

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 145/TT/2016

Coram:

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

**Date of Hearing: 5.10.2016
Date of Order : 21.10.2016**

In the Matter of:

Truing up of transmission tariff of 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 provision of Spare ICTs and Reactor for Southern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the Matter of:

Power Grid Corporation of India Ltd,
SAUDAMINI, Plot No.-2, Sector-29,
Gurgaon-122001 (Haryana)

.....Petitioner

Versus

1. Karnataka Power Transmission Corporation Limited,
(KPTCL), Kaveri Bhawan, Bangalore – 560009
2. Transmission Corporation of Andhra Pradesh Limited,
(APTRANSCO), Vidyut Soudha,
Hyderabad- 500082
3. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram - 695 004
4. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO),
(Formerly Tamil Nadu Electricity Board - TNEB),



NPKRR Maaligai, 800, Anna Salai,
Chennai - 600 002

5. Electricity Department, Govt. of Pondicherry,
Pondicherry - 605001
6. Eastern Power Distribution Company of Andhra Pradesh Limited,
(APEPDCL) P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh
7. Southern Power Distribution Company of Andhra Pradesh Limited,
(APSPDCL), Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517 501, Chittoor District, Andhra Pradesh
8. Central Power Distribution Company of Andhra Pradesh Limited,
(APCPDCL), Corporate Office, Mint Compound,
Hyderabad - 500 063, Andhra Pradesh
9. Northern Power Distribution Company of Andhra Pradesh Limited,
(APNPDCL), Opp. NIT Petrol Pump,
Chaitanyapuri, Kazipet, Warangal - 506 004, Andhra Pradesh
10. Bangalore Electricity Supply Company Ltd. (BESCOM),
Corporate Office, KR.Circle
Bangalore - 560001, Karnataka
11. Gulbarga Electricity Supply Company Ltd (GESCOM)
Station Main Road, Gulbarga, Karnataka
12. Hubli Electricity Supply Company Ltd, (HESCOM)
Navanagar, PB Road, Hubli, Karnataka
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore – 575001, Karnataka
14. Chamundeswari Electricity Supply Corporation Ltd.,
(CESC), # 927, L J Avenue, Ground Floor,
New Kantharaj Urs Road, Saraswatipuram,
Mysore - 570 009, Karnataka



15. Electricity Department, Government of Goa,
Vidyuti Bhawan, Panaji, Goa - 403001

16. Transmission Corporation of Telangana Limited,
Vidyut Sudha Khairatabad
Hyderabad 50082

....Respondent(s)

The following were present:

For Petitioner: Shri Rakesh Prasad, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.S. Raju, PGCIL
Shri Jasbir Singh, PGCIL
Shri S.K. Venkatasan, PGCIL
Shri T. Vinodh Kumar, PGCIL

For respondents: None

ORDER

This 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 from the date of commercial operation to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 for Spare ICTs and Reactor for Southern Region (hereinafter referred to as “the transmission assets”).

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) The Investment approval (IA) of the project was accorded by Board of Directors of the petitioner vide Memorandum No. C/CP/Spare ICTs & Reactors dated 4.8.2011 at an estimated cost of ₹1890 lakh including IDC of ₹51 lakh (based on 1st Quarter, 2011 price level).The details of assets covered in the instant petition and the date of commercial operations are given hereunder:-

Name of Assets	SCOD	COD	Time Over-run (months)
Asset- I 80 MVAR spare Reactor at Gooty	1.1.2013	1.1.2013	-
Asset-II 315 MVA 400/220kV Spare Transformer		1.3.2013	2 months*

*Time over-run condoned in previous order dated 21.12.2015 47/TT/2013.

b) The annual transmission charges for 2009-14 tariff period for the transmission assets were determined vide order dated 21.12.2015 in Petition No. 47/TT/2013 based on admitted capital cost given as under:-

(₹in lakh)			
Asset	Capital cost approved as on COD as per order 47/TT/2013	IDC and IEDC disallowed	Excess initial spares disallowed
Asset-I	344.43	0.00	0.00
Asset-II	978.54	59.02	0.00

The IDC of ₹59.02 lakh was disallowed by the Commission on account of non-availability of information pertaining of IDC discharged on cash basis for the said amount. However the petitioner was directed to submit all relevant information at the time of truing-up.

c) The debt:equity ratio of the instant assets is 70:30 as on COD for all the assets. The estimated additional capital expenditure approved was towards balance and retention payments. The capital cost and additional capital



expenditure considered for determination of tariff for 2009-14 tariff period is as follows:

(₹in lakh)

Asset	Apportioned approved cost	Capital cost as on COD*	Allowed additional capital expenditure during 2009-14		Cost as on 31.3.2014
			2012-13	2013-14	
Asset-I	621.00	344.43	101.98	26.01	472.42
Asset-II	1269.00	978.54	0.00	74.62	1053.16

d) The annual fixed charges were determined vide order dated 21.12.2015 in Petition No. 47/TT/2013 based the above capital cost and estimated additional capital expenditure. The transmission charges allowed for the instant transmission assets during 2009-14 as given below:-

(₹in lakh)

Particulars	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Depreciation	5.22	24.26	4.31	53.64
Interest on Loan	6.04	26.95	5.15	61.84
Return on Equity	5.75	27.03	4.74	59.76
Interest on Working Capital	0.39	1.80	0.33	4.03
O & M Expenses	0.00	0.00	0.00	0.00
Total	17.40	80.04	14.53	179.27

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 actual capital expenditure including additional capital expenditure incurred up to 31.3.2014, 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. In this context, the petitioner



has filed the instant petition for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

5. The petitioner has served the petition on the respondents and notice of this application has been published in the newspapers 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. The hearing in this matter was held on 5.10.2016. None of respondents have filed any reply in the matter.

6. 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:-

7. 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”.

8. 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

9. The petitioner has submitted that the actual capital expenditure incurred as on COD for all assets, as certified vide Auditor's Certificates dated 6.8.2016 and 1.5.2015. Details of capital cost claimed is as under:-



(₹in lakh)

Asset	Capital cost as on COD as per Auditor Certificate dated 6.8.2016 and 1.5.2015
Asset-I	344.43
Asset-II	1037.56

10. 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.”

11. The admissible capital cost of the transmission asset as on COD for the purpose of computation of tariff for 2009-14 tariff period is worked out in the subsequent paragraphs taking into consideration the IEDC and IDC and initial spares claimed and allowed.

IDC and IEDC

12. The Commission, in order dated 21.12.2015 in Petition No. 47/TT/2013 , had disallowed IDC of ₹59.02 lakh for Asset-II on account of non-availability of information pertaining of IDC discharged on cash basis for the said amount. However the petitioner was directed to submit all relevant information at the time of truing-up .The petitioner,



vide affidavit dated 4.10.2016 has submitted the details of IDC discharged with the instant petition as given hereunder:-

	Total IDC claimed	IDC discharged on COD	IDC discharged during 2012-13	IDC discharged during 2013-14
Asset-I	3.38	3.38	0.00	0.00
Asset –II	89.32	33.00	36.01	20.31

Initial Spares

13. The petitioner has claimed the actual initial spares pertaining to sub-station as stated in Auditor's Certificates dated 6.8.2016 and 1.5.2015. The petitioner has claimed initial spares of ₹9.98 lakh for Asset-I and ₹14.07 lakh for Asset-II . We have worked out the admissible initial spares by considering capital cost upto cut-off date i.e., 31.3.2016 as per Auditor`s Certificate in accordance with the 2009 Tariff Regulations.

14. Regulation 8 of the 2009 Tariff Regulations provide for ceiling norms for capitalization of initial spares in respect of sub-station at 2.50%. Accordingly, the initial spares claimed by the petitioner are well within the specified limits of the 2009 Tariff Regulations and hence allowed for the capitalization.

15. Accordingly, the capital cost of the instant assets as on COD considered for truing up of tariff of 2009-14 is as follows:-

(₹in lakh)				
Asset	Capital cost on COD	Less:IDC discharged after COD	Less:Excess initial spares	Capital cost as on COD considered for tariff determination
Asset-I	344.43	0.00	0.00	344.43
Asset-II	1037.56	56.32	0.00	981.24

Additional Capital Expenditure

16. 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:
XXXX”

17. The additional capital expenditure claimed by the petitioner is towards actual balance and retention payments and the same has been certified by the Auditor vide certificates dated 6.8.2016 and 1.5.2015. Further, the total capital expenditure during 2009-14 is within the total approved capital expenditure and the total cost as on 31.3.2014 is within the approved cost. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 9(1)(i) of the 2009 Tariff Regulations.

18. The capital expenditure as on COD and additional capital expenditure from COD to 31.3.2014 allowed is as depicted below:-

(₹ in lakh)

Name of Asset	Apportioned approved cost		Capital cost as on COD	Additional capital expenditure		Capital cost as on 31.3.2014
				2012-13	2013-14	
Asset-I	621.00	Approved in Order dated 21.12.2015	344.43	101.98	26.01	472.42
		Claimed by the petitioner	344.43	101.98	26.01	472.42
		Allowed in this Order	344.43	101.98	26.01	472.42
Asset-II	1269.00	Approved in Order dated 21.12.2015	*978.54 (1037.56-59.02)	0.00	74.62	1053.16
		Claimed by the petitioner	*981.24 (1037.56-56.32)	*36.01	*94.93 (74.62+20.31)	1112.18
		Allowed in this Order	*981.24 (1037.56-56.32)	*36.01	*94.93 (74.62+20.31)	1112.18

*IDC discharged on cash basis adjusted.



Debt: Equity

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

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

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

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

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

20. The debt:equity ratio admitted by the Commission vide order dated 21.12.2015 in Petition No. 47/TT/2013 as on COD was 70:30, for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations.

21. 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	(%)
Asset-I						
Debt	241.10	70.00	89.59	70.00	330.69	70.00
Equity	103.33	30.00	38.40	30.00	141.73	30.00
Total	344.43	100.00	127.99	100.00	472.42	100.00
Asset-II						
Debt	686.87	70.00	91.66	70.00	778.53	70.00
Equity	294.37	30.00	39.28	30.00	333.65	30.00
Total	981.24	100.00	130.94	100.00	1112.18	100.00



Return on Equity (“ROE”)

22. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provide is follows:-

“(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

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

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

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

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

Year	MAT Rate claimed in the current petition (%)	Grossed up ROE (Base Rate/(1-t)) claimed in the current petition (%)
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

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



(₹ in lakh)

Return on Equity	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved in Order dated 21.12.2015	5.75	27.03	4.74	59.76
Claimed by the petitioner	5.75	27.03	4.84	62.64
Allowed in this Order	5.75	27.03	4.84	62.64

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 due to actual additional capital expenditure.

Interest on Loan (“IoL”)

25. Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of IoL. The Commission in its earlier order dated 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”.

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

(₹ in lakh)

Interest on Loan	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved in Order dated 21.12.2015	6.04	26.95	5.15	61.84
Claimed by the petitioner	6.03	26.91	5.27	64.88
Allowed in this Order	6.03	26.91	5.27	64.88



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

Depreciation

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

(₹ in lakh)

Depreciation	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved in Order dated 21.12.2015	5.22	24.26	4.31	53.64
Claimed by the petitioner	5.22	24.26	4.40	56.22
Allowed in this Order	5.22	24.26	4.40	56.22

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

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

28. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The petitioner has not claimed O&M Expenses in the instant petition for the instant assets being spare Reactor and ICT, no O & M Expenses have been considered in the working capital. Accordingly, based on that details of O&M Expenses are as follows:-

(₹ in lakh)

Operation & Maintenance Expenses	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved in Order dated 21.12.2015	0.00	0.00	0.00	0.00
Claimed by the petitioner	0.00	0.00	0.00	0.00
Allowed in this Order	0.00	0.00	0.00	0.00



Interest on Working Capital (“IWC”)

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

(₹ in lakh)

Interest on Loan	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved in Order dated 21.12.2015	0.39	1.80	0.33	4.03
Claimed by the petitioner	0.39	1.80	0.33	4.23
Allowed in this Order	0.39	1.80	0.33	4.23

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

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

Asset I and II:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Depreciation				
Opening Gross Block	344.43	446.41	981.24	1017.25
Additional Capitalisation	101.98	26.01	36.01	94.93
Closing Gross Block	446.41	472.42	1017.25	1112.18
Average Gross Block	395.42	459.42	999.25	1064.72
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%
Depreciable Value*	355.88	413.47	899.32	958.24
Balance useful life of the asset	25.00	24.00	25.00	24.00
Elapsed life	0.00	1.00	0.00	1.00
Remaining Depreciable Value	355.88	408.25	899.32	953.85
Depreciation during the year	5.22	24.26	4.40	56.22
Depreciation upto previous year	0.00	5.22	0.00	4.40



Particulars	Asset-I		Asset-II	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Cumulative depreciation (incl. of AAD)	5.22	29.48	4.40	60.61
Interest on Loan				
Gross Normative Loan	241.10	312.49	686.87	712.08
Cumulative Repayment upto Previous Year	0.00	5.22	0.00	4.40
Net Loan-Opening	241.10	307.27	686.87	707.68
Additions	71.39	18.21	25.21	66.45
Repayment during the year	5.22	24.26	4.40	56.22
Net Loan-Closing	307.27	301.22	707.68	717.91
Average Loan	274.18	304.24	697.27	712.80
Weighted Average Rate of Interest on Loan (%)	8.8036%	8.8453%	9.0667%	9.1025%
Interest on Loan	6.03	26.91	5.27	64.88
Return on Equity				
Opening Equity	103.33	133.92	294.37	305.18
Additions	30.59	7.80	10.80	28.48
Closing Equity	133.92	141.73	305.18	333.65
Average Equity	118.63	137.82	299.77	319.41
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%
MAT rate for the respective year (%)	20.008%	20.961%	20.008%	20.961%
Rate of Return on Equity (%)	19.377%	19.610%	19.377%	19.610%
Return on Equity	5.75	27.03	4.84	62.64
Interest on Working Capital				
O & M expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	11.59	13.33	29.68	31.33
Total	11.59	13.33	29.68	31.33
Rate of Interest(%)	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	0.39	1.80	0.33	4.23
Annual Transmission Charges				
Depreciation	5.22	24.26	4.40	56.22
Interest on Loan	6.03	26.91	5.27	64.88
Return on Equity	5.75	27.03	4.84	62.64
Interest on Working Capital	0.39	1.80	0.33	4.23
O & M Expenses	0.00	0.00	0.00	0.00
Total	17.39	80.00	14.84	187.97



DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

31. The petitioner has combined both the assets and has claimed one combined tariff for all the assets for 2014-19 tariff period. The tariff charges claimed for 2014-19 tariff period as under:-

(₹in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	83.67	83.67	83.67	83.67	83.67
Interest on Loan	88.57	81.02	73.43	65.82	58.21
Return on Equity	93.22	93.22	93.22	93.22	93.22
Interest on Working Capital	6.11	5.94	5.76	5.59	5.41
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Total	271.57	263.85	256.08	248.30	240.51

32. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-

(₹in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	45.26	43.98	42.68	41.38	40.09
Total	45.26	43.98	42.68	41.38	40.09
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	6.11	5.94	5.76	5.59	5.41

Capital Cost

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

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

- (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;”



34. The petitioner has combined both the assets for claiming tariff during 2014-19 tariff period and accordingly claimed capital cost of combined assets is ₹1584.60 lakh as on 31.3.2014. We have considered the capital cost of ₹1584.60 lakh, as worked out in earlier paras, as the opening capital cost on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations as shown below:-

(₹in lakh)

Name of Asset	Apportioned approved cost	Capital cost as on 31.3.2014
Asset-I	621.00	472.42
Asset-II	1269.00	1112.18
Total	1890.00	1584.60

Additional Capital Expenditure

35. The petitioner has not claimed any additional capital expenditure for 2014-19 for both the assets. Accordingly, no capital expenditure is allowed for 2014-19 tariff periods.

Debt: Equity

36. 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.”



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

(₹in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total cost as on 31.3.2019	(%)
Debt	1109.22	70.00	0.00	0.00	1109.22	70.00
Equity	475.38	30.00	0.00	0.00	475.38	30.00
Total	1584.60	100.00	0.00	0.00	1584.60	100.00

Return on Equity (“ROE”)

38. Clause (1) and (2) of Regulations 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system”

“25. Tax on Return on Equity:

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

39. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate of 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	475.38	475.38	475.38	475.38	475.38
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	475.38	475.38	475.38	475.38	475.38
Average Equity	475.38	475.38	475.38	475.38	475.38
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%
MAT Rate for respective year (%)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity	93.22	93.22	93.22	93.22	93.22

Interest on Loan (“IoL”)

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

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.”

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



(₹in lakh)

Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1109.22	1109.22	1109.22	1109.22	1109.22
Cumulative Repayment upto Previous Year	90.09	173.76	257.42	341.09	424.76
Net Loan-Opening	1019.13	935.46	851.80	768.13	684.46
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	83.67	83.67	83.67	83.67	83.67
Net Loan-Closing	935.46	851.80	768.13	684.46	600.80
Average Loan	977.30	893.63	809.96	726.30	642.63
Weighted Average Rate of Interest on Loan (%)	9.0627%	9.0660%	9.0657%	9.0619%	9.0579%
Interest on Loan	88.57	81.02	73.43	65.82	58.21

Depreciation

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

"27. Depreciation:

...(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis"

"(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets."

43. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. 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	1584.60	1584.60	1584.60	1584.60	1584.60
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1584.60	1584.60	1584.60	1584.60	1584.60
Average Gross Block	1584.60	1584.60	1584.60	1584.60	1584.60
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value*	1336.04	1252.37	1168.71	1085.04	1001.37
Balance useful life of the asset	23.00	22.00	21.00	20.00	19.00
Elapsed life	2.00	3.00	4.00	5.00	6.00
Remaining Depreciable Value	1426.14	1426.14	1426.14	1426.14	1426.14
Depreciation during the year	83.67	83.67	83.67	83.67	83.67
Depreciation upto previous year	90.09	173.76	257.42	341.09	424.76
Cumulative depreciation	173.76	257.42	341.09	424.76	508.42

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

44. The petitioner has not claimed O&M Expenses for the instant assets filed in the instant petition as these being Spare Reactor and ICT at the Gooty and Hyderabad Sub-stations of Southern Region. Accordingly, no O&M Expenses are allowed in respect of the assets covered in the instant petition.

45. 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. 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)

46. 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;”

47. 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%.

48. 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	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	45.26	43.97	42.68	41.38	40.09
Total	45.26	43.97	42.68	41.38	40.09
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	6.11	5.94	5.76	5.59	5.41



ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

49. 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	1584.60	1584.60	1584.60	1584.60	1584.60
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1584.60	1584.60	1584.60	1584.60	1584.60
Average Gross Block	1584.60	1584.60	1584.60	1584.60	1584.60
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value*	1426.14	1426.14	1426.14	1426.14	1426.14
Balance useful life of the asset	23.00	22.00	21.00	20.00	19.00
Elapsed life	2.00	3.00	4.00	5.00	6.00
Remaining Depreciable Value	1336.04	1252.37	1168.71	1085.04	1001.37
Depreciation during the year	83.67	83.67	83.67	83.67	83.67
Depreciation upto previous year	90.09	173.76	257.42	341.09	424.76
Cumulative depreciation	173.76	257.42	341.09	424.76	508.42
Interest on Loan					
Gross Normative Loan	1109.22	1109.22	1109.22	1109.22	1109.22
Cumulative Repayment upto Previous Year	90.09	173.76	257.42	341.09	424.76
Net Loan-Opening	1019.13	935.46	851.80	768.13	684.46
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	83.67	83.67	83.67	83.67	83.67
Net Loan-Closing	935.46	851.80	768.13	684.46	600.80
Average Loan	977.30	893.63	809.96	726.30	642.63
Weighted Average Rate of Interest on Loan (%)	9.0627%	9.0660%	9.0657%	9.0619%	9.0579%
Interest on Loan	88.57	81.02	73.43	65.82	58.21
Return on Equity					
Opening Equity	475.38	475.38	475.38	475.38	475.38
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	475.38	475.38	475.38	475.38	475.38
Average Equity	475.38	475.38	475.38	475.38	475.38
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%
MAT rate for the year(%)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity	93.22	93.22	93.22	93.22	93.22
Interest on Working Capital					
O & M expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	45.26	43.97	42.68	41.38	40.09
Total	45.26	43.97	42.68	41.38	40.09
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	6.11	5.94	5.76	5.59	5.41
Annual Transmission Charges					
Depreciation	83.67	83.67	83.67	83.67	83.67
Interest on Loan	88.57	81.02	73.43	65.82	58.21
Return on Equity	93.22	93.22	93.22	93.22	93.22
Interest on Working Capital	6.11	5.94	5.76	5.59	5.41
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Total	271.57	263.84	256.08	248.29	240.51

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 sought to recover Service Tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer is premature.



Goods & Service Tax

53. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. We are of the view that petitioner's prayer is premature.

Sharing of Transmission Charges

54. 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.

55. This order disposes of Petition No.145/TT/2016.

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

Sd/-
(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)

Asset –I				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
				(₹ in lakh)
BOND-XXXIV-Loan 1-	8.84	2.39	0.00	2.39
BOND XXXVIII-Loan 2-	9.25	2.00	0.00	2.00
SBI (21.03.2012)-ADDCAP FOR 2013-2014 add cap-	10.29	0.00	18.21	18.21
BOND - XLII-ADDCAP FOR 2012-2013 add cap-	8.80	0.00	71.39	71.39
BOND - XLII-Loan 3-	8.80	236.71	0.00	236.71
Total		241.10	89.60	330.70

Asset –II				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
				(₹ in lakh)
BOND-XXXIV-Loan 1-	8.84	186.39	0.00	186.39
BOND XXXVIII-Loan 2-	9.25	398.00	0.00	398.00
SBI (21.03.2012)-ADDCAP FOR 2013-2014 add cap-	10.29	0.00	52.23	52.23
BOND - XLII-ADDCAP FOR 2012-2013 Add cap for 2012-13 (Accrual IDC)-	8.80	0.00	25.21	25.21
BOND - XLII-ADDCAP FOR 2013-2014 Add cap for 2013-14 (Accrual IDC)-	0.00	0.00	14.22	14.22
BOND - XLII-Loan 3-	8.80	102.48	0.00	102.48
Total		686.87	91.66	778.53

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

(₹in lakh)

Asset-I		
Particulars	2012-13 (pro-rata)	2013-14
Gross Opening Loan	241.10	312.49
Cumulative Repayments of Loans up to Previous Year	0.00	0.00
Net Loans Opening	241.10	312.49
Add: Drawl(s) during the Year	71.39	18.21



Less: Repayments during the year	0.00	0.00
Net Closing Loan	312.49	330.70
Average Net Loan	276.80	321.60
Rate of Interest on Loan (%)*	8.8036%	8.8453%
Interest on Loan	24.37	28.45

(₹in lakh)

Asset-II		
Particulars	2012-13 (pro-rata)	2013-14
Gross Opening Loan	686.87	712.08
Cumulative Repayments of Loans up to Previous Year	0.00	0.00
Net Loans Opening	686.87	712.08
Add: Drawl(s) during the Year	25.21	66.45
Less: Repayments during the year	0.00	0.00
Net Closing Loan	712.08	778.53
Average Net Loan	699.48	745.31
Rate of Interest on Loan (%)*	9.0667%	9.1025%
Interest on Loan	63.42	67.84

*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
				(₹ in lakh)
BOND-XXXIV-doco-	8.84	188.78	0.00	188.78
BOND XXXVIII-doco-	9.25	400.00	0.00	400.00
SBI (21.03.2012)-doco-	10.25	70.44	0.00	70.44
BOND -XLII-doco-	8.80	450.01	0.00	450.01
Total		1109.23	0.00	1109.23

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	1109.23	1109.23	1109.23	1109.23	1109.23
Cumulative Repayments of Loans up to Previous Year	0.00	15.73	31.46	53.59	75.72
Net Loans Opening	1109.23	1093.50	1077.77	1055.64	1033.51
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	15.73	15.73	22.13	22.13	22.13
Net Closing Loan	1093.50	1077.77	1055.64	1033.51	1011.38
Average Net Loan	1101.37	1085.64	1066.71	1044.58	1022.45
Rate of Interest on Loan (%)*	9.0627%	9.0660%	9.0657%	9.0619%	9.0579%
Interest on Loan	99.81	98.42	96.70	94.66	92.61

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

