

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 388/TT/2014

Coram:

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

**Date of Hearing : 21.12.2015
Date of Order : 12.01.2016**

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under and determination of transmission tariff for 2014-19 tariff period Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for Combined Assets of (i) Ckt-III of 400 kV D/C Vindhyachal-Satna transmission line along with associated bays; (ii) 400/220 kV, 315 MVA ICT-II at Satna Sub-station; (iii) Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays; (iv) LILO of 400 kV Satna-Bina Ckt- I & II at Bina (Power Grid) Sub-station; (v) Circuit IV of 400 kV D/C Satna-Bina transmission line; (vi) Circuit III of 400 kV D/C Satna-Bina transmission line; (vii) LILO of 400 kV D/C Raipur-Rourkela transmission line along with associated bays; and (viii) 400/220 kV 315 MVA ICT-II along with associated bays equipment at Raigarh Sub-station under Vindhyachal Stage-III transmission system in Western Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999.

And in the matter of:

Power Grid Corporation of India Ltd.
'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

Versus

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur, Jabalpur-482008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor, Andheri (East), Mumbai-400052



3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara- 390007
4. Electricity Department
Govt. Of GOA,
Vidyut Bhawan, Panaji- 403001
5. Electricity Department
Administration of Daman & Diu,
Daman- 396210
6. Electricity Department
Administration of Dadar Nagar Haveli,
U.T., Silvassa- 396230
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-452008

....Respondents

The following were present:

For Petitioner:	Shri S.K Venkatesan, PGCIL
	Shri M.M Mondal, PGCIL
	Shri Avinash M. Pavgi, PGCIL
	Shri Piyush Awasthi, PGCIL
	Shri Anshul Garg, PGCIL
	Shri Rakesh Prasad, PGCIL
	Shri S.S Raju, PGCIL

For Respondent:	None
-----------------	------



ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ('the petitioner'), a transmission licensee, for truing up of capital expenditure and tariff for Combined Assets of (i) Ckt-III of 400 kV D/C Vindhyachal-Satna transmission line along with associated bays; (ii) 400/220 kV, 315 MVA ICT-II at Satna Sub-station; (iii) Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays; (iv) LILO of 400 kV Satna-Bina Ckt- I & II at Bina (Power Grid) Sub-station; (v) Circuit IV of 400 kV D/C Satna-Bina transmission line; (vi) Circuit III of 400 kV D/C Satna-Bina transmission line; (vii) LILO of 400 kV D/C Raipur-Rourkela transmission line along with associated bays; and (viii) 400/220 kV 315 MVA ICT-II along with associated bays equipment at Raigarh Sub-station under Vindhyachal Stage-III transmission system in Western Region (hereinafter collectively referred as "transmission asset") 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 actual 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.



2. The respondents are distribution licensees or centralised power procurement companies of States, who are procuring transmission service from the petitioner, mainly beneficiaries of Western Region.

3. 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 have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. None of the respondents have filed reply to the petition. The hearing in this matter was held on 21.12.2015. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

4. The brief facts of the case are as follows:

a) The investment approval for the transmission system was accorded by Ministry of Power vide its letter dated 23.7.2004 at an estimated cost of ₹59647.00 lakh, which included IDC of ₹5289.00 lakh. Subsequently, approval for the revised cost estimate was accorded by Ministry of Power under its letter dated 13.11.2007 at an estimated cost of ₹68956.00 lakh, which included IDC of ₹1319.00 Lakh. The notional date of commercial operation of the transmission has been taken as 1.2.2008.

b) The transmission tariff for the transmission assets up to 31.3.2009 were decided by the Commission in its order dated 19.6.2009 in Petition No.



48/2009, order dated 17.9.2008 in Petition No. 45/2008 and order dated 20.4.2009 in Petition No. 132/2008 and same were revised vide order dated 18.6.2010 in Petition No. 44/2010, after accounting for the additional capital expenditure up to 31.3.2009.

- c) The Commission, in its order dated 8.2.2011 in Petition No. 243/2010, has determined the tariff for the tariff period 2009-14 based on admitted capital cost of ₹63718.32 lakh as on 31.3.2009 and additional capital expenditure of ₹1096.84 lakh for the tariff period 2009-14 in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

(₹ in lakh)					
Approved in 2009-14	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	3342.05	3369.57	3391.60	3391.60	3391.60
Interest on Loan	3452.38	3199.24	2932.49	2637.76	2342.59
Return on Equity	3348.26	3377.02	3399.09	3399.09	3399.09
Interest on WC	292.34	292.87	293.13	292.16	291.46
O&M Expenses	1618.13	1710.83	1808.76	1912.12	2021.26
Total	12053.15	11949.53	11825.07	11632.73	11446.00

- d) The MAT rate applicable during 2008-09 was considered to arrive at the rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of the tariff for 2009-14 tariff period.
- e) The instant petition was filed on 19.9.2014.



TRUING UP OF ANNUAL FIXED CHARGES FOR TARIFF PERIOD 2009-14

5. The truing up of tariff for the tariff period 2009-14 has been determined as discussed below:-

Capital Cost

6. The petitioner has claimed admitted capital cost of ₹63718.32 lakh as on 31.3.2009 for the purpose of tariff. In addition to this, the petitioner has claimed additional capitalisation of ₹1137.50 lakh on account of afforestation, differential entry tax and balance and retention payments for which works have been executed with in cut-off date for the tariff period 2009-14.

7. Last proviso to Clause (2) of Regulation 7 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”.

8. The capital cost admitted as on 31.3.2009, vide order dated 8.2.2011 in Petition No 243/2010, has been considered as the opening capital cost as on 1.4.2009 for determination of tariff in accordance with Regulation 7 of the 2009 Tariff Regulations. The admitted capital cost of ₹63718.32 lakh as on 1.4.2009 has been considered to work out the trued up tariff for the tariff period 2009-14.



Additional Capital Expenditure

9. The petitioner has claimed ₹1137.50 lakh as additional capital expenditure against the approved additional capital expenditure of ₹1096.84 lakh for the tariff period 2009-14 on account of afforestation, differential entry tax and balance and retention payments for which works have been executed with in cut-off date under Clause (1) of Regulation 9 of the 2009 Tariff Regulations and after cut-off date under Clause (2) of Regulation 9 of the 2009 Tariff Regulations.

10. Clause (1) and Clause (2) of Regulation 9 of the 2009 Tariff Regulations provides as follows:-

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

- (i) Undischarged liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in law

...

(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, 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;

...

(v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

...



Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009.”

11. The total actual additional capitalisation of ₹1137.50 lakh claimed during the tariff period 2009-14 is more than the additional capitalisation of ₹1096.84 lakh for the tariff period 2009-14 approved by the Commission vide order dated 8.2.2011 in Petition No. 243/2010 on account of afforestation, differential entry tax and balance and retention payments. In this regards, the petitioner was directed to submit the reason for variation in entry tax amount from ₹630.99 lakh as approved in the order dated 8.2.2011 in Petition No. 243/2010 to ₹804.86 lakh. In response, the petitioner submitted that the projection of entry tax was done on tower parts only. Additional amount paid is due increase in rate of entry tax from 1% to 5% for Conductor.

12. The petitioner was directed to confirm whether all the payments are claimed or some payments are still to be claimed. In this regard, the petitioner confirmed that all the balance/retention payments under this petition have been paid and no further balance/retention payments are to be claimed.

13. Further, the Commission directed the petitioner to submit details and justification for the additional capitalisation amount of ₹32.76 lakh claimed on account of afforestation. In response, the petitioner submitted details and



justification for the additional capitalisation amount of ₹32.76 lakh claimed on account of afforestation as given in the table below:-

S. No.	Head/Justification	Amount (in ₹)
1	Supervision charges for compensatory afforestation as per guidelines received from Vanmandal Adhikari West Siddhi	2288515
2	Deposit – difference amount for use of forest land for 400kV Vindhyachal-satna ckt.III	87020
3	Difference amount of NPV paid	900140
4	Total	3275675

14. The actual additional capital expenditure of ₹1137.50 lakh is certified by the Auditor has been considered to work out the true up tariff for 2009-14 tariff period in accordance with Clause (1) and Clause (2) of Regulation 9 of the 2009 Tariff Regulations. The summary of capital cost including additional capitalization is shown in the table below:-

(₹ in lakh)

Cost as per Investment Approval is ₹68956 lakh								
Particulars	Admitted Capital Cost as on 31.3.2009	Additional Capitalisation					Total Additional Capitalisation	Total Capital cost including Additional Capitalisation
		2009-10	2010-11	2011-12	2012-13	2013-14		
Approved in Order dated 8.2.2011	63718.32	255.11	841.73	0.00	0.00	0.00	1096.84	64815.2
Actual	63718.32	627.18	313.99	181.49	14.84	0.00	1137.50	64855.82

Debt: Equity

15. Clause 2 of Regulation 12 of the 2009 Tariff Regulations provides that:-



“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.”

16. The petitioner has claimed trued up Annual Fixed Charge based on debt:equity ratio of 70:30 as on 31.3.2009 considered by the Commission in its order dated 8.2.2011 in Petition No. 243/2010. The transmission assets covered in the instant petition were commissioned prior to 1.4.2009. The Commission had admitted debt:equity ratio of 70:30 as on 31.3.2009 vide order dated 8.2.2011 in Petition No. 243/2010. The admitted debt:equity ratio of 70:30 as on 31.3.2009 has been considered as opening debt:equity ratio as on 1.4.2009 for the purpose of truing up of the approved tariff for the tariff period 2009-14, as given under:-

(₹ in lakh)

Funding	Admitted as on 31.3.2009	(%)
Debt	44602.89	70.00
Equity	19115.43	30.00
Total	63718.32	100.00

17. The debt:equity ratio claimed by the petitioner for the purpose of additional capital expenditure is given in the table below:-

(₹ in lakh)

Funding	2009-10	2010-11	2011-12	2012-13	2013-14
Debt	439.03	219.79	176.00	10.39	0.00
Equity	188.15	94.20	5.50	4.45	0.00
Total	627.18	313.99	181.50	14.84	0.00
Debt-Equity Ratio					
Debt (%)	70.00	70.00	96.97	70.00	70.00
Equity (%)	30.00	30.00	3.03	30.00	30.00
Total (%)	100.00	100.00	100.00	100.00	100.00



18. Debt-equity ratio is allowed in accordance with Clause 2 of Regulation 12 of the 2009 Tariff Regulations. The overall debt:equity admitted as on 31.03.2014 including additional capitalization is as under:-

(₹ in lakh)						
Funding	2009-10	2010-11	2011-12	2012-13	2013-14	Admitted as on 31.3.2014
Debt	439.03	219.79	176.00	10.39	0.00	45448.10
Equity	188.15	94.20	5.50	4.45	0.00	19407.73
Total	627.18	313.99	181.50	14.84	0.00	64855.83
Debt-Equity Ratio						
Debt (%)	70.00	70.00	96.97	70.00	70.00	70.08
Equity (%)	30.00	30.00	3.03	30.00	30.00	29.92
Total (%)	100.00	100.00	100.00	100.00	100.00	100.00

Interest on Loan ("IOL")

19. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 has 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”.

20. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest.

21. We have considered the submissions of the petitioner and accordingly calculated the IOL based on actual interest rate submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of



weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and approved as follows:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 8.2.2011	3452.38	3199.24	2932.49	2637.76	2342.59
As claimed by the petitioner	3463.35	3204.79	2929.86	2643.68	2348.77
Allowed after trued up	3463.35	3204.81	2929.85	2643.70	2348.76

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:

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

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

(5) The generating company or the transmission licensee, as the case maybe, 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 petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 8.2.2011. However, for truing up purpose, the computation of RoE for the tariff period 2009-14 has been done on the basis of actual MAT rate applicable during 2009-14. The petitioner has submitted the variation in MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-

Particulars	MAT Rate (%)	Grossed up RoE (Base rate/(1-t)) (%)
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	19.611

24. Accordingly, the ROE as trued up is worked out by considering actual MAT rate for grossing up of ROE as shown in the table below:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 8.2.2011	3348.26	3377.02	3399.09	3399.09	3399.09
As claimed by the petitioner	3587.19	3745.91	3759.24	3760.21	3805.86
Allowed after trued up	3587.18	3745.91	3759.24	3760.21	3805.86

25. The return on equity allowed in the instant order is more than the ROE allowed vide order dated 8.2.2011 due to increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.



Depreciation

26. Clause (42) of Regulation 3 of the 2009 Tariff Regulations defines useful life as follows:-

“‘**useful life**’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

.....

(c) AC and DC sub-station	25 years
(d) Hydro generating station	35 years
(e) Transmission line	35 years”

27. Further, Clause (4) of Regulation 17 of the 2009 Tariff Regulations provides as follows:-

"17. Depreciation:

...

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.”

28. Regulation 17 of the 2009 Tariff Regulations provides the methodology to workout the depreciation. The Commission, in its order dated 8.2.2011, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations. There is variation in actual capital expenditure incurred during the tariff period 2009-14 with that admitted vide order dated 8.2.2011 in Petition No. 243/ 2010.

29. As per Regulation 17 (4) of the 2009 Tariff Regulations, useful life for transmission line, sub-station and PLCC is 35 years, 25 years, and 15 years,



respectively. In the present case, weighted average life of the transmission system works out to 32 years.

30. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure and additional capitalisation as under:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 8.2.2011	3342.05	3369.57	3391.60	3391.60	3391.60
As claimed by petitioner	3352.25	3375.89	3388.61	3393.63	3393.88
Allowed after true up	3352.25	3375.89	3388.61	3393.63	3393.88

31. The depreciation allowed in the instant order is more than the depreciation allowed vide order dated 8.2.2011 due to increase in actual additional capitalisation vis-à-vis that of approved vide order dated 8.2.2011.

Operation & Maintenance Expenses ("O&M Expenses")

32. The petitioner has computed O&M Expenses for the transmission assets mentioned in the petition in accordance with the O&M norms specified in Regulation 19(g) of the 2009 Tariff Regulations. Accordingly, the O&M Expenses have been worked out as given below:-



		(₹ in lakh)				
Particulars		2009-10	2010-11	2011-12	2012-13	2013-14
Norms as per Regulation	400 kV, D/C twin conductor transmission line (₹ lakh/km)	0.627	0.663	0.701	0.741	0.783
	400 kV bay(₹ lakh/bay)	52.40	55.40	58.57	61.92	65.46
	220 kV bay(₹ lakh/bay)	36.68	38.78	41.00	43.34	45.82
Actual line length (km)	400 kV, D/C twin conductor transmission line (₹ lakh)	549.934	549.934	549.934	549.934	549.934
Actual (No. of Sub-stations)	400 kV bay(₹ lakh)	18	18	18	18	18
	220 kV bay(₹ lakh)	9	9	9	9	9
O&M expense	400 kV, D/C twin conductor transmission line (₹ lakh)	344.81	364.61	385.50	407.50	430.60
	400 kV bay(₹ lakh)	943.20	997.20	1054.26	1114.56	1178.28
	220 kV bay(₹ lakh)	330.12	349.02	369.00	390.06	412.38
Total		1618.13	1710.83	1808.76	1912.12	2021.26

33. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in the tariff order dated 8.2.2011 in Petition No. 243/2010. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-



(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 8.2.2011	1618.13	1710.83	1808.76	1912.12	2021.26
As claimed by petitioner	1618.13	1710.83	1808.76	1912.12	2021.26
Allowed after true up	1618.13	1710.83	1808.76	1912.12	2021.26

Interest on working capital (“IWC”)

34. Sub-clause (c) of Clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and Clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest on working capital.

35. The petitioner has submitted that the rate of interest on working capital has been considered as 12.25% as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of Clause (1) of Regulation 18 of the 2009 Tariff Regulations.

36. The Commission in its order dated 8.2.2011 in Petition No. 243/2010 approved rate of interest on working capital as 12.25% as applicable for 2008-09. In accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations, rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation prior to 1.4.2009, shall be equal to short-term Prime Lending Rate as applicable as on 1.4.2009. State



Bank of India short-term Prime Lending Rate on 1.4.2009 was 12.25%. Therefore, interest rate of 12.25% has been considered to work-out the interest on working capital in the instant case.

37. The IWC trued up is as under:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	242.72	256.62	271.31	286.82	303.19
O & M expenses	134.84	142.57	150.73	159.34	168.44
Receivables	2053.11	2056.37	2031.16	2001.58	1978.31
Total	2430.68	2455.57	2453.21	2447.75	2449.94
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest	297.76	300.81	300.52	299.85	300.12

38. The IWC claimed by the petitioner, allowed and trued up are as shown in the table below:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 8.2.2011	292.34	292.87	293.13	292.16	291.46
As claimed by petitioner	297.76	300.81	300.52	299.85	300.12
Allowed after true up	297.76	300.81	300.52	299.85	300.12

39. The IWC has increased on account of increase in receivables due to variation in ROE on account of applicable MAT rate during the tariff period 2009-14.



ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block					
Opening Gross block	63718.32	64345.50	64659.49	64840.99	64855.83
Addition during 2014-19 due to Additional Capitalization	627.18	313.99	181.50	14.84	0.00
Closing Gross block	64345.50	64659.49	64840.99	64855.83	64855.83
Average Gross block	64031.91	64502.50	64750.24	64848.41	64855.83
Depreciation					
Rate of Depreciation (%)	5.235%	5.234%	5.233%	5.233%	5.233%
Depreciable Value	57594.47	58017.99	58240.96	58329.32	58335.99
Elapsed Life (Beginning of the year)	1	2	3	4	5
Weighted Balance Useful life of the assets (yrs)	31	30	29	28	27
Remaining Depreciable Value	54204	51275	48122	44822	41435
Depreciation	3352.25	3375.89	3388.61	3393.63	3393.88
Cumulative Depreciation	6742.91	10118.81	13507.42	16901.05	20294.93
Interest on Loan					
Gross Normative Loan	44602.89	45041.92	45261.71	45437.71	45448.10
Cumulative Repayment upto COD/Previous Year	3390.66	6742.91	10118.81	13507.42	16901.05
Net Loan-Opening	41212.23	38299.00	35142.90	31930.29	28547.05
Addition due to Additional Capitalisation	439.03	219.79	176.00	10.39	0.00
Repayment during the year	3352.25	3375.89	3388.61	3393.63	3393.88
Net Loan-Closing	38299.00	35142.90	31930.29	28547.05	25153.17
Average Loan	39755.62	36720.95	33536.60	30238.67	26850.11
Weighted Average Rate of Interest on Loan (%)	8.71	8.73	8.74	8.74	8.75
Interest	3463.35	3204.81	2929.85	2643.70	2348.76
Return on Equity					



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity	19115.43	19303.58	19397.78	19403.28	19407.73
Additional Capitalisation	188.15	94.20	5.50	4.45	0.00
Closing Equity	19303.58	19397.78	19403.28	19407.73	19407.73
Average Equity	19209.51	19350.68	19400.53	19405.51	19407.73
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT rate for respective year (%)	17.00	19.93	20.01	20.01	20.96
Rate of Return on Equity (Pre Tax)(%)	18.674	19.358	19.377	19.377	19.610
Return on Equity (Pre Tax)	3587.18	3745.91	3759.24	3760.21	3805.86
Interest on Working Capital					
Maintenance Spares	242.72	256.62	271.31	286.82	303.19
O & M expenses	134.84	142.57	150.73	159.34	168.44
Receivables	2053.11	2056.37	2031.16	2001.58	1978.31
Total	2430.68	2455.57	2453.21	2447.75	2449.94
Interest	297.76	300.81	300.52	299.85	300.12
Annual Transmission Charges					
Depreciation	3352.25	3375.89	3388.61	3393.63	3393.88
Interest on Loan	3463.35	3204.81	2929.85	2643.70	2348.76
Return on Equity	3587.18	3745.91	3759.24	3760.21	3805.86
Interest on Working Capital	297.76	300.81	300.52	299.85	300.12
O & M Expenses	1618.13	1710.83	1808.76	1912.12	2021.26
Total	12318.67	12338.24	12186.98	12009.50	11869.87

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

41. The petitioner has claimed the transmission charges as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88
Interest on Loan	2053.34	1757.90	1462.41	1166.85	871.15
Return on Equity	3805.86	3805.86	3805.86	3805.86	3805.86
Interest on Working Capital	315.41	312.03	308.73	305.56	302.50
O & M Expenses	1854.09	1915.89	1979.40	2045.08	2112.93
Total	11422.58	11185.56	10950.28	10717.23	10486.32



42. 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
Maintenance Spares	278.11	287.38	296.91	306.76	316.94
O & M Expenses	154.51	159.66	164.95	170.42	176.08
Receivables	1903.76	1864.26	1825.05	1786.21	1747.72
Total	2336.38	2311.30	2286.91	2263.39	2240.74
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	315.41	312.03	308.73	305.56	302.50

Capital Cost

43. Clause (1) and (3) of Regulation 9 of the 2014 Tariff Regulations provide as follows:-

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.

...

(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.”

44. The petitioner has claimed capital cost of ₹64855.82 lakh as on 31.3.2014 including additional capitalisation during the tariff period 2009-14. Further, the petitioner has not projected any additional capital expenditure during the tariff period 2014-19.



45. The trued up capital cost of ₹64855.82 lakh as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 to work out the tariff for tariff period 2014-19.

Additional Capital Expenditure

46. The petitioner has not claimed any additional capital expenditure for the tariff period 2014-19, and accordingly, no additional capital expenditure has been considered for the tariff period 2014-19.

Debt:Equity Ratio

47. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

“(3) In case of the generating station and the transmission 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.”

48. The admitted debt:equity ratio of 78.55:21.45 for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014 for determination of tariff for the period 2014-19. The admitted debt:equity ratio as on 1.4.2014 for the purpose of determination of tariff is as follows:-

(₹ in lakh)

Funding	Admitted as on 31.3.2014	(%)
Debt	45448.10	70.08
Equity	19407.73	29.92
Total	64855.83	100.00



Interest on Loan ("IOL")

49. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced as under:-

“(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.”

50. The weighted average rate of IOL has been considered based on the actual loan portfolio, interest of actual loan prevailing as on 1.4.2014 and average loan amount by considering repayment and additions. The details of interest rate of individual loan and weighted average rate of interest are placed at Annexure-II. The weighted average rate of interest is given in following table:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Loan	23456.23	20062.35	16668.48	13274.60	9880.72
Interest	2053.34	1757.89	1462.41	1166.85	871.15
Rate of Interest (%)	8.7539	8.7621	8.7735	8.7901	8.8166

51. The IOL has been worked out by considering normative loan and weighted average rate of interest in accordance with Regulation 26 of the 2014 Tariff Regulations as follows:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	45448.10	45448.10	45448.10	45448.10	45448.10
Cumulative Repayment upto COD/previous year	20294.93	23688.80	27082.68	30476.56	33870.44
Net Loan-Opening	25153.17	21759.29	18365.42	14971.54	11577.66
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	3393.88	3393.88	3393.88	3393.88	3393.88
Net Loan-Closing	21759.29	18365.42	14971.54	11577.66	8183.78
Average Loan	23456.23	20062.35	16668.48	13274.60	9880.72
Rate of Interest (%)	8.75	8.76	8.77	8.79	8.82
Interest on Loan	2053.34	1757.89	1462.41	1166.85	871.15

Return on Equity ("ROE")

52. Clause (1) and (2) of Regulation 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."



53. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate for 2013-14 as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

54. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.

55. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, MAT rate applicable during 2013-14 has been considered for the purpose of allowing return on equity, which shall be trued up with actual



tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations.

Accordingly, the ROE is worked out as given below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	19407.73	19407.73	19407.73	19407.73	19407.73
Addition due to additional capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	19407.73	19407.73	19407.73	19407.73	19407.73
Average Equity	19407.73	19407.73	19407.73	19407.73	19407.73
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year (%)	20.96	20.96	20.96	20.96	20.96
Rate of Return on Equity (Pre Tax) (%)	19.61	19.61	19.61	19.61	19.61
Return on Equity (Pre Tax)	3805.86	3805.86	3805.86	3805.86	3805.86

Depreciation

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

"27. Depreciation:

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

...

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

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as



admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

57. The petitioner has computed depreciation considering capital expenditure of ₹64855.83 lakh as on 31.3.2014. We have considered the submission made by the petitioner with reference to depreciation. Depreciation is allowed as provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	64855.83	64855.83	64855.83	64855.83	64855.83
Addition during the year due to projected additional capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	64855.83	64855.83	64855.83	64855.83	64855.83
Rate of Depreciation (%)	5.23	5.23	5.23	5.23	5.23
Depreciable Value	58335.99	58335.99	58335.99	58335.99	58335.99
Elapsed Life (Beginning of the year)	6	7	8	9	10
Weighted Balance Useful life of the assets	26	25	24	23	22
Remaining Depreciable Value	38041.07	34647.19	31253.31	27859.43	24465.55
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88

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

58. The petitioner has computed normative O&M Expenses as per sub clause (a) of Clause (3) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner’s entitlement to O&M Expenses has been worked out as given hereunder:-



		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Norms as per Regulation	400 kV, D/C twin conductor transmission line (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
	400 kV bay (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
	220 kV bay (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.10
Actual line length (km)	400 kV, D/C twin conductor transmission line (₹ lakh)	549.934	549.934	549.934	549.934	549.934
Actual (No. of Sub-stations)	400 kV bay (₹ lakh)	18	18	18	18	18
	220 kV bay (₹ lakh)	9	9	9	9	9
O&M Expenses	400 kV, D/C twin conductor transmission line (₹ lakh)	388.80	402.00	415.20	428.95	443.25
	400 kV bay (₹ lakh)	1085.40	1121.40	1158.66	1197.18	1236.78
	220 kV bay (₹ lakh)	379.89	392.49	405.54	418.95	432.90
Total		1854.09	1915.89	1979.40	2045.08	2112.93

59. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner Company is due during 2014-19 and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.



60. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

61. The details of O&M Expenses allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses allowed	1854.09	1915.89	1979.40	2045.08	2112.93

Interest on Working Capital ("IWC")

62. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify 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;"

63. The petitioner has submitted that it has computed IWC for the tariff period 2014-19 considering the SBI Base Rate as on 1.4.2014 plus 350 basis points. The rate of interest on working capital considered for the purpose of computation of tariff is 13.50%.



64. 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 interest on working capital as determined is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	278.11	287.38	296.91	306.76	316.94
O & M Expenses	154.51	159.66	164.95	170.42	176.08
Receivables	1903.76	1864.26	1825.05	1786.20	1747.72
Total	2,336.39	2,311.30	2,286.91	2,263.39	2,240.73
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working Capital	315.41	312.03	308.73	305.56	302.50

Annual Transmission Charges

65. The Annual Transmission Charges allowed for the transmission asset is given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88
Interest on Loan	2053.34	1757.89	1462.41	1166.85	871.15
Return on Equity	3805.86	3805.86	3805.86	3805.86	3805.86
Interest on WC	315.41	312.03	308.73	305.56	302.50
O&M Expenses	1854.09	1915.89	1979.40	2045.08	2112.93
Total	11422.58	11185.54	10950.27	10717.22	10486.31

66. The detailed computation of various components of annual fixed charges for the tariff period 2014-19 is summarized below:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross block	64855.83	64855.83	64855.83	64855.83	64855.83
Additional Capitalization during 2014-19	0.00	0.00	0.00	0.00	0.00
Closing Gross block	64855.83	64855.83	64855.83	64855.83	64855.83
Average Gross block	64855.83	64855.83	64855.83	64855.83	64855.83
Depreciation					
Rate of Depreciation(%)	5.23	5.23	5.23	5.23	5.23
Depreciable Value	58335.99	58335.99	58335.99	58335.99	58335.99
Elapsed Life (Beginning of the year)	6	7	8	9	10
Weighted Balance Useful life of the assets	26	25	24	23	22
Remaining Depreciable Value	38041.07	34647.19	31253.31	27859.43	24465.55
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88
Cumulative Depreciation	23688.80	27082.68	30476.56	33870.44	37264.32
Interest on Loan					
Net Loan-Opening	25153.17	21759.29	18365.42	14971.54	11577.66
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	3393.88	3393.88	3393.88	3393.88	3393.88
Net Loan-Closing	21759.29	18365.42	14971.54	11577.66	8183.78
Average Loan	23456.23	20062.35	16668.48	13274.60	9880.72
Weighted Average Rate of Interest on Loan (%)	8.75	8.76	8.77	8.79	8.82
Interest	2053.34	1757.89	1462.41	1166.85	871.15
Return on Equity					
Opening Equity	19407.73	19407.73	19407.73	19407.73	19407.73
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	19407.73	19407.73	19407.73	19407.73	19407.73
Average Equity	19407.73	19407.73	19407.73	19407.73	19407.73
Return on Equity (Base Rate)(%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the respective year (%)	20.96	20.96	20.96	20.96	20.96
Rate of Return on Equity	19.61	19.61	19.61	19.61	19.61



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(Pre Tax)(%)					
Return on Equity (Pre Tax)	3805.86	3805.86	3805.86	3805.86	3805.86
Interest on Working Capital					
Maintenance Spares	278.11	287.38	296.91	306.76	316.94
O & M expenses	154.51	159.66	164.95	170.42	176.08
Receivables	1903.76	1864.26	1825.05	1786.20	1747.72
Total	2,336.39	2,311.30	2,286.91	2,263.39	2,240.73
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	315.41	312.03	308.73	305.56	302.50
Annual Transmission Charges					
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88
Interest on Loan	2053.34	1757.89	1462.41	1166.85	871.15
Return on Equity	3805.86	3805.86	3805.86	3805.86	3805.86
Interest on Working Capital	315.41	312.03	308.73	305.56	302.50
O & M Expenses	1854.09	1915.89	1979.40	2045.08	2112.93
Total	11422.58	11185.54	10950.27	10717.22	10486.31

Filing Fee and Publication Expenses

67. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. 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 clause (1) of Regulation 52 of the 2014 Tariff Regulations.



Licence Fee and RLDC Fees and Charges

68. The petitioner has requested to allow the petitioner to bill and recover Licence fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

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

Deferred Tax Liability

70. 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 under Regulation 49 of the 2014 Tariff Regulations. The deferred tax liability shall be dealt as per Regulation 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 materializes, directly from the beneficiaries or long term transmission customers /DICs.



Sharing of Transmission Charges

71. 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.

72. This order disposes of Petition No. 388/TT/2014.

(Dr. M. K. Iyer)
Member

(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XVIII	8.15	19117.00	0.00	19117.00
BOND XX	8.93	12039.00	0.00	12039.00
BOND XXI	8.73	520.00	0.00	520.00
BOND XXII	8.68	1204.00	0.00	1204.00
BOND XXIII	9.25	1617.00	0.00	1617.00
BOND XXIV	9.95	2675.00	0.00	2675.00
BOND XXVI	9.30	3953.00	0.00	3953.00
BOND XXVIII-Add Cap 2008-09 Loan 1	9.33	1124.00	0.00	1124.00
BOND XXIX-Add Cap 2009-10	9.20	0.00	52.00	52.00
BOND XXIX-Add Cap 2008-09 Loan 2	9.20	932.00	0.00	932.00
BOND XXX-Add Cap 2009-10	8.80	0.00	85.00	85.00
BOND XXXI-Add Cap 2009-10	8.90	0.00	127.00	127.00
BOND XXXVIII-Add Cap 2011-12 Loan 1	9.25	0.00	48.96	48.96
BOND XXXIII-Add Cap 2010-11 Loan 2	8.64	0.00	44.00	44.00
BOND XXXVIII-Add Cap 2011-12 Loan 1	9.25	0.00	127.04	127.04
Total Loan		43181.00	484.00	43665.00



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	43,181.00	43,445.00	43,489.00	43,665.00	43,665.00
Cumulative Repayments of Loans upto Previous Year	0.00	1,593.08	4,690.74	8,117.82	11,720.57
Net Loans Opening	43,181.00	41,851.92	38,798.26	35,547.18	31,944.43
Add: Drawl(s) during year	264.00	44.00	176.00	0.00	0.00
Less: Repayment(s) of Loan during the year	1,593.08	3,097.66	3,427.08	3,602.75	3,620.41
Net Closing Loan	41,851.92	38,798.26	35,547.18	31,944.43	28,324.02
Average Net Loan	42,516.46	40,325.09	37,172.72	33,745.81	30,134.23
Rate of Interest on Loan (%)	8.7116	8.7275	8.7363	8.7428	8.7477
Interest on Loan	3,703.86	3,519.36	3,247.51	2,950.32	2,636.04



Annexure – II**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XVIII	8.15	19117.00	0.00	19117.00
BOND XX	8.93	12039.00	0.00	12039.00
BOND XXI	8.73	520.00	0.00	520.00
BOND XXII	8.68	1204.00	0.00	1204.00
BOND XXIII	9.25	1617.00	0.00	1617.00
BOND XXIV	9.95	2675.00	0.00	2675.00
BOND XXVI	9.30	3953.00	0.00	3953.00
BOND XXVIII-Add Cap 2008-09 Loan 1	9.33	1124.00	0.00	1124.00
BOND XXIX-Add Cap 2009-10	9.20	52.00	0.00	52.00
BOND XXIX-Add Cap 2008-09 Loan 2	9.20	932.00	0.00	932.00
BOND XXX-Add Cap 2009-10	8.80	85.00	0.00	85.00
BOND XXXI-Add Cap 2009-10	8.90	127.00	0.00	127.00
BOND XXXVIII-Add Cap 2011-12 Loan 1	9.25	48.96	0.00	48.96
BOND XXXIII-Add Cap 2010-11 Loan 2	8.64	44.00	0.00	44.00
BOND XXXVIII-Add Cap 2011-12 Loan 1	9.25	127.04	0.00	127.04
Total Loan		43665.00	0.00	43665.00



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	43,665.00	43,665.00	43,665.00	43,665.00	43,665.00
Cumulative Repayments of Loans upto Previous Year	15,340.98	18,961.39	22,585.47	26,209.55	29,833.63
Net Loans Opening	28,324.02	24,703.61	21,079.53	17,455.45	13,831.37
Add: Drawl(s) during year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	3,620.41	3,624.08	3,624.08	3,624.08	3,624.08
Net Closing Loan	24,703.61	21,079.53	17,455.45	13,831.37	10,207.29
Average Net Loan	26,513.82	22,891.57	19,267.49	15,643.41	12,019.33
Rate of Interest on Loan (%)	8.7539	8.7621	8.7735	8.7901	8.8166
Interest on Loan	2,321.00	2,005.79	1,690.43	1,375.07	1,059.70

