

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 214/TT/2014

Coram:

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

**Date of Hearing: 16.11.2015
Date of Order : 26.11.2015**

In the Matter of:

Truing up transmission tariff for 2009-14 tariff period and determination of transmission tariff for 2014-19 tariff period for 400 kV Talcher Transmission System in Eastern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the Matter of:

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

.....Petitioner

Versus

1. Bihar State Electricity Board, Vidyut Bhawan,
Bailey Road, Patna-800001
2. West Bengal State Electricity Distribution Company
Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II,
Salt Lake City, Calcutta-700091
3. Grid Corporation of Orissa Ltd., Shahid Nagar,
Bhubaneswar-751007
4. Damodar Valley Corporation, DVC Tower, Maniktala
Civic Centre, VIPO Road, Calcutta-700054



5. Power Department, Govt. of Sikkim,
Gangtok-737101

6. Jharkhand State Electricity Board,
In front of Main Secretariat,
Doranda, Ranchi-834002

.....Respondents

The following were present:

For Petitioner: Shri Rakesh Prasad, PGCIL
 Shri M.M Mondal, PGCIL
 Shri S.K Venkatesan, PGCIL
 Shri Shashi Bhusan, PGCIL
 Shri Ved Prakash Rastogi, PGCIL
 Shri S.K Niranjana, PGCIL
 Shri Jasbir Singh, PGCIL
 Shri S.S Raju, PGCIL

For Respondents: None

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ('the petitioner'), a transmission licensee, for truing of tariff for 400 kV Talcher Transmission System in Eastern Region 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 truing up of expenditure for the period 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.

2. The respondents are distribution licensees, who are procuring transmission service from the petitioner, mainly beneficiaries of Eastern 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 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. None of the respondents have filed any reply to the petition. The hearing in this matter was held on 16.11.2015. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

- a. The capital cost of ₹11621.00 lakh was considered by Government of India for the transmission asset covered in the instant petition. The petitioner has built the transmission asset in the Eastern Region and put under commercial operation w.e.f June 1995 to January 1996.
- b. The tariff for 2004-09 tariff period was approved vide order in Petition No. 125/2004, in accordance with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 which was determined by the Commission vide order dated 2.2.2006. This order was subsequently revised vide order dated 31.8.2008, by way of implementation of judgment of Hon'ble Appellate Tribunal of Electricity dated 16.5.2006, in Appeal No 121 of 2005.
- c. The tariff for 2009-14 was allowed vide order dated 14.12.2010 in Petition No. 101/2009, for 400 kV Transmission System in Eastern

Region for the period 1.4.2009 to 31.3.2014 based on the admitted capital cost of ₹11621.00 lakh as under:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	236.01	236.01	236.01	236.01	236.01
Interest on Loan	1.35	0.00	0.00	0.00	0.00
Return on Equity	1015.73	1015.73	1015.73	1015.73	1015.73
Interest on Working Capital	45.34	46.41	47.58	48.80	50.10
O & M Expenses	384.27	406.29	429.55	454.10	479.99
Total	1682.70	1704.44	1728.87	1754.65	1781.83

d. The MAT rate applicable as on 2008-09 was considered to arrive at return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the given year in the truing up petition for 2009-14 tariff period.

e. The instant petition was filed on 8.8.2014.

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

5. The truing up of tariff for 2009-14 tariff period has been determined as discussed below:-

Capital Cost

6. The petitioner has claimed admitted capital cost of ₹11621.00 lakh as on 31.3.2009 for the purpose of tariff. Further, the petitioner has submitted that no additional capitalisation has been incurred in the tariff period of 2009-14.

7. 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 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”.

8. The capital cost admitted as on 31.3.2009 vide order dated 31.3.2008 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 ₹11621.00 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

9. The petitioner has not claimed any additional capital expenditure for 2009-14 tariff period, and accordingly, no additional capital expenditure has been considered for the 2009-14 tariff period.

Debt: Equity

10. 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.”

11. The petitioner has claimed revised Annual Fixed Charge based on debt:equity ratio of 50:50 as considered by the Commission in its order dated 14.12.2010 in Petition No.101/2009. The transmission assets covered in the instant petition are existing assets as the COD is prior to 1.4.2009. At the time of determination of tariff in Petition No.101/2009, the Commission has considered admitted debt:equity ratio of 50:50 as on 31.03.2009 vide order dated 14.12.2010.

The admitted debt-equity ratio of 50:50 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 2009-14 tariff period as given under:-

Particulars	Amount (in ₹ lakh)	(%)
Debt	5810.50	50.00
Equity	5810.50	50.00
Total	11621.00	100.00

Interest on Loan (“IOL”)

12. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of IOL. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 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”.

13. The petitioner has submitted the weighted average rate of IOL, based on its actual loan portfolio and rate of interest. The Commission asked the petitioner to clarify the computations of weighted average interest rate for interest on loan for the 2009-14 tariff period. The petitioner in its replies dated 9.11.2015 has provided the documentary proof for interest rates and repayment schedule for applicable loans (LIC loans). The interest rate for the loan was considered by the petitioner is 6.30% per annum.

14. In accordance with the provisions of Regulation 16 of the 2009 Tariff Regulations, based on weighted average rate of interest of actual loan portfolio has been worked out. Detailed calculations in support of the weighted average rates of interest have been given in Annexure-I to this order.

15. Accordingly, interest on loan as trued up is as shown in the table below:-

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 14.12.2010	1.35	0.00	0.00	0.00	0.00
As claimed by petitioner	1.35	0.00	0.00	0.00	0.00
Allowed after true up	1.35	0.00	0.00	0.00	0.00

Return on Equity ("ROE")

16. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provides 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."

17. The petitioner has submitted that the MAT rate considered in the tariff order approving transmission tariff for the transmission asset for tariff period 2009-14 was 11.330%, as applicable for 2008-09. However, for truing up purpose, the computation of ROE for 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	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%

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

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 14.12.2010	1015.73	1015.73	1015.73	1015.73	1015.73
As claimed by petitioner	1085.05	1124.80	1125.90	1125.90	1139.44
Allowed after trued up	1085.05	1124.80	1125.90	1125.90	1139.44

The return on equity has increased due to increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

Depreciation

19. Regulation 17 of the 2009 Tariff Regulations provides for the methodology to work out the depreciation. The Commission, in its order dated 14.12.2010, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations based on capital expenditure. As there is no variation in actual capital expenditure, the petitioner has submitted that the depreciation for the purpose of truing up for tariff period 2009-14 has been considered same as that approved by the Commission in its tariff order in Petition No. 101/2009.

20. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on actual capital expenditure as under:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 14.12.2010	236.01	236.01	236.01	236.01	236.01
As claimed by petitioner	236.01	236.02	236.00	236.02	235.99
Allowed after trued Up	236.01	236.01	236.01	236.01	236.01

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

21. The petitioner has computed O&M expense for the assets mentioned in the petition, in accordance with the O&M norms specified in Regulation 19 (g) of the 2009 Tariff Regulations. Accordingly, the petitioner's entitlement to O&M expenses has been worked out as given below:-

Particulars		2009-10	2010-11	2011-12	2012-13	2013-14
Actual	Length of Talcher-Rengali (400kV AC/DC)(Double Conductor) (km)	24	24	24	24	24
	Length of Talcher-Rourkela (400kV AC/DC)(Double Conductor) (km)	171	171	171	171	171
	400 kV bays	5	5	5	5	5
Norms as per Regulation	Double Circuit (Twin & Triple Conductor) (₹ lakh/km)	0.627	0.663	0.701	0.741	0.783
	400 kV bays (₹ lakh/bay)	52.40	55.40	58.57	61.92	65.46
Total		384.27	406.29	429.55	454.10	479.99

22. The O&M Expenses claimed by the petitioner for tariff period 2009-14 is same as that approved in the tariff order dated 14.12.2010 in Petition No. 101/2009. 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 14.12.2010	384.27	406.29	429.55	454.10	479.99
As claimed by petitioner	384.27	406.29	429.55	454.10	479.99
Allowed after trued Up	384.27	406.29	429.55	454.10	479.99

Interest on working capital ("IWC")

23. 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.

24. 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.

25. The Commission in its order dated 14.12.2010 in Petition No. 101/2009 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.

26. The IWC trued up is as under:-

Interest on Working Capital	Tariff for 2009-14 (₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	57.64	60.94	64.43	68.11	72.00
O & M expenses	32.02	33.86	35.80	37.84	40.00
Receivables	292.24	302.63	306.89	311.18	318.02
Total	381.90	397.43	407.11	417.14	430.01
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	46.78	48.69	49.87	51.10	52.68

Particulars	Tariff for 2009-14 (₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 14.12.2010	45.34	46.41	47.58	48.80	50.10
As claimed by petitioner	46.78	48.69	49.87	51.10	52.68
Allowed after trued Up	46.78	48.69	49.87	51.10	52.68

The IWC has increased on account of increase in receivables due to variation in ROE on account of applicable MAT rate during 2009-14 tariff period.

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

27. The detailed computation of the various components of the trued up annual fixed charges for the transmission asset for the tariff period 2009-14 is summarised below:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block					
Opening Gross block	11621.00	11621.00	11621.00	11621.00	11621.00
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross block	11621.00	11621.00	11621.00	11621.00	11621.00
Average Gross block	11621.00	11621.00	11621.00	11621.00	11621.00
Depreciation					
Rate of Depreciation	2.03%	2.03%	2.03%	2.03%	2.03%
Depreciable Value	10458.90	10458.90	10458.90	10458.90	10458.90
Weighted Balance Useful life of the assets	19	18	17	16	15
Remaining Depreciable Value	4484.16	4248.15	4012.14	3776.13	3540.13
Depreciation	236.01	236.01	236.01	236.01	236.01
Cumulative Depreciation	6210.75	6446.76	6682.77	6918.77	7154.78
Interest on Loan					
Gross Normative Loan	5810.50	5810.50	5810.50	5810.50	5810.50
Cumulative Repayment upto Previous Year	5767.66	5810.50	5810.50	5810.50	5810.50
Net Loan-Opening	42.84	0.00	0.00	0.00	0.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	42.84	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	21.42	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan	6.30%	6.30%	6.30%	6.30%	6.30%
Interest	1.35	0.00	0.00	0.00	0.00
Return on Equity					
Opening Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Average Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Return on Equity (Base Rate)(%)	15.50	15.50	15.50	15.50	15.50

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
MAT rate for the respective year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax)(%)	18.674	19.358	19.377	19.377	19.610
Return on Equity (Pre Tax)	1085.05	1124.80	1125.90	1125.90	1139.44
Interest on Working Capital					
Maintenance Spares	57.64	60.94	64.43	68.11	72.00
O & M expenses	32.02	33.86	35.80	37.84	40.00
Receivables	292.24	302.63	306.89	311.18	318.02
Total	381.91	397.43	407.11	417.14	430.01
Interest	46.78	48.69	49.87	51.10	52.68
Annual Transmission Charges					
Depreciation	236.01	236.01	236.01	236.01	236.01
Interest on Loan	1.35	0.00	0.00	0.00	0.00
Return on Equity	1085.05	1124.80	1125.90	1125.90	1139.44
Interest on Working Capital	46.78	48.69	49.87	51.10	52.68
O & M Expenses	384.27	406.29	429.55	454.10	479.99
Total	1753.46	1815.78	1841.33	1867.10	1908.11

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

28. The petitioner has claimed the transmission charges for the 2014-19 tariff period as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	236.02	236.01	236.02	235.99	236.02
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1139.44	1139.44	1139.44	1139.44	1139.44
Interest on WC	55.93	56.74	57.57	58.43	59.32
O&M Expenses	439.37	454.05	469.08	484.65	500.72
Total	1870.76	1886.24	1902.11	1918.51	1935.50

29. 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	65.91	68.11	70.36	72.70	75.11
O & M expenses	36.61	37.84	39.09	40.39	41.73
Receivables	311.79	314.37	317.02	319.75	322.58
Total	414.31	420.32	426.47	432.84	439.42
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	55.93	56.74	57.57	58.43	59.32

Capital Cost

30. Clause (1) and (3) of Regulation 9 of the 2014 Tariff Regulations provides 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.”

31. The petitioner has claimed the capital expenditure of ₹11621.00 lakh as on 31.3.2009 in accordance with order dated 31.3.2008 in Petition No. 125/2004. Further, the petitioner has not projected any additional capital expenditure during the tariff period 2014-19.

32. The trued up capital cost of ₹11621.00 lakh as on 31.3.2014 is considered as opening capital cost as on 1.4.2014 for the purpose of tariff for tariff period 2014-19.

Additional Capital Expenditure

33. Petitioner has not claimed any additional expenditure for the tariff period 2014-19. No additional capital expenditure has been considered for the tariff period 2014-19.

Debt: Equity Ratio

34. Clause 3 of Regulation 19 of the 2014 Tariff Regulations provides 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.”

35. The petitioner has considered debt:equity ratio as 50:50, which was approved vide order dated 14.12.2010 in Petition No. 101/2009 and same was allowed for determination of tariff for the period ending 31.3.2014. The admitted debt equity ratio of 50:50 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 considered for the purpose of tariff for 2014-19 tariff period is as follows:-

	Amount (in ₹ lakh)	(%)
Debt	5810.50	50.00
Equity	5810.50	50.00
Total	11621.00	100.00

Interest on Loan (“IOL”)

36. The petitioner has not claimed any interest amount for 2014-19 tariff period for the asset, as the entire loan against the asset has been repaid in 2009-10. Accordingly, Interest on Loan has been considered as NIL for the purpose of tariff.

Return on Equity ("ROE")

37. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specifies 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."

38. 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.

39. 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.

40. 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 shown in the Table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Average Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax 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)	1139.44	1139.44	1139.44	1139.44	1139.44

Depreciation

41. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provides 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 up to 31.3.2014 from the gross depreciable value of the assets."

42. The petitioner has submitted that the assets have completed 12 years as on 30.4.2006. Accordingly, the remaining depreciable value is spread equally over its useful life in accordance with Regulation 27 of the 2014 Tariff Regulations.

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

(₹ in lakh)

Details of Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	11621.00	11621.00	11621.00	11621.00	11621.00
Additions during the year due to projected additional capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	11621.00	11621.00	11621.00	11621.00	11621.00
Rate of Depreciation	2.03%	2.03%	2.03%	2.03%	2.03%
Depreciable Value	10458.90	10458.90	10458.90	10458.90	10458.90
Remaining Depreciable Value	3304.12	3068.11	2832.10	2596.09	2360.08

Details of Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	236.01	236.01	236.01	236.01	236.01

Operation & Maintenance Expense (O&M Expense)

44. 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 has been worked out as given hereunder:

		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Actual	Length of Talcher-Rengali (400kV AC/DC)(Double Conductor) (km)	24	24	24	24	24
	Length of Talcher-Rourkela (400kV AC/DC)(Double Conductor) (km)	171	171	171	171	171
	No of 400 kV bays	5	5	5	5	5
Norms as per Regulation	Double Circuit (Twin & Triple Conductor) (₹/km)	0.707	0.731	0.755	0.780	0.806
	400 kV Sub-station bays (₹/bay)	60.30	62.30	64.37	66.51	68.71
Total (₹ in lakh)		439.37	454.05	469.08	484.65	500.72

45. The petitioner has submitted that 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's 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.

46. 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.

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

Particulars	Year				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	439.37	454.05	469.08	484.65	500.72

Interest on Working Capital ("IWC")

48. 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"

'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;"

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

50. 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)

Interest on Working Capital	Tariff for 2014-19				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	65.90	68.11	70.36	72.70	75.11
O & M expenses	36.61	37.84	39.09	40.39	41.73
Receivables	311.80	314.38	317.02	319.76	322.59
Total	414.31	420.32	426.47	432.85	439.42
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	55.93	56.74	57.57	58.43	59.32

Annual Transmission Charges

51. 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
Opening Gross block	11621.00	11621.00	11621.00	11621.00	11621.00
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	11621.00	11621.00	11621.00	11621.00	11621.00
Average Gross Block	11621.00	11621.00	11621.00	11621.00	11621.00
Depreciation					
Rate of Depreciation	2.03%	2.03%	2.03%	2.03%	2.03%
Depreciable Value	10458.90	10458.90	10458.90	10458.90	10458.90
Weighted Balance Useful life of the assets	14	13	12	11	10
Remaining Depreciable Value	3304.12	3068.11	2832.10	2596.09	2360.08
Depreciation	236.01	236.01	236.01	236.01	236.01
Cumulative Depreciation	7390.79	7626.80	7862.81	8098.82	8334.82

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Loan					
Gross Normative Loan	5810.50	5810.50	5810.50	5810.50	5810.50
Cumulative Repayment upto Previous Year	5810.50	5810.50	5810.50	5810.50	5810.50
Net Loan-Opening	-	-	-	-	-
Addition due to Additional Capitalization	-	-	-	-	-
Repayment during the year	-	-	-	-	-
Net Loan-Closing	-	-	-	-	-
Average Loan	-	-	-	-	-
Weighted Average Rate of Interest on Loan	-	-	-	-	-
Interest	-	-	-	-	-
Return on Equity					
Opening Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	5810.50	5810.50	5810.50	5810.50	5810.50
Average Equity	5810.50	5810.50	5810.50	5810.50	5810.50
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)	1139.44	1139.44	1139.44	1139.44	1139.44
Interest on Working Capital					
Maintenance Spares	65.90	68.11	70.36	72.70	75.11
O & M expenses	36.61	37.84	39.09	40.39	41.73
Receivables	311.79	314.37	317.02	319.76	322.58
Total	414.31	420.32	426.47	432.84	439.42
Interest	55.93	56.74	57.57	58.43	59.32
Annual Transmission Charges					
Depreciation	236.01	236.01	236.01	236.01	236.01
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1139.44	1139.44	1139.44	1139.44	1139.44
Interest on Working Capital	55.93	56.74	57.57	58.43	59.32
O & M Expenses	439.37	454.05	469.08	484.65	500.72
Total	1870.74	1886.24	1902.10	1918.53	1935.49

Filing Fee and the Publication Expenses

52. 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

53. 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) of Regulation 52 of the 2014 Tariff Regulations respectively.

Service Tax

54. 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

55. 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

56. 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 Regulations.

57. This order disposes of Petition No. 214/TT/2014.

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

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

Annexure-1

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN (₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
BOND-III series I DOCO					
Gross Opening Loan	237.93	237.93	237.93	237.93	237.93
Cumulative Repayments of Loan upto Previous Year	237.93	237.93	237.93	237.93	237.93
Net Loans Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of interest on loan (%)	9.75	9.75	9.75	9.75	9.75
Interest on loan	0.00	0.00	0.00	0.00	0.00
BOND-III SERIES 2nd (9.75%) DOCO					
Gross Opening Loan	38.07	38.07	38.07	38.07	38.07
Cumulative Repayments of Loan upto Previous Year	38.07	38.07	38.07	38.07	38.07
Net Loans Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of interest on loan (%)	13.50	13.50	13.50	13.50	13.50
Interest on loan	0.00	0.00	0.00	0.00	0.00
BOND I(ISSUE-III)-DOCO-					
Gross Opening Loan	434.25	434.25	434.25	434.25	434.25
Cumulative Repayments of Loan upto Previous Year	434.25	434.25	434.25	434.25	434.25
Net Loans Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of interest on loan (%)	9.00	9.00	9.00	9.00	9.00
Interest on loan	0.00	0.00	0.00	0.00	0.00

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
LIC-II (17.10.2003)_Naptha-Jhakri T/5_Replacement of GOI Loan-DOCO					
Gross Opening Loan	8232.77	8232.77	8232.77	8232.77	8232.77
Cumulative Repayments of Loan upto Previous Year	5427.32	5828.10	6228.88	6629.66	7030.44
Net Loans Opening	2805.45	2404.67	2003.89	1603.11	1202.33
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	400.78	400.78	400.78	400.78	400.78
Net Closing Loan	2404.67	2003.89	1603.11	1202.33	801.55
Average Net Loan	2605.06	2204.28	1803.50	1402.72	1001.94
Rate of interest on loan (%)	6.30	6.30	6.30	6.30	6.30
Interest on loan	164.12	138.87	113.62	88.37	63.12
Summary					
Gross Opening Loan	8943.02	8943.02	8943.02	8943.02	8943.02
Cumulative Repayments of Loan upto Previous Year	6137.57	6538.35	6939.13	7339.91	7740.69
Net Loans Opening	2805.45	2404.67	2003.89	1603.11	1202.33
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	400.78	400.78	400.78	400.78	400.78
Net Closing Loan	2404.67	2003.89	1603.11	1202.33	801.55
Average Net Loan	2605.06	2204.28	1803.50	1402.72	1001.94
Rate of interest on loan (%)	6.30	6.30	6.30	6.30	6.30
Interest on loan	164.12	138.87	113.62	88.37	63.12

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
BOND-III series I DOCO					
Gross Opening Loan	1427.58	1427.58	1427.58	1427.58	1427.58
Cumulative Repayments of Loan upto Previous Year	237.93	237.93	237.93	237.93	237.93
Net Loans Opening	1189.65	1189.65	1189.65	1189.65	1189.65
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	1189.65	1189.65	1189.65	1189.65	1189.65
Average Net Loan	1189.65	1189.65	1189.65	1189.65	1189.65
Rate of interest on loan (%)	9.75	9.75	9.75	9.75	9.75
Interest on loan	115.99	115.99	115.99	115.99	115.99
BOND-III SERIES 2nd (9.75%) DOCO					
Gross Opening Loan	228.42	228.42	228.42	228.42	228.42
Cumulative Repayments of Loan upto Previous Year	38.07	38.07	38.07	38.07	38.07
Net Loans Opening	190.35	190.35	190.35	190.35	190.35
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	190.35	190.35	190.35	190.35	190.35
Average Net Loan	190.35	190.35	190.35	190.35	190.35
Rate of interest on loan (%)	13.50	13.50	13.50	13.50	13.50
Interest on loan	25.70	25.70	25.70	25.70	25.70
BOND I(ISSUE-III)-DOCO-					
Gross Opening Loan	434.25	434.25	434.25	434.25	434.25
Cumulative Repayments of Loan upto Previous Year	434.25	434.25	434.25	434.25	434.25
Net Loans Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of interest on loan (%)	9.00	9.00	9.00	9.00	9.00
Interest on loan	0.00	0.00	0.00	0.00	0.00

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
LIC-II (17.10.2003)_Naptha-Jhakri T/5_Replacement of GOI Loan-DOCO					
Gross Opening Loan	49396.62	49396.62	49396.62	49396.62	49396.62
Cumulative Repayments of Loan upto Previous Year	7431.22	7832.00	8232.78	8232.78	8232.78
Net Loans Opening	41965.40	41564.62	41163.84	41163.84	41163.84
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	400.78	400.78	0.00	0.00	0.00
Net Closing Loan	41564.62	41163.84	41163.84	41163.84	41163.84
Average Net Loan	41765.01	41364.23	41163.84	41163.84	41163.84
Rate of interest on loan (%)	6.30	6.30	6.30	6.30	6.30
Interest on loan	2631.20	2605.95	2593.32	2593.32	2593.32
Summary					
Gross Opening Loan	51486.87	51486.87	51486.87	51486.87	51486.87
Cumulative Repayments of Loan upto Previous Year	8141.47	8542.25	8943.03	8943.03	8943.03
Net Loans Opening	43345.40	42944.62	42543.84	42543.84	42543.84
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	400.78	400.78	0.00	0.00	0.00
Net Closing Loan	42944.62	42543.84	42543.84	42543.84	42543.84
Average Net Loan	43145.01	42744.23	42543.84	42543.84	42543.84
Rate of interest on loan(%)	6.30	6.30	6.30	6.30	6.30
Interest on loan	2772.88	2747.63	2735.01	2735.01	2735.01