

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 554/TT/2014**

**Coram:**

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

**Date of Hearing : 20.01.2016  
Date of Order : 15.02.2016**

**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 **Asset-I:** 400 kV, 125 MVAR Bus-Reactor with associated bays at Abdullapur and **Asset-II:** 400 kV D/C Abdullapur-Sonepat transmission line along with 400 kV associated bays at Abdullapur and Sonepat Sub-station under System Strengthening in Northern Region Grid for Karcham Wangtoo HEP in Northern Region-II 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. Rajasthan Rajya Vidyut Prasaran Nigam Limited.  
Vidyut Bhawan, Vidyut Marg,  
Jaipur-302 005
2. Ajmer Vidyut Vitran Nigam Limited.  
400 kV GSS Building (Ground Floor), Ajmer Road  
Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Ltd.



400 kV GSS Building (Ground Floor), Ajmer Road  
Heerapura, Jaipur

4. Jodhpur Vidyut Vitran Nigam Ltd.  
400 kV GSS Building (Ground Floor), Ajmer Road  
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan,  
Kumar House Complex Building II  
Shimla-171004
6. Punjab State Power Corporation Ltd.  
Thermal Shed T1 A, Near 22 Phatak  
Patiala-147001
7. Haryana Power Purchase Centre  
Shakti Bhawan, Sector-6  
Panchkula (Haryana) 134 109
8. Power Development Deptt.  
Govt. of Jammu & Kashmir  
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Ltd.  
Shakti Bhawan, 14, Ashok Marg  
Lucknow- 226001
10. Delhi Transco Ltd.  
Shakti Sadan, Kotla Road  
New Delhi- 110002
11. BSES Yamuna Power Ltd.  
BSES Bhawan, Nehru Place  
New Delhi
12. BSES Rajdhani Power Ltd.  
BSES Bhawan, Nehru Place  
New Delhi
13. North Delhi Power Ltd.  
Power Trading & Load Dispatch Group  
Cennet Building  
Pitampura, New Delhi-110034



14. Chandigarh Administration  
Sector-9, Chandigarh
15. Uttarakhand Power Corporation Ltd.  
Urja Bhawan, Kanwali Road  
Dehradun
16. North Central Railway  
Allahabad
17. New Delhi Municipal Council  
Palika Kendra, Sansad Marg  
New Delhi-110002

.....Respondents

The following were present:-

For Petitioner: Shri M. M. Mondal, PGCIL  
Shri S. K. Venkatesan, PGCIL  
Smt. Sangeeta Edwards, PGCIL  
Shri S. C. Taneja, PGCIL  
Shri Y. K. Sehgal, PGCIL  
Shri Nitish Kumar, PGCIL  
Shri G. C. Dhal, PGCIL  
Shri Amit Yadav, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri S. S. Raju, PGCIL  
Shri Jasbir Singh, PGCIL  
Shri Anshul Garg, PGCIL  
Shri Pradeep, Advocate, Rajasthan Discoms  
Shri Vinod Kumar Yadav, Rajasthan Discoms

For Respondents: None

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for truing up of capital expenditure and tariff for **Asset-I: 400 kV, 125 MVAR Bus-Reactor with associated bays at Abdullapur and Asset-II: 400 kV**



D/C Abdullapur-Sonepat transmission line along with 400 kV associated bays at Abdullapur and Sonepat Sub-station under System Strengthening in Northern Region Grid for Karcham Wangtoo HEP in Northern Region-II (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 from COD to 31.3.2014, and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019.

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

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers 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 20.1.2016. None of the respondents have filed any reply. 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 company vide memorandum dated 11.12.2008 at an estimated cost of ₹32897 lakh, which included IDC of ₹2215 lakh. The petitioner has built the transmission asset in the Northern Region. The date of the commercial operation of Asset-I and Asset-II is 1.3.2011 and 1.4.2011 respectively.

(b) The tariff from 1.3.2011 to 31.3.2011 (one month) for Asset-I and 1.4.2011 to 31.3.2014 for Combined Asset-I & II was allowed vide order dated 14.2.2012 in Petition No. 34/2011 in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

**(₹ in lakh)**

Asset-I	2010-11 (Pro-rata)
Depreciation	2.99
Interest on Loan	3.48
Return on equity	3.06
Interest on Working Capital	0.39
O & M Expenses	4.62
<b>Total</b>	<b>14.53</b>

**(₹ in lakh)**

Combined Asset-I & II	2011-12	2012-13	2013-14
Depreciation	1054.81	1097.22	1110.42
Interest on Loan	1184.01	1138.49	1056.12
Return on Equity	1080.03	1123.47	1137.01
Interest on working capital	85.22	87.11	87.14
O&M Expenses	394.85	417.42	441.23
<b>Total</b>	<b>3798.92</b>	<b>3863.71</b>	<b>3831.91</b>



- (c) The Commission, vide order dated 14.2.2012 in Petition No. 34/2011, has determined the tariff for the tariff period 2009-14 considering the capital cost of ₹674.80 lakh for Asset-I and ₹19399.20 lakh (excluding excess initial spares claimed) for Combined Asset I & II as on COD.
- (d) 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.
- (e) The petitioner was, on 17.1.2016, directed to submit the RPC approval for the instant asset. In response, the petitioner vide affidavit dated 4.2.2016 submitted the RPC approval of the asset.

#### **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.

#### **Initial Spares**

6. 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:-

“Transmission line:	0.75%
Transmission sub-station	2.5%
Series compensation devices & HVDC Station:	3.5%”



The petitioner claimed initial spares of ₹191.96 lakh and ₹102.53 lakh for transmission line and sub-station respectively. As the claim made by the petitioner was more than the ceiling limits specified in the 2009 Tariff Regulations, the initial spares amounting to ₹99.72 lakh was disallowed in order dated 14.2.2012 in Petition No.34/TT/2011. In the instant petition, the petitioner has deducted excess initial spares of ₹96.84 lakh from the combined capital cost of Asset-I & II as on COD. The initial spares are allowed for transmission line and sub-station as per Regulation 8 of the 2009 Tariff Regulations and it is as follows:-

(₹ in lakh)					
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
Combined Asset-I & II	(a)	(b)	(c)	$(d) = ((a-b) * c) / (100-c)\%$	$(e) = (b) - (d)$
Transmission line	18926.61	191.96	0.75%	141.57	50.40
Sub-station	2289.85	102.53	2.50%	56.09	46.44

### **Capital Cost**

7. The petitioner has claimed capital cost of ₹704.58 lakh for Asset-I and ₹19437.91 lakh for Combined Asset-I & II as on COD after deducting excess initial spares of ₹96.84 lakh from ₹19534.75 lakh (as per Auditor's Certificate) for the purpose of tariff.

8. The petitioner has submitted the Auditor's Certificate certifying the capital cost and additional capitalization claimed. Accordingly, the revised capital cost of



₹704.58 lakh for Asset-I and Combined capital cost of ₹19437.91 lakh for Asset-I & II as on COD has been considered to work out the trued up tariff for the tariff period 2009-14.

### **Additional Capital Expenditure**

9. The petitioner has claimed additional capitalization under Clause (1)(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; “

10. The petitioner has claimed additional capitalization of ₹13.36 lakh for Asset-I from COD to 31.3.2011 and ₹1667.39 lakh for 2011-12 and ₹14.32 lakh for 2012-13 for Combined Asset-I & II towards balance and retention payment. The petitioner has not claimed any additional capitalization for 2013-14.

11. The total capital cost of ₹21119.62 lakh for Combined Asset-I & II including actual additional capitalisation claimed by the petitioner is well within the overall approved cost of ₹32897.42 lakh. The petitioner has submitted the Auditor’s Certificate to verify the actual additional expenditure incurred in 2009-14. Hence, considering the submissions made by the petitioner, we have allowed total capital cost including additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations as shown in the table below:-





(₹ in lakh)

Cost as per Investment Approval is ₹32897.42 lakh							
Particulars	Name of the asset	Capital cost (upto COD of Asset I) (1.3.2011)	2010-11 (upto COD of Asset II) (1.4.2011)	2011-12	2012-13	Total add cap	Total capital cost as on 31.3.2014
Approved in order dated 14.2.2012	Asset-I	674.80	7.31	-	-	-	-
Actual		704.58	13.56	-	-	-	-
Approved in order dated 14.2.2012	Com- bined Asset-I & II	19399.20		1105.17	500.0	1605.17	21004.37
Actual		19437.91		1667.39	14.32	1681.71	21119.62

### **Debt: Equity**

12. Clause 1 of Regulation 12 of the 2009 Tariff Regulations provides 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.”

13. The petitioner has claimed trued up Annual Fixed Charge based on debt-equity ratio of 70:30 admitted as on 1.3.2011 and 1.4.2011, by the Commission in its order dated 14.2.2012 in Petition No. 34/TT/2011. The admitted debt:equity ratio of 70:30 as on 1.3.2011 for Asset-I and 1.4.2011 for Combined Asset-I & II has been considered for the purpose of truing up of the approved tariff of tariff period 2009-14, as given under:-



Funding (Asset-I)	Amount (in ₹ lakh)	(%)
Debt	493.21	70.00
Equity	211.37	30.00
<b>Total</b>	<b>704.58</b>	<b>100.00</b>

Funding (Combined Asset-I & II)	Amount (in ₹ lakh)	(%)
Debt	13606.56	70.00
Equity	5831.35	30.00
<b>Total</b>	<b>19437.91</b>	<b>100.00</b>

14. With respect to additional capitalization, the petitioner has submitted the debt:equity ratio of 70:30 for 2010-11 for Asset-I. Further, petitioner has also submitted the debt:equity ratio of 70:30 for 2011-12 and 2012-13 for Combined Asset-I & II. 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 vide affidavit dated 4.2.2016 has submitted that actual equity infused is 30% for additional capitalization during 2010-11, 2011-12 and 2012-13. The over all debt equity as on 31.3.2011 for Asset-I and 31.3.2014 for Combined Asset-I & II including additional capitalization is as under:-

Funding (Asset-I)	Amount (₹ in lakh)	(%)
Debt	502.56	70.00
Equity	215.38	30.00
<b>Total</b>	<b>717.94</b>	<b>100.00</b>
Funding (Combined Asset-I & II)	Amount (₹ in lakh)	(%)
Debt	14783.76	70.00
Equity	6335.86	30.00
<b>Total</b>	<b>21119.62</b>	<b>100.00</b>



### **Interest on Loan (“IOL”)**

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

“...in case of floating rate of interest, any change in the rates of interest during the tariff period will be considered at the time of true up”.

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

17. 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)			
	2010-11 (Pro-rata*)	2011-12	2012-13	2013-14
Approved vide order dated 14.2.2012	3.48	1184.01	1138.49	1056.12
As claimed by petitioner	3.65	1204.47	1161.04	1062.48
Allowed after true up	3.66	1204.47	1161.04	1062.48

(\*Pro-rata from 1.3.2011)

18. The interest on loan has increased due to increase in actual weighted average interest rate applicable during 2010-14 tariff period.



## **Return on Equity (“ROE”)**

19. 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 trued up in accordance with Regulation 6 of these regulations.”

20. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 3.2.2015. 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 only considered additional ROE of 0.5% for Combined Asset I & II. However, the Commission vide order dated 14.2.2012 in Petition No. 34/2011 has allowed additional ROE of 0.5% for Asset-I as well as for Combined Asset-I & II as all the assets in the instant scheme have been commissioned within 30 months



specified in the 2009 Tariff Regulations. 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)) %
2010-11	19.931	19.358
2011-12	20.008	20.002
2012-13	20.008	20.002
2013-14	20.961	20.243

21. Accordingly, we have trued up ROE and considered additional ROE of 0.5% as allowed in the order for Asset-I and Combined Asset-I & II and is shown in the table below:-

Particulars	(₹ in lakh)			
	2010-11 (Pro-rata*)	2011-12	2012-13	2013-14
	Asset-I	Combined Asset-I & II		
Approved vide order dated 14.2.2012	3.06	1080.03	1123.47	1137.01
As claimed by petitioner	3.44	1216.41	1266.87	1282.57
Allowed after true up	3.56	1216.41	1266.87	1282.57

(\*Pro-rata from 1.3.2011)

22. The variation in return on equity is on account of increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

### **Depreciation**

23. 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”



24. 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."

25. The Commission, in its order dated 14.2.2012 in Petition No. 34/2011, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations.

26. The weighted average useful life of the transmission asset has been considered as per clause 3 of Regulations 42 and clause 4 of Regulations 17 of the 2009 Tariff Regulations. In the present case, the weighted average useful life of the asset as on COD has been considered as 25 years for Asset-I and 34 years for Combined Asset-I & II.

27. 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)			
	2010-11 (Pro-rata*)	2011-12	2012-13	2013-14
Approved vide order dated 14.2.2012	2.99	1054.81	1097.22	1110.42
As claimed by petitioner	3.13	1071.70	1116.13	1116.50
Allowed after true up	3.13	1071.70	1116.13	1116.51

(\*Pro-rata from 1.3.2011)



The variation in depreciation is on account of increase in capital cost as on COD and additional capitalization for 2009-14 tariff period.

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

28. The petitioner has computed O&M expenses for the assets mentioned in the petition and 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 order dated 14.2.2012 in Petition No. 34/2011. Accordingly, the O&M Expenses claimed by the petitioner, allowed and true up are the same, and are as follows:-

(₹ in lakh)				
Particulars	2010-11 (pro-rata*)	2011-12	2012-13	2013-14
	Asset-I	Combined Asset-I & II		
Approved vide order dated 14.2.2012	4.62	394.85	417.42	441.23
As claimed by petitioner	4.62	394.85	417.42	441.23
Allowed after true up	4.62	394.85	417.42	441.23

(\*pro-rata from 1.3.2011)

**Interest on working capital(“IWC”)**

29. 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.



30. The petitioner has submitted that the rate of interest on working capital has been considered as 11.00% for Asset-I and 11.75% for Combined Asset-I & II as per clause (3)(ii) of Regulation 18 of the 2009 Tariff Regulations (Second Amendment), 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.

31. In accordance with Clause (3)(ii) of Regulation 18 of the 2009 Tariff Regulations (Second Amendment), rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation after 1.7.2010 shall be equal to SBI Base Rate plus 350 basis points as on 1<sup>st</sup> April of the year in which the transmission asset was declared under commercial operation. State Bank of India base Bate as on 1.7.2010 was 7.50% and as on 1.4.2011 was 8.25%. Therefore, interest rate of 11.00% for Asset-I and 11.75% for Combined Asset-I & II has been considered to work out the interest on working capital in the instant case.

32. The IWC trued up is as under:-

(₹ in lakh)

Particulars	2010-11 (Pro-rata*)	2011-12	2012-13	2013-14
	Asset-I	Combined Asset-I & II		
Maintenance Spares	0.69	59.23	62.61	66.18
O & M expenses	0.39	32.90	34.78	36.77
Receivables	2.56	662.69	675.38	665.51
Total	3.64	754.82	772.77	768.47
Rate of Interest (%)	11.00	11.75	11.75	11.75
<b>Interest</b>	<b>0.40</b>	<b>88.69</b>	<b>90.80</b>	<b>90.29</b>

(\*Pro-rata from 1.3.2011)





(₹ in lakh)

Particulars	2010-11 (Pro-rata*)	2011-12	2012-13	2013-14
	Asset-I	Combined Asset-I & II		
Approved vide order dated 14.2.2012	0.39	85.22	87.11	87.14
As claimed by petitioner	0.40	88.69	90.80	90.29
Allowed after true up	0.40	88.69	90.80	90.29

33. The variation in IWC is on account of variation in IOL, Depreciation and ROE due to increase 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**

34. The detailed computation of the various components of the trued up annual fixed charges for Asset-I and Combined Asset-I & II for the tariff period 2009-14 is summarised below:-

(₹ in lakh)

Particulars (Asset-I)	2010-11 (Pro-rata from 1.3.2011-31.3.2011)
<b>Gross Block</b>	
Gross Opening Block	704.58
Additional Capitalisation	13.36
Gross Closing Block	717.94
Average Gross Block	711.26
<b>Depreciation</b>	
Rate of Depreciation (%)	5.280
Depreciable Value	640.13
Elapsed Life (Beginning of the year)	0
Weighted Balance Useful life of the assets	25
Remaining Depreciable Value	640.13
Depreciation	3.13



Particulars (Asset-I)	2010-11 (Pro-rata from 1.3.2011-31.3.2011)
<b>Interest on Loan</b>	
Gross Normative Loan	493.21
Cumulative Repayment upto Previous Year	0.00
Net Loan-Opening	493.21
Additional Capitalisation	9.35
Repayment during the year	3.13
Net Loan-Closing	499.43
Average Loan	496.32
Weighted Average Rate of Interest on Loan (%)	8.8316
Interest	3.66
<b>Return on Equity</b>	
Opening Equity	211.37
Additional Capitalisation	4.01
Closing Equity	215.38
Average Equity	213.37
Return on Equity (Base Rate ) (%)	16.00
MAT rate for the year (%)	19.931
Rate of Return on Equity (Pre Tax ) (%)	19.983
Return on Equity (Pre Tax)	3.56
<b>Interest on Working Capital</b>	
Maintenance Spares	0.69
O & M expenses	0.39
Receivables	2.56
Total	3.64
Interest	0.40
<b>Annual Transmission Charges</b>	
Depreciation	3.13
Interest on Loan	3.66
Return on Equity	3.56
Interest on Working Capital	0.40
O & M Expenses	4.62
<b>Total</b>	<b>15.37</b>



(₹ in lakh)

Particulars (Combined Asset-I & II)	2011-12 (Pro-rata)	2012-13	2013-14
<b>Gross Block</b>			
Gross Opening Block	19437.91	21105.30	21119.62
Additional Capitalisation	1667.39	14.32	0.00
Gross Closing Block	21105.30	21119.62	21119.62
Average Gross Block	20271.61	21112.46	21119.62
<b>Depreciation</b>			
Rate of Depreciation (%)	5.287	5.287	5.287
Depreciable Value	18244.44	19001.21	19007.66
Elapsed Life (Beginning of the year)	0	1	2
Weighted Balance Useful life of the assets	34	33	32
Remaining Depreciable Value	18244.44	17926.38	16816.70
Depreciation	1071.70	1116.13	1116.51
<b>Interest on Loan</b>			
Gross Normative Loan	13606.56	14773.74	14783.76
Cumulative Repayment upto Previous Year	3.13	1074.83	2190.96
Net Loan-Opening	13603.43	13698.91	12592.80
Additional Capitalisation	1167.18	10.02	0.00
Repayment during the year	1071.70	1116.13	1116.51
Net Loan-Closing	13698.91	12592.80	11476.29
Average Loan	13651.17	13145.86	12034.55
Weighted Average Rate of Interest on Loan (%)	8.8232	8.8320	8.8286
Interest	1204.47	1161.04	1062.48
<b>Return on Equity</b>			
Opening Equity	5831.35	6331.56	6335.86
Additional Capitalisation	500.21	4.30	0.00
Closing Equity	6331.56	6335.86	6335.86
Average Equity	6081.46	6333.71	6335.86
Return on Equity (Base Rate) (%)	16.00	16.00	16.00
Tax rate for the year (%)	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	20.002	20.002	20.243
Return on Equity (Pre Tax)	1216.41	1266.87	1282.57
<b>Interest on Working Capital</b>			
Maintenance Spares	59.23	62.61	66.18



Particulars (Combined Asset-I & II)	2011-12 (Pro-rata)	2012-13	2013-14
O & M expenses	32.90	34.78	36.77
Receivables	662.69	675.38	665.51
Total	754.82	772.77	768.47
Interest	88.69	90.80	90.29
<b>Annual Transmission Charges</b>			
Depreciation	1071.70	1116.13	1116.51
Interest on Loan	1204.47	1161.04	1062.48
Return on Equity	1216.41	1266.87	1282.57
Interest on Working Capital	88.69	90.80	90.29
O & M Expenses	394.85	417.42	441.23
<b>Total</b>	<b>3976.11</b>	<b>4052.26</b>	<b>3993.08</b>

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

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1116.50	1116.50	1116.50	1116.50	1116.50
Interest on Loan	963.73	865.29	766.84	668.38	569.91
Return on equity	1282.57	1282.57	1282.57	1282.57	1282.57
Interest on Working Capital	99.74	98.22	96.72	95.25	93.80
O & M Expenses	404.37	417.86	431.70	446.04	460.82
<b>Total</b>	<b>3866.91</b>	<b>3780.44</b>	<b>3694.33</b>	<b>3608.74</b>	<b>3523.60</b>

36. 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	60.66	62.68	64.76	66.91	69.12
O & M expenses	33.70	34.82	35.98	37.17	38.40
Receivables	644.49	630.07	615.72	601.46	587.27
Total	738.85	727.57	716.46	705.54	694.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>99.74</b>	<b>98.22</b>	<b>96.72</b>	<b>95.25</b>	<b>93.80</b>



## **Capital Cost**

37. 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.”

38. The petitioner has claimed capital expenditure of ₹21119.62 lakh as on 31.3.2014 and no additional capitalization for the tariff period 2014-19. The trued up capital cost of ₹21119.62 lakh as on 31.3.2014 is considered to work out the tariff for tariff period 2014-19.

## **Additional Capital Expenditure**

39. The petitioner has not projected any additional capitalization for 2014-19 tariff period. The petitioner was directed to submit the amount of balance and retention payment yet to be made along with the details of contract for which the payment has been retained. In response, the petitioner vide affidavit dated 4.2.2016 has submitted that no further retention payment has been projected.



Accordingly, no additional capitalization has been considered for tariff computation.

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	21119.62	0.00	0.00	0.00	0.00	0.00	0.00	21119.62

### **Debt:EquityRatio**

40. 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.”

41. The petitioner has considered debt:equity ratio as 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. As no additional capitalization has been claimed for 2014-19 tariff period the debt:equity ratio as on 1.4.2014 will remain same as on 31.3.2019. 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	14783.76	70.00
Equity	6335.86	30.00
<b>Total</b>	<b>21119.62</b>	<b>100.00</b>



### **Interest on Loan (“IOL”)**

42. 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.”

43. 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	14783.76	14783.76	14783.76	14783.76	14783.76
Cumulative Repayment upto COD/previous year	3307.47	4423.98	5540.49	6657.00	7773.51
Net Loan-Opening	11476.29	10359.78	9243.27	8126.76	7010.25
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1116.51	1116.51	1116.51	1116.51	1116.51
Net Loan-Closing	10359.78	9243.27	8126.76	7010.25	5893.74



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Loan	10918.04	9801.53	8685.02	7568.51	6452.00
Rate of Interest (%)	8.8269	8.8281	8.8294	8.8310	8.8330
<b>Interest</b>	963.73	865.29	766.84	668.38	569.91

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

44. 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."

45. The petitioner has computed ROE at the rate of 20.243% after grossing up the ROE of 16.00% 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.





46. 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.

47. 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, 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 by the Commission is given below:-

**(₹ in lakh)**

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	6335.86	6335.86	6335.86	6335.86	6335.86
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Equity	6335.86	6335.86	6335.86	6335.86	6335.86
Average Equity	6335.86	6335.86	6335.86	6335.86	6335.86
Return on Equity (Base Rate) (%)	16.00	16.00	16.00	16.00	16.00
MAT rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	20.243	20.243	20.243	20.243	20.243
<b>Return on Equity (Pre Tax)</b>	<b>1282.57</b>	<b>1282.57</b>	<b>1282.57</b>	<b>1282.57</b>	<b>1282.57</b>

### **Depreciation**



48. 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."

49. The petitioner has computed depreciation considering capital expenditure of ₹21119.62 lakh as on 31.3.2014 for 2014-19 tariff period.

50. We have considered the submissions of the petitioner. Depreciation is allowed considering capital expenditure of ₹21119.62 lakh as on 31.3.2014 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	21119.62	21119.62	21119.62	21119.62	21119.62
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Gross block at the end of the year	21119.62	21119.62	21119.62	21119.62	21119.62
Average gross block	21119.62	21119.62	21119.62	21119.62	21119.62



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Depreciation (%)	5.287	5.287	5.287	5.287	5.287
Depreciable Value	19007.66	19007.66	19007.66	19007.66	19007.66
Elapsed Life of the assets at beginning of the year	3	4	5	6	7
Weighted Balance Useful life of the assets	31	30	29	28	27
Remaining Depreciable Value	15700.19	14583.68	13467.17	12350.66	11234.15
<b>Depreciation</b>	<b>1116.51</b>	<b>1116.51</b>	<b>1116.51</b>	<b>1116.51</b>	<b>1116.51</b>

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

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>O&amp;M Expense for line</b>					
<b>Norm (₹lakh/km)</b>					
Double Circuit (Twin & Triple Conductor)	0.707	0.731	0.755	0.780	0.806
Line (km)					
400 kV D/C Abdullahpur-Sonepat line (km)	145.50	145.50	145.50	145.50	145.50
<b>Total O&amp;M Expense (line) (₹lakh)</b>	<b>102.87</b>	<b>106.36</b>	<b>109.85</b>	<b>113.49</b>	<b>117.27</b>
<b>O&amp;M Expense for Bay</b>					
<b>Norm (₹lakh/Bay)</b>					
400 kV	60.30	62.30	64.37	66.51	68.71
<b>Bays</b>					
400 kV	5	5	5	5	5
<b>Total O&amp;M Expense (Bay) (₹lakh)</b>	<b>301.50</b>	<b>311.50</b>	<b>321.85</b>	<b>332.55</b>	<b>343.55</b>
<b>Total O&amp;M Expense (line &amp; Bay) (₹lakh)</b>	<b>404.37</b>	<b>417.86</b>	<b>431.70</b>	<b>446.04</b>	<b>460.82</b>



52. 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 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.

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

54. 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.

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

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>O&amp;M Expenses Allowed</b>	<b>404.37</b>	<b>417.86</b>	<b>431.70</b>	<b>446.04</b>	<b>460.82</b>

#### **Interest on Working Capital ("IWC")**

56. 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;”

57. 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%.

58. 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). Further, there is difference in IWC claimed by the petitioner and approved by the Commission for tariff period 2014-19, due to difference in RoE claimed and approved in this order. The interest on working capital as determined by the Commission is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	60.66	62.68	64.76	66.91	69.12
O & M Expenses	33.70	34.82	35.98	37.17	38.40
Receivables	644.49	630.08	615.72	601.46	587.27
Total	738.84	727.58	716.45	705.53	694.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>99.74</b>	<b>98.22</b>	<b>96.72</b>	<b>95.25</b>	<b>93.80</b>



## Annual Transmission Charges

59. 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	21119.62	21119.62	21119.62	21119.62	21119.62
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	21119.62	21119.62	21119.62	21119.62	21119.62
Average Gross Block	21119.62	21119.62	21119.62	21119.62	21119.62
<b>Depreciation</b>					
Rate of Depreciation (%)	5.287	5.287	5.287	5.287	5.287
Depreciable Value	19007.66	19007.66	19007.66	19007.66	19007.66
Elapsed Life (Beginning of the year)	3	4	5	6	7
Weighted Balance Useful life of the assets	31	30	29	28	27
Remaining Depreciable Value	15700.19	14583.68	13467.17	12350.66	11234.15
Depreciation	1116.51	1116.51	1116.51	1116.51	1116.51
<b>Interest on Loan</b>					
Gross Normative Loan	14783.76	14783.76	14783.76	14783.76	14783.76
Cumulative Repayment upto Previous Year	3307.47	4423.98	5540.49	6657.00	7773.51
Net Loan-Opening	11476.29	10359.78	9243.27	8126.76	7010.25
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1116.51	1116.51	1116.51	1116.51	1116.51
Net Loan-Closing	10359.78	9243.27	8126.76	7010.25	5893.74
Average Loan	10918.04	9801.53	8685.02	7568.51	6452.00
Weighted Average Rate of Interest on Loan (%)	8.8269	8.8281	8.8294	8.8310	8.8330
Interest	963.73	865.29	766.84	668.38	569.91
<b>Return on Equity</b>					
Opening Equity	6335.86	6335.86	6335.86	6335.86	6335.86
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	6335.86	6335.86	6335.86	6335.86	6335.86



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Equity	6335.86	6335.86	6335.86	6335.86	6335.86
Return on Equity (Base Rate) (%)	16.00	16.00	16.00	16.00	16.00
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	20.243	20.243	20.243	20.243	20.243
Return on Equity (Pre Tax)	1282.57	1282.57	1282.57	1282.57	1282.57
<b>Interest on Working Capital</b>					
Maintenance Spares	60.66	62.68	64.76	66.91	69.12
O & M expenses	33.70	34.82	35.98	37.17	38.40
Receivables	644.49	630.08	615.72	601.46	587.27
Total	738.84	727.58	716.45	705.53	694.79
Interest	99.74	98.22	96.72	95.25	93.80
<b>Annual Transmission Charges</b>					
Depreciation	1116.51	1116.51	1116.51	1116.51	1116.51
Interest on Loan	963.73	865.29	766.84	668.38	569.91
Return on Equity	1282.57	1282.57	1282.57	1282.57	1282.57
Interest on Working Capital	99.74	98.22	96.72	95.25	93.80
O & M Expenses	404.37	417.86	431.70	446.04	460.82
<b>Total</b>	<b>3866.92</b>	<b>3780.45</b>	<b>3694.34</b>	<b>3608.74</b>	<b>3523.61</b>

### **Filing Fee and Publication Expenses**

60. 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**

61. 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**

62. 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.

### **Sharing of Transmission Charges**

63. 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.

64. This Order disposes of Petition No. 554/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 (Asset-I)	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXIX-DOCO	9.20%	100.00	0.00	100.00
BOND XXX-ADDCAP FOR 2010-2011 ADDCAP	8.80%	0.00	9.35	9.35
BOND XXXIII-DOCO	8.64%	200.00	0.00	200.00
BOND-XXXIV-DOCO	8.84%	193.21	0.00	193.21
BOND XXXVIII-ADDCAP FOR 2011-2012 ADDCAP	0.00%	0.00	0.00	0.00
<b>Total</b>		<b>493.21</b>	<b>9.35</b>	<b>502.56</b>

**(₹ in lakh)**

Particulars (Combined Asset-I & II)	Interest Rate (%)	Loan deployed as on 1.4.2011	Additions during the tariff period	Total
BOND XXIX-DOCO	9.20%	1373.00	0.00	1373.00
BOND XXX-ADDCAP FOR 2011-2012	8.80%	0.00	6.41	6.41
BOND XXX-DOCO	8.80%	1929.35	0.00	1929.35
BOND XXXI-DOCO DRAWL ON 25 FEB-2010- 25 FEB 2010	8.90%	4086.00	0.00	4086.00
BOND XXXIII-DOCO DRAWL ON 8-JUL-2010	8.64%	5200.00	0.00	5200.00
BOND-XXXIV-ADDCAP FOR 2011-2012 Add Cap-	8.84%	0.00	481.79	481.79
BOND XXXIV-DOCO	8.84%	1018.21	0.00	1018.21
BOND XXXVII-ADDCAP FOR 2011-2012 Add Cap	9.25%	0.00	89.00	89.00
BOND XXXVIII-ADDCAP FOR 2011-2012 Add Cap	9.25%	0.00	589.98	589.98
BOND XXXVIII-ADDCAP FOR 2012-2013 Add Cap	0.00%	0	0	0.00
<b>Total</b>		<b>13606.56</b>	<b>1167.18</b>	<b>14773.74</b>



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

	<b>(₹ in lakh)</b>
Details of Loan (Asset-I)	2010-11
Gross Opening Loan	493.21
Cumulative Repayment of loan upto previous year	0.00
Net Loan Opening	493.21
Additions during the year	9.35
Repayment during the year	0.00
Net Loan Closing	502.56
Average Loan	497.89
Weighted Average Rate of Interest (%)	8.83
Interest	43.97

	<b>(₹ in lakh)</b>		
Details of Loan (Combined Asset-I & II)	2011-12	2012-13	2013-14
Gross Opening Loan	13606.56	14773.74	14783.76
Cumulative Repayment of loan upto previous year	0.00	0.00	114.42
Net Loan Opening	13606.56	14773.74	14669.34
Additions during the year	1167.18	10.02	0.00
Repayment during the year	0.00	114.42	616.23
Net Loan Closing	14773.74	14669.34	14053.11
Average Loan	14190.15	14721.54	14361.23
Weighted Average Rate of Interest (%)	8.82%	8.83%	8.83%
Interest	1252.02	1300.20	1267.89



**ANNEXURE-II****DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO**

(₹ in lakh)

Particulars (Combined Asset-I & II)	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXIX-DOCO	9.20%	1373.00	0.00	1373.00
BOND XXX-ADDCAP FOR 2011-2012	8.80%	6.41	0.00	6.41
BOND XXX-DOCO	8.80%	1929.35	0.00	1929.35
BOND XXXI-DOCO DRAWL ON 25 FEB-2010- 25 FEB 2010	8.90%	4086.00	0.00	4086.00
BOND XXXIII-DOCO DRAWL ON 8-JUL-2010	8.64%	5200.00	0.00	5200.00
BOND-XXXIV-ADDCAP FOR 2011-2012 Add Cap-	8.84%	481.79	0.00	481.79
BOND XXXIV-DOCO	8.84%	1018.21	0.00	1018.21
BOND XXXVII-ADDCAP FOR 2011-2012 Add Cap	9.25%	89.00	0.00	89.00
BOND XXXVIII-ADDCAP FOR 2011-2012 Add Cap	9.25%	589.98	0.00	589.98
BOND XXXVIII-ADDCAP FOR 2012-2013 Add Cap	0.00%	10.02	0	10.02
Total		14783.76	0.00	14783.76



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

(₹ in lakh)

Details of Loan (Combined Asset-I & II)	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	14783.76	14783.76	14783.76	14783.76	14783.76
Cumulative Repayment of loan upto previous year	730.65	1905.21	3087.19	4269.17	5451.15
Net Loan Opening	14053.11	12878.55	11696.57	10514.59	9332.61
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1174.56	1181.98	1181.98	1181.98	1181.98
Net Loan Closing	12878.55	11696.57	10514.59	9332.61	8150.63
Average Loan	13465.83	12287.56	11105.58	9923.60	8741.62
Weighted Average Rate of Interest (%)	8.83%	8.83%	8.83%	8.83%	8.83%
Interest	1188.62	1084.76	980.56	876.35	772.15

