

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.101/TT/2015

Coram:

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

**Date of Hearing: 20.01.2016
Date of Order : 09.02.2016**

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 for Transmission System Associated with NRSS-V in Northern Region consisting of Asset-I:LILO of 400 kV Hissar-Bassi transmission line at Bhiwadi along with associated bays, Asset-II: 400 kV D/C Agra- Bhiwadi transmission line along with associated bays, Asset-III: 400 kV D/C Bhiwadi-Moga transmission line along with associated bays at Moga & Bhiwadi end including of 02 nos. 63 MVAR line reactor at Moga end & Asset-IV:80 MVAR Bus Reactor at Bhiwadi Sub-station

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 - 302 005.
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.,
UrjaBhawan, Kanwali Road,
Dehradun



16. North Central Railway,
Allahabad

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

.....Respondent(s)

The following were present:

For Petitioner: Shri M.M. Mondal, PGCIL
Shri S.K Venkatesan, PGCIL
Smt. Sangeeta Edwards, PGCIL
Shri S.C. Taneja, 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 Amit Yadav, PGCIL
Shri G.C. Dhal, PGCIL

For Respondents: Shri Pradeep Mishra, Advocate, Rajasthan Discoms
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 for the period 1.4.2009 to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of



Combined Assets for Transmission System Associated with NRSS-V in Northern Region consisting of Asset-I:LILO of 400 kV Hissar-Bassi transmission line at Bhiwadi along with associated bays (COD 1.4.2009), Asset-II: 400 kV D/C Agra-Bhiwadi transmission line along with associated bays (COD 1.9.2009), Asset-III: 400 kV D/C Bhiwadi-Moga transmission line along with associated bays at Moga & Bhiwadi end including of 02 nos. 63 MVAR line reactor at Moga end (COD 1.4.2010) & Asset-IV:80 MVAR Bus Reactor at Bhiwadi Sub-station (COD 1.1.2011) (hereinafter referred to as "the transmission assets").

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

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

a) The administrative approval of the scheme was accorded by the MoP vide letter dated 9.6.2006 at an estimated cost of ₹72125.00 lakh including an IDC of ₹3266.00 lakh. The assets were commissioned during 2009 to 2011 period.

b) The annual transmission charges from respective COD to 31.3.2014 based on admitted capital cost of the transmission asset and debt:equity as on COD were determined through various orders as follows:

Assets	Date of Order	Petition No	Description
Asset I & Combined Asset I & II	25.5.2011	251/2010	Based on admitted capital cost of ₹7132.56 lakh for Asset I and ₹27982.56 lakh for Combined Assets I&II as on COD.
Combined Asset I, II & III	5.7.2011	294/2010	Based on admitted capital cost of ₹61285 lakh for Combined Asset I, II and III as on COD.
Asset IV	19.5.2014	112/TT/2012	Based on admitted capital cost of ₹994.28 lakh for Asset IV as on COD.

c) The annual transmission charges was determined based on estimated additional capital expenditure towards the balance and retention payments COD to 31.3.2014, as shown below:-

(₹ in lakh)

Asset	COD	Approved Apporportioned Cost	Admitted cost as on 31.3.2009/COD	Allowed Additional capital expenditure during 2009-14	Estimated total cost up to 31.3.2014
Asset I	1.4.2009	9290.43	7132.56	2202.43	9334.99
Asset II	1.9.2009	23400.32	20849.98	1677.47	22527.47
Asset III	1.4.2010	38247.39	33302.70	1783.24	35085.94
Asset IV	1.1.2011	1186.56	994.28	89.52	1083.80

d) The Commission determined the tariff for 2009-14 tariff period, based on the above capital cost and estimated additional capital expenditure for the transmission assets during 2009-14 as given below:-

For Asset-I vide order dated 25.5.2011

(₹ in lakh)

Particulars	2009-10 (Pro-rata upto COD of Asset II)
Depreciation	159.50
Interest on Loan	61.37
Return on Equity	158.19
Interest on Working Capital	11.09
O & M Expenses	63.83
Total	453.98

For Combined Assets-I &II vide order dated 25.5.2011

(₹ in lakh)

Particulars	2009-10 (Pro-rata upto COD of Asset III)
Depreciation	870.56
Interest on Loan	336.26
Return on Equity	863.79

Particulars	2009-10 (Pro-rata upto COD of Asset III)
Interest on Working Capital	57.58
O & M Expenses	288.43
Total	2416.62

(₹ in lakh)

For Combined Assets-I, II & III vide order dated 5.7.2011

Particulars	2010-11	2011-12	2012-13	2013-14
Depreciation	3374.50	3510.82	3538.51	3538.51
Interest on Loan	1192.07	1145.18	1053.32	951.06
Return on Equity	3348.29	3483.38	3510.85	3510.85
Interest on Working Capital	204.92	212.09	214.18	215.12
O & M Expenses	976.79	1032.72	1091.72	1153.91
Total	9096.57	9384.18	9408.58	9369.46

For Asset - IV vide order dated 19.5.2014

Particulars	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation	12.13	49.89	51.14	52.12
Interest on Loan	3.39	13.41	12.81	12.01
Return on Equity	12.38	50.13	50.62	51.59
Interest on Working Capital	1.14	4.74	4.91	5.10
O & M Expenses	13.85	58.57	61.92	65.46
Total	42.89	176.74	181.40	186.27

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

5. In this context, the petitioner has filed the instant petition on 18.11.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

6. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 ("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.

7. The hearing in this matter was held on 20.1.2016. During the hearing, the petitioner was directed to submit the reply to its letter dated 18.1.2016 seeking details of undischarged liabilities and actual equity infused during 2009-14 and 2014-19 tariff periods. The petitioner has submitted the replies vide affidavit dated 28.1.2016. During the hearing, learned counsel for Rajasthan Discoms requested for one week time to file reply and they were given time till 27.1.2016 to file reply. No reply has been received from the Rajasthan Discoms.

8. 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:-

9. 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”.



10. 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

11. The petitioner has claimed opening capital cost, based on the capital cost approved by the Commission as on 31.3.2009, in respect of the transmission asset for the purpose of tariff determination. The details of capital cost claimed is as follows:

(₹ in lakh)

Asset	As on	Admitted cost as on 31.3.2009/COD	Actual Capital Cost Claimed in the Instant Petition
Asset I	1.4.2009	7132.56	7132.57
Asset II	1.9.2009	20850.00	20849.98
Asset III	1.4.2010	33302.70	33302.70
Asset IV	1.1.2011	937.98*	937.99*

*After deducting IDC/IEDC of 56.30 lakh

12. The last proviso to Regulation 7(2) of the 2009 Tariff Regulations provides that:-

“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff”.

13. Accordingly, the capital cost of ₹7132.57 lakh, ₹20849.98 lakh, ₹33302.70 lakh and ₹937.99 lakh for Asset I, II, II and IV respectively has been considered by the Commission as on 1.4.2009/COD for determination of trued up tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.



Additional Capital Expenditure

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

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

15. The petitioner has submitted that it has incurred following additional capital expenditure for all of the Assets during 2010-14 period towards balance and retention payments and for replacement of insulators in fog and pollution affected stretches of existing Northern Region transmission lines in NCR and around and other polluted stretches by polymer (composite long rod) insulators in Northern Region for Asset III, as certified vide Auditor’s Certificate dated 27.12.2014 as depicted below:-

(₹ in lakh)

Name of Asset	Approved Cost	Actual Cost as on COD	Approved / Claimed	Additional Capital Expenditure					Total cost as on 31.3.2014
				2009-10	2010-11	2011-12	2012-13	2013-14	
Asset-I	9290.43	7132.57	Approved by the Commission	212.98	1454.98	534.47	-	-	9334.99
			Claimed by the Petitioner	550.90	31.09	145.01	23.68	31.17	7914.42
Asset-II	23400.32	20849.98	Approved by the Commission	298.42	1315.00	64.05	-	-	22527.47
			Claimed by the Petitioner	298.42	876.91	607.33	137.60	93.52	22863.76
Asset-III*	38247.39	33302.70	Approved by the Commission	-	1333.94	449.3	-	-	35085.94
			Claimed by the Petitioner	-	453.32	1250.79	-27.84	6.7	34985.67

Name of Asset	Approved Cost	Actual Cost as on COD	Approved / Claimed	Additional Capital Expenditure					Total cost as on 31.3.2014
				2009-10	2010-11	2011-12	2012-13	2013-14	
Asset-IV	1186.56	937.99	Approved by the Commission	-	12.35	40.1	7.30	29.77	1083.8
			Claimed by the Petitioner	-	12.35	41.75	10.31	-	1002.4

*excluding the expenditure approved towards replacement of insulators

16. Further, the Commission had approved for replacement of insulators in fog and pollution affected stretches of existing Northern Region transmission lines in NCR and around and other polluted stretches by polymer (composite long rod) insulators in Northern Region vide order dated 7.2.2013 in Petition No. 305/2010. The petitioner has claimed additional expenditure & de-capitalisation for replacement of insulators of Asset III as mentioned below:-

(₹ in lakh)

Asset III	Admitted as per CERC order dated 5.7.2011 in 294/2010 and dated 7.2.2013 in Petition No. 305/2010			Actual claimed by the petitioner as per Auditor Certificate dated 27.12.2014		
Capital Cost as on COD	33302.70			33302.70		
Year	Additional capital Exp. (Polymer Insulator)	De-capitalisation (Polymer Insulator)	Additional capital exp. (Others)	Additional capital exp. (Polymer Insulator)	De-capitalisation (Polymer Insulator)	Additional capital exp.(Others)
2009-10	0.00	0.00	0.00	0.00	0.00	0.00
2010-11	869.71	-868.51	1333.94	620.34	-651.25	484.23
2011-12	0.00	-657.12	44.30	7.09	-5.53	1249.23
2012-13	0.00	0.00	0.00	642.32	-670.16	0.00
2013-14	0.00	0.00	0.00	6.70	0.00	0.00
Sub-total	869.71	-1525.63	1783.24	1276.45	-1326.94	1733.46
Total	34430.02			34985.67		



17. We have considered the submissions of the petitioner with regard to the actual capital expenditure incurred during 2009-14 period. The capital addition and de-capitalization is based on actual capital expenditure incurred as per the Auditor's Certificate dated 27.12.2014 submitted by the petitioner. The additional capital expenditure incurred is within the original scope of work and the total capital expenditure during 2009-14 is within the limits of the total approved capital expenditure. We allow the same for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations. Accordingly, the capital expenditure during 2009-14 is as below:-

(₹ in lakh)

Name of Asset	Cost Upto 31.3.2009	Cost Upto 31.8.2009	Cost Upto 31.3.2010	Total Cost as on COD	Additional Capital Expenditure						Total cost as on 31.3.2014
	(COD of Asset-1: 1.4.2009)	(COD of Asset-II: 1.9.2009)	(COD of Asset-III: 1.4.2010)		2009-10	2010-11	2011-12	2012-13	2013-14	Total	
Asset-I	7132.57	-	-	7132.57	229.54 (till 31.8.2009)	-	-	-	-	229.54	7362.11
Combined Asset I & II	7132.57	20849.98 +229.54	-	28212.09	619.78	908.00	752.34	161.28	124.69	2566.09	30778.18
Combined Asset I, II & III	7132.57	20849.98 +229.54	33302.70 +619.78	62134.57	-	1361.32	2003.13	133.44	131.39	3629.28	65763.85
Asset-IV			937.99	937.99	-	12.35	41.75	10.31	-	64.41	1002.40

Debt: Equity

18. 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.”

19. The debt:equity ratio admitted by the Commission vide order dated 25.5.2011 in Petition No. 251/2010as on COD for Combined Asset I & II, order dated 5.7.2011 in Petition No. 251/2010as on COD for Combined Asset I, II & III and order dated 19.5.2014 in Petition No. 112/TT/2012as on COD for Asset IV, has been considered for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations.

20. The petitioner has submitted, vide affidavit dated 28.1.2016, the details of actual equity infusion for the transmission assets during 2009-14 period. The actual debt:equity ratio for additional capital expenditure as claimed by the petitioner is in accordance with the Regulation 12(1) and Regulation 12 (3) of the 2009 Tariff Regulations and hence, same has been considered towards financing of the additional capital expenditure.

21. The details of the debt:equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

For Asset I

Funding	Capital cost as on COD (₹ in lakh)	(%)
Debt	4992.80	70.00
Equity	2139.77	30.00
Total	7132.57	100.00

For Combined Assets I & II

Funding	Capital cost as on COD (₹ in lakh)	(%)
Debt	19748.46	70.00
Equity	8463.63	30.00
Total	28212.09	100.00

For Combined Assets I, II and III

(₹ in lakh)

FY 2010-11 to FY 2013-14	Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2010-14	(%)	Total Cost as on 31.3.2014	(%)
Combined Asset I, II and III	Debt	43494.20	70.00	3371.98	92.91	46866.18	71.26
	Equity	18640.37	30.00	257.3	7.09	18897.67	28.74
	Total	62134.57	100.00	3629.28	100.00	65763.85	100.00

For Asset-IV

(₹ in lakh)

FY 2010-11 to FY 2013-14	Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2010-14	(%)	Total Cost as on 31.3.2014	(%)
Asset IV	Debt	656.63	70.00	64.36	99.92	720.99	71.93
	Equity	281.36	30.00	0.05	0.08	281.41	28.07
	Total	937.99	100.00	64.41	100	1002.40	100.00

Return on Equity ("ROE")

22. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provide that

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



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

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

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

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

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

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

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

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

For Asset I

Return on Equity	(₹ in lakh)
	2009-10 (Pro-rata)
Approved in order dated 25.5.2011 in 251/2010	158.19
Claimed by the petitioner	172.92
Allowed after trued up in this order	172.92



For Asset I, II and III

(₹ in lakh)

Return on Equity	2009-10 (Asset I & II) Pro- rata	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Approved in order dated 25.2.2011 for 2009-10 and Order dated 5.7.2011 for 2010-14	863.79	3348.29	3483.38	3510.85	3510.85
Claimed by the petitioner	932.08	3633.29	3661.76	3661.76	3705.81
Allowed after trued up in this order	932.06	3633.28	3661.76	3661.76	3705.81

For Asset IV

(₹ in lakh)

Return on Equity	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Approved in order dated 19.5.2014	12.38	50.13	50.62	51.59
Claimed by the petitioner	13.62	54.53	54.53	55.18
Allowed after trued up in this order	13.62	54.53	54.53	55.19

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

Interest on Loan (“IoL”)

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:-

For Asset I

(₹ in lakh)

Return on Equity	2009-10 (Pro-rata)
Approved in order dated 25.5.2011 in 251/2010	61.37
Claimed by the petitioner	48.45
Allowed after trued up in this order	48.45

For Asset I, II and III

(₹ in lakh)

Interest on Loan	2009-10 (Asset I & II) Pro-rata	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Approved in order dated 25.2.2011 for 2009-10 and Order dated 5.7.2011 for 2010-14	336.26	1192.07	1145.18	1053.32	951.06
Claimed by the petitioner	233.29	796.61	749.39	785.06	637.45
Allowed after trued up in this order	233.29	793.64	748.88	785.44	637.45

For Asset IV

(₹ in lakh)

Interest on Loan	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Approved in order dated 19.5.2014	3.39	13.41	12.81	12.01
Claimed by the petitioner	3.06	12.37	13.27	10.96
Allowed after trued up in this order	3.15	12.36	13.27	10.96

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:-

For Asset I

(₹ in lakh)	
Return on Equity	2009-10 (Pro-rata)
Approved in order dated 25.5.2011 in 251/2010	159.50
Claimed by the petitioner	163.22
Allowed after trued up in this order	163.22

For Asset I, II and III

(₹ in lakh)					
Depreciation	2009-10 (Asset I & II) Pro-rata	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Approved in order dated 25.2.2011 for 2009-10 and Order dated 5.7.2011 for 2010-14	870.56	3374.50	3510.82	3538.51	3538.51
Claimed by the petitioner	879.30	3319.78	3408.76	3465.36	3472.51
Allowed after trued up in this order	879.30	3319.78	3408.76	3465.36	3472.50

For Asset IV

(₹ in lakh)				
Depreciation	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Approved in order dated 19.5.2014	12.13	49.89	51.14	52.12
Claimed by the petitioner	12.13	49.93	51.30	51.58
Allowed after trued up in this order	12.13	49.93	51.31	51.58



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

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

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

For Asset I

	(₹ in lakh)
Return on Equity	2009-10 (Pro-rata)
Approved in order dated 25.5.2011 in 251/2010	63.83
Claimed by the petitioner	63.83
Allowed after trued up in this order	63.83

For Asset I, II and III

	(₹ in lakh)				
O&M Expenses	2009-10 (Asset I & II) Pro-rata	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Approved in order dated 25.2.2011 for 2009-10 and Order dated 5.7.2011 for 2010-14	288.43	976.79	1032.72	1091.72	1153.91
Claimed by the petitioner	288.43	976.79	1032.72	1091.73	1153.91
Allowed after trued up in this order	288.43	976.79	1032.72	1091.73	1153.91

For Asset IV

(₹ in lakh)

O&M Expenses	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Approved in order dated 19.5.2014	13.85	58.57	61.92	65.46
Claimed by the petitioner	13.85	58.57	61.92	65.46
Allowed after trued up in this order	13.85	58.57	61.92	65.46

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:-

For Asset I

(₹ in lakh)

Return on Equity	2009-10 (Pro-rata)
Approved in order dated 25.5.2011 in 251/2010	11.09
Claimed by the petitioner	11.21
Allowed after trued up in this order	11.21

For Asset I, II and III

(₹ in lakh)

Interest on Working Capital	2009-10 (Asset I & II) Pro- rata	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Approved in order dated 25.2.2011 for 2009-10 and Order dated 5.7.2011 for 2010-14	57.58	204.92	212.09	214.18	215.12
Claimed by the petitioner	57.04	201.62	205.71	210.38	211.43
Allowed after trued up in this order	57.04	201.56	205.69	210.38	211.43

For Asset IV

(₹ in lakh)

Interest on Working Capital	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Approved in order dated 19.5.2014	1.14	4.74	4.91	5.10
Claimed by the petitioner	1.16	4.81	5.00	5.13
Allowed after trued up in this order	1.16	4.81	5.00	5.13

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:-

For Asset I: From 1.4.2009 to 31.8.2009

Particulars	2009-10 (pro-rata)
Depreciation	
Opening Gross Block	7132.57
Additional Capitalisation	0.00
Closing Gross Block	7683.47
Average Gross Block	7408.02
Rate of Depreciation	5.28
Depreciable Value	6419.31
Balance Useful life of the asset	35
Elapsed Life	0
Remaining Depreciable Value	6419.31
Depreciation during the year	163.22
Cumulative depreciation	163.22
Interest on Loan	
Gross Normative Loan	4992.80
Cumulative Repayment upto Previous Year	0.00



Particulars	2009-10 (pro-rata)
Net Loan-Opening	4992.80
Additions	385.63
Repayment during the year	163.22
Net Loan-Closing	5215.21
Average Loan	5104.01
Weighted Average Rate of Interest on Loan (%)	2.2781
Interest on Loan	48.45
Return on Equity	
Opening Equity	2139.77
Additions	165.27
Closing Equity	2305.04
Average Equity	2222.41
Return on Equity (Base Rate)	15.500
MAT rate for the respective year	16.995
Rate of Return on Equity	18.674
Return on Equity	415.00
Interest on Working Capital	
O & M expenses	12.77
Maintenance Spares	22.98
Receivables	183.85
Total	219.60
Rate of Interest(%)	12.25
Interest	26.90
Annual Transmission Charges	
Depreciation	163.22
Interest on Loan	48.45
Return on Equity	172.92
Interest on Working Capital	11.21
O & M Expenses	63.83
Total	459.62

For Asset I, II and III: From 1.9.2009 to 31.3.2014

(₹ in lakh)

Particulars	2009-10 (Asset I & II) Pro-rata up to 1.4.2010	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Depreciation					
Opening Gross Block	28212.09	62134.57	63495.89	65499.02	65632.46
Additional	619.78	1361.32	2003.13	133.44	131.39



Particulars	2009-10 (Asset I & II) Pro-rata up to 1.4.2010	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Capitalisation					
Closing Gross Block	28831.87	63495.89	65499.02	65632.46	65763.85
Average Gross Block	28521.98	62815.23	64497.46	65565.74	65698.16
Rate of Depreciation	5.28	5.28	5.28	5.28	5.28
Depreciable Value	25669.78	56533.71	58047.71	59009.17	59128.34
Balance Useful life of the asset	35	34	33	32	31
Elapsed Life	0	0	1	2	3
Remaining Depreciable Value	25506.56	55491.19	53772.27	51321.65	47976.61
Depreciation during the year	879.3	3319.78	3408.76	3465.36	3472.5
Cumulative depreciation (incl. of AAD)	1042.52	4362.3	7684.2	11152.87	14624.24
Interest on Loan					
Gross Normative Loan	19748.46	43494.2	44598.45	46601.56	46735
Cumulative Repayment upto Previous Year	163.22	1042.52	4362.3	7771.06	11236.42
Net Loan-Opening	19585.24	42451.68	40236.15	38830.5	35498.58
Additions	433.85	1104.25	2003.11	133.44	131.18
Repayment during the year	879.3	3319.78	3408.76	3465.36	3472.5
Net Loan-Closing	19139.79	40236.15	38830.5	35498.58	32157.26
Average Loan	19362.52	41343.91	39533.32	37164.54	33827.92
Weighted Average Rate of Interest on Loan (%)	2.0655	1.9196	1.8943	2.1134	1.8844
Interest on Loan	233.29	793.64	748.88	785.44	637.45
Return on Equity					
Opening Equity	8463.63	18640.37	18897.44	18897.46	18897.46
Additions	185.93	257.07	0.02	0	0.21
Closing Equity	8649.56	18897.44	18897.46	18897.46	18897.67
Average Equity	8556.59	18768.91	18897.45	18897.46	18897.57
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective year	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity	18.674	19.358	19.377	19.377	19.610
Return on Equity	932.06	3633.28	3661.76	3661.76	3705.81
Interest on					



Particulars	2009-10 (Asset I & II) Pro-rata up to 1.4.2010	2010-11 (Asset I, II & III)	2011-12 (Asset I, II & III)	2012-13 (Asset I, II & III)	2013-14 (Asset I, II & III)
Working Capital					
O & M expenses	41.19	81.37	86.03	90.94	96.12
Maintenance Spares	74.17	146.52	154.91	163.76	173.09
Receivables	682.89	1,487.51	1,509.64	1,535.78	1,530.19
Total	798.25	1,715.39	1,750.57	1,790.48	1,799.39
Rate of Interest	12.25	11.75	11.75	11.75	11.75
Interest on Working Capital	57.04	201.56	205.69	210.38	211.43
Annual Transmission Charges					
Depreciation	879.3	3319.78	3408.76	3465.36	3472.5
Interest on Loan	233.29	793.64	748.88	785.44	637.45
Return on Equity	932.06	3633.28	3661.76	3661.76	3705.81
Interest on Working Capital	57.04	201.56	205.69	210.38	211.43
O & M Expenses	288.43	976.79	1032.72	1091.73	1153.91
Total	2390.12	8925.05	9057.81	9214.66	9181.11

For Asset IV: From 1.1.2011 to 31.3.2014

(₹ in lakh)

Particulars	2010-11 (Pro-rata up to 31.3.2011)	2011-12	2012-13	2013-14
Depreciation				
Opening Gross Block	937.99	950.34	992.09	1002.40
Additional Capitalisation	12.35	41.75	10.31	0.00
Closing Gross Block	950.34	992.09	1002.40	1002.40
Average Gross Block	944.17	971.22	997.25	1002.40
Rate of Depreciation	5.28	5.28	5.28	5.28
Depreciable Value	849.75	874.09	897.52	902.16
Balance Useful life of the asset	25	24	23	22
Elapsed Life	0	1	2	3
Remaining Depreciable Value	0.00	861.97	835.46	788.80
Depreciation during the year	12.13	49.93	51.31	51.58
Cumulative depreciation (incl. of AAD)	12.13	62.06	113.36	164.94
Interest on Loan				
Gross Normative Loan	656.63	668.93	710.68	720.99
Cumulative Repayment upto Previous Year	0.00	12.13	62.06	113.36
Net Loan-Opening	656.63	656.80	648.62	607.63
Additions	12.30	41.75	10.31	0.00
Repayment during the year	12.13	49.93	51.31	51.58



Particulars	2010-11 (Pro-rata up to 31.3.2011)	2011-12	2012-13	2013-14
Net Loan-Closing	656.80	648.62	607.63	556.05
Average Loan	656.72	652.71	628.12	581.84
Weighted Average Rate of Interest on Loan (%)	1.9196	1.8943	2.1134	1.8844
Interest on Loan	3.15	12.36	13.27	10.96
Return on Equity				
Opening Equity	281.36	281.41	281.41	281.41
Additions	0.05	0.00	0.00	0.00
Closing Equity	281.41	281.41	281.41	281.41
Average Equity	281.39	281.41	281.41	281.41
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500
MAT rate for the respective year	16.995	19.931	20.008	20.008
Rate of Return on Equity	18.674	19.358	19.377	19.377
Return on Equity	13.62	54.53	54.53	55.19
Interest on Working Capital				
O & M expenses	4.62	4.88	5.16	5.46
Maintenance Spares	8.31	8.79	9.29	9.82
Receivables	29.27	30.03	31.00	31.39
Total	42.20	43.70	45.45	46.66
Rate of Interest	11.000	11.000	11.000	11.000
Interest on Working Capital	1.16	4.81	5.00	5.13
Annual Transmission Charges				
Depreciation	12.13	49.93	51.31	51.58
Interest on Loan	3.15	12.36	13.27	10.96
Return on Equity	13.62	54.53	54.53	55.19
Interest on Working Capital	1.16	4.81	5.00	5.13
O & M Expenses	13.85	58.57	61.92	65.46
Total	43.91	180.20	186.03	188.32

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3534.85	3542.16	3542.16	3542.16	3542.16
Interest on Loan	614.15	546.06	475.99	405.91	335.83
Return on Equity	3769.17	3777.32	3777.32	3777.32	3777.32
Interest on Working Capital	243.81	244.66	245.15	245.72	246.36
O & M Expenses	1114.15	1151.46	1189.53	1229.01	1269.79
Total	9276.13	9261.66	9230.15	9200.12	9171.46



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	92.85	95.96	99.13	102.42	105.82
Maintenance Spares	167.12	172.72	178.43	184.35	190.47
Receivables	1546.02	1543.61	1538.36	1533.35	1528.58
Total	1805.99	1812.29	1815.92	1820.12	1824.87
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	243.81	244.66	245.15	245.72	246.36

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 capital cost of ₹66766.25 lakh worked out by the Commission as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

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

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the

following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

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

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

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

37. The notional COD of the Combined Assets is 1.1.2011 and the cut-off date works out to be 31.3.2014. The petitioner has claimed additional capital expenditure of ₹252.23 lakh for Asset-I and ₹24.77 lakh for Asset- IV during 2014-15 on account of balance and retention payments, under Regulation 14(1).

38. We have considered the submissions of the petitioner with regard to the projected capital expenditure during 2014-19. The claimed Additional capital expenditure is towards balance and retention payments for works executed before the cut-off date and the same has been certified by the Auditor vide Certificate dated 27.12.2014. The petitioner has submitted, vide affidavit dated 28.1.2016, the break-up of additional capital expenditure projected during 2014-15 period, on account of balance and



retention payments . Further, the total cost as on 31.3.2019 for all the assets is within their approved cost. The petitioner has also submitted that the actual equity infusion during 2009-14 period is not less than 30%. Thus, the projected additional capital expenditure during 2014-15 is allowed for the purpose of revision of tariff in accordance with Regulation 14(3)(v) of the 2014 Tariff Regulations, subject to true-up on actual basis.

39. Accordingly, the capital cost of the Combine Assets including the additional capital expenditure during 2014-19 tariff period is as below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	66766.25	67043.25	67043.25	67043.25	67043.25
Addition during 2014-19	277.00	00.00	00.00	00.00	00.00
Gross Block	67043.25	67043.25	67043.25	67043.25	67043.25

Debt: Equity

40. 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.”

41. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period are as follows:-

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	47587.17	71.27	193.90	70.00	47781.07	71.27
Equity	19179.08	28.73	83.10	30.00	19262.18	28.73
Total	66766.25	100.00	277.00	100.00	29258.84	100.00

Return on Equity ("ROE")

42. 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."

43. 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	19179.08	19262.18	19262.18	19262.18	19262.18
Additions	83.10	0.00	0.00	0.00	0.00
Closing Equity	19262.18	19262.18	19262.18	19262.18	19262.18
Average Equity	19220.63	19262.18	19262.18	19262.18	19262.18
Return on Equity (BaseRate)(%)	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	3769.25	3777.40	3777.40	3777.40	3777.40

Interest on Loan (“IoL”)

44. 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.”

45. 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. 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	47587.17	47781.07	47781.07	47781.07	47781.07
Cumulative Repayment upto Previous Year	14873.86	18408.72	21950.90	25493.08	29035.25
Net Loan-Opening	32713.31	29372.35	25830.17	22287.99	18745.82
Additions	193.90	0.00	0.00	0.00	0.00
Repayment during the year	3534.86	3542.18	3542.18	3542.18	3542.18
Net Loan-Closing	29372.35	25830.17	22287.99	18745.82	15203.64
Average Loan	31042.83	27601.26	24059.08	20516.91	16974.73
Weighted Average Rate of Interest on Loan (%)	1.9784	1.9784	1.9784	1.9784	1.9784
Interest on Loan	614.15	546.06	475.98	405.91	335.83

Depreciation

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

"27. Depreciation:

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

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

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

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

47. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	66766.25	67043.25	67043.25	67043.25	67043.25
Additional Capitalisation	277.00	0.00	0.00	0.00	0.00
Closing Gross Block	67043.25	67043.25	67043.25	67043.25	67043.25
Average Gross Block	66904.75	67043.25	67043.25	67043.25	67043.25
Rate of Depreciation	5.28	5.28	5.28	5.28	5.28
Depreciable Value	60214.28	60338.93	60338.93	60338.93	60338.93
Balance Useful life of the asset	30	29	28	27	26
Elapsed Life	4	5	6	7	8
Remaining Depreciable Value	45430.58	42020.37	38478.19	34936.02	31393.84
Depreciation	3534.86	3542.18	3542.18	3542.18	3542.18
Cumulative depreciation	18318.56	21860.73	25402.91	28945.09	32487.26

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

48. The petitioner has 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 submitted that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

49. We have considered the submissions of the petitioner. 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 assets as per the prevailing norms.

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

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays :					
No. of Bays	11	11	11	11	11
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
S/C (Twin/Triple Conductor):					
Length (Km)	4.242	4.242	4.242	4.242	4.242
Norms (₹ lakh/Km)	0.404	0.418	0.432	0.446	0.461
D/C (Twin/Triple Conductor):					
Length (Km)	635.27	635.27	635.27	635.27	635.27
Norms (₹ lakh/Km)	0.707	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	1114.15	1151.46	1189.53	1229.01	1269.79

Interest on Working Capital (“IWC”)

51. 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;”



52. 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%.

53. 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	92.85	95.95	99.13	102.42	105.82
Maintenance Spares	167.12	172.72	178.43	184.35	190.47
Receivables	1546.04	1543.63	1538.37	1533.37	1528.59
Total	1806.01	1812.30	1815.93	1820.14	1824.88
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	243.81	244.66	245.15	245.72	246.36

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

54. 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	66766.25	67043.25	67043.25	67043.25	67043.25
Additional Capitalisation	277.00	0.00	0.00	0.00	0.00
Closing Gross Block	67043.25	67043.25	67043.25	67043.25	67043.25
Average Gross Block	66904.75	67043.25	67043.25	67043.25	67043.25
Rate of Depreciation	5.28	5.28	5.28	5.28	5.28
Depreciable Value	60214.28	60338.93	60338.93	60338.93	60338.93
Balance Useful life of the asset	30	29	28	27	26
Elapsed Life	4	5	6	7	8

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Remaining Depreciable Value	45430.58	42020.37	38478.19	34936.02	31393.84
Depreciation	3534.86	3542.18	3542.18	3542.18	3542.18
Cumulative depreciation	18318.56	21860.73	25402.91	28945.09	32487.26
Interest on Loan					
Gross Normative Loan	47587.17	47781.07	47781.07	47781.07	47781.07
Cumulative Repayment upto Previous Year	14873.86	18408.72	21950.90	25493.08	29035.25
Net Loan-Opening	32713.31	29372.35	25830.17	22287.99	18745.82
Additions	193.90	0.00	0.00	0.00	0.00
Repayment during the year	3534.86	3542.18	3542.18	3542.18	3542.18
Net Loan-Closing	29372.35	25830.17	22287.99	18745.82	15203.64
Average Loan	31042.83	27601.26	24059.08	20516.91	16974.73
Weighted Average Rate of Interest on Loan	1.9784	1.9784	1.9784	1.9784	1.9784
Interest	614.15	546.06	475.98	405.91	335.83
Return on Equity					
Opening Equity	19179.08	19262.18	19262.18	19262.18	19262.18
Additions	83.10	0.00	0.00	0.00	0.00
Closing Equity	19262.18	19262.18	19262.18	19262.18	19262.18
Average Equity	19220.63	19262.18	19262.18	19262.18	19262.18
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	3769.25	3777.40	3777.40	3777.40	3777.40
Interest on Working Capital					
O & M expenses	92.85	95.95	99.13	102.42	105.82
Maintenance Spares	167.12	172.72	178.43	184.35	190.47
Receivables	1546.04	1543.63	1538.37	1533.37	1528.59
Total	1806.01	1812.30	1815.93	1820.14	1824.88
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	243.81	244.66	245.15	245.72	246.36
Annual Transmission Charges					

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3534.86	3542.18	3542.18	3542.18	3542.18
Interest on Loan	614.15	546.06	475.98	405.91	335.83
Return on Equity	3769.25	3777.40	3777.40	3777.40	3777.40
Interest on Working Capital	243.81	244.66	245.15	245.72	246.36
O & M Expenses	1114.15	1151.46	1189.53	1229.01	1269.79
Total	9276.23	9261.76	9230.24	9200.21	9171.56

Deferred Tax Liability

55. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same gets materialized directly from the beneficiaries or long term transmission customers /DICs.

Filing Fee and the Publication Expenses

56. 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

57. 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

58. 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.

Foreign Exchange Rate Variation

59. The petitioner has sought recovery of FERV on foreign loans deployed under clause 50 of 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from the beneficiaries or the long term transmission customers / DICs, as the case may be, in accordance with Regulation 51(1) of the 2014 Tariff Regulations.

Sharing of Transmission Charges

60. 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.

61. This order disposes of Petition No.101/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
	2009-10	2010-11	2011-12	2012-13	2013-14			
ADB III-ADDCAP FOR 2009-2010 Ad cap loan-47.38	2.2781	1.9196	1.8943	2.1134	1.8844	0.00	160.68	160.68
ADB III-DOCO-51.55	2.2781	1.9196	1.8943	2.1134	1.8844	4992.62	0.00	4992.62
ADB III-DOCO..-47.38	2.2781	1.9196	1.8943	2.1134	1.8844	0.00	224.95	224.95
Total						4992.62	385.63	5378.25

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	4992.62	5378.25	5378.25	5378.25	5378.25
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	4992.62	5378.25	5378.25	5378.25	5378.25
Add: Draw(s) during the Year	385.63	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	5378.25	5378.25	5378.25	5378.25	5378.25
Average Net Loan	5185.44	5378.25	5378.25	5378.25	5378.25
Rate of Interest on Loan* (%)	2.2781%	1.9196%	1.8943%	2.1134%	1.8844%
Interest on Loan	118.13	103.24	101.88	113.66	101.35

*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 (2009-14)

Combined Asset- I&II

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
ADB III-1.DOCO-49.29	2.0700	1.9196	1.8943	2.1134	1.8844	14594.77	0.00	14594.77
ADB III-2.ADDCAP FOR 2009-2010 Add Cap.-47.38	2.0700	1.9196	1.8943	2.1134	1.8844	0.00	208.89	208.89
ADB III-3.ADDCAP FOR 2009-2010 Ad cap Loan-47.38	2.0700	1.9196	1.8943	2.1134	1.8844	160.68	0.00	160.68
ADB III-4.DOCO-51.55	2.0700	1.9196	1.8943	2.1134	1.8844	4992.62	0.00	4992.62
ADB III-5.DOCO..-47.38	2.0700	1.9196	1.8943	2.1134	1.8844	0.00	224.95	224.95
Total						19748.07	433.84	20181.91

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	19748.07	20181.91	20181.91	20181.91	20181.91
Cumulative Repayments of Loans upto Previous Year	0.00	268.99	268.99	268.99	268.99
Net Loans Opening	19748.07	19912.92	19912.92	19912.92	19912.92
Add: Draw(s) during the Year	433.84	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	268.99	0.00	0.00	0.00	0.00
Net Closing Loan	19912.92	19912.92	19912.92	19912.92	19912.92
Average Net Loan	159.61	19912.92	19912.92	19912.92	19912.92
Rate of Interest on Loan* (%)	2.0655%	1.9196%	1.8943%	2.1134%	1.8844%
Interest on Loan	3.29	382.25	377.21	420.84	375.24

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



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

Combined Asset- I, II& III

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
ADB III- 1.DOCO Loan 1-45.67	1.9196	1.8943	2.1134	1.8844	0.0000	23310.42	0.00	23310.42
ADB III- 10.5.DOCO..- 47.38	1.9196	1.8943	2.1134	1.8844	0.0000	224.95	0.00	224.95
ADB III- 2.ADDCAP FOR 2010-2011 Add Cap-47.43	1.9196	1.8943	2.1134	1.8844	0.0000	0.00	1104.25	1104.25
ADB III- 3.ADDCAP FOR 2011-2012 Add Cap.-46.78	1.9196	1.8943	2.1134	1.8844	0.0000	0.00	2003.11	2003.11
ADB III- 4.ADDCAP FOR 2012-2013 Add Cap..-49.02	1.9196	1.8943	2.1134	1.8844	0.0000	0.00	133.44	133.44
ADB III- 5.ADDCAP FOR 2013-2014 Add Cap...-53.57	1.9196	1.8943	2.1134	1.8844	0.0000	0.00	131.18	131.18
ADB III- 6.1.DOCO- 49.29	1.9196	1.8943	2.1134	1.8844	0.0000	14594.77	0.00	14594.77
ADB III- 7.2.ADDCAP FOR 2009-2010 ADDCAP 47-38	1.9196	1.8943	2.1134	1.8844	0.0000	208.89	0.00	208.89
ADB III- 8.3.ADDCAP FOR 2009-2010 Ad cap loan-47.38	1.9196	1.8943	2.1134	1.8844	0.0000	160.68	0.00	160.68
ADB III- 9.4.DOCO- 51.55	1.9196	1.8943	2.1134	1.8844	0.0000	4992.62	0.00	4992.62
Total						43492.33	3371.98	46864.31



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	43492.33	44596.58	46599.69	46733.13
Cumulative Repayments of Loans upto Previous Year	0.00	579.68	1934.44	3549.42	5381.52
Net Loans Opening	0.00	42912.65	42662.14	43050.27	41351.61
Add: Draw(s) during the Year	0.00	1104.25	2003.11	133.44	131.18
Less: Repayments of Loan during the year	0.00	1354.76	1614.98	1832.10	2045.55
Net Closing Loan	0.00	42662.14	43050.27	41351.61	39437.24
Average Net Loan	0.00	42787.40	42856.21	42200.94	40394.43
Rate of Interest on Loan* (%)	0.00	1.9196%	1.8943%	2.1134%	1.8844%
Interest on Loan	0.00	821.35	811.83	891.87	761.19

*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 (2009-14)

Asset-IV

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
ADB III-ADDCAP FOR 2010-2011 Add cap....-47.38	2.2781	1.9196	1.8943	2.1134	1.8844	0.00	12.30	12.30
ADB III-ADDCAP FOR 2011-2012 Add Cap-49.02	2.2781	1.9196	1.8943	2.1134	1.8844	0.00	41.75	41.75
ADB III-ADDCAP FOR 2012-2013 Add Cap-49.02	2.2781	1.9196	1.8943	2.1134	1.8844	0.00	10.31	10.31
ADB III-DOCO Loan 1-45.26	2.2781	1.9196	1.8943	2.1134	1.8844	656.63	0.00	656.63
Total						656.63	64.36	720.99

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	656.63	668.93	710.68	720.99
Cumulative Repayments of Loans upto Previous Year	0.00	18.34	28.89	53.53	81.79
Net Loans Opening	0.00	638.29	640.04	657.15	639.20
Add: Draw(s) during the Year	0.00	12.30	41.75	10.31	0.00
Less: Repayments of Loan during the year	0.00	10.55	24.64	28.26	31.47
Net Closing Loan	0.00	640.04	657.15	639.20	607.73
Average Net Loan	0.00	639.17	648.60	648.18	623.47
Rate of Interest on Loan* (%)	0.00	1.9196%	1.8943%	2.1134%	1.8844%
Interest on Loan	0.00	12.27	12.29	13.70	11.75

*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 Asset-I,II,III& IV**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
ADB III-1.DOCO Loan 1-45.26	1.9784	656.63	0.00	656.63
ADB III-10.6.1.DOCO-49.29	1.9784	14594.77	0.00	14594.77
ADB III-11.7.2.ADDCAP FOR 2009-2010 Add Cap.-47.38	1.9784	208.89	0.00	208.89
ADB III-12.8.3.ADDCAP FOR 2009-2010 Ad cap loan-47.38	1.9784	160.68	0.00	160.68
ADB III-13.9.4.DOCO-51.55	1.9784	4992.62	0.00	4992.62
ADB III-14.10.5.DOCO.-47.38	1.9784	224.95	0.00	224.95
ADB III-2.ADDCAP FOR 2010-2011 Add Cap.-47.38	1.9784	12.30	0.00	12.30
ADB III-3.ADDCAP FOR 2011-2012 Add Cap-49.02	1.9784	41.75	0.00	41.75
ADB III-4.ADDCAP FOR 2012-2013 Add Cap-49.02	1.9784	10.31	0.00	10.31
ADB III-5.1.DOCO Loan 1-45.67	1.9784	23310.42	0.00	23310.42
ADB III-6.2.ADDCAP FOR 2010-2011 Add Cap-47.43	1.9784	1104.25	0.00	1104.25
ADB III-7.3.ADDCAP FOR 2011-2012 Add Cap.-46.78	1.9784	2003.11	0.00	2003.11
ADB III-8.4.ADDCAP FOR 2012-2013 Add Cap.-49.02	1.9784	133.44	0.00	133.44
ADB III-9.5.ADDCAP FOR 2013-2014 Add Cap...-53.57	1.9784	131.18	0.00	131.18
Total		47585.30	0.00	47585.30

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	47585.30	47585.30	47585.30	47585.30	47585.30
Cumulative Repayments of Loans up to Previous Year	7540.33	9827.90	12349.98	15135.37	18207.90
Net Loans Opening	40044.97	37757.40	35235.32	32449.93	29377.40
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Less: Repayments during the year	2287.57	2522.08	2785.39	3072.53	3383.65
Net Closing Loan	37757.40	35235.32	32449.93	29377.40	25993.75
Average Net Loan	38901.19	36496.36	33842.63	30913.67	27685.58
Rate of Interest on Loan (%)*	1.9784%	1.9784%	1.9784%	1.9784%	1.9784%
Interest on Loan	769.62	722.04	669.54	611.60	547.73

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