

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.120/TT/2015

Coram:

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

**Date of Hearing: 27.01.2016
Date of Order : 16.02.2016**

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 Thermal Powertech Corporation India Ltd. Switchyard to Nellore Pooling Station 400 kV D/C (quad) Line along with associated bay extensions at Nellore Pooling Station under "Transmission System for connectivity of Thermal Powertech Corporation India Ltd." 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. Karnataka Power Transmission Corporation Ltd.,(KPTCL),
Kaveri Bhavan,
Bangalore - 560009.
2. Transmission Corporation of Andhra Pradesh Ltd. (APTRANSCO),
Vidyut Soudha,
Hyderabad-500082
3. Kerala State Electricity Board (KSEB)
Vaidyuthi Bhavanam
Pattom, Thiruvananthapuram-695004



4. Tamil Nadu Electricity Board (TNEB)
NPKRR Maaligai, 800, Anna Salai
Chennai-600002
5. Electricity Department,
Government of Goa
Vidyuti Bhawan, Panaji,
Goa - 403001.
6. Electricity Department,
Government of Pondicherry,
Pondicherry - 605001.
7. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL),
APEPDCL, P & T Colony
Seethmmadhara, Vishakhapatnam
Andhra Pradesh
8. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL),
Srinivasasa Kalyana Mandapam Backside,
Tiruchanorr Road, KesavayanaGunta
Tirupati 517501
Chitoor District, Andhra Pradesh
9. Central Power distribution Company of Andhra Pradesh Limited (APCPDCL).,
Corporate Office , Mint Compound,
Hyderabad - 500063.
10. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)
Opp. NIT Petrol Pump,
Chaitanyapuri, Kazipet, Warangal-506004
Andhra Pradesh
11. Bangalore Electricity Supply Company Ltd. (BESCOM)
Corporate Office, K.R.Circle,
Bangalore – 560 001.
12. Gulbarga Electricity Supply Company Ltd., (GESCOM)
Station Main Road, Gulbarga
Karnataka.
13. Hubli Electricity Supply Company Ltd. (HESCOM),
Navanagar, PB Road,
Hubli, Karnataka
14. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
Mangalore-575001



Karnataka

15. Chamundeswari Electricity Supply Corporation. (CESC),
#927, L J Avenue,
Ground Floor, New Kantharaj Urs Road
Saraswatipuram, Mysore-570009
Karnataka

16. Thermal Powertech Corporation India
6-3-1090, C-Block TSR Towers,
Raj Bhawan Road
Somajiguda, Hyderabad -500 082

.....Respondents

The following were present:

For Petitioner: Shri S.K Venkatesan, PGCIL
Shri S.S. Raju, PGCIL
Smt. Sangeeta Edwards, PGCIL
Shri S.C. Taneja, PGCIL
Shri Jasbir Singh, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Anshul Garg, PGCIL

For Respondents: Shri S.Vallinayagam, Advocate, TANGEDCO
Shri R. Katihraavan, Advocate, TANGEDCO

ORDER

The petition has been filed 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 1.4.2009 to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of Thermal Powertech Corporation India Ltd. Switchyard to Nellore Pooling Station 400 kV



D/C (quad) Line along with associated bay extensions at Nellore Pooling Station under “Transmission System for connectivity of Thermal Powertech Corporation India Ltd.” (hereinafter referred to as “the transmission asset”).

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

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

a) Investment Approval (IA) to the transmission project was accorded by the Board of Directors of POWERGRID vide memorandum Ref. No. C/CP/Thermal PowerTech dated 9.2.2012 for ₹9736 lakh including an IDC of ₹509 lakh based on 4th quarter, 2011 price level. The transmission assets were commissioned on 1.9.2013.

b) The Commission allowed the tariff for the 2009-14 tariff period in its order dated 26.12.2014 in Petition No. 102/TT/2013, while doing so the petitioner’s prayer for additional RoE of 0.5% was disallowed. The petitioner filed Review Petition No. 04/RP/2015. The petitioner’s prayer for additional RoE of 0.5% was allowed vide order dated 10.11.2015.

c) Accordingly, the order dated 26.12.2014 in Petition No. 102/TT/2013 was revised vide order dated 7.12.2015 based on admitted capital cost of ₹6927.20 lakh of the transmission asset. The estimated additional capital expenditure ₹1452.69 lakh towards balance and retention payments during 2013-14 was considered for determination of tariff for 2009-14 tariff period.



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
		2013-14	
9736.00	6927.20	1452.69	8379.89

The annual fixed charges was revised vide order dated 7.12.2015 in Petition No. 102/TT/2013 based on the above capital cost and estimated additional capital expenditure for the transmission assets during 2009-14 as given below:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14 (pro-rata*)
Depreciation	-	-	-	-	236.36
Interest on Loan	-	-	-	-	284.47
Return on Equity	-	-	-	-	271.13
Interest on Working Capital	-	-	-	-	23.14
O & M Expenses	-	-	-	-	98.58
Total	-	-	-	-	913.68

(*Pro-rata from 1.9.2013 to 31.3.2014)

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 on 21.4.2015, 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. TANGEDCO, Respondent no. 4, has filed a reply to the petition vide affidavit dated 21.1.2016. The petitioner has filed a rejoinder to the same vide affidavit dated 9.2.2016. The hearing in this matter was held on 27.1.2016. The petitioner was directed to submit the details in respect of the additional capital expenditure, undischarged liabilities and actual equity infused during 2009-14 and 2014-19 tariff periods which has been submitted by the petitioner through affidavit dated 5.2.2016.

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 has claimed capital cost of ₹6927.20 lakh as on actual COD i.e. 1.9.2013 in respect of the transmission asset for the purpose of tariff determination.

11. Clause 1 of Regulation 7 of the 2009 Tariff Regulations provides that:-

“(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. Accordingly, the capital cost of ₹6927.20 lakh admitted by the Commission as on COD i.e. 1.9.2013 vide order date 7.12.2015 in Petition No. 102/TT/2013 has been considered as opening capital cost on 1.4.2009 for truing up tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

IED and IEDC

13. The petitioner initially in Petition No. 102/TT/2013 claimed IDC and IEDC of ₹434.86 lakh and ₹293.63 lakh respectively, on projected basis. In the instant petition,



the petitioner has claimed the actual IDC and IEDC of ₹705.51 lakh and ₹184.09 lakh respectively. The actual IDC and IEDC claimed by the petitioner have been considered for the purpose of truing up of tariff of the 2009-14 tariff period.

Additional Capital Expenditure

14. 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”

15. Regulation 9(1) of the 2009 Regulations provides that:-

“(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;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;

(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.”

16. The petitioner has submitted that it has actually incurred an additional capital expenditure of ₹1522.95 lakh during 2009-14 towards balance and retention payments for the works completed before the cut-off date, as depicted below:-

	Capital cost as on COD	Additional capital expenditure 2013-14	Capital cost as on 31.3.2014
Approved vide order dated 7.12.2015	6927.20	1452.69	8379.89
Actual Claimed	6927.20	1522.95	8450.15

(₹in lakh)



17. The petitioner has claimed additional capital expenditure before the cut-off date under Regulation 9(1)(i). We have considered the submissions of the petitioner with regard to the 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 21.4.2015. Further, the completion 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 under Regulation 9(1)(i) read with Regulation 6 of the 2009 Tariff Regulations.

Initial Spares

18. 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	2.50%
Series compensation devices & HVDC Station:	3.50%”

19. The petitioner has capitalized the initial spares of ₹47.00 lakh and ₹25.00 lakh for transmission line and sub-station respectively. In view of the change in the additional capital expenditure, the admissible initial spares has been reviewed as under:-

Particulars	Logical Formula	₹ in lakh	
		Substation: Amount	Transmission Lines: Amount
Capital cost as on cut-off date	(a)	1708.51	7073.21
Capital Cost after deducting excess IDC	(b)	1708.51	7073.21
Initial Spares claimed*	(c)	25.00	47.00
Proportionate Initial Spares claimed after deducting IDC	(d) = (c)/(a) * (b)	25.00	47.00



Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%	0.75%
Initial spares worked out	$(f) = ((b-d)*e)/(100\%-e)$	43.17	53.09
Excess initial spares claimed	$(g) = (d)-(f)$	00.00	00.00

*Initial Spares claimed, considered as per Order dated 26.12.2014 in petition no. 102/TT/2013.

The initial spares claimed by the petitioner are within the ceiling limit specified as per 2009 Tariff Regulations and same has been allowed.

Debt: Equity

20. 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.”

21. The debt:equity ratio admitted by the Commission vide revised order dated 7.12.2015 in Petition No. 102/TT/2013 as on actual COD has been considered for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations. The petitioner was directed to confirm that actual equity corresponding to additional capital expenditure is not less than 30%. In response, the petitioner vide



affidavit dated 5.2.2016, has submitted that the actual equity infusion during 2009-14 period is not less than 30%.

22. 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	4849.04	70.00	1066.07	70.00	5915.11	70.00
Equity	2078.16	30.00	456.88	30.00	2535.05	30.00
Total	6927.20	100.00	1522.95	100.00	8450.15	100.00

Return on Equity (“ROE”)

23. 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.”



24. 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

25. The petitioner has claimed for an additional ROE of 0.5% for commissioning the instant asset with the timeline specified in the 2009 Tariff Regulations in Petition No. 120/TT/2013. Though the petitioner's prayer was disallowed initially, the same was allowed in a review petition filed by the petitioner as discussed in para 13 above. Accordingly, the tariff for 2009-14 is trued up considering the additional RoE of 0.5% allowed in the review petition.

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

Return on Equity	(₹ in lakh)
	2013-14 (pro-rata)
Approved vide revised order dated 7.12.2015	271.13
Claimed by the petitioner	272.37
Allowed after truing up in this order	272.37

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 due to actual additional capital expenditure.



Interest on Loan (“IoL”)

27. 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”.

28. 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:-

	(₹in lakh)
Interest on Loan	2013-14 (pro-rata)
Approved vide revised order dated 7.12.2015	284.47
Claimed by the petitioner	290.57
Allowed after truing up in this order	290.57

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

29. 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	2013-14 (pro-rata)
Approved vide revised order dated 7.12.2015	236.36
Claimed by the petitioner	237.45
Allowed after truing up in this order	237.45

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”)

30. 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	2013-14 (pro-rata)
Approved vide revised order dated 7.12.2015	98.58
Claimed by the petitioner	98.58
Allowed after truing up in this order	98.58

Interest on Working Capital (“IWC”)

31. 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	2013-14 (pro-rata)
Approved vide revised order dated 7.12.2015	23.14
Claimed by the petitioner	23.33
Allowed after truing up in this order	23.33

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

32. 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	2013-14 (pro-rata)
Depreciation	
Opening Gross Block	6927.20
Additional Capitalisation	1,522.95
Closing Gross Block	8450.15
Average Gross Block	7688.68
Rate of Depreciation (%)	5.29
Depreciable Value	6919.81
Balance Useful life of the asset	34
Elapsed Life	-
Remaining Depreciable Value	685.33
Depreciation during the year	237.45
Depreciation upto previous year	0.00
Cumulative depreciation (incl. of AAD)	237.45
Interest on Loan	
Gross Normative Loan	4849.04
Cumulative Repayment upto Previous Year	0.00
Net Loan-Opening	4849.04
Additions	1066.07
Repayment during the year	237.45
Net Loan-Closing	5677.66



Particulars	2013-14 (pro-rata)
Average Loan	5263.35
Weighted Average Rate of Interest on Loan (%)	9.4644
Interest on Loan	290.58
Return on Equity	
Opening Equity	2078.16
Additions	456.89
Closing Equity	2535.05
Average Equity	2306.60
Return on Equity (Base Rate) (%)	16.00
MAT rate for the respective year (%)	20.961
Rate of Return on Equity (%)	20.243
Return on Equity	272.37
Interest on Working Capital	
O & M expenses	14.08
Maintenance Spares	25.35
Receivables	263.52
Total	302.95
Rate of Interest (%)	13.20
Interest on Working Capital	23.33
Annual Transmission Charges	
Depreciation	237.45
Interest on Loan	290.58
Return on Equity	272.37
Interest on Working Capital	23.33
O & M Expenses	98.58
Total	922.31

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	451.23	459.99	464.77	464.77	464.77
Interest on Loan	525.25	493.28	455.31	410.72	366.2
Return on Equity	517.73	527.8	533.3	533.3	533.3
Interest on Working Capital	42.96	42.94	42.60	41.87	41.16
O & M Expenses	155.04	160.18	165.48	171.00	176.66
Total	1692.21	1684.19	1661.46	1621.66	1582.09



34. 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	12.91	13.34	13.78	14.24	14.72
Maintenance Spares	23.26	24.03	24.82	25.65	26.50
Receivables	282.04	280.70	276.91	270.28	263.68
Total	318.21	318.07	315.52	310.17	304.90
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	42.96	42.94	42.59	41.87	41.16

Capital Cost

35. 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;”

36. The capital cost of ₹8450.15 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

37. Clause (3) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

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



- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;
- (iv) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments.”

38. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines “cut-off” as follows:-

“Cut - off Date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut - off date shall be 31st March of the year closing after three years of the year of commercial operation.”

39. The petitioner has claimed additional capital expenditure of ₹331.57 lakh for 2014-19 tariff period on account of balance and retention payments within the cut-off date of 31.3.2016, under Regulation 9(1)(i) of the 2014 Tariff Regulations.

40. TANGEDCO has submitted that the petitioner has claimed only ₹1457.28 lakh as additional capital expenditure for the year 2013-14 towards balance and retention payment. The respondent has submitted that the petitioner has not placed the details of the excess additional capital expenditure of ₹397.39 lakh claimed by it. TANGEDCO has requested the Commission to reject the petitioner’s claim of additional capital expenditure during the years 2014-15 and 2015-16. Further, learned counsel for TANGEDCO during the hearing submitted that petitioner should have submitted the details of additional capital expenditure atleast in the review petition as the same should have been finalised at the time of filing the review petition. In response, the petitioner

vide affidavit dated 10.2.2016 has submitted that the details of additional capital expenditure beyond 31.3.2014 cannot be considered in the 2009-14 period and hence the same was not filed in the review petition. The petitioner, vide affidavit dated 5.2.2016, has further submitted that additional capital expenditure of ₹181.22 lakh was projected during 2015-16 as balance and retention payments vide Auditor Certificate dated 21.4.2015 and the same is yet to be discharged. This amount is subject to trueing up during 2014-19 period as per 2014 Tariff Regulations.

41. We have considered the submissions of the petitioner with regard to the projected additional capital expenditure during 2014-19. The additional capital expenditure claimed is towards balance and retention payments for works executed before the cut-off date and the same has been certified by the Auditor vide Certificate dated 21.4.2015. Further, the total estimated cost as on 31.3.2019 is within the approved cost of the project. Thus, the same is allowed for the purpose of computation of tariff in accordance with Regulation 14(3)(v) of the 2014 Tariff Regulations, subject to true-up on actual basis.

42. Accordingly, the capital cost including the additional capital expenditure during 2014-19 tariff period considered for the purpose of computation of tariff is as follows:-

Capital cost as on 1.4.2014	Additional capital expenditure during 2014-19			Capital cost as on 31.3.2019
	2014-15	2015-16	Total	
8450.15	150.35	181.22	331.57	8781.72

(₹ in lakh)

Debt: Equity

43. 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.”

44. 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 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	5915.11	70.00	232.10	70.00	6147.20	70.00
Equity	2535.05	30.00	99.47	30.00	2634.52	30.00
Total	8450.15	100.00	331.57	100.00	8781.72	100.00

Return on Equity (“ROE”)

45. 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.”

46. 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 additional ROE of 0.5% has been allowed to the petitioner. 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	2535.05	2580.15	2634.52	2634.52	2634.52
Additions	45.11	54.37	-	-	-
Closing Equity	2580.15	2634.52	2634.52	2634.52	2634.52
Average Equity	2557.60	2607.33	2634.52	2634.52	2634.52
Return on Equity (Base Rate) (%)	16.00	16.00	16.00	16.00	16.00
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	517.74	527.80	533.31	533.31	533.31

Interest on Loan (“IoL”)

47. 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.”



48. 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	5915.11	6020.35	6147.20	6147.20	6147.20
Cumulative Repayment upto Previous Year	237.45	688.67	1148.65	1613.42	2078.18
Net Loan-Opening	5677.66	5331.68	4998.55	4533.79	4069.02
Additions	105.25	126.85	0.00	0.00	0.00
Repayment during the year	451.23	459.98	464.76	464.76	464.76
Net Loan-Closing	5331.68	4998.55	4533.79	4069.02	3604.26
Average Loan	5504.67	5165.11	4766.17	4301.40	3836.64
Weighted Average Rate of Interest on Loan (%)	9.5419	9.5503	9.5529	9.5486	9.5449
Interest on Loan	525.25	493.29	455.31	410.73	366.20

Depreciation

49. 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.”

50. 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	8450.15	8600.50	8781.72	8781.72	8781.72
Additional Capitalisation	150.35	181.22	-	-	-
Closing Gross Block	8600.50	8781.72	8781.72	8781.72	8781.72
Average Gross Block	8525.33	8691.11	8781.72	8781.72	8781.72
Rate of Depreciation	5.29	5.29	5.29	5.29	5.29
Depreciable Value	8358.12	7889.66	7985.10	7903.55	7903.55
Balance Useful life of the asset	33	32	31	30	29
Elapsed Life	1	2	3	4	5
Remaining Depreciable Value	7435.35	7133.33	6754.89	6290.13	5825.37
Depreciation during the year	451.23	459.98	464.76	464.76	464.76
Depreciation upto previous year	237.45	688.67	1148.65	1613.42	2078.18
Cumulative depreciation (incl. of AAD)	688.67	1148.65	1613.42	2078.18	2542.95

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

51. 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
Transmission Line:					
D/C (Bundled) (km)	32.431	32.431	32.431	32.431	32.431
Norms (₹ lakh/km)	1.062	1.097	1.133	1.171	1.21
Total O&M Expenses (₹ lakh)	98.58	155.04	160.18	165.48	171.00

52. 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. TANGEDCO has submitted that O&M norms for the 2009-14 tariff period have been finalised after taking into consideration the comments of the stakeholders including the petitioner and there is no need to relax the O&M norms and the O&M Expenses should be allowed as per the norms specified in the 2014 tariff Regulations. 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)

53. 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;”

54. 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%.

55. 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	12.91	13.34	13.78	14.24	14.72
Maintenance Spares	23.26	24.03	24.82	25.65	26.50
Receivables	282.04	280.70	276.91	270.28	263.68
Total	318.21	318.07	315.52	310.17	304.90
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	42.96	42.94	42.59	41.87	41.16

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

56. 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	8450.15	8600.50	8781.72	8781.72	8781.72



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Additional Capitalisation	150.35	181.22	-	-	-
Closing Gross Block	8600.50	8781.72	8781.72	8781.72	8781.72
Average Gross Block	8525.33	8691.11	8781.72	8781.72	8781.72
Rate of Depreciation (%)	5.29	5.29	5.29	5.29	5.29
Depreciable Value	8358.12	7889.66	7985.10	7903.55	7903.55
Balance Useful life of the asset	33	32	31	30	29
Elapsed Life	1	2	3	4	5
Remaining Depreciable Value	7435.35	7133.33	6754.89	6290.13	5825.37
Depreciation during the year	451.23	459.98	464.76	464.76	464.76
Depreciation upto previous year	237.45	688.67	1148.65	1613.42	2078.18
Cumulative depreciation (incl. of AAD)	688.67	1148.65	1613.42	2078.18	2542.95
Interest on Loan					
Gross Normative Loan	5915.11	6020.35	6147.20	6147.20	6147.20
Cumulative Repayment upto Previous Year	237.45	688.67	1148.65	1613.42	2078.18
Net Loan-Opening	5677.66	5331.68	4998.55	4533.79	4069.02
Additions	105.25	126.85	0.00	0.00	0.00
Repayment during the year	451.23	459.98	464.76	464.76	464.76
Net Loan-Closing	5331.68	4998.55	4533.79	4069.02	3604.26
Average Loan	5504.67	5165.11	4766.17	4301.40	3836.64
Weighted Average Rate of Interest on Loan (%)	9.5419	9.5503	9.5529	9.5486	9.5449
Interest on Loan	525.25	493.29	455.31	410.73	366.20
Return on Equity					
Opening Equity	2535.05	2580.15	2634.52	2634.52	2634.52
Additions	45.11	54.37	-	-	-
Closing Equity	2580.15	2634.52	2634.52	2634.52	2634.52
Average Equity	2557.60	2607.33	2634.52	2634.52	2634.52
Return on Equity (Base Rate) (%)	16.00	16.00	16.00	16.00	16.00
MAT rate for the 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	517.74	527.80	533.31	533.31	533.31
Interest on Working Capital					
O & M expenses	12.91	13.34	13.78	14.24	14.72
Maintenance Spares	23.26	24.03	24.82	25.65	26.50
Receivables	282.04	280.70	276.91	270.28	263.68
Total	318.21	318.07	315.52	310.17	304.90
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on working capital	42.96	42.94	42.59	41.87	41.16
Annual Transmission Charges					
Depreciation	451.23	459.99	464.76	464.76	464.76
Interest on Loan	525.25	493.29	455.31	410.73	366.20
Return on Equity	517.74	527.80	533.31	533.31	533.31
Interest on Working Capital	42.96	42.94	42.59	41.87	41.16
O & M Expenses	155.04	160.18	165.48	171.00	176.66
Total	1692.21	1684.19	1661.46	1621.67	1582.10

Deferred Tax Liability

57. 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. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same gets materialized directly from the beneficiaries or long term transmission customers /DICs.

Filing Fee and the Publication Expenses

58. 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

59. 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

60. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. TANGEDCO has submitted that the same may not be allowed as it is unreasonable. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

61. 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.

62. This order disposes of Petition No.120/TT/2015.

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 1.4.2009/DOCO	Additions during the tariff period	Total
BOND XXVIII-doco-	9.33	70.00	0.00	70.00
BOND XXIX-doco-	9.20	77.00	0.00	77.00
BOND XXXII-doco-	8.84	95.00	0.00	95.00
BOND-XXXIV-doco-	8.84	535.00	0.00	535.00
BOND-XXXV-doco-	9.64	43.00	0.00	43.00
BOND XXXVI-doco-	9.35	205.00	0.00	205.00
BOND XXXVII-doco-	9.25	678.00	0.00	678.00
BOND XXXIX-doco-	9.40	947.00	0.00	947.00
SBI (21.03.2012)-ADDCAP FOR 2013-2014 add cap-	10.18	0.00	984.66	984.66
SBI (21.03.2012)-doco-	10.18	1050.00	0.00	1050.00
BOND XL-doco-	9.30	700.00	0.00	700.00
BOND - XLI-doco-	8.85	437.00	0.00	437.00
BOND - XLIII-ADDCAP FOR 2013-2014 add cap-	7.93	0.00	81.41	81.41
BOND - XLIII-doco-	7.93	12.04	0.00	12.04
Total		4849.04	1066.07	5915.11

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

(₹in lakh)

Particulars	2013-14
Gross Opening Loan	4849.04
Cumulative Repayments of Loans upto Previous Year	12.25
Net Loans Opening	4836.79
Add: Draw(s) during the Year	1066.07
Less: Repayments of Loan during the year	20.17
Net Closing Loan	5882.69
Average Net Loan	5359.74
Rate of Interest on Loan (%)	9.4644%
Interest on Loan	507.24

*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 XXVIII-doco-	9.33	70.00	0.00	70.00
BOND XXIX-doco-	9.20	77.00	0.00	77.00
BOND XXXII-doco-	8.84	95.00	0.00	95.00
BOND-XXXIV-doco-	8.84	535.00	0.00	535.00
BOND-XXXV-doco-	9.64	43.00	0.00	43.00
BOND XXXVI-doco-	9.35	205.00	0.00	205.00
BOND XXXVII-doco-	9.25	678.00	0.00	678.00
BOND XXXIX-doco-	9.40	947.00	0.00	947.00
SBI (21.03.2012)-ADDCAP FOR 2013-2014 add cap-	10.18	984.66	0.00	984.66
SBI (21.03.2012)-doco-	10.18	1050.00	0.00	1050.00
BOND XL-doco-	9.30	700.00	0.00	700.00
BOND - XLI-doco-	8.85	437.00	0.00	437.00
BOND - XLIII-ADDCAP FOR 2013-2014 add cap-	7.93	81.41	0.00	81.41
BOND - XLIII-doco-	7.93	12.04	0.00	12.04
Total		5915.11	0.00	5915.11

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	5915.11	5915.11	5915.11	5915.11	5915.11
Cumulative Repayments of Loans up to Previous Year	32.42	97.17	222.00	640.21	1066.20
Net Loans Opening	5882.69	5817.94	5693.11	5274.90	4848.91
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	64.75	124.83	418.21	425.99	425.99
Net Closing Loan	5817.94	5693.11	5274.90	4848.91	4422.92
Average Net Loan	5850.32	5755.53	5484.01	5061.91	4635.92
Rate of Interest on Loan (%)*	9.5419	9.5503	9.5529	9.5486	9.5449
Interest on Loan	558.23	549.67	523.88	483.34	442.49

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

