

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO. 21/TT/2015**

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

**Date of Hearing : 08.02.2016**  
**Date of Order : 18.03.2016**

**In the Matter of:**

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 and determination of transmission tariff for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 for Combined Assets under East-West Transmission Corridor Strengthening Scheme in Western Region and 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-122001 (Haryana)

**.....Petitioner**

**Versus**

1. Madhya Pradesh Power Trading Company Ltd.  
Shakti Bhawan, Rampur  
Jabalpur - 482 008
2. Maharashtra State Electricity Distribution Co. Ltd.  
Prakashgad, 4th Floor  
Andheri (East), Mumbai - 400 052
3. Gujarat Urja Vikas Nigam Ltd.  
Sardar Patel Vidyut Bhawan,  
Race Course Road  
Vadodara - 390 007
4. Electricity Department Govt. Of Goa



Vidyut Bhawan, Panaji,  
Ner Mandvi Hotel, Goa - 403 001

5. Electricity Department  
Administration Of Daman & Diu  
Daman - 396 210
6. Electricity Department  
Administration Of Dadra Nagar Haveli  
U.T., Silvassa - 396 230
7. Chhattisgarh State Electricity Board  
P.O.Sunder Nagar, Dangania, Raipur  
Chhatisgaarh-492013
8. Madhya Pradesh Audyogik Kendra  
Vikas Nigam (Indore) Ltd.  
3/54, Press Complex, Agra-Bombay Road,  
Indore-452 008

....Respondent(s)

The following were present:

For Petitioner:        Shri Mohd. Mohsin, PGCIL  
                              Smt. Sonam Gangwar, PGCIL  
                              Shri S.S. Raju, PGCIL  
                              Shri A. M. Pavgi, PGCIL  
                              Shri Pankaj Sharma, PGCIL  
                              Shri S. K. Venkatesan, PGCIL  
                              Shri M.M. Mondal, PGCIL  
                              Shri Rakesh Prasad, PGCIL  
                              Shri Subhash C. Taneja, PGCIL  
                              Shri Jasbir Singh, PGCIL

For Respondents: None

### **ORDER**

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”), a transmission licensee, for revision of tariff 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 truing up of 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 in respect of for Combined Assets under East-West Transmission Corridor Strengthening Scheme in Western Region (referred to as “the transmission assets”).

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

3. The transmission assets covered in the instant petition are follows:

<b>Assets</b>	<b>Description</b>	<b>COD</b>
Asset 1	400 kV D/C Raigarh-Raipur Transmission Line along with associated bays (hereinafter referred to as Asset 1)	1.10.2010
Asset 2	400 kV D/C Ranchi-Rourkela Transmission Line and Extension of Ranchi S/S (hereinafter referred to as Asset 2)	1.12.2010
Asset 3	Provision of 40% Fixed Series Compensation package at Raipur S/S (hereinafter referred to as Asset 3)	1.4.2011
Asset 4	400 kV D/C Rourkela-Raigarh Transmission Line and associated bays at Raigarh and Rourkela (hereinafter referred to as Asset 4)	1.7.2011

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

a) The investment approval for the transmission asset was accorded by Government of India, Ministry of Power vide its Letter No. 23.6.2006 at an estimated cost of ₹80370 lakh, which included IDC of ₹3695 lakh, based on 4<sup>th</sup> Quarter 2005 price level. East-West transmission corridor strengthening scheme has been agreed by all the constituents of Western Region during the 124<sup>th</sup> Western Regional Electricity Board meeting held on 9.7.2004 for inclusion in the existing BPTA dated 31.3.1999 of Western Region.

b) The capital cost and debt: equity ratio was considered vide order dated 19.5.2014 in Petition No. 284/2010 admitted the following capital cost as on COD:-

Capital cost admitted as on COD	Amount (₹ in lakh)	Percentage (%)
<b>Asset 1</b>		
Debt	14688.82	70.00
Equity	6295.21	30.00
<b>Total</b>	<b>20984.03</b>	<b>100.00</b>
<b>Combined Assets 1 &amp; 2</b>		
Debt	26120.81	70.00
Equity	11194.63	30.00
<b>Total</b>	<b>37315.44</b>	<b>100.00</b>
<b>Combined Assets 1, 2 &amp; 3</b>		
Debt	28265.67	70.00
Equity	12113.86	30.00
<b>Total</b>	<b>40379.53</b>	<b>100.00</b>
<b>Combined Assets 1, 2, 3 &amp; 4</b>		
Debt	45612.92	70.00
Equity	19548.35	30.00
<b>Total</b>	<b>65161.27</b>	<b>100.00</b>

c) The Commission in its order dated 19.5.2014 in Petition No. 284/2010 had disallowed an IDC & IEDC amount of ₹217.72 lakh from Asset 1 on account of time overrun of 15 months out of which the Commission had condoned delay of 11 months. Further the Commission in its order dated 9.5.2013 in Petition No. 103/TT/2011 had disallowed IDC & IEDC of ₹29.56 lakh in Asset 3 on account of time overrun of 10 (ten) months out of which the Commission had condoned the delay of 1 (one) month

d) The Commission, in its order dated 19.5.2014 in Petition No. 284/2010, had allowed the following additional capital expenditure for the 2009-14 tariff period:-

<b>Additional Capital Expenditure during 2009-14 (₹ in lakh)</b>			
<b>Assets</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
Asset 1	277.52	2730.70	28.82
Asset 2	311.66	524.08	19.00
Asset 3	0.00	419.81	402.45
Asset 4	0.00	1226.29	750.00

e) The transmission tariff allowed by the Commission in the order dated 19.5.2014 in Petition No. 284/2010 is depicted below:-

(₹ in lakh)

<b>Asset 1</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Depreciation	185.39
Interest on Loan	127.31
Return on Equity	184.62
Interest on Working Capital	12.04
O & M Expenses	61.34
<b>Total</b>	<b>570.69</b>

(₹ in lakh)

<b>Combined Assets 1 &amp; 2</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Depreciation	660.99
Interest on Loan	449.33
Return on Equity	657.34
Interest on Working Capital	43.26
O & M Expenses	228.58
<b>Total</b>	<b>2039.51</b>

(₹ in lakh)

<b>Combined Assets 1, 2 &amp; 3</b>	
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>
Depreciation	556.64
Interest on Loan	358.25
Return on Equity	553.49
Interest on Working Capital	36.71
O & M Expenses	153.96
<b>Total</b>	<b>1,659.06</b>

(₹ in lakh)

<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	2661.24	3691.69	3723.38
Interest on Loan	1683.71	2149.59	1933.07
Return on Equity	2646.13	3670.58	3702.05
Interest on Working Capital	183.64	252.01	252.48
O & M Expenses	917.72	1293.57	1367.33
<b>Total</b>	<b>8092.44</b>	<b>11057.44</b>	<b>10978.31</b>

5. As per Regulation 6 of the 2009 Tariff Regulations, the Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up. Further, as per Regulation 15 of the 2009 Tariff Regulations, the petitioner is required to adjust the yearly impact of MAT rate in the truing up petition for 2009-14 tariff period.

6. In this context, the petitioner has filed the instant petition on 20.12.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

7. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act 2003. No comments/objections have been received from the public in response to the notice in newspaper. No submissions have been made by the respondents. The hearing in this matter was held on 8.2.2016.



8. The Commission had directed the petitioner vide its letter dated 16.1.2016 to submit the details of the FERV, undertaking/certificate depicting the actual equity infused during the tariff period 2009-14 and 2014-19 and details of un-discharged liabilities, if any, to be recovered in future with respect of the assets covered in the instant petition .Futher also directed to submit whether the work is complete or not, along with details of the balance / retention payments claimed during 2009-14 tariff period. The petitioner in response to the Commission’s direction has submitted its reply vide affidavit dated 29.2.2016.

9. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

10. 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”.

11. The petitioner has claimed the tariff for Asset 1, Combined Assets 1 & 2, Combined Assets 1, 2 & 3 and Combined Assets 1, 2, 3 & 4 for the following period:

<b>Assets</b>	<b>Tariff claimed for the period</b>
Asset 1	1.10.2010 to 30.11.2010
Combined Assets 1 & 2	1.12.2010 to 31.3.2011
Combined Assets 1, 2 & 3	1.4.2011 to 30.6.2011
Combined Assets 1, 2, 3 & 4	1.7.2011 onwards



12. 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**

13. The capital cost as on COD claimed the petitioner for the purpose of tariff determination is as follows:-

<b>Assets</b>	<b>Capital cost (₹ in lakh)</b>
Asset 1	20984.06
Combined Assets 1 & 2	37315.49
Combined Assets 1, 2 & 3	40380.80
Combined Assets 1, 2, 3 & 4	65162.53

14. The last proviso to Regulation 7(2) of the 2009 Tariff Regulations provides that:-

“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff”.

15. We have considered the submissions of the petitioner with regard to the capital cost. The capital cost for the transmission assets admitted as on COD have been worked out in the subsequent paragraphs after the treatment of the IEDC/IDC and initial spares.

### **IDC and IEDC**

16. There was a delay of 15 months in commissioning of Asset 1 and the Commission condoned the delay of 8 months as it was attributed to issues related to funding and the remaining 7 months was not condoned. The Commission in its order dated 8.6.2011 in



Petition No. 284/2010 had disallowed the IDC & IEDC for 7 (seven) months in Asset 1 amounting to ₹754.28 lakh.

17. Subsequently, the petitioner had filed an appeal against the Commission's refusal to condone a portion of the delay in commissioning and consequent disallowance of IDC & IEDC. The Hon'ble Appellate Tribunal for Electricity vide its judgment dated 27.4.2012 in Appeal No.134/2011, upheld the decision of the Commission disallowing IDC and IEDC for four months out of the total seven months and remanded the matter to the Commission for considering the explanation given by the petitioner for the delay of the remaining three months. Thus in light of the APTEL's judgement the Commission has revised its order dated 8.6.2011 vide order dated 19.5.2014 and has disallowed the IDC and IEDC only for four months amounting the ₹217.72 lakh in Asset 1.

18. The Commission in its order dated 9.5.2013 in Petition No. 103/TT/2011 had disallowed IDC & IEDC of ₹29.56 lakh in Asset 3 on account of time overrun of 10 (ten) months out of which the Commission had condoned the delay of 1 (one) month.

19. There was a delay of 24 months in the commissioning of Asset 4, which was condoned by the Commission in its order dated 9.5.2013 in Petition No. 103/TT/2011.

20. Thus in line with the Commission's ruling in the orders dated 19.5.2014 and 9.5.2013 in Petition Nos. 284/2010 and 103/TT/2011, the capital cost allowed as on COD after disallowing the IDC/IEDC is as follows:

Assets	Capital cost claimed	IDC/IEDC disallowed	(₹ in lakh)
			Capital cost after disallowing IEDC/IDC
Asset 1	21308.44	217.72	21090.72
Asset 2	16376.54	-	16376.54
Asset 3	2595.74	29.56	2566.18
Asset 4	24111.34	-	24111.34

## Treatment of Initial Spares

21. The initial spares claimed by the petitioner in respect of the transmission assets are as follows:-

Assets	Amount (₹ in lakh)
Asset 1	178.85
Asset 2	79.98
Asset 3	163.30
Asset 4	46.29

22. We have considered the claim of the petitioner for initial spares for the transmission assets. Further the claim of initial spares is being proportioned in line with the disallowance of IEDC/IDC made in the capital cost of the transmission assets. The initial spares worked out are as follows:-

(₹ in lakh)

Asset 1			
Particulars	Formula	Amount in (₹ in lakh)	
		Sub Station	Transmission Line
Capital cost as on cut off date	(a)	24345.18	
Capital Cost after deducting excess IDC	(b)	24127.46	
Capital cost for computing initial spares	(c)	2836.83	
Initial Spares claimed	(d)	178.85	-
Proportionate Initial Spares claimed after deducting IDC	$(e) = (d)/(a)*(b)$	177.25	-
Ceiling limit as per Regulation 8 of 2009 regulations	(f)	2.50%	-
Initial spares worked out	$(g) = ((c-d)*e)/(100\%-e)$	68.19	-
Excess initial spares claimed	$(h) = (e)-(g)$	109.06	-

(₹ in lakh)

Asset 2			
Particulars	Formula	Amount in (₹ in lakh)	
		Sub Station	Transmission Line
Capital cost as on cut off date	(a)	17248.56	
Capital Cost after deducting excess IDC	(b)	17248.56	
Capital cost for computing initial spares	(c)	851.13	
Initial Spares claimed	(d)	79.98	-
Proportionate Initial Spares claimed after deducting IDC	$(e) = (d)/(a)*(b)$	79.98	-
Ceiling limit as per Regulation 8 of 2009 regulations	(f)	2.50%	-
Initial spares worked out	$(g) = ((c-d)*e)/(100\%-e)$	19.77	-
Excess initial spares claimed	$(h)=(e)-(g)$	60.21	-

(₹ in lakh)

Asset 3			
Particulars	Formula	Amount in (₹ in lakh)	
		Sub Station	Transmission Line
Capital cost as on cut off date	(a)	3459.47	
Capital Cost after deducting excess IDC	(b)	3429.91	
Capital cost for computing initial spares	(c)	3429.91	
Initial Spares claimed	(d)	163.30	-
Proportionate Initial Spares claimed after deducting IDC	$(e) = (d)/(a)*(b)$	161.90	-
Ceiling limit as per Regulation 8 of 2009 regulations	(f)	2.50%	-
Initial spares worked out	$(g) = ((c-d)*e)/(100\%-e)$	83.80	-
Excess initial spares claimed	$(h)=(e)-(g)$	78.11	-

23. The initial spares claimed for Asset 4 are within the normative limit. The capital cost as on COD allowed after deducting the excess initial spares and considered for computation of tariff are as follows:-



(₹ in lakh)

Assets	Capital cost after disallowing IEDC/IDC	Excess initial spares disallowed	Capital cost allowed as on COD
Asset 1	21090.72	109.06	20981.66
Asset 2	16376.54	60.21	16316.33
Asset 3	2566.18	78.11	2488.07
Asset 4	24111.34	-	24111.34

### Additional Capital Expenditure

24. Regulation 6(1) of the 2009 Regulations provides that:-

“The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014”

25. The additional capital expenditure approved by the Commission in its order dated 19.5.2014 in Petition No. 284/2010 and that claimed by the petitioner are depicted below:-

(₹ in lakh)

Assets	Approved / Claimed	Capital cost as on COD	Additional Capital expenditure					Capital as on 31.3.2014	
			2009-10	2010-11	2011-12	2012-13	2013-14		Total
Asset 1	Approved in order in Petition No. 284/2010	20984.03	-	277.52	2730.70	28.82	-	3037.04	24021.07
	Claimed by petitioner	20984.06	-	277.52	2730.70	28.52	36.91	3073.65	24057.71
Asset 2	Approved in order in Petition No. 284/2010	37315.44	-	311.66	524.08	19.00	-	854.74	38170.18
	Claimed by petitioner	37315.49	-	311.66	524.08	36.28	-	872.02	38187.51
Asset 3	Approved in order in Petition No. 284/2010	40379.53	-	-	419.81	402.45	-	822.26	41201.79
	Claimed by petitioner	40380.80	-	-	419.81	299.24	144.68	863.73	41244.53
Asset 4	Approved in order in Petition No. 284/2010	65161.27	-	-	1226.29	750.00	-	1976.29	67137.56
	Claimed by petitioner	65162.53	-	-	1226.29	62.33	253.78	1542.40	66704.93

26. The petitioner has submitted the Auditor's Certificates dated 5.9.2014, 6.8.2014 and 25.8.2014 certifying the actual capital cost incurred towards additional capitalization. The petitioner has submitted the additional capital expenditure during 2009-14 tariff period is on account of balance and retention payments towards the transmission assets. The petitioner has claimed the actual additional capital expenditure during 2009-14 period under the provision of Regulation 9(1) and 9(2) of the 2009 Tariff Regulations.

27. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14 tariff period. The capital addition claimed by the petitioner is based on actual capital expenditure incurred as per the Auditor Certificates dated 5.9.2014, 6.8.2014 and 25.8.2014 and is within the original scope of work. The additional capital expenditure claimed by the petitioner towards balance and retention payments is allowed for truing up under Regulation 9(1)(i) and 9 (2)(viii) of 2009 Tariff Regulations.

28. The additional capital expenditure allowed during 2009-14 tariff period for truing up is as follows:-

(₹ in lakh)

Assets	Capital cost as on COD	Additional Capital expenditure						Capital as on 31.3.2014
		2009-10	2010-11	2011-12	2012-13	2013-14	Total	
Asset 1	20981.66	0.00	277.52	2730.70	28.52	36.91	3073.65	24055.31
Asset 2	16316.33	0.00	311.66	524.08	36.28	0.00	872.02	17188.35
Asset 3	2488.07	0.00	0.00	419.81	299.24	144.68	863.73	3351.80
Asset 4	24111.34	0.00	0.00	1226.29	62.33	253.78	1542.40	25653.74

The above assets have been combined by segregating additional capital expenditure as under:

(₹ in lakh)

Assets	Capital cost as on COD	Additional Capital expenditure							Capital as on 31.3.2014
		2010-11		2011-12		2012-13	2013-14	Total	
		1.10.2010 to 30.11.2010	1.12.2010 to 31.3.2011	1.4.2011 to 30.6.2011	1.7.2011 to 31.3.2012				
Asset 1	20981.66	13.60	-	-	-	-	-	-	-
Combine d Assets 1 & 2	37311.60		575.58	-	-	-	-	-	-
Combine d Assets 1, 2 & 3	40375.25			670.39	-	-	-	-	-
Combine d Assets 1, 2, 3 & 4	65156.98				4230.49	426.37	435.37	5092.23	70249.21

29. The debt:equity ratio of 70:30 for additional capital expenditure as claimed by the petitioner is in accordance with the Regulation 12 (3) of the 2009 Tariff Regulations and hence, same has been considered towards financing of the additional capital expenditure.

### **Debt: Equity**

30. Regulation 12 of the 2009 Tariff Regulations provides as under:-

“12. Debt-Equity Ratio. (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:

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(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.”

31. The admitted debt: equity ratio of 70.00:30.00 as on COD was considered by the Commission in order dated 19.5.2014 in Petition No. 284/2010 in line with the Regulation 12 of the 2009 Tariff Regulations. In respect of the additional capitalization, debt: equity ratio of 70:30 has been considered in line with the 2009 Tariff Regulations.

32. The details of the debt: equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

(₹ in lakh)

Accounting	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
<b>Asset 1</b>						
Debt	14687.16	70.00	2151.56	70.00	16838.72	70.00
Equity	6294.50	30.00	922.10	30.00	7216.59	30.00
<b>Total</b>	<b>20981.66</b>	<b>100.00</b>	<b>3073.65</b>	<b>100.00</b>	<b>24055.31</b>	<b>100.00</b>
<b>Asset 2</b>						
Debt	11421.43	70.00	610.41	70.00	12031.85	70.00
Equity	4894.90	30.00	261.61	30.00	5156.51	30.00
<b>Total</b>	<b>16316.33</b>	<b>100.00</b>	<b>872.02</b>	<b>100.00</b>	<b>17188.35</b>	<b>100.00</b>
<b>Asset 3</b>						
Debt	1741.65	70.00	604.61	70.00	2346.26	70.00
Equity	746.42	30.00	259.12	30.00	1005.54	30.00
<b>Total</b>	<b>2488.07</b>	<b>100.00</b>	<b>863.73</b>	<b>100.00</b>	<b>3351.80</b>	<b>100.00</b>
<b>Asset 4</b>						
Debt	16877.94	70.00	1079.68	70.00	17957.62	70.00
Equity	7233.40	30.00	462.72	30.00	7696.12	30.00
<b>Total</b>	<b>24111.34</b>	<b>100.00</b>	<b>1542.40</b>	<b>100.00</b>	<b>25653.74</b>	<b>100.00</b>

## **Return on Equity (“ROE”)**

33. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provide that

“(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

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

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

(5) The generating company or the transmission licensee, as the case 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.”

34. The variation in the tax rate during the 2009-14 tariff period applicable to the petitioner as per the Finance Act of the relevant year for the purpose of grossing up of return on equity (ROE) has been furnished as follows:-

<b>Year</b>	<b>MAT Rate claimed in the current petition</b>	<b>Grossed up ROE (Base Rate/(1-t)) claimed in the current petition</b>
2009-10	16.995%	18.674%
2010-11	19.931%	19.358%
2011-12	20.008%	19.377%
2012-13	20.008%	19.377%
2013-14	20.961%	19.610%

35. The petitioner has claimed the additional capital expenditure in the debt:equity ratio of 70:30, which is in line with Regulation 12 of the 2009 Tariff Regulations.



36. The ROE as trued up and allowed is as follows:-

(₹ in lakh)

<b>Asset 1</b>	
<b>Return on Equity</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	184.62
Claimed by the petitioner	204.42
Allowed after true up in this order	203.15

(₹ in lakh)

<b>Combined Assets 1 &amp; 2</b>	
<b>Return on Equity</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	657.34
Claimed by the petitioner	727.88
Allowed after true up in this order	727.86

(₹ in lakh)

<b>Combined Assets 1, 2 &amp; 3</b>	
<b>Return on Equity</b>	<b>2011-12 (pro-rata)</b>
As approved vide Order dated 19.5.2014	553.49
Claimed by the petitioner	613.51
Allowed after true up in this order	591.63

(₹ in lakh)

<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>Return on Equity</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 19.5.2014	2646.13	3670.58	3702.05
Claimed by the petitioner	2933.19	4046.28	4120.28
Allowed after true up in this order	2932.94	4045.94	4120.05

The difference in the approved ROE and that allowed after truing up is on account of actual grossed up ROE based on actual MAT rate.



## **Interest on Loan (“IoL”)**

37. Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of IoL. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 has dealt with similar issue and 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”.

38. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, the IoL has been calculated based on actual interest rate submitted by the petitioner, in accordance with the Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest is placed in Annexure-1. The IoL worked out is as follows:-

(₹ in lakh)

<b>Asset 1</b>	
<b>Interest on Loan</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	127.31
Claimed by the petitioner	129.60
Allowed after true up in this order	128.72

(₹ in lakh)

<b>Combined Assets 1 &amp; 2</b>	
<b>Interest on Loan</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	449.33
Claimed by the petitioner	448.68
Allowed after true up in this order	448.64

(₹ in lakh)

<b>Combined Assets 1, 2 &amp; 3</b>	
<b>Interest on Loan</b>	<b>2011-12 (pro-rata)</b>
As approved vide Order dated 19.5.2014	358.25
Claimed by the petitioner	368.74
Allowed after true up in this order	355.31

(₹ in lakh)

<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>Interest on Loan</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 19.5.2014	1683.71	2149.59	1933.07
Claimed by the petitioner	1706.52	2183.79	1900.11
Allowed after true up in this order	1708.00	2184.70	1900.93

The difference in the approved IoL and that allowed after truing up is on account of change in the weighted average rate of interest which is computed based on actual loan portfolio and rate of interest.

### **Depreciation**

39. The depreciation has been worked out as per the methodology provided in the Regulation 17 of the 2009 Tariff Regulations. The depreciation allowed is as follows:-

(₹ in lakh)

<b>Asset 1</b>	
<b>Depreciation</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	185.39
Claimed by the petitioner	185.38
Allowed after true up in this order	184.20

(₹ in lakh)

<b>Combined Assets 1 &amp; 2</b>	
<b>Depreciation</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	660.99
Claimed by the petitioner	660.98
Allowed after true up in this order	660.93

(₹ in lakh)

<b>Combined Assets 1, 2 &amp; 3</b>	
<b>Depreciation</b>	<b>2011-12 (pro-rata)</b>
As approved vide Order dated 19.5.2014	556.64
Claimed by the petitioner	556.66
Allowed after true up in this order	536.76



(₹ in lakh)

<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>Depreciation</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 19.5.2014	2661.24	3691.69	3723.38
Claimed by the petitioner	2661.27	3671.29	3694.05
Allowed after true up in this order	2661.07	3671.03	3693.78

The difference in the approved depreciation and that allowed after trueing up is on account of change gross block during the 2009-14 tariff period.

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

40. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The normative O&M Expenses are not required to be trueed up. Accordingly, the total allowable O&M expenses for the instant assets have been worked out based on norms of O&M Expenses and the details are as follows:-

(₹ in lakh)

<b>Asset 1</b>	
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	61.34
Claimed by the petitioner	61.34
Allowed after true up in this order	61.34

(₹ in lakh)

<b>Combined Assets 1 &amp; 2</b>	
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	228.58
Claimed by the petitioner	228.58
Allowed after true up in this order	228.58



(₹ in lakh)

<b>Combined Assets 1, 2 &amp; 3</b>	
<b>O&amp;M Expenses</b>	<b>2011-12 (pro-rata)</b>
As approved vide Order dated 19.5.2014	153.96
Claimed by the petitioner	210.53
Allowed after true up in this order	210.53

(₹ in lakh)

<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>O&amp;M Expenses</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 19.5.2014	917.72	1293.57	1367.33
Claimed by the petitioner	917.20	1292.82	1366.53
Allowed after true up in this order	917.20	1292.82	1366.53

**Interest on Working Capital (IWC)**

41. The IWC has been worked out as per the methodology provided in the Regulation 18 of the 2009 Tariff Regulations and allowed as under:-

(₹ in lakh)

<b>Asset 1</b>	
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	12.04
Claimed by the petitioner	12.45
Allowed after true up in this order	12.39

(₹ in lakh)

<b>Combined Assets 1 &amp; 2</b>	
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 19.5.2014	43.26
Claimed by the petitioner	44.56
Allowed after true up in this order	44.56

(₹ in lakh)

<b>Combined Assets 1, 2 &amp; 3</b>	
<b>Interest on Working Capital</b>	<b>2011-12 (pro-rata)</b>
As approved vide Order dated 19.5.2014	36.71
Claimed by the petitioner	40.83
Allowed after true up in this order	39.73



(₹ in lakh)

<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>Interest on Working Capital</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 19.5.2014	183.64	252.01	252.48
Claimed by the petitioner	189.80	259.75	259.55
Allowed after true up in this order	189.82	259.76	259.56

The difference in the approved IWC and that allowed after truing up is on account of change in the receivables during the 2009-14 tariff period.

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

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

(₹ in lakh)

<b>Asset 1</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
<b>Depreciation</b>	
Opening Gross Block	20981.66
Additional Capitalisation	13.60
Closing Gross Block	20995.26
Average Gross Block	20988.46
Rate of Depreciation (%)	5.27
Depreciable Value	18889.62
Balance useful life of the asset	34.00
Elapsed life	0.00
Remaining Depreciable Value	18889.62
Depreciation during the year	184.20
Cumulative depreciation (incl. of AAD)	184.20
<b>Interest on Loan</b>	
Gross Normative Loan	14687.16
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	14687.16
Additions	9.52
Repayment during the year	184.20



<b>Asset 1</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Net Loan-Closing	14512.48
Average Loan	14599.82
Weighted Average Rate of Interest on Loan (%)	5.2898
Interest on Loan	128.72
<b>Return on Equity</b>	
Opening Equity	6294.50
Additions	4.08
Closing Equity	6298.58
Average Equity	6296.54
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	19.931
Rate of Return on Equity (%)	19.358
Return on Equity	203.15
<b>Interest on Working Capital</b>	
O & M Expenses	30.67
Maintenance Spares	55.21
Receivables	589.80
Total Working Capital	675.68
Rate of Interest (%)	11.00
Interest of working capital	12.39
<b>Annual Transmission Charges</b>	
Depreciation	184.20
Interest on Loan	128.72
Return on Equity	203.15
Interest on Working Capital	12.39
O & M Expenses	61.34
<b>Total</b>	<b>589.80</b>

(₹ in lakh)

<b>Combined Assets 1 &amp; 2</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
<b>Depreciation</b>	
Opening Gross Block	37311.60
Additional Capitalisation	575.58
Closing Gross Block	37887.18
Average Gross Block	37599.39
Rate of Depreciation (%)	5.27
Depreciable Value	33839.45
Balance useful life of the asset	34.00



<b>Combined Assets 1 &amp; 2</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Elapsed life	0.00
Remaining Depreciable Value	33655.24
Depreciation during the year	660.93
Cumulative depreciation (incl. of AAD)	845.13
<b>Interest on Loan</b>	
Gross Normative Loan	26118.12
Cumulative Repayments upto Previous Year	184.20
Net Loan-Opening	25933.91
Additions	402.91
Repayment during the year	660.93
Net Loan-Closing	25675.89
Average Loan	25804.90
Weighted Average Rate of Interest on Loan (%)	5.2157
Interest on Loan	448.64
<b>Return on Equity</b>	
Opening Equity	11193.48
Additions	172.67
Closing Equity	11366.15
Average Equity	11279.82
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	19.931
Rate of Return on Equity (%)	19.358
Return on Equity	727.86
<b>Interest on Working Capital</b>	
O & M Expenses	57.14
Maintenance Spares	102.86
Receivables	1055.28
Total Working Capital	1215.29
Rate of Interest (%)	11.00
Interest of working capital	44.56
<b>Annual Transmission Charges</b>	
Depreciation	660.93
Interest on Loan	448.64
Return on Equity	727.86
Interest on Working Capital	44.56
O & M Expenses	228.58
<b>Total</b>	<b>2110.56</b>



(₹ in lakh)

<b>Combined Assets 1, 2 &amp; 3</b>	
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>
<b>Depreciation</b>	
Opening Gross Block	40375.25
Additional Capitalisation	670.39
Closing Gross Block	41045.64
Average Gross Block	40710.44
Rate of Depreciation (%)	5.27
Depreciable Value	36639.40
Balance useful life of the asset	34.00
Elapsed life	0.00
Remaining Depreciable Value	35794.27
Depreciation during the year	536.76
Cumulative depreciation (incl. of AAD)	1381.89
<b>Interest on Loan</b>	
Gross Normative Loan	28262.67
Cumulative Repayments upto Previous Year	845.13
Net Loan-Opening	27417.54
Additions	469.27
Repayment during the year	536.76
Net Loan-Closing	27350.06
Average Loan	27383.80
Weighted Average Rate of Interest on Loan (%)	5.1901
Interest on Loan	355.31
<b>Return on Equity</b>	
Opening Equity	12112.57
Additions	201.12
Closing Equity	12313.69
Average Equity	12213.13
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	20.008
Rate of Return on Equity (%)	19.377
Return on Equity	591.63
<b>Interest on Working Capital</b>	
O & M Expenses	70.18
Maintenance Spares	126.32
Receivables	1155.98
Total Working Capital	1352.48
Rate of Interest (%)	11.75
Interest of working capital	39.73
<b>Annual Transmission Charges</b>	
Depreciation	536.76



<b>Combined Assets 1, 2 &amp; 3</b>	
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>
Interest on Loan	355.31
Return on Equity	591.63
Interest on Working Capital	39.73
O & M Expenses	210.53
<b>Total</b>	<b>1733.96</b>

(₹ in lakh)

<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>			
Opening Gross Block	65156.98	69387.47	69813.84
Additional Capitalisation	4230.49	426.37	435.37
Closing Gross Block	69387.47	69813.84	70249.21
Average Gross Block	67272.22	69600.65	70031.52
Rate of Depreciation (%)	5.27	5.27	5.27
Depreciable Value	60545.00	64544.31	63220.24
Balance useful life of the asset	33.00	32.00	31.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	59163.11	58597.63	55314.38
Depreciation during the year	2661.07	3671.03	3693.78
Cumulative depreciation (incl. of AAD)	4042.96	7713.99	11407.77
<b>Interest on Loan</b>			
Gross Normative Loan	45609.88	48571.23	48869.69
Cumulative Repayments upto Previous Year	1381.89	4042.96	7713.99
Net Loan-Opening	44227.99	44528.27	41155.69
Additions	2961.34	298.46	304.76
Repayment during the year	2661.07	3671.03	3693.78
Net Loan-Closing	44528.27	41155.69	37766.67
Average Loan	44378.13	42841.98	39461.18
Weighted Average Rate of Interest on Loan (%)	5.1317	5.0994	4.8172
Interest on Loan	1708.00	2184.70	1900.93
<b>Return on Equity</b>			
Opening Equity	19547.09	20816.24	20944.15
Additions	1269.15	127.91	130.61
Closing Equity	20816.24	20944.15	21074.76
Average Equity	20181.67	20880.20	21009.46
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.008	20.008	20.961



<b>Combined Assets 1, 2, 3 &amp; 4</b>			
<b>Particulars</b>	<b>2011-12 (pro-rata)</b>	<b>2012-13</b>	<b>2013-14</b>
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	2932.94	4045.94	4120.05
<b>Interest on Working Capital</b>			
O & M Expenses	101.91	107.74	113.88
Maintenance Spares	183.44	193.92	204.98
Receivables	1868.67	1909.04	1890.14
Total Working Capital	2154.02	2210.70	2209.00
Rate of Interest (%)	11.75	11.75	11.75
Interest of working capital	189.82	259.76	259.56
<b>Annual Transmission Charges</b>			
Depreciation	2661.07	3671.03	3693.78
Interest on Loan	1708.00	2184.70	1900.93
Return on Equity	2932.94	4045.94	4120.05
Interest on Working Capital	189.82	259.76	259.56
O & M Expenses	917.20	1292.82	1366.53
<b>Total</b>	<b>8409.03</b>	<b>11454.25</b>	<b>11340.85</b>

#### **DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD**

43. The tariff charges claimed by the petitioner for 2014-19 tariff period is as follows:-

(₹ in lakh)

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3736.81	3768.09	3768.09	3768.09	3768.09
Interest on Loan	1696.03	1505.45	1298.59	1096.58	900.02
Return on Equity	4167.92	4202.77	4202.77	4202.77	4202.77
Interest on Working Capital	290.08	289.52	287.12	284.92	282.92
O & M Expenses	1250.60	1292.40	1335.17	1379.50	1425.25
<b>Total</b>	<b>11141.44</b>	<b>11058.23</b>	<b>10891.74</b>	<b>10731.86</b>	<b>10579.05</b>

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

(₹ in lakh)

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M Expenses	104.22	107.70	111.26	114.96	118.77
Maintenance Spares	187.59	193.86	200.28	206.93	213.79
Receivables	1856.91	1843.04	1815.29	1788.64	1763.18



<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Total working capital	2148.72	2144.60	2126.83	2110.53	2095.74
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	<b>290.08</b>	<b>289.52</b>	<b>287.12</b>	<b>284.92</b>	<b>282.92</b>

### **Capital Cost**

45. Clause (3) and (6) of Regulation 9 of 2014 Tariff Regulation provide as follows:-

“(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 tried 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.”

“(6) The following shall be excluded or removed from the capital cost of the existing and new project:

- (a) The assets forming part of the project, but not in use; (b) Decapitalisation of Asset;”

46. The capital cost of ₹70249.21 lakh worked out by the Commission as on 31.3.2014 for Combined Assets has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

### **Additional Capital Expenditure**

47. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

“(1) The capital expenditure in respect of the new project or an existing project 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 recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and

(v) Change in law or compliance of any existing law.”

48. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines

“Cut - off Date” means 31<sup>st</sup> March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut - off date shall be 31<sup>st</sup> March of the year closing after three years of the year of commercial operation.”

49. The petitioner has claimed additional capital expenditure amounting to ₹1184.58 lakh during 2014-15 in Asset 2, 3 and 4 as mentioned below:-

<b>Assets</b>	<b>Additional Capital Expenditure during 2014-19 (₹ in lakh)</b>	<b>Reasons</b>
Asset 1	-	Towards balance and retention payments
Asset 2	4.74	
Asset 3	6.66	
Asset 4	1173.18	
<b>Total (Combined Assets)</b>	<b>1184.58</b>	-

50. The petitioner in its reply in affidavit dated 11.2.2016 and has submitted the details of balance expenditure of ₹867.48 lakh to be discharged during 2014-19.

51. The Commission has considered the submission of the petitioner. The additional capital expenditure projected for 2014-19 tariff period is allowed under Regulation 14 (1(ii)) of 2014 Tariff Regulations subject to true up on actual basis.

### **Debt: Equity**

52. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provide as under:-\*

“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of

the capital cost, equity in excess of 30% shall be treated as normative loan.”

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

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as maybe 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.”

53. The petitioner has considered the debt: equity ratio of 70.00:30.00 as on 31.3.2014 for Combined Asset I & II, which is in line with the 2014 Tariff Regulations. The details of the debt: equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

(₹ in lakh)

Funding	Capital cost as on 1.4.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	49174.44	70.00	829.21	70.00	50003.65	70.00
Equity	21074.76	30.00	355.37	30.00	21430.14	30.00
<b>Total</b>	<b>70249.21</b>	<b>100.00</b>	<b>1184.58</b>	<b>100.00</b>	<b>71433.79</b>	<b>100.00</b>

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

54. Clause (1) and (2) of Regulations 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.”

55. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during the 2013-14 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in accordance with Clause (3) of Regulation 25 of the 2014 Tariff Regulations. The ROE has been worked out and allowed as follows:-

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	21074.76	21430.14	21430.14	21430.14	21430.14
Additions	355.37	0.00	0.00	0.00	0.00
Closing Equity	21430.14	21430.14	21430.14	21430.14	21430.14
Average Equity	21252.45	21430.14	21430.14	21430.14	21430.14
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity	4167.70	4202.55	4202.55	4202.55	4202.55

### **Interest on Loan (“IoL”)**

56. Clause 5 and Clause 6 of Regulation 26 of the 2014 Tariff Regulations provides that:-

“(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.”

57. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2014. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed in Annexure-2 and the IoL has been worked out and allowed as follows:-

	(₹ in lakh)				
<b>Interest on Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	49174.44	50003.65	50003.65	50003.65	50003.65
Cumulative Repayment upto Previous Year	11407.77	15144.32	18912.15	22679.97	26447.79
Net Loan-Opening	37766.67	34859.33	31091.50	27323.68	23555.86
Additions	829.21	0.00	0.00	0.00	0.00
Repayment during the year	3736.55	3767.82	3767.82	3767.82	3767.82
Net Loan-Closing	34859.33	31091.50	27323.68	23555.86	19788.03
Average Loan	36313.00	32975.41	29207.59	25439.77	21671.95
Weighted Average Rate of Interest on Loan (%)	4.6729	4.5679	4.4489	4.3137	4.1566
Interest on Loan	1696.86	1506.28	1299.43	1097.40	900.82

### **Depreciation**

58. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide that:-

"27. Depreciation:

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



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

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

59. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)					
<b>Depreciation</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Gross Block	70249.21	71433.79	71433.79	71433.79	71433.79
Additional Capitalization	1184.58	0.00	0.00	0.00	0.00
Closing Gross Block	71433.79	71433.79	71433.79	71433.79	71433.79
Average Gross Block	70841.50	71433.79	71433.79	71433.79	71433.79
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	5.27	5.27	5.27	5.27	5.27
Elapsed life	3	4	5	6	7
Balance Useful life of the asset	31	30	29	28	27
Remaining Depreciable Value	52349.57	49146.08	45378.26	41610.44	37842.61
Depreciation during the year	3736.55	3767.82	3767.82	3767.82	3767.82
Cumulative depreciation (incl. of AAD)	70249.21	71433.79	71433.79	71433.79	71433.79

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

60. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets have been worked out and allowed are as follows:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>400 kV Bays:</b>					
No. of Bays	14	14	14	14	14
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
<b>Line: S/C (Twin Conductor):</b>					
Line Length (km)	0.653	0.653	0.653	0.653	0.653
Norms (₹ lakh/km)	0.404	0.418	0.432	0.446	0.461
<b>Line: D/C (Twin Conductor):</b>					
Line Length (km)	574.449	574.449	574.449	574.449	574.449
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
<b>Total O&amp;M Expenses (₹ lakh)</b>	<b>1250.60</b>	<b>1292.40</b>	<b>1335.17</b>	<b>1379.50</b>	<b>1425.25</b>

61. 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 from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also prayed that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

62. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission asset as per prevailing norms.

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

63. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specifies as follows:

#### **“28. Interest on Working Capital**

(c) (i) Receivables equivalent to two months of fixed cost;

- (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and  
 (iii) Operation and maintenance expenses for one month”

“(5) ‘Bank Rate’ means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”

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

65. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The components of the working capital and interest thereon have been worked as follows:-

(₹ in lakh)

<b>Interest on Working Capital</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M expenses	104.22	107.70	111.26	114.96	118.77
Maintenance Spares	187.59	193.86	200.28	206.93	213.79
Receivables	1856.96	1843.09	1815.35	1788.70	1763.23
Total	2148.77	2144.65	2126.89	2110.58	2095.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	290.08	289.53	287.13	284.93	282.93

### **ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD**

66. The transmission charges allowed for the instant transmission assets for the 2014-19 tariff period are summarised below:-

(₹ in lakh)

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>					
Opening Gross Block	70249.21	71433.79	71433.79	71433.79	71433.79
Additional Capitalisation	1184.58	0.00	0.00	0.00	0.00
Closing Gross Block	71433.79	71433.79	71433.79	71433.79	71433.79
Average Gross Block	70841.50	71433.79	71433.79	71433.79	71433.79

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>					
Rate of Depreciation (%)	5.27	5.27	5.27	5.27	5.27
Depreciable Value	63953.26	64823.47	64290.41	64290.41	64290.41
Balance useful life of the asset	31.00	30.00	29.00	28.00	27.00
Elapsed life	3.00	4.00	5.00	6.00	7.00
Remaining Depreciable Value	52349.57	49146.08	45378.26	41610.44	37842.61
Depreciation during the year	3736.55	3767.82	3767.82	3767.82	3767.82
Cumulative depreciation (incl. of AAD)	15144.32	18912.15	22679.97	26447.79	30215.62
<b>Interest on Loan</b>					
Gross Normative Loan	49174.44	50003.65	50003.65	50003.65	50003.65
Cumulative Repayments upto Previous Year	11407.77	15144.32	18912.15	22679.97	26447.79
Net Loan-Opening	37766.67	34859.33	31091.50	27323.68	23555.86
Additions	829.21	0.00	0.00	0.00	0.00
Repayment during the year	3736.55	3767.82	3767.82	3767.82	3767.82
Net Loan-Closing	34859.33	31091.50	27323.68	23555.86	19788.03
Average Loan	36313.00	32975.41	29207.59	25439.77	21671.95
Weighted Average Rate of Interest on Loan (%)	4.6729	4.5679	4.4489	4.3137	4.1566
Interest on Loan	1696.86	1506.28	1299.43	1097.40	900.82
<b>Return on Equity</b>					
Opening Equity	21074.76	21430.14	21430.14	21430.14	21430.14
Additions	355.37	0.00	0.00	0.00	0.00
Closing Equity	21430.14	21430.14	21430.14	21430.14	21430.14
Average Equity	21252.45	21430.14	21430.14	21430.14	21430.14
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity	4167.70	4202.55	4202.55	4202.55	4202.55
<b>Interest on Working Capital</b>					
O & M Expenses	104.22	107.70	111.26	114.96	118.77
Maintenance Spares	187.59	193.86	200.28	206.93	213.79
Receivables	1856.96	1843.09	1815.35	1788.70	1763.23
Total Working Capital	2148.77	2144.65	2126.89	2110.58	2095.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	290.08	289.53	287.13	284.93	282.93
<b>Annual Transmission Charges</b>					
Depreciation	3736.55	3767.82	3767.82	3767.82	3767.82
Interest on Loan	1696.86	1506.28	1299.43	1097.40	900.82
Return on Equity	4167.70	4202.55	4202.55	4202.55	4202.55



<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>					
Interest on Working Capital	290.08	289.53	287.13	284.93	282.93
O & M Expenses	1250.60	1292.40	1335.17	1379.50	1425.25
<b>Total</b>	<b>11141.79</b>	<b>11058.57</b>	<b>10892.10</b>	<b>10732.20</b>	<b>10579.37</b>

67. 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 after 2009, hence the claim of the petitioner is not maintainable.

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

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

### **Licence Fee & RLDC Fees and Charges**

69. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 52 (2) (b) of the 2014 Tariff Regulations for 2014-19 tariff period. The petitioner shall also be entitled for recovery of RLDC fee & charges in accordance with Regulations 52 (2) (a) of the 2014 Tariff Regulations for 2014-19 tariff period.

### **Service Tax**

70. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature.

## **Sharing of Transmission Charges**

71. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of the 2014 Tariff Regulations.

72. This order disposes of Petition No. 21/TT/2015.

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

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

**Annexure – 1**



**ASSET 1 - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-DOCO-1-	9.33	4411.00	0.00	4411.00
BOND XXIX-DOCO-2-	9.20	1615.00	0.00	1615.00
BOND XXX-DOCO-3-	8.80	148.00	0.00	148.00
IBRD IV-ADDCAP FOR 2012-2013 Addcap-56.83	1.92	0.00	19.96	19.96
IBRD IV-DOCO-45.29	1.75	7521.76	0.00	7521.76
IBRD IV ADDL-ADDCAP FOR 2011-2012 Addcap-44.89	1.78	0.00	897.76	897.76
IBRD IV ADDL-ADDCAP FOR 2013-2014 Addcap-55.94	1.68	0.00	25.84	25.84
IBRD IV ADDL-DOCO-45.29	1.89	274.00	0.00	274.00
BOND-XXXIV-ADDCAP FOR 2010-2011 AddCap-	8.84	0.00	194.26	194.26
BOND-XXXIV-ADDCAP FOR 2011-2012 AddCap-	8.84	0.00	793.55	793.55
BOND-XXXIV-DOCO-4-	8.84	720.00	0.00	720.00
<b>Total</b>		<b>14689.76</b>	<b>1931.37</b>	<b>16621.13</b>

**ASSET 1 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14  
TARIFF PERIOD**

(₹ in lakh)

Particulars	2010-11
Gross Opening Loan	14689.76
Cumulative Repayments of Loans upto Previous Year	0.00
<b>Net Loans Opening</b>	<b>14689.76</b>
Add: Draw(s) during the Year	194.26
Less: Repayments of Loan during the year	0.00
<b>Net Closing Loan</b>	<b>14884.02</b>
Average Net Loan	14786.89
Rate of Interest on Loan (%)	5.2898
<b>Interest on Loan</b>	<b>782.19</b>



**COMBINED ASSETS 1 & 2 - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO  
FOR 2009-14**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-DOCO-1-	9.33	7983.00	0.00	7983.00
BOND XXIX-DOCO-2-	9.20	2922.00	0.00	2922.00
BOND XXX-DOCO-3-	8.80	215.00	0.00	215.00
IBRD IV-ADDCAP FOR 2012-2013 AddCap-4-56.83	1.92	0.00	19.96	19.96
IBRD IV-ADDCAP FOR 2012-2013 Addcap-7-56.88	1.92	0.00	25.40	25.40
IBRD IV-DOCO-5-45.29	1.72	7521.76	0.00	7521.76
IBRD IV-DOCO-7-46.26	1.72	6304.31	0.00	6304.31
IBRD IV ADDL-ADDCAP FOR 2011-2012 AddCap-3-44.89	1.78	0.00	897.76	897.76
IBRD IV ADDL-ADDCAP FOR 2011-2012 Addcap-6-49.05	1.78	0.00	286.84	286.84
IBRD IV ADDL-ADDCAP FOR 2013-2014 Addcap-5-55.94	1.68	0.00	25.84	25.84
IBRD IV ADDL-DOCO-6-45.29	1.85	274.00	0.00	274.00
BOND-XXXIV-ADDCAP FOR 2010-2011 AddCap-1-	8.84	0.00	402.90	402.90
BOND-XXXIV-ADDCAP FOR 2011-2012 AddCap-2-	8.84	0.00	873.57	873.57
BOND-XXXIV-DOCO-4-	8.84	892.00	0.00	892.00
BOND-XXXIV-DOCO-8-	8.84	9.52	0.00	9.52
<b>Total</b>		<b>26121.59</b>	<b>2532.27</b>	<b>28653.86</b>

**COMBINED ASSETS 1 & 2 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN  
DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2010-11
Gross Opening Loan	26121.59
Cumulative Repayments of Loans upto Previous Year	0.00
<b>Net Loans Opening</b>	<b>26121.59</b>
Add: Draw(s) during the Year	402.90
Less: Repayments of Loan during the year	0.00
<b>Net Closing Loan</b>	<b>26524.49</b>
Average Net Loan	26323.04
Rate of Interest on Loan (%)	5.2157
<b>Interest on Loan</b>	<b>1372.94</b>





**COMBINED ASSETS 1, 2 & 3 - DETAILS OF LOAN BASED ON ACTUAL LOAN  
PORTFOLIO FOR 2009-14**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-DOCO-1-	9.33	8495.50	0.00	8495.50
BOND XXIX-DOCO-2-	9.20	2922.00	0.00	2922.00
BOND XXX-DOCO-3-	8.80	215.00	0.00	215.00
IBRD IV-ADDCAP FOR 2012-2013 Addcap-5-56.83	1.92	0.00	19.96	19.96
IBRD IV-ADDCAP FOR 2012-2013 Addcap-6-56.88	1.92	0.00	25.40	25.40
IBRD IV-ADDCAP FOR 2012-2013 Addcap-7-57.35	1.92	0.00	174.80	174.80
IBRD IV-DOCO-5-45.29	1.80	7521.76	0.00	7521.76
IBRD IV-DOCO-7-46.26	1.80	6304.31	0.00	6304.31
IBRD IV-DOCO-8-45.23	1.80	1137.99	0.00	1137.99
IBRD IV ADDL-ADDCAP FOR 2011-2012 Addcap-2-44.89	1.78	0.00	897.76	897.76
IBRD IV ADDL-ADDCAP FOR 2011-2012 Addcap-3-49.05	1.78	0.00	286.84	286.84
IBRD IV ADDL-ADDCAP FOR 2011-2012 Addcap-4-55.94	1.78	0.00	18.07	18.07
IBRD IV ADDL-ADDCAP FOR 2012-2013 Addcap-8-55.94	1.98	0.00	34.67	34.67
IBRD IV ADDL-ADDCAP FOR 2013-2014 Addcap-10-55.5	1.68	0.00	101.29	101.29
IBRD IV ADDL-ADDCAP FOR 2013-2014 Addcap-9-55.94	1.68	0.00	25.84	25.84
IBRD IV ADDL-DOCO-6-45.29	1.78	274.00	0.00	274.00
IBRD IV ADDL-DOCO-9-45.23	1.78	92.27	0.00	92.27
BOND-XXXIV-ADDCAP FOR 2011-2012 Addcap-1-	8.84	0.00	878.58	878.58
BOND-XXXIV-DOCO-10-	8.84	412.42	0.00	412.42
BOND-XXXIV-DOCO-4-	8.84	892.00	0.00	892.00
<b>Total</b>		<b>28267.25</b>	<b>2463.21</b>	<b>30730.46</b>



**COMBINED ASSETS 1, 2 & 3 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN  
DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2011-12
Gross Opening Loan	28267.25
Cumulative Repayments of Loans upto Previous Year	0.00
<b>Net Loans Opening</b>	<b>28267.25</b>
Add: Draw(s) during the Year	2081.25
Less: Repayments of Loan during the year	0.00
<b>Net Closing Loan</b>	<b>30348.50</b>
Average Net Loan	29307.88
Rate of Interest on Loan (%)	5.1901
<b>Interest on Loan</b>	<b>1521.09</b>

**COMBINED ASSETS 1, 2, 3 & 4 - DETAILS OF LOAN BASED ON ACTUAL LOAN  
PORTFOLIO FOR 2009-14**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVIII-DOCO-1-	9.33	13459.00	0.00	13459.00
BOND XXIX-DOCO-2-	9.20	4703.00	0.00	4703.00
BOND XXX-DOCO-3-	8.80	316.00	0.00	316.00
IBRD IV-ADDCAP FOR 2012-2013 AddCap-11-57.35	1.92	0.00	174.80	174.80
IBRD IV-ADDCAP FOR 2012-2013 AddCap-5-56.83	1.92	0.00	19.96	19.96
IBRD IV-ADDCAP FOR 2012-2013 AddCap-8-56.88	1.68	0.00	25.40	25.40
IBRD IV-DOCO-10-45.12	1.83	8923.83	0.00	8923.83
IBRD IV-DOCO-5-45.29	1.83	7521.76	0.00	7521.76
IBRD IV-DOCO-7-46.26	1.83	6304.31	0.00	6304.31
IBRD IV-DOCO-8-45.23	1.83	1137.99	0.00	1137.99
IBRD IV ADDL-ADDCAP FOR 2011-2012 AddCap-4-44.89	1.80	0.00	897.76	897.76
IBRD IV ADDL-ADDCAP FOR 2011-2012 AddCap-7-49.05	1.80	0.00	286.84	286.84
IBRD IV ADDL-ADDCAP FOR 2011-2012 AddCap-9-55.94	1.80	0.00	18.07	18.07
IBRD IV ADDL-ADDCAP FOR 2012-2013 AddCap-10-55.94	1.98	0.00	34.67	34.67



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
IBRD IV ADDL-ADDCAP FOR 2012-2013 AddCap-12-55.94	1.98	0.00	43.63	43.63
IBRD IV ADDL-ADDCAP FOR 2013-2014 AddCap-13-60.13	1.68	0.00	177.68	177.68
IBRD IV ADDL-ADDCAP FOR 2013-2014 AddCap-14-55.5	1.68	0.00	101.29	101.29
IBRD IV ADDL-ADDCAP FOR 2013-2014 AddCap-6-55.94	1.68	0.00	25.84	25.84
IBRD IV ADDL-DOCO-11-45.12	1.80	970.53	0.00	970.53
IBRD IV ADDL-DOCO-6-45.29	1.80	274.00	0.00	274.00
IBRD IV ADDL-DOCO-9-45.23	1.80	92.27	0.00	92.27
BOND-XXXIV-ADDCAP FOR 2011-2012 AddCap-1-	8.84	0.00	409.31	409.31
BOND-XXXIV-DOCO-12-	8.84	881.69	0.00	881.69
BOND-XXXIV-DOCO-4-	8.84	1029.00	0.00	1029.00
BOND-XXXV-ADDCAP FOR 2011-2012 AddCap-2-	9.64	0.00	77.00	77.00
BOND XXXVII-ADDCAP FOR 2011-2012 AddCap-3-	9.25	0.00	248.00	248.00
<b>Total</b>		<b>45613.38</b>	<b>2540.25</b>	<b>48153.63</b>

**COMBINED ASSETS 1, 2, 3 & 4 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Gross Opening Loan	45613.38	47550.36	47848.82
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	1557.75
<b>Net Loans Opening</b>	<b>45613.38</b>	<b>47550.36</b>	<b>46291.07</b>
Add: Draw(s) during the Year	1936.98	298.46	304.81
Less: Repayments of Loan during the year	0.00	1557.75	2173.07
<b>Net Closing Loan</b>	<b>47550.36</b>	<b>46291.07</b>	<b>44422.81</b>
Average Net Loan	46581.87	46920.72	45356.94
Rate of Interest on Loan (%)	5.1317	5.0994	4.8172
<b>Interest on Loan</b>	<b>2390.42</b>	<b>2392.69</b>	<b>2184.94</b>



**COMBINED ASSETS - DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVIII-DOCO-1-	9.33	13459.00	0.00	13459.00
BOND XXIX-DOCO-2-	9.20	4703.00	0.00	4703.00
BOND XXX-DOCO-3-	8.80	316.00	0.00	316.00
IBRD IV-ADDCAP FOR 2012-2013 AddCap-11-57.35	1.63	174.80	0.00	174.80
IBRD IV-ADDCAP FOR 2012-2013 AddCap-5-56.83	1.63	19.96	0.00	19.96
IBRD IV-ADDCAP FOR 2012-2013 AddCap-8-56.88	1.63	25.40	0.00	25.40
IBRD IV-DOCO-10-45.12	1.63	8923.83	0.00	8923.83
IBRD IV-DOCO-5-45.29	1.63	7521.76	0.00	7521.76
IBRD IV-DOCO-7-46.26	1.63	6304.31	0.00	6304.31
IBRD IV-DOCO-8-45.23	1.63	1137.99	0.00	1137.99
IBRD IV ADDL-ADDCAP FOR 2011-2012 AddCap-4-44.89	1.61	897.76	0.00	897.76
IBRD IV ADDL-ADDCAP FOR 2011-2012 AddCap-7-49.05	1.61	286.84	0.00	286.84
IBRD IV ADDL-ADDCAP FOR 2011-2012 AddCap-9-55.94	1.61	18.07	0.00	18.07
IBRD IV ADDL-ADDCAP FOR 2012-2013 AddCap-10-55.94	1.61	34.67	0.00	34.67
IBRD IV ADDL-ADDCAP FOR 2012-2013 AddCap-12-55.94	1.61	43.63	0.00	43.63
IBRD IV ADDL-ADDCAP FOR 2013-2014 AddCap-13-60.13	1.61	177.68	0.00	177.68
IBRD IV ADDL-ADDCAP FOR 2013-2014 AddCap-14-55.5	1.61	101.29	0.00	101.29
IBRD IV ADDL-ADDCAP FOR 2013-2014 AddCap-6-55.94	1.61	25.84	0.00	25.84
IBRD IV ADDL-DOCO-11-45.12	1.61	970.53	0.00	970.53
IBRD IV ADDL-DOCO-6-45.29	1.61	274.00	0.00	274.00
IBRD IV ADDL-DOCO-9-45.23	1.61	92.27	0.00	92.27
BOND-XXXIV-ADDCAP FOR 2011-2012 AddCap-1-	8.84	409.31	0.00	409.31
BOND-XXXIV-DOCO-12-	8.84	881.69	0.00	881.69
BOND-XXXIV-DOCO-4-	8.84	1029.00	0.00	1029.00
BOND-XXXV-ADDCAP FOR 2011-2012 AddCap-2-	9.64	77.00	0.00	77.00
BOND XXXVII-ADDCAP FOR 2011-2012 AddCap-3-	9.25	248.00	0.00	248.00
<b>Total</b>		<b>48153.63</b>	<b>0.00</b>	<b>48153.63</b>

**COMBINED ASSETS - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING  
2014-19 TARIFF PERIOD**

(₹ in lakh)

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Opening Loan	48153.63	48153.63	48153.63	48153.63	48153.63
Cumulative Repayments of Loans upto Previous Year	3730.82	6674.88	9707.20	12804.38	15969.81
<b>Net Loans Opening</b>	<b>44422.81</b>	<b>41478.75</b>	<b>38446.43</b>	<b>35349.25</b>	<b>32183.82</b>
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	2944.06	3032.32	3097.18	3165.43	3237.02
<b>Net Closing Loan</b>	<b>41478.75</b>	<b>38446.43</b>	<b>35349.25</b>	<b>32183.82</b>	<b>28946.80</b>
Average Net Loan	42950.78	39962.59	36897.84	33766.54	30565.31
Rate of Interest on Loan (%)	4.6729	4.5679	4.4489	4.3137	4.1566
<b>Interest on Loan</b>	<b>2007.03</b>	<b>1825.44</b>	<b>1641.56</b>	<b>1456.59</b>	<b>1270.49</b>