.99 | 5149.65 | 5179.65 | 5179.65 | 5179.65 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|----------------|----------------|----------------|----------------|----------------|
| Additions | 25.66 | 30.00 | 0.00 | 0.00 | 0.00 |
| Closing Equity | 5149.65 | 5179.65 | 5179.65 | 5179.65 | 5179.65 |
| Average Equity | 5136.82 | 5164.65 | 5179.65 | 5179.65 | 5179.65 |
| Return on Equity (Base Rate) (%) | 15.50 | 15.50 | 15.50 | 15.50 | 15.50 |
| MAT Rate for the year 2013-14 (%) | 20.961 | 20.961 | 20.961 | 20.961 | 20.961 |
| Rate of Return on Equity (Pre Tax) (%) | 19.610 | 19.610 | 19.610 | 19.610 | 19.610 |
| Return on Equity (Pre Tax) | 1007.33 | 1012.79 | 1015.73 | 1015.73 | 1015.73 |
| | | | | | |
| Interest on Working Capital | | | | | |
| Maintenance Spares | 225.64 | 233.18 | 240.91 | 248.90 | 257.16 |
| O & M expenses | 125.35 | 129.55 | 133.84 | 138.28 | 142.87 |
| Receivables | 744.62 | 747.12 | 748.66 | 749.13 | 749.92 |
| Total | 1095.61 | 1109.85 | 1123.41 | 1136.31 | 1149.94 |
| Interest | 147.91 | 149.83 | 151.66 | 153.40 | 155.24 |
| | | | | | |
| Annual Transmission Charges | | | | | |
| Depreciation | 798.80 | 803.71 | 806.52 | 806.52 | 806.52 |
| Interest on Loan | 1009.45 | 961.81 | 911.98 | 859.80 | 807.62 |
| Return on Equity | 1007.33 | 1012.79 | 1015.73 | 1015.73 | 1015.73 |
| Interest on Working Capital | 147.91 | 149.83 | 151.66 | 153.40 | 155.24 |
| O & M Expenses | 1504.24 | 1554.57 | 1606.08 | 1659.34 | 1714.39 |
| Total | 4467.72 | 4482.70 | 4491.97 | 4494.80 | 4499.50 |

Filing Fee and Publication Expenses

63. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.



Licence Fee and RLDC Fees and Charges

64. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

65. The petitioner has sought to recover Service Tax on Transmission Charges separately from the Respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer is premature.

Deferred Tax Liability

66. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized under Regulation 49 of the 2014 Tariff Regulations. The deferred tax liability shall be dealt as per Regulation 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same materializes, directly from the beneficiaries or long term transmission customers /DICs.



Sharing of Transmission Charges

67. The billing, collection and disbursement of the transmission charges approved 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, as provided in Regulation 43 of the 2014 Tariff Regulations.

68. This Order disposes of Petition No. 426/TT/2014.

**Sd/-
(Dr. M. K. Iyer)
Member**

**Sd/-
(A.S. Bakshi)
Member**



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2009-14****(₹ in lakh)**

| Particulars | Interest Rate (%) | Loan deployed as on COD | Additions during the tariff period | Total |
|------------------------------|-------------------|-------------------------|------------------------------------|----------|
| BOND VI-DOCO | 13.13% | 1079.00 | 0.00 | 1079.00 |
| BOND VII-DOCO | 13.64% | 2660.00 | 0.00 | 2660.00 |
| BOND XI-Option-II-DOCO | 9.20% | 2159.00 | 0.00 | 2159.00 |
| BOND XIII-Option-II-DOCO | 7.85% | 2062.00 | 0.00 | 2062.00 |
| CORPORATION BANK-DOCO- | 10.60% | 1330.00 | 0.00 | 1330.00 |
| PUNJAB NATIONAL BANK-I-DOCO- | 8.95% | 2660.00 | 0.00 | 2660.00 |
| ADB-I-DOCO-44.31 | 6.20% | 44860.32 | 0.00 | 44860.32 |
| Total | | 56810.32 | 0.00 | 56810.32 |

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2009-14**(₹ in lakh)**

| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|---|----------|----------|----------|----------|----------|
| Gross Opening Loan | 56810.32 | 56810.32 | 56810.32 | 56810.32 | 56810.32 |
| Cumulative Repayments of Loans upto Previous Year | 29646.08 | 33395.79 | 37477.92 | 41926.40 | 46670.85 |
| Net Loans Opening | 27164.24 | 23414.53 | 19332.40 | 14883.92 | 10139.47 |
| Add: Drawal(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of Loan during the year | 3749.71 | 4082.13 | 4448.48 | 4744.45 | 4857.49 |
| Net Closing Loan | 23414.53 | 19332.40 | 14883.92 | 10139.47 | 5281.98 |
| Average Net Loan | 25289.39 | 21373.47 | 17108.16 | 12511.70 | 7710.73 |
| Rate of Interest on Loan (%) | 6.4646% | 5.6182% | 5.5718% | 5.7946% | 6.2054% |
| Interest on Loan | 1634.85 | 1200.80 | 953.24 | 725.00 | 478.48 |



ANNEXURE-II**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19**

| Particulars | Interest Rate (%) | Loan deployed as on COD | Additions during the tariff period | Total |
|------------------------------|-------------------|-------------------------|------------------------------------|----------|
| BOND VI-DOCO | 13.13% | 1079.00 | 0.00 | 1079.00 |
| BOND VII-DOCO | 13.64% | 2660.00 | 0.00 | 2660.00 |
| BOND XI-Option-II-DOCO | 9.20% | 2159.00 | 0.00 | 2159.00 |
| BOND XIII-Option-II-DOCO | 7.85% | 2062.00 | 0.00 | 2062.00 |
| CORPORATION BANK-DOCO- | 13.00% | 1330.00 | 0.00 | 1330.00 |
| PUNJAB NATIONAL BANK-I-DOCO- | 11.66% | 2660.00 | 0.00 | 2660.00 |
| ADB-I-DOCO-44.31 | 6.47% | 44860.32 | 0.00 | 44860.32 |
| Total | | 56810.32 | 0.00 | 56810.32 |

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2014-19

| (₹ in lakh) | | | | | |
|--|----------|----------|----------|----------|----------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Gross Opening Loan | 56810.32 | 56810.32 | 56810.32 | 56810.32 | 56810.32 |
| Cummulative Repayment of loan upto previous year | 51528.34 | 56810.31 | 56810.31 | 56810.31 | 56810.31 |
| Net Loan Opening | 5281.98 | 0.01 | 0.01 | 0.01 | 0.01 |
| Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 5281.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan Closing | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Average Loan | 2641.00 | 0.01 | 0.01 | 0.01 | 0.01 |
| Rate of Interest | 6.4699% | 6.4699% | 6.4699% | 6.4699% | 6.4699% |
| Interest | 170.87 | 0.00 | 0.00 | 0.00 | 0.00 |

