

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 356/TT/2014

Coram:

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

**Date of Hearing : 21.12.2015
Date of Order : 11.01.2016**

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 of 400 kV D/C Bina-Nagda transmission line along with associated bay equipment at Nagda and Bina Sub-station under "Transmission System associated with 400 kV Bina- Nagda D/C line" 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- 482 008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor, Bandra (East), Mumbai- 400 052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road,
Vadodara- 390 007
4. Electricity Department
Govt. of Goa,
Vidyut Bhawan, Panaji- 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, Dagania, Raipur
Chhattisgarh- 492 013
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay road
Indore- 452 008

....**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
 Shri Mohd. Mohsin, PGCIL
 Shri S. K. Niranjana, PGCIL

For Respondent: None

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ('the petitioner'), a transmission licensee, for trueing up of capital expenditure and tariff for 400 kV D/C Bina-Nagda transmission line along with associated bay equipment at Nagda and Bina Sub-station under "Transmission System associated with 400 kV Bina- Nagda D/C line" in Western Region (hereinafter 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 line was accorded by Board of Directors of the petitioner Company vide its Memorandum dated 13.7.2004 for an estimated cost of ₹26693.00 lakh, which included IDC of ₹1467.00 lakh. Subsequently, approval for the revised cost estimate was accorded by Board of Directors of the petitioner company vide



Memorandum dated 3.12.2007 for an estimated cost of ₹38780 lakh, which included IDC of ₹ 2163 lakh (based on 4th quarter 2006 price level).

b) The project scope as per the petition is as under:

Transmission Lines

- i. 400 kV Bina-Nagda I – 330.15 Ckt. Km.
- ii. 400 kV Bina-Nagda II – 330.15 Ckt. Km

Sub-stations

400 kV Line Bays: 4

- c) The transmission assets were put in commercial operation on 1.11.2007.
- d) The tariff up to 31.3.2009 after accounting for additional capital expenditure incurred during 2008-09 was approved by the Commission vide its order dated 7.4.2010 in Petition No. 306/2009.
- e) The tariff for 2009-14 period was allowed vide order dated 8.2.2011 in Petition No. 176/2010 in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

(₹in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1825.35	1837.84	1844.25	1844.25	1844.25
Interest on Loan	2040.56	1887.88	1726.94	1555.95	1384.94
Return on Equity	1812.06	1824.47	1830.83	1830.83	1830.83
Interest on working capital	139.18	137.71	135.89	133.65	131.49
O&M expenses	416.61	440.49	465.72	492.32	520.35
Total	6233.76	6128.39	6003.63	5857.00	5711.86

- f) The Commission, in its order dated 8.2.2011 in Petition No. 176/2010, determined the tariff for the tariff period 2009-14 based on admitted capital cost of ₹34437.71 lakh as on 31.3.2009 and additional capital expenditure



of ₹230.55 lakh and ₹242.63 lakh for 2009-10 and 2010-11, respectively, in accordance with the 2009 Tariff Regulations.

- g) The MAT rate applicable as on 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 tariff for 2009-14 tariff period.
- h) The instant petition was filed on 28.8.2014.

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

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

Capital Cost

6. The petitioner has claimed admitted capital cost of ₹34437.71 lakh as on 1.4.2009 for the purpose of tariff. In addition to this, the petitioner has claimed additional capitalisation of ₹230.55 lakh, ₹537.17 lakh and ₹300.46 lakh during 2009-10, 2010-11 and 2011-12, respectively, on account of un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date and release of such payments, etc.

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 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. Accordingly, the admitted capital cost of ₹34437.71 lakh has been considered as opening capital cost as on 1.4.2009 to work out the trued up tariff for the tariff period 2009-14.

Additional Capital Expenditure

9. The petitioner has claimed ₹1068.18 lakh as additional capital expenditure against the approved estimated additional capital expenditure of ₹473.18 lakh towards balance and retention payment, entry tax under Clause (1) and Clause (2)(v) of Regulation 9 of the 2009 Tariff Regulations.

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

“9. Additional Capitalisation. (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:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(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:

...

(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 petitioner has claimed ₹230.55 lakh, ₹537.17 lakh, and ₹300.46 lakh during 2009-10, 2010-11 and 2011-12, respectively, against additional capitalisation of ₹230.55 lakh and ₹242.63 lakh for 2009-10 and 2010-11, respectively, approved by the Commission vide order dated 8.2.2011 in Petition No. 176/2010.

12. The petitioner has submitted that additional capitalization incurred is on account of (i) un-discharged liability (₹91.75 lakh) towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date, and (ii) liabilities to meet entry tax claims of ₹208.7 lakh made by government of Madhya Pradesh.

13. The petitioner further submitted that the petitioner has filed a writ appeal before Hon'ble Supreme Court challenging the entry tax. In the said writ appeal, Hon'ble court passed the interim order dated 15.9.2008 with direction to Power Grid to pay entire tax due to Government without prejudice to their right and contentions and ultimately depending on the result of the SLP.



14. Accordingly, the approval of the competent authority has been obtained in September, 2010 and the differential entry tax has been deposited under protest (subject to final outcome of order of Supreme Court) during 2010-11, year wise for the period from 1996-97 to 2010-11, to settle the outstanding due with the Government of Madhya Pradesh.

15. The Commission vide its letter dated 18.12.2015 directed the petitioner to provide justification towards the increase in the additional capital expenditure during 2009-14 period with respect to the amount approved by the Commission in its order dated 8.2.2011. The petitioner in its response vide affidavit dated 28.12.2015 has submitted that the projections made earlier were subject to truing up. The petitioner has further submitted the year-wise breakup of the additional capitalization as shown in the table below:-

(₹ in lakh)		
Period	Additional Capitalization (claimed)	Breakup of Additional Capitalization
2009-10	230.55	Entire balance and retention payment
2010-11	537.17	₹78.26 lakh Retention payment and ₹458.91 lakh towards entry tax.
2011-12	300.46	₹91.75 retention payment and ₹208.71 lakh entry tax
2012-13	0.00	-
2013-14	0.00	-

16. We have gone through the justification provided by the petitioner for increase in the additional capital expenditure. The increase in additional capital expenditure is due to balance and retention payment and payment of entry tax. Further, the actual capital cost after adding the higher additional capitalisation, is still within the capital cost approved as per the RCE. The petitioner has deposited the entry tax subject to the outcome of Hon'ble Supreme Court. Accordingly, additional capitalisation of ₹1068.18 lakh is allowed, in accordance with Clause 1



and Clause 2(v) of Regulation 9 of the 2009 Tariff Regulations, subject to the outcome of the SLP filed before the Hon'ble Supreme Court. If the Hon'ble Supreme Court's order goes in its favour, the petitioner shall inform the Commission and accordingly adjust the capital cost and pass on the benefit to the respondents. The summary of capital cost including additional capitalization is shown in the table below:-

(₹ in lakh)

Cost as per RCE is ₹38,780.00 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	34437.71	230.55	242.63	0.00	0.00	0.00	473.18	34910.89
Allowed	34437.71	230.55	537.17	300.46	0.00	0.00	1068.18	35505.89

Debt: Equity

17. 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.”

18. The petitioner has claimed true up Annual Fixed Charge based on debt:equity ratio of 70:30 for the capital cost as considered by the Commission in its order dated 8.2.2011 in Petition No. 176/2010. The transmission asset was covered in order dated 7.4.2010 in Petition No.306/2009, in which the Commission considered admitted debt:equity ratio of 70:30 as on 31.3.2009. The admitted debt:equity ratio 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:-

Funding	Admitted as on 31.3.2009 Amount (₹ in lakh)	(%)
Debt	24106.40	70.00
Equity	10331.31	30.00
Total	34437.71	100.00

19. The petitioner has claimed normative debt:equity ratio of 70:30 for additional capitalization during 2009-12. The Commission, vide its letter dated 18.12.2015, directed the petitioner to furnish an undertaking on affidavit that actual equity infused for the additional capitalisation during 2009-14 tariff period is not less than 30% for the given transmission asset. In response, the petitioner vide affidavit dated 18.12.2015 has submitted that the equity infused is not less than 30%. Accordingly, the 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:-

Funding	Admitted as on 31.3.2014 Amount (₹ in lakh)	(%)
Debt	24854.14	70.00
Equity	10651.75	30.00
Total	35505.89	100.00

Interest on Loan ("IOL')

20. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of IOL. The Commission in its earlier order dated 8.12.2010 in Petition No. 203/2010 has held that:-



“(v) The interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009. The weighted average rate of interest as on 1.4.2009 shall be basis for the purpose of calculation of interest as per the 2009 regulations. Therefore, interest of loan has been calculated based on the floating rate as on 1.4.2009. Any charge in rate of interest subsequent to 1.4.2009 will be considered at the time of truing up.”

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

22. It is observed that the debt funding in the instant case is through bonds, which bear a fixed interest rate. Therefore, in accordance with the provisions of Regulation 16 of the 2009 Tariff Regulations, weighted average rate of interest on actual loan portfolio has been worked out. Detailed calculation in support of the weighted average rate of interest has been given in **Annexure-I** to this order.

23. Accordingly, the trued up interest on loan is shown in the table below:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved in order dated 8.2.2011	2040.56	1887.88	1726.94	1555.95	1384.94
As claimed by petitioner	2040.55	1897.00	1753.85	1590.06	1416.16
Allowed after trued up	2040.56	1896.99	1753.85	1590.06	1416.16

24. The IOL has increased on account of increase in additional capital expenditure.

Return on Equity (“ROE”)

25. Clause (3), (4) and (5) of 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 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.”

26. The 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 the 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



Particulars	MAT Rate (%)	Grossed up ROE (Base rate/(1-t)) (%)
2013-14	20.961	19.610

27. Accordingly, the ROE as trued up is 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	1812.06	1824.47	1830.83	1830.83	1830.83
As claimed by the petitioner	1935.73	2028.92	2055.26	2063.99	2088.81
Allowed after trued up	1935.73	2028.92	2055.26	2063.99	2088.81

28. The return on equity allowed in the instant order is higher than the ROE allowed vide order dated 8.2.2011 due to increase in equity on account of additional capitalisation and the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

Depreciation

29. 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”

30. 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.”

31. Regulation 17 of the 2009 Tariff Regulations provides the methodology to work out 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 based on estimated capital expenditure. 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. 176/2010.

32. 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. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 34 years.

33. 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:-

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 8.2.2011	1825.35	1837.84	1844.25	1844.25	1844.25
As claimed by petitioner	1825.35	1845.63	1867.73	1875.67	1875.67
Allowed after true up	1825.35	1845.62	1867.73	1875.66	1875.66



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

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

35. The petitioner has computed O&M Expenses for the assets mentioned in the petition in accordance with the O&M norms for 400kV D/C twin conductor and 400 kV bay specified in Regulation 19 (g) of the 2009 Tariff Regulations. Accordingly, the O&M Expenses have been worked out as given below:-

Particulars		(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
Actual line length (Km.)	400 kV, Twin conductors, D/C	330.155	330.155	330.155	330.155	330.155
Actual (No. of Sub-station bays)	400 kV Sub-station Bays	4	4	4	4	4
Norms as per the 2009 Tariff Regulation	400 kV, Twin conductors, D/C (₹ lakh/km)	0.627	0.663	0.701	0.741	0.783
	400 kV Sub-stations (₹ lakh/bay)	52.4	55.4	58.57	61.92	65.46
O&M Expenses	400 kV, Twin conductors, D/C	207.01	218.89	231.44	244.64	258.51
	400 kV Sub-stations	209.60	221.60	234.28	247.68	261.84
Total (₹ in lakh)		416.61	440.49	465.72	492.32	520.35

36. The O&M Expenses claimed by the petitioner for the tariff period 2009-14 are same as that approved in the tariff order dated 8.2.2011 in Petition No.



176/2010. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 8.2.2011	416.61	440.49	465.72	492.32	520.35
As claimed by petitioner	416.61	440.49	465.72	492.32	520.35
Allowed after true up	416.61	440.49	465.72	492.32	520.35

Interest on working capital (“IWC”)

37. 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.

38. 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.

39. The Commission in its order dated 8.2.2011 in Petition No. 176/2010 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.

40. The IWC trued up is as under:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	62.49	66.07	69.86	73.85	78.05
O & M expenses	34.72	36.71	38.81	41.03	43.36
Receivables	1060.00	1059.06	1047.36	1026.99	1006.53
Total	1157.21	1161.84	1156.03	1141.86	1127.94
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest	141.76	142.33	141.61	139.88	138.17

41. 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	139.18	137.71	135.89	133.65	131.49
As claimed by petitioner	141.76	142.33	141.61	139.88	138.17
Allowed after true up	141.76	142.33	141.61	139.88	138.17

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

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

43. 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	34437.71	34668.26	35205.43	35505.89	35505.89
Addition during 2009-14 due to additional capitalisation	230.55	537.17	300.46	0.00	0.00
Closing Gross block	34668.26	35205.43	35505.89	35505.89	35505.89
Average Gross block	34552.99	34936.85	35355.66	35505.89	35505.89
Depreciation					
Rate of Depreciation (%)	5.283	5.283	5.283	5.283	5.283
Depreciable Value	31097.69	31443.16	31820.09	31955.30	31955.30
Elapsed Life (Beginning of the year)	1	2	3	4	5
Weighted Balance Useful life of the assets	33	32	31	30	29
Remaining Depreciable Value	29828.55	28348.67	26879.99	25147.46	23271.80
Depreciation	1825.35	1845.62	1867.73	1875.66	1875.66
Cumulative Depreciation/ Advance against Depreciation	3094.49	4940.11	6807.84	8683.50	10559.16
Interest on Loan					
Gross Normative Loan	24106.40	24267.80	24643.82	24854.14	24854.14
Cumulative Repayment up to Previous Year	1269.13	3094.48	4940.10	6807.83	8683.49
Net Loan-Opening	22837.27	21173.32	19703.72	18046.31	16170.65
Addition due to Additional Capitalisation	161.40	376.02	210.32	0.00	0.00
Repayment during the year	1825.35	1845.62	1867.73	1875.66	1875.66
Net Loan-Closing	21173.32	19703.72	18046.31	16170.65	14294.99
Average Loan	22005.30	20438.52	18875.02	17108.48	15232.82
Weighted Average Rate of Interest on Loan (%)	9.2730	9.2815	9.2919	9.2940	9.2968
Interest	2040.56	1896.99	1753.85	1590.06	1416.16
Return on Equity					
Opening Equity	10331.31	10400.46	10561.61	10651.75	10651.75
Additions	69.15	161.15	90.14	0.00	0.00
Closing Equity	10400.46	10561.61	10651.75	10651.75	10651.75
Average Equity	10365.89	10481.04	10606.68	10651.75	10651.75
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Return on Equity (Pre Tax) (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity (Pre Tax)	1935.73	2028.92	2055.26	2063.99	2088.81
Interest on Working Capital					
Maintenance Spares	62.49	66.07	69.86	73.85	78.05
O & M expenses	34.72	36.71	38.81	41.03	43.36
Receivables	1060.00	1059.06	1047.36	1026.99	1006.53
Total	1157.21	1161.84	1156.03	1141.86	1127.94



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Interest	141.76	142.33	141.61	139.88	138.17
Annual Transmission Charges					
Depreciation	1825.35	1845.62	1867.73	1875.66	1875.66
Interest on Loan	2040.56	1896.99	1753.85	1590.06	1416.16
Return on Equity	1935.73	2028.92	2055.26	2063.99	2088.81
Interest on Working Capital	141.76	142.33	141.61	139.88	138.17
O & M Expenses	416.61	440.49	465.72	492.32	520.35
Total	6360.00	6354.35	6284.17	6161.92	6039.15

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1875.67	1875.67	1875.67	1875.67	1875.67
Interest on Loan	1242.27	1068.37	894.44	720.48	546.44
Return on Equity	2088.81	2088.81	2088.81	2088.81	2088.81
Interest on Working Capital	146.07	142.94	139.84	136.76	133.72
O & M Expenses	474.62	490.54	506.75	523.56	540.94
Total	5827.44	5666.33	5505.51	5345.28	5185.58

45. 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	71.19	73.58	76.01	78.53	81.14
O & M Expenses	39.55	40.88	42.23	43.63	45.08
Receivables	971.24	944.39	917.59	890.88	864.26
Total	1081.98	1058.85	1035.83	1013.04	990.48
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	146.07	142.94	139.84	136.76	133.72

Capital Cost

46. 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.”

47. The petitioner has claimed capital expenditure of ₹35505.89 lakh as on 31.3.2014 including additional capitalisation during the tariff period 2009-14. The petitioner has not projected any additional capital expenditure during the tariff period 2014-19.

48. The trued up capital cost of ₹35505.89 lakh as on 1.4.2014 is considered for the purpose of tariff for tariff period 2014-19.

Additional Capital Expenditure

49. The petitioner has not claimed any additional capital expenditure for the 2014-19 tariff period. Hence, no additional capital expenditure has been considered during 2014-19 period.

Debt:Equity Ratio

50. 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.”



51. The admitted debt:equity ratio of 70:30 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:-

Particulars	Amount (₹ in lakh)	(%)
Debt	24854.14	70.00
Equity	10651.75	30.00
Total	35505.89	100.00

Interest on Loan (“IOL”)

52. 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.”

53. The weighted average rate of IOL has been considered on the basis of rate prevailing as on 1.4.2014. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL has been worked out and allowed as follows:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	24854.14	24854.14	24854.14	24854.14	24854.14
Cumulative Repayment up to COD/previous year	10559.15	12434.81	14310.48	16186.14	18061.80
Net Loan-Opening	14294.99	12419.33	10543.66	8668.00	6792.34
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1875.66	1875.66	1875.66	1875.66	1875.66
Net Loan-Closing	12419.33	10543.66	8668.00	6792.34	4916.68
Average Loan	13357.16	11481.49	9605.83	7730.17	5854.51
Rate of Interest (%)	9.3004	9.3052	9.3115	9.3204	9.3338
Interest	1242.27	1068.37	894.45	720.48	546.45

Return on Equity ("ROE")

54. 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:

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

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."

55. 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 Regulations. 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.

56. 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.

57. 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 determined by the Commission is given below:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	10651.75	10651.75	10651.75	10651.75	10651.75
Addition due to additional capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	10651.75	10651.75	10651.75	10651.75	10651.75
Average Equity	10651.75	10651.75	10651.75	10651.75	10651.75
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre-Tax)	2088.81	2088.81	2088.81	2088.81	2088.81

Depreciation

58. 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."

59. The petitioner has computed depreciation considering capital expenditure of ₹35505.89 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	35505.89	35505.89	35505.89	35505.89	35505.89
Addition during the year due to projected additional capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	35505.89	35505.89	35505.89	35505.89	35505.89
Average Gross Block	35505.89	35505.89	35505.89	35505.89	35505.89
Rate of Depreciation (%)	5.283	5.283	5.283	5.283	5.283
Depreciable Value	31955.30	31955.30	31955.30	31955.30	31955.30
Elapsed Life (Beginning of the year)	6	7	8	9	10
Weighted Balance Useful life of the assets	28	27	26	25	24
Remaining Depreciable Value	21396.14	19520.48	17644.81	15769.15	13893.49
Depreciation	1875.66	1875.66	1875.66	1875.66	1875.66

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

60. The petitioner has computed normative O&M Expenses as per sub clause (a) of Clause (3) of Regulation 29 of the 2014 Tariff Regulations, as given hereunder:

(₹ in lakh)

Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Actual line length (Km.)	400 kV, Twin conductors, D/C	330.155	330.155	330.155	330.155	330.155
Actual (No. of Sub-station bays)	400 kV Sub-station Bays	4	4	4	4	4
Norms as per the 2014 Tariff Regulation	400 kV, Twin conductors, D/C (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806



Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
	400 kV Sub-stations (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
O&M Expenses	400 kV, Twin conductors, D/C	233.42	241.34	249.27	257.52	266.10
	400 kV Sub-stations	241.2	249.2	257.48	266.04	274.84
Total		474.62	490.54	506.75	523.56	540.94

61. 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.

62. 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.

63. 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 approved	474.62	490.54	506.75	523.56	540.94

Interest on Working Capital (“IWC”)

64. 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;”

65. 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%.

66. 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 allowed is shown in the table below:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	71.19	73.58	76.01	78.53	81.14
O & M expenses	39.55	40.88	42.23	43.63	45.08
Receivables	971.24	944.39	917.58	890.88	864.26
Total	1081.98	1058.85	1035.82	1013.04	990.48
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	146.07	142.94	139.84	136.76	133.72

Annual Transmission Charges

67. 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	1875.66	1875.66	1875.66	1875.66	1875.66
Interest on Loan	1242.27	1068.37	894.45	720.48	546.45
Return on Equity	2088.81	2088.81	2088.81	2088.81	2088.81
Interest on WC	146.07	142.94	139.84	136.76	133.72
O&M Expenses	474.62	490.54	506.75	523.56	540.94
Total	5827.43	5666.33	5505.50	5345.27	5185.58

68. 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	35505.89	35505.89	35505.89	35505.89	35505.89
Addition during 2014-19 due to Projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross block	35505.89	35505.89	35505.89	35505.89	35505.89
Average Gross block	35505.89	35505.89	35505.89	35505.89	35505.89
Depreciation					
Rate of Depreciation (%)	5.283	5.283	5.283	5.283	5.283
Depreciable Value	31955.30	31955.30	31955.30	31955.30	31955.30
Elapsed Life (Beginning of the year)	6	7	8	9	10



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Weighted Balance Useful life of the assets	28	27	26	25	24
Remaining Depreciable Value	21396.14	19520.48	17644.81	15769.15	13893.49
Depreciation	1875.66	1875.66	1875.66	1875.66	1875.66
Cumulative Depreciation	12434.82	14310.49	16186.15	18061.81	19937.47
Interest on Loan					
Gross Normative Loan	24854.14	24854.14	24854.14	24854.14	24854.14
Cumulative Repayment up to Previous Year	10559.15	12434.81	14310.48	16186.14	18061.80
Net Loan-Opening	14294.99	12419.33	10543.66	8668.00	6792.34
Addition due to Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1875.66	1875.66	1875.66	1875.66	1875.66
Net Loan-Closing	12419.33	10543.66	8668.00	6792.34	4916.68
Average Loan	13357.16	11481.49	9605.83	7730.17	5854.51
Weighted Average Rate of Interest on Loan (%)	9.3004	9.3052	9.3115	9.3204	9.3338
Interest	1242.27	1068.37	894.45	720.48	546.45
Return on Equity					
Opening Equity	10651.75	10651.75	10651.75	10651.75	10651.75
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	10651.75	10651.75	10651.75	10651.75	10651.75
Average Equity	10651.75	10651.75	10651.75	10651.75	10651.75
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
Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	2088.81	2088.81	2088.81	2088.81	2088.81
Interest on Working Capital					
Maintenance Spares	71.19	73.58	76.01	78.53	81.14
O & M expenses	39.55	40.88	42.23	43.63	45.08
Receivables	971.24	944.39	917.58	890.88	864.26
Total	1081.98	1058.85	1035.82	1013.04	990.48
Interest	146.07	142.94	139.84	136.76	133.72
Annual Transmission Charges					
Depreciation	1875.66	1875.66	1875.66	1875.66	1875.66
Interest on Loan	1242.27	1068.37	894.45	720.48	546.45
Return on Equity	2088.81	2088.81	2088.81	2088.81	2088.81
Interest on Working Capital	146.07	142.94	139.84	136.76	133.72
O & M Expenses	474.62	490.54	506.75	523.56	540.94
Total	5827.43	5666.33	5505.50	5345.27	5185.58



Filing Fee and Publication Expenses

69. 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

70. 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

71. 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

72. 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

73. 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.

74. This order disposes of Petition No. 356/TT/2014.

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

sd/-
(A.S. Bakshi)
Member



Annexure – I

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- XVII	7.39	171.00	0.00	171.00
Bond- XX	8.93	5004.00	0.00	5004.00
Bond- XXI	8.73	1982.00	0.00	1982.00
Bond- XXII	8.68	4080.00	0.00	4080.00
Bond- XXIII	9.25	4500.00	0.00	4500.00
Bond- XXIV	9.95	487.00	0.00	487.00
Bond- XXV	10.10	6334.00	0.00	6334.00
Bond- XXVI	9.30	65.00	0.00	65.00
Bond- XXVIII	9.33	1470.00	0.00	1470.00
Bond- XXX	8.80	0.00	15.00	15.00
Bond- XXXI Loan-1	8.90	0.00	146.40	146.40
Bond- XXXI Loan-3	8.90	0.00	56.60	56.60
Bond- XXXVIII	9.25	0.00	110.00	110.00
Total		24093.00	328.00	24421.00

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	24093.00	24254.40	24311.00	24421.00	24421.00
Cumulative Repayment up to COD/ previous year	0.00	17.10	1371.95	3260.05	5270.65
Net Loan-Opening	24093.00	24237.30	22939.05	21160.95	19150.35
Additions during the year	161.40	56.60	110.00	0.00	0.00
Repayment during the year	17.10	1354.85	1888.10	2010.60	2028.77
Net Loan-Closing	24237.30	22939.05	21160.95	19150.35	17121.58
Average Loan	24165.15	23588.18	22050.00	20155.65	18135.97
Interest	2240.85	2189.33	2048.87	1873.27	1686.06
Weighted Average Rate of Interest (%)	9.2730	9.2815	9.2919	9.2940	9.2968



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- XVII	7.39	171.00	0.00	171.00
Bond- XX	8.93	5004.00	0.00	5004.00
Bond- XXI	8.73	1982.00	0.00	1982.00
Bond- XXII	8.68	4080.00	0.00	4080.00
Bond- XXIII	9.25	4500.00	0.00	4500.00
Bond- XXIV	9.95	487.00	0.00	487.00
Bond- XXV	10.10	6334.00	0.00	6334.00
Bond- XXVI	9.30	65.00	0.00	65.00
Bond- XXVIII	9.33	1470.00	0.00	1470.00
Bond- XXX	8.80	15.00	0.00	15.00
Bond- XXXI Loan-1	8.90	146.40	0.00	146.40
Bond- XXXI Loan-3	8.90	56.60	0.00	56.60
Bond- XXXVIII	9.25	110.00	0.00	110.00
Total		24421.00	0.00	24421.00

**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 loan opening	24421.00	24421.00	24421.00	24421.00	24421.00
Cumulative Repayment up to COD/ previous year	7299.42	9328.18	11356.95	13385.72	15414.48
Net Loan-Opening	17121.58	15092.82	13064.05	11035.28	9006.52
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	2028.77	2028.77	2028.77	2028.77	2028.77
Net Loan-Closing	15092.82	13064.05	11035.28	9006.52	6977.75
Average Loan	16107.20	14078.43	12049.67	10020.90	7992.13
Interest	1498.04	1310.02	1122.00	933.99	745.97
Weighted Average Rate of Interest (%)	9.3004	9.3052	9.3115	9.3204	9.3338

