

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 10/TT/2015

Coram:

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

**Date of Hearing : 20.01.2016
Date of Order : 25.02.2016**

In the Matter of:

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for Combined Assets associated with Northern Region System Strengthening Scheme – VI in Northern Region consisting of Asset-I : LILO of 400 kV S/C Ballabgarh-Bhiwandi Transmission Line at Gurgaon along with associated bays, Asset-II:315 MVA, 400/220 kV ICT-I along with associated bays at GIS Sub-Station at Gurgaon and Asset-III: 315 MVA, 400/220 kV ICT-II along with associated bays at GIS Sub-Station at Gurgaon 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. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,
Vidyut Bhawan, Vidyut Marg,
Jaipur - 302005.
2. Ajmer Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.



3. Jaipur Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla - 171 004.
6. Punjab State Electricity Board,
The Mall, Patiala - 147 001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector - 6
Panchkula (Haryana) - 134 109
8. Power Development Department,
Govt. of Jammu and Kashmir
Mini Secretariat, Jammu .
9. Uttar Pradesh Power Corporation Ltd.,
Shakti Bhawan, 14, Ashok Marg,
Lucknow - 226 001.
10. Delhi Transco Ltd.,
Shakti Sadan, Kotla Road,
New Delhi - 110 002
11. BSES Yamuna Power Ltd.,
Shakti Kiran Building, Karkardooma,
Delhi – 110 092.
12. BSES Rajdhani Power Ltd.,
BSES Bhawan, Nehru Place,
New Delhi.
13. North Delhi Power Ltd.,
Power Trading & Load Dispatch Group,
Cennet Building,
Adjacent to 66/11kV Pitampura - ,
Grid Building, Near PP Jewellers,
Pitampura, New Delhi - 110 034
14. Chandigarh Administration,
Sector - 9, Chandigarh



15. Uttarakhand Power Corporation Ltd.,
Urja Bhawan, Kanwali Road,
Dehradun

16. North Central Railway,
Allahabad

17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi - 110 002

.....Respondents

The following were present:

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

For Respondents: Shri Vinod Kumar Yadav, Advocate, Rajasthan Discoms

ORDER

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure from the date of commercial operation to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of



Combined Assets associated with Northern Region System Strengthening Scheme-VI in Northern Region consisting of LILO of 400 kV S/C Ballabgarh-Bhiwandi Transmission Line at Gurgaon along with associated bays (herein after referred as “Asset-I”) and 315 MVA, 400/220 kV ICT-I along with associated bays at GIS Sub-Station at Gurgaon (hereinafter referred as Asset-II”) and 315 MVA, 400/220 kV ICT-II along with associated bays at GIS Sub-Station at Gurgaon (hereinafter referred to as “Asset-III) collectively referred as the transmission assets.

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

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

- a) The administrative approval of the transmission project was accorded by the Board of Directors of the petitioner’s company vide letter No. C/CP/NRSSS-VI, dated 22.1.2007 for ₹18695 lakh, including IDC of ₹1236 lakh, based on 2nd Quarter, 2006 price level. Subsequently, revised cost estimate for the transmission system was approved by the Board of Directors of PGCIL vide letter No. C/CP/RCE-NRSS-VI dated 16.8.2011 at an estimated cost of ₹26587 lakh, including IDC of ₹1953 lakh at 3rd Quarter, 2010 price level.
- b) The transmission tariff for Assets I and II was allowed vide order dated 30.8.2012 in Petition No.343/2010 and in case of Asset III it was allowed vide order dated 9.5.2013 in Petition No.147/TT/2011
- c) There was time over-run of 11 months in commissioning of Assets-I and II and the same was condoned in order dated 30.8.2012. Further, the cost over-run in the commissioning of the Asset-I and Asset-II was allowed. There was time over-run of 30 months in commissioning of Asset-III and it was not condoned and



accordingly IDC and IEDC for the said period was disallowed vide order dated 9.5.2013 in Petition No.147/TT/2011.

- d) The annual transmission charges for 2009-14 tariff periods for the transmission assets were determined on the basis of admitted capital cost of the transmission assets and debt:equity as on COD. The details of admitted capital cost and estimated additional capital expenditure towards balance and retention payments during 2009-14 for determination of tariff for 2009-14 tariff period are as shown below:-

(₹ in lakh)

Asset	Apportioned approved cost	Admitted cost as on COD	Allowed Additional capital expenditure during 2009-14				Cost as on 31.3.2014
			2010-11	2011-12	2012-13	Total	
Asset-I	12124.28	10232.03*	1235.85	411.17	-	1647.02	11879.05
Asset-II	7228.72	5383.43**	1031.79	343.38	-	1375.17	6758.58
Asset-III	7234.00	5052.26^	-	1417.61	183.08	1600.69	6652.95

*Adjusting disallowed excess initial spares of ₹245.38 lakh

**Adjusting disallowed excess initial spares of ₹105.24 lakh

^Adjusting disallowed IDC of ₹320.64 lakh and IEDC of ₹81.71 lakh

- e) The annual fixed charges were determined for the transmission assets based on the above capital cost and estimated additional capital expenditure during 2009-14 and are as given below:-

(₹ in lakh)

Particulars	Asset-I			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Depreciation	417.63	596.65	606.59	606.59
Interest on Loan	502.54	676.35	634.54	579.25
Return on Equity	426.75	612.19	622.97	622.97
Interest on Working Capital	29.62	41.50	41.47	40.81
O & M Expenses	99.60	140.41	148.44	156.91
Total	1476.14	2067.10	2054.01	2006.53



(₹ in lakh)

	Asset-II			
Particulars	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Depreciation	209.22	308.39	315.74	315.74
Interest on Loan	274.65	386.44	368.83	339.94
Return on Equity	232.03	345.44	354.44	354.44
Interest on Working Capital	19.14	27.57	28.01	27.96
O & M Expenses	128.81	181.57	191.94	202.92
Total	863.86	1249.41	1258.96	1241.01

(₹ in lakh)

	Asset-III		
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	45.03	311.85	316.10
Interest on Loan	60.55	398.77	375.95
Return on Equity	50.35	344.10	348.90
Interest on Working Capital	4.57	30.27	30.52
O & M Expenses	30.26	191.94	202.92
Total	190.77	1276.93	1274.39

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. 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 to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the



Electricity Act, 2003 ("the Act"). No comments/objections have been received from the public in response to the notice in newspaper. None of the respondents have filed the reply in the matter. The hearing in this matter was held on 20.1.2016. The petitioner was directed to submit the details of additional capital expenditure, un-discharged liabilities and actual equity infused during 2009-14 and 2014-19 tariff periods, and the same has been submitted by the petitioner vide affidavit dated 28.1.2016.

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 claimed capital cost of ₹10385.81 lakh, ₹5488.67 lakh and ₹5052.25 lakh as on COD in Asset-I, Asset-II and Asset-III respectively, after adjusting for excess initial spares of ₹91.60 lakh in Asset-I and IDC and IEDC amount of ₹402.35 lakh in respect of Asset-III for the purpose of tariff determination.



10. Clause (1) and (2) of the Regulation 7 of the 2009 Tariff Regulations specifies as follows:-

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

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

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

(c) additional capital expenditure determined under regulation 9:

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

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

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

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

The admissible capital cost of the transmission assets as on COD for the purpose of computation of tariff for 2009-14 tariff period is worked out in the subsequent paragraph after the treatment of initial spares.

12. There was a time over run of 30 months in commissioning of Asset-III. The Commission had not condoned the time over run and accordingly IDC and IEDC for the said period was disallowed vide order dated 9.5.2013 in Petition No.147/TT/2011. The petitioner has submitted the same actual capital cost as on COD including IDC and IEDC as



considered in the order dated 9.5.2013. As such, the IDC and IEDC of ₹402.35 lakh on account of time over-run was deducted from the capital cost.

Treatment of Initial Spares

13. Initial spares of ₹245.38 lakh and ₹105.24 lakh pertaining to sub-station (including PLCC) in case of Asset-I and Asset-II respectively was disallowed in order dated 30.8.2012 in Petition No. 343/2010. The initial spares was disallowed by considering the capital cost upto cut-off date, i.e 31.3.2013 based on the estimated additional capital expenditure. The relevant para of the order is extracted as under:-

“16. PGCIL's request for allowing higher initial spares for GIS sub-stations by making suitable provisions in the 2009 regulations is being considered by the Commission. In the instant petition initial spares for GIS sub-stations has been worked out as per Regulation 8 of the 2009 regulations at the rate of 2.5%. However, any changes to the existing provisions, pertaining to the initial spares shall be made applicable to the instant petition at the time of truing up.”

Initial spares claimed by the petitioner in case of Asset-III was allowed in order dated 9.5.2013.

14. The petitioner has submitted that the actual initial spares are ₹321.86 lakh, ₹221.23 lakh and ₹156.68 lakh pertaining to sub-station (including PLCC), in respect of Asset-I, Asset-II and Asset-III respectively. The petitioner has claimed capital cost of ₹10385.81 lakh as on COD for Asset-I after deducting excess initial spares of ₹91.60 lakh. The petitioner has not reduced any excess initial spares for Asset-II and Asset-III.

15. The ceiling limit in case of initial spares for the Gas insulated substation (GIS) is 3.50% as per the 2009 Tariff Regulations. Accordingly, the admissible initial spares has



been worked out by considering the capital cost as per Auditor's Certificate in accordance with the 2009 Tariff Regulations. The details are given below:-

(₹ in lakh)				
Particulars	Formula	Asset-I	Asset-II	Asset-III
Capital cost as on cut-off date	(a)	3916.67	7141.99	6107.78
Capital Cost after deducting excess IDC	(b)	3916.67	7141.99	5705.43*
Initial Spares as per Auditor's Certificate	(c)	321.86	221.23	156.68
Proportionate Initial Spares claimed after deducting IDC	(d) = (c)/(a) *(b)	321.86	221.23	146.36
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	3.50%	3.50%	3.50%
Initial spares worked out	(f)= ((b-d)*e)/(100%-e)	130.38	251.01	216.22
Excess initial spares claimed	(g)=(d)-(f)	191.48	0.00	0.00

*Total IDC and IEDC deducted in case of Asset-III was ₹402.35 lakh on account of time over-run

16. Accordingly, the capital cost as on COD considered for truing of tariff of 2009-14 tariff period is as follows:-

(₹ in lakh)			
Particulars	Asset-I	Asset-II	Asset-II
Capital cost as on COD	10477.41	5488.67	5052.25
Less: Excess initial spares	191.48	0.00	0.00
Capital cost as on COD considered for tariff determination	10285.93	5488.67	5052.25

Additional Capital Expenditure

17. 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”



18. The petitioner has submitted that it has actually incurred an additional capital expenditure of ₹695.34 lakh, ₹1653.32 lakh and ₹653.18 lakh in case of Assets-I, II and III respectively during 2009-14 towards balance and retention payments for the works completed before the cut-off date, as depicted below:-

(₹ in lakh)

Asset	Apportioned approved cost	Cost as on COD	Additional capital expenditure during 2009-14					Capital cost as on 31.3.2014
			2010-11	2011-12	2012-13	2013-14	Total	
Asset-I: Approved vide order dated 30.8.2012	12124.28	10232.03	1235.85	411.17	-	-	1647.02	11879.05
Asset-I : Actual		10385.81	320.31	315.06	20.95	39.02	695.34	11081.15
Asset-II: Approved vide order dated 30.8.2012	7228.72	5383.43	1031.79	343.38	-	-	1375.17	6758.60
Asset-II: Actual		5488.67	236.96	1343.72	72.64	-	1653.32	7141.99
Asset-III: Approved vide order dated 9.5.2013	7234.00	5052.26	-	1417.61	183.08		1600.69	6652.95
Asset-III: Actual		5052.25	-	580.54	72.64		653.18	5705.43

19. The petitioner has claimed the admissibility of additional capital expenditure before the cut-off date under Regulation 9(1) of 2009 Tariff Regulations and that after the cut-off date under Regulation 9(2) of 2009 Tariff Regulations. In response to query regarding increase in additional capital expenditure in case of Asset-II vis-a-vis the approved capital expenditure in order dated 30.8.2012, the petitioner has submitted, vide affidavit dated 28.1.2016, the details of additional capital expenditure towards balance and retention payments incurred during 2009-14 tariff period.



20. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14. The above mentioned additional capital expenditure is towards balance and retention payments and the same has been certified by the Auditor vide certificate dated 24.9.2014. Further, the total cost as on 31.3.2014 is within the approved cost of the project for the transmission assets. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 9(1)(i) and Regulation 6 of the 2009 Tariff Regulations.

Debt: Equity

21. 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.”

22. The debt:equity ratio of 70:30 as on COD was considered in order dated 30.8.2012 in Petition No. 343/2010 and order dated 9.5.2013 in Petition No. 147/2011 for the instant transmission assets for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations. The petitioner was directed to confirm that actual equity infused during 2009-14 tariff period is not less than 30%. In response, the petitioner, vide affidavit dated 28.1.2016, has submitted that the actual equity infusion to additional capital expenditure during 2009-14 period is not less than 30%.



23. 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	7200.15	70.00	486.74	70.00	7686.89	70.00
Equity	3085.78	30.00	208.60	30.00	3294.38	30.00
Total	10285.93	100.00	695.34	100.00	10981.27	100.00
Asset-I I						
Debt	3842.07	70.00	1157.32	70.00	4999.39	70.00
Equity	1646.60	30.00	496.00	30.00	2142.60	30.00
Total	5488.67	100.00	1653.32	100.00	7141.99	100.00
Asset-III						
Debt	3536.58	70.00	457.23	70.00	3993.80	70.00
Equity	1515.68	30.00	195.95	30.00	1711.63	30.00
Total	5052.25	100.00	653.18	100.00	5705.43	100.00
Total Capital cost (Asset-I, II & III)						
Debt	14578.80	70.00	2101.29	70.00	16680.08	70.00
Equity	6248.06	30.00	900.55	30.00	7148.61	30.00
Total	20826.85	100.00	3001.84	100.00	23828.69	100.00

Return on Equity (“ROE”)

24. 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.”

25. 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 (%)
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

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

(₹ in lakh)

Return on Equity	Asset-I			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	426.75	612.19	622.97	622.97
Claimed by the petitioner	459.33	631.51	641.28	650.75
Allowed after truing up in this order	454.99	625.71	635.47	644.90

(₹ in lakh)

Return on Equity	Asset-II			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	232.03	345.44	354.44	354.44
Claimed by the petitioner	244.22	371.89	413.06	420.16
Allowed after truing up in this order	244.23	371.89	413.06	420.17

(₹ in lakh)

Return on Equity	Asset-III		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.5.2013	50.35	344.10	348.90
Claimed by the petitioner	51.76	329.55	335.65
Allowed after truing up in this order	51.76	329.55	335.66



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 change in 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	Asset-I			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	502.54	676.35	634.54	579.25
Claimed by the petitioner	488.37	628.73	589.74	541.36
Allowed after truing up in this order	483.71	622.81	584.15	536.09

(₹ in lakh)

Interest on loan	Asset-II			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	274.65	386.44	368.83	339.94
Claimed by the petitioner	261.70	379.44	398.51	372.17
Allowed after truing up in this order	261.70	379.44	398.51	372.17



(₹ in lakh)

Interest on loan	Asset-III		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.5.2013	60.55	398.77	375.95
Claimed by the petitioner	56.08	345.47	326.71
Allowed after truing up in this order	56.08	345.47	326.71

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	Asset-I			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	417.63	596.65	606.59	606.59
Claimed by the petitioner	394.49	542.68	551.51	553.09
Allowed after truing up in this order	391.77	539.08	547.90	549.49

(₹ in lakh)

Depreciation	Asset-II			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	209.22	308.39	315.74	315.74
Claimed by the petitioner	175.15	275.23	312.61	314.53
Allowed after truing up in this order	175.15	275.22	312.61	314.53

(₹ in lakh)

Depreciation	Asset-III		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.5.2013	45.03	311.85	316.10
Claimed by the petitioner	35.49	230.20	232.12
Allowed after truing up in this order	35.49	230.20	232.12



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	Asset-I			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	99.60	140.41	148.44	156.91
Claimed by the petitioner	99.60	140.41	148.44	156.91
Allowed after truing up in this order	99.60	140.41	148.44	156.91

(₹ in lakh)

O&M Expenses	Asset-II			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	128.81	181.57	191.94	202.92
Claimed by the petitioner	128.81	181.57	191.94	202.92
Allowed after truing up in this order	128.81	181.57	191.94	202.92

(₹ in lakh)

O&M Expenses	Asset-III		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.5.2013	30.26	191.94	202.92
Claimed by the petitioner	30.26	191.94	202.92
Allowed after truing up in this order	30.26	191.94	202.92



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	Asset-I			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	29.62	41.50	41.47	40.81
Claimed by the petitioner	29.53	39.96	39.94	39.63
Allowed after truing up in this order	29.31	39.68	39.66	39.35

(₹ in lakh)

Interest on working capital	Asset-II			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 30.8.2012	19.14	27.57	28.01	27.96
Claimed by the petitioner	18.50	27.31	29.60	29.77
Allowed after truing up in this order	18.49	27.31	29.60	29.77

(₹ in lakh)

Interest on working capital	Asset-III		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.5.2013	4.57	30.27	30.52
Claimed by the petitioner	4.31	27.28	27.59
Allowed after truing up in this order	4.31	27.28	27.59

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:-

Asset-I:

(₹ in lakh)

Particulars	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Depreciation				
Opening Gross Block	10285.93	10606.24	10921.30	10942.25
Additional Capitalisation	320.31	315.06	20.95	39.02
Closing Gross Block	10606.24	10921.30	10942.25	10981.27
Average Gross Block	10446.09	10763.77	10931.78	10961.76
Rate of Depreciation	5.00	5.01	5.01	5.01
Depreciable Value	8953.74	9239.66	9390.86	9417.85
Balance Useful life of the asset	32.00	31.00	30.00	29.00
Elapsed Life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	8953.74	8847.89	8460.01	7939.09
Depreciation during the year	391.77	539.08	547.90	549.49
Cumulative depreciation	391.77	930.85	1478.76	2028.24
Interest on Loan				
Gross Normative Loan	7200.15	7424.37	7644.91	7659.58
Cumulative Repayment upto Previous Year	0.00	391.77	930.85	1478.76
Net Loan-Opening	7200.15	7032.60	6714.06	6180.82
Additions	224.22	220.54	14.67	27.31
Repayment during the year	391.77	539.08	547.90	549.49
Net Loan-Closing	7032.60	6714.06	6180.82	5658.65
Average Loan	7116.38	6873.33	6447.44	5919.73
Weighted Average Rate of Interest on Loan (%)	9.0629	9.0612	9.0601	9.0560
Interest on Loan	483.71	622.81	584.15	536.09
Return on Equity				
Opening Equity	3085.78	3181.87	3276.39	3282.68
Additions	96.09	94.52	6.29	11.71
Closing Equity	3181.87	3276.39	3282.68	3294.38
Average Equity	3133.83	3229.13	3279.53	3288.53
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500
MAT rate for the respective year	19.931	20.008	20.008	20.961



Particulars	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Rate of Return on Equity	19.358	19.377	19.377	19.610
Return on Equity	454.99	625.71	635.47	644.90
Interest on Working Capital				
O & M expenses	11.07	11.70	12.37	13.08
Maintenance Spares	19.92	21.06	22.27	23.54
Receivables	324.31	327.95	325.94	321.12
Total	355.30	360.71	360.57	357.73
Rate of Interest(%)	11.00	11.00	11.00	11.00
Interest	29.31	39.68	39.66	39.35
Annual Transmission Charges				
Depreciation	391.77	539.08	547.90	549.49
Interest on Loan	483.71	622.81	584.15	536.09
Return on Equity	454.99	625.71	635.47	644.90
Interest on Working Capital	29.31	39.68	39.66	39.35
O & M Expenses	99.60	140.41	148.44	156.91
Total	1459.39	1967.68	1955.62	1926.73

Asset-II:

(₹ in lakh)

Particulars	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Depreciation				
Opening Gross Block	5488.67	5725.63	7069.35	7141.99
Additional Capitalisation	236.96	1343.72	72.64	0.00
Closing Gross Block	5725.63	7069.35	7141.99	7141.99
Average Gross Block	5607.15	6397.49	7105.67	7141.99
Rate of Depreciation	4.16	4.30	4.40	4.40
Depreciable Value	4099.82	4811.12	5448.48	5481.17
Balance Useful life of the asset	25.00	24.00	23.00	22.00
Elapsed Life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	4099.82	4635.97	4998.12	4718.19
Depreciation during the year	175.15	275.22	312.61	314.53
Cumulative depreciation	175.15	450.37	762.98	1077.50
Interest on Loan				
Gross Normative Loan	3842.07	4007.94	4948.55	4999.39



Particulars	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Cumulative Repayment upto Previous Year	0.00	175.15	450.37	762.98
Net Loan-Opening	3842.07	3832.79	4498.18	4236.42
Additions	165.87	940.60	50.85	0.00
Repayment during the year	175.15	275.22	312.61	314.53
Net Loan-Closing	3832.79	4498.18	4236.42	3921.89
Average Loan	3837.43	4165.49	4367.30	4079.15
Weighted Average Rate of Interest on Loan (%)	9.0929	9.1092	9.1248	9.1238
Interest on Loan	261.70	379.44	398.51	372.17
Return on Equity				
Opening Equity	1646.60	1717.69	2120.81	2142.60
Additions	71.09	403.12	21.79	0.00
Closing Equity	1717.69	2120.81	2142.60	2142.60
Average Equity	1682.15	1919.25	2131.70	2142.60
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500
MAT rate for the respective year	19.931	20.008	20.008	20.961
Rate of Return on Equity	19.358	19.377	19.377	19.610
Return on Equity	244.23	371.89	413.06	420.17
Interest on Working Capital				
O & M expenses	14.31	15.13	16.00	16.91
Maintenance Spares	25.76	27.24	28.79	30.44
Receivables	184.08	205.91	224.29	223.26
Total	224.15	248.27	269.07	270.61
Rate of Interest(%)	11.00	11.00	11.00	11.00
Interest	18.49	27.31	29.60	29.77
Annual Transmission Charges				
Depreciation	175.15	275.22	312.61	314.53
Interest on Loan	261.70	379.44	398.51	372.17
Return on Equity	244.23	371.89	413.06	420.17
Interest on Working Capital	18.49	27.31	29.60	29.77
O & M Expenses	128.81	181.57	191.94	202.92
Total	828.37	1235.43	1345.71	1339.56

Asset-III:

(₹ in lakh)



Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation			
Opening Gross Block	5052.25	5632.79	5705.43
Additional Capitalisation	580.54	72.64	0.00
Closing Gross Block	5632.79	5705.43	5705.43
Average Gross Block	5342.52	5669.11	5705.43
Rate of Depreciation	3.99	4.06	4.07
Depreciable Value	3861.65	4155.58	4188.27
Balance Useful life of the asset	25.00	24.00	23.00
Elapsed Life	0.00	1.00	2.00
Remaining Depreciable Value	3861.65	4120.09	3922.58
Depreciation during the year	35.49	230.20	232.12
Cumulative depreciation	35.49	265.69	497.81
Interest on Loan			
Gross Normative Loan	3536.58	3942.95	3993.80
Cumulative Repayment upto Previous Year	0.00	35.49	265.69
Net Loan-Opening	3536.58	3907.46	3728.11
Additions	406.38	50.85	0.00
Repayment during the year	35.49	230.20	232.12
Net Loan-Closing	3907.46	3728.11	3496.00
Average Loan	3722.02	3817.79	3612.05
Weighted Average Rate of Interest on Loan (%)	9.0403	9.0489	9.0451
Interest on Loan	56.08	345.47	326.71
Return on Equity			
Opening Equity	1515.68	1689.84	1711.63
Additions	174.16	21.79	0.00
Closing Equity	1689.84	1711.63	1711.63
Average Equity	1602.76	1700.73	1711.63
Return on Equity (Base Rate)	15.500	15.500	15.500
MAT rate for the respective year	20.008	20.008	20.961
Rate of Return on Equity	19.377	19.377	19.610
Return on Equity	51.76	329.55	335.66
Interest on Working Capital			
O & M expenses	15.13	16.00	16.91
Maintenance Spares	27.24	28.79	30.44
Receivables	177.91	187.41	187.50



Particulars	2011-12 (pro-rata)	2012-13	2013-14
Total	220.27	232.19	234.85
Rate of Interest(%)	11.75	11.75	11.75
Interest	4.31	27.28	27.59
Annual Transmission Charges			
Depreciation	35.49	230.20	232.12
Interest on Loan	56.08	345.47	326.71
Return on Equity	51.76	329.55	335.66
Interest on Working Capital	4.31	27.28	27.59
O & M Expenses	30.26	191.94	202.92
Total	177.91	1124.44	1125.00

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

33. The petitioner has claimed the tariff charges for 2014-19 tariff period for the Combined Assets-I, II & III, as under:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1125.09	1149.42	1149.42	1149.42	1149.42
Interest on Loan	1169.93	1096.16	992.00	887.82	783.64
Return on Equity	1434.82	1461.93	1461.93	1461.93	1461.93
Interest on Working Capital	114.47	114.90	113.49	112.10	110.75
O & M Expenses	517.93	535.12	552.90	571.23	590.19
Total	4362.24	4357.53	4269.74	4182.50	4095.93

(₹ in lakh)

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

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	43.16	44.59	46.08	47.60	49.18
Maintenance Spares	77.69	80.27	82.94	85.68	88.53
Receivables	727.04	726.26	711.62	697.08	682.66
Total	847.89	851.12	840.64	830.36	820.37
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	114.47	114.90	113.49	112.10	110.75

(₹ in lakh)



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 ₹23828.69 lakh worked out as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

37. The petitioner has claimed additional capital expenditure of ₹217.77 lakh, ₹351.91 lakh and ₹351.91 lakh in 2014-15 in Asset-I, Asset-II and Asset-III respectively under Regulation 14 of the Tariff Regulations 2014. In response of query regarding the undischarged liabilities to be recovered in future, the petitioner has submitted, vide affidavit dated 28.1.2016, the details of undischarged liabilities claimed for 2014-19 tariff period.

38. It is observed that the total capital cost of Asset-II after taking into account the estimated additional capital expenditure of ₹351.91 lakh during 2014-15, exceeds the apportioned approved cost of ₹7228.72 lakh. During the hearing on 20.1.2016, the petitioner submitted that the Revised Cost Estimate (RCE) is under preparation and it will be submitted shortly. Accordingly, in absence of RCE, the Commission admits the



additional capital expenditure for Asset-II as ₹86.73 lakh (after restricting the total capital cost to the apportioned approved cost of ₹7228.72 lakh) during 2014-15. The estimated additional capital expenditure for the Combined Assets-I, II & III as admitted during 2014-19, under Regulation 14(3)(v) of the Tariff Regulations 2014, subject to true-up on actual basis, is as below:-

Combined Assets-I, II & III:

(₹ in lakh)

Capital cost as on 31.3.2014	Additional capital expenditure						Capital cost as on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19	Total	
23828.69	656.41*	-	-	-	-	656.41	24485.10

*Estimated additional capital expenditure of Asset-II has been restricted to ₹86.73 lakh.

Debt: Equity

39. 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.”

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



(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-15	(%)	Total Cost as on 31.3.2019	(%)
Debt	16680.08	70.00	459.49	70.00	17139.57	70.00
Equity	7148.61	30.00	196.92	30.00	7345.53	30.00
Total	23828.69	100.00	656.41	100.00	24485.10	100.00

Return on Equity (“ROE”)

41. 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.”

42. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during the 2013-14 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in



accordance with Clause (3) of Regulation 25 of the 2014 Tariff Regulations. The ROE has been worked out and allowed as follows:-

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	7148.61	7345.53	7345.53	7345.53	7345.53
Additions	196.92	0.00	0.00	0.00	0.00
Closing Equity	7345.53	7345.53	7345.53	7345.53	7345.53
Average Equity	7247.07	7345.53	7345.53	7345.53	7345.53
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	1421.18	1440.49	1440.49	1440.49	1440.49

Interest on Loan (“IoL”)

43. 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.”

44. 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	16680.08	17139.57	17139.57	17139.57	17139.57
Cumulative Repayment upto Previous Year	3603.55	4718.04	5849.86	6981.67	8113.49
Net Loan-Opening	13076.53	12421.53	11289.72	10157.90	9026.08
Additions	459.49	0.00	0.00	0.00	0.00
Repayment during the year	1114.49	1131.82	1131.82	1131.82	1131.82
Net Loan-Closing	12421.53	11289.72	10157.90	9026.08	7894.27
Average Loan	12749.03	11855.62	10723.81	9591.99	8460.17
Weighted Average Rate of Interest on Loan (%)	9.0742	9.0755	9.0769	9.0785	9.0805
Interest on Loan	1156.87	1075.96	973.39	870.81	768.22

Depreciation

45. 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.”s

46. 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	23828.69	24485.10	24485.10	24485.10	24485.10
Additional Capitalisation	656.41	0.00	0.00	0.00	0.00
Closing Gross Block	24485.10	24485.10	24485.10	24485.10	24485.10
Average Gross Block	24156.90	24485.10	24485.10	24485.10	24485.10
Rate of Depreciation (%)	4.61	4.62	4.62	4.62	4.62
Depreciable Value	19400.23	19695.61	19695.61	19695.61	19695.61
Balance Useful life of the asset	25	24	23	22	21
Elapsed Life	3	4	5	6	7
Remaining Depreciable Value	15796.68	14977.58	13845.76	12713.94	11582.13
Depreciation upto previous year	1114.49	1131.82	1131.82	1131.82	1131.82
Cumulative depreciation	4718.04	5849.86	6981.67	8113.49	9245.30

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

47. Clause 4(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
220 kV Bays:					



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
No. of Bays	6	6	6	6	6
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.10
400 kV Bays:					
No. of Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
Transmission Line:					
D/C (Twin/Triple) (km)	33.192	33.192	33.192	33.192	33.192
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
Total O&M Expenses (₹ lakh)	517.93	535.12	552.90	571.23	590.19

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

Interest on Working Capital (“IWC”)

49. 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;”

50. 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%.

51. 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	43.16	44.59	46.07	47.60	49.18
Maintenance Spares	77.69	80.27	82.93	85.68	88.53
Receivables	720.68	716.16	701.79	687.53	673.37
Total	841.53	841.02	830.80	820.81	811.08
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	113.61	113.54	112.16	110.81	109.50

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

52. 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	23828.69	24485.10	24485.10	24485.10	24485.10
Additional Capitalisation	656.41	0.00	0.00	0.00	0.00
Closing Gross Block	24485.10	24485.10	24485.10	24485.10	24485.10
Average Gross Block	24156.90	24485.10	24485.10	24485.10	24485.10
Rate of Depreciation	4.61	4.62	4.62	4.62	4.62
Depreciable Value	19400.23	19695.61	19695.61	19695.61	19695.61
Balance Useful life of the asset	25	24	23	22	21
Elapsed Life	3	4	5	6	7
Remaining Depreciable Value	15796.68	14977.58	13845.76	12713.94	11582.13
Depreciation	1114.49	1131.82	1131.82	1131.82	1131.82
Cumulative depreciation	4718.04	5849.86	6981.67	8113.49	9245.30
Interest on Loan					
Gross Normative Loan	16680.08	17139.57	17139.57	17139.57	17139.57
Cumulative Repayment upto Previous Year	3603.55	4718.04	5849.86	6981.67	8113.49
Net Loan-Opening	13076.53	12421.53	11289.72	10157.90	9026.08
Additions	459.49	0.00	0.00	0.00	0.00
Repayment during the year	1114.49	1131.82	1131.82	1131.82	1131.82
Net Loan-Closing	12421.53	11289.72	10157.90	9026.08	7894.27
Average Loan	12749.03	11855.62	10723.81	9591.99	8460.17
Weighted Average Rate of Interest on Loan	9.0742	9.0755	9.0769	9.0785	9.0805
Interest	1156.87	1075.96	973.39	870.81	768.22
Return on Equity					
Opening Equity	7148.61	7345.53	7345.53	7345.53	7345.53
Additions	196.92	0.00	0.00	0.00	0.00
Closing Equity	7345.53	7345.53	7345.53	7345.53	7345.53
Average Equity	7247.07	7345.53	7345.53	7345.53	7345.53
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500	15.500
MAT rate for the 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	1421.18	1440.49	1440.49	1440.49	1440.49
Interest on Working Capital					
O & M expenses	43.16	44.59	46.07	47.60	49.18



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	77.69	80.27	82.93	85.68	88.53
Receivables	720.68	716.16	701.79	687.53	673.37
Total	841.53	841.02	830.80	820.81	811.08
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	113.61	113.54	112.16	110.81	109.50
Annual Transmission Charges					
Depreciation	1114.49	1131.82	1131.82	1131.82	1131.82
Interest on Loan	1156.87	1075.96	973.39	870.81	768.22
Return on Equity	1421.18	1440.49	1440.49	1440.49	1440.49
Interest on Working Capital	113.61	113.54	112.16	110.81	109.50
O & M Expenses	517.93	535.12	552.90	571.23	590.19
Total	4324.07	4296.93	4210.76	4125.15	4040.22

53. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. However, the instant assets were commissioned after 2009, hence the petitioner's claim does not survive.

Filing Fee and the Publication Expenses

54. 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

55. 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

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

Sharing of Transmission Charges

57. 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.

58. This order disposes of Petition No.10/TT/2015.

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

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



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**Asset-I:**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXVIII-DOCO-	9.33	1235.00	0.00	1235.00
BOND XXIX-DOCO-	9.20	2894.00	0.00	2894.00
BOND XXX-DOCO-	8.80	1812.00	0.00	1812.00
BOND XXXI-DOCO-	8.90	1329.07	0.00	1329.07
BOND XXXIII-ADDCAP FOR 2010-2011 ADDCAP-	8.64	0.00	116.15	116.15
BOND-XXXIV-ADDCAP FOR 2010-2011 ADDCAP-	8.84	0.00	80.53	80.53
BOND XXXVIII-ADDCAP FOR 2011-2012 ADDCAP-	9.25	0.00	220.55	220.55
BOND XXXVIII-ADDCAP FOR 2012-2013 ADDCAP-	9.25	0.00	14.67	14.67
BOND XXXVIII-ADDCAP FOR 2013-2014 ADDCAP-	9.25	0.00	27.31	27.31
Total		7270.07	459.21	7729.28

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

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	0.00	7270.07	7466.75	7687.30	7701.97
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00	0.00	344.09
Net Loans Opening	0.00	7270.07	7466.75	7687.30	7357.88
Add: Drawl(s) during the Year	0.00	196.68	220.55	14.67	27.31
Less: Repayments during the year	0.00	0.00	0.00	344.09	605.85
Net Closing Loan	0.00	7466.75	7687.30	7357.88	6779.34
Average Net Loan	0.00	7368.41	7577.03	7522.59	7068.61
Rate of Interest on Loan (%)*	0.00	9.0629%	9.0612%	9.0601%	9.0560%
Interest on Loan	0.00	667.79	686.57	681.56	640.13

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



Asset-II:

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXVIII-DOCO DRAWL ON 01-JUL-2010-	9.33	850.00	0.00	850.00
BOND XXIX-DOCO DRAWL ON 01-JUL-2010-	9.20	1515.00	0.00	1515.00
BOND XXX-DOCO DRAWL ON 01-JUL-2010-	8.80	580.00	0.00	580.00
BOND XXXI-DOCO-	8.90	897.00	0.00	897.00
BOND-XXXIV-ADDCAP FOR 2010-2011 ADDCAP-	8.84	0.00	165.87	165.87
BOND-XXXV-ADDCAP FOR 2011-2012 ADDCAP-	9.64	0.00	54.00	54.00
BOND XXXVI-ADDCAP FOR 2011-2012 ADDCAP-	9.35	0.00	190.00	190.00
BOND XXXVIII-ADDCAP FOR 2011-2012 ADDCAP-	9.25	0.00	696.60	696.60
BOND XXXVIII-ADDCAP FOR 2012-2013 ADDCAP-	9.25	0.00	50.85	50.85
Total		3842.00	1157.32	4999.32

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

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	0.00	3842.00	4007.87	4948.47	4999.32
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00	0.00	197.08
Net Loans Opening	0.00	3842.00	4007.87	4948.47	4802.24
Add: Drawl(s) during the Year	0.00	165.87	940.60	50.85	0.00
Less: Repayments during the year	0.00	0.00	0.00	197.08	320.16
Net Closing Loan	0.00	4007.87	4948.47	4802.24	4482.08
Average Net Loan	0.00	3924.94	4478.17	4875.36	4642.16
Rate of Interest on Loan (%)*	0.00	9.0929%	9.1092%	9.1248%	9.1238%
Interest on Loan	0.00	356.89	407.92	444.87	423.54

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



Asset-III:

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXVIII-DOCO DRAWL ON 01-FEB 2012-	9.33	715.00	0.00	715.00
BOND XXIX-DOCO DRAWL ON 01-FEB-2012-	9.20	869.00	0.00	869.00
BOND XXX-DOCO-	8.80	261.18	0.00	261.18
BOND XXXI-DOCO-	8.90	898.93	0.00	898.93
BOND XXXIII-DOCO DRAWL ON 01-FEB 2012-	8.64	205.00	0.00	205.00
BOND-XXXIV-DOCO-	8.84	587.47	0.00	587.47
BOND XXXVIII-ADDCAP FOR 2011-2012 addcap-	9.25	0.00	406.38	406.38
BOND XXXVIII-ADDCAP FOR 2012-2013 ADDCAP-	9.25	0.00	50.85	50.85
Total		3536.58	360.68	3993.81

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

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	0.00	0.00	3536.58	3942.96	3993.81
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	0.00	0.00	132.00
Net Loans Opening	0.00	0.00	3536.58	3942.96	3861.81
Add: Drawl(s) during the Year	0.00	0.00	406.38	50.85	0.00
Less: Repayments during the year	0.00	0.00	0.00	132.00	228.68
Net Closing Loan	0.00	0.00	3942.96	3861.81	3633.13
Average Net Loan	0.00	0.00	3739.77	3902.39	3747.47
Rate of Interest on Loan (%)*	0.00	0.00	9.0403%	9.0489%	9.0451%
Interest on Loan	0.00	0.00	338.09	353.12	338.96

*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)**Combined Assets- I, II & III:**

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVIII-1.DOCO-	9.33	1235.00	0.00	1235.00
BOND XXVIII-10.DOCO DRAWL ON 01-JUL-2010-	9.33	850.00	0.00	850.00
BOND XXVIII-19.DOCO DRAWL ON 01-FEB-2012-	9.33	715.00	0.00	715.00
BOND XXIX-11.DOCO DRAWL ON 01-JUL-2010-	9.20	1515.00	0.00	1515.00
BOND XXIX-2.DOCO-	9.20	2894.00	0.00	2894.00
BOND XXIX-20.DOCO DRAWL ON 01-FEB-2012-	9.20	869.00	0.00	869.00
BOND XXX-12.DOCO DRAWL ON 01-JUL-2010-	8.80	580.00	0.00	580.00
BOND XXX-22.DOCO-	8.80	261.18	0.00	261.18
BOND XXX-3.DOCO-	8.80	1812.00	0.00	1812.00
BOND XXXI-13.DOCO-	8.90	897.00	0.00	897.00
BOND XXXI-24.DOCO-	8.90	898.93	0.00	898.93
BOND XXXI-7.DOCO-	8.90	1329.07	0.00	1329.07
BOND XXXIII-21.DOCO DRAWL ON 01-FEB-2012-	8.64	205.00	0.00	205.00
BOND XXXIII-9.ADDCAP FOR 2010-2011 ADDCAP-	8.64	116.15	0.00	116.15
BOND-XXXIV-14.ADDCAP FOR 2010-2011 ADDCAP-	8.84	165.87	0.00	165.87
BOND-XXXIV-25.DOCO-	8.84	587.47	0.00	587.47
BOND-XXXIV-8.ADDCAP FOR 2010-2011 ADDCAP-	8.84	80.53	0.00	80.53
BOND-XXXV-15.ADDCAP FOR 2011-2012 ADDCAP-	9.64	54.00	0.00	54.00
BOND XXXVI-16.ADDCAP FOR 2011-2012 ADDCAP-	9.35	190.00	0.00	190.00
BOND XXXVIII- 17.ADDCAP FOR 2011- 2012 ADDCAP-	9.25	696.60	0.00	696.60
BOND XXXVIII- 18.ADDCAP FOR 2012- 2013 ADDCAP-	9.25	50.85	0.00	50.85



Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXVIII-23.ADDCAP FOR 2012-2013 ADDCAP-	9.25	50.85	0.00	50.85
BOND XXXVIII-26.ADDCAP FOR 2011-2012 addcap-	9.25	406.38	0.00	406.38
BOND XXXVIII-4.ADDCAP FOR 2011-2012 ADDCAP-	9.25	220.55	0.00	220.55
BOND XXXVIII-5.ADDCAP FOR 2012-2013 ADDCAP-	9.25	14.67	0.00	14.67
BOND XXXVIII-6.ADDCAP FOR 2013-2014 ADDCAP-	9.25	27.31	0.00	27.31
Total		16722.41	0.00	16722.41

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	16722.41	16722.41	16722.41	16722.41	16722.41
Cumulative Repayments of Loans up to Previous Year	1827.86	3078.80	4334.24	5602.35	6870.46
Net Loans Opening	14894.55	13643.61	12388.17	11120.06	9851.95
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	1250.94	1255.44	1268.11	1268.11	1268.11
Net Closing Loan	13643.61	12388.17	11120.06	9851.95	8583.84
Average Net Loan	14269.08	13015.89	11754.12	10486.01	9217.90
Rate of Interest on Loan (%)*	9.0742%	9.0755%	9.0769%	9.0785%	9.0805%
Interest on Loan	1294.80	1181.26	1066.91	951.97	837.03

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

