

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 396/TT/2014

Coram:

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

**Date of Hearing : 08.02.2016
Date of Order : 23.02.2016**

In the Matter of:

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for combined assets of 765/400 kV Bilaspur Pooling Station (near Sipat) along with LILO of Sipat-Seoni Ckt-I with 3x80 MVAR Switchable Line Reactor, 3x80 MVAR Bus Reactor and 765/400 kV, 1500 MVA ICT 1 & 2 under WRSS-X Transmission Scheme 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-122001 (Haryana)

.....Petitioner

Versus

1. Madhya Pradesh Power Trading Company Ltd.
Shakti Bhawan, Rampur
Jabalpur - 482 008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor
Andheri (East), Mumbai - 400 052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara - 390 007



4. Electricity Department Govt. Of Goa
Vidyut Bhawan, Panaji,
Ner Mandvi Hotel, Goa - 403 001
5. Electricity Department
Administration Of Daman & Diu
Daman - 396 210
6. Electricity Department
Administration Of Dadra Nagar Haveli
U.T., Silvassa - 396 230
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-452 008

.....Respondents

The following were present:

For Petitioner: Shri Rakesh Prasad, PGCIL
Shri Jasbir Singh, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri M.M. Mondal, PGCIL
Shri Mohd. Mohsin, PGCIL
Shri A.M. Pavgi, PGCIL
Shri Pankaj Sharma, PGCIL
Shri S.S. Raju, PGCIL
Shri S.C. Taneja, PGCIL

For Respondents: None

ORDER

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) for revision of tariff 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 capital expenditure from the date of commercial operation 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 in respect of for for combined assets of 765/400 kV Bilaspur Pooling Station (near Sipat) along with LILO of Sipat-Seoni Ckt-I with 3x80 MVAR Switchable Line Reactor, 3x80 MVAR Bus Reactor and 765/400 kV, 1500 MVA ICT 1 & 2 under WRSS-X Transmission Scheme in Western Region (hereinafter referred to as “the transmission asset”).

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

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

a) The investment approval of the project was accorded by the Board of Directors of the petitioner’s company vide Memorandum dated 16.2.2009 at an estimated cost of ₹66496 lakh, including IDC of ₹4696 lakh based on 4th quarter, 2008 price level. The transmission asset was put on commercial operation on 1.4.2012.

b) The annual transmission charges for 2009-14 tariff periods for the transmission asset were determined by the Commission vide order dated 31.1.2014 in Petition No. 58/TT/2012 based on capital cost of ₹38769.73 lakh, after condoning the delay of one month for the transmission asset and debt:equity of 70:30 as on COD. The estimated additional capital expenditure of ₹9952.54 lakh and ₹435.88 lakh towards balance and retention payments during



2012-13 and 2013-14 respectively for determination of tariff for 2009-14 tariff period.

c) The delay of 1 month for the commissioning of the assets due to delay in land acquisition was condoned by the Commission and accordingly, capitalized the IDC and IEDC. The claim of the initial spares were found within the ceiling limit based on the capital cost upto cut off date.

d) The details of capital cost are as shown below:-

(₹ in lakh)

Total approved cost	Admitted cost as on COD	Allowed Additional capital expenditure during 2009-14				Cost as on 31.3.2014
		2011-12	2012-13	2013-14	Total	
66496.08	38769.73	0.00	9952.54	435.88	10388.42	49158.15

e) The annual fixed charges were determined vide order dated 31.12.2014 in Petition No. 58/TT/2012 based the above capital cost and estimated additional capital expenditure for the transmission assets during 2009-14 as given below:-

(₹ in lakh)

Particulars	2012-13	2013-14
Depreciation	2240.71	2487.42
Interest on Loan	2705.27	2822.30
Return on Equity	2294.17	2566.57
Interest on Working Capital	202.50	219.20
O & M Expenses	648.94	686.07
Total	8091.60	8781.56

4. As per Regulation 6 of the 2009 Tariff Regulations, the Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to

31.3.2014, as admitted by the Commission after prudence check at the time of truing up. Further, as per Regulation 15 of the 2009 Tariff Regulations, the petitioner is required to adjust the yearly impact of MAT rate in the truing up petition for 2009-14 tariff period.

5. In this context, the petitioner has filed the instant petition for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

6. 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. No comments/objections have been received from the public in response to the notice in newspaper. None of the respondents have filed the reply in the matter. The hearing in this matter was held on 8.2.2016. The Commission had directed petitioner to submit the details in respect of the additional capital expenditure, un-discharged liabilities and actual equity infused during 2009-14 and 2014-19 tariff periods which was submitted by the petitioner vide affidavit dated 16.2.2016.

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

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

8. 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”.



9. 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 tariff for 2009-14 tariff period has been trued up in the subsequent paragraphs.

Capital Cost

10. The petitioner had claimed capital cost of ₹38769.73 lakh as on COD in respect of the transmission asset for the purpose of tariff determination.

11. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides as follows:

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

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

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.”

12. The petitioner has claimed the same capital cost as approved by the Commission vide dated 31.1.2014 in Petition No. 58/TT/2012 for the transmission asset as on COD for the purpose of computation of tariff for 2009-14 tariff period is worked out in the subsequent paragraph after the adjustment of cost of initial spares.

Treatment of Initial Spares

13. The Commission in its order dated 31.1.2014 in Petition No. 58/TT/2012 had allowed the initial spares of ₹989.71 lakh pertaining to sub-station (including PLCC) cost of ₹47772.90 lakh.



14. The petitioner has submitted that the actual initial spares are ₹989.71 lakh pertaining to sub-station (including PLCC), corresponding to the capital cost of ₹45988.15 lakh for sub-station, as on the cut-off date of 31.3.2015 as submitted vide Auditor's Certificate dated 6.8.2014. We have worked out the admissible initial spares by considering actual capital cost upto cut off date as per Auditor's Certificate in accordance with the 2009 Tariff Regulations.

15. Regulation 8 of the 2009 Tariff Regulations provide for ceiling norms for capitalization of initial spares in respect of sub-station at 2.50%. Accordingly, the initial spares have been allowed as under:-

Particulars	Logical Formula	Substation: Amount
Sub-station+PLCC cost as on cut off date	(a)	45988.15
Sub-station+PLCC after deducting excess IDC	(b)	45988.15
Initial Spares as per Auditor's Certificate	(c)	989.71
Proportionate Initial Spares claimed after deducting IDC	(d) = (c)/(a) *(b)	989.71
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%
Initial spares worked out	(f)= ((b-d)*e)/(100%-e)	1153.81
Excess initial spares	(g)=(d)-(f)	0.00

As the initial spares are well within the limit, the capital cost as on COD has been considered to work out the tariff.

Additional Capital Expenditure

16. Regulation 6(1) of the 2009 Regulations provides that:-

“The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014”

17. The petitioner has submitted that it has actually incurred an additional capital expenditure of ₹7013.93 lakh during 2009-14 towards balance and retention payments for the works completed before the cut-off date, as depicted below:-

(₹ in lakh)

	Capital cost as on COD	Additional capital expenditure				Capital cost as on 31.3.2014
		2011-12	2012-13	2013-14	Total	
Approved in Order dated 31.1.2014	38769.73	-	9952.54	435.88	10388.42	49158.15
Claimed by the petitioner	38769.73	-	3597.42	3416.51	7013.93	45783.66
Allowed in this Order	38769.73	-	3597.42	3416.51	7013.93	45783.66

18. The petitioner has claimed the admissibility of additional capital expenditure before the cut-off date under Regulation 9(1)(i) of 2009 Tariff Regulations. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14. The above mentioned additional capital expenditure is towards balance and retention payments and the same has been certified by the Auditor vide certificate dated 11.8.2014. Further, the total capital expenditure during 2009-14 is within the limits of the total approved capital expenditure and the total cost as on 31.3.2014 is within the approved cost of the project. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 9(1)(i) and Regulation 6 of the 2009 Tariff Regulations.

Debt: Equity

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

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

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

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

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

20. The debt:equity ratio for capital cost as on COD, admitted by the Commission vide order dated 31.1.2014 in Petition No. 58/TT/2012 was 70:30, for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations. The petitioner, vide affidavit dated has submitted revised Form-6 of the petition indicating the debt:equity ratio as on COD as 70.00:30.00, however, tariff has been worked out by considering normative debt:equity ratio of 70:30. Further, on 8.2.2016, the petitioner was directed to confirm actual equity infused and to furnish an undertaking on affidavit providing the actual equity infused during the tariff period 2009-14 and 2014-19. In response, the petitioner vide affidavit dated 16.2.2016, submitted that the debt:equity ratio for additional capital expenditure during 2012-13 is 68.62:31.38 as under:

21. The petitioner has claimed normative debt:equity ratio of 70:30 for additional capital expenditure during 2013-14 in line with 2009 Tariff Regulations. We have considered the normative debt:equity ratio of 70.00:30.00 for capital cost as on COD



has been considered for computation and for additional capitalization during 2009-14 in line with the 2009 Tariff Regulations. The details of the debt:equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

(₹ in lakh)

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	27,138.81	70.00	4909.75	70.00	32,048.56	70.00
Equity	11,630.92	30.00	2104.18	30.00	13,735.10	30.00
Total	38769.73	100.00	7013.93	100.00	45,783.66	100.00

Return on Equity (“ROE”)

22. Clause (3), (4) and (5) of the 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where “t” is the applicable tax rate in accordance with clause (3) of this regulation.

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

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

23. The variation in the tax rate during the 2009-14 tariff period applicable to the petitioner as per the Finance Act of the relevant year for the purpose of grossing up of return on equity (ROE) has been furnished as follows:-

Year	MAT Rate claimed in the current petition (%)	Grossed up ROE (Base Rate/(1-t)) claimed in the current petition (%)
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

24. The ROE as trued up and allowed is as follows:-

Return on Equity	₹ in lakh	
	2012-13	2013-14
Approved in Order dated 31.1.2014	2294.17	2566.57
Claimed by the petitioner	2358.29	2592.96
Allowed in this Order	2,358.28	2,593.02

The difference in the approved ROE and that allowed after truing up is on account of actual grossed up ROE based on actual MAT rate, increase due to actual additional capital expenditure.

Interest on Loan (“IoL”)

25. Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of IoL. The Commission in its earlier order dated 31.1.2012 in Petition No. 58/TT/2012 has dealt with similar issue and 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”.



26. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, the IoL has been calculated based on actual interest rate submitted by the petitioner, in accordance with the Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed in Annexure-1. The IoL worked out is as follows:-

Interest on Loan	(₹ in lakh)	
	2012-13	2013-14
Approved in Order dated 31.1.2014	2705.27	2822.30
Claimed by the petitioner	2508.47	2528.90
Allowed in this Order	2,508.48	2,528.89

The difference in the approved IoL and that allowed after truing up is on account of change in the weighted average rate of interest which is computed based on actual loan portfolio and rate of interest.

Depreciation

27. The depreciation has been worked out as per the methodology provided in the Regulation 17 of the 2009 Tariff Regulations. The depreciation allowed is as follows:-

Depreciation	(₹ in lakh)	
	2012-13	2013-14
Approved in Order dated 31.1.2014	2240.71	2487.42
Claimed by the petitioner	2086.64	2252.13
Allowed in this Order	2086.64	2252.14

The difference in the approved depreciation and that allowed after truing up is on account of change in gross block during the 2009-14 tariff period.

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

28. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The normative O&M Expenses are not required to be trued up. Accordingly, the total allowable O&M expenses for the instant assets have been worked out based on norms of O&M Expenses and the details are as follows:-

(₹ in lakh)

O&M Expenses	2012-13	2013-14
Approved in Order dated 31.1.2014	648.94	686.07
Claimed by the petitioner	648.94	686.07
Allowed in this Order	648.94	686.07

Interest on Working Capital (“IWC”)

29. The IWC has been worked out as per the methodology provided in the Regulation 18 of the 2009 Tariff Regulations and allowed as under:

(₹ in lakh)

Interest on Working Capital	2012-13	2013-14
Approved in Order dated 31.1.2014	202.50	219.20
Claimed by the petitioner	195.90	207.63
Allowed in this Order	195.90	207.63

The difference in the approved IWC and that allowed after truing up is on account of change in the receivables during the 2009-14 tariff period.

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2012-13	2013-14
Depreciation		
Opening Gross Block	38769.73	42367.15
Additional Capitalisation	3597.42	3416.51
Closing Gross Block	42367.15	45783.66
Average Gross Block	40568.44	44075.41
Rate of Depreciation (%)	5.14	5.11
Depreciable Value	36511.60	41286.70
Balance Useful life of the asset	25	24
Elapsed Life	0	1
Remaining Depreciable Value	36511.60	37581.22
Depreciation during the year	2086.64	2252.14
Cumulative depreciation (incl. of AAD)	2086.64	4338.78
Interest on Loan		
Gross Normative Loan	27138.81	29657.01
Cumulative Repayment upto Previous Year	0.00	2086.64
Net Loan-Opening	27138.81	27570.36
Additions	2518.19	2391.56
Repayment during the year	2086.64	2252.14
Net Loan-Closing	27570.36	27709.78
Average Loan	27354.59	27640.07
Weighted Average Rate of Interest on Loan (%)	9.1702%	9.1494%
Interest on Loan	2508.48	2528.89
Return on Equity		
Opening Equity	11630.92	12710.15
Additions	1079.23	1024.95
Closing Equity	12710.15	13735.10
Average Equity	12170.53	13222.62
Return on Equity (Base Rate) (%)	15.500%	15.500%
MAT rate for the respective year (%)	20.008%	20.961%
Rate of Return on Equity (%)	19.377%	19.610%
Return on Equity	2358.28	2593.02
Interest on Working Capital		
O & M expenses	54.08	57.15
Maintenance Spares	97.34	102.91
Receivables	1299.71	1377.96
Total	1451.13	1538.02
Rate of Interest	13.50%	13.50%
Interest on Working Capital	195.90	207.63
Annual Transmission Charges		



Particulars	2012-13	2013-14
Depreciation	2086.64	2252.14
Interest on Loan	2508.48	2528.89
Return on Equity	2358.28	2593.02
Interest on Working Capital	195.90	207.63
O & M Expenses	648.94	686.07
Total	7798.25	8267.75

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2373.11	2410.68	2410.68	2410.68	2410.68
Interest on Loan	2473.39	2305.80	2084.65	1863.69	1643.28
Return on Equity	2739.11	2784.77	2784.77	2784.77	2784.77
Interest on Working Capital	209.51	208.73	204.84	200.99	197.19
O & M Expenses	631.91	652.88	674.58	696.97	720.09
Total	8427.03	8362.86	8159.52	7957.10	7756.01

32. 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
O & M Expenses	52.66	54.41	56.22	58.08	60.01
Maintenance Spares	94.79	97.93	101.19	104.55	108.01
Receivables	1404.51	1393.81	1359.92	1326.18	1292.67
Total	1551.96	1546.15	1517.33	1488.81	1460.69
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	209.51	208.73	204.84	200.99	197.19

Capital Cost

33. Clause (3) and (6) of Regulation 9 of 2014 Tariff Regulation provide as follows:-

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

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

“(6) The following shall be excluded or removed from the capital cost of the existing and new project:



(a) The assets forming part of the project, but not in use; (b) Decapitalisation of Asset;”

34. The capital cost of ₹45783.66 lakh worked out by the Commission as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

12. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

“(1)The capital expenditure in respect of the new project or an existing project 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 recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- (v) Change in law or compliance of any existing law”

35. The petitioner has claimed additional capital expenditure of ₹1552.21 lakh for 2014-19 tariff period under regulation 14 (1). Accordingly capital cost as on 31.3.2019 works out to be ₹47335.87 lakh.

(₹ in lakh)

Capital cost as on 31.3.2014	Additional capital expenditure						Capital cost as on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19	Total	
45783.66	1552.21	-	-	-	-	1552.21	47335.87

The above mentioned additional capital expenditure is towards balance and retention payments and the same has been certified by the Auditor vide certificate dated 11.8.2014. Further, the total cost as on 31.3.2019 is within the approved cost of the



project. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 14(1) of the 2014 Tariff Regulations.

Debt: Equity

36. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provides as under:-

“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:”

“(3) In case of the generating station and the transmission system including communication 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.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as maybe 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.”

37. The normative debt:equity ratio has been considered to work out the tariff in accordance with the 2014 Tariff Regulations as given below:-

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-15	(%)	Total Cost as on 31.3.2019	(%)
Debt	32,048.56	70.00	1086.55	70.00	33,135.11	70.00
Equity	13,735.10	30.00	465.66	30.00	14,200.76	30.00
Total	45,783.66	100.00	1552.21	100.00	47335.87	100.00

Return on Equity (“ROE”)

38. Clause (1) and (2) of Regulations 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.”

39. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during the 2013-14 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in accordance with Clause (3) of Regulation 25 of the 2014 Tariff Regulations. The ROE has been worked out and allowed as follows:-

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	13735.10	14200.76	14200.76	14200.76	14200.76
Additions	465.66	0.00	0.00	0.00	0.00
Closing Equity	14200.76	14200.76	14200.76	14200.76	14200.76
Average Equity	13967.93	14200.76	14200.76	14200.76	14200.76
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%
MAT Rate for respective year (%)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity	2739.17	2784.83	2784.83	2784.83	2784.83

Interest on Loan (“IoL”)

40. Clause 5 and Clause 6 of Regulation 26 of the 2014 Tariff Regulations provides that:-

“(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.”

41. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2014. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed in Annexure 2. IoL has been worked out and allowed as follows:

(₹ in lakh)					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	32048.56	33135.11	33135.11	33135.11	33135.11
Cumulative Repayment upto Previous Year	4338.78	6711.88	9122.55	11533.23	13943.90
Net Loan-Opening	27709.78	26423.23	24012.55	21601.88	19191.21
Additions	1086.55	0.00	0.00	0.00	0.00
Repayment during the year	2373.10	2410.67	2410.67	2410.67	2410.67
Net Loan-Closing	26423.23	24012.55	21601.88	19191.21	16780.53
Average Loan	27066.51	25217.89	22807.22	20396.54	17985.87
Weighted Average Rate of Interest on Loan (%)	9.1382%	9.1436%	9.1403%	9.1372%	9.1365%
Interest on Loan	2473.39	2305.81	2084.65	1863.68	1643.28

Depreciation

42. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide that:-

"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."

The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. The transmissions asset will be completing 12 beyond 2014-19 period; hence depreciation up to 2014-19 tariff period has been calculated annually based on Straight Line Method and at rates specified in Appendix-II of the 2014 Tariff Regulations. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	45783.66	47335.87	47335.87	47335.87	47335.87
Additional Capitalisation	1552.21	0.00	0.00	0.00	0.00
Closing Gross Block	47335.87	47335.87	47335.87	47335.87	47335.87
Average Gross Block	46559.77	47335.87	47335.87	47335.87	47335.87
Rate of Depreciation (%)	5.10	5.09	5.09	5.09	5.09
Depreciable Value	43441.22	43300.78	42602.28	42602.28	42602.28
Balance Useful life of the asset	23.00	22.00	21.00	20.00	19.00
Elapsed Life	2.00	3.00	4.00	5.00	6.00
Remaining Depreciable Value	37565.01	35890.40	33479.73	31069.06	28658.38
Depreciation during the year	2373.10	2410.67	2410.67	2410.67	2410.67
Depreciation upto previous year	6711.88	9122.55	11533.23	13943.90	16354.57
Cumulative depreciation	45783.66	47335.87	47335.87	47335.87	47335.87



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

43. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets have been worked out and allowed are as follows:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
765 kV Bays:					
No. of Bays	6	6	6	6	6
Norms (₹ lakh/Bay)	84.42	87.22	90.12	93.11	96.2
Transmission Line:					
Line Length(km)	7.911	7.911	7.911	7.911	7.911
Norms(₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
Total O&M Expenses (₹ lakh)	631.91	652.88	674.58	696.97	720.09

44. 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 from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also prayed that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission asset as per prevailing norms.

Interest on Working Capital (“IWC”)

45. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specifies 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;”

46. The petitioner has submitted that it has computed interest on working capital for the tariff block 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%.

47. 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 components of the working capital and interest thereon have been worked as follows:-

(₹ in lakh)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	52.64	54.38	56.19	58.06	59.98
Maintenance Spares	94.79	97.93	101.19	104.55	108.01
Receivables	1404.51	1393.82	1359.93	1326.19	1292.68
Total	1551.94	1546.14	1517.31	1488.79	1460.67
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	209.51	208.73	204.84	200.99	197.19

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

48. The transmission charges allowed for the instant transmission assets for the 2014-19 tariff period are summarised below:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	45783.66	47335.87	47335.87	47335.87	47335.87
Additional Capitalisation	1552.21	0.00	0.00	0.00	0.00
Closing Gross Block	47335.87	47335.87	47335.87	47335.87	47335.87



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Gross Block	46559.77	47335.87	47335.87	47335.87	47335.87
Rate of Depreciation (%)	5.10	5.09	5.09	5.09	5.09
Depreciable Value	43441.22	43300.78	42602.28	42602.28	42602.28
Balance Useful life of the asset	23	22	21	20	19
Elapsed Life	2	3	4	5	6
Remaining Depreciable Value	37565.01	35890.40	33479.73	31069.06	28658.38
Depreciation during the year	2373.10	2410.67	2410.67	2410.67	2410.67
Cumulative depreciation	6711.88	9122.55	11533.23	13943.90	16354.57
Interest on Loan					
Gross Normative Loan	32048.56	33135.11	33135.11	33135.11	33135.11
Cumulative Repayment upto Previous Year	4338.78	6711.88	9122.55	11533.23	13943.90
Net Loan-Opening	27709.78	26423.23	24012.55	21601.88	19191.21
Additions	1086.55	0.00	0.00	0.00	0.00
Repayment during the year	2373.10	2410.67	2410.67	2410.67	2410.67
Net Loan-Closing	26423.23	24012.55	21601.88	19191.21	16780.53
Average Loan	27066.51	25217.89	22807.22	20396.54	17985.87
Weighted Average Rate of Interest on Loan (%)	9.1382%	9.1436%	9.1403%	9.1372%	9.1365%
Interest on Loan	2473.39	2305.81	2084.65	1863.68	1643.28
Return on Equity					
Opening Equity	13735.10	14200.76	14200.76	14200.76	14200.76
Additions	465.66	0.00	0.00	0.00	0.00
Closing Equity	14200.76	14200.76	14200.76	14200.76	14200.76
Average Equity	13967.93	14200.76	14200.76	14200.76	14200.76
Return on Equity (Base Rate)(%)	15.500%	15.500%	15.500%	15.500%	15.500%
MAT rate for the respective yr(%)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity	2739.17	2784.83	2784.83	2784.83	2784.83
Interest on Working Capital					
O & M expenses	52.64	54.38	56.19	58.06	59.98
Maintenance Spares	94.79	97.93	101.19	104.55	108.01
Receivables	1404.51	1393.82	1359.93	1326.19	1292.68
Total	1551.94	1546.14	1517.31	1488.79	1460.67
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	209.51	208.73	204.84	200.99	197.19
Annual Transmission Charges					
Depreciation	2373.10	2410.67	2410.67	2410.67	2410.67



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Loan	2473.39	2305.81	2084.65	1863.68	1643.28
Return on Equity	2739.17	2784.83	2784.83	2784.83	2784.83
Interest on Working Capital	209.51	208.73	204.84	200.99	197.19
O & M Expenses	631.91	652.88	674.58	696.97	720.09
Total	8427.09	8362.93	8159.57	7957.15	7756.07

49. 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. However, the COD of the asset is after 1.4.2009, hence the claim of the petitioner is not maintainable.

Filing Fee and the Publication Expenses

50. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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 Regulation 52 (1) of the 2014 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

51. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 52 (2) (b) of the 2014 Tariff Regulations for 2014-19 tariff period. The petitioner shall also be entitled for recovery of RLDC fee & charges in accordance with Regulations 52 (2) (a) of the 2014 Tariff Regulations for 2014-19 tariff period.

Service Tax

52. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature.



Sharing of Transmission Charges

53. 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.

54. This order disposes of Petition No. 396/TT/2014.

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

Sd/-
(A.S. Bakshi)
Member

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 XXIX-DOCO DRAWL ON 1-APR-2012-	9.20	1017.00	0.00	1017.00
BOND XXX-DOCO DRAWL ON 01-APR-2012-	8.80	263.00	0.00	263.00
BOND XXXI-DOCO DRAWL ON 01-APR-2012-	8.90	2924.00	0.00	2924.00
BOND XXXIII-DOCO DRAWL ON 01-APR-2012-	8.64	900.00	0.00	900.00
BOND XXXIV-DOCO DRAWL ON 01-APR-2012-	8.84	10835.00	0.00	10835.00
BOND XXXV-DOCO DRAWL ON 01-APR-2012-	9.64	10100.00	0.00	10100.00
BOND XXXVI-DOCO DRAWL ON 01-APR-2012-	9.35	883.00	0.00	883.00
SBI (21.03.2012)-ADDCAP FOR 2012-2013 Loan 5-	10.61	0.00	291.44	291.44
SBI (21.03.2012)-ADDCAP FOR 2012-2013 Loan 8-	10.29	0.00	0.00	0.00
BOND XL-ADDCAP FOR 2012-2013 Loan1-	9.30	0.00	657.19	657.19
BOND XL-Loan2-	9.30	216.81	0.00	216.81
BOND-XLI-ADDCAP FOR 2012-13 Loan3-	8.85	0.00	460.00	460.00
BOND-XLII-ADDCAP FOR 2012-13 Loan4-	8.80	0.00	1060.00	1060.00
BOND-XLIII-ADDCAP FOR 2013-14 Loan6-	7.93	0.00	0.00	0.00
BOND-XLV-ADDCAP FOR 2013-14 Loan7-	9.65	0.00	0.00	0.00
Total		27138.81	2468.63	29607.44

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

(₹ in lakh)

Particulars	2012-13	2013-14
Gross Opening Loan	27138.81	29607.44
Cumulative Repayments of Loans up to Previous Year	0.00	84.75
Net Loans Opening	27138.81	29522.69
Add: Drawl(s) during the Year	2468.63	2391.56
Less: Repayments during the year	84.75	350.34
Net Closing Loan	29522.69	31563.91
Average Net Loan	28330.75	30543.30
Rate of Interest on Loan (%)*	9.1702	9.1494
Interest on Loan	2598.00	2794.52

*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan upto two decimal points.



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXIX-DOCO DRAWL ON 1-APR-2012-	9.20	1017.00	0.00	1017.00
BOND XXX-DOCO DRAWL ON 01-APR-2012-	8.80	263.00	0.00	263.00
BOND XXXI-DOCO DRAWL ON 01-APR-2012-	8.90	2924.00	0.00	2924.00
BOND XXXIII-DOCO DRAWL ON 01-APR-2012-	8.64	900.00	0.00	900.00
BOND XXXIV-DOCO DRAWL ON 01-APR-2012-	8.84	10835.00	0.00	10835.00
BOND XXXV-DOCO DRAWL ON 01-APR-2012-	9.64	10100.00	0.00	10100.00
BOND XXXVI-DOCO DRAWL ON 01-APR-2012-	9.35	883.00	0.00	883.00
SBI (21.03.2012)-ADDCAP FOR 2012-2013 Loan 5-	10.61	291.44	0.00	291.44
SBI (21.03.2012)-ADDCAP FOR 2012-2013 Loan 8-	10.29	454.56	0.00	454.56
BOND XL-ADDCAP FOR 2012-2013 Loan1-	9.30	657.19	0.00	657.19
BOND XL-Loan2-	9.30	216.81	0.00	216.81
BOND-XLI-ADDCAP FOR 2012-13 Loan3-	8.85	460.00	0.00	460.00
BOND-XLII-ADDCAP FOR 2012-13 Loan4-	8.80	1060.00	0.00	1060.00
BOND-XLIII-ADDCAP FOR 2013-14 Loan6-	7.93	1490.00	0.00	1490.00
BOND-XLV-ADDCAP FOR 2013-14 Loan7-	9.65	447.00	0.00	447.00
Total		31999.00	0.00	31999.00

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	31999.00	31999.00	31999.00	31999.00	31999.00
Cumulative Repayments of Loans up to Previous Year	435.09	1763.35	3933.28	6341.06	8910.26
Net Loans Opening	31563.91	30235.65	28065.72	25657.94	23088.74
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	1328.26	2169.93	2407.78	2569.20	2569.20
Net Closing Loan	30235.65	28065.72	25657.94	23088.74	20519.54
Average Net Loan	30899.78	29150.69	26861.83	24373.34	21804.14
Rate of Interest on Loan (%)*	9.1382	9.1436	9.1403	9.1372	9.1365
Interest on Loan	2823.68	2665.41	2455.25	2227.05	1992.14

*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan upto two decimal points.

