

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 506/TT/2014**

**Coram:**

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

**Date of Hearing : 06.04.2016  
Date of Order : 21.04.2016**

**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 for Transmission system associated with Farakka-III in Eastern 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. North Bihar Power Distribution Company Limited,  
2<sup>nd</sup> floor VidyutBhawan,  
Bailey Road, Patna- 800001
2. South Bihar Power Distribution Company Limited,  
2<sup>nd</sup> floor VidyutBhawan,  
Bailey Road, Patna-800001
3. West Bengal State Electricity Distribution Company  
BidyutBhawan, Bidhan Nagar  
Block DJ, Sector-II, Salt lake city  
Calcutta – 700091



4. Grid Corporation of Orissa Ltd.  
Shahid Nagar, Bhubaneswar – 751007
5. Damodar Valley Corporation  
DVC Tower, Maniktala  
Civic Centre, VIP Road, Calcutta – 700 054
6. Power Department  
Govt. Of Sikkim, Gangtok – 737 101
7. Jharkhand State Electricity Board  
Infront of main secretariat  
Doranda, Ranchi – 834 002

.....**Respondents**

The following were present:-

For Petitioner:      Shri M. M. Mondal, PGCIL  
                              Shri S. K. Venkatesan, PGCIL  
                              Shri Rakesh Prasad, PGCIL  
                              Shri S. S. Raju, PGCIL  
                              Shri S. C. Taneja, PGCIL  
                              Shri Pankaj Sharma, PGCIL

For Respondent:      None

### **ORDER**

The present petition has been preferred by Power Grid Corporation of India Ltd. (“the petitioner”) for truing up of capital expenditure and tariff for transmission system associated with Farakka-III in Eastern 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 capital expenditure for the period 1.9.2011 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 and electricity departments who are procuring transmission service from the petitioner, mainly beneficiaries of the Eastern Region.

3. The petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of 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. The hearing in this matter was held on 6.4.2016. In response to Commission's letter, the petitioner has submitted the affidavit dated 18.4.2016. 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 project was accorded by Board of Directors of the petitioner vide Memorandum No. C/CP/ Farakka-III, dated 10.12.2008 at an estimated cost of ₹20407lakh including IDC of ₹1270lakh based on 2<sup>nd</sup> quarter, 2008 price level. The petitioner has built the transmission asset in the Eastern Region. The actual date of the commercial operation of the transmission asset is 1.9.2011.



- (b) The tariff from COD to 31.3.2014 for the transmission asset was initially allowed vide order dated 15.10.2012 in Petition No. 86/2011 considering the capital cost of ₹11867.50 lakh as on 1.9.2011 after accounting for additional capital expenditure of ₹1204.13 lakh for the period from 1.9.2011 to 31.3.2014.
- (c) As per investment approval, accorded on 10.12.2008, the transmission project was to be commissioned within 30 months from the date of investment approval i.e. by 1.7.2011. The transmission asset was put under commercial operation on 1.9.2011 after a delay of 2 months. The delay of 2 months was condoned by the Commission in order dated 15.10.2012 in Petition No. 86/2011 as the delay in the commissioning of the asset was not attributable to the petitioner.
- (d) The Commission had disallowed the amount of ₹125.43 lakh due to change of scope of the work agreed in standing committee meeting. The work of 2 nos of DD+25 towers and 15.91 Km conductor amounting of ₹125.43 lakh was abandoned. The petitioner has not considered the cost pertaining to abandoned work. Apart from above disallowed expenditure, the excess initial spares were also disallowed as per the ceiling limit specified in the 2009 Tariff Regulations.



(e) The tariff from COD to 31.3.2014 was allowed vide order dated 15.10.2012 in Petition No. 86/2011 in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 is as under:-

(₹ in lakh)			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	373.96	672.93	691.54
Int. on Loan	427.18	723.30	684.77
Return on Equity	370.70	667.05	685.52
Int. on WC	28.55	50.53	51.04
O&M Expenses	107.28	194.42	205.50
<b>Total</b>	<b>1307.67</b>	<b>2308.23</b>	<b>2318.37</b>

(f) The MAT rate applicable as on 2008-09 was considered to arrive at 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.

#### **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 capital cost of ₹11867.50 lakh as on COD was considered by the Commission in its order dated 15.10.2012. The petitioner has now claimed capital cost of ₹11791.57 lakh for the asset as on COD after deducting excess initial spares of ₹42.24 lakh and disallowed capital expenditure of ₹125.43 lakh. The



petitioner has also submitted the Auditor's Certificate dated 17.9.2013 in support of the claim of the capital expenditure. The total completion cost claimed as on 31.3.2014 is ₹12534.14lakh.

7. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides that:-

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

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

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

(c) additional capital expenditure determined under regulation 9:

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

8. As per investment approval, the scope of work included “interchanging of 400kV Farakka-Kahalgaon D/C line (circuit I & II) with Kahalgaon-Biharshariff line (circuit III & IV) and the petitioner had executed the project accordingly. Due to change in scope of work at a very late stage, some work was abandoned. The reconfiguration was agreed in the meeting of standing committee on transmission. The Commission vide its order dated 15.10.2012 in the Petition No. 86/2011 considered the justification given by the petitioner and allowed cost of the abandoned foundation amounting to ₹48.88 lakh.



9. Further, the Commission vide its order dated 15.10.2012 in petition 86/2011 had disallowed ₹125.43lakh towards the cost of abandoned tower and conductors and an amount of ₹33.87lakh towards excess initial spares due to change in scope of work. We have considered the disallowed expenditure ₹125.43lakh. However, the excess initial spares have been worked out by considering the actual capital expenditure upto cut-off date in accordance with the 2009 Tariff Regulations.

### **Initial Spares**

10. Regulation 8 of the 2009 tariff Regulations Provides that:-

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

- (i) Transmission system
  - (a) Transmission line - 0.75%
  - (b) Transmission Sub-station - 2.5%
  - (c) Series Compensation devices and HVDC Station - 3.5%”

11. The details of the initial spares claimed by the petitioner and allowed is shown in the table given below:-

Description	Capital cost as on cut-off date	Initial spares claimed	Ceiling limit as per Regulation 8 of 2009 Tariff Regulations	Initial spares worked out and allowed	Excess initial spares claimed
Asset	(a)	(b)	(c)	$(d) = ((a - b) * c) / (100 - c)\%$	$(e) = (b) - (d)$
Transmission line	11858.75	0.00	0.75%	89.61	0.00
Sub-station	717.63	59.21	2.50%	16.88	42.33



12. The petitioner has submitted that the actual initial spares are ₹59.21 lakh pertaining to sub-station and ₹89.61 lakh pertaining to transmission line. The petitioner has further submitted the Auditor's Certificate certifying the capital cost and additional capitalization claimed. We have allowed the initial spares as provide in the 2009 Tariff Regulations. The initial spares for transmission line is within the limit however the initial spares claimed by the petitioner for sub-station exceeds the limit by ₹42.33 lakh.

13. Accordingly, revised capital cost of ₹11791.48 lakh as on COD has been considered after deducting the excess initial spares of ₹42.33 lakh pertaining to sub-station for working out the tariff from COD to 31.3.2014.

#### **Additional Capital Expenditure**

14. The petitioner has claimed additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations.

15. Clause (1), sub-clause(i) of Regulation 9 of the 2009 Tariff Regulations provides that:-

**“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...;”





16. The petitioner has claimed additional capitalization of ₹467.52lakh, ₹148.62lakh and ₹126.43lakh for the period 2011-12, 2012-13 and 2013-14 respectively for the instant assets from the date of COD to 31.3.2014 towards balance and retention payment for works executed within cut-off date. The petitioner has also submitted the Auditor's Certificate to substantiate the actual additional capital expenditure incurred in 2009-14.

17. The total capital cost of ₹11791.48lakh (excluding excess initial spares) as on COD and actual additional capitalisation of ₹742.57 lakh from COD to 31.3.2014 claimed by the petitioner is well within the overall approved cost of ₹20407lakh. The claim of additional capital expenditure falls within the meaning of Regulation 9(1)(i) of the 2009 Tariff Regulations. Hence, considering the submissions made by the petitioner, we have allowed total capital cost including additional capitalization incurred within cut-off date against balance and retention payment under Regulation 9(1)(i) of the 2009 Tariff Regulations.

(₹ in lakh)

Cost as per Investment Approval is ₹20407lakh								
Particulars	Admitted capital cost as on 1.9.2011	Additional capitalisation					Total additional capitalisation	Total capital cost as on 31.3.2014
		2009 -10	2010 -11	2011- 12	2012- 13	2013- 14		
Approved in Order dated 15.10.2012	11791.57	0.00	0.00	500.00	704.13	0.00	1204.13	13071.63
Approved in this order	11791.48	0.00	0.00	467.52	148.62	126.43	742.57	12534.05

### Debt: Equity



18. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provide that:-

“(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

.....

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

19. The petitioner has claimed true up Annual Fixed Charge based on debt-equity ratio of 70:30 admitted as on 1.9.2011, i.e., as on COD by the Commission in its order dated 15.10.2012 in Petition No. 86/2011. The admitted debt:equity ratio of 70:30 as on 1.9.2011 has been considered for the purpose of true up of the approved tariff of tariff period 2009-14, as given under:-

Funding	Amount (in ₹ lakh)	(%)
Debt	8254.04	70.00
Equity	3537.44	30.00
<b>Capital Cost</b>	<b>11791.48</b>	<b>100.00</b>

20. Further, the petitioner has claimed debt:equity ratio of 70:30 for the funding additional capital during the year 2011-12, 2012-13 and 2013-14. The petitioner was directed to confirm that the actual equity infused for additional capitalization during the 2009-14 tariff period is not less than 30%. In response, the petitioner has submitted that the actual equity infused for the additional



capitalization during the tariff period 2009-14 is 30% of the capital cost. The details of the debt:equity including additional capitalization as on 31.3.2014 is as follows:-

Funding	Amount (in ₹ lakh)	(%)
Debt	8773.84	70.00
Equity	3760.21	30.00
<b>Capital cost upto 31.3.2014</b>	<b>12534.05</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

21. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan.

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

23. 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 allowed as follows:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 15.10.2012	427.18	723.30	684.77
As claimed by the petitioner	424.03	701.34	652.51
<b>Allowed after trued up</b>	<b>424.03</b>	<b>701.34</b>	<b>652.50</b>



The variation in interest on loan vis-a-vis that approved by the Commission is on account of variation in capital cost as on COD and actual additional capitalisation.

### **Return on Equity ("ROE")**

24. 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:

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

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

25. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 15.10.2012. However, for true 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 (t) %	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	19.610

26. Accordingly, the ROE as trued up is shown in the table below:-

Particulars	(₹ in lakh)		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.10.2012	370.70	667.05	685.52
As claimed by the petitioner	407.78	716.96	733.67
<b>Allowed after trued up</b>	<b>407.77</b>	<b>716.95</b>	<b>733.66</b>

The return on equity allowed in the instant order is more than the return on equity allowed vide order dated 15.10.2012 due to increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

### Depreciation

27. 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”



28. 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."

29. The Commission, in its order dated 15.10.2012 in Petition No. 86/2011, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations.

30. The weighted average useful life of the transmission asset has been considered as per Regulations 3 (42) and 17 (4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 35 years. 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 as under:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 15.10.2012	373.96	672.93	691.54
As claimed by the petitioner	371.11	652.45	659.71
<b>Allowed after trued up</b>	<b>371.11</b>	<b>652.45</b>	<b>659.71</b>



31. The depreciation allowed in the instant order is less than the depreciation allowed vide order 15.10.2012 due to decrease in actual additional capitalization for 2009-14.

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

32. The petitioner has claimed O&M Expenses for the instant assets in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in the tariff order dated 15.10.2012 in Petition No. 86/2011. Accordingly, the O&M Expenses claimed by the petitioner are as follows:-

		(₹ in lakh)		
Particulars		2011-12 (pro-rata)	2012-13	2013-14
Actual	Double Circuit (Twin & Triple Conductor) (km)	95.25	95.25	95.25
	400 kV Bays (nos.)	2	2	2
Norms as per Regulation	Double Circuit (Twin & Triple Conductor) (₹ lakh/km)	0.701	0.741	0.783
	400 kV Bays (₹ in lakh/bay)	58.57	61.92	65.46
Total (₹ in lakh)		107.28	194.42	205.50

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

(₹ in lakh)			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 15.10.2012	107.28	194.42	205.50
As claimed by the petitioner	107.28	194.42	205.50
Allowed after trued up	107.28	194.42	205.50



### **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 of working capital.

35. The petitioner has submitted that the rate of interest on working capital has been considered as 11.75% 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. In accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations has considered the rate of interest on working capital on normative basis, i.e., equal to State Bank of India Base Rate as applicable as on 1.4.2011 plus 350 basis points. State Bank of India Base Rate on 1.4.2011 was 8.25%. Therefore, interest rate of 11.75% (8.75% plus 350 basis points) has been considered to work out the interest on working capital in the instant case.

37. The IWC trued up is as under:-

Particulars	(₹ in lakh)		
	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	16.09	29.16	30.83
O & M expenses	8.94	16.20	17.13
Receivables	223.23	385.97	383.68
Total	248.26	431.34	431.63
Rate of Interest	11.750	11.750	11.750





Interest	29.17	50.68	50.72
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(₹ in lakh)

Particulars	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.10.2012	28.55	50.53	51.04
As claimed by the petitioner	29.17	50.68	50.72
Allowed after trued up	29.17	50.68	50.72

38. The variation in IWC is on account of variation in IOL, depreciation and ROE due to decrease in additional capitalisation and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

#### **ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD**

39. 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	2011-12 (pro-rata)	2012-13	2013-14
<b>Gross Block</b>			
Opening Gross Block	11791.48	12259.00	12407.62
Additional Capitalization	467.52	148.62	126.43
Closing Gross block	12259.00	12407.62	12534.05
Average Gross block	12025.24	12333.31	12470.84
<b>Depreciation</b>			
Rate of Depreciation (%)	5.290	5.290	5.290
Depreciable Value	10822.72	11099.98	11223.75
Elapsed Life of the assets at beginning of the year	0	1	2
Weighted Balance Useful life of the assets	35	34	33



Particulars	2011-12 (pro-rata)	2012-13	2013-14
Remaining Depreciable Value	10822.72	10728.87	10200.19
Depreciation	371.11	652.45	659.71
<b>Interest on Loan</b>			
Gross Normative Loan	8254.04	8581.30	8685.34
Cumulative Repayment upto Previous Year	0.00	371.11	1023.56
Net Loan-Opening	8254.04	8210.19	7661.77
Additions	327.26	104.03	88.50
Repayment during the year	371.11	652.45	659.71
Net Loan-Closing	8210.19	7661.77	7090.56
Average Loan	8232.12	7935.98	7376.17
Weighted Average Rate of Interest on Loan (%)	8.8302	8.8374	8.8461
Interest	424.03	701.34	652.50
<b>Return on Equity</b>			
Opening Equity	3537.44	3677.70	3722.29
Additions	140.26	44.59	37.92
Closing Equity	3677.70	3722.29	3760.21
Average Equity	3607.57	3699.99	3741.25
Return on Equity (Base Rate) (%)	15.50	15.50	15.50
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610
Return on Equity (Pre Tax)	407.77	716.95	733.66
<b>Interest on Working Capital</b>			
Maintenance Spares	16.09	29.16	30.83
O & M Expenses	8.94	16.20	17.13
Receivables	223.23	385.97	383.68
Total	248.26	431.34	431.63
Interest	29.17	50.68	50.72
<b>Annual Transmission Charges</b>			



Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	371.11	652.45	659.71
Interest on Loan	424.03	701.34	652.50
Return on Equity	407.77	716.95	733.66
Interest on Working Capital	29.17	50.68	50.72
O & M Expenses	107.28	194.42	205.50
<b>Total</b>	<b>1339.37</b>	<b>2315.84</b>	<b>2302.09</b>

### **DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19**

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	663.15	663.24	663.24	663.24	663.24
Int. on Loan	598.36	539.83	481.13	422.43	363.73
Return on Equity	737.49	737.59	737.59	737.59	737.59
Interest on Working Capital	56.39	55.40	54.40	53.42	52.45
O&M Expenses	187.94	194.23	200.65	207.32	214.19
<b>Total</b>	<b>2243.33</b>	<b>2190.29</b>	<b>2137.01</b>	<b>2084.00</b>	<b>2031.20</b>

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	28.19	29.13	30.10	31.10	32.13
O & M Expenses	15.66	16.19	16.72	17.28	17.85
Receivables	373.89	365.05	356.17	347.33	338.53
<b>Total</b>	<b>417.74</b>	<b>410.37</b>	<b>402.99</b>	<b>395.71</b>	<b>388.51</b>
Interest	56.39	55.40	54.40	53.42	52.45
Rate of Interest	13.50	13.50	13.50	13.50	13.50

### **Capital Cost**



42. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify 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.”

43. The petitioner has claimed capital cost of ₹12534.14lakh as on 31.3.2014 and additional capitalization of ₹3.46lakh for the 2014-19 tariff period. The trued up capital cost of ₹12534.05lakh as on 31.3.2014 is considered for the tariff determination for the 2014-19 tariff period.

#### **Additional Capital Expenditure**

44. The petitioner has proposed additional capitalization of ₹3.46lakh for the 2014-19 tariff period towards balance and retention payments under Clause 3 of Regulation 14 of the 2014 Tariff Regulations.

45. Clause 3, sub-clause (v) of Regulation 14 of the 2014 Tariff Regulations provides as follows:-

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....



(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;

46. The total capital cost including additional capitalisation for the instant assets is within the approved apportioned cost. Hence, we have allowed additional capitalization of ₹3.46 lakh, for 2014-15 towards balance and retention payments under Regulation 14(3)(v) of 2014 Tariff Regulations and have considered the same for tariff computation. In response to Commissions query regarding the amount of balance and retention payment yet to be made, the petitioner has submitted the details of balance and retention payment.

(₹ in lakh)

Cost as per Investment Approval is ₹20407 lakh								
Particulars	Admitted capital cost as on 31.3.2014	Additional capitalisation projected					Total additional capitalisation	Total capital cost including additional capitalisation as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19		
Approved	12534.05	3.46	0.00	0.00	0.00	0.00	3.46	12537.51

### Debt:EquityRatio

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

“(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 petitioner has considered debt:equity ratio of 70:30 as on 31.3.2014. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending



31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

Particulars	Amount (in ₹ lakh)	(%)
Debt	8773.84	70.00
Equity	3760.22	30.00
<b>Total</b>	<b>12534.05</b>	<b>100.00</b>

49. Further, the debt:equity ratio of 70:30 for the additional capital expenditure during the year 2014-15 has been allowed for tariff period 2014-19. The details of the debt:equity including additional capitalization as on 31.3.2019 is as follows:-

Particulars	Amount (in ₹ lakh)	(%)
Debt	8776.26	70.00
Equity	3761.25	30.00
<b>Total</b>	<b>12537.51</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

50. 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.”



51. The weighted average rate of IOL has been considered on the basis of rate prevailing as on 1.4.2014. Further, as there is no actual loan portfolio in 2015-16, 2016-17, 2017-18 and 2018-19, weighted average rate of IOL for 2014-15 has been considered for 2015-16, 2016-17, 2017-18 and 2018-19 as per aforementioned Clause (5) of 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 Normative Loan	8773.84	8776.26	8776.26	8776.26	8776.26
Cumulative Repayment upto Previous Year	1683.28	2346.42	3009.65	3672.89	4336.12
Net Loan-Opening	7090.56	6429.84	5766.60	5103.37	4440.13
Additions	2.42	0.00	0.00	0.00	0.00
Repayment during the year	663.14	663.23	663.23	663.23	663.23
Net Loan-Closing	6429.84	5766.60	5103.37	4440.13	3776.90
Average Loan	6760.20	6098.22	5434.99	4771.75	4108.52
Weighted Average Rate of Interest on Loan (%)	8.8511	8.8522	8.8524	8.8527	8.8530
<b>Interest</b>	<b>598.35</b>	<b>539.83</b>	<b>481.13</b>	<b>422.43</b>	<b>363.73</b>

### **Return on Equity("ROE")**

52. Clause (1)& (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 of 15.50% with MAT rate 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

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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, the MAT rate applicable during 2013-14 has been considered for the purpose of 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 allowed is given below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	3760.22	3761.25	3761.25	3761.25	3761.25
Addition due to Additional Capitalization	1.04	0.00	0.00	0.00	0.00
Closing Equity	3761.25	3761.25	3761.25	3761.25	3761.25
Average Equity	3760.73	3761.25	3761.25	3761.25	3761.25
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax 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
<b>Return on Equity (Pre-tax)</b>	<b>737.48</b>	<b>737.58</b>	<b>737.58</b>	<b>737.58</b>	<b>737.58</b>

### **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 ₹12534.14lakh as on 31.3.2014 and additional capitalization of ₹3.46lakh during the 2014-19 tariff period. We have considered depreciation considering capital expenditure of ₹12534.05 lakh as on 31.3.2014 and additional capitalisation as approved for the 2014-19 tariff period.

58. The details of the depreciation allowed is given hereunder:-

(₹ in lakh)					
Details of Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	12534.05	12537.51	12537.51	12537.51	12537.51
Addition during the year due to projected additional capitalization	3.46	0.00	0.00	0.00	0.00
Closing Gross block	12537.51	12537.51	12537.51	12537.51	12537.51
Rate of Depreciation (%)	5.290	5.290	5.290	5.290	5.290
Depreciable Value	11282.20	11283.76	11283.76	11283.76	11283.76
Remaining Depreciable Value	9598.93	8937.34	8274.11	7610.87	6947.64
Depreciation	663.14	663.23	663.23	663.23	663.23

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

59. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations. The petitioner



has computed O&M Expenses for the assets mentioned in the petition, in accordance with the O&M norms for D/C transmission line and 400 kV Bay substation. Accordingly, the petitioner's entitlement to O&M Expenses has been worked out as given hereunder:-

		(₹ in lakh)				
<b>Particulars</b>		<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Actual	Double Circuit (Twin & Triple Conductor) (kms)	95.25	95.25	95.25	95.25	95.25
	400 kV Bays (nos)	2	2	2	2	2
Norms as per Regulation	Double Circuit (Twin & Triple Conductor) (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
	400 kV Bays (₹ in lakh/bay)	60.30	62.30	64.37	66.51	68.71
Total (₹in lakh)		187.94	194.23	200.65	207.32	214.19

60. The petitioner has submitted that norms for 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 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.



61. 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.

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

**(₹ in lakh)**

Particulars	Year				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Allowed</b>	<b>187.94</b>	<b>194.23</b>	<b>200.65</b>	<b>207.32</b>	<b>214.19</b>

### **Interest on Working Capital (“IWC”)**

63. 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;”

64. The petitioner has submitted that it has computed Interest on working capital 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 is 13.50%.

65. 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 allowed is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	28.19	29.13	30.10	31.10	32.13
O & M expenses	15.66	16.19	16.72	17.28	17.85
Receivables	373.88	365.05	356.17	347.33	338.53
Total	417.74	410.37	402.99	395.70	388.51
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>56.39</b>	<b>55.40</b>	<b>54.40</b>	<b>53.42</b>	<b>52.45</b>

### **Annual Transmission Charges**

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Gross Block</b>					
Opening Gross Block	12534.05	12537.51	12537.51	12537.51	12537.51
Additional Capitalisation	3.46	0.00	0.00	0.00	0.00
Closing Gross Block	12537.51	12537.51	12537.51	12537.51	12537.51
Average Gross Block	12535.78	12537.51	12537.51	12537.51	12537.51
<b>Depreciation</b>					
Rate of Depreciation	5.290	5.290	5.290	5.290	5.290



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciable Value	11282.20	11283.76	11283.76	11283.76	11283.76
Elapsed Life of the assets at beginning of the year	3	4	5	6	7
Weighted Balance Useful life of the assets	32	31	30	29	28
Remaining Depreciable Value	9598.93	8937.34	8274.11	7610.87	6947.64
Depreciation	663.14	663.23	663.23	663.23	663.23
<b>Interest on Loan</b>					
Gross Normative Loan	8773.84	8776.26	8776.26	8776.26	8776.26
Cumulative Repayment upto Previous Year	1683.28	2346.42	3009.65	3672.89	4336.12
Net Loan-Opening	7090.56	6429.84	5766.60	5103.37	4440.13
Additions	2.42	0.00	0.00	0.00	0.00
Repayment during the year	663.14	663.23	663.23	663.23	663.23
Net Loan-Closing	6429.84	5766.60	5103.37	4440.13	3776.90
Average Loan	6760.20	6098.22	5434.99	4771.75	4108.52
Weighted Average Rate of Interest on Loan (%)	8.8511	8.8522	8.8524	8.8527	8.8530
Interest	598.35	539.83	481.13	422.43	363.73
<b>Return on Equity</b>					
Opening Equity	3760.22	3761.25	3761.25	3761.25	3761.25
Additions	1.04	0.00	0.00	0.00	0.00
Closing Equity	3761.25	3761.25	3761.25	3761.25	3761.25
Average Equity	3760.73	3761.25	3761.25	3761.25	3761.25
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	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)	737.48	737.58	737.58	737.58	737.58
<b>Interest on Working Capital</b>					
Maintenance Spares	28.19	29.13	30.10	31.10	32.13
O & M expenses	15.66	16.19	16.72	17.28	17.85



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Receivables	373.88	365.05	356.17	347.33	338.53
<b>Total</b>	<b>417.74</b>	<b>410.37</b>	<b>402.99</b>	<b>395.70</b>	<b>388.51</b>
Interest	56.39	55.40	54.40	53.42	52.45
<b>Annual Transmission Charges</b>					
Depreciation	663.14	663.23	663.23	663.23	663.23
Interest on Loan	598.35	539.83	481.13	422.43	363.73
Return on Equity	737.48	737.58	737.58	737.58	737.58
Interest on Working Capital	56.39	55.40	54.40	53.42	52.45
O & M Expenses	187.94	194.23	200.65	207.32	214.19
<b>Total</b>	<b>2243.31</b>	<b>2190.27</b>	<b>2137.00</b>	<b>2083.98</b>	<b>2031.19</b>

### **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 License 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.

### **Sharing of Transmission Charges**

70. 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.

71. This order disposes of Petition No. 506/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 1.4.2011	Additions during the tariff period	Total
BOND XXX-DOCO Drawl ON 01-SEP-2011-	8.80	2311.00	0.00	2311.00
BOND XXXI-DOCO DRAWL ON 01-SEP-2011-	8.90	2795.00	0.00	2795.00
BOND XXXIII-DOCO DRAWL ON 01-SEP-2011-	8.64	884.00	0.00	884.00
BOND-XXXIV_ADDCAP FOR 2011-2012 ADD CAP XXXIV-	8.84	0.00	279.89	279.89
BOND-XXXIV-DOCO XXXIV-	8.84	2264.11	0.00	2264.11
BOND-XXXV-ADDCAP FOR 2011-2012 ADD CAP XXXV-	9.64	0.00	47.37	47.37
BOND-XXXV-ADDCAP FOR 2012-2013 ADD Cap XXXV-	9.64	0.00	104.03	104.03
BOND-XXXV-ADDCAP FOR 2013-2014 ADD Cap XXXV-	9.64	0.00	88.50	88.50
	0	0.00	0.00	0.00
<b>Total</b>		<b>8254.11</b>	<b>519.79</b>	<b>8773.90</b>

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2009-14**

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	0.00	0.00	8254.11	8581.37	8685.40
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	0.00	0.00	8254.11	8581.37	8685.40
Add: Drawl(s) during the year	0.00	0.00	327.26	104.03	88.50
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	425.50
Net Closing Loan	0.00	0.00	8581.37	8685.40	8348.40
Average Net Loan	0.00	0.00	8417.74	8633.39	8516.90
Interest on Loan	0.00	0.00	8.8302	8.8374	8.8461
Rate of Interest on Loan (%)	0.0000	0.0000	743.30	762.97	753.41



**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 XXX-DOCO Drawl ON 01-SEP-2011-	8.80	2311.00	0.00	2311.00
BOND XXXI-DOCO DRAWL ON 01-SEP-2011-	8.90	2795.00	0.00	2795.00
BOND XXXIII-DOCO DRAWL ON 01-SEP-2011-	8.64	884.00	0.00	884.00
BOND-XXXIV_ADDCAP FOR 2011-2012 ADD CAP XXXIV-	8.84	279.89	0.00	279.89
BOND-XXXIV-DOCO XXXIV-	8.84	2264.11	0.00	2264.11
BOND-XXXV-ADDCAP FOR 2011-2012 ADD CAP XXXV-	9.64	47.37	0.00	47.37
BOND-XXXV-ADDCAP FOR 2012-2013 ADD Cap XXXV-	9.64	104.03	0.00	104.03
BOND-XXXV-ADDCAP FOR 2013-2014 ADD Cap XXXV-	9.64	88.50	0.00	88.50
0	0.00	0.00	0.00	0.00
<b>Total</b>		<b>8773.90</b>	<b>0.00</b>	<b>8773.90</b>

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2014-19**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	8773.90	8773.90	8773.90	8773.90	8773.90
Cumulative Repayments of Loans upto Previous Year	425.50	1136.67	1867.84	2599.01	3330.18
Net Loans Opening	8348.40	7637.23	6906.06	6174.89	5443.72
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	711.17	731.17	731.17	731.17	731.17
Net Closing Loan	7637.23	6906.06	6174.89	5443.72	4712.55
Average Net Loan	7992.82	7271.65	6540.48	5809.31	5078.14
Interest on Loan	8.8511	8.8522	8.8524	8.8527	8.8530
Rate of Interest on Loan (%)	707.45	643.70	578.99	514.28	449.57

