

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 406/TT/2014

Coram:
Shri A.S. Bakshi, Member
Dr. M. K. Iyer, Member

Date of Hearing : 08.02.2016
Date of Order : 22.02.2016

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 Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations' 2014 for 400 kV D/C Korba Raipur Transmission Line under Korba-III Transmission System in Western Region and 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

....Respondent(s)

The following were present:

For Petitioner: Shri Mohd. Mohsin, PGCIL
Smt. Sonam Gangwar, PGCIL
Shri S.S. Raju, PGCIL
Shri A. M. Pavgi, PGCIL
Shri Pankaj Sharma, PGCIL
Shri S. K. Venkatesan, PGCIL
Shri M.M. Mondal, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Subhash C. Taneja, PGCIL
Shri Jasbir Singh, 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 for the period from commercial operation date (“COD”)



i.e.1.7.2011 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 400 kV D/C Korba Raipur Transmission Line under Korba-III Transmission System 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 administrative approval and expenditure sanction to the transmission project was accorded by Board of Directors vide letter C/CP/Korba-III dated 27.2.2009 for estimated completion cost of ₹27667 lakh, including IDC of ₹1784 lakh (based on 4th quarter, 2008 price level).

b) The COD of the transmission asset is 1.7.2011. The Commission, vide its order dated 3.4.2012 in Petition No. 83/TT/2011, had considered the capital cost of ₹20174.81 lakh and debt:equity ratio as on COD as under:-

As on COD	Amount (₹ in lakh)	Percentage (%)
Debt	14122.37	70.00
Equity	6052.44	30.00
Capital Cost	20174.81	100.00

c) Additional capital expenditure of ₹1803.33 lakh in 2011-12 was allowed in order dated 3.4.2012 in Petition No. 83/TT/2011.

d) The Commission had allowed an additional ROE of 0.5% as the transmission asset was completed within 28 months, as per the timeline specified in the 2009 Tariff Regulations.

e) The Commission determined the tariff for the transmission asset for tariff period 2009-14, based on capital cost of ₹20174.81 lakh as on COD and estimated additional capital expenditure of ₹1803.33 lakh in 2011-12 in its order in Petition No. 83/TT/2011 as given below:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	834.78	1160.80	1160.80
Interest on Loan	948.29	1231.79	1128.87
Return on Equity	855.68	1189.72	1189.72
Interest on Working Capital	58.06	79.10	77.47
O & M Expenses	111.68	157.40	166.32
Total	2808.49	3818.81	3723.18

f) The tariff determined in the order in Petition No. 83/TT/2011 was based on estimated capital expenditure incurred and is subject to true up based on actual capital expenditure incurred.

f)

4. f) As per Regulation 6 of the 2009 Tariff Regulations, the Commission shall carry out true 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 true 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 true up petition for 2009-14 tariff period. In this context, the petitioner has filed the instant petition for revision of

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tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

5. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments/objections have been received from the public in response to the notice in newspaper. No submissions have been made by the respondents. The hearing in this matter was held on 8.2.2016. The petitioner was directed to furnish an undertaking on affidavit depicting the actual equity infused during the 2009-14 and 2014-19 tariff period, details of un-discharged liabilities, amount of the balance and retention payment yet to be made along with the details of the contract for which payment has been retained and clarify that the instant asset is the only asset in the entire scheme/project and it is eligible for additional RoE through letter dated 8.2.2016. The petitioner, in response, has submitted its reply vide affidavit dated 15.2.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

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

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

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

Capital Cost

8. The petitioner has submitted the actual capital expenditure incurred vide Auditor Certificate dated 25.7.2014 and the capital cost of ₹20184.53 lakh as on COD in respect of the transmission asset for the purpose of tariff determination.

9. Clause (1) and (2) of the Regulation 7 of the 2009 Tariff Regulations specifies 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 fund 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.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.”

10. The petitioner has claimed initial spares to the tune of ₹154.89 lakh for transmission line. The ceiling limit of initial spares for transmission line has been worked out based on capital cost upto cut off date as specified under the 2009 Tariff Regulations. The ceiling limit is worked out as ₹161.78 lakh based on capital cost of 21564.84 lakh upto cut-off date. The petitioner's claim ₹154.89 lakh is within the ceiling limit and hence the same has been considered to work out the tariff.

11. The actual capital cost of ₹20184.53 lakh, as certified by the Auditor's Certificate dated 25.7.2014, as on COD is considered for truing up of tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

Additional Capital Expenditure

12. 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”

13. The petitioner has submitted that actual additional capital expenditure of ₹979.85 lakh in 2011-12, ₹394.54 lakh in 2012-13 and ₹37.80 lakh in 2013-14 has been incurred on account of balance and retention payments towards transmission line works as depicted below:-

(₹ in lakh)

Apportioned Approved Cost: 27660.61 lakh					
Capital cost as on COD	Additional capital expenditure during 2009-14				Capital cost as 31.3.2014
	2011-12	2012-13	2013-14	Total	
20184.53	979.85	394.54	37.80	1412.19	21596.72

14. The petitioner has submitted the Auditor's Certificate dated 25.7.2014 certifying the actual capital cost incurred towards additional capitalization. The petitioner's claim of additional capital expenditure during 2009-14 tariff period is within the cut-off date under Regulation 9(1)(i) of 2009 Tariff Regulations.

15. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14 tariff period. The capital addition of ₹979.85 lakh in 2011-12, ₹394.54 lakh in 2012-13 and ₹37.80 lakh in 2013-14 is based on actual capital expenditure incurred as per the Auditor Certificate dated 25.7.2014, and is within the original scope of work and also within the approved apportioned cost of the assets. The additional capital expenditure of ₹979.85 lakh in 2011-12, ₹394.54 lakh in 2012-13 and ₹37.80 lakh in 2013-14 towards balance retention payments is before the cut-off date and the same is allowed under Regulation 9 (1) (i) of 2009 Tariff Regulations for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations. The capital cost approved in earlier and worked out for the purpose of true up are given as under:-

(₹ in lakh)

Particulars	Capital cost upto COD	Additional Capital Expenditure				Total capital cost as on 31.3.2014
		2011-12	2012-13	2013-14	Total add cap	
Approved in order dated 2.1.2013	20174.81	1803.33	-	-	1803.33	21978.14
Claimed by the petitioner	20184.53	979.85	394.54	37.80	1412.19	21596.72
Allowed in this order	20184.53	979.85	394.54	37.80	1412.19	21596.72

16. The debt: equity ratio of 70:30 for additional capital expenditure as claimed by the petitioner is in accordance with the clause (3) of Regulation 12 of the 2009 Tariff Regulations and hence, same has been considered towards financing of the additional capital expenditure.

Debt: Equity

17. 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.”

18. The admitted debt:equity ratio of 70.00:30.00 as on COD was considered by the Commission in order dated 3.4.2012 in Petition No. 83/TT/2011 in line with the Regulation 12 of the 2009 Tariff Regulations. The petitioner has also claimed normative debt: equity ratio of 70:30 for additional capitalization in line with the 2009 Tariff Regulations and same has been considered to work out the tariff.

19. 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 (1.7.2011)	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	14129.17	70.00	988.53	70.00	15117.70	70.00
Equity	6055.36	30.00	423.66	30.00	6479.02	30.00
Total	20184.53	100.00	1412.19	100.00	21596.72	100.00

Return on Equity ("ROE")

20. 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:

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 maybe, 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 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
2009-10	16.995%
2010-11	19.931%
2011-12	20.008%
2012-13	20.008%
2013-14	20.961%

22. The petitioner has claimed additional ROE of 0.5% as the instant asset was commissioned with the timeline of 28 months specified in 2009 Tariff Regulations. Additional ROE of 0.5% was allowed in Petition No.83/TT/2011. The relevant extract of the order is as follows:-

“9. The investment approval for the transmission asset was granted in February, 2009 and the transmission asset was scheduled to be commissioned within 28 months, i.e. by June 2011. The transmission asset was commissioned on 1.7.2011, i.e. within 28 months, as specified in the 2009 regulations and hence additional ROE of 0.5%, claimed by the petitioner is allowed.”

23. Further, the petitioner has confirmed, vide affidavit dated 15.2.2016, that the instant asset is the only under the instant scheme. Accordingly, additional RoE of 0.5% has been allowed. The return on equity has been considered by considering additional ROE of 0.5% in addition to base rate of return of 15.50%. The ROE trued up and allowed is as follows:-

(₹ in lakh)			
Return on Equity	2011-12 (pro-rata*)	2012-13	2013-14
As approved vide order dated 24.1.2011	855.68	1189.72	1189.72
Claimed by the petitioner	930.44	1281.83	1310.40
Allowed after true up in this order	930.44	1281.83	1310.40

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 and increase in capital cost due to disallowance of excess initial spares.

Interest on Loan (“IoL”)

24. 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 8.6.2011 in Petition No. 238/2010 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”.

25. 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 given in Annexure-1 to this order. The IoL worked out is as follows:-

(₹ in lakh)			
Interest on Loan	2011-12 (pro-rata*)	2012-13	2013-14
As approved vide Order dated 3.4.2012	948.29	1231.79	1128.87
Claimed by the petitioner	932.31	1202.65	1115.99
Allowed after true up in this order	932.32	1202.65	1115.99

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

26. 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:-

(₹ in lakh)

Depreciation	2011-12 (pro-rata*)	2012-13	2013-14
As approved vide Order dated 3.4.2012	834.78	1160.80	1160.80
Claimed by the petitioner	818.85	1128.22	1139.64
Allowed after true up in this order	818.84	1128.22	1139.64

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

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

27. 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	2011-12 (pro-rata*)	2012-13	2013-14
As approved vide Order dated 3.4.2012	111.68	157.40	166.32
Claimed by the petitioner	111.68	157.40	166.32
Allowed after true up in this order	111.68	157.40	166.32

Interest on Working Capital (“IWC”)

28. 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	2011-12 (pro-rata*)	2012-13	2013-14
As approved vide Order dated 3.4.2012	58.06	79.10	77.47
Claimed by the petitioner	58.92	79.71	79.20
Allowed after true up in this order	58.92	79.71	79.20

(*Pro-rata from 1.7.2011 to 31.3.2012)

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

29. 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	2011-12 (Pro-rata*)	2012-13	2013-14
Depreciation			
Opening Gross Block	20184.53	21164.38	21558.92
Additional Capitalisation	979.85	394.54	37.80
Closing Gross Block	21164.38	21558.92	21596.72
Average Gross Block	20674.46	21361.65	21577.82
Rate of Depreciation (%)	5.28	5.28	5.28
Depreciable Value	18607.01	19666.42	19597.58
Balance useful life of the asset	35.00	34.00	33.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	18607.01	18406.64	17472.97
Depreciation during the year	818.84	1128.22	1139.64
Cumulative depreciation (incl. of AAD)	818.84	1947.07	3086.71
Interest on Loan			
Gross Normative Loan	14129.17	14815.07	15091.24
Cumulative Repayments upto Previous Year	0.00	818.84	1947.07
Net Loan-Opening	14129.17	13996.22	13144.18
Additions	685.90	276.18	26.46
Repayment during the year	818.84	1128.22	1139.64
Net Loan-Closing	13996.22	13144.18	12031.00
Average Loan	14062.70	13570.20	12587.59

Particulars	2011-12 (Pro-rata*)	2012-13	2013-14
Weighted Average Rate of Interest on Loan (%)	8.8396	8.8624	8.8658
Interest on Loan	1243.09	1202.65	1115.99
Return on Equity			
Opening Equity	6055.36	6349.31	6467.68
Additions	293.96	118.36	11.34
Closing Equity	6349.31	6467.68	6479.02
Average Equity	6202.34	6408.50	6473.35
Return on Equity (Base Rate) (%)	16.000	16.000	16.000
MAT Rate for respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	20.002	20.002	20.243
Return on Equity	930.44	1281.83	1310.40
Interest on Working Capital			
O & M Expenses	12.41	13.12	13.86
Maintenance Spares	22.34	23.61	24.95
Receivables	633.82	641.63	635.26
Total Working Capital	668.57	678.36	674.07
Rate of Interest (%)	11.75	11.75	11.75
Interest of working capital	78.56	79.71	79.20
Annual Transmission Charges			
Depreciation	818.84	1128.22	1139.64
Interest on Loan	932.32	1202.65	1115.99
Return on Equity	930.44	1281.83	1310.40
Interest on Working Capital	58.92	79.71	79.20
O & M Expenses	111.68	157.40	166.32
Total	2852.20	3849.80	3811.56

(*Pro-rata from 1.7.2011 to 31.3.2012)

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

30. 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	1140.64	1140.64	1140.64	1140.64	1140.64
Interest on Loan	1016.23	915.35	814.20	713.03	611.86
Return on Equity	1311.54	1311.54	1311.54	1311.54	1311.54
Interest on Working Capital	88.13	86.09	84.04	82.01	79.99
O & M Expenses	150.18	155.27	160.37	165.68	171.21
Total	3706.72	3608.89	3510.79	3412.90	3315.24

31. 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	12.52	12.94	13.36	13.81	14.27
Maintenance Spares	22.53	23.29	24.06	24.85	25.68
Receivables	617.79	601.48	585.13	568.82	552.54
Total working capital	652.84	637.71	622.55	607.48	592.49
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	88.13	86.09	84.04	82.01	79.99

Capital Cost

32. 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:

- (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.”

“(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;”

33. The capital cost of ₹21596.72 lakh worked out 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

34. The petitioner has not projected any additional capital expenditure during the 2014-19 tariff period.

Debt: Equity

35. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provide 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.”

36. The petitioner has considered the debt:equity ratio of 70:30 as on 31.3.2014, which is in line with the 2014 Tariff Regulations. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

(₹ in lakh)

Funding	Total Cost as on 1.4.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	15117.70	70.00	0	0.00	15117.70	70.00
Equity	6479.02	30.00	0	0.00	6479.02	30.00
Total	21596.72	100.00	0	0.00	21596.72	100.00

Return on Equity (“ROE”)

37. 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.”

38. 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	6479.02	6479.02	6479.02	6479.02	6479.02
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	6479.02	6479.02	6479.02	6479.02	6479.02
Average Equity	6479.02	6479.02	6479.02	6479.02	6479.02
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000	16.000
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	20.243	20.243	20.243	20.243	20.243
Return on Equity	1311.55	1311.55	1311.55	1311.55	1311.55

Interest on Loan (“IoL”)

39. 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.”

40. 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 and the 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	15117.70	15117.70	15117.70	15117.70	15117.70
Cumulative Repayment upto Previous Year	3086.71	4227.35	5367.99	6508.63	7649.27
Net Loan-Opening	12031.00	10890.36	9749.71	8609.07	7468.43
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1140.64	1140.64	1140.64	1140.64	1140.64
Net Loan-Closing	10890.36	9749.71	8609.07	7468.43	6327.79
Average Loan	11460.68	10320.03	9179.39	8038.75	6898.11
Weighted Average Rate of Interest on Loan (%)	8.8671	8.8696	8.8699	8.8699	8.8700
Interest on Loan	1016.23	915.35	814.20	713.03	611.86

Depreciation

41. 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 up to 31.3.2014 from the gross depreciable value of the assets.”

42. 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 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	21596.72	21596.72	21596.72	21596.72	21596.72
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	21596.72	21596.72	21596.72	21596.72	21596.72
Average Gross Block	21596.72	21596.72	21596.72	21596.72	21596.72
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Elapsed life	3	4	5	6	7
Balance Useful life of the asset	32	31	30	29	28
Remaining Depreciable Value	16350.34	15209.70	14069.06	12928.42	11787.77
Depreciation during the year	1140.64	1140.64	1140.64	1140.64	1140.64
Cumulative depreciation	4227.35	5367.99	6508.63	7649.27	8789.92

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
Line: S/C (Twin/Triple Conductor)					
Line length (in km)	0.973	0.973	0.973	0.973	0.973
Norms (₹ lakh/km)	0.404	0.418	0.432	0.446	0.461
Line: D/C Twin/Triple Conductor					
Line length (in km)	211.858	211.858	211.858	211.858	211.858
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
Total O&M Expenses (₹ lakh)	150.18	155.27	160.37	165.68	171.21

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	12.51	12.94	13.36	13.81	14.27
Maintenance Spares	22.53	23.29	24.06	24.85	25.68
Receivables	617.79	601.48	585.13	568.82	552.54
Total	652.83	637.71	622.56	607.48	592.49
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	88.13	86.09	84.04	82.01	79.99

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	21596.72	21596.72	21596.72	21596.72	21596.72
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	21596.72	21596.72	21596.72	21596.72	21596.72
Average Gross Block	21596.72	21596.72	21596.72	21596.72	21596.72
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	19454.06	19437.05	19437.05	19437.05	19437.05
Balance useful life of the asset	32.00	31.00	30.00	29.00	28.00
Elapsed life	3.00	4.00	5.00	6.00	7.00
Remaining Depreciable Value	16350.34	15209.70	14069.06	12928.42	11787.77
Depreciation during the year	1140.64	1140.64	1140.64	1140.64	1140.64
Cumulative depreciation (incl. of AAD)	4227.35	5367.99	6508.63	7649.27	8789.92

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Loan					
Gross Normative Loan	15117.70	15117.70	15117.70	15117.70	15117.70
Cumulative Repayments upto Previous Year	3086.71	4227.35	5367.99	6508.63	7649.27
Net Loan-Opening	12031.00	10890.36	9749.71	8609.07	7468.43
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1140.64	1140.64	1140.64	1140.64	1140.64
Net Loan-Closing	10890.36	9749.71	8609.07	7468.43	6327.79
Average Loan	11460.68	10320.03	9179.39	8038.75	6898.11
Weighted Average Rate of Interest on Loan (%)	8.8671	8.8696	8.8699	8.8699	8.8700
Interest on Loan	1016.23	915.35	814.20	713.03	611.86
Return on Equity					
Opening Equity	6479.02	6479.02	6479.02	6479.02	6479.02
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	6479.02	6479.02	6479.02	6479.02	6479.02
Average Equity	6479.02	6479.02	6479.02	6479.02	6479.02
Return on Equity (Base Rate)(%)	16.000	16.000	16.000	16.000	16.000
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	20.243	20.243	20.243	20.243	20.243
Return on Equity	1311.55	1311.55	1311.55	1311.55	1311.55
Interest on Working Capital					
O & M Expenses	12.51	12.94	13.36	13.81	14.27
Maintenance Spares	22.53	23.29	24.06	24.85	25.68
Receivables	617.79	601.48	585.13	568.82	552.54
Total Working Capital	652.83	637.71	622.56	607.48	592.49
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	88.13	86.09	84.04	82.01	79.99
Annual Transmission Charges					
Depreciation	1140.64	1140.64	1140.64	1140.64	1140.64
Interest on Loan	1016.23	915.35	814.20	713.03	611.86
Return on Equity	1311.55	1311.55	1311.55	1311.55	1311.55
Interest on Working Capital	88.13	86.09	84.04	82.01	79.99
O & M Expenses	150.18	155.27	160.37	165.68	171.21
Total	3706.73	3608.90	3510.81	3412.91	3315.24

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 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.406/TT/2014.

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

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



Annexure – 1

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXIX DOCO DRAWAL on 1-Jul-2011	9.20	1650.00	0.00	1650.00
BOND XXX DOCO DRAWAL on 1-Jul-2011	8.80	2957.00	0.00	2957.00
BOND XXXI DOCO DRAWAL on 1-Jul-2011	8.90	2845.00	0.00	2845.00
BOND XXXIII DOCO DRAWAL on 1-Jul-2011	8.64	5000.00	0.00	5000.00
BOND XXXIV DOCO DRAWAL on 1-Jul-2011	8.84	1585.00	0.00	1585.00
BOND XXXV - Add cap for 2011-12 Add cap -1	9.64	0.00	685.90	685.90
BOND XXXV - Add cap for 2011-12 Add cap -2	9.64	0.00	131.94	131.94
BOND XXXV - DOCO Drawal on 1-Jul-2011	9.64	92.16	0.00	92.16
BOND XXXVI - Add cap for 2012-13 Add cap -3	9.35	0.00	144.24	144.24
BOND XXXVI - Add cap for 2013-14 Add cap -4	9.35	0.00	26.46	26.46
Total		14129.16	988.54	15117.70

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

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Gross Opening Loan	14129.16	14815.06	15091.24
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	137.50
Net Loans Opening	14129.16	14815.06	14953.74
Add: Draw(s) during the Year	685.90	276.18	26.46
Less: Repayments of Loan during the year	0.00	137.50	621.00
Net Closing Loan	14815.06	14953.74	14359.20
Average Net Loan	14472.11	14884.40	14656.47
Rate of Interest on Loan (%)	8.8396	8.8624	8.8658
Interest on Loan	1279.28	1319.12	1299.41



Annexure – 2

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXIX DOCO DRAWAL on 1-Jul-2011	9.20	1650.00	0.00	1650.00
BOND XXX DOCO DRAWAL on 1-Jul-2011	8.80	2957.00	0.00	2957.00
BOND XXXI DOCO DRAWAL on 1-Jul-2011	8.90	2845.00	0.00	2845.00
BOND XXXIII DOCO DRAWAL on 1-Jul-2011	8.64	5000.00	0.00	5000.00
BOND XXXIV DOCO DRAWAL on 1-Jul-2011	8.84	1585.00	0.00	1585.00
BOND XXXV - Add cap for 2011-12 Add cap -1	9.64	685.90	0.00	685.90
BOND XXXV - Add cap for 2011-12 Add cap -2	9.64	131.94	0.00	131.94
BOND XXXV - DOCO Drawal on 1-Jul-2011	9.64	92.16	0.00	92.16
BOND XXXVI - Add cap for 2012-13 Add cap -3	9.35	144.24	0.00	144.24
BOND XXXVI - Add cap for 2013-14 Add cap -4	9.35	26.46	0.00	26.46
Total		15117.70	0.00	15117.70

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	15117.70	15117.70	15117.70	15117.70	15117.70
Cumulative Repayments of Loans upto Previous Year	758.50	1928.25	3173.84	4430.81	5687.78
Net Loans Opening	14359.20	13189.45	11943.86	10686.89	9429.92
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	1169.75	1245.59	1256.97	1256.97	1256.97
Net Closing Loan	13189.45	11943.86	10686.89	9429.92	8172.95
Average Net Loan	13774.33	12566.66	11315.38	10058.41	8801.44
Rate of Interest on Loan (%)	8.8671	8.8696	8.8699	8.8699	8.8700
Interest on Loan	1221.38	1114.61	1003.66	892.17	780.69

