

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO. 529/TT/2014**

**Coram:**

**Shri A. S. Bakshi, Member**

**Dr. M. K. Iyer, Member**

**Date of Hearing : 20.01.2016**

**Date of Order : 15.02.2016**

**In the Matter of:**

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 and determination of transmission tariff for 2014-19 tariff block Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 for combined assets of (i) 160 MVA, 220/132kV, 3-Phase Auto Transformer at Kopili (COD: 1.2.2010), (ii) 132 kV S/C Kopili-Khandong Transmission Line along with associated bays (COD: 1.11.2010), (iii) 100MVA, 220/132 kV, 3-Phase Auto Transformer and associated bays at Dimapur Sub- Station (COD: 1.1.2011) and (iv) LILO of 132 kV Dimapur-Kohima Transmission Line (COD: 1.4.2011) in North Eastern Region and Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999

**And in the Matter of:**

Power Grid Corporation of India Limited,  
SAUDAMINI, Plot No.-2, Sector-29,  
Gurgaon-122001 (Haryana)

**.....Petitioner**

**Versus**

1. Assam Electricity Grid Corporation Limited  
(Formerly Assam Electricity Board),  
Bijulee Bhawan, Paltan Bazar,  
Guwahati-781001
2. Meghalaya Energy Corporation Limited  
(Formerly Known as Meghalaya State Electricity Board)  
Short Round Road, "Lumjingshai",  
Shillong – 793001, Meghalaya



3. Government of Arunachal Pradesh,  
Itanagar, Arunachal Pradesh
4. Power and Electricity Department,  
Government of Mizoram,  
Aizawl, Mizoram
5. Manipur Electricity Distribution Company Limited  
(Formerly Electricity Department, Government of Manipur),  
Keishampat, Imphal
6. Department of Power,  
Government of Nagaland,  
Kohima, Nagaland
7. Tripura State Electricity Corporation Limited,  
Vidyut Bhawan, North Banamalipur,  
Agartala, Tripura (W) – 799001, Tripura

....Respondent(s)

The following were present:

For Petitioner:       Shri S.S. Raju, PGCIL  
                              Shri Rakesh Prasad, PGCIL  
                              Shri M.M. Mondal, PGCIL  
                              Shri J. Mazumdar, PGCIL  
                              Shri Shashi Bhushan, PGCIL  
                              Shri D. K. Karma, PGCIL

For Respondents:   None

### **ORDER**

The petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (here in after 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 (here in after referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of combined assets of (i) 160 MVA, 220/132kV, 3-Phase Auto Transformer at Kopili, (ii) 132 kV S/C Kopili-Khandong Transmission Line along with associated bays, (iii) 100MVA, 220/132 kV, 3-Phase Auto Transformer and associated bays at Dimapur Sub- Station and (iv) LILO of 132 kV Dimapur-Kohima Transmission Line in North Eastern Region (here in after collectively referred to as “the transmission assets”).

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

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

a) The administrative/Investment Approval and expenditure sanction to the transmission project was accorded by Board of Directors of PGCIL vide their letter C/CP/MisLink-NER dated 29.5.2006 at an estimated cost of ₹5893 lakh including IDC of ₹222 lakh based on 2<sup>rd</sup> Quarter 2005 price level. The Revised cost Estimate (RCE) was approved in the Board meeting held on 7.7.2011. The RCE of the project, based on 3<sup>rd</sup> Qtr 2010 price level, works out to ₹8171 lakh (including IDC of ₹519 lakh).

b) The COD of the transmission assets are as follows:-

<b>Assets</b>	<b>Description</b>	<b>COD</b>
Asset i	160 MVA, 220/132kV, 3-Phase Auto Transformer at Kopili	1.2.2010
Asset ii	132 kV S/C Kopili - Khandong Transmission Line along with associated bays	1.11.2010
Asset iii	100MVA, 220/132 kV, 3-Phase Auto	1.1.2011



Assets	Description	COD
	Transformer and associated bays	
Combined Assets-A (Assets-i+ii +iii)		1.1.2011 (combined)
Combined Asset iv	Combined Asset III & LILO of 132 kV Dimapur - Kohima Transmission Line	1.4.2011
Combined Assets-B(Assets-A + iv)		1.4.2011 (combined)

c) The Commission vide its order dated 28.12.2011 in Petition No. 347/2010 and order dated 9.7.2012 in Petition No. 31/TT/2011 had approved the capital cost of the transmission assets as on COD as mentioned below:-

Admitted as on COD	Amount (₹ in lakh)	Percentage (%)
<b>Asset I (COD: 1.2.2010)</b>		
Debt	1293.87	70.00
Equity	554.51	30.00
<b>Capital Cost</b>	<b>1848.38</b>	<b>100.00</b>
<b>Combined Asset I &amp; II (COD: 1.11.2010)</b>		
Debt	2359.80	70.00
Equity	1011.34	30.00
<b>Capital Cost</b>	<b>3371.14</b>	<b>100.00</b>
<b>Combined Asset I, II &amp; III (COD: 1.1.2011)</b>		
Debt	3968.55	70.00
Equity	1700.81	30.00
<b>Capital Cost</b>	<b>5669.36</b>	<b>100.00</b>
<b>Combined Asset I, II, III &amp; IV (COD: 1.4.2011)</b>		
Debt	4747.76	70.00
Equity	2034.75	30.00
<b>Capital Cost</b>	<b>6782.51</b>	<b>100.00</b>

d) The Commission had allowed the additional capital expenditure of ₹58.58 lakh in 2009-10, ₹131.93 lakh in 2010-11, ₹78.38 lakh in 2011-12 and ₹98.09 lakh in 2012-13 for Asset I, ₹274.00 lakh for 2010-11, ₹354.01 lakh in 2011-12 and ₹98.09 lakh in 2012-13 for Combined Asset II in its order in Petition No. 347/2010.



e) Further, the Commission vide its order dated 9.7.2012 in Petition No. 31/TT/2011 had allowed an additional capital expenditure of ₹245.07 lakh in 2010-11 for Combined Asset A, and ₹571.50 lakh in 2011-12 and ₹148.09 lakh in 2012-13 for Combined Asset B. The tariff determined by the Commission in are as follows:-

A. By order dated 28.12.2011 in petition No. 347/2010

(₹ in lakh)

<b>Asset I (COD: 1.2.2010)</b>		
<b>Particulars</b>	<b>2009-10 (pro-rata: 1.2.2010 to 31.3.2010)</b>	<b>2010-11 (pro-rata: 1.4.2010 to 31.10.2011)</b>
Depreciation	16.52	60.77
Interest on Loan	19.76	70.57
Return on Equity	16.41	60.35
Interest on Working Capital	1.62	5.94
O & M Expenses	10.48	38.78
<b>Total</b>	<b>64.79</b>	<b>236.41</b>

(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata: 1.11.2010 to 31.3.2011)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	77.36	202.24	214.19	216.78
Interest on Loan	88.20	218.93	214.30	197.81
Return on Equity	76.66	200.44	212.30	214.87
Interest on Working Capital	7.36	18.80	19.57	19.79
O & M Expenses	63.24	160.43	169.63	179.33
<b>Total</b>	<b>312.82</b>	<b>800.84</b>	<b>829.99</b>	<b>828.58</b>

B. By order dated 9.7.2012 in petition No. 31/TT/2011



(₹ in lakh)

<b>Combined Asset A (COD: 1.1.2011)</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata: 1.1.2011 to 31.3.2011)</b>
Depreciation	76.56
Interest on Loan	88.09
Return on Equity	75.94
Interest on Working Capital	7.42
O & M Expenses	54.56
<b>Total</b>	<b>302.56</b>

(₹ in lakh)

<b>Combined Asset B (COD: 1.4.2011)</b>			
<b>Particulars</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	374.07	393.11	397.02
Interest on Loan	413.07	400.98	369.74
Return on Equity	370.68	389.55	393.43
Interest on Working Capital	37.00	38.31	38.68
O & M Expenses	289.38	305.96	323.46
<b>Total</b>	<b>1484.2</b>	<b>1527.91</b>	<b>1522.33</b>

4. 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.

5. In this context, the petitioner has filed the instant petition on 26.11.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.



6. The petitioner had filed the tariff petition for the combined Asset-A and combined Asset-B (combining asset-iv with Asset A).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. None of the respondents have filed any reply. The hearing in this matter was held on 20.1.2016. The petitioner has submitted the information sought vide letter 16.1.2016 vide affidavit dated 29.1.2016. 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**

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

### **Capital Cost**

8. Regulation 7 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 fund 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.



(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.

xxx  
xxx”

9. The petitioner has claimed admitted capital cost for Combined Asset B(A+IV) for ₹6787.84 as on COD (1.4.2011) for the purpose of tariff computation. Further, the petitioner has claimed additional capitalisation of ₹493.71 lakh for 2011-12, ₹34.73 for 2012-13 and ₹0.37 lakh for 2013-14. The petitioner has adjusted the capital cost by disallowing the IDC, IEDC & excess initial Spare and claimed the opening capital cost for Asset B by combining the assets as follows for the purpose of tariff determination:-

Assets	COD	Capital cost as on COD (₹ in lakh)
Asset i	1.2.2010	1848.38
Combined Asset (I & ii)	1.11.2010	3452.15
Combined Asset A(i+ii+iii)	1.1.2011	5716.56
<b>Combined Asset B (A +iv )</b>	<b>1.4.2011</b>	<b>6787.64*</b> (6915.51-47.20-80.67)

\*The petitioner has adjusted the capital cost of the Combined Asset B after disallowing ₹47.20 lakh towards IDC & IEDC and ₹80.67 lakh towards excess initial spares.

#### **Treatment of excess Initial Spare:**

10. The Commission vide order dated 28.12.2011 in Petition No. 347/2010 and in order dated 9.7.2012 in Petition No. 31/TT/2011 determined the capital cost by disallowing the IDC, IEDC for seven months and excess initial spare are as follows:-





(` in lakh)

Assets	COD	Capital Cost as on COD	Order
Asset I	1.2.2010	1848.38	347/10 dated 28.12.2011
Combined Asset II (I & ii)	1.11.2010	3371.14 (3452.15-81.01)*	
Combined Asset A (i, ii & iii)	1.1.2011	5669.36 (5716.56-47.20)#	31/2011 Dated 9.7.2012
Combined Asset B (A+IV)	1.4.2011	6782.51	

\*Excess initial spares of Rs. 81.01 for Combined Asset II (i & ii)

#Total IDC and IEDC of Rs. 47.02 disallowed from Combined Asset, A(I, II & III)

Further, in the instant petition the petitioner has claimed the total amount of initial spares is ₹228.08 lakh and the same is certified in the Auditors Certificate dated 27.11.2014 and included in the overall capital cost of the combined Asset B i.e, ₹6915.15.

11. The notional COD of the Combined Asset B is 1.4.2011, hence the cut-off dated for the asset is 31.3.2014. The initial spares for the Combined Asset IV upto cut-off date was already determined by the Commission. The same has been apportioned based on the revised capital cost of the Combined Asset B. The excess initial spares thus worked out are as follows:-

Initial Spares for Combined Asset IV (₹ in lakh)					
Assets	Norms (%)	Claimed	Claim (apportioned)	Allowed	Excess
COD	1.4.2011				
Transmission Line	0.75%	0.34	0.34	11.61	-11.28
Sub Station	2.50%	227.74	226.19	142.32	83.86
PLCC	2.50%	0.00	0.00	2.13	-2.13
<b>Total</b>	-	<b>228.08</b>	<b>226.52</b>	<b>156.07</b>	<b>70.45</b>



12. The petitioner has claimed initial spare of ₹0.34 lakh for transmission line and ₹227.74 lakh for sub-station. However, the amount of initial spares claimed towards the sub-station equipment is in excess of ₹83.86 lakh and the same is deducted from the capital cost of the Combined Asset B (A+ IV).

### **Treatment of IDC & IEDC**

13. In the instant petition the petitioner has considered the IDC & IEDC allowed vide order dated 9.7.2012 in Petition No.31/TT/2011 and has deducted the disallowed amount from the capital cost of Combined Asset IV as mentioned in the table in Para 8.

14. The opening capital cost of the assets as on COD after deducting the amount of IDC & IEDC is as follows:-

<b>Capital cost as on COD after disallowing IEDC/IDC (₹ in lakh)</b>				
<b>Assets</b>	<b>Asset I</b>	<b>Combined Asset I &amp; II</b>	<b>Combined Asset A(I,II &amp;III)</b>	<b>Combined Asset B(A+IV)</b>
<b>COD</b>	<b>1.2.2010</b>	<b>1.11.2010</b>	<b>1.1.2011</b>	<b>1.4.2011</b>
<b>Capital Cost as on COD</b>				
Transmission Line	0.00	1152.62	1148.04	1359.54
Sub Station	1848.38	2258.78	4480.90	5429.80
PLCC	0.00	40.75	40.41	78.96
<b>Total</b>	<b>1848.38</b>	<b>3452.15</b>	<b>5669.36</b>	<b>6868.31</b>

15. The capital cost of the transmission assets as on COD considered for the purpose of truing up of tariff is as follows:-

<b>Capital cost as on COD after disallowing IEDC/IDC &amp; excess Initial Spares (₹ in lakh)</b>				
<b>Assets</b>	<b>Asset I</b>	<b>Combined Asset II</b>	<b>Combined Asset III</b>	<b>Combined Asset IV</b>
<b>COD</b>	<b>1.2.2010</b>	<b>1.11.2010</b>	<b>1.1.2011</b>	<b>1.4.2011</b>
<b>Capital Cost as on COD</b>				
Transmission Line	0.00	1152.62	1148.04	1359.54



Sub Station	1848.38	2258.78	4480.90	5345.94
PLCC	0.00	40.75	40.41	78.96
<b>Total</b>	<b>1848.38</b>	<b>3452.15</b>	<b>5669.36</b>	<b>6784.45</b>

### Additional Capital Expenditure

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

“Additional Capitalisation: (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Undischarged liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law:”

17. The petitioner has submitted that it has incurred an additional capital expenditure of ₹120.51 lakh in Asset I, ₹73.93 lakh in Combined Asset II, ₹323.82 lakh in Combined Asset III and ₹528.81 lakh in Combined Asset IV during 2009-14 tariff period on account of balance and retention payments towards Transmission Line, PLCC and Sub-station as tabulated below:-

(₹ in lakh)

Assets	Approved / Claimed	Capital cost as on COD	Additional capital expenditure during 2009-14					Total cost as on 31.3.2014
			2009-10	2010-11	2011-12	2012-13	2013-14	
Asset I	Approved vide order dated 28.12.2011	1848.38	58.58	131.93	-	-	-	2038.89
	Claimed by the petitioner	1848.38	58.58	61.93	-	-	-	1968.89
Combined Asset II	Approved vide order dated 28.12.2011	3371.14	-	274.00	354.01	98.09	-	4097.24
	Claimed by the petitioner	3452.15	-	73.93	-	-	-	3526.08
Combined	Approved vide	5669.36						5914.43



Asset III	order dated 9.7.2012		-	245.07	-	-	-	
	Claimed by the petitioner	5716.56	-	323.82	-	-	-	6040.38
Combined Asset IV	Approved vide order dated 9.7.2012	6782.51	-	-	571.50	148.09	-	7502.10
	<b>Claimed by the petitioner</b>	<b>6784.45</b>	-	-	<b>493.71</b>	<b>34.73</b>	<b>0.37</b>	<b>7313.26</b>

18. The petitioner has submitted the Auditor's Certificate dated 27.11.2014 certifying the actual capital cost.

19. We have considered the submissions of the petitioner. The additional capitalization claimed by the petitioner is based on actual expenditure. The additional capitalization of ₹120.51 lakh in Asset I, ₹73.93 lakh in Combined Asset (I &II), ₹323.82 lakh in Combined Asset A (I,II & III) and ₹528.81 lakh in Combined Asset B(A + )IV during 2009-14 tariff period on account of balance and retention payment is based on actual capital expenditure incurred as per the Auditor Certificate dated 27.11.2014, and is within the original scope of work and also within the approved cost of the assets. The additional capital expenditure is allowed for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations.

20. 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**

21. 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.”

22. The debt:equity ratio of 70:30 admitted by the Commission vide order dated 28.12.2011 in Petition No. 347/2010 and in order dated 9.7.2012 in Petition No. 31/TT/2011 as on COD of the transmission assets has been considered for determination of tariff in accordance 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.

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

(₹ in lakh)

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
<b>Asset I</b>						
Debt	1293.86	70.00	84.36	70.00	1378.22	70.00
Equity	554.52	30.00	36.15	30.00	590.67	30.00
<b>Total</b>	<b>1848.38</b>	<b>100.00</b>	<b>120.51</b>	<b>100.00</b>	<b>1968.89</b>	<b>100.00</b>
<b>Combined Asset (I &amp; II)</b>						
Debt	2416.50	70.00	51.75	70.00	2468.25	70.00



Equity	1035.65	30.00	22.18	30.00	1057.83	30.00
<b>Total</b>	<b>3452.15</b>	<b>100.00</b>	<b>73.93</b>	<b>100.00</b>	<b>3526.08</b>	<b>100.00</b>
<b>Combined Asset A(I,II&amp; III)</b>						
Debt	3968.54	70.00	226.67	70.00	4195.21	70.00
Equity	1700.82	30.00	97.15	30.00	1797.97	30.00
<b>Total</b>	<b>5669.36</b>	<b>100.00</b>	<b>323.82</b>	<b>100.00</b>	<b>5993.18</b>	<b>100.00</b>
<b>Combined Asset B(A + IV)</b>						
Debt	4749.10	70.00	370.17	70.00	5119.26	70.00
Equity	2035.35	30.00	158.64	30.00	2193.99	30.00
<b>Total</b>	<b>6784.45</b>	<b>100.00</b>	<b>528.81</b>	<b>100.00</b>	<b>7313.26</b>	<b>100.00</b>

### **Return on Equity (“ROE”)**

24. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provides as follows:-

“(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.”

25. 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:-



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

26. 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.

27. The ROE as true up and allowed is as follows:-

(₹ in lakh)

<b>Asset I (COD: 1.2.2010)</b>		
Return on Equity	2009-10 (pro-rata: 1.2.2010 to 31.3.2010)	2010-11 (pro-rata: 1.4.2010 to 31.10.2010)
As approved vide Order dated 28.12.2011	16.41	60.35
Claimed by the petitioner	17.53	65.65
Allowed after true up in this order	17.53	65.65

(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>	
Return on Equity	2010-11
As approved vide Order dated 28.12.2011 (pro-rata: 1.11.2010 to 31.3.2011)	76.66
Claimed by the petitioner (pro-rata: 1.11.2010 to 31.12.2010)	33.77
Allowed after true up in this order (pro-rata: 1.11.2010 to 31.12.2010)	33.77

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>	
Return on Equity	2010-11 (pro-rata: 1.1.2011 to 31.3.2011)
As approved vide Order dated 9.7.2012	75.94
Claimed by the petitioner	85.35
Allowed after true up in this order	84.66



(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>			
<b>Return on Equity</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 9.7.2012	370.68	389.55	393.43
Claimed by the petitioner	408.93	424.29	430.43
Allowed after true up in this order	408.74	424.09	430.24

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

### **Interest on Loan (“IoL”)**

28. 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”.

29. 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 I (COD: 1.2.2010)</b>		
<b>Interest on Loan</b>	<b>2009-10 (pro-rata: 1.2.1010 to 31.3.2010)</b>	<b>2010-11 (pro-rata: 1.4.2010 to 31.10.2010)</b>
As approved vide Order dated 28.12.2011	19.76	70.57
Claimed by the petitioner	20.11	70.61
Allowed after true up in this order	20.11	70.61





(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>	
<b>Interest on Loan</b>	<b>2010-11</b>
As approved vide Order dated 28.12.2011 (pro-rata: 1.11.2010 to 31.3.2011)	88.20
Claimed by the petitioner (pro-rata: 1.11.2010 to 31.12.2010)	36.12
Allowed after true up in this order (pro-rata: 1.11.2010 to 31.12.2010)	36.12

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>	
<b>Interest on Loan</b>	<b>2010-11 (pro-rata: 1.1.2011 to 31.3.2011)</b>
As approved vide Order dated 9.7.2012	88.09
Claimed by the petitioner	89.79
Allowed after true up in this order	89.05

(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>			
<b>Interest on Loan</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 9.7.2012	413.07	400.98	369.74
Claimed by the petitioner	412.40	395.09	361.03
Allowed after true up in this order	412.25	394.96	360.91

The difference in the approved IoL and that allowed after trueing 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**

30. 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 I (COD: 1.2.2010)</b>		
<b>Depreciation</b>	<b>2009-10 (pro-rata: 1.2.1010 to 31.3.2010)</b>	<b>2010-11 (pro-rata: 1.4.2010 to 31.10.2010)</b>
As approved vide Order dated 28.12.2011	16.52	60.77
Claimed by the petitioner	16.52	59.69
Allowed after true up in this order	16.52	59.69



(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>	
<b>Depreciation</b>	<b>2010-11</b>
As approved vide Order dated 28.12.2011 (pro-rata: 1.11.2010 to 31.3.2011)	77.36
Claimed by the petitioner (pro-rata: 1.11.2010 to 31.12.2010)	30.77
Allowed after true up in this order (pro-rata: 1.11.2010 to 31.12.2010)	30.78

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>	
<b>Depreciation</b>	<b>2010-11 (pro-rata: 1.1.2011 to 31.3.2011)</b>
As approved vide Order dated 9.7.2012	76.56
Claimed by the petitioner	77.70
Allowed after true up in this order	77.08

(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>			
<b>Depreciation</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 9.7.2012	374.07	393.11	397.02
Claimed by the petitioner	372.27	386.25	387.18
Allowed after true up in this order	372.10	386.08	387.00

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”)**

31. 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 I (COD: 1.2.2010)</b>		
<b>O&amp;M Expenses</b>	<b>2009-10 (pro-rata: 1.2.1010 to 31.3.2010)</b>	<b>2010-11 (pro-rata: 1.4.2010 to 31.10.2010)</b>
As approved vide Order dated 28.12.2011	10.48	38.78
Claimed by the petitioner	10.48	38.78
Allowed after true up in this order	10.48	38.78

(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>	
<b>O&amp;M Expenses</b>	<b>2010-11</b>
As approved vide Order dated 28.12.2011 (pro-rata: 1.11.2010 to 31.3.2011)	63.24
Claimed by the petitioner (pro-rata: 1.11.2010 to 31.12.2010)	25.29
Allowed after true up in this order (pro-rata: 1.11.2010 to 31.12.2010)	25.29

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>	
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata: 1.1.2011 to 31.3.2011)</b>
As approved vide Order dated 9.7.2012	54.56
Claimed by the petitioner	54.56
Allowed after true up in this order	54.56

(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>			
<b>O&amp;M Expenses</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 9.7.2012	289.38	305.96	323.46
Claimed by the petitioner	289.38	305.96	323.46
Allowed after true up in this order	289.38	305.96	323.46

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

32. 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 I (COD: 1.2.2010)</b>		
<b>Interest on Working Capital</b>	<b>2009-10 (pro-rata: 1.2.1010 to 31.3.2010)</b>	<b>2010-11 (pro-rata: 1.4.2010 to 31.10.2010)</b>
As approved vide Order dated 28.12.2011	1.62	5.94
Claimed by the petitioner	1.65	6.03
Allowed after true up in this order	1.65	6.02

(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>	
<b>Interest on Working Capital</b>	<b>2010-11</b>
As approved vide Order dated 28.12.2011 (pro-rata: 1.11.2010 to 31.3.2011)	7.36
Claimed by the petitioner (pro-rata: 1.11.2010 to 31.12.2010)	3.01
Allowed after true up in this order (pro-rata: 1.11.2010 to 31.12.2010)	3.01

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>	
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata: 1.1.2011 to 31.3.2011)</b>
As approved vide Order dated 9.7.2012	7.42
Claimed by the petitioner	7.17
Allowed after true up in this order	7.13

(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>			
<b>Interest on Working Capital</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 9.7.2012	37.00	38.31	38.68
Claimed by the petitioner	37.72	38.75	39.05
Allowed after true up in this order	37.70	38.74	39.04

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**

33. 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 I (COD: 1.2.2010)</b>		
<b>Particulars</b>	<b>2009-10 (pro-rata: 1.2.2010 to 31.3.2010)</b>	<b>2010-11 (pro-rata: 1.4.2010 to 31.10.2010)</b>
<b>Depreciation</b>		
Opening Gross Block	1848.38	1906.96
Additional Capitalisation	58.58	61.93
Closing Gross Block	1906.96	1968.89
Average Gross Block	1877.67	1937.93
Rate of Depreciation (%)	5.28	5.28
Depreciable Value	1689.90	1770.49
Balance useful life of the asset	25	24
Elapsed life	0	1
Remaining Depreciable Value	1689.90	1727.61
Depreciation during the year	16.52	59.69
Cumulative depreciation (incl. of AAD)	16.52	76.21
<b>Interest on Loan</b>		
Gross Normative Loan	1293.87	1334.88
Cumulative Repayments upto Previous Year	0.00	16.52
Net Loan-Opening	1293.87	1318.35
Additions	41.01	43.35
Repayment during the year	16.52	59.69
Net Loan-Closing	1318.35	1302.02
Average Loan	1306.11	1310.18
Weighted Average Rate of Interest on Loan (%)	9.2396	9.2383
Interest on Loan	20.11	70.61
<b>Return on Equity</b>		
Opening Equity	554.51	572.08
Additions	17.57	18.58
Closing Equity	572.08	590.66
Average Equity	563.30	581.37
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931
Rate of Return on Equity (%)	18.674	19.358



<b>Asset I (COD: 1.2.2010)</b>		
<b>Particulars</b>	<b>2009-10 (pro-rata: 1.2.1010 to 31.3.2010)</b>	<b>2010-11 (pro-rata: 1.4.2010 to 31.10.2010)</b>
Return on Equity	17.53	65.65
<b>Interest on Working Capital</b>		
O & M Expenses	5.24	5.54
Maintenance Spares	9.43	9.97
Receivables	66.30	68.79
Total Working Capital	80.97	84.30
Rate of Interest (%)	12.25	12.25
Interest of working capital	9.92	10.33
<b>Annual Transmission Charges</b>		
Depreciation	16.52	59.69
Interest on Loan	20.11	70.61
Return on Equity	17.53	65.65
Interest on Working Capital	1.65	6.02
O & M Expenses	10.48	38.78
<b>Total</b>	<b>66.30</b>	<b>240.75</b>

(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata: 1.11.2010 to 31.12.2010)</b>
<b>Depreciation</b>	
Opening Gross Block	3452.15
Additional Capitalisation	73.93
Closing Gross Block	3526.08
Average Gross Block	3489.12
Rate of Depreciation (%)	5.29
Depreciable Value	3140.20
Balance useful life of the asset	28.00
Elapsed life	0.00
Remaining Depreciable Value	3063.99
Depreciation during the year	30.78
Cumulative depreciation (incl. of AAD)	106.99
<b>Interest on Loan</b>	
Gross Normative Loan	2416.51
Cumulative Repayments upto Previous Year	76.21
Net Loan-Opening	2340.29
Additions	51.75
Repayment during the year	30.78



<b>Combined Asset II (COD: 1.11.2010)</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata: 1.11.2010 to 31.12.2010)</b>
Net Loan-Closing	2361.27
Average Loan	2350.78
Weighted Average Rate of Interest on Loan (%)	9.2190
Interest on Loan	216.72
<b>Return on Equity</b>	
Opening Equity	1035.65
Additions	22.18
Closing Equity	1057.82
Average Equity	1046.73
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	19.931
Rate of Return on Equity (%)	19.358
Return on Equity	33.77
<b>Interest on Working Capital</b>	
O & M Expenses	12.65
Maintenance Spares	22.76
Receivables	128.97
Total Working Capital	164.39
Rate of Interest (%)	11.00
Interest of working capital	18.08
<b>Annual Transmission Charges</b>	
Depreciation	30.78
Interest on Loan	36.12
Return on Equity	33.77
Interest on Working Capital	3.01
O & M Expenses	25.29
<b>Total</b>	<b>128.97</b>

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata: 1.1.2011 to 31.3.2011)</b>
<b>Depreciation</b>	
Opening Gross Block	5669.36
Additional Capitalisation	323.82
Closing Gross Block	5993.18
Average Gross Block	5831.27
Rate of Depreciation (%)	5.29
Depreciable Value	5248.14



<b>Combined Asset III (COD: 1.1.2011)</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata: 1.1.2011 to 31.3.2011)</b>
Balance useful life of the asset	27.00
Elapsed life	0.00
Remaining Depreciable Value	5141.16
Depreciation during the year	77.08
Cumulative depreciation (incl. of AAD)	184.07
<b>Interest on Loan</b>	
Gross Normative Loan	3968.55
Cumulative Repayments upto Previous Year	106.99
Net Loan-Opening	3861.56
Additions	226.67
Repayment during the year	77.08
Net Loan-Closing	4011.16
Average Loan	3936.36
Weighted Average Rate of Interest on Loan (%)	9.0489
Interest on Loan	356.20
<b>Return on Equity</b>	
Opening Equity	1700.81
Additions	97.15
Closing Equity	1797.95
Average Equity	1749.38
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	19.931
Rate of Return on Equity (%)	19.358
Return on Equity	84.66
<b>Interest on Working Capital</b>	
O & M Expenses	18.19
Maintenance Spares	32.74
Receivables	208.32
Total Working Capital	259.24
Rate of Interest (%)	11.00
Interest of working capital	28.52
<b>Annual Transmission Charges</b>	
Depreciation	77.08
Interest on Loan	89.05
Return on Equity	84.66
Interest on Working Capital	7.13
O & M Expenses	54.56
<b>Total</b>	<b>312.48</b>





(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>			
<b>Particulars</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>			
Opening Gross Block	6784.45	7278.16	7312.89
Additional Capitalisation	493.71	34.73	0.37
Closing Gross Block	7278.16	7312.89	7313.26
Average Gross Block	7031.30	7295.52	7313.07
Rate of Depreciation (%)	5.29	5.29	5.29
Depreciable Value	6328.17	6788.14	6597.39
Balance useful life of the asset	27.00	26.00	25.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	6144.10	6009.80	5639.52
Depreciation during the year	372.10	386.08	387.00
Cumulative depreciation (incl. of AAD)	556.17	942.25	1329.25
<b>Interest on Loan</b>			
Gross Normative Loan	4749.11	5094.71	5119.02
Cumulative Repayments upto Previous Year	184.07	556.17	942.25
Net Loan-Opening	4565.05	4538.54	4176.77
Additions	345.60	24.31	0.26
Repayment during the year	372.10	386.08	387.00
Net Loan-Closing	4538.54	4176.77	3790.03
Average Loan	4551.79	4357.66	3983.40
Weighted Average Rate of Interest on Loan (%)	9.0568	9.0635	9.0603
Interest on Loan	412.25	394.96	360.91
<b>Return on Equity</b>			
Opening Equity	2035.33	2183.45	2193.87
Additions	148.11	10.42	0.11
Closing Equity	2183.45	2193.87	2193.98
Average Equity	2109.39	2188.66	2193.92
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (%)	19.377	19.377	19.610
Return on Equity	408.74	424.09	430.24
<b>Interest on Working Capital</b>			
O & M Expenses	24.11	25.49	26.94
Maintenance Spares	43.41	45.89	48.52
Receivables	253.36	258.30	256.77
Total Working Capital	320.87	329.69	332.24
Rate of Interest (%)	11.75	11.75	11.75



<b>Combined Asset IV (COD: 1.4.2011)</b>			
<b>Particulars</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Interest of working capital	37.70	38.74	39.04
<b>Annual Transmission Charges</b>			
Depreciation	372.10	386.08	387.00
Interest on Loan	412.25	394.96	360.91
Return on Equity	408.74	424.09	430.24
Interest on Working Capital	37.70	38.74	39.04
O & M Expenses	289.38	305.96	323.46
<b>Total</b>	<b>1520.17</b>	<b>1549.83</b>	<b>1540.64</b>

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

34. The petitioner has claimed the tariff charges for 2014-19 tariff period as under:-

(₹ 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	388.88	390.56	390.56	390.56	390.56
Interest on Loan	327.95	294.71	259.29	223.88	188.48
Return on Equity	432.32	434.20	434.20	434.20	434.20
Interest on Working Capital	42.91	42.77	42.52	42.29	42.08
O & M Expenses	297.91	307.79	317.99	328.54	339.50
<b>Total</b>	<b>1489.97</b>	<b>1470.03</b>	<b>1444.56</b>	<b>1419.47</b>	<b>1394.82</b>

35. 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	24.83	25.65	26.50	27.38	28.29
Maintenance Spares	44.69	46.17	47.70	49.28	50.93
Receivables	248.33	245.01	240.76	236.58	232.47
Total working capital	317.85	316.83	314.96	313.24	311.69
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	42.91	42.77	42.52	42.29	42.08



## **Capital Cost**

36. 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;”

37. The capital cost of ₹7313.26 lakh worked out by the Commission as on 31.3.2014 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**

38. 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.”

39. 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.”

40. The petitioner has projected an additional capital expenditure of ₹63.96 lakh for Combined Asset IV in 2014-15 towards balance and retention payments. The Commission has considered the submission of the petitioner and has allowed the same subject to true on actual basis.

**Debt: Equity**

41. Clause (1), (3) and (5) 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 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.”

42. The petitioner has considered the debt:equity ratio of 70.00:30.00 as on 31.3.2014, which is in line with the 2014 Tariff Regulations.

43. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

(₹ in lakh)



<b>Funding</b>	<b>Capital cost as on 31.3.2014</b>	<b>(%)</b>	<b>Additional capital expenditure during 2014-19</b>	<b>(%)</b>	<b>Total Cost as on 31.3.2019</b>	<b>(%)</b>
Debt	5119.28	70.00	44.77	70.00	5164.05	70.00
Equity	2193.98	30.00	19.19	30.00	2213.16	30.00
<b>Total</b>	<b>7313.26</b>	<b>100.00</b>	<b>63.96</b>	<b>100.00</b>	<b>7377.22</b>	<b>100.00</b>

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

44. 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.”

45. 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)

<b>Combined Asset IV</b>					
<b>Return on Equity</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	2193.98	2213.16	2213.16	2213.16	2213.16
Additions	19.19	0.00	0.00	0.00	0.00
Closing Equity	2213.16	2213.16	2213.16	2213.16	2213.16
Average Equity	2203.57	2213.16	2213.16	2213.16	2213.16
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	432.13	434.01	434.01	434.01	434.01

### **Interest on Loan (“IoL”)**

46. 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.”

47. 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>Combined Asset IV</b>					
<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	5119.28	5164.05	5164.05	5164.05	5164.05
Cumulative Repayment upto Previous Year	1329.25	1717.95	2108.35	2498.74	2889.13
Net Loan-Opening	3790.03	3446.10	3055.71	2665.31	2274.92
Additions	44.77	0.00	0.00	0.00	0.00
Repayment during the year	388.70	390.39	390.39	390.39	390.39
Net Loan-Closing	3446.10	3055.71	2665.31	2274.92	1884.53
Average Loan	3618.06	3250.90	2860.51	2470.12	2079.73
Weighted Average Rate of Interest on Loan (%)	9.0612	9.0626	9.0620	9.0613	9.0604
Interest on Loan	327.84	294.62	259.22	223.83	188.43

### **Depreciation**

48. 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."



49. 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>Combined Asset IV</b>					
<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	7313.26	7377.22	7377.22	7377.22	7377.22
Additional Capitalization	63.96	0.00	0.00	0.00	0.00
Closing Gross Block	7377.22	7377.22	7377.22	7377.22	7377.22
Average Gross Block	7345.24	7377.22	7377.22	7377.22	7377.22
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	5.29	5.29	5.29	5.29	5.29
Elapsed life	3	4	5	6	7
Balance Useful life of the asset	24	23	22	21	20
Remaining Depreciable Value	5281.46	4921.54	4531.15	4140.76	3750.37
Depreciation during the year	388.70	390.39	390.39	390.39	390.39

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

50. 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:-

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>132 kV Bays:</b>					
No. of Bays	7	7	7	7	7
Norms (₹ lakh/Bay)	30.15	31.15	32.18	33.25	34.36
<b>220 kV Bays:</b>					
No. of Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.10
<b>Line: S/C (Single Conductor):</b>					
Line Length (km)	11.56	11.56	11.56	11.56	11.56
Norms (₹ lakh/km)	0.202	0.209	0.216	0.223	0.230
<b>Line: D/C (Single Conductor):</b>					
Line Length (km)	0.35	0.35	0.35	0.35	0.35
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
<b>Total O&amp;M Expenses (₹ lakh)</b>	<b>297.91</b>	<b>307.79</b>	<b>317.99</b>	<b>328.54</b>	<b>339.50</b>





51. 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. 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)**

52. 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;”

53. 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%.

54. 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>Combined Asset IV</b>					
<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	24.82	25.64	26.49	27.37	28.28
Maintenance Spares	44.69	46.17	47.70	49.28	50.92
Receivables	248.25	244.93	240.69	236.51	232.40
Total	317.75	316.74	314.87	313.16	311.61
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	42.90	42.76	42.51	42.28	42.07

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

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

(₹ in lakh)

<b>Combined Asset IV</b>					
<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	7313.26	7377.22	7377.22	7377.22	7377.22
Additional Capitalisation	63.96	0.00	0.00	0.00	0.00
Closing Gross Block	7377.22	7377.22	7377.22	7377.22	7377.22
Average Gross Block	7345.24	7377.22	7377.22	7377.22	7377.22
Rate of Depreciation (%)	5.29	5.29	5.29	5.29	5.29
Depreciable Value	6610.88	6668.28	6639.49	6639.49	6639.49
Balance useful life of the asset	24.00	23.00	22.00	21.00	20.00
Elapsed life	3.00	4.00	5.00	6.00	7.00
Remaining Depreciable Value	5281.46	4921.54	4531.15	4140.76	3750.37
Depreciation during the year	388.70	390.39	390.39	390.39	390.39
Cumulative depreciation (incl. of AAD)	1717.95	2108.35	2498.74	2889.13	3279.52
<b>Interest on Loan</b>					
Gross Normative Loan	5119.28	5164.05	5164.05	5164.05	5164.05
Cumulative Repayments upto Previous Year	1329.25	1717.95	2108.35	2498.74	2889.13
Net Loan-Opening	3790.03	3446.10	3055.71	2665.31	2274.92
Additions	44.77	0.00	0.00	0.00	0.00
Repayment during the year	388.70	390.39	390.39	390.39	390.39
Net Loan-Closing	3446.10	3055.71	2665.31	2274.92	1884.53



<b>Combined Asset IV</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Average Loan	3618.06	3250.90	2860.51	2470.12	2079.73
Weighted Average Rate of Interest on Loan (%)	9.0612	9.0626	9.0620	9.0613	9.0604
Interest on Loan	327.84	294.62	259.22	223.83	188.43
<b>Return on Equity</b>					
Opening Equity	2193.98	2213.16	2213.16	2213.16	2213.16
Additions	19.19	0.00	0.00	0.00	0.00
Closing Equity	2213.16	2213.16	2213.16	2213.16	2213.16
Average Equity	2203.57	2213.16	2213.16	2213.16	2213.16
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	432.13	434.01	434.01	434.01	434.01
<b>Interest on Working Capital</b>					
O & M Expenses	24.82	25.64	26.49	27.37	28.28
Maintenance Spares	44.69	46.17	47.70	49.28	50.92
Receivables	248.25	244.93	240.69	236.51	232.40
Total Working Capital	317.75	316.74	314.87	313.16	311.61
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	42.90	42.76	42.51	42.28	42.07
<b>Annual Transmission Charges</b>					
Depreciation	388.70	390.39	390.39	390.39	390.39
Interest on Loan	327.84	294.62	259.22	223.83	188.43
Return on Equity	432.13	434.01	434.01	434.01	434.01
Interest on Working Capital	42.90	42.76	42.51	42.28	42.07
O & M Expenses	297.91	307.79	317.99	328.54	339.50
<b>Total</b>	<b>1489.48</b>	<b>1469.57</b>	<b>1444.12</b>	<b>1419.05</b>	<b>1394.40</b>

### **Deferred Tax Liability**

56. 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. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto



31.3.2009 whenever the same gets materialized directly from the beneficiaries or long term transmission customers /DICs.

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

57. 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**

58. 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**

59. 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**

60. 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.

61. This order disposes of Petition No. 529/TT/2014.

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

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



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

(₹ in lakh)

<b>Asset I (COD: 1.2.2010)</b>					
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Repayment</b>	<b>Total</b>
BOND XXVIII-COD Funding-	9.33	400.00	0.00	0.00	400.00
BOND XXIX-ADDCAP FOR 2009-2010 Add Cap Funding-	9.20	41.01	41.01	0.00	82.02
BOND XXIX-ADDCAP FOR 2010-2011 Add Cap Funding-	9.20	43.35	43.35	0.00	86.70
BOND XXIX-COD Funding-	9.20	893.87	0.00	0.00	893.87
<b>Total</b>		<b>1378.23</b>	<b>84.36</b>	<b>0.00</b>	<b>1462.59</b>

(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>					
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Repayment</b>	<b>Total</b>
BOND XXVIII-COD Funding-	9.33	400.00	0.00	0.00	400.00
BOND XXIX-ADDCAP FOR 2010-2011 Add Cap Funding-	9.20	23.49	23.49	0.00	46.98
BOND XXIX-Add cap funding-	9.20	84.36	0.00	0.00	84.36
BOND XXIX-COD Assert-I-	9.20	893.87	0.00	0.00	893.87
BOND XXIX-COD Funding-	9.20	1038.28	0.00	0.00	1038.28
BOND XXX-ADDCAP FOR 2010-2011 Add Cap Funding-	8.80	28.26	28.26	0.00	56.52
<b>Total</b>		<b>2468.26</b>	<b>51.75</b>	<b>0.00</b>	<b>2520.01</b>

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>					
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Repayment</b>	<b>Total</b>
BOND XXVIII-COD Funding-	9.33	400.00	0.00	0.00	400.00
BOND XXIX-COD Funding-	9.20	1038.28	0.00	0.00	1038.28
BOND XXIX-Add cap funding-	9.20	41.01	0.00	0.00	41.01
BOND XXIX-COD Assert-I	9.20	893.87	0.00	0.00	893.87
BOND XXIX-ADDCAP FOR 2010-2011 Add Cap Funding-	9.20	23.49	0.00	0.00	23.49
BOND XXIX-ADDCAP FOR 2010-2011 Add cap funding-	9.20	43.35	0.00	0.00	43.35



<b>Combined Asset III (COD: 1.1.2011)</b>					
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Repayment</b>	<b>Total</b>
BOND XXX-ADDCAP FOR 2010-2011 Add Cap Funding-	8.80	28.26	0.00	0.00	28.26
BOND XXX-COD Funding-	8.80	1166.74	0.00	0.00	1166.74
BOND XXXI-COD Funding-	8.90	194.00	0.00	0.00	194.00
BOND XXXIII-ADDCAP FOR 2010-2011 Add cap funding-	8.64	2.40	2.40	0.00	4.80
BOND XXXIII-COD Funding-	8.64	172.60	0.00	0.00	172.60
BOND-XXXIV-ADDCAP FOR 2010-2011 Add cap funding-	8.84	224.27	224.27	0.00	448.54
<b>Total</b>		<b>4228.27</b>	<b>226.67</b>	<b>0.00</b>	<b>4454.94</b>

(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>					
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Repayment</b>	<b>Total</b>
BOND XXVIII-COD DRAWL ON 01-APR-2011-	9.33	400.00	0.00	66.66	400.00
BOND XXIX-COD DRAWL ON 01-APR-2011-	9.20	2040.00	0.00	340.00	2040.00
BOND XXX-COD DRAWL ON 01-APR-2011-	8.80	1195.00	0.00	99.58	1195.00
BOND XXXI-COD DRAWL ON 01-APR-2011-	8.90	194.00	0.00	16.17	194.00
BOND XXXIII-COD DRAWL ON 01-APR-2011-	8.64	175.00	0.00	0.00	175.00
BOND-XXXIV-COD DRAWL ON 01-APR-2011-	8.84	592.50	0.00	0.00	592.50
BOND-XXXIV-COD Funding-	8.84	0.50	0.00	0.00	0.50
BOND-XXXV-AODCAP FOR 2011-2012 Add Cap Funding-	9.64	89.50	89.50	0.00	179.00
BOND-XXXV-COD Funding-	9.64	154.50	0.00	0.00	154.50
BOND XXXVII-ADDCAP FOR 2011-2012 Add Cap Funding-	9.25	221.69	221.69	0.00	443.38
BOND XXXVII-AODCAP FOR 2012-2013 Add Cap Funding-	9.25	24.31	24.31	0.00	48.62
<b>Total</b>		<b>5087.00</b>	<b>335.50</b>	<b>522.41</b>	<b>5422.50</b>



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

(₹ in lakh)

<b>Asset I (COD: 1.2.2010)</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	1293.87	1334.88	1378.23	1378.23	1378.23
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
<b>Net Loans Opening</b>	<b>1293.87</b>	<b>1334.88</b>	<b>1378.23</b>	<b>1378.23</b>	<b>1378.23</b>
Add: Draw(s) during the Year	41.01	43.35	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	0.00
<b>Net Closing Loan</b>	<b>1334.88</b>	<b>1378.23</b>	<b>1378.23</b>	<b>1378.23</b>	<b>1378.23</b>
Average Net Loan	1314.38	1356.56	1378.23	1378.23	1378.23
Rate of Interest on Loan (%)	9.2396	9.2383	9.2377	9.2377	9.2377
<b>Interest on Loan</b>	<b>121.44</b>	<b>125.32</b>	<b>127.32</b>	<b>127.32</b>	<b>127.32</b>

(₹ in lakh)

<b>Combined Asset II (COD: 1.11.2010)</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	0.00	2416.51	2468.26	2468.26	2468.26
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
<b>Net Loans Opening</b>	<b>0.00</b>	<b>2416.51</b>	<b>2468.26</b>	<b>2468.26</b>	<b>2468.26</b>
Add: Draw(s) during the Year	0.00	51.75	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	0.00
<b>Net Closing Loan</b>	<b>0.00</b>	<b>2468.26</b>	<b>2468.26</b>	<b>2468.26</b>	<b>2468.26</b>
Average Net Loan	0.00	2442.39	2468.26	2468.26	2468.26
Rate of Interest on Loan (%)	0.0000	9.2190	9.2165	9.2165	9.2165
<b>Interest on Loan</b>	<b>0.00</b>	<b>225.16</b>	<b>227.49</b>	<b>227.49</b>	<b>227.49</b>

(₹ in lakh)

<b>Combined Asset III (COD: 1.1.2011)</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	0.00	4001.60	4228.27	4228.27	4228.27
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
<b>Net Loans Opening</b>	<b>0.00</b>	<b>4001.60</b>	<b>4228.27</b>	<b>4228.27</b>	<b>4228.27</b>
Add: Draw(s) during the Year	0.00	226.67	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	0.00
<b>Net Closing Loan</b>	<b>0.00</b>	<b>4228.27</b>	<b>4228.27</b>	<b>4228.27</b>	<b>4228.27</b>
Average Net Loan	0.00	4114.94	4228.27	4228.27	4228.27
Rate of Interest on Loan (%)	0.0000	9.0489	9.0432	9.0432	9.0432
<b>Interest on Loan</b>	<b>0.00</b>	<b>372.36</b>	<b>382.37</b>	<b>382.37</b>	<b>382.37</b>





(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Gross Opening Loan	0.00	0.00	4751.50	5062.69	5087.00
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	203.33
<b>Net Loans Opening</b>	<b>0.00</b>	<b>0.00</b>	<b>4751.50</b>	<b>5062.69</b>	<b>4883.67</b>
Add: Draw(s) during the Year	0.00	0.00	311.19	24.31	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	203.33	319.08
<b>Net Closing Loan</b>	<b>0.00</b>	<b>0.00</b>	<b>5062.69</b>	<b>4883.67</b>	<b>4564.59</b>
Average Net Loan	0.00	0.00	4907.10	4973.18	4724.13
Rate of Interest on Loan (%)	0.0000	0.0000	9.0568	9.0635	9.0603
<b>Interest on Loan</b>	<b>0.00</b>	<b>0.00</b>	<b>444.43</b>	<b>450.74</b>	<b>428.02</b>



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

(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>					
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on 1.4.2014</b>	<b>Additions during the tariff period</b>	<b>Repayment</b>	<b>Total</b>
BOND XXVIII-COD DRAWL ON 01-APR-2011-	9.33	400.00	0.00	166.65	400.00
BOND XXIX-COD DRAWL ON 01-APR-2011-	9.20	2040.00	0.00	850.00	2040.00
BOND XXX-COD DRAWL ON 01-APR-2011-	8.80	1195.00	0.00	497.90	1195.00
BOND XXXI-COD DRAWL ON 01-APR-2011-	8.90	194.00	0.00	80.85	194.00
BOND XXXIII-COD DRAWL ON 01-APR-2011-	8.64	175.00	0.00	72.90	175.00
BOND-XXXIV-COD DRAWL ON 01-APR-2011-	8.84	592.50	0.00	246.90	592.50
BOND-XXXIV-COD Funding-	8.84	0.50	0.00	0.20	0.50
BOND-XXXV-AODCAP FOR 2011-2012 Add Cap Funding-	9.64	89.50	0.00	29.84	89.50
BOND-XXXV-COD Funding-	9.64	154.50	0.00	51.52	154.50
BOND XXXVII-ADDCAP FOR 2011-2012 Add Cap Funding-	9.25	221.69	0.00	73.88	221.69
BOND XXXVII-AODCAP FOR 2012-2013 Add Cap Funding-	9.25	24.31	0.00	8.12	24.31
<b>Total</b>		<b>5087.00</b>	<b>0.00</b>	<b>2078.76</b>	<b>5087.00</b>

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

(₹ in lakh)

<b>Combined Asset IV (COD: 1.4.2011)</b>					
<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	<b>5087.00</b>	<b>5087.00</b>	<b>5087.00</b>	<b>5087.00</b>	<b>5087.00</b>
Cumulative Repayments of Loans upto Previous Year	522.41	905.49	1329.41	1753.33	2177.25
<b>Net Loans Opening</b>	<b>4564.59</b>	<b>4181.51</b>	<b>3757.59</b>	<b>3333.67</b>	<b>2909.75</b>
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	383.08	423.92	423.92	423.92	423.92
<b>Net Closing Loan</b>	<b>4181.51</b>	<b>3757.59</b>	<b>3333.67</b>	<b>2909.75</b>	<b>2485.83</b>
Average Net Loan	4373.05	3969.55	3545.63	3121.71	2697.79
Rate of Interest on Loan (%)	9.0612	9.0626	9.0620	9.0613	9.0604
<b>Interest on Loan</b>	<b>396.25</b>	<b>359.74</b>	<b>321.31</b>	<b>282.87</b>	<b>244.43</b>

