

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 131/TT/2015

Coram:

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

**Date of Hearing : 20.01.2016
Date of Order : 28.01.2016**

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 1 x 80 MVAR, 420 kV, 3-Phase Bus Reactor at 400 kV Balipara Sub-station along with associated bay under transmission system associated with North East/Northern Western Interconnector-I and transmission system of Kameng HEP in North Eastern 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. Assam Electricity Grid Corporation Limited
(Formerly Assam State Electricity Board),
"BijuleeBhawan", Paltanbazar, Guwahati- 781 001
2. Meghalaya Energy Corporation Ltd.
(Formerly Meghalaya State Electricity Board)
Short Round Road, "Lumjingshai",
Shillong-793 001



3. Government of Arunachal Pradesh,
Itanagar, Arunachal Pradesh
4. Power and Electricity Department,
Govt. of Mizoram,
Aizawl, Mizoram
5. Manipur State Electricity Distribution Company Ltd. (Formerly Electricity
Department, Government of Manipur)
Keishampat, Imphal
6. Department of Power,
Government of Nagaland
Kohima, Nagaland
7. Tripura State Electricity Corporation Ltd.,
Vidhyut Bhawan, North Banamalipur,
Agartala, Tripura (W) – 799001...

.....Respondents

The following were present:-

For Petitioner: Shri M. M. Mondal, PGCIL
 Shri S. K. Venkatesan, PGCIL
 Shri Y. K. Sehgal, PGCIL
 Shri Nitish Kumar, PGCIL
 Shri G. C. Dhal, PGCIL
 Shri Amit Yadav, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri S. S. Raju, PGCIL
 Shri Jasbir Singh, PGCIL
 Shri Anshul Garg, PGCIL

For Respondent: None

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. (“the petitioner”), a transmission licensee, for truing up of capital expenditure and tariff for 1 x 80 MVAR, 420 kV, 3-Phase Bus Reactor at 400 kV Balipara



Sub-station along with associated bay under transmission system associated with North East/Northern Western Interconnector-I and transmission system of Kameng HEP in North Eastern Region (hereinafter referred as “transmission asset”) 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 1.10.2012 (COD) 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 and transmission licensees who are procuring transmission service from the petitioner, mainly beneficiaries of the North Eastern Region.

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers 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. The hearing in this matter was held on 20.1.2016. None of the respondents have filed their reply. In response to letter dated 17.1.2016, the petitioner has submitted its reply vide affidavit dated 25.1.2016. 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 investment approval for the project was accorded by Board of Directors of the petitioner company in its meeting held on 24.2.2009 at an estimated cost of ₹1113019 lakh, which included IDC of ₹106605 lakh. The approved apportioned cost for the transmission asset is ₹1119.87 lakh. The petitioner has built the transmission asset in the North Eastern Region. The date of the commercial operation of the transmission asset is 1.10.2012.

(b) The tariff from 1.10.2012 to 31.3.2014 for the transmission asset was allowed vide order dated 3.2.2015 in Petition No. 105/2013 in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

(₹ in lakh)		
Particulars	2012-13 (Pro-rata)	2013-14
Depreciation	14.92	44.74
Interest on Loan	18.22	52.67
Return on equity	13.38	38.66
Interest on Working Capital	2.78	6.75
O & M Expenses	30.96	65.46
Total	80.26	208.28

(c) The Commission, vide order dated 3.2.2015 in Petition No. 105/2003, has determined the tariff for the tariff period 2009-14 based on admitted capital cost of ₹315.80 lakh as on 1.10.2012.



- (d) 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.
- (e) The instant petition was filed on 9.5.2015.

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 capital cost of ₹315.80 lakh as on 1.10.2012 for the purpose of tariff. Further, the petitioner has claimed additional capitalisation of ₹576.58 lakh for the 2009-14 tariff period.

7. The admitted capital cost of ₹315.80 lakh as on 1.10.2012 vide order dated 3.2.2015 in Petition No. 105/2013 has been considered to work out the trued up tariff for the tariff period 2009-14 in accordance with 2009 Tariff Regulations.

Additional Capital Expenditure

8. The petitioner has claimed additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations. Clause (1)(i) of Regulation 9 of the 2009 Tariff Regulations provides that:-



“9. Additional Capitalisation. (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Undischarged liabilities;“

9. The petitioner has claimed additional capitalization of ₹499.00 lakh and ₹77.58 lakh for 2012-13 and 2013-14, respectively, towards balance and retention payment.

10. The total capital cost of ₹892.38 lakh including actual additional capitalisation claimed by the petitioner is well within the overall approved cost of ₹1119.87 lakh. Hence, considering the submissions made by the petitioner, we have allowed total capital cost including additional capitalization under Regulation 9(2)(i) of the 2009 Tariff Regulations as shown in the table below:-

(₹ in lakh)

Cost as per Investment Approval is ₹1119.87 lakh					
Particulars	Admitted capital cost as on 1.10.2012	Additional capitalisation		Total additional capitalisation	Total capital cost including additional capitalisation as on 31.3.2014
		2012-13	2013-14		
Approved in order dated 3.2.2015	315.80	499.00	65.00	564.00	879.80
Approved in this order	315.80	499.00	77.58	576.58	892.38



Initial Spares

11. Regulation 8 of the 2009 Tariff Regulations provides that initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:-

“Transmission line:	0.75%
Transmission sub-station	2.5%
Series compensation devices& HVDC Station:	3.5%”

12. The petitioner has claimed initial spares of ₹21.79 lakh pertaining to sub-station, which is within the ceiling limit as specified in 2009 Tariff Regulations. Hence, the same is allowed.

Debt: Equity

13. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provides that:-

“(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

.....

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



14. The petitioner has claimed true up Annual Fixed Charge based on debt-equity ratio of 70:30 admitted as on 1.10.2012, by the Commission in its order dated 3.2.2015 in Petition No. 105/2013. The admitted debt:equity ratio of 70:30 as on 1.10.2012 has been considered for the purpose of trueing up of the approved tariff of tariff period 2009-14, as given under:-

(₹ in lakh)		
Funding	Amount	(%)
Debt	221.06	70.00
Equity	94.74	30.00
Total	315.80	100.00

15. With respect to additional capitalization, the petitioner has submitted the debt:equity ratio of 70:30 for 2012-13 and 2013-14. The petitioner was directed to confirm that the actual equity infused for additional capitalization during the 2009-14 tariff period is not less than 30%. In response, the petitioner vide affidavit dated 25.1.2016 has submitted that the actual equity infused is 30% for additional capitalization during 2012-13 and 2013-14. The overall debt equity as on 31.3.2014 including additional capitalization is as under:-

Funding	Amount (in ₹ lakh)	(%)
Debt	624.67	70.00
Equity	267.71	30.00
Total	892.38	100.00

Interest on Loan ("IOL")

16. 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 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”.

17. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest.

18. 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	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.2.2015	18.22	52.67
As claimed by petitioner	17.46	50.03
Allowed after true up	17.46	50.03

19. The interest on loan has decreased due to decrease in actual weighted average interest rate applicable during 2012-14 tariff period.

Return on Equity (“ROE”)

20. 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.”

21. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 3.2.2015. 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)) %
2012-13	20.008	19.377
2013-14	20.961	19.610

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

Particulars	(₹ in lakh)	
	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.2.2015	13.38	38.66
As claimed by petitioner	16.43	50.22
Allowed after true up	16.43	50.22



23. The variation in return on equity is on account of increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

Depreciation

24. 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”

25. 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.”

26. The Commission, in its order dated 3.2.2015 in Petition No. 105/2013, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations.

27. The weighted average useful life of the transmission asset has been considered as per Regulations 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 25 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	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.2.2015	14.92	44.74
As claimed by petitioner	14.92	45.07
Allowed after true up	14.92	45.07

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

28. 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 are same as that approved in the tariff order dated 3.2.2015 in Petition No. 105/2013. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

(₹ in lakh)

Particulars	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.2.2015	30.96	65.46
As claimed by petitioner	30.96	65.46
Allowed after true up	30.96	65.46

Interest on working capital (“IWC”)

29. 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.

30. The petitioner has submitted that the rate of interest on working capital has been considered as 13.50% as per clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended 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.

31. 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 after 1.7.2010 shall be equal to SBI Base Rate plus 350 basis points as on 1st April of the year in which the transmission asset was declared under commercial operation. State Bank of India base Bate as on 1.4.2012 was 10.00%. Therefore, interest rate of 13.50% has been considered to work out the interest on working capital in the instant case.

32. The IWC trued up is as under:-

Particulars	(₹ in lakh)	
	2012-13 (Pro-rata)	2013-14
Maintenance Spares	4.64	9.82
O & M expenses	2.58	5.46
Receivables	13.77	36.29
Total	20.99	51.56
Rate of Interest (%)	13.50	13.50
Interest	2.83	6.96



Particulars	(₹ in lakh)	
	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.2.2015	2.78	6.75
As claimed by petitioner	2.84	6.96
Allowed after true up	2.83	6.96

33. The variation in IWC is on account of variation in IOL, depreciation and ROE due to increase in additional capitalisation and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

34. 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:-

Particulars	(₹ in lakh)	
	2012-13 (Pro-rata)	2013-14
Gross Block		
Gross Opening Block	315.80	814.80
Additional Capitalisation	499.00	77.58
Gross Closing Block	814.80	892.38
Average Gross Block	565.30	853.59
Depreciation		
Rate of Depreciation (%)	5.280	5.280
Depreciable Value	508.77	768.23
Elapsed Life (Beginning of the year)	0	1
Weighted Balance Useful life of the assets	25	24
Remaining Depreciable Value	508.77	760.77
Depreciation	14.92	45.07
Interest on Loan		
Gross Normative Loan	221.06	570.36
Cumulative Repayment upto Previous Year	0.00	14.92
Net Loan-Opening	221.06	555.44



Particulars	2012-13 (Pro-rata)	2013-14
Additional Capitalisation	349.30	54.31
Repayment during the year	14.92	45.07
Net Loan-Closing	555.44	564.68
Average Loan	388.25	560.06
Weighted Average Rate of Interest on Loan (%)	8.9939	8.9325
Interest	17.46	50.03
Return on Equity		
Opening Equity	94.74	244.44
Addition due to Additional Capitalisation	149.70	23.27
Closing Equity	244.44	267.71
Average Equity	169.59	256.08
Return on Equity (Base Rate) (%)	15.50	15.50
Tax rate for the year (%)	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.610
Return on Equity (Pre Tax)	16.43	50.22
Interest on Working Capital		
Maintenance Spares	4.64	9.82
O & M expenses	2.58	5.46
Receivables	13.77	36.29
Total	20.99	51.56
Interest	2.83	6.96
Annual Transmission Charges		
Depreciation	14.92	45.07
Interest on Loan	17.46	50.03
Return on Equity	16.43	50.22
Interest on Working Capital	2.83	6.96
O & M Expenses	30.96	65.46
Total	82.61	217.73

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	48.06	49.38	49.76	49.76	49.76
Interest on Loan	49.37	46.60	42.62	38.18	33.75



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Return on equity	53.55	55.02	55.45	55.45	55.45
Interest on Working Capital	6.81	6.92	6.96	6.97	7.00
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	218.09	220.22	219.16	216.87	214.67

36. 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	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	36.35	36.70	36.53	36.15	35.78
Total	50.43	51.24	51.55	51.67	51.82
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	6.81	6.92	6.96	6.97	7.00

Capital Cost

37. 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.”

38. The petitioner has claimed capital expenditure of ₹892.38 lakh as on 31.3.2014 and additional capitalization of ₹50.13 lakh for the tariff period 2014-



19. The trued up capital cost of ₹892.38 lakh as on 31.3.2014 is considered to work out the tariff for tariff period 2014-19.

Additional Capital Expenditure

39. The petitioner has projected additional capitalization of ₹35.70 lakh and ₹14.43 lakh during 2014-15 and 2015-16 respectively towards balance and retention payment under the provisions of Regulation 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations. The Commission vide its letter dated 17.1.2016 directed the petitioner to submit the amount of the balance and retention payment yet to be made along with the details of contract for which the payment has been retained. In response, the petitioner vide affidavit dated 25.1.2016 has submitted that the projected additional capitalization of ₹35.70 lakh and ₹14.43 lakh is on account of contract closing and final settlement of bills against the balance and retention payment under the contract.

40. The total capital cost including additional capitalisation during 2014-19 period is within the approved apportioned cost of ₹1119.87 lakh. Hence, additional capital expenditure of ₹35.70 lakh and ₹14.43 lakh during 2014-15 and 2015-16 respectively is allowed under Regulation 14(1)(i) and (ii) of the 2014 Tariff Regulations. The details of the capital cost and additional capital expenditure allowed is as follows:-



Admitted capital cost as on 31.3.2014	Additional capitalisation projected					Total additional capitalisation	Total capital cost including additional capitalisation as on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19		
892.38	35.70	14.43	0.00	0.00	0.00	50.13	942.51

Debt:Equity Ratio

41. 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.”

42. The petitioner has considered debt:equity ratio as 70:30 as on 31.3.2014. The admitted debt:equity ratio of 70:30 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	624.67	70.00
Equity	267.71	30.00
Total	892.38	100.00

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

Particulars	Amount (in ₹ lakh)	(%)
Debt	659.76	70.00
Equity	282.75	30.00
Total	942.51	100.00



Interest on Loan (“IOL”)

44. 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.”

45. The weighted average rate of IOL has been considered on the basis of rate prevailing as on 1.4.2014. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL allowed is as follows:-

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	624.67	649.66	659.76	659.76	659.76
Cumulative Repayment upto COD/previous year	59.99	108.05	157.44	207.20	256.97
Net Loan-Opening	564.68	541.61	502.32	452.56	402.79
Additions during the year	24.99	10.10	0.00	0.00	0.00
Repayment during the year	48.06	49.38	49.76	49.76	49.76
Net Loan-Closing	541.61	502.32	452.56	402.79	353.03
Average Loan	553.14	521.96	477.44	427.68	377.91
Rate of Interest (%)	8.9253	8.9287	8.9267	8.9267	8.9305
Interest	49.37	46.60	42.62	38.18	33.75



Return on Equity("ROE")

46. 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."

47. 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.

48. 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.

49. 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	267.71	278.42	282.75	282.75	282.75
Additional Capitalisation	10.71	4.33	0.00	0.00	0.00
Closing Equity	278.42	282.75	282.75	282.75	282.75
Average Equity	273.07	280.59	282.75	282.75	282.75
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)	53.55	55.02	55.45	55.45	55.45



Depreciation

50. 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."

51. The petitioner has computed depreciation considering capital expenditure of ₹892.38lakh as on 31.3.2014 and additional capitalization of ₹ 50.13 lakh during the 2014-19 tariff period.

52. We have considered the submissions of the petitioner and have allowed depreciation considering capital expenditure of ₹892.38 lakh as on 31.3.2014 and additional capitalization of ₹50.13 lakh during the 2014-19 tariff period under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	892.38	928.08	942.51	942.51	942.51
Additional Capitalisation	35.70	14.43	0.00	0.00	0.00
Gross block at the end of the year	928.08	942.51	942.51	942.51	942.51
Average gross block	910.23	935.30	942.51	942.51	942.51
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	819.21	841.77	848.26	848.26	848.26
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	23	22	21	20	19
Remaining Depreciable Value	766.68	741.18	698.28	648.52	598.76
Depreciation	48.06	49.38	49.76	49.76	49.76

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

53. 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 Bay					
Norm (₹lakh/Bay)					
400 kV	60.30	62.30	64.37	66.51	68.71
Bays					
400 kV	1	1	1	1	1
Total O&M Expense (Bay) (₹lakh)	60.30	62.30	64.37	66.51	68.71

54. 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.

55. 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.

56. 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	60.30	62.30	64.37	66.51	68.71

Interest on Working Capital (“IWC”)

57. 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;”

58. 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%.

59. 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). Further, there is difference in IWC claimed by the petitioner and approved by the Commission for tariff period 2014-19, due to difference in RoE claimed and approved in this order. 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	9.05	9.35	9.66	9.98	10.31
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Receivables	36.35	36.70	36.53	36.15	35.78
Total	50.42	51.24	51.55	51.66	51.81
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	6.81	6.92	6.96	6.97	6.99



Annual Transmission Charges

60. 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	892.38	928.08	942.51	942.51	942.51
Additional Capitalisation	35.70	14.43	0.00	0.00	0.00
Closing Gross Block	928.08	942.51	942.51	942.51	942.51
Average Gross Block	910.23	935.30	942.51	942.51	942.51
Depreciation					
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	819.21	841.77	848.26	848.26	848.26
Elapsed Life (Beginning of the year)	2	3	4	5	6
Weighted Balance Useful life of the assets	23	22	21	20	19
Remaining Depreciable Value	766.68	741.18	698.28	648.52	598.76
Depreciation	48.06	49.38	49.76	49.76	49.76
Interest on Loan					
Gross Normative Loan	624.67	649.66	659.76	659.76	659.76
Cumulative Repayment upto Previous Year	59.99	108.05	157.44	207.20	256.97
Net Loan-Opening	564.68	541.61	502.32	452.56	402.79
Additions	24.99	10.10	0.00	0.00	0.00
Repayment during the year	48.06	49.38	49.76	49.76	49.76
Net Loan-Closing	541.61	502.32	452.56	402.79	353.03
Average Loan	553.14	521.96	477.44	427.68	377.91
Weighted Average Rate of Interest on Loan (%)	8.9253	8.9287	8.9267	8.9267	8.9305
Interest	49.37	46.60	42.62	38.18	33.75
Return on Equity					
Opening Equity	267.71	278.42	282.75	282.75	282.75
Additions	10.71	4.33	0.00	0.00	0.00
Closing Equity	278.42	282.75	282.75	282.75	282.75



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Equity	273.07	280.59	282.75	282.75	282.75
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)	53.55	55.02	55.45	55.45	55.45
Interest on Working Capital					
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	36.35	36.70	36.53	36.15	35.78
Total	50.42	51.24	51.55	51.66	51.81
Interest	6.81	6.92	6.96	6.97	6.99
Annual Transmission Charges					
Depreciation	48.06	49.38	49.76	49.76	49.76
Interest on Loan	49.37	46.60	42.62	38.18	33.75
Return on Equity	53.55	55.02	55.45	55.45	55.45
Interest on Working Capital	6.81	6.92	6.96	6.97	6.99
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	218.09	220.23	219.16	216.87	214.67

Filing Fee and Publication Expenses

61. 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

62. 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

63. 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.

Sharing of Transmission Charges

64. 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.

65. This order disposes of Petition No. 131/TT/2015.

sd/-

(Dr. M. K. Iyer)
Member

sd/-

(A.S. Bakshi)
Member



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

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII- DOCO Funding	9.33%	100.00	0.00	100.00
BOND XXXIII- DOCO Funding	8.64%	30.00	0.00	30.00
BOND XXXIV- DOCO Funding	8.84%	16.00	0.00	16.00
BOND XXXVIII- DOCO Funding	9.25%	42.00	0.00	42.00
BOND- XLI- ADDCAP FOR 2012-2013 Add Cap Funding	8.85%	0.00	349.30	349.30
BOND- XLI- DOCO Funding	8.85%	33.06	0.00	33.06
BOND- XLIV- ADDCAP FOR 2013-2014 Add Cap Funding	0.00%	0.00	0.00	0.00
Total		221.06	349.30	570.36

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

Details of Loan	2012-13	2013-14
Gross Opening Loan	221.06	570.36
Cumulative Repayment of loan upto previous year	0.00	8.33
Net Loan Opening	221.06	562.03
Additions during the year	349.30	54.31
Repayment during the year	8.33	8.33
Net Loan Closing	562.03	608.01
Average Loan	391.55	585.02
Weighted Average Rate of Interest(%)	8.9939	8.9325
Interest	35.22	52.26



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

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVIII- DOCO Funding	9.33%	100.00	0.00	100.00
BOND XXXIII- DOCO Funding	8.64%	30.00	0.00	30.00
BOND XXXIV- DOCO Funding	8.84%	16.00	0.00	16.00
BOND XXXVIII- DOCO Funding	9.25%	42.00	0.00	42.00
BOND- XLI- ADDCAP FOR 2012-2013 Add Cap Funding	8.85%	349.30	0.00	349.30
BOND- XLI- DOCO Funding	8.85%	33.06	0.00	33.06
BOND- XLIV- ADDCAP FOR 2013-2014 Add Cap Funding	8.70%	54.31	0.00	54.31
BOND- XLVI- ADDCAP FOR 2014-2015 Add Cap Funding	9.30%	0.00	24.99	24.99
Total		624.67	0.00	624.67

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

(₹ in lakh)

Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	624.67	624.67	624.67	624.67	624.67
Cumulative Repayment of loan upto previous year	16.66	28.82	40.98	85.01	129.04
Net Loan Opening	608.01	595.85	583.69	539.66	495.63
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	12.16	12.16	44.03	44.03	62.13
Net Loan Closing	595.85	583.69	539.66	495.63	433.50
Average Loan	601.93	589.77	561.68	517.65	464.57
Weighted Average Rate of Interest (%)	8.9253	8.9287	8.9267	8.9267	8.9305
Interest	53.68	52.56	50.04	46.11	41.39

