

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.6/TT/2015

Coram:

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

**Date of Hearing: 08.02.2016
Date of Order : 29.03.2016**

In the Matter of:

Truing up of transmission tariff of 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 of Asset-I (a) 765 kV S/C Seoni-Wardha transmission line with associated bays & (b) 400 kV D/C Wardha-Akola Transmission Line with associated bays, Combined Asset (I & II) of Asset-I:(a) 765 kV S/C Seoni-Wardha transmission line with associated bays & (b) 400 kV D/C Wardha - Akola Transmission Line with associated bays and Asset-II: 400 kV D/C Akola-Aurangabad Transmission line with associated bays at Akola and Aurangabad and 400 kV Bus Reactor at Wardha Sub-station (Notional DOCO: 1.12.2009) Asset-III:400/220 kV ICT-I at Wardha Sub-Station with associated bays (1.4.2009) and Combined of Asset-III: 400/220 kV ICT-I at Wardha Sub-station & Asset-IV: 400/220 kV ICT-II at Wardha S/s (Notional DOCO:1.2.2011) under Sipat-II Supplementary Transmission assets in Western Region and determination of transmission tariff of 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations,1999.

And in the Matter of:

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

.....Petitioner

Versus

1. Madhya Pradesh Power Trading Company Ltd.
Shakti Bhawan, Rampur
Jabalpur - 482 008.



2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor
Andheri (East), Mumbai - 400 052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara - 390 007
4. Electricity Department, Government of Goa
Vidyut Bhawan, Panaji,
Ner Mandvi Hotel, Goa - 403 001
5. Electricity Department
Administration Of Daman & Diu
Daman - 396 210
6. Electricity Department
Administration Of Dadra Nagar Haveli
U.T., Silvassa - 396 230
7. Chhattisgarh State Electricity Board
P.O.Sunder Nagar, Dangania, Raipur
Chhatisgaarh-492013
8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road,
Indore-452 008

.....Respondent(s)

The following were present:

For Petitioner: Shri M.M. Mondal, PGCIL
 Shri S.K Venkatesan, PGCIL
 Shri Mohd. Mohsin, PGCIL
 Shri S.S. Raju, PGCIL
 Shri Jasbir Singh, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri S.C. Taneja, PGCIL
 Shri S. Gangwar, PGCIL
 Shri A.M. Pavgi, PGCIL
 Shri P. Sharma, PGCIL

For Respondent: None



ORDER

The petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure for the period COD 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 (a): 765kV S/C Seoni-Wardha transmission line with associated bays & (b) 400kV D/C Wardha-Akola Transmission Line with associated bays (COD:1.4.2009) (referred as “**Asset-I**”), 400 kV D/C Akola-Aurangabad Transmission line with associated bays at Akola and Aurangabad and 400 kV Bus Reactor at Wardha Sub-station (Notional COD:1.12.2009) (referred as “**Asset II**”), 400/220 kV ICT-I at Wardha Sub-station with associated bays (1.4.2009) (referred as “**Asset-III**”) and 400/220kV ICT-II at Wardha Sub-station (Notional COD:1.2.2011) (referred as “**Asset-IV**”) under Sipat-II Supplementary Transmission assets in Western Region (hereinafter collectively referred to as “the transmission assets”).

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

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

a) The investment approval for Sipat II supplementary Transmission system was accorded by Government of India vide letter no. 12/24/2009-PG dated

24.6.2005 at estimated cost of ₹81367 lakh, including IDC of ₹3504 lakh (based on 4th Quarter, 2004 price level). Revised cost estimate was accorded by the Board of Directors of the petitioner vide their letter no. C/CP/RCE/Sipat II dated 3.9.2010 at an estimated cost of ₹98224 lakh including IDC of ₹7357 lakh (based on 2nd quarter price level).

b) The assets covered in the instant petition and the date of commissioning of the respective COD are as follows:-

Assets	COD	Description
Asset I*	1.4.2009	(a) 765 kV S/C Seoni-Wardha transmission line with associated bays (b) 400 kV D/C Wardha-Akola Transmission Line with associated bays
Asset II*	1.12.2009	400 kV D/C Akola-Aurangabad Transmission line with associated bays at Akola and Aurangabad and 400 kV Bus Reactor at Wardha Sub-station
Asset III**	1.4.2009	400/220 kV ICT-I at Wardha Sub-station with associated bays
Asset IV**	1.2.2011	400/220 kV ICT-II at Wardha Sub-station

*The Asset I and II are combined with notional COD of 1.12.2009 and are referred to as "Combined Asset- I & II"

** The Asset III and IV are combined with notional COD of 1.2.2011 and are referred to as "Combined Asset III & IV"

c) The annual transmission charges from respective COD to 31.3.2014 based on admitted capital cost of the transmission asset as on COD were determined through two orders as follows:-

Assets	Date of Order	Petition No	Description
Asset-I	15.3.2011	182/2010	Capital cost of ₹60171.04 lakh on COD and ₹5517.90 lakh as additional capital expenditure during for 2009-10 was approved.
Combined Asset-I &II			Capital cost of ₹84372.22 lakh on COD and ₹5905.21 lakh and ₹1621.50 lakh, as additional capital expenditure during for 2009-10 and 2010-11 respectively was approved.
Asset III	9.11.2011	335/2010	Capital cost of ₹2180.04 lakh on COD and ₹881.93 lakh, as additional capital expenditure for 2010-11 was approved.
Asset-IV			Capital cost of ₹1870.42 lakh on COD and ₹226.84 lakh, as additional capital expenditure for 2010-11 was approved.

d) The annual transmission charges were determined based on the following approved capital cost on respective CODs and the estimated additional capital expenditure towards the balance and retention payments from COD to 31.3.2014, as depicted below:-

(₹ in lakh)					
Asset	COD	Approved apportioned cost	Admitted cost as on COD	Additional capital expenditure during 2009-14	Estimated total cost up to 31.3.2014
Asset-I	1.4.2009	67072.08	60171.04	5517.90	65688.94
Combined Asset I &II	1.12.2009	92392.49	84372.22	7526.71	91898.93
Asset III	1.4.2009	3375.23	2180.04	881.93	3061.97
Asset-IV	1.2.2011	2456.75	1870.42	226.84	2097.26

e) Excess initial spares of ₹109.39 lakh in respect of Asset-I and ₹147.41 lakh in respect of Asset II were deducted in order dated 15.3.2011 in Petition No. 182/2010. Excess initial spares of ₹5.31 lakh in respect Asset III and IDC and

IEDC of ₹121.44 lakh in case of Asset IV was disallowed in order dated 9.11.2011 in Petition No. 335/2010.

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

Asset-I and Combined Asset-I & II

(₹ in lakh)

Particulars	Asset I	Combined Asset-I & II				
	2009-10 (Pro-rata) From 1.4.2009 to 30.11.2009	2009-10 (Pro-rata) From 1.12.2009 to 31.3.2010	2010-11	2011-12	2012-13	2013-14
Depreciation	2186.46	1520.76	4745.88	4781.69	4,781.69	4,781.69
Interest on Loan	1164.29	635.58	1916.82	1779.96	1,620.76	1,454.32
Return on Equity	2199.91	1526.52	4776.91	4819.43	4,819.43	4,819.43
Interest on Working Capital	134.35	92.98	289.89	291.61	291.41	291.22
O & M Expenses	374.17	324.33	1028.82	1087.58	1,149.93	1,215.44
Total	6058.18	4100.16	12758.32	12760.27	12663.22	12562.10

Asset III and Combined Asset –III & IV

(₹ in lakh)

Particulars	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata up to COD of Asset IV)	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation	123.39	129.02	43.53	288.97	288.97	288.97
Interest on Loan	64.07	61.59	16.19	103.02	93.34	83.46
Return on Equity	122.39	127.99	43.18	286.67	286.67	286.67
Interest on Working Capital	14.58	13.8	4.49	28.95	29.70	30.50
O & M Expenses	162.44	143.12	57.24	363.14	383.88	405.84
Total	486.87	475.51	164.63	1070.75	1082.57	1095.44

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. The petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments/objections have been received from the public in response to the notice in newspaper. No replies have been received from respondents. The hearing in this matter was held on 8.3.2016.

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. Regulation 7(1) of the 2009 Tariff Regulations provides 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 funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

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

(c) additional capital expenditure determined under regulation 9:

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

10. The petitioner has claimed the following opening capital in respect of each of the transmission asset for the purpose of tariff determination. The details of capital cost claimed is as follows:-

(₹ in lakh)		
Asset	COD	Actual capital cost claimed in the instant petition
Asset I	1.4.2009	60280.43
Asset II	1.12.2009	22773.83
Asset III	1.4.2009	2185.35
Asset IV	1.2.2011	1763.85* (1885.30-121.45)

*Cost claimed after deducting ₹121.45 lakh IDC & IEDC on account of delay in commissioning

11. The petitioner has submitted that the actual capital cost of ₹60280.43 lakh, ₹22773.83 lakh, ₹2185.35 lakh and ₹1885.30 lakh as on COD for Asset I, Asset II, Asset III and Asset IV respectively are incurred and certified by the Auditor's Certificates dated 24.10.2014 for the instant transmission assets. The actual capital expenditure incurred as on respective COD is in accordance with the requirement of

true up as per Clause (3) of Regulation 6 read with Regulation 7 of the 2009 Tariff Regulations and same has been considered taking into account the initial spares and IEDC and IDC amount as discussed in subsequent paragraph.

Interest during construction (IDC) and Incidental Expenditure during construction (IEDC)

12. The issue of delay in commissioning of the assets was addressed by the Commission in its order dated 15.3.2011 in Petition No. 182/2010. As per the investment approval, the assets were to be commissioned by June 2008. There is time over-run of 9 months in case of Asset-I and III, 17 months in Asset-II, and 31 months in Asset-IV. The Commission had condoned delay in COD of Asset I, Asset II and Asset III after examination of the reasons for delay. Further, the Commission had not condoned the delay of 23 months out of 31 months of time overrun in respect of Asset IV and had disallowed, vide order dated 9.11.2011 in Petition No. 335/2010, the IDC and IEDC for a period of 23 months. The details of IDC and IEDC disallowed in case of Asset ?IV is as follows:

(₹ in lakh)

Asset IV	Disallowance vide order dated 9.11.2011 in Petition No. 335/2010		
	IDC Disallowed	IEDC Disallowed	Total
From March 2009 to March 2010 (13 months)	13.71	36.40	50.11
From March 2010 to COD	21.26	50.08	71.34
Total	34.97	86.48	121.45

However, it is observed that in Auditor`s certificate dated 24.10.2014, the IDC and IEDC in case of Asset-IV from March 2010 to COD have changed to ₹49.04 lakh and ₹37.04



lakh respectively. Accordingly, the IDC and IEDC disallowed due to time overrun in case of Asset-IV has undergone change and the details are as follows:

(₹ in lakh)

Asset IV	Disallowance as per Actual IDC and IEDC as per Auditor Certificate dated 24.10.2014		
	IDC Disallowed	IEDC Disallowed	Total
From March 2009 to March 2010 (13 months)	13.71	36.40	50.11
From March 2010 to COD	49.04	37.04	86.08
Total	62.75	73.44	136.19

13. The capital cost of the transmission asset as on COD for the purpose of computation of tariff for 2009-14 tariff period is worked out by adjusting IDC and IEDC disallowed based on actual capital expenditure incurred as above.

Treatment of Initial Spares

14. The Commission in its previous order dated 15.3.2011 in Petition No. 182/2010 had deducted excess initial spares of ₹109.39 lakh in respect of Asset I and ₹147.41 lakh in respect of Asset II. Excess initial spares of ₹5.31 lakh in respect Asset III was disallowed in order dated 9.11.2011 in Petition No. 335/2010. The excess initial spares were worked out based on estimated capital expenditure upto cut-off date. The disallowed excess initial spares will undergo change based on actual expenditure incurred in the instant petition.

15. The petitioner has not claimed any initial spares in respect of Asset I and Asset IV. We have worked out the admissible initial spares for Asset II & III, by considering actual

capital cost and additional capital expenditure as per Auditor's Certificates dated 24.10.2014 in accordance with the 2009 Tariff Regulations.

16. Regulation 8 of the 2009 tariff Regulations provides that:-

“Initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:

(iv) Transmission system

(a) Transmission line - 0.75%

(b) Transmission Sub-station - 2.5%

(c) Series Compensation devices and HVDC Station - 3.5%.....”

17. Regulation 8 of the 2009 Tariff Regulations provide for ceiling norms for capitalization of initial spares in respect of sub-station at 2.50%. Accordingly, the initial spares have been allowed as under:-

(₹ in lakh)

Particulars	Formula	Sub-station	
		Asset-II*	Asset-III**
Capital cost as on cut off date	(a)	2820.73	3184.60
Capital Cost after deducting excess IDC	(b)	2820.73	3184.60
Initial Spares as per Auditor's Certificate	(c)	230.79	89.14
Proportionate Initial Spares claimed after deducting IDC	(d) = (c)/(a) * (b)	230.79	89.14
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	66.41	79.37
Initial spares worked out	(f) = ((b-d)*e)/(100 %-e)	66.41	79.37
Excess initial spares	(g)=(d)-(f)	164.38	9.77

*No Spares have been claimed for Asset I and transmission line of Asset II and only sub-station spares have been claimed in Asset II in Auditor's certificate dated 24.10.2014

** No Spares have been claimed for Asset IV

18. Accordingly, the capital cost has been considered after adjusting excess initial spares for truing up of tariff in accordance with Regulation 7 of the 2009 Tariff Regulations after adjustment IDC/IEDC and excess initial spares is as below.

(₹ in lakh)



Asset	COD	Capital cost as on COD considered for tariff computation
Asset I	1.4.2009	60280.43
Asset II	1.12.2009	22609.45 (22773.83-164.38)
Asset III	1.4.2009	2175.58 (2185.35-9.77)
Asset IV	1.2.2011	1749.11 (1885.30-136.19)

Additional Capital Expenditure

19. 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...”

20. The petitioner has claimed additional capitalization for expenditure incurred before cut-off date against the transmission asset under Clause (1) (i) of Regulation 9 of the 2009 Tariff Regulations.

21. Clause 1 of Regulation 9 of the 2009 Tariff Regulations provides as follows:-

“The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Undischarged liabilities;”

22. 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 as certified vide Auditor’s Certificates dated 24.10.2014 as depicted below:-

(₹in lakh)

Name of Asset		Capital Cost as on COD	Additional Capital Expenditure					Total cost as on 31.3.2014	
			2009-10		2010-11	2011-12	2012-13		2013-14
			1.4.09 to 30.11.09	1.12.09 to 31.03.10					
Asset-I	Approved	60280.43	5517.90		1150.70	-	-	-	66949.10
	Actual	60280.43	1567.97	701.31	1898.27	940.90	85.80	195.65	65670.33
Asset-II	Approved	21727.56	3001.55		470.73	-	-	-	25199.84
	Actual	22773.83 (21727.56 +1046.27)	-	314.25	566.42	131.32	332.64	222.1	24340.56
Combined Asset-I & II*	Actual	84622.23	-	1015.56	2464.69	1072.2	418.44	417.75	90010.89

*COD of Asset II is 1.12.09 and notional COD of Combined Asset I & II is 1.12.09

Name of Asset		Capital Cost as on COD	Additional Capital Expenditure					Total cost as on 31.3.2014	
			2009-10	2010-11		2011-12	2012-13		2013-14
				1.4.10 to 31.1.11	1.2.11 to 31.03.11				
Asset-III	Approved	2180.04	307.94	881.93		-	-	-	3369.91
	Actual	2185.35	389.23	610.02	-	-	1.36	-	3185.96
Asset-IV	Approved	1870.42	-	226.84		-	-	-	2097.25
	Actual	1763.85	-	-	397.84	-	-	-	2161.69
Combined Asset-III & IV	Actual	4948.45	-	-	397.84	-	1.36	-	5347.65

*COD of Asset IV is 1.2.11 & notional COD of Combined Asset I & II is 1.12.11

23. We have considered the submissions of the petitioner with regard to the actual capital expenditure incurred during 2009-14 period. The capital addition is based on the actual capital expenditure incurred as per the Auditor's Certificate dated 24.10.2014 submitted by the petitioner. We allow the same for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations.



Accordingly, the additional capital expenditure during 2009-14, considered for truing up is as follows:-

(₹ in lakh)

Asset	Capital Cost as on COD	Actual additional capital expenditure in 2009-14							Total completed cost as on 31.3.2014
		2009-10		2010-11	2011-12	2012-13	2013-14	Total	
		1.4.09 to 30.11.09	1.12.09 to 31.3.10						
Asset-I	67072.08/ 60280.43	1567.97	-	-	-	-	-	1567.97	61848.40
Combined Asset I & II	92392.49/ 84457.85		1015.56	2464.69	1072.22	418.44	417.75	5388.66	89846.51

Asset	Capital Cost as on COD	Actual additional capital expenditure in 2009-14						Total Completed cost as on 31.3.2014
		2009-10	2010-11		2011-12	2012-13	Total	
			1.4.10 to 31.1.11	1.2.11 to 31.03.11				
Asset-III	3375.23/ 2175.58	389.23	610.02				999.25	3174.83
Combined Asset III & IV	5831.98/ 4923.95			397.84	0.00	1.36	399.20	5323.15

Debt: Equity

24. 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.”

25. The debt:equity ratio as on COD for Asset I & Combined Asset I &II, vide order dated 15.3.2011 in Petition No. 182/2010, and for Asset III and Combined Asset III & IV, order dated 9.11.2011 in Petition No. 335/2010 as on COD, was considered in accordance with the Regulation 12 of the 2009 Tariff Regulations.

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

Funding	Capital cost as on DOCO	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014/ Combination	(%)
Asset I						
Debt	42196.30	70.00	1097.58	70.00	43296.02	70.00
Equity	18084.13	30.00	470.39	30.00	18552.38	30.00
Total	60280.43	100.00	1567.97	100.00	61848.40	100.00
Combined Asset I & II						
Debt	59120.49	70.00	3772.13	70.00	62844.64	70.00
Equity	25337.35	30.00	1616.53	30.00	27001.87	30.00
Total	84457.85	100.00	5388.66	100.00	89846.51	100.00
Asset III						
Debt	1522.91	70.00	699.48	70.00	2222.38	70.00
Equity	652.67	30.00	299.78	30.00	952.45	30.00
Total	2175.58	100.00	999.25	100.00	3174.83	100.00
Combined Asset III & IV						
Debt	3446.77	70.00	279.44	70.00	3726.21	70.00
Equity	1477.19	30.00	119.76	30.00	1596.95	30.00
Total	4923.95	100.00	399.20	100.00	5323.15	100.00

Return on Equity (“ROE”)

27. 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.”

28. 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

29. The ROE as trued up and allowed is shown below:-

Asset-I and Combined Asset I & II

(₹ in lakh)

Return on Equity	Asset-I	Combined Asset I & II				
	2009-10 (Pro-rata) (from 1.4.2009 to 30.11.2009)	2009-10 (Pro-rata) (from 1.12.2009 to 31.3.2010)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 15.3.2011 in petition 182/2010	2199.91	1526.52	4776.91	4819.43	4819.43	4819.43
Claimed by the petitioner	2293.46	1589.64	5044.64	5152.39	5195.71	5282.78
Allowed after trued up in this order	2280.58	1586.61	5035.43	5143.07	5186.39	5273.49

Asset III and Combined Asset III & IV

(₹ in lakh)

Return on Equity	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata up to COD of Asset IV)	2010-11 (Pro- rata)	2011- 12	2012- 13	2013- 14
Approved vide order dated 9.11.2011 in Petition 335/2010	122.39	127.99	43.18	286.67	286.67	286.67
Claimed by the petitioner	133.32	139.34	49.82	310.77	310.81	314.59
Allowed after trued up in this order	132.78	138.89	49.59	309.36	309.40	313.17

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”)

30. 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”.

31. 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:-

Asset-I and Combined Asset I & II

(₹ in lakh)

Interest on Loan	Asset-I	Combined Asset I & II				
	2009-10 (Pro-rata) (from 1.4.2009 to 30.11.2009)	2009-10 (Pro-rata) (from 1.12.2009 to 31.3.2010)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 15.3.2011 in petition 182/2010	1164.29	635.58	1916.82	1779.96	1620.76	1454.32
Claimed by the petitioner	996.50	585.95	1634.12	1557.00	1496.18	1229.95
Allowed after trued up in this order	990.75	584.88	1631.21	1554.35	1493.75	1227.93

Asset III and Combined Asset III & IV

(₹ in lakh)

Interest on Loan	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata up to COD of Asset IV)	2010-11 (Pro- rata)	2011- 12	2012- 13	2013- 14
Approved vide order dated 9.11.2011 in Petition No. 335/2010	64.07	61.59	16.19	103.02	93.34	83.46
Claimed by the petitioner	55.87	41.29	14.82	87.94	84.92	68.77
Allowed after trued up in this order	55.63	41.13	14.75	87.52	84.52	68.44

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

32. 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:-

Asset-I and Combined Asset I & II

(₹ in lakh)

Depreciation	Asset-I	Combined Asset I & II				
	2009-10 (Pro-rata) (from 1.4.2009 to 30.11.2009)	2009-10 (Pro-rata) (from 1.12.2009 to 31.3.2010)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 15.3.2011 in Petition No 182/2010	2186.46	1520.76	4745.88	4781.69	4781.69	4781.69
Claimed by the petitioner	2135.26	1483.44	4537.73	4626.78	4665.70	4687.59
Allowed after trued up in this order	2123.16	1480.54	4529.05	4618.10	4657.01	4678.91

Asset III and Combined Asset III & IV

(₹ in lakh)

Depreciation	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata up to COD of Asset IV)	2010-11 (Pro- rata)	2011- 12	2012- 13	2013- 14
Approved vide order dated 9.11.2011 in petition 335/2010	123.39	129.02	43.53	288.97	288.97	288.97
Claimed by the petitioner	125.82	126.84	45.35	282.58	282.61	282.65
Allowed after trued up in this order	125.30	126.42	45.13	281.29	281.32	281.36

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”)

33. 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:-

Asset-I and Combined Asset I & II

(₹ in lakh)

O&M Expenses	Asset-I	Combined Asset I & II				
	2009-10 (Pro-rata)	2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 15.3.2011 in Petition No 182/2010	374.17	324.33	1,028.82	1,087.58	1,149.93	1,215.44
Claimed by the petitioner	373.17	324.33	1028.82	1087.58	1149.93	1215.44
Allowed after trued up in this order	373.17	324.33	1028.82	1087.58	1149.93	1215.44

Asset III and Combined Asset III & IV

(₹ in lakh)

O&M Expenses	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata up to COD of Asset IV)	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 9.11.2011 in Petition No. 335/2010	162.44	143.12	57.24	363.14	383.88	405.84
Claimed by the petitioner	162.44	143.12	57.25	363.14	383.88	405.84
Allowed after trued up in this order	162.44	143.12	57.25	363.14	383.88	405.84

Interest on Working Capital (IWC)

34. The IWC has been worked out as per the methodology provided in the Regulation 18 of the 2009 Tariff Regulations.

Asset-I and Combined Asset I & II

(₹ in lakh)

Interest on Working Capital	Asset-I	Combined Asset I & II				
	2009-10 (Pro-rata from 1.4.2009 to 30.11.2009)	2009-10 (Pro-rata from 1.12.2009 to 31.3.2010)	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 15.3.2011 in Petition No. 182/2010	134.35	92.98	289.89	291.61	291.41	291.22
Claimed by the petitioner	131.74	92.49	285.24	290.67	294.24	294.24
Allowed after trued up in this order	131.10	92.34	284.81	290.24	293.81	293.82

Asset III and Combined Asset III & IV

(₹ in lakh)

Interest on Working Capital	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata up to COD of Asset IV)	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Approved vide order dated 9.11.2011 in Petition No. 335/2010	14.58	13.80	4.49	28.95	29.70	30.50
Claimed by the petitioner	14.69	13.57	4.62	29.00	29.87	30.63
Allowed after trued up in this order	14.66	13.55	4.61	28.94	29.81	30.57

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

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

Asset-I and Combined Asset I & II:

(₹ in lakh)

Particulars	Asset-I		Combined Asset I & II			
	2009-10 (Pro-rata)	2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Depreciation						
Opening Gross Block	60280.43	84457.85	85473.41	87938.10	89010.32	89428.76
Additional Capitalisation	1567.97	1015.56	2464.69	1072.22	418.44	417.75
Closing Gross Block	61848.40	85473.41	87938.10	89010.32	89428.76	89846.51
Average Gross Block	61064.42	84965.63	86705.75	88474.21	89219.54	89637.63
Rate of Depreciation	5.22%	5.23%	5.22%	5.22%	5.22%	5.22%
Depreciable Value	54854.77	76365.86	78388.98	80632.70	80676.88	80758.97
Balance Useful life of the asset	34	34	33	32	31	30
Elapsed Life	0	0	1	2	3	4
Remaining Depreciable Value	54854.77	74242.71	74328.28	80632.70	80676.88	76396.15
Depreciation during the year	2123.16	1480.54	4529.05	4618.10	4657.01	4678.91
Cumulative depreciation	2123.16	3603.69	8132.74	12750.84	17407.85	22086.76
Interest on Loan						
Gross Normative Loan	42196.30	59120.49	59831.39	61556.67	62307.26	62600.20
Cumulative Repayment upto Previous Year	0.00	2123.16	3603.69	8132.74	12750.84	17407.85
Net Loan-Opening	42196.30	56997.34	56227.69	53423.93	49556.42	45192.35
Additions	1097.58	710.89	1725.28	750.59	292.94	292.43
Repayment during the year	2123.16	1480.54	4529.05	4618.10	4657.01	4678.91
Net Loan-Closing	41170.72	56227.69	53423.93	49556.42	45192.35	40805.86
Average Loan	41683.51	56612.52	54825.81	51490.17	47374.38	42999.10
Weighted Average Rate of Interest on Loan (%)	3.5653%	3.0994%	2.9753%	3.0187%	3.1531%	2.8557%
Interest on Loan	990.75	584.88	1631.21	1554.35	1493.75	1227.93
Return on Equity						

Particulars	Asset-I	Combined Asset I & II				
	2009-10 (Pro-rata)	2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Opening Equity	18084.13	25337.35	25642.02	26381.43	26703.06	26828.56
Additions	470.39	304.67	739.41	321.63	125.50	125.33
Closing Equity	18554.52	25642.02	26381.43	26703.06	26828.56	26953.88
Average Equity	18319.32	25489.69	26011.73	26542.24	26765.81	26891.22
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%
MAT rate for the respective year	16.995%	16.995%	19.931%	20.008%	20.008%	20.961%
Rate of Return on Equity	18.674%	18.674%	19.358%	19.377%	19.377%	19.610%
Return on Equity	2280.58	1586.61	5035.43	5143.07	5186.39	5273.49
Interest on Working Capital						
O & M expenses	46.65	81.08	85.73	90.63	95.83	101.29
Maintenance Spares	83.96	145.95	154.32	163.14	172.49	182.32
Receivables	1474.69	2034.35	2084.89	2115.56	2130.15	2114.93
Total	1605.30	2261.38	2324.94	2369.32	2398.47	2398.53
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on Working Capital	131.10	92.34	284.81	290.24	293.81	293.82
Annual Transmission Charges						
Depreciation	2123.16	1480.54	4529.05	4618.10	4657.01	4678.91
Interest on Loan	990.75	584.88	1631.21	1554.35	1493.75	1227.93
Return on Equity	2280.58	1586.61	5035.43	5143.07	5186.39	5273.49
Interest on Working Capital	131.10	92.34	284.81	290.24	293.81	293.82
O & M Expenses	373.17	324.33	1028.82	1087.58	1149.93	1215.44
Total	5898.76	4068.70	12509.32	12693.34	12780.90	12689.59

Asset III and Combined Asset III & IV

(₹ in lakh)

Particulars	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata)	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation						
Opening Gross Block	2175.58	2564.81	4923.95	5321.79	4923.95	4925.31
Additional Capitalisation	389.23	610.02	397.84	0.00	1.36	0.00
Closing Gross Block	2564.81	3174.83	5321.79	5321.79	4925.31	4925.31
Average Gross Block	2370.20	2869.82	5122.87	5321.79	4924.63	4925.31
Rate of Depreciation	5.29%	5.29%	5.29%	5.29%	5.29%	5.29%
Depreciable Value	2133.18	2757.99	4610.58	4968.64	4432.17	4433.39
Balance Useful life of the asset	25	24	25	24	23	22



Particulars	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata)	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Elapsed Life	0	1	0	1	2	3
Remaining Depreciable Value	2133.18	2457.54	4358.87	4968.64	4432.17	4151.46
Depreciation during the year	125.30	126.42	45.13	281.29	281.32	281.36
Cumulative depreciation (incl. of AAD)	125.30	251.71	296.85	578.13	859.45	1140.81
Interest on Loan						
Gross Normative Loan	1522.91	1795.37	3446.77	3725.25	3725.25	3726.21
Cumulative Repayment upto Previous Year	0.00	125.30	251.71	296.85	578.13	859.45
Net Loan-Opening	1522.91	1670.07	3195.05	3428.41	3147.12	2866.75
Additions	272.46	427.01	278.49	0.00	0.95	0.00
Repayment during the year	125.30	126.42	45.13	281.29	281.32	281.36
Net Loan-Closing	1670.07	1970.67	3428.41	3147.12	2866.75	2585.39
Average Loan	1596.49	1820.37	3311.73	3287.77	3006.94	2726.07
Weighted Average Rate of Interest on Loan (%)	3.4845%	2.7124%	2.6722%	2.6621%	2.8109%	2.5107%
Interest on Loan	55.63	41.15	14.75	87.52	84.52	68.44
Return on Equity						
Opening Equity	652.67	769.44	1477.19	1596.54	1596.54	1596.95
Additions	116.77	183.01	119.35	0.00	0.41	0.00
Closing Equity	769.44	952.45	1596.54	1596.54	1596.95	1596.95
Average Equity	711.06	860.95	1536.86	1596.54	1596.74	1596.95
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%
MAT rate for the respective year	16.995%	19.931%	19.931%	20.008%	20.008%	20.961%
Rate of Return on Equity	18.674%	19.358%	19.358%	19.377%	19.377%	19.610%
Return on Equity	132.78	138.89	49.59	309.36	309.40	313.17
Interest on Working Capital						
O & M expenses	13.54	14.31	28.62	30.26	31.99	33.82
Maintenance Spares	24.37	25.76	51.52	54.47	57.58	60.88
Receivables	81.80	92.62	171.32	178.38	181.49	183.23
Total	119.70	132.70	251.47	263.11	271.06	277.93
Rate of Interest	12.25%	12.25%	11.00%	11.00%	11.00%	11.00%
Interest on Working Capital	14.66	13.55	4.61	28.94	29.82	30.57
Annual Transmission Charges						
Depreciation	125.30	126.42	45.13	281.29	281.32	281.36

Particulars	Asset-III		Combined Asset-III & IV			
	2009-10	2010-11 (Pro-rata)	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Interest on Loan	55.63	41.15	14.75	87.52	84.52	68.44
Return on Equity	132.78	138.89	49.59	309.36	309.40	313.17
Interest on Working Capital	14.66	13.55	4.61	28.94	29.82	30.57
O & M Expenses	162.44	143.12	57.25	363.14	383.88	405.84
Total	490.81	463.11	171.32	1070.25	1088.94	1099.38

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

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

For Combined Asset I & II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4698.61	4698.61	4698.61	4698.61	4698.61
Interest on Loan	1060.85	917.73	777.11	639.29	504.52
Return on Equity	5295.07	5295.07	5295.07	5295.07	5295.07
Interest on Working Capital	315.81	314.57	313.42	312.43	311.57
O & M Expenses	1110.63	1147.93	1185.73	1225.25	1265.82
Total	12480.97	12373.91	12269.94	12170.65	12075.59

For Combined Asset III & IV

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	282.65	282.65	282.65	282.65	282.65
Interest on Loan	59.37	51.86	44.46	37.17	30.02
Return on Equity	314.59	314.59	314.59	314.59	314.59
Interest on Working Capital	35.77	36.28	36.82	37.38	37.97
O & M Expenses	373.86	386.26	399.10	412.32	426.02
Total	1066.24	1071.64	1077.62	1084.11	1091.25

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

For Combined Asset I & II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	92.55	95.66	98.81	102.10	105.49



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	166.59	172.19	177.86	183.79	189.87
Receivables	2080.16	2062.32	2044.99	2028.44	2012.60
Total	2339.30	2330.17	2321.66	2314.33	2307.96
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	315.81	314.57	313.42	312.43	311.57

For Combined Asset III & IV

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	31.16	32.19	33.26	34.36	35.50
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
Receivables	177.71	178.61	179.60	180.69	181.88
Total	264.95	268.74	272.73	276.90	281.28
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	35.77	36.28	36.82	37.38	37.97

Capital Cost

38. 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;”

39. The petitioner has claimed capital cost for the tariff period 2014-19 of ₹90010.89 lakh for Combined Asset-I & II, and ₹5347.65 lakh for Combined Asset-III & IV. However, in light of deductions as considered in 2009-14 period, the Capital Cost 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.



(₹ in lakh)

Name of Asset	Capital cost as on 31.3.2014
Combined Asset-I & II	89846.51
Combined Asset-III & IV	5323.15

Additional Capital Expenditure

40. The petitioner has not claimed additional capital expenditure for 2014-19 tariff period. Accordingly, the capital cost of the instant assets including additional capital expenditure during 2014-19 tariff period is as below:-

(₹ in lakh)

Name of Asset	Capital cost as on 31.3.2014	Additional capital expenditure during 2014-19	Capital cost as on 31.3.2019
Combined Asset-I & II	89846.51	0.00	89846.51
Combined Asset-III & IV	5323.15	0.00	5323.15

Debt: Equity

41. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provides as under:-

“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.”

“(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as maybe admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

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

For Combined Asset I & II

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	62892.62	70.00	0.00	0.00	62892.62	70.00
Equity	26953.88	30.00	0.00	0.00	26953.88	30.00
Total	89846.51	100.00	0.00	0.00	89846.51	100.00

For Combined Asset III & IV

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	3726.21	70.00	0.00	0.00	3726.21	70.00
Equity	1596.95	30.00	0.00	0.00	1596.95	30.00
Total	5323.15	100.00	0.00	0.00	5323.15	100.00

Return on Equity (“ROE”)

43. 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.”

44. 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:-

For Combined Asset I & II

(₹in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	26953.88	26953.88	26953.88	26953.88	26953.88
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	26953.88	26953.88	26953.88	26953.88	26953.88
Average Equity	26953.88	26953.88	26953.88	26953.88	26953.88
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	5285.78	5285.78	5285.78	5285.78	5285.78

For Combined Asset III & IV

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1596.95	1596.95	1596.95	1596.95	1596.95
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1596.95	1596.95	1596.95	1596.95	1596.95
Average Equity	1596.95	1596.95	1596.95	1596.95	1596.95
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	313.17	313.17	313.17	313.17	313.17

Interest on Loan (“IoL”)

45. Clause 5 and Clause 6 of Regulation 26 of the 2014 Tariff Regulations provides as follows:-

“(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.”

46. 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:-

For Combined Asset I & II

(₹ in lakh)

Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	62892.62	62892.62	62892.62	62892.62	62892.62
Cumulative Repayment upto Previous Year	22086.76	26776.69	31466.63	36156.56	40846.49
Net Loan-Opening	40805.86	36115.93	31426.00	26736.07	22046.13
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	4689.93	4689.93	4689.93	4689.93	4689.93
Net Loan-Closing	36115.93	31426.00	26736.07	22046.13	17356.20
Average Loan	38460.90	33770.96	29081.03	24391.10	19701.17
Weighted Average Rate of Interest on Loan (%)	2.7538%	2.7132%	2.6681%	2.6171%	2.5573%
Interest on Loan	1059.14	916.26	775.92	638.33	503.83

For Combined Asset III & IV

Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	3726.21	3726.21	3726.21	3726.21	3726.21
Cumulative Repayment upto Previous Year	1140.81	1422.17	1703.53	1984.89	2266.25
Net Loan-Opening	2585.39	2304.03	2022.68	1741.32	1459.96
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	281.36	281.36	281.36	281.36	281.36
Net Loan-Closing	2304.03	2022.68	1741.32	1459.96	1178.60
Average Loan	2444.71	2163.36	1882.00	1600.64	1319.28
Weighted Average Rate of Interest on Loan (%)	2.4171%	2.3857%	2.3509%	2.3111%	2.2643%
Interest on Loan	59.09	51.61	44.24	36.99	29.87

Depreciation

47. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provides 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."

48. 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:-

For Combined Asset I & II

(₹ in lakh)

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51
Average Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51
Rate of Depreciation	5.22%	5.22%	5.22%	5.22%	5.22%
Depreciable Value	80946.64	80758.65	80758.65	80758.65	80758.65
Balance Useful life of the asset	29	28	27	26	25
Elapsed Life	5	6	7	8	9
Remaining Depreciable Value	71905.23	67215.30	62525.37	57835.44	53145.50
Depreciation	4689.93	4689.93	4689.93	4689.93	4689.93
Cumulative depreciation	26776.69	31466.63	36156.56	40846.49	45536.42

For Combined Asset III & IV

(₹ in lakh)

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	4925.31	4925.31	4925.31	4925.31	4925.31
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	4925.31	4925.31	4925.31	4925.31	4925.31
Average Gross Block	4925.31	4925.31	4925.31	4925.31	4925.31
Rate of Depreciation	5.29%	5.29%	5.29%	5.29%	5.29%
Depreciable Value	4432.78	4432.78	4432.78	4432.78	4432.78
Balance Useful life of the asset	21	20	19	18	17
Elapsed Life	4	5	6	7	8
Remaining Depreciable Value	3870.10	3588.74	3307.38	3026.02	2744.67
Depreciation	281.36	281.36	281.36	281.36	281.36
Cumulative depreciation	1422.17	1703.53	1984.89	2266.25	2547.60

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



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:-

For Combined Asset I & II

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 (Bundle Conductor- 4 sub-c)					
Length (Km)	267.894	267.894	267.894	267.894	267.894
Norms (₹ lakh/Km)	0.606	0.627	0.647	0.669	0.691
D/C (Twin/Triple Conductor):					
Length (Km)	403.095	403.095	403.095	403.095	403.095
Norms (₹ lakh/Km)	0.707	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	1110.63	1147.93	1185.73	1225.25	1265.82

For Combined Asset III & IV

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays :					
No. of Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
220 kV Bays :					
No. of Bays	6	6	6	6	6
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1
Total O&M Expenses (₹ lakh)	373.86	386.26	399.10	412.32	426.02

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:-

For Combined Asset I & II

(₹ in lakh)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	92.55	95.66	98.81	102.10	105.48
Maintenance Spares	166.59	172.19	177.86	183.79	189.87
Receivables	2076.81	2059.00	2041.72	2025.21	2009.42
Total	2335.95	2326.86	2318.40	2311.10	2304.77
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	315.35	314.13	312.98	312.00	311.14

For Combined Asset III & IV

(₹ in lakh)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	31.16	32.19	33.26	34.36	35.50
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
Receivables	177.20	178.10	179.10	180.19	181.39
Total	264.43	268.23	272.23	276.40	280.79
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	35.70	36.21	36.75	37.31	37.91

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:-

For Combined Asset I & II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51
Average Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51
Rate of Depreciation	5.22%	5.22%	5.22%	5.22%	5.22%
Depreciable Value	80946.64	80758.65	80758.65	80758.65	80758.65
Balance Useful life of the asset	29	28	27	26	25
Elapsed Life	5	6	7	8	9
Remaining Depreciable Value	71905.23	67215.30	62525.37	57835.44	53145.50



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4689.93	4689.93	4689.93	4689.93	4689.93
Cumulative depreciation	26776.69	31466.63	36156.56	40846.49	45536.42
Interest on Loan					
Gross Normative Loan	62892.62	62892.62	62892.62	62892.62	62892.62
Cumulative Repayment upto Previous Year	22086.76	26776.69	31466.63	36156.56	40846.49
Net Loan-Opening	40805.86	36115.93	31426.00	26736.07	22046.13
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	4689.93	4689.93	4689.93	4689.93	4689.93
Net Loan-Closing	36115.93	31426.00	26736.07	22046.13	17356.20
Average Loan	38460.90	33770.96	29081.03	24391.10	19701.17
Weighted Average Rate of Interest on Loan	2.7538%	2.7132%	2.6681%	2.6171%	2.5573%
Interest	1059.14	916.26	775.92	638.33	503.83
Return on Equity					
Opening Equity	26953.88	26953.88	26953.88	26953.88	26953.88
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	26953.88	26953.88	26953.88	26953.88	26953.88
Average Equity	26953.88	26953.88	26953.88	26953.88	26953.88
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	5285.78	5285.78	5285.78	5285.78	5285.78
Interest on Working Capital					
O & M expenses	92.55	95.66	98.81	102.10	105.48
Maintenance Spares	166.59	172.19	177.86	183.79	189.87
Receivables	2076.81	2059.00	2041.72	2025.21	2009.42
Total	2335.95	2326.86	2318.40	2311.10	2304.77
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	315.35	314.13	312.98	312.00	311.14
Annual Transmission Charges					
Depreciation	4689.93	4689.93	4689.93	4689.93	4689.93
Interest on Loan	1059.14	916.26	775.92	638.33	503.83
Return on Equity	5285.78	5285.78	5285.78	5285.78	5285.78
Interest on Working Capital	315.35	314.13	312.98	312.00	311.14
O & M Expenses	1110.63	1147.93	1185.73	1225.25	1265.82
Total	12460.84	12354.03	12250.35	12151.28	12056.50

For Combined Asset III & IV

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	4925.31	4925.31	4925.31	4925.31	4925.31
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	4925.31	4925.31	4925.31	4925.31	4925.31
Average Gross Block	4925.31	4925.31	4925.31	4925.31	4925.31
Rate of Depreciation	5.29%	5.29%	5.29%	5.29%	5.29%
Depreciable Value	4432.78	4432.78	4432.78	4432.78	4432.78
Balance Useful life of the asset	21	20	19	18	17
Elapsed Life	4	5	6	7	8
Remaining Depreciable Value	3870.10	3588.74	3307.38	3026.02	2744.67
Depreciation	281.36	281.36	281.36	281.36	281.36
Cumulative depreciation	1422.17	1703.53	1984.89	2266.25	2547.60
Interest on Loan					
Gross Normative Loan	3726.21	3726.21	3726.21	3726.21	3726.21
Cumulative Repayment upto Previous Year	1140.81	1422.17	1703.53	1984.89	2266.25
Net Loan-Opening	2585.39	2304.03	2022.68	1741.32	1459.96
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	281.36	281.36	281.36	281.36	281.36
Net Loan-Closing	2304.03	2022.68	1741.32	1459.96	1178.60
Average Loan	2444.71	2163.36	1882.00	1600.64	1319.28
Weighted Average Rate of Interest on Loan	2.4171%	2.3857%	2.3509%	2.3111%	2.2643%
Interest	59.09	51.61	44.24	36.99	29.87
Return on Equity					
Opening Equity	1596.95	1596.95	1596.95	1596.95	1596.95
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1596.95	1596.95	1596.95	1596.95	1596.95
Average Equity	1596.95	1596.95	1596.95	1596.95	1596.95
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	313.17	313.17	313.17	313.17	313.17
Interest on Working Capital					
O & M expenses	31.16	32.19	33.26	34.36	35.50
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
Receivables	177.20	178.10	179.10	180.19	181.39
Total	264.43	268.23	272.23	276.40	280.79
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	35.70	36.21	36.75	37.31	37.91



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Transmission Charges					
Depreciation	281.36	281.36	281.36	281.36	281.36
Interest on Loan	59.09	51.61	44.24	36.99	29.87
Return on Equity	313.17	313.17	313.17	313.17	313.17
Interest on Working Capital	35.70	36.21	36.75	37.31	37.91
O & M Expenses	373.86	386.26	399.10	412.32	426.02
Total	1063.18	1068.61	1074.62	1081.15	1088.33

55. The petitioner has prayed to allow to recover the deferred tax liability before 1.4.2009 from the beneficiaries or the long term customers/DICs as and when the same gets materialised. The instant assets are commissioned after 1.4.2009. Hence the petitioner's prayer is in fructuous.

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.6/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 XX-loan-1-	8.93	8.93	8.93	8.93	8.93	351.00	0.00	351.00
BOND XXI-loan-2-	8.73	8.73	8.73	8.73	8.73	404.00	0.00	404.00
BOND XXV-loan-3-	10.10	10.10	10.10	10.10	10.10	2841.00	0.00	2841.00
BOND XXVI-loan-4-	9.30	9.30	9.30	9.30	9.30	382.00	0.00	382.00
IBRD III-ADDCAP FOR 2009-2010 AddCap-2-49.22	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	771.13	771.13
IBRD III-ADDCAP FOR 2009-2010 AddCap-3-49.22	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	490.92	490.92
IBRD III-ADDCAP FOR 2010-2011 AddCap-4-47.73	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	1328.76	1328.76
IBRD III-ADDCAP FOR 2011-2012 AddCap-5-45.79	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	658.64	658.64
IBRD III-ADDCAP FOR 2012-2013 AddCap-6-44.7	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	60.08	60.08
IBRD III-ADDCAP FOR 2013-2014 AddCap-7-45.05	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	136.95	136.95
IBRD III-Loan6-51.55	2.5785	1.8945	1.9770	2.1613	1.8610	36332.44	0.00	36332.44
BOND XXVIII-loan-5-	9.33	9.33	9.33	9.33	9.33	1888.00	0.00	1888.00
BOND XXX-ADDCAP FOR 2009-2010 AddCap-1-	8.80	8.80	8.80	8.80	8.80	0.00	326.44	326.44
Total						42198.44	3772.92	45971.36

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	42198.44	43786.93	45115.69	45774.33	45834.41
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	42198.44	43786.93	45115.69	45774.33	45834.41
Add: Draw(s) during the Year	1588.49	1328.76	658.64	60.08	136.95
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	43786.93	45115.69	45774.33	45834.41	45971.36
Average Net Loan	42992.69	44451.31	45445.01	45804.37	45902.89
Rate of Interest on Loan* (%)	3.5653%	2.9667%	3.0147%	3.1656%	2.9039%
Interest on Loan	1532.81	1318.76	1370.01	1449.99	1332.96

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
BOND XX-DOCO DRAWL ON 07-SEP-2006 - 07-SEP-2006-	8.93	8.93	8.93	8.93	8.93	451.00	0.00	451.00
BOND XXI-DOCO DRAWL ON 11-OCT-2006 - 11-OCT-2006-	8.73	8.73	8.73	8.73	8.73	504.00	0.00	504.00
BOND XXV-DOCO-	10.10	10.10	10.10	10.10	10.10	3897.50	0.00	3897.50
BOND XXVI-DOCO-	9.30	9.30	9.30	9.30	9.30	501.50	0.00	501.50
IBRD III-ADDCAP FOR 2009-2010 AddCap-1-49.22	2.01	1.8945	1.9770	2.1613	1.8610	0.00	490.92	490.92
IBRD III-ADDCAP FOR 2009-2010 AddCap-6-49.22	2.01	1.8945	1.9770	2.1613	1.8610	0.00	219.96	219.96
IBRD III-ADDCAP FOR 2010-2011 AddCap-2-47.73	2.01	1.8945	1.9770	2.1613	1.8610	0.00	1328.76	1328.76
IBRD III-ADDCAP FOR 2010-2011	2.01	1.8945	1.9770	2.1613	1.8610	0.00	396.47	396.47



Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
AddCap-7-46.36								
IBRD III-ADDCAP FOR 2011-2012 AddCap-3-45.79	2.01	1.8945	1.9770	2.1613	1.8610	0.00	658.64	658.64
IBRD III-ADDCAP FOR 2011-2012 AddCap-8-44.7	2.01	1.8945	1.9770	2.1613	1.8610	0.00	91.95	91.95
IBRD III-ADDCAP FOR 2012-2013 AddCap-4-44.7	2.01	1.8945	1.9770	2.1613	1.8610	0.00	60.08	60.08
IBRD III-ADDCAP FOR 2012-2013 AddCap-9-45.04	2.01	1.8945	1.9770	2.1613	1.8610	0.00	232.86	232.86
IBRD III-ADDCAP FOR 2013-2014 AddCap-10-45.05	2.01	1.8945	1.9770	2.1613	1.8610	0.00	155.29	155.29
IBRD III-ADDCAP FOR 2013-2014 AddCap-5-45.05	2.01	1.8945	1.9770	2.1613	1.8610	0.00	136.95	136.95
IBRD III-DOCO-1B-49.22	2.01	1.8945	1.9770	2.1613	1.8610	771.13	0.00	771.13
IBRD III-Loan7-51.55	2.01	1.8945	1.9770	2.1613	1.8610	36332.44	0.00	36332.44
IBRD III-Loan8-46.96	2.01	1.8945	1.9770	2.1613	1.8610	13556.88	0.00	13556.88
BOND XXVIII-DOCO-	9.33	9.33	9.33	9.33	9.33	2621.00	0.00	2621.00
BOND XXX-DOCO-	8.80	8.80	8.80	8.80	8.80	275.00	0.00	275.00
BOND XXX-DOCO-1A-	8.80	8.80	8.80	8.80	8.80	326.44	0.00	326.44
Total						59236.89	3771.88	63008.77

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	59236.89	59947.77	61673.00	62423.59	62716.53
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	79.58	3146.09	6560.30
Net Loans Opening	59236.89	59947.77	61593.42	59277.50	56156.23
Add: Draw(s) during the Year	710.88	1725.23	750.59	292.94	292.24
Less: Repayments of Loan during the year	0.00	79.58	3066.51	3414.21	3598.95
Net Closing Loan	59947.77	61593.42	59277.50	56156.23	52849.52
Average Net Loan	59592.33	60770.60	60435.46	57716.87	54502.88
Rate of Interest on Loan* (%)	3.0994%	2.9753%	3.0188%	3.1529%	2.8557%
Interest on Loan	1846.99	1808.08	1824.42	1819.74	1556.42



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

Asset III

(₹in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XX-loan-1-	8.93	8.93	8.93	8.93	8.93	13.00	0.00	13.00
BOND XXI-loan-2-	8.73	8.73	8.73	8.73	8.73	15.00	0.00	15.00
BOND XXV-loan-3-	10.10	10.10	10.10	10.10	10.10	103.00	0.00	103.00
BOND XXVI-loan-4-	9.30	9.30	9.30	9.30	9.30	14.00	0.00	14.00
IBRD III-ADDCAP FOR 2009-2010 AddCap-1-49.22	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	272.48	272.48
IBRD III-ADDCAP FOR 2010-2011 AddCap-2-46.97	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	427.05	427.05
IBRD III-ADDCAP FOR 2012-2013 AddCap-3-44.7	2.5785	1.8945	1.9770	2.1613	1.8610	0.00	0.94	0.94
IBRD III-Loan6-51.55	2.5785	1.8945	1.9770	2.1613	1.8610	1315.81	0.00	1315.81
BOND XXVIII-loan-5-	9.33	9.33	9.33	9.33	9.33	69.00	0.00	69.00
Total						1529.81	700.47	2230.28

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	1529.81	1802.29	2229.34	2229.34	2230.28
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	2.33	2.33	2.33
Net Loans Opening	1529.81	1802.29	2227.01	2227.01	2227.95
Add: Draw(s) during the Year	272.48	427.05	0.00	0.94	0.00
Less: Repayments of Loan during the year	0.00	2.33	0.00	0.00	0.00
Net Closing Loan	1802.29	2227.01	2227.01	2227.95	2227.95
Average Net Loan	1666.05	2014.65	2227.01	2227.48	2227.95
Rate of Interest on Loan* (%)	3.4848%	2.7114%	2.7062%	2.8717%	2.6000%
Interest on Loan	58.06	54.63	60.27	63.97	57.93



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

Combined Asset III & IV

(₹in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XX-DOCO DRAWL ON 01-FEB-2011-	8.93	49.00	0.00	49.00
BOND XXI-DOCO DRAWL ON 01-FEB-2011-	8.73	72.00	0.00	72.00
BOND XXV-Loan3-	10.10	149.50	0.00	149.50
BOND XXVI-Loan4-	9.30	14.00	0.00	14.00
IBRD III-ADDCAP FOR 2010-2011 AddCap-2-46.33	1.95	0.00	278.49	278.49
IBRD III-ADDCAP FOR 2012-2013 AddCap-1-44.7	0.00	0.00	0.94	0.94
IBRD III-DOCO-49.22	1.95	272.48	0.00	272.48
IBRD III-DOCO--46.97	1.95	427.05	0.00	427.05
IBRD III-DOCO1-51.55	1.95	1315.81	0.00	1315.81
IBRD III-DOCO2-46.38	0.02	1095.17	0.00	1095.17
BOND XXVIII-Loan-2-	9.33	69.00	0.00	69.00
Total		3464.01	279.43	3743.44

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	3464.01	3742.50	3742.50	3743.44
Cumulative Repayments of Loans upto Previous Year	0.00	10.08	10.08	198.71	400.34
Net Loans Opening	0.00	3453.93	3732.42	3543.79	3343.10
Add: Draw(s) during the Year	0.00	278.49	0.00	0.94	0.00
Less: Repayments of Loan during the year	0.00	0.00	188.63	201.63	209.09
Net Closing Loan	0.00	3732.42	3543.79	3343.10	3134.01
Average Net Loan	0.00	3593.18	3638.11	3443.45	3238.56
Rate of Interest on Loan* (%)	0.00	2.6722%	2.6629%	2.8103%	2.5102%
Interest on Loan	0.00	96.02	96.88	96.77	81.30



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)**Combined Asset I & II**

(₹in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XX-DOCO DRAWL ON 07-SEP-2006 - 07-SEP-2006-	8.93	451.00	0.00	451.00
BOND XXI-DOCO DRAWL ON 11-OCT-2006 - 11-OCT-2006-	8.73	504.00	0.00	504.00
BOND XXV-DOCO-	10.10	3897.50	0.00	3897.50
BOND XXVI-DOCO-	9.30	501.50	0.00	501.50
IBRD III-ADDCAP FOR 2009-2010 AddCap-1-49.22	1.79	490.92	0.00	490.92
IBRD III-ADDCAP FOR 2009-2010 AddCap-6-49.22	1.79	219.96	0.00	219.96
IBRD III-ADDCAP FOR 2010-2011 AddCap-2-47.73	1.79	1328.76	0.00	1328.76
IBRD III-ADDCAP FOR 2010-2011 AddCap-7-46.36	1.79	396.47	0.00	396.47
IBRD III-ADDCAP FOR 2011-2012 AddCap-3-45.79	1.79	658.64	0.00	658.64
IBRD III-ADDCAP FOR 2011-2012 AddCap-8-44.7	1.79	91.95	0.00	91.95
IBRD III-ADDCAP FOR 2012-2013 AddCap-4-44.7	1.79	60.08	0.00	60.08
IBRD III-ADDCAP FOR 2012-2013 AddCap-9-45.04	1.79	232.86	0.00	232.86
IBRD III-ADDCAP FOR 2013-2014 AddCap-10-45.05	1.79	155.29	0.00	155.29
IBRD III-ADDCAP FOR 2013-2014 AddCap-5-45.05	1.79	136.95	0.00	136.95
IBRD III-DOCO-1B-49.22	1.79	771.13	0.00	771.13
IBRD III-Loan7-51.55	1.79	36332.44	0.00	36332.44
IBRD III-Loan8-46.96	1.79	13556.88	0.00	13556.88
BOND XXVIII-DOCO-	9.33	2621.00	0.00	2621.00
BOND XXX-DOCO-	8.80	275.00	0.00	275.00
BOND XXX-DOCO-1A-	8.80	326.44	0.00	326.44
Total		63008.77	0.00	63008.77

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	63008.77	63008.77	63008.77	63008.77	63008.77
Cumulative Repayments of Loans up to Previous Year	10159.25	13883.36	17738.14	21730.35	25864.77
Net Loans Opening	52849.52	49125.41	45270.63	41278.42	37144.00
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	3724.11	3854.78	3992.21	4134.42	4282.75
Net Closing Loan	49125.41	45270.63	41278.42	37144.00	32861.25
Average Net Loan	50987.47	47198.02	43274.53	39211.21	35002.63
Rate of Interest on Loan (%)	2.8582%	2.8287%	2.7972%	2.7627%	2.7240%
Interest on Loan	1404.10	1280.56	1154.62	1026.18	895.14

Combined Asset III & IV

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XX-DOCO DRAWL ON 01-FEB-2011-	8.93	49.00	0.00	49.00
BOND XXI-DOCO DRAWL ON 01-FEB-2011-	8.73	72.00	0.00	72.00
BOND XXV-Loan3-	10.10	149.50	0.00	149.50
BOND XXVI-Loan4-	9.30	14.00	0.00	14.00
IBRD III-ADDCAP FOR 2010-2011 AddCap-2-46.33	1.79	278.49	0.00	278.49
IBRD III-ADDCAP FOR 2012-2013 AddCap-1-44.7	1.79	0.94	0.00	0.94
IBRD III-DOCO-49.22	1.79	272.48	0.00	272.48
IBRD III-DOCO--46.97	1.79	427.05	0.00	427.05
IBRD III-DOCO 1-51.55	1.79	1315.81	0.00	1315.81
IBRD III-DOCO2-46.38	1.79	1095.17	0.00	1095.17
BOND XXVIII-Loan-2-	9.33	69.00	0.00	69.00
Total		3743.44	0.00	3743.44



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	3743.44	3743.44	3743.44	3743.44	3743.44
Cumulative Repayments of Loans up to Previous Year	609.43	826.32	1051.35	1284.94	1527.37
Net Loans Opening	3134.01	2917.12	2692.09	2458.50	2216.07
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	216.89	225.03	233.59	242.43	251.66
Net Closing Loan	2917.12	2692.09	2458.50	2216.07	1964.41
Average Net Loan	3025.57	2804.61	2575.30	2337.29	2090.24
Rate of Interest on Loan (%)	2.4171%	2.3857%	2.3509%	2.3111%	2.2643%
Interest on Loan	73.13	66.91	60.54	54.02	47.33

