

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 151/TT/2015**

**Coram:**

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

**Date of Hearing : 27.01.2016**

**Date of Order : 17.03.2016**

**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 under transmission system associated with Koteshwar HEP in Northern Region consisting of Asset-I: 50% series compensation at Meerut (Extension) on Tehri Pooling Point (Koteshwar)- Meerut 765 kV 2 \* S/C lines (charged at 400 kV) 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 Limited.  
400 kV GSS Building (Ground Floor), Ajmer Road  
Heerapura, Jaipur



4. Jodhpur Vidyut Vitran Nigam Limited.  
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 Limited.  
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 Limited.  
Shakti Bhawan, 14, Ashok Marg  
Lucknow- 226001
10. Delhi Transco Limited.  
Shakti Sadan, Kotla Road  
New Delhi- 110002
11. BSES Yamuna Power Limited.  
BSES Bhawan, Nehru Place  
New Delhi
12. BSES Rajdhani Power Limited.  
BSES Bhawan, Nehru Place  
New Delhi
13. North Delhi Power Limited.  
Power Trading & Load Dispatch Group  
Cennet Building  
Pitampura, New Delhi-110034
14. Chandigarh Administration



Sector-9, Chandigarh

15. Uttarakhand Power Corporation Limited.  
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 S. S. Raju, PGCIL  
                              Shri Anshul Garg, PGCIL  
                              Shri Jasbir Singh, PGCIL  
                              Shri M. M. Mondal, PGCIL  
                              Shri S. K. Venkatesan, PGCIL  
                              Ms Treepti Sonkatar, PGCIL  
                              Shri Rakesh Prasad, PGCIL  
                              Smt Sangeeta Edwards, PGCIL  
                              Shri Subhash C. Taneja, PGCIL

For Respondent:        None.

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner"), for truing up of capital expenditure 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 for asset under transmission system associated with Koteshwar HEP in Northern Region consisting of Asset-I: 50% series compensation at Meerut (Extension) on Tehri Pooling Point (Koteshwar)- Meerut 765 kV 2 \* S/C lines (charged at 400 kV).

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

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 the Electricity Act, 2003 (“the Act”). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 27.1.2016. None of the respondents have filed their reply. Further the petitioner has submitted replies to TV and ROP vide affidavit dated 12.2.2016, 11.3.2016 and 15.3.2016. The petitioner has also submitted RCE vide affidavit dated 11.3.2016. 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 company vide memorandum dated 1.6.2005 at an estimated cost of ₹26034 lakh, which included IDC of ₹1334 lakh.

Further, the RCE of the project was accorded by Board of Directors of the



petitioner company dated 11.3.2016 at an estimated cost of ₹24320 lakh including IDC of ₹2259 lakh. The approved apportioned cost for the instant asset is ₹6137.47 lakh.

- (b) The tariff from 1.2.2012 to 31.3.2014 for the asset was allowed vide order dated 9.1.2015 in Petition No. 80/TT/2012 in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	33.69	221.79	221.79
Interest on Loan	39.85	251.16	232.42
Return on Equity	33.46	220.30	220.30
Interest on Working Capital	3.45	22.16	22.26
O&M Expenses	27.33	173.36	183.28
<b>Total</b>	<b>137.77</b>	<b>888.76</b>	<b>880.05</b>

- (c) Tariff was allowed vide order dated 9.1.2015 in Petition No. 80/TT/2012, from COD to 31.3.2014 restricting the capital cost as on 31.3.2014 to approved apportioned cost of ₹4200.66 lakh. Further, IDC and IEDC of ₹553.11 lakh was disallowed and was deducted from capital cost as on COD on account of time over-run of 40 months due to failure of vendor/supplier to supply proper equipment.
- (d) The petitioner has filed an Appeal before the Hon'ble Appellate Tribunal for Electricity (Tribunal) on 16.3.2015 against the order dated 9.1.2015 in Petition No.80/TT/2012 wherein time over-run of 40 months and the corresponding IDC and IEDC was disallowed. The Appeal was dismissed by the Tribunal on 1.12.2015.



(e) 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. Clause (3) of the Regulation 6 of the 2009 Tariff Regulations provides as under:-

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors”.

6. The petitioner has submitted the information as required under the 2009 Tariff Regulations for truing up of annual fixed charges for 2009-14 tariff period. The tariff for 2009-14 tariff period has been trued up in the subsequent paragraphs.

### **Capital Cost**

7. The petitioner has claimed capital cost of ₹3470.72 lakh for the instant asset as on COD for the purpose of truing up of tariff after adjusting IDC and IEDC of ₹553.11 lakh and excess initial spares of ₹6.12 lakh disallowed vide order dated 9.1.2015 in Petition No.80/TT/2012.

8. Regulation 7(1) of the 2009 Tariff Regulations provides as follows:-

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

(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign



exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

- (b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and
- (c) additional capital expenditure determined under regulation 9:

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

9. The petitioner has submitted the Auditor Certificate certifying the capital cost as on COD and additional capitalization claimed thereafter. As stated above, the IDC and IEDC for 40 months were disallowed due to time over-run. The Commission in order dated 9.1.2015 in Petition No. 80/TT/2012 has considered the breakup of IDC and IEDC to compute the disallowed IDC and IEDC i.e. upto 31.3.2011 and from 1.4.2011 to COD.

10. It is observed that the petitioner has not submitted the breakup of IDC and IEDC upto up to COD i.e. upto up to 31.3.2011 and from 1.4.2011 to 31.1.2012 as was submitted in Petition No. 80/TT/2012. However, in Petition No. 80/TT/2012, the petitioner submitted IDC and IEDC upto 31.3.2011 based on audited books of accounts and same was considered by the Commission in its order. In view of the above, the IDC and IEDC upto 31.3.2011 has been considered as per Auditor's Certificate dated 30.8.2011 submitted in Petition No. 80/TT/2012.

11. With regard to balance IDC and IEDC from 1.4.2011 to 31.1.2012, we have worked out the same after adjusting the IDC and IEDC upto 31.3.2011 from



the total IDC and IEDC submitted as per Auditor's Certificate dated 23.3.2015. The details of IDC and IEDC claimed, allowed and disallowed IDC and IEDC of ₹422.23 lakh and ₹149.02 lakh from ₹4029.94 lakh.

(₹ in lakh)			
Particulars	IDC	IEDC	Total
Total IDC and IEDC claimed as per Auditor Certificate dated 23.3.2015	538.83	210.66	-
IDC and IEDC upto 31.3.2011 as per Auditor Certificate dated 30.8.2011	246.15	130.12	-
Balance IDC and IEDC from 1.4.2011 to 31.1.2012	292.68	80.54	-
<b>Detail of IDC and IEDC disallowed for 40 months</b>			
IDC and IEDC from 1.10.2008 to 31.3.2011 (30 months)*	129.55	68.48	-
IDC and IEDC from 1.4.2011 to 31.1.2012 (10 months)	292.68	80.54	-
IDC and IEDC disallowed from 1.10.2008 to 31.1.2012 (40 months)	422.23	149.03	571.26

(\*worked out on pro-rata basis)

### **Treatment of Initial Spares**

12. Regulation 8 of the 2009 tariff Regulations provides as follows:-

“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%”

13. The petitioner has claimed initial spares of ₹191.26 lakh. We have considered capital cost as on cut-off date after adjusting the disallowed IDC and IEDC due to time over-run for computation of allowable initial spares. The proportionate initial spares worked out and allowed for Sub-station as per above regulation is shown in table below:-





Particulars	Capital cost up to cut-off date	Initial Spares Claimed	Capital cost up to cut-off date reducing disallowed IDC & IEDC	Proportionate Initial Spares
Sub-station	5848.81	191.26	5277.55	172.58

The proportionate initial spares worked out is well within the ceiling limit of 3.50% and is allowed accordingly.

14. Accordingly, the capital cost as on COD considered for the purpose of tariff computation is as follows:-

Particulars	(₹ in lakh) Asset
Capital cost as on COD	4029.94
Less: Disallowed IDC and IEDC	571.26
Capital cost as on COD considered for tariff determination	<b>3458.68</b>

We have considered the revised capital cost of ₹3458.68 lakh as on COD after adjusting for the purpose of truing up of tariff for the 2009-14 tariff period.

### **Additional Capital Expenditure**

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

16. Regulation 9(1)(i) of the 2009 Tariff Regulations provides as follows:-

**“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...;”



17. The petitioner has claimed additional capitalization of ₹784.20 lakh, ₹314.92 lakh and ₹410.03 lakh for the instant transmission asset from COD to 31.3.2014 towards balance and retention payment for works executed within cut-off date. The total capital cost of ₹4967.83 lakh as on 31.3.2014 including actual additional capitalisation is within the overall approved apportioned cost of ₹6137.47 lakh. Accordingly, capital cost of ₹4967.83 lakh as on 31.3.2014 is allowed under Regulation 9(1)(i) of the 2009 Tariff Regulations. The details of the capital cost as on COD and the additional capital expenditure of the instant asset is shown in the table below:-

(₹ in lakh)

Cost as per Investment Approval is ₹6137.47 lakh							
Particulars	Name of the asset	Capital cost upto COD	2011-12	2012-13	2013-14	Total add cap	Total capital cost including additional capitalisation as on 31.3.2014
Approved in order dated 9.1.2015	Asset	3455.54	745.12	0.00	0.00	745.12	4200.66
Allowing in this order		3458.68	784.20	314.92	410.03	1509.15	4967.83

### **Debt: Equity**

19. 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.”

20. The petitioner has claimed trued up Annual Fixed Charge based on admitted debt-equity ratio of 70:30 as on 1.2.2012, i.e. as on COD. The same has been considered for the purpose of truing up of the tariff of 2009-14 tariff period, as given under:-

(₹in lakh)		
Funding	Amount	(%)
Debt	2421.08	70.00
Equity	1037.60	30.00
<b>Capital Cost</b>	<b>3458.68</b>	<b>100.00</b>

21. With respect to additional capitalization, the petitioner has claimed the debt:equity ratio of 70:30 for 2009-14 tariff period. The petitioner was directed to confirm 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 12.2.2016 has submitted that the actual debt infused for the additional capitalization during the tariff period 2009-14 is 70% of the capital cost and balance amount has been deployed as equity i.e. 30%. The overall debt equity ratio as on 31.3.2014 for the instant transmission set including additional capitalization is as under:-



(₹ in lakh)		
Funding	Amount	(%)
Debt	3477.48	70.00
Equity	1490.35	30.00
<b>Total</b>	<b>4967.83</b>	<b>100.00</b>

### Interest on Loan (“IOL”)

22. 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 29.1.2015 in Petition No. 165/TT/2013 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”.

23. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest. The IOL is allowed on the basis of the 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:-

(₹ in lakh)			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.1.2015	39.85	251.16	232.42
As claimed by the petitioner	39.83	261.46	263.52
Allowed after trued up	39.70	260.75	262.86

24. The interest on loan has increased on account of consideration of additional capitalization claimed by the petitioner which was disallowed earlier as it was above the FR approved apportioned cost.



## Return on Equity (“ROE”)

25. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provides 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.”

26. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 9.1.2015. 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)) %
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.691



27. We have considered the revised MAT rate for grossing up ROE and the approved ROE is as shown in the table below:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.1.2015	33.46	220.30	220.30
As claimed by the petitioner	37.42	256.49	280.90
Allowed after trued up	37.31	255.80	280.20

28. 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 and also on account of consideration of additional capitalization claimed by the petitioner which was disallowed earlier in the absence of RCE.

### **Depreciation**

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

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

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

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

**"17. Depreciation:**

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



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

31. The depreciation was allowed in accordance with Regulation 17 of the 2009 Tariff Regulations in its order dated 9.1.2015 in Petition No. 80/TT/2012.

32. The 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 useful life of the asset as on COD has been considered as 25 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 9.1.2015	33.69	221.79	221.79
As claimed by the petitioner	33.99	232.97	252.11
Allowed after trued up	33.89	232.34	251.48

33. The variation in depreciation is on account of consideration of additional capitalization claimed by the petitioner which was disallowed earlier in the absence of RCE.

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

34. 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 tariff order dated 9.1.2015 in Petition No. 80/TT/2012. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.1.2015	27.33	173.36	183.28
As claimed by the petitioner	27.33	173.36	183.28
Allowed after trued up	27.33	173.36	183.28

### **Interest on working capital("IWC")**

35. 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.

36. The petitioner submitted the rate of interest on working capital 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.

37. In accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations, we have 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% (8.25% plus 350 basis points) has been considered to work out the interest on working capital in the instant case.

38. The IWC trued up is as under:-

(₹ in lakh)			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Maintenance Spares	24.60	26.00	27.49
O & M expenses	13.67	14.45	15.27
Receivables	141.75	157.59	167.08
Total	180.01	198.04	209.84
Rate of Interest (%)	11.75	11.75	11.75
<b>Interest</b>	<b>3.53</b>	<b>23.27</b>	<b>24.66</b>

(₹ in lakh)			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
Approved vide order dated 9.1.2015	3.45	22.16	22.26
As claimed by the petitioner	3.53	23.31	24.70
Allowed after trued up	3.53	23.27	24.66

39. The variation in IWC is on account of variation in IOL, depreciation and ROE and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

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

40. The detailed computation of the various components of the trued up annual fixed charges of the instant asset is summarised below:-

(₹ in lakh)			
Particulars	2011-12 (pro-rata)	2012-13	2013-14
<b>Gross Block</b>			
Gross Opening Block	3458.68	4242.88	4557.80



Particulars	2011-12 (pro-rata)	2012-13	2013-14
Additional Capitalization	784.20	314.92	410.03
Gross Closing Block	4242.88	4557.80	4967.83
Average Gross Block	3850.78	4400.34	4762.82
<b>Depreciation</b>			
Rate of Depreciation (%)	5.280	5.280	5.280
Depreciable Value	3465.70	3960.31	4286.54
Elapsed Life (Beginning of the year)	0	1	2
Weighted Balance Useful life of the assets	25	24	23
Remaining Depreciable Value	3465.70	3926.42	4020.31
Depreciation	33.89	232.34	251.48
<b>Interest on Loan</b>			
Gross Normative Loan	2421.08	2970.02	3190.46
Cumulative Repayment upto Previous Year	0.00	33.89	266.23
Net Loan-Opening	2421.08	2936.13	2924.23
Additional Capitalization	548.94	220.44	287.02
Repayment during the year	33.89	232.34	251.48
Net Loan-Closing	2936.13	2924.23	2959.78
Average Loan	2678.60	2930.18	2942.00
Weighted Average Rate of Interest on Loan(%)	8.8932	8.8986	8.9347
Interest	39.70	260.75	262.86
<b>Return on Equity</b>			
Opening Equity	1037.60	1272.86	1367.34
Additional Capitalization	235.26	94.48	123.01
Closing Equity	1272.86	1367.34	1490.35
Average Equity	1155.23	1320.10	1428.85
Return on Equity (Base Rate) (%)	15.50	15.50	15.50
MAT rate for the 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)	37.31	255.80	280.20
<b>Interest on Working Capital</b>			
Maintenance Spares	24.60	26.00	27.49
O & M expenses	13.67	14.45	15.27
Receivables	141.75	157.59	167.08
Total	180.01	198.04	209.84
Interest	3.53	23.27	24.66



Particulars	2011-12 (pro-rata)	2012-13	2013-14
<b>Annual Transmission Charges</b>			
Depreciation	33.89	232.34	251.48
Interest on Loan	39.70	260.75	262.86
Return on Equity	37.31	255.80	280.20
Interest on Working Capital	3.53	23.27	24.66
O & M Expenses	27.33	173.36	183.28
<b>Total</b>	<b>141.75</b>	<b>945.51</b>	<b>1002.47</b>

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

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	271.11	279.29	279.29	279.29	279.29
Interest on Loan	263.40	248.54	223.51	198.46	173.42
Return on Equity	302.07	311.18	311.18	311.18	311.18
Interest on Working Capital	28.58	28.95	28.69	28.45	28.21
O&M Expenses	168.84	174.44	180.24	186.22	192.40
<b>Total</b>	<b>1034.00</b>	<b>1042.40</b>	<b>1022.91</b>	<b>1003.60</b>	<b>984.50</b>

42. 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	25.33	26.17	27.04	27.93	28.86
O & M Expenses	14.07	14.54	15.02	15.52	16.03
Receivables	172.33	173.73	170.49	167.27	164.08
Total	211.73	214.44	212.55	210.72	208.97
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>28.58</b>	<b>28.95</b>	<b>28.69</b>	<b>28.45</b>	<b>28.21</b>



## **Capital Cost**

43. 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.”

44. The petitioner has claimed capital cost of ₹4979.87 lakh as on 31.3.2014 and additional capitalization of ₹309.72 lakh for the 2014-19 tariff period. We have considered capital cost of ₹4967.83 lakh as on 31.3.2014 for the tariff determination for the 2014-19 tariff period.

## **Additional Capital Expenditure**

45. The petitioner has proposed additional capitalization of ₹309.72 lakh for the 2014-19 tariff period towards balance and retention payment under Clause 14(1)(i) of 2014 Tariff Regulations. With regard to balance and retention payment the Commission sought the amount of the balance and retention payment yet to be made along with the details of the contract for which the payment has been retained along with the amount retained. In response, the petitioner vide affidavit dated 12.2.2016 has submitted the contractor wise details of balance and retention payment to be made during 2014-15. It is observed that total estimated



completion cost of ₹5277.55 lakh including the additional capitalization of ₹309.72 lakh is within the approved apportioned cost of ₹6137.47 lakh. We have considered the submissions of the petitioner and have accordingly allowed additional capitalization of ₹309.72 lakh under Regulation 14(1)(i) of 2014 Tariff Regulations.

<b>Cost as per revised Investment Approval is ₹6137.47 lakh</b>								
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	4967.83	309.72	0.00	0.00	0.00	0.00	309.72	5277.55

### **Debt:Equity Ratio**

46. 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.”

47. 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. Further, we have considered debt:equity ratio of 70:30 for additional capitalization during 2014-15. The details of the debt:equity as on 1.4.2014 and 31.3.2019 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-



(₹ in lakh)

Asset	As on 1.4.2014		Additional capitalization during 2014-15		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	3477.48	70.00	216.80	70.00	3694.28	70.00
Equity	1490.35	30.00	92.92	30.00	1583.27	30.00
<b>Total</b>	<b>4967.83</b>	<b>100.00</b>	<b>309.72</b>	<b>100.00</b>	<b>5277.55</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

48. 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.”

49. We have considered the weighted average rate of IOL 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	3477.48	3694.28	3694.28	3694.28	3694.28
Cumulative Repayment upto previous year	517.70	788.18	1066.83	1345.49	1624.14
Net Loan-Opening	2959.78	2906.10	2627.44	2348.79	2070.13
Additions during the year	216.80	0.00	0.00	0.00	0.00
Repayment during the year	270.48	278.65	278.65	278.65	278.65
Net Loan-Closing	2906.10	2627.44	2348.79	2070.13	1791.48
Average Loan	2932.94	2766.77	2488.12	2209.46	1930.81
Rate of Interest (%)	8.9601	8.9633	8.9633	8.9627	8.9619
<b>Interest</b>	<b>262.79</b>	<b>247.99</b>	<b>223.02</b>	<b>198.03</b>	<b>173.04</b>

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

50. 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:

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

Where "t" is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess."

51. The petitioner has submitted ROE at the rate of 20.961% after grossing up the ROE of 15.5% 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.

52. 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.

53. 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 is given below:-





(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1490.35	1583.27	1583.27	1583.27	1583.27
Additional Capitalization	92.92	0.00	0.00	0.00	0.00
Closing Equity	1583.27	1583.27	1583.27	1583.27	1583.27
Average Equity	1536.81	1583.27	1583.27	1583.27	1583.27
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>301.37</b>	<b>310.48</b>	<b>310.48</b>	<b>310.48</b>	<b>310.48</b>

### Depreciation

54. 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."



55. The petitioner has computed depreciation considering capital expenditure of ₹4979.87 lakh as on 31.3.2014 with additional capitalization of ₹309.72 lakh for the 2014-19 tariff period.

56. We have computed depreciation considering capital expenditure of ₹4967.83 lakh as on 31.3.2014 and additional capitalization of ₹309.72 lakh for 2014-15. 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	4967.83	5277.55	5277.55	5277.55	5277.55
Additional Capitalization	309.72	0.00	0.00	0.00	0.00
Closing Gross block	5277.55	5277.55	5277.55	5277.55	5277.55
Average Gross block	5122.69	5277.55	5277.55	5277.55	5277.55
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	4610.42	4749.80	4749.80	4749.80	4749.80
Elapsed Life of the assets at beginning of the year	3	4	5	6	7
Weighted Balance Useful life of the assets	22	21	20	19	18
Remaining Depreciable Value	4092.72	3961.62	3682.96	3404.31	3125.65
<b>Depreciation</b>	<b>270.48</b>	<b>278.65</b>	<b>278.65</b>	<b>278.65</b>	<b>278.65</b>

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

57. 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 specified in Regulation 19(g) of the 2009 Tariff Regulations. Accordingly, the petitioner’s entitlement to O&M Expenses has been worked out as given hereunder:-



Particulars( <b>Asset-A</b> )	2014-15	2015-16	2016-17	2017-18	2018-19
<b>O&amp;M Expense</b>					
<b>Norm (₹lakh/bay)</b>					
765 kV	84.42	87.22	90.12	93.11	96.20
Number of Bays					
765 kV	2	2	2	2	2
<b>Total O&amp;M Expense (Bay) (₹lakh)</b>	<b>168.84</b>	<b>174.44</b>	<b>180.24</b>	<b>186.22</b>	<b>192.40</b>

58. 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 is due during the 2014-19 tariff period 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.

59. 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, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

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

Particulars	Year				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Allowed</b>	<b>168.84</b>	<b>174.44</b>	<b>180.24</b>	<b>186.22</b>	<b>192.40</b>



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

61. 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;”

62. 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 is considered as 13.50%.

63. 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	25.33	26.17	27.04	27.93	28.86
O & M expenses	14.07	14.54	15.02	15.52	16.03
Receivables	172.00	173.41	170.17	166.96	163.79
Total	211.40	214.12	212.23	210.42	208.68
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>28.54</b>	<b>28.91</b>	<b>28.65</b>	<b>28.41</b>	<b>28.17</b>



## Annual Transmission Charges

64. 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	4967.83	5277.55	5277.55	5277.55	5277.55
Additional Capitalization	309.72	0.00	0.00	0.00	0.00
Closing Gross Block	5277.55	5277.55	5277.55	5277.55	5277.55
Average Gross Block	5122.69	5277.55	5277.55	5277.55	5277.55
<b>Depreciation</b>					
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	4610.42	4749.80	4749.80	4749.80	4749.80
Elapsed Life of the assets at beginning of the year	3	4	5	6	7
Weighted Balance Useful life of the assets	22	21	20	19	18
Remaining Depreciable Value	4092.72	3961.62	3682.96	3404.31	3125.65
Depreciation	270.48	278.65	278.65	278.65	278.65
<b>Interest on Loan</b>					
Gross Normative Loan	3477.48	3694.28	3694.28	3694.28	3694.28
Cumulative Repayment upto Previous Year	517.70	788.18	1066.83	1345.49	1624.14
Net Loan-Opening	2959.78	2906.10	2627.44	2348.79	2070.13
Additions	216.80	0.00	0.00	0.00	0.00
Repayment during the year	270.48	278.65	278.65	278.65	278.65
Net Loan-Closing	2906.10	2627.44	2348.79	2070.13	1791.48
Average Loan	2932.94	2766.77	2488.12	2209.46	1930.81
Weighted Average Rate of Interest on Loan (%)	8.9601	8.9633	8.9633	8.9627	8.9619
Interest	262.79	247.99	223.02	198.03	173.04
<b>Return on Equity</b>					
Opening Equity	1490.35	1583.27	1583.27	1583.27	1583.27
Additions	92.92	0.00	0.00	0.00	0.00
Closing Equity	1583.27	1583.27	1583.27	1583.27	1583.27
Average Equity	1536.81	1583.27	1583.27	1583.27	1583.27
Return on Equity (Base Rate)	15.50	15.50	15.50	15.50	15.50



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(%)					
MAT Rate for the year 2013-14(%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	301.37	310.48	310.48	310.48	310.48
<b>Interest on Working Capital</b>					
Maintenance Spares	25.33	26.17	27.04	27.93	28.86
O & M expenses	14.07	14.54	15.02	15.52	16.03
Receivables	172.00	173.41	170.17	166.96	163.79
Total	211.40	214.12	212.23	210.42	208.68
Interest	28.54	28.91	28.65	28.41	28.17
<b>Annual Transmission Charges</b>					
Depreciation	270.48	278.65	278.65	278.65	278.65
Interest on Loan	262.79	247.99	223.02	198.03	173.04
Return on Equity	301.37	310.48	310.48	310.48	310.48
Interest on Working Capital	28.54	28.91	28.65	28.41	28.17
O & M Expenses	168.84	174.44	180.24	186.22	192.40
<b>Total</b>	<b>1032.02</b>	<b>1040.48</b>	<b>1021.04</b>	<b>1001.79</b>	<b>982.74</b>

### **Deferred Tax Liability**

65. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. However, the COD of the asset is beyond 1.4.2009, hence the claim of the petitioner is not maintainable.

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

66. 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**

67. 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**

68. 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 of Service Tax is premature.

### **Sharing of Transmission Charges**

69. 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.

70. This order disposes of Petition No. 151/TT/2015.

Sd/-  
**(Dr. M. K. Iyer)**  
Member

Sd/-  
**(A.S. Bakshi)**  
Member



**ANNEXURE-I****DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2009-14**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXIV-DOCO Loan 1	9.95%	48.00	0.00	48.00
BOND XXVII-DOCO Loan 2	9.47%	189.00	0.00	189.00
BOND XXVIII-DOCO Loan 3	9.33%	77.00	0.00	77.00
BOND XXIX-DOCO Loan 4	9.20%	66.00	0.00	66.00
BOND XXX-DOCO Loan 5	8.80%	15.00	0.00	15.00
BOND-XXXI-DOCO Loan 6	8.90%	299.54	0.00	299.54
BOND-XXXIII-DOCO Loan 7	8.64%	484.00	0.00	484.00
BOND XXXIV-ADDCAP FOR 2011-2012 ADD CAP Loan 1	8.84%	0.00	548.94	548.94
BOND XXXIV-ADDCAP FOR 2012-2013 ADD CAP Loan 2	0.00%	0.00	0.00	0.00
BOND-XXXIV-DOCO Loan 8	8.84%	1251.00	0.00	1251.00
BOND XXXV-ADDCAP FOR 2012-2013 ADD CAP Loan 3	0.00%	0.00	0.00	0.00
BOND XXXV-ADDCAP FOR 2013-2014 ADD CAP Loan 4	0.00%	0.00	0.00	0.00
BOND XXXVI-ADDCAP FOR 2013-2014 ADD CAP Loan 5	0.00%	0.00	0.00	0.00
<b>Total</b>		<b>2429.54</b>	<b>548.94</b>	<b>1727.48</b>

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

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Gross Opening Loan	2429.54	2978.48	3198.92
Cumulative Repayments of Loans upto Previous Year	4.00	23.75	55.42
Net Loans Opening	2425.54	2954.73	3143.50
Add: Drawal(s) during the year	548.94	220.44	287.02
Less: Repayment(s) of Loan during the year	19.75	31.67	57.88
Net Closing Loan	2954.73	3143.50	3372.64
Average Net Loan	2690.14	3049.12	3258.07
Rate of Interest on Loan (%)	8.8932%	8.8986%	8.9347%
Interest on Loan	239.24	271.33	291.10





**ANNEXURE-II****DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19**

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXIV-DOCO Loan 1	9.95%	48.00	0.00	48.00
BOND XXVII-DOCO Loan 2	9.47%	189.00	0.00	189.00
BOND XXVIII-DOCO Loan 3	9.33%	77.00	0.00	77.00
BOND XXIX-DOCO Loan 4	9.20%	66.00	0.00	66.00
BOND XXX-DOCO Loan 5	8.80%	15.00	0.00	15.00
BOND-XXXI-DOCO Loan 6	8.90%	299.54	0.00	299.54
BOND-XXXIII-DOCO Loan 7	8.64%	484.00	0.00	484.00
BOND XXXIV-ADDCAP FOR 2011-2012 ADD CAP Loan 1	8.84%	548.94	0.00	548.94
BOND XXXIV-ADDCAP FOR 2012-2013 ADD CAP Loan 2	8.84%	89.36	0.00	89.36
BOND-XXXIV-DOCO Loan 8	8.84%	1251.00	0.00	1251.00
BOND XXXV-ADDCAP FOR 2012-2013 ADD CAP Loan 3	9.64%	131.08	0.00	131.08
BOND XXXV-ADDCAP FOR 2013-2014 ADD CAP Loan 4	9.64%	171.06	0.00	171.06
BOND XXXVI-ADDCAP FOR 2013-2014 ADD CAP Loan 5	9.35%	115.96	0.00	115.96
Total		3485.94	0.00	1727.48

**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	3485.94	3485.94	3485.94	3485.94	3485.94
Cummulative Repayment of loan upto previous year	113.29	368.95	649.79	938.36	1226.93
Net Loan Opening	3372.65	3116.99	2836.15	2547.58	2259.01
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	255.66	280.84	288.57	288.57	288.57
Net Loan Closing	3116.99	2836.15	2547.58	2259.01	1970.44
Average Loan	3244.82	2976.57	2691.87	2403.30	2114.73
Rate of Interest	8.9601%	8.9633%	8.9633%	8.9627%	8.9619%
Interest	290.74	266.80	241.28	215.40	189.52

