

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO. 32/TT/2015**

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

**Date of Hearing : 21.12.2015**  
**Date of Order : 25.04.2016**

**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 Transmission System associated with Neyveli Lignite Corporation-II (NLCII) Expansion Project in Southern 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. Karnataka Power Transmission Corporation Ltd.,  
(KPTCL), Kaveri Bhavan, Bangalore - 560 009
2. Transmission Corporation of Andhra Pradesh Ltd. Hyderabad  
(APTRANSCO), Vidyut Soudha, Hyderabad- 500082
3. Kerala State Electricity Board, Thiruvananthapuram  
Vaidyuthi Bhavanam, Pattom,  
Thiruvananthapuram - 695 004
4. Tamil Nadu Generation and Distribution Corporation Ltd  
(Formerly Tamilnadu Electricity Board -TNEB)  
NPKRR Maaligai, 800, Anna Salai  
Chennai - 600 002



5. Electricity Department  
Govt of Pondicherry,  
Pondicherry – 605001
6. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)  
APEPDCL, P&T Colony,  
Seethmmadhara  
Vishakhapatnam, Andhra Pradesh
7. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta,  
Tiruptai-517 501,  
Chittoor District,  
Andhra Pradesh
8. Central Power Distribution Company of Andhra Pradesh limited (APCPDCL)  
Corporate Office, Mint Compound,  
HYDERABAD - 500 063  
Andhra Pradesh
9. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)  
Opp. NIT Petrol Pump  
Chaitanyapuri, Kazipet,  
WARANGAL - 506 004  
Andhra Pradesh
10. Bangalore Electricity Supply Company Ltd.,(BESCOM),  
Corporate Office, K.R.Circle  
BANGALORE - 560 001  
Karnataka
11. Gulbarga Electricity Supply Company Ltd., (GESCOM)  
Station Main Road, GULBURGA  
Karnataka
12. Hubli Electricity Supply Company Ltd., (HESCOM)  
Navanagar, PI3 Road  
HUBLI, Karnataka
13. MESCOM Corporate Office,  
Paradigm Plaza, AB Shetty Circle  
MANGALORE - 575 001  
Karnataka
14. Chamundeswari Electricity Supply Corporation Ltd., (CESC)  
# 927,L J Avenue,  
Ground Floor, New Kantharaj Urs Road

Saraswatipuram, MYSORE - 570 009  
KARNATAKA

15. Electricity Department  
Government of Goa  
Vidyuti Bhawan, Panaji  
Goa 403001

....Respondent(s)

The following were present:

For Petitioner: Shri S.K. Niranjana, PGCIL  
Shri S.S. Raju, PGCIL  
Shri Jasbir Singh, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri Anshul Garg, PGCIL  
Shri M.M. Mondal, PGCIL  
Shri S.K Venkatesan, PGCIL  
Shri Piyush Awasthi, PGCIL  
Smt. Sangeeta Edwards, PGCIL

For Respondents: Shri S. Vallinayagam, Advocate TANGEDCO

### **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 Transmission System associated with Neyveli Lignite Corporation-II (NLCII) Expansion Project in Southern Region (referred to as "the transmission assets").

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

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

Sr. No.	Description	COD	Referred to as
1	LILO of Ramagundam - Khammam T/L at Warangal Sub-station	1.8.2009	Asset 1
2	2x315 MVA Auto Transformer & 400/220 kV Bays Equipment at Warangal Sub-station	1.8.2009	Asset 2
3	Combined assets of LILO of Ramagundam – Khammam TL and Neyveli - Pugalur –Madurai 400 kV DC TL	1.9.2009	Asset 3
4	2x315 MVA Auto Transformer & 400/220 kV Bays Equipment at Pugalur	1.9.2009	Asset 4
5	Udumalpet- Arasur 400 kV D/C Line along with 400/220 kV sub-station at Arasur and associated bays at Udumalpet and LILO of Neyveli Sriperumbudur 400 kV S/C line at Puducherry sub-station with associated bays	1.8.2010	Asset 5
6	315 MVA ICT-I along with associated bays and 220 kV downstream equipment at Arasur 400/220 kV sub station	1.8.2010	Asset 6
7	315 MVA ICT-II along with associated bays and 220 kV downstream equipment at Arasur 400/220 kV S/S	1.9.2010	Asset 7
8	2 Nos.315 MVA ICT's along with associated bays and 220 kV downstream equipment at Puducherry 400/220 kV sub-station	1.10.2010	Asset 8
9	2 Nos. of 50 MVAR line Reactors at Pugalur 400/220 kV sub-station along with associated bays at Pugalur sub-station	1.10.2010	Asset 9

4. The petitioner has claimed the tariff for combined assets as mentioned below:-

Assets	COD	Tariff period
Asset 1	1.8.2009	1.8.2009 to 1.9.2009
Asset 2	1.8.2009	1.8.2009 to 31.3.2014
Combined Assets 1 & 3	1.9.2009	1.9.2009 to 31.7.2010
Asset 4	1.9.2009	1.9.2009 to 31.7.2010
Combined Assets 1, 3 & 5	1.10.2010	1.8.2010 to 30.9.2010
Combined Assets 1, 3, 5 & 9	1.10.2010	1.10.2010 to 31.3.2014



<b>Assets</b>	<b>COD</b>	<b>Tariff period</b>
Combined Assets 4 & 6	1.8.2010	1.8.2010 to 31.8.2010
Combined Assets 4, 6 & 7	1.9.2010	1.9.2010 to 31.3.2014
Asset 8	1.10.2010	1.10.2010 to 31.3.2014
Combined Assets 1 to 9	1.1.2010	1.4.2014 to 31.3.2019

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

a) The investment approval and expenditure sanction for the transmission project was accorded by the Ministry of Power vide letter dated 11.1.2005 at an estimated cost of ₹69183 lakh including IDC of ₹4135 lakh (based on 2<sup>nd</sup> Quarter, 2004 price level). Subsequently, approval for the Revised Cost Estimates (RCE) for the project was accorded by the Board of Directors of the petitioner vide Memorandum No. C/CP/RCE NLC-II, dated 22.3.2010 for a total cost of ₹96239.00 lakh including IDC of ₹10732.00 lakh (based on 3<sup>rd</sup> Quarter 2009 price level). As per the investment approval, the project was scheduled to be completed in 35 months from the date of investment approval, i.e. by 1.1.2008.

b) The Commission had determined the tariff for Asset 1, Asset 2, Asset 4 and Combined Assets 1 & 3 in its order dated 11.1.2012 in Petition No. 136/2010. The Commission has revised the order in Petition No. 136/2010 vide order dated 10.2.2014 consequent to order dated 9.5.2013 in Petition No. 7/RP/2012. The Commission had determined the tariff for Combined Assets 1, 3 & 5, Combined Assets 1, 3, 5 & 9, Combined Assets 4 & 6, Combined Assets 4, 6 & 7 and Asset 8 in its order dated 21.2.2014 in Petition No. 332/2010. Later the Commission had revised the order in Petition No. 332/2010 vide its order dated 3.9.2015 in light of the APTEL's judgement in Appeal No. 129 of 2014. The capital cost admitted by

the Commission as on COD for the transmission assets in its order dated 10.2.2014 and 3.9.2015 is depicted below:-

<b>Capital cost admitted as on COD</b>			
<b>Funding</b>	<b>Amount (₹ in lakh)</b>	<b>Percentage (%)</b>	<b>Approved in</b>
<b>Asset 1</b>			Order dated 10.2.2014 in Petition No. 136/2010
Debt	2730.15	70.00	
Equity	1170.06	30.00	
<b>Total</b>	<b>3900.21</b>	<b>100.00</b>	
<b>Asset 2</b>			
Debt	3117.74	70.00	
Equity	1336.17	30.00	
<b>Total</b>	<b>4453.91</b>	<b>100.00</b>	
<b>Combined Assets 1 &amp; 3</b>			
Debt	32832.39	70.00	
Equity	14071.02	30.00	
<b>Total</b>	<b>46903.41</b>	<b>100.00</b>	
<b>Asset 4</b>			Order dated 3.9.2015 in Petition No. 332/2010
Debt	2860.34	70.00	
Equity	1225.86	30.00	
<b>Total</b>	<b>4086.20</b>	<b>100.00</b>	
<b>Combined Assets 1, 3 &amp; 5</b>			
Debt	46371.28	70.00	
Equity	19873.40	30.00	
<b>Total</b>	<b>66244.68</b>	<b>100.00</b>	
<b>Combined Assets 1, 3, 5 &amp; 9</b>			
Debt	47094.75	70.00	
Equity	20183.47	30.00	
<b>Total</b>	<b>67278.22</b>	<b>100.00</b>	
<b>Combined Assets 4 &amp; 6</b>			
Debt	4355.88	70.00	
Equity	1866.80	30.00	
<b>Total</b>	<b>6222.68</b>	<b>100.00</b>	
<b>Combined Assets 4, 6 &amp; 7</b>			
Debt	5704.02	70.00	
Equity	2444.58	30.00	
<b>Total</b>	<b>8148.60</b>	<b>100.00</b>	
<b>Asset 8</b>			
Debt	3036.83	70.00	
Equity	1301.50	30.00	
<b>Total</b>	<b>4338.33</b>	<b>100.00</b>	

c) The Commission in its order dated 10.2.2014 in Petition No. 136/2010 had disallowed an IDC/IEDC of ₹1289.60 lakh and ₹160.61 lakh from Asset 3 and Asset 4 respectively, on account of delay of 7 months. Further the Commission in its order dated 3.9.2015 in Petition No. 332/2010 had disallowed an IDC/IEDC of ₹406.68 lakh, ₹464.54 lakh and ₹214.15 lakh in Asset 5, Asset 8 and Asset 9 respectively.

d) The Commission in its order dated 3.9.2015 and 10.2.2014 had allowed the following additional capital expenditure for the 2009-14 tariff period:-

Assets	Approved in:	Additional capital expenditure during 2009-14				
		2009-10	2010-11	2011-12	2012-13	2013-14
Asset 1	Order dated 10.2.2014 in 136/2010	315.09	-	-	-	-
Asset 2		112.85	93.40	25.50	-	-
Combined Assets 1 & 3		2273.04	625.16	175.10	-	-
Asset 4		241.85	83.33	14.15	-	-
Combined Assets 1, 3 & 5	Order dated 3.9.2015 in 332/2010	-	2489.75	325.10	-	-
Combined Assets 1, 3, 5 & 9		-	2628.85	345.10	-	-
Combined Assets 4 & 6		-	83.33	170.26	-	-
Combined Assets 4, 6 & 7		-	83.33	311.37	15.00	-
Asset 8		-	65.04	10.00	-	-

e) The revised transmission tariff allowed by the Commission in the order dated 3.9.2015 and 10.2.2014 is depicted below:-

(₹ in lakh)

Asset 1	
Particulars	2009-10 (pro-rata)
Depreciation	16.77
Interest on Loan	10.41

<b>Asset 1</b>	
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>
Return on Equity	17.73
Interest on Working Capital	1.41
O & M Expenses	9.46
<b>Total</b>	<b>55.79</b>

(₹ in lakh)

<b>Asset 2</b>					
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	155.64	237.48	239.55	239.98	239.98
Interest on Loan	94.8	135.74	124.7	112.35	99.86
Return on Equity	157.69	241.94	245.06	245.73	245.73
Interest on Working Capital	19.34	30	30.86	31.67	32.51
O & M Expenses	216.59	343.48	363.14	383.88	405.84
<b>Total</b>	<b>644.07</b>	<b>988.64</b>	<b>1003.31</b>	<b>1013.61</b>	<b>1023.92</b>

(₹ in lakh)

<b>Combined Assets 1 &amp; 3</b>					
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	1466.97	2587.89	2606.99	2611.00	2611.00
Interest on Loan	886.98	1478.82	1362.95	1226.26	1089.63
Return on Equity	1469.55	2595.22	2616.20	2620.79	2620.79
Interest on Working Capital	98.08	172.18	172.51	171.85	171.13
O & M Expenses	367.63	666.33	704.48	744.75	787.20
<b>Total</b>	<b>4289.20</b>	<b>7500.44</b>	<b>7463.13</b>	<b>7374.66</b>	<b>7279.76</b>

(₹ in lakh)

<b>Asset 4</b>					
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	129.69	230.91	233.49	233.87	233.87
Interest on Loan	87.56	147.78	137.08	123.12	109.22
Return on Equity	128.70	229.16	231.72	232.09	232.09
Interest on Working Capital	16.69	29.85	30.72	31.48	32.29
O & M Expenses	189.51	343.48	363.14	383.88	405.84
<b>Total</b>	<b>552.15</b>	<b>981.18</b>	<b>996.15</b>	<b>1004.44</b>	<b>1013.3</b>





(₹ in lakh)

<b>Combined Assets 1, 3 &amp; 5</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Depreciation	578.07
Interest on Loan	403.77
Return on Equity	589.85
Interest on Working Capital	37.20
O & M Expenses	175.05
<b>Total</b>	<b>1783.94</b>

(₹ in lakh)

<b>Combined Assets 4 &amp; 6</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Depreciation	27.59
Interest on Loan	19.25
Return on Equity	27.38
Interest on Working Capital	3.31
O & M Expenses	42.94
<b>Total</b>	<b>120.46</b>

(₹ in lakh)

<b>Combined Assets 4, 6 &amp; 7</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	252.51	443.31	451.94	452.34
Interest on Loan	194.24	318.73	294.87	263.85
Return on Equity	250.55	439.87	448.43	448.82
Interest on Working Capital	30.98	55	56.73	58.14
O & M Expenses	400.73	726.28	767.76	811.68
<b>Total</b>	<b>1129.02</b>	<b>1983.19</b>	<b>2019.73</b>	<b>2034.83</b>

(₹ in lakh)

<b>Asset 8</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	104.36	210.69	210.96	210.96
Interest on Loan	118.70	226.56	209.12	191.24
Return on Equity	114.61	231.18	231.45	231.45
Interest on Working Capital	14.00	28.76	29.37	30.02
O & M Expenses	171.74	363.14	383.88	405.84
<b>Total</b>	<b>523.42</b>	<b>1060.34</b>	<b>1064.77</b>	<b>1069.51</b>



(₹ in lakh)

<b>Combined Assets 1, 3, 5 &amp; 9</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	1763.32	3599.88	3608.38	3608.38
Interest on Loan	1240.71	2375.93	2142.79	1891.44
Return on Equity	1798.48	3674.95	3684.00	3684.00
Interest on Working Capital	115.71	235.25	234.46	233.00
O & M Expenses	580.51	1227.48	1299.65	1371.69
<b>Total</b>	<b>5498.74</b>	<b>11113.49</b>	<b>10969.28</b>	<b>10788.51</b>

6. 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.

7. In this context, the petitioner has filed the instant petition on 30.12.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

8. 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. Respondent No 4 i.e. Tamil Nadu Generation and Distribution Corporation Limited (hereinafter referred to as "TANGEDCO") has filed its replies vide affidavit dated 18.12.2015.

9. The Commission had also directed the petitioner to submit the revised tariff forms in line with the in compliance of the APTEL's decision in Appeal No: 129 of 2014. The petitioner in response to the TANGEDCO's reply has filed a rejoinder and revised tariff forms vide affidavit dated 30.1.2016. The hearing in this matter was held on 21.12.2015.

10. 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**

11. 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”.

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 as on COD (₹in lakh)</b>
Asset 1	3900.21
Asset 2	4453.91
Combined Assets 1 & 3	46949.84
Asset 4	4086.20
Combined Assets 1, 3 & 5	65951.94
Combined Assets 1, 3, 5 & 9	67138.37
Combined Assets 4 & 6	6243.73
Combined Assets 4, 6 & 7	8181.75
Asset 8	4338.32

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. The Commission in its order dated 11.1.2012 in Petition No. 136/2010 deducted IDC and IEDC for six months upto 31.7.2009 for Asset 1 and Asset 2 and upto 31.8.2009 for Asset 3 and Asset 4. The IDC and IEDC disallowed in this order is mentioned below:-

<b>Assets</b>	<b>IDC/IEDC Disallowed (₹ in lakh)</b>
Asset 1	111.67
Asset 2	92.78
Asset 3	1283.84
Asset 4	160.04

17. Further the Commission in its order dated 21.2.2014 in Petition No. 332/2010 deducted IDC and IEDC of ₹824.00 lakh, ₹43.48 lakh, ₹49.63 lakh, ₹464.54 lakh and ₹214.15 lakh in Asset 5, Asset 6, Asset 7, Asset 8 and Asset 9 respectively.

18. Later the petitioner aggrieved by the Commission's order dated 21.2.2014 had filed an appeal i.e. Appeal No. 129 of 2014 before the Appellate Tribunal for Electricity ("the Tribunal"). The Tribunal in its judgment dated 5.5.2015 partly allowed the appeal. The Tribunal condoned the total time over-run in case of Assets 5(a), 6 and 7 and directed to allow IDC and IEDC and upheld the Commission's order disallowing the time over-run in respect of Asset 5(b), 8 and 9. Further the petitioner has filed a Review Petition No. 7/RP/2012 seeking review of the Commission's order dated 11.1.2012 in Petition No.136/2010. The Commission, vide order dated 9.5.2013 in Petition No. 7/RP/2012, while partially allowing the petitioner's prayer condoned the time over-run of 6 months in case of Asset 1&2 and accordingly, the IDC and IEDC for the period of 6 months is allowed to be capitalized.

19. Thus in view of the above the Commission had revised the orders in Petition No. 136/2010 and 332/2010 and the IEDC/IDC disallowed is as follows:-

<b>Assets</b>	<b>IDC/IEDC Disallowed (₹ in lakh)</b>
Asset 1	-
Asset 2	-
Asset 3	1289.60
Asset 4	160.61
Asset 5	406.68
Asset 6	-
Asset 7	-
Asset 8	464.54
Asset 9	214.15

20. The IEDC/IDC disallowed in the Commission's order dated 10.2.2014 and 3.9.2015 in Petition No. 136/2010 and 332/2010 has been considered in this order for allowing the capital cost as on COD.

### **Treatment of Initial Spares**

21. The petitioner has claimed initial spares of ₹107.29 lakh and ₹6.23 lakh in Asset 2 and Asset 9 respectively. The initial spares claimed are within the normative limit as per the Regulation 8 of the 2009 Tariff Regulations.

22. The capital cost allowed as on COD after treatment of IEDC/IDC and initial spares for determination of tariff for the 2009-14 tariff period is follows:-

<b>Assets</b>	<b>Capital cost as on COD</b>
Asset 1	3900.21
Asset 2	4453.91
Combined Assets 1 & 3	46944.03
Asset 4	4086.20
Combined Assets 1, 3 & 5	65951.94
Combined Assets 1, 3, 5 & 9	67138.38
Combined Assets 4 & 6	6240.21
Combined Assets 4, 6 & 7	8178.67
Asset 8	4338.33

## Additional Capital Expenditure

23. 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”

24. The additional capital expenditure approved by the Commission in its order dated 10.2.2014 in Petition No. 136/2010 and in order dated 3.9.2015 in Petition No. 332/2010 are depicted below:-

(₹ in lakh)

Assets	Approved in:	Capital cost as on COD	Additional Capital expenditure during 2009-14				
			2009-10	2010-11	2011-12	2012-13	2013-14
Asset 1	Order dated 10.2.2014 in 136/2010	3900.21	315.09	-	-	-	-
Asset 2		4453.91	112.85	93.40	25.50	-	-
Combined Assets 1 & 3		46903.41	2273.04	625.16	175.10	-	-
Asset 4		4086.20	241.85	83.33	14.15	-	-
Combined Assets 1, 3 & 5	Order dated 3.9.2015 in 332/2010	66244.68	-	2489.75	325.10	-	-
Combined Assets 1, 3, 5 & 9		67278.22	-	2628.85	345.10	-	-
Combined Assets 4 & 6		6222.68	-	83.33	170.26	-	-
Combined Assets 4, 6 & 7		8148.60	-	83.33	311.37	15.00	-
Asset 8		4338.33	-	65.04	10.00	-	-

25. The petitioner has submitted the Auditor's Certificates dated 20.10.2014 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), 9(2) and Second Amendment of the 2009 Tariff Regulations. The additional expenditure claimed by the petitioner during 2009-14 tariff period are depicted below:-

(₹ in lakh)

Assets	Capital cost as on COD	Additional Capital expenditure during 2009-14					Capital cost as on 31.3.2014
		2009-10	2010-11	2011-12	2012-13	2013-14	
Asset 1	3900.21	324.99	95.16	57.05	-	-	4377.41
Asset 2	4453.91	114.31	34.27	-	-	-	4602.49
Combined Assets 1 & 3	46949.84	1824.81	326.89	824.08	30.59	-	49956.21
Asset 4	4086.20	257.62	5.28	67.59	-	-	4416.69
Combined Assets 1, 3 & 5	65951.94	-	611.57	1806.11	99.15	-	68468.77
Combined Assets 1, 3, 5 & 9	67138.37	-	461.85	1825.97	99.15	-	69525.34
Combined Assets 4 & 6	6243.73	-	96.82	121.11	4.70	-	6466.36
Combined Assets 4, 6 & 7	8181.75	-	181.54	174.63	9.40	-	8547.32
Asset 8	4338.32	-	56.01	18.55	-	-	4412.88

26. The TANGEDCO has submitted that the petitioner has not furnished the reasons for increase in the additional capital expenditure of Combined Assets 1, 3, 5 & 9 for the year 2011-12 and the petitioner has also not furnished the year of execution of work in respect of the liabilities discharged and whether it actually benefits the transmission system.

27. The petitioner in response to the TANGEDCO's reply has submitted that that the add cap admitted by the Commission in respect of Combined Asset B i.e. Asset-1, Asset-3, Asset-5 and Asset-9 during 2010-11 and 2011-12 was ₹2629 lakh and ₹345 lakh respectively against which actual additional capital expenditure incurred during 2010-11, 2011-12 and 2012-13 is ₹461 lakh, ₹1826 lakh and ₹99 lakh respectively,



hence total additional capital expenditure admitted by the Commission during 2009-14 amounts to ₹2974 lakh against which actual add cap incurred during 2009-14 amounts to ₹2386 lakh which is well within the admitted cost. It may further be submitted that the cost admitted by the Commission in petition no. 332/2010 was based on the audited statement of account of Powergrid for the year ended on 31.03.2010. Additional capital expenditure admitted during 2010-11 and 2011-12 was based on projected expenditure.

28. 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 20.10.2014 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.

29. 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 during 2009-14					Capital cost as on 31.3.2014
		2009-10	2010-11	2011-12	2012-13	2013-14	
Asset 1	3900.21	40.62	-	-	-	-	-
Combined Assets 1 & 3	46944.03	1830.62	109.06	-	-	-	-
Combined Assets 1, 3 & 5	65951.94	-	152.89	-	-	-	-
<b>Combined Assets 1, 3, 5 &amp; 9</b>	<b>67138.38</b>	-	<b>461.85</b>	<b>1825.97</b>	<b>99.15</b>	-	<b>69525.35</b>
<b>Asset 2</b>	<b>4453.91</b>	<b>114.31</b>	<b>34.27</b>	-	-	-	<b>4602.49</b>
Asset 4	4086.20	257.62	1.76	-	-	-	-
Combined Assets 4 & 6	6240.21	-	12.54	-	-	-	-

Assets	Capital cost as on COD	Additional Capital expenditure during 2009-14					Capital cost as on 31.3.2014
		2009-10	2010-11	2011-12	2012-13	2013-14	
<b>Combined Assets 4, 6 &amp; 7</b>	<b>8178.67</b>	-	<b>184.62</b>	<b>174.63</b>	<b>9.40</b>	-	<b>8547.32</b>
Asset 8	4338.33	-	56.01	18.55	-	-	4412.89

30. 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**

31. 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.”

32. The admitted debt:equity ratio of 70.00:30.00 as on COD was considered by the Commission in order dated 10.2.2014 in Petition No. 136/2010 and order dated 3.9.2015 in Petition No. 332/2010 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.

33. 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 1</b>						
Debt	2730.15	70.00	28.44	70.00	2758.58	70.00
Equity	1170.06	30.00	12.19	30.00	1182.25	30.00
<b>Total</b>	<b>3900.21</b>	<b>100.00</b>	<b>40.62</b>	<b>100.00</b>	<b>3940.83</b>	<b>100.00</b>
<b>Asset 2</b>						
Debt	3117.74	70.00	104.01	70.00	3221.74	70.00
Equity	1336.17	30.00	44.57	30.00	1380.75	30.00
<b>Total</b>	<b>4453.91</b>	<b>100.00</b>	<b>148.58</b>	<b>100.00</b>	<b>4602.49</b>	<b>100.00</b>
<b>Combined Assets 1 &amp; 3</b>						
Debt	32860.82	70.00	1357.78	70.00		
Equity	14083.21	30.00	581.90	30.00		
<b>Total</b>	<b>46944.03</b>	<b>100.00</b>	<b>1939.68</b>	<b>100.00</b>		
<b>Asset 4</b>						
Debt	2860.34	70.00	181.57	70.00		
Equity	1225.86	30.00	77.81	30.00		
<b>Total</b>	<b>4086.20</b>	<b>100.00</b>	<b>259.38</b>	<b>100.00</b>		
<b>Combined Assets 1, 3 &amp; 5</b>						
Debt	46166.36	70.00	107.03	70.00		
Equity	19785.58	30.00	45.87	30.00		
<b>Total</b>	<b>65951.94</b>	<b>100.00</b>	<b>152.89</b>	<b>100.00</b>		
<b>Combined Assets 1, 3, 5 &amp; 9</b>						
Debt	46996.86	70.00	1670.88	70.00	48667.75	70.00
Equity	20141.51	30.00	716.09	30.00	20857.61	30.00
<b>Total</b>	<b>67138.38</b>	<b>100.00</b>	<b>2386.97</b>	<b>100.00</b>	<b>69525.35</b>	<b>100.00</b>
<b>Combined Assets 4 &amp; 6</b>						
Debt	4368.15	70.00	8.78	70.00		
Equity	1872.06	30.00	3.76	30.00		
<b>Total</b>	<b>6240.21</b>	<b>100.00</b>	<b>12.54</b>	<b>100.00</b>		
<b>Combined Assets 4, 6 &amp; 7</b>						
Debt	5725.07	70.00	258.05	70.00	5983.12	70.00

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Equity	2453.60	30.00	110.59	30.00	2564.20	30.00
<b>Total</b>	<b>8178.67</b>	<b>100.00</b>	<b>368.65</b>	<b>100.00</b>	<b>8547.32</b>	<b>100.00</b>
<b>Asset 8</b>						
Debt	3036.83	70.00	52.19	70.00	3089.02	70.00
Equity	1301.50	30.00	22.37	30.00	1323.87	30.00
<b>Total</b>	<b>4338.33</b>	<b>100.00</b>	<b>74.56</b>	<b>100.00</b>	<b>4412.89</b>	<b>100.00</b>

### Return on Equity (“ROE”)

34. 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:

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

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 maybe, 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.”

35. 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%

36. TANGEDCO has submitted that the petitioner cannot claim the difference in tax from beneficiaries and is entitled for grossing up ROE only on actual tax paid during the respective financial year and hence the difference in tax liabilities should not be passed on to the beneficiaries unless there is any amendment in the Income Tax Act providing retrospective effect.

37. The petitioner has submitted that the petitioner being liable to pay income tax at MAT rate, the ROE has been calculated @ 19.610 % after grossing up the ROE with MAT rate of 20.961% based on the rate prescribed by the Hon'ble Commission as per illustration under regulation 25 (2) (i) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. That as per clause 25 (3) of the above regulation, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall

be recoverable /adjustable during / after completion of income tax assessment of the financial year.

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

(₹ in lakh)

<b>Asset 1</b>	
<b>Return on Equity</b>	<b>2009-10 (pro-rata)</b>
As approved vide Order dated 10.2.2014	17.73
Claimed by the petitioner	18.97
Allowed after true up in this order	18.30

(₹ in lakh)

<b>Asset 2</b>					
<b>Return on Equity</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 10.2.2014	157.69	241.94	245.06	245.73	245.73
Claimed by the petitioner	168.48	266.29	267.55	267.55	270.76
Allowed after true up in this order	168.48	266.29	267.55	267.55	270.77

(₹ in lakh)

<b>Combined Assets 1 &amp; 3</b>		
<b>Return on Equity</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	1469.55	2595.22
Claimed by the petitioner	1564.07	947.32
Allowed after true up in this order	1563.98	945.25

(₹ in lakh)

<b>Asset 4</b>		
<b>Return on Equity</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	128.70	229.16
Claimed by the petitioner	137.75	84.14
Allowed after true up in this order	137.74	84.11



(₹ in lakh)

Combined Assets 1, 3 & 5	
Return on Equity	2010-11 (pro-rata)
As approved vide Order dated 3.9.2015	589.85
Claimed by the petitioner	641.31
Allowed after true up in this order	639.10

(₹ in lakh)

Combined Assets 4 & 6	
Return on Equity	2010-11 (pro-rata)
As approved vide Order dated 3.9.2015	27.38
Claimed by the petitioner	30.45
Allowed after true up in this order	30.23

(₹ in lakh)

Combined Assets 4, 6 & 7				
Return on Equity	2010-11 (pro-rata)	2011-12	2012-13	2013-14
As approved vide Order dated 3.9.2015	250.55	439.87	448.43	448.82
Claimed by the petitioner	280.24	491.22	496.56	502.81
Allowed after true up in this order	280.20	491.24	496.59	502.85

(₹ in lakh)

Asset 8				
Return on Equity	2010-11 (pro-rata)	2011-12	2012-13	2013-14
As approved vide Order dated 3.9.2015	114.61	231.18	231.45	231.45
Claimed by the petitioner	126.78	255.98	256.51	259.60
Allowed after true up in this order	126.79	255.99	256.52	259.62

(₹ in lakh)

Combined Assets 1, 3, 5 & 9				
Return on Equity	2010-11 (pro-rata)	2011-12	2012-13	2013-14
As approved vide Order dated 3.9.2015	1798.48	3674.95	3684.00	3684.00
Claimed by the petitioner	1956.20	3982.74	4038.69	4090.17
Allowed after true up in this order	1956.23	3982.73	4038.68	4090.27



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”)**

39. 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”.

40. 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>2009-10 (pro-rata)</b>
As approved vide Order dated 10.2.2014	10.41
Claimed by the petitioner	10.10
Allowed after true up in this order	9.75

(₹ in lakh)

<b>Asset 2</b>					
<b>Interest on Loan</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 10.2.2014	94.80	135.74	124.70	112.35	99.86
Claimed by the petitioner	87.10	122.32	109.91	101.72	86.26
Allowed after true up in this order	87.10	122.38	110.00	101.67	86.18



(₹ in lakh)

<b>Combined Assets 1 &amp; 3</b>		
<b>Interest on Loan</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	886.98	1478.82
Claimed by the petitioner	770.52	426.16
Allowed after true up in this order	771.11	425.42

(₹ in lakh)

<b>Asset 4</b>		
<b>Interest on Loan</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	87.56	147.78
Claimed by the petitioner	75.64	41.63
Allowed after true up in this order	75.70	41.63

(₹ in lakh)

<b>Combined Assets 1, 3 &amp; 5</b>	
<b>Interest on Loan</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	403.77
Claimed by the petitioner	367.20
Allowed after true up in this order	366.01

(₹ in lakh)

<b>Combined Assets 4 &amp; 6</b>	
<b>Interest on Loan</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	19.25
Claimed by the petitioner	19.18
Allowed after true up in this order	19.04

(₹ in lakh)

<b>Combined Assets 4, 6 &amp; 7</b>				
<b>Interest on Loan</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	194.24	318.73	294.87	263.85
Claimed by the petitioner	191.23	306.01	283.10	248.07
Allowed after true up in this order	191.27	306.14	283.05	247.98

(₹ in lakh)

<b>Asset 8</b>				
<b>Interest on Loan</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	118.70	226.56	209.12	191.24
Claimed by the petitioner	116.96	219.73	201.79	180.91
Allowed after true up in this order	116.96	219.75	201.77	180.88



(₹ in lakh)

<b>Combined Assets 1, 3, 5 &amp; 9</b>				
<b>Interest on Loan</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	1240.71	2375.93	2142.79	1891.44
Claimed by the petitioner	1102.86	2055.88	1918.85	1662.81
Allowed after true up in this order	1102.82	2057.17	1918.47	1662.05

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**

41. 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>2009-10 (pro-rata)</b>
As approved vide Order dated 10.2.2014	16.77
Claimed by the petitioner	16.84
Allowed after true up in this order	16.32

(₹ in lakh)

<b>Asset 2</b>					
<b>Depreciation</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 10.2.2014	155.64	237.48	239.55	239.98	239.98
Claimed by the petitioner	155.68	236.55	237.17	237.17	237.17
Allowed after true up in this order	155.68	236.55	237.17	237.17	237.17

(₹ in lakh)

<b>Combined Assets 1 &amp; 3</b>		
<b>Depreciation</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	1466.97	2587.89
Claimed by the petitioner	1461.74	853.60
Allowed after true up in this order	1461.66	851.83



(₹ in lakh)

<b>Asset 4</b>		
<b>Depreciation</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	129.69	230.91
Claimed by the petitioner	129.93	76.56
Allowed after true up in this order	129.93	76.53

(₹ in lakh)

<b>Combined Assets 1, 3 &amp; 5</b>	
<b>Depreciation</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	578.07
Claimed by the petitioner	567.79
Allowed after true up in this order	566.04

(₹ in lakh)

<b>Combined Assets 4 &amp; 6</b>	
<b>Depreciation</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	27.59
Claimed by the petitioner	27.71
Allowed after true up in this order	27.51

(₹ in lakh)

<b>Combined Assets 4, 6 &amp; 7</b>				
<b>Depreciation</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	252.51	443.31	451.94	452.34
Claimed by the petitioner	255.05	446.61	451.47	451.72
Allowed after true up in this order	254.99	446.62	451.48	451.72

(₹ in lakh)

<b>Asset 8</b>				
<b>Depreciation</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	104.36	210.69	210.96	210.96
Claimed by the petitioner	115.33	232.64	233.13	233.13
Allowed after true up in this order	115.33	232.63	233.12	233.12

(₹ in lakh)

<b>Combined Assets 1, 3, 5 &amp; 9</b>				
<b>Depreciation</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	1763.32	3599.88	3608.38	3608.38
Claimed by the petitioner	1732.47	3523.78	3574.43	3576.87
Allowed after true up in this order	1732.47	3523.78	3574.43	3576.88



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

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

42. 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 true 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>2009-10 (pro-rata)</b>
As approved vide Order dated 10.2.2014	9.46
Claimed by the petitioner	9.46
Allowed after true up in this order	9.46

(₹ in lakh)

<b>Asset 2</b>					
<b>O&amp;M Expenses</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 10.2.2014	216.59	343.48	363.14	383.88	405.84
Claimed by the petitioner	216.59	343.48	363.14	383.88	405.84
Allowed after true up in this order	216.59	343.48	363.14	383.88	405.84

(₹ in lakh)

<b>Combined Assets 1 &amp; 3</b>		
<b>O&amp;M Expenses</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	367.63	666.33
Claimed by the petitioner	367.63	222.11
Allowed after true up in this order	367.63	222.11

(₹ in lakh)

<b>Asset 4</b>		
<b>O&amp;M Expenses</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	189.51	343.48
Claimed by the petitioner	189.51	114.49

<b>Asset 4</b>		
<b>O&amp;M Expenses</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
Allowed after true up in this order	189.51	114.49

(₹ in lakh)

<b>Combined Assets 1, 3 &amp; 5</b>	
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	175.05
Claimed by the petitioner	175.04
Allowed after true up in this order	175.04

(₹ in lakh)

<b>Combined Assets 4 &amp; 6</b>	
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	42.94
Claimed by the petitioner	42.94
Allowed after true up in this order	42.94

(₹ in lakh)

<b>Combined Assets 4, 6 &amp; 7</b>				
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	400.73	726.28	767.76	811.68
Claimed by the petitioner	400.73	726.28	767.76	811.68
Allowed after true up in this order	400.73	726.28	767.76	811.68

(₹ in lakh)

<b>Asset 8</b>				
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	171.74	363.14	383.88	405.84
Claimed by the petitioner	171.74	363.14	383.88	405.84
Allowed after true up in this order	171.74	363.14	383.88	405.84

(₹ in lakh)

<b>Combined Assets 1, 3, 5 &amp; 9</b>				
<b>O&amp;M Expenses</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	580.51	1227.48	1299.65	1371.69
Claimed by the petitioner	580.51	1227.48	1297.65	1371.69
Allowed after true up in this order	580.51	1227.48	1297.65	1371.69



### Interest on Working Capital (IWC)

43. 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>2009-10 (pro-rata)</b>
As approved vide Order dated 10.2.2014	1.41
Claimed by the petitioner	1.43
Allowed after true up in this order	1.40

(₹ in lakh)

<b>Asset 2</b>					
<b>Interest on Working Capital</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 10.2.2014	19.34	30.00	30.86	31.67	32.51
Claimed by the petitioner	19.41	30.21	30.97	31.84	32.69
Allowed after true up in this order	19.41	30.21	30.98	31.84	32.68

(₹ in lakh)

<b>Combined Assets 1 &amp; 3</b>		
<b>Interest on Working Capital</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	98.08	172.18
Claimed by the petitioner	97.52	57.53
Allowed after true up in this order	97.52	57.43

(₹ in lakh)

<b>Asset 4</b>		
<b>Interest on Working Capital</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 10.2.2014	16.69	29.85
Claimed by the petitioner	16.64	9.94
Allowed after true up in this order	16.64	9.94

(₹ in lakh)

<b>Combined Assets 1, 3 &amp; 5</b>	
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	37.20
Claimed by the petitioner	37.29
Allowed after true up in this order	37.19

(₹ in lakh)

<b>Combined Assets 4 &amp; 6</b>	
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata)</b>
As approved vide Order dated 3.9.2015	3.31
Claimed by the petitioner	3.37
Allowed after true up in this order	3.36

(₹ in lakh)

<b>Combined Assets 4, 6 &amp; 7</b>				
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	30.98	55.00	56.73	58.14
Claimed by the petitioner	31.53	55.78	57.40	58.84
Allowed after true up in this order	31.53	55.79	57.40	58.84

(₹ in lakh)

<b>Asset 8</b>				
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	14.00	28.76	29.37	30.02
Claimed by the petitioner	14.41	29.51	30.12	30.77
Allowed after true up in this order	14.40	29.51	30.12	30.77

(₹ in lakh)

<b>Combined Assets 1, 3, 5 &amp; 9</b>				
<b>Interest on Working Capital</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
As approved vide Order dated 3.9.2015	115.71	235.25	234.46	233.00
Claimed by the petitioner	115.51	233.60	236.18	235.72
Allowed after true up in this order	115.50	233.63	236.17	235.71

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

44. 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>	
Particulars	2009-10 (pro-rata)
<b>Depreciation</b>	
Opening Gross Block	3900.21
Additional Capitalisation	40.62
Closing Gross Block	3940.83
Average Gross Block	3920.52
Rate of Depreciation (%)	5.00
Depreciable Value	3442.86
Balance useful life of the asset	27.00
Elapsed life	1.00
Remaining Depreciable Value	3442.86
Depreciation during the year	16.32
Cumulative depreciation (incl. of AAD)	16.32
<b>Interest on Loan</b>	
Gross Normative Loan	2730.15
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	2730.15
Additions	28.44
Repayment during the year	16.32
Net Loan-Closing	2742.26
Average Loan	2736.20
Weighted Average Rate of Interest on Loan (%)	4.2742
Interest on Loan	9.75
<b>Return on Equity</b>	
Opening Equity	1170.06
Additions	12.19
Closing Equity	1182.25
Average Equity	1176.16
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	16.995
Rate of Return on Equity (%)	18.674
Return on Equity	18.30
<b>Interest on Working Capital</b>	
O & M Expenses	9.46
Maintenance Spares	17.03
Receivables	110.46
Total Working Capital	136.95
Rate of Interest (%)	12.25
Interest of working capital	1.40



<b>Asset 1</b>	
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>
<b>Annual Transmission Charges</b>	
Depreciation	16.32
Interest on Loan	9.75
Return on Equity	18.30
Interest on Working Capital	1.40
O & M Expenses	9.46
<b>Total</b>	<b>55.23</b>

(₹ in lakh)

<b>Asset 2</b>					
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>					
Opening Gross Block	4453.91	4568.22	4602.49	4602.49	4602.49
Additional Capitalisation	114.31	34.27	0.00	0.00	0.00
Closing Gross Block	4568.22	4602.49	4602.49	4602.49	4602.49
Average Gross Block	4511.07	4585.36	4602.49	4602.49	4602.49
Rate of Depreciation (%)	5.18	5.16	5.15	5.15	5.15
Depreciable Value	4023.27	4090.13	4105.55	4105.55	4105.55
Balance useful life of the asset	24.00	23.00	22.00	21.00	20.00
Elapsed life	1.00	2.00	3.00	4.00	5.00
Remaining Depreciable Value	4023.27	3697.90	3476.15	3238.98	3001.80
Depreciation during the year	155.68	236.55	237.17	237.17	237.17
Cumulative depreciation (incl. of AAD)	155.68	392.22	629.40	866.57	1103.75
<b>Interest on Loan</b>					
Gross Normative Loan	3117.74	3197.75	3221.74	3221.74	3221.74
Cumulative Repayments upto Previous Year	0.00	155.68	392.22	629.40	866.57
Net Loan-Opening	3117.74	3042.08	2829.52	2592.34	2355.17
Additions	80.02	23.99	0.00	0.00	0.00
Repayment during the year	155.68	236.55	237.17	237.17	237.17
Net Loan-Closing	3042.08	2829.52	2592.34	2355.17	2118.00
Average Loan	3079.91	2935.80	2710.93	2473.76	2236.58
Weighted Average Rate of Interest on Loan (%)	4.2421	4.1687	4.0575	4.1100	3.8533
Interest on Loan	87.10	122.38	110.00	101.67	86.18
<b>Return on Equity</b>					
Opening Equity	1336.17	1370.47	1380.75	1380.75	1380.75
Additions	34.29	10.28	0.00	0.00	0.00
Closing Equity	1370.47	1380.75	1380.75	1380.75	1380.75
Average Equity	1353.32	1375.61	1380.75	1380.75	1380.75
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500



<b>Asset 2</b>					
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity	168.48	266.29	267.55	267.55	270.77
<b>Interest on Working Capital</b>					
O & M Expenses	27.07	28.62	30.26	31.99	33.82
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
Receivables	161.81	166.49	168.14	170.35	172.11
Total Working Capital	237.62	246.63	252.87	259.92	266.80
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	19.41	30.21	30.98	31.84	32.68
<b>Annual Transmission Charges</b>					
Depreciation	155.68	236.55	237.17	237.17	237.17
Interest on Loan	87.10	122.38	110.00	101.67	86.18
Return on Equity	168.48	266.29	267.55	267.55	270.77
Interest on Working Capital	19.41	30.21	30.98	31.84	32.68
O & M Expenses	216.59	343.48	363.14	383.88	405.84
<b>Total</b>	<b>647.25</b>	<b>998.92</b>	<b>1008.83</b>	<b>1022.11</b>	<b>1032.65</b>

(₹ in lakh)

<b>Combined Assets 1 &amp; 3</b>		
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
<b>Depreciation</b>		
Opening Gross Block	46944.03	48774.65
Additional Capitalisation	1830.62	109.06
Closing Gross Block	48774.65	48883.71
Average Gross Block	47859.34	48829.18
Rate of Depreciation (%)	5.24	5.23
Depreciable Value	42956.56	43829.42
Balance useful life of the asset	32.00	31.00
Elapsed life	1.00	2.00
Remaining Depreciable Value	42940.24	41499.60
Depreciation during the year	1461.66	851.83
Cumulative depreciation (incl. of AAD)	1477.99	2329.82
<b>Interest on Loan</b>		
Gross Normative Loan	32860.82	34142.26
Cumulative Repayments upto Previous Year	16.32	1477.99
Net Loan-Opening	32844.50	32664.27
Additions	1281.43	76.34
Repayment during the year	1461.66	851.83
Net Loan-Closing	32664.27	31888.78
Average Loan	32754.39	32276.53
Weighted Average Rate of Interest on Loan (%)	4.0358	3.9541



<b>Combined Assets 1 &amp; 3</b>		
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
Interest on Loan	771.11	425.42
<b>Return on Equity</b>		
Opening Equity	14083.21	14632.40
Additions	549.18	32.72
Closing Equity	14632.40	14665.11
Average Equity	14357.80	14648.75
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
Return on Equity	1563.98	945.25
<b>Interest on Working Capital</b>		
O & M Expenses	52.52	55.53
Maintenance Spares	94.53	99.95
Receivables	1217.69	1251.02
Total Working Capital	1364.74	1406.50
Rate of Interest (%)	12.25	12.25
Interest of working capital	97.52	57.43
<b>Annual Transmission Charges</b>		
Depreciation	1461.66	851.83
Interest on Loan	771.11	425.42
Return on Equity	1563.98	945.25
Interest on Working Capital	97.52	57.43
O & M Expenses	367.63	222.11
<b>Total</b>	<b>4261.91</b>	<b>2502.04</b>

(₹ in lakh)

<b>Asset 4</b>		
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
<b>Depreciation</b>		
Opening Gross Block	4086.20	4343.82
Additional Capitalisation	257.62	1.76
Closing Gross Block	4343.82	4345.58
Average Gross Block	4215.01	4344.70
Rate of Depreciation (%)	5.28	5.28
Depreciable Value	3793.51	3910.23
Balance useful life of the asset	24.00	23.00
Elapsed life	1.00	2.00
Remaining Depreciable Value	3793.51	3703.77
Depreciation during the year	129.93	76.53
Cumulative depreciation (incl. of AAD)	129.93	206.46
<b>Interest on Loan</b>		
Gross Normative Loan	2860.34	3040.67
Cumulative Repayments upto Previous Year	0.00	129.93
Net Loan-Opening	2860.34	2910.74
Additions	180.33	1.23
Repayment during the year	129.93	76.53



<b>Asset 4</b>		
<b>Particulars</b>	<b>2009-10 (pro-rata)</b>	<b>2010-11 (pro-rata)</b>
Net Loan-Closing	2910.74	2835.45
Average Loan	2885.54	2873.10
Weighted Average Rate of Interest on Loan (%)	4.4972	4.3472
Interest on Loan	75.70	41.63
<b>Return on Equity</b>		
Opening Equity	1225.86	1303.15
Additions	77.29	0.53
Closing Equity	1303.15	1303.67
Average Equity	1264.50	1303.41
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
Return on Equity	137.74	84.11
<b>Interest on Working Capital</b>		
O & M Expenses	27.07	28.62
Maintenance Spares	48.73	51.52
Receivables	157.01	163.35
Total Working Capital	232.81	243.50
Rate of Interest (%)	12.25	12.25
Interest of working capital	16.64	9.94
<b>Annual Transmission Charges</b>		
Depreciation	129.93	76.53
Interest on Loan	75.70	41.63
Return on Equity	137.74	84.11
Interest on Working Capital	16.64	9.94
O & M Expenses	189.51	114.49
<b>Total</b>	<b>549.52</b>	<b>326.70</b>

(₹ in lakh)

<b>Combined Assets 1, 3 &amp; 5</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
<b>Depreciation</b>	
Opening Gross Block	65951.94
Additional Capitalisation	152.89
Closing Gross Block	66104.84
Average Gross Block	66028.39
Rate of Depreciation (%)	5.14
Depreciable Value	58575.05
Balance useful life of the asset	32.00
Elapsed life	0.00
Remaining Depreciable Value	56245.23
Depreciation during the year	566.04
Cumulative depreciation (incl. of AAD)	2895.85
<b>Interest on Loan</b>	
Gross Normative Loan	46166.36
Cumulative Repayments upto Previous Year	2329.82



<b>Combined Assets 1, 3 &amp; 5</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Net Loan-Opening	43836.54
Additions	107.03
Repayment during the year	566.04
Net Loan-Closing	43377.53
Average Loan	43607.04
Weighted Average Rate of Interest on Loan (%)	5.0361
Interest on Loan	366.01
<b>Return on Equity</b>	
Opening Equity	19785.58
Additions	45.87
Closing Equity	19831.45
Average Equity	19808.52
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	19.931
Rate of Return on Equity (%)	19.358
Return on Equity	639.10
<b>Interest on Working Capital</b>	
O & M Expenses	87.52
Maintenance Spares	157.53
Receivables	1783.37
Total Working Capital	2028.42
Rate of Interest (%)	11.00
Interest of working capital	37.19
<b>Annual Transmission Charges</b>	
Depreciation	566.04
Interest on Loan	366.01
Return on Equity	639.10
Interest on Working Capital	37.19
O & M Expenses	175.04
<b>Total</b>	<b>1783.37</b>

(₹ in lakh)

<b>Combined Assets 4 &amp; 6</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
<b>Depreciation</b>	
Opening Gross Block	6240.21
Additional Capitalisation	12.54
Closing Gross Block	6252.75
Average Gross Block	6246.48
Rate of Depreciation (%)	5.28
Depreciable Value	5621.83
Balance useful life of the asset	24.00
Elapsed life	0.00
Remaining Depreciable Value	5415.38
Depreciation during the year	27.51



<b>Combined Assets 4 &amp; 6</b>	
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>
Cumulative depreciation (incl. of AAD)	233.97
<b>Interest on Loan</b>	
Gross Normative Loan	4368.15
Cumulative Repayments upto Previous Year	206.46
Net Loan-Opening	4161.69
Additions	8.78
Repayment during the year	27.51
Net Loan-Closing	4142.96
Average Loan	4152.32
Weighted Average Rate of Interest on Loan (%)	5.5038
Interest on Loan	19.04
<b>Return on Equity</b>	
Opening Equity	1872.06
Additions	3.76
Closing Equity	1875.83
Average Equity	1873.94
Return on Equity (Base Rate) (%)	15.500
MAT Rate for respective year (%)	19.931
Rate of Return on Equity (%)	19.358
Return on Equity	30.23
<b>Interest on Working Capital</b>	
O & M Expenses	42.94
Maintenance Spares	77.28
Receivables	246.16
Total Working Capital	366.37
Rate of Interest (%)	11.00
Interest of working capital	3.36
<b>Annual Transmission Charges</b>	
Depreciation	27.51
Interest on Loan	19.04
Return on Equity	30.23
Interest on Working Capital	3.36
O & M Expenses	42.94
<b>Total</b>	<b>123.08</b>

(₹ in lakh)

<b>Combined Assets 4, 6 &amp; 7</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>				
Opening Gross Block	8178.67	8363.29	8537.92	8547.32
Additional Capitalisation	184.62	174.63	9.40	0.00



<b>Combined Assets 4, 6 &amp; 7</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Closing Gross Block	8363.29	8537.92	8547.32	8547.32
Average Gross Block	8270.98	8450.61	8542.62	8547.32
Rate of Depreciation (%)	5.29	5.29	5.28	5.28
Depreciable Value	7443.88	7605.54	7688.36	7692.59
Balance useful life of the asset	24.00	23.00	22.00	21.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	7209.92	6669.97	6301.30	5853.81
Depreciation during the year	254.99	446.62	451.48	451.72
Cumulative depreciation (incl. of AAD)	488.96	935.58	1387.05	1838.78
<b>Interest on Loan</b>				
Gross Normative Loan	5725.07	5854.30	5976.54	5983.12
Cumulative Repayments upto Previous Year	233.97	488.96	935.58	1387.05
Net Loan-Opening	5491.10	5365.34	5040.96	4596.07
Additions	129.23	122.24	6.58	0.00
Repayment during the year	254.99	446.62	451.48	451.72
Net Loan-Closing	5365.34	5040.96	4596.07	4144.35
Average Loan	5428.22	5203.15	4818.52	4370.21
Weighted Average Rate of Interest on Loan (%)	6.0404	5.8837	5.8743	5.6743
Interest on Loan	191.27	306.14	283.05	247.98
<b>Return on Equity</b>				
Opening Equity	2453.60	2508.99	2561.38	2564.20
Additions	55.39	52.39	2.82	0.00
Closing Equity	2508.99	2561.38	2564.20	2564.20
Average Equity	2481.29	2535.18	2562.79	2564.20
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	19.358	19.377	19.377	19.610
Return on Equity	280.20	491.24	496.59	502.85
<b>Interest on Working Capital</b>				
O & M Expenses	57.25	60.52	63.98	67.64
Maintenance Spares	103.04	108.94	115.16	121.75
Receivables	331.06	337.68	342.71	345.51
Total Working Capital	491.35	507.14	521.86	534.90
Rate of Interest (%)	11.00	11.00	11.00	11.00
Interest of working capital	31.53	55.79	57.40	58.84
<b>Annual Transmission Charges</b>				
Depreciation	254.99	446.62	451.48	451.72
Interest on Loan	191.27	306.14	283.05	247.98
Return on Equity	280.20	491.24	496.59	502.85

Combined Assets 4, 6 & 7				
Particulars	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Interest on Working Capital	31.53	55.79	57.40	58.84
O & M Expenses	400.73	726.28	767.76	811.68
<b>Total</b>	<b>1158.71</b>	<b>2026.06</b>	<b>2056.28</b>	<b>2073.07</b>

(₹ in lakh)

Asset 8				
Particulars	2010-11 (pro-rata)	2011-12	2012-13	2013-14
<b>Depreciation</b>				
Opening Gross Block	4338.33	4394.34	4412.89	4412.89
Additional Capitalisation	56.01	18.55	0.00	0.00
Closing Gross Block	4394.34	4412.89	4412.89	4412.89
Average Gross Block	4366.34	4403.62	4412.89	4412.89
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	3929.70	3963.25	3971.60	3971.60
Balance useful life of the asset	24.00	23.00	22.00	21.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	3814.37	3615.29	3390.51	3157.39
Depreciation during the year	115.33	232.63	233.12	233.12
Cumulative depreciation (incl. of AAD)	115.33	347.97	581.09	814.21
<b>Interest on Loan</b>				
Gross Normative Loan	3036.83	3076.04	3089.02	3089.02
Cumulative Repayments upto Previous Year	0.00	115.33	347.97	581.09
Net Loan-Opening	3036.83	2960.71	2741.06	2507.94
Additions	39.21	12.99	0.00	0.00
Repayment during the year	115.33	232.63	233.12	233.12
Net Loan-Closing	2960.71	2741.06	2507.94	2274.81
Average Loan	2998.77	2850.88	2624.50	2391.37
Weighted Average Rate of Interest on Loan (%)	7.8003	7.7082	7.6881	7.5638
Interest on Loan	116.96	219.75	201.77	180.88
<b>Return on Equity</b>				
Opening Equity	1301.50	1318.30	1323.87	1323.87
Additions	16.80	5.57	0.00	0.00
Closing Equity	1318.30	1323.87	1323.87	1323.87
Average Equity	1309.90	1321.08	1323.87	1323.87
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	19.358	19.377	19.377	19.610





<b>Asset 8</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Return on Equity	126.79	255.99	256.52	259.62
<b>Interest on Working Capital</b>				
O & M Expenses	28.62	30.26	31.99	33.82
Maintenance Spares	51.52	54.47	57.58	60.88
Receivables	181.74	183.50	184.24	185.04
Total Working Capital	261.89	268.24	273.81	279.73
Rate of Interest (%)	11.00	11.00	11.00	11.00
Interest of working capital	14.40	29.51	30.12	30.77
<b>Annual Transmission Charges</b>				
Depreciation	115.33	232.63	233.12	233.12
Interest on Loan	116.96	219.75	201.77	180.88
Return on Equity	126.79	255.99	256.52	259.62
Interest on Working Capital	14.40	29.51	30.12	30.77
O & M Expenses	171.74	363.14	383.88	405.84
<b>Total</b>	<b>545.22</b>	<b>1101.02</b>	<b>1105.42</b>	<b>1110.23</b>

(₹ in lakh)

<b>Combined Assets 1, 3, 5 &amp; 9</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Depreciation</b>				
Opening Gross Block	67138.38	67600.23	69426.20	69525.35
Additional Capitalisation	461.85	1825.97	99.15	0.00
Closing Gross Block	67600.23	69426.20	69525.35	69525.35
Average Gross Block	67369.30	68513.22	69475.78	69525.35
Rate of Depreciation (%)	5.14	5.14	5.14	5.14
Depreciable Value	59781.87	60811.39	61677.70	61722.32
Balance useful life of the asset	32.00	31.00	30.00	29.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	55153.55	52659.29	49951.16	46418.90
Depreciation during the year	1732.47	3523.78	3574.43	3576.88
Cumulative depreciation (incl. of AAD)	4628.32	8152.11	11726.54	15303.41
<b>Interest on Loan</b>				
Gross Normative Loan	46996.86	47320.16	48598.34	48667.75
Cumulative Repayments upto Previous Year	2895.85	4628.32	8152.11	11726.54
Net Loan-Opening	44101.01	42691.84	40446.23	36941.21
Additions	323.30	1278.18	69.41	0.00
Repayment during the year	1732.47	3523.78	3574.43	3576.88
Net Loan-Closing	42691.84	40446.23	36941.21	33364.33
Average Loan	43396.43	41569.04	38693.72	35152.77
Weighted Average Rate of Interest on Loan (%)	5.0825	4.9488	4.9581	4.7281
Interest on Loan	1102.82	2057.17	1918.47	1662.05
<b>Return on Equity</b>				



<b>Combined Assets 1, 3, 5 &amp; 9</b>				
<b>Particulars</b>	<b>2010-11 (pro-rata)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Opening Equity	20141.51	20280.07	20827.86	20857.61
Additions	138.56	547.79	29.75	0.00
Closing Equity	20280.07	20827.86	20857.61	20857.61
Average Equity	20210.79	20553.96	20842.73	20857.61
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	19.358	19.377	19.377	19.610
Return on Equity	1956.23	3982.73	4038.68	4090.27
<b>Interest on Working Capital</b>				
O & M Expenses	96.75	102.29	108.14	114.31
Maintenance Spares	174.15	184.12	194.65	205.75
Receivables	1829.18	1837.47	1844.24	1822.77
Total Working Capital	2100.08	2123.88	2147.02	2142.83
Rate of Interest (%)	11.00	11.00	11.00	11.00
Interest of working capital	115.50	233.63	236.17	235.71
<b>Annual Transmission Charges</b>				
Depreciation	1732.47	3523.78	3574.43	3576.88
Interest on Loan	1102.82	2057.17	1918.47	1662.05
Return on Equity	1956.23	3982.73	4038.68	4090.27
Interest on Working Capital	115.50	233.63	236.17	235.71
O & M Expenses	580.51	1227.48	1297.65	1371.69
<b>Total</b>	<b>5487.54</b>	<b>11024.79</b>	<b>11065.41</b>	<b>10936.60</b>

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

45. The petitioner has combined all the assets (i.e. Asset 1 to 9) during the 2014-19 tariff period, with effective COD of the combined assets as 1.1.2010. The tariff charges claimed by the petitioner for 2014-19 tariff period for the combined assets 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	4498.90	4498.90	4498.90	4498.90	4498.90
Interest on Loan	1930.92	1673.50	1423.07	1179.88	944.20
Return on Equity	5123.39	5123.39	5123.39	5123.39	5123.39
Interest on Working Capital	418.02	417.15	416.60	416.39	416.53
O & M Expenses	2753.09	2844.63	2939.05	3036.53	3137.30
<b>Total</b>	<b>14724.32</b>	<b>14557.57</b>	<b>14401.01</b>	<b>14255.09</b>	<b>14120.32</b>

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	229.42	237.05	244.92	253.04	261.44
Maintenance Spares	412.96	426.69	440.86	455.48	470.60
Receivables	2454.05	2426.26	2400.17	2375.85	2353.39
Total working capital	3096.43	3090.00	3085.95	3084.37	3085.43
Rate of Interest	13.50	13.50	13.50	13.50	13.50
<b>Interest of working capital</b>	<b>418.02</b>	<b>417.15</b>	<b>416.60</b>	<b>416.39</b>	<b>416.53</b>

### Capital Cost

47. 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 trued up by excluding liability, if any, as on 1.4.2014;
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

“(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;”

48. The capital cost of ₹87088.05 lakh worked out by the Commission as on 31.3.2014 for Combined Assets as depicted below:-

Assets	Capital cost as on 1.4.2014 (₹ in lakh)
Asset 2	4602.49
Combined Assets 1, 3, 5 & 9	69525.35
Combined Assets 4, 6 & 7	8547.32
Asset 8	4412.89
<b>Total (Combined Assets 1 to 9)</b>	<b>87088.05</b>



49. The capital cost of the combined assets worked out above 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**

50. The petitioner has not projected any additional capital expenditure for the combined assets during the 2014-19 tariff period.

### **Debt: Equity**

51. 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.”

52. The petitioner has considered the debt:equity ratio of 70.00:30.00 as on 31.3.2014 for the combined assets, 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	60961.64	70.00	0.00	0.00	60961.64	70.00
Equity	26126.42	30.00	0.00	0.00	26126.42	30.00
<b>Total</b>	<b>87088.05</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>87088.05</b>	<b>100.00</b>

### Return on Equity (ROE)

53. 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.”

54. 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	26126.42	26126.42	26126.42	26126.42	26126.42
Additions	0.00	0.00	0.00	0.00	0.00



<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>
Closing Equity	26126.42	26126.42	26126.42	26126.42	26126.42
Average Equity	26126.42	26126.42	26126.42	26126.42	26126.42
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	5123.51	5123.51	5123.51	5123.51	5123.51

### **Interest on Loan (“IoL”)**

55. 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.”

56. 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	60961.64	60961.64	60961.64	60961.64	60961.64



<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>
Cumulative Repayment upto Previous Year	19060.15	23559.05	28057.94	32556.84	37055.73
Net Loan-Opening	41901.49	37402.59	32903.69	28404.80	23905.90
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	4498.90	4498.90	4498.90	4498.90	4498.90
Net Loan-Closing	37402.59	32903.69	28404.80	23905.90	19407.01
Average Loan	39652.04	35153.14	30654.25	26155.35	21656.46
Weighted Average Rate of Interest on Loan (%)	4.8711	4.7622	4.6441	4.5129	4.3619
Interest on Loan	1931.50	1674.07	1423.60	1180.36	944.63

## **Depreciation**

57. 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."

58. 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	87088.05	87088.05	87088.05	87088.05	87088.05
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00



<b>Depreciation</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Closing Gross Block	87088.05	87088.05	87088.05	87088.05	87088.05
Average Gross Block	87088.05	87088.05	87088.05	87088.05	87088.05
Rate of Depreciation (%)	5.17	5.17	5.17	5.17	5.17
Depreciable Value	77492.05	77492.05	77492.05	77492.05	77492.05
Balance useful life of the asset	26.00	25.00	24.00	23.00	22.00
Elapsed life	5.00	6.00	7.00	8.00	9.00
Remaining Depreciable Value	58431.90	49434.11	44935.22	40436.32	35937.43
Depreciation during the year	4498.90	4498.90	4498.90	4498.90	4498.90
Cumulative depreciation (incl. of AAD)	23559.05	28057.94	32556.84	37055.73	41554.63

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

59. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specify 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>220 kV Bays:</b>					
No. of Bays	24.00	24.00	24.00	24.00	24.00
Norms (₹ lakh/Bay)	42.210	43.610	45.060	46.550	48.100
<b>400 kV Bays:</b>					
No. of Bays	24.00	24.00	24.00	24.00	24.00
Norms (₹ lakh/Bay)	60.300	62.300	64.370	66.510	68.710
<b>Line: S/C (Twin Conductor):</b>					
Line Length (km)	2.18	2.18	2.18	2.18	2.18
Norms (₹ lakh/km)	0.404	0.418	0.432	0.446	0.461
<b>Line: D/C (Twin Conductor):</b>					
Line Length (km)	412.97	412.97	412.97	412.97	412.97
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
<b>Total O&amp;M Expenses (₹ lakh)</b>	<b>2753.09</b>	<b>2844.63</b>	<b>2939.05</b>	<b>3036.53</b>	<b>3137.30</b>

60. 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.

61. TANGEDCO has submitted that the petitioner's prayer for revision of the O&M expenses should not be considered by the Hon'ble Commission as the O&M expenses allowed by the Commission are already on the higher side.

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	229.42	237.05	244.92	253.04	261.44
Maintenance Spares	412.96	426.69	440.86	455.48	470.59
Receivables	2454.17	2426.38	2400.28	2375.95	2353.48
<b>Total</b>	<b>3096.56</b>	<b>3090.13</b>	<b>3086.06</b>	<b>3084.47</b>	<b>3085.52</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	418.04	417.17	416.62	416.40	416.54

### **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	87088.05	87088.05	87088.05	87088.05	87088.05
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	87088.05	87088.05	87088.05	87088.05	87088.05
Average Gross Block	87088.05	87088.05	87088.05	87088.05	87088.05
Rate of Depreciation (%)	5.17	5.17	5.17	5.17	5.17
Depreciable Value	77492.05	77492.05	77492.05	77492.05	77492.05
Balance useful life of the asset	26.00	25.00	24.00	23.00	22.00
Elapsed life	5.00	6.00	7.00	8.00	9.00
Remaining Depreciable Value	58431.90	49434.11	44935.22	40436.32	35937.43
Depreciation during the year	4498.90	4498.90	4498.90	4498.90	4498.90
Cumulative depreciation (incl. of AAD)	23559.05	28057.94	32556.84	37055.73	41554.63
<b>Interest on Loan</b>					
Gross Normative Loan	60961.64	60961.64	60961.64	60961.64	60961.64
Cumulative Repayments upto Previous Year	19060.15	23559.05	28057.94	32556.84	37055.73
Net Loan-Opening	41901.49	37402.59	32903.69	28404.80	23905.90
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	4498.90	4498.90	4498.90	4498.90	4498.90

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Net Loan-Closing	37402.59	32903.69	28404.80	23905.90	19407.01
Average Loan	39652.04	35153.14	30654.25	26155.35	21656.46
Weighted Average Rate of Interest on Loan (%)	4.8711	4.7622	4.6441	4.5129	4.3619
Interest on Loan	1931.50	1674.07	1423.60	1180.36	944.63
<b>Return on Equity</b>					
Opening Equity	26126.42	26126.42	26126.42	26126.42	26126.42
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	26126.42	26126.42	26126.42	26126.42	26126.42
Average Equity	26126.42	26126.42	26126.42	26126.42	26126.42
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	5123.51	5123.51	5123.51	5123.51	5123.51
<b>Interest on Working Capital</b>					
O & M Expenses	229.42	237.05	244.92	253.04	261.44
Maintenance Spares	412.96	426.69	440.86	455.48	470.59
Receivables	2454.17	2426.38	2400.28	2375.95	2353.48
Total Working Capital	3096.56	3090.13	3086.06	3084.47	3085.52
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	418.04	417.17	416.62	416.40	416.54
<b>Annual Transmission Charges</b>					
Depreciation	4498.90	4498.90	4498.90	4498.90	4498.90
Interest on Loan	1931.50	1674.07	1423.60	1180.36	944.63
Return on Equity	5123.51	5123.51	5123.51	5123.51	5123.51
Interest on Working Capital	418.04	417.17	416.62	416.40	416.54
O & M Expenses	2753.09	2844.63	2939.05	3036.53	3137.30
<b>Total</b>	<b>14725.03</b>	<b>14558.27</b>	<b>14401.67</b>	<b>14255.70</b>	<b>14120.88</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. TANGEDCO has submitted that the Service tax for transmission of electricity is presently under negative list. We are of the view that the petitioner's prayer is premature.

### **Foreign Exchange Rate Variation**

71. The petitioner has sought recovery of FERV on foreign loans deployed under clause 50 of 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from the beneficiaries or the long term transmission customers / DICs, as the case may be, in accordance with Regulation 51(1) of the 2014 Tariff Regulations.

### **Sharing of Transmission Charges**

72. 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.

73. This order disposes of Petition No. 32/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 XIX-DRAWL ON 01-AUG-2009-	9.25	50.00	0.00	50.00
BOND XXI-DRAWL ON 01-AUG-2009-	8.73	400.00	0.00	400.00
BOND XXII-DRAWL ON 01-AUG-2009-	8.68	200.00	0.00	200.00
BOND XXIV-DRAWL ON 01-AUG-2009-	9.95	129.00	0.00	129.00
BOND XXV-ADDCAP FOR 2009-2010 add cap-	10.10	0.00	112.20	112.20
BOND XXVI-ADDCAP FOR 2009-2010 add cap-	9.30	0.00	115.29	115.29
ADB III-DRAWL ON 01-AUG-2009 48.77	2.09	1950.80	0.00	1950.80
<b>Total</b>		<b>2729.80</b>	<b>227.49</b>	<b>2957.29</b>

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

(₹ in lakh)

Particulars	2009-10
Gross Opening Loan	2729.80
Cumulative Repayments of Loans upto Previous Year	0.00
<b>Net Loans Opening</b>	<b>2729.80</b>
Add: Draw(s) during the Year	227.49
Less: Repayments of Loan during the year	0.00
<b>Net Closing Loan</b>	<b>2957.29</b>
Average Net Loan	2843.55
Rate of Interest on Loan (%)	4.2742
<b>Interest on Loan</b>	<b>121.54</b>

**ASSET 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 XIX-DOCO DRAWL ON 24-JUL-2006-	9.25	50.00	0.00	50.00
BOND XXI-DOCO DRAWL ON 11OCT-2006-	8.73	400.00	0.00	400.00
BOND XXII-DOCO DRAWL ON 07-DEC-2006-	8.68	200.00	0.00	200.00
BOND XXIV-DOCO DRAWL ON 26-MAR-2007-	9.95	273.00	0.00	273.00
BOND XXVI-ADDCAP FOR 2009-2010 add cap-	9.30	0.00	80.02	80.02



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
ADB III-ADDCAP FOR 2010-2011 add cap-49.02	0.00	0.00	23.97	23.97
ADB III-DOCO DRAWL ON 01-AUG-2009-48.77	2.09	2194.65	0.00	2194.65
<b>Total</b>		<b>3117.65</b>	<b>103.99</b>	<b>3221.64</b>

**ASSET 2 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	3117.65	3197.67	3197.67	3221.64	3221.64
Cumulative Repayments of Loans upto Previous Year	0.00	27.31	168.68	328.01	498.36
<b>Net Loans Opening</b>	<b>3117.65</b>	<b>3170.36</b>	<b>3028.99</b>	<b>2893.63</b>	<b>2723.28</b>
Add: Draw(s) during the Year	80.02	0.00	23.97	0.00	0.00
Less: Repayments of Loan during the year	27.31	141.37	159.33	170.35	180.71
<b>Net Closing Loan</b>	<b>3170.36</b>	<b>3028.99</b>	<b>2893.63</b>	<b>2723.28</b>	<b>2542.57</b>
Average Net Loan	3144.01	3099.68	2961.31	2808.46	2632.93
Rate of Interest on Loan (%)	4.2421	4.1687	4.0575	4.1100	3.8533
<b>Interest on Loan</b>	<b>133.37</b>	<b>129.22</b>	<b>120.15</b>	<b>115.43</b>	<b>101.46</b>

**COMBINED ASSETS 1 & 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 XIX-DRAWL ON 01-AUG-2009-	9.25	400.00	0.00	400.00
BOND XXI-DOCO-	8.73	500.00	0.00	500.00
BOND XXII-DOCO-	8.68	1400.00	0.00	1400.00
BOND XXIV DOCO-	9.95	800.00	0.00	800.00
BOND XXV-ADDCAP FOR 2009-2010 ADD CAP-	10.10	0.00	96.17	96.17
BOND XXV-DOCO-	10.10	4016.03	0.00	4016.03
BOND XXVI-ADDCAP FOR 2009-2010 ADD CAP-	9.30	0.00	344.04	344.04
BOND XXVI-DOCO-	9.30	1371.47	0.00	1371.47
ADB III-ADDCAP FOR 2009-2010 add cap-	2.07	0.00	837.16	837.16



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
45.719				
ADB III-ADDCAP FOR 2010-2011 add cap - 49.026	0.00	0.00	229.05	229.05
ADB III-DOCO - 48.77	2.07	1950.80	0.00	1950.80
ADB III-DOCO 2-49.29	2.07	22426.95	0.00	22426.95
<b>Total</b>		<b>32865.25</b>	<b>1506.42</b>	<b>34371.67</b>

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

(₹ in lakh)

Particulars	2009-10	2010-11
Gross Opening Loan	32865.25	34142.62
Cumulative Repayments of Loans upto Previous Year	0.00	313.73
<b>Net Loans Opening</b>	<b>32865.25</b>	<b>33828.89</b>
Add: Draw(s) during the Year	1277.37	229.05
Less: Repayments of Loan during the year	313.73	389.49
<b>Net Closing Loan</b>	<b>33828.89</b>	<b>33668.45</b>
Average Net Loan	33347.07	33748.67
Rate of Interest on Loan (%)	4.0358	3.9541
<b>Interest on Loan</b>	<b>1345.83</b>	<b>1334.47</b>

**ASSET 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 XXV-DOCO-	10.10	887.80	0.00	887.80
ADB III-ADDCAP FOR 2009-2010 add cap 1- 49.05	2.07	0.00	180.31	180.31
ADB III-ADDCAP FOR 2010-2011 add cap 2- 49.02	0.00	0.00	3.68	3.68
ADB III-DOCO-49.29	2.07	1972.59	0.00	1972.59
<b>Total</b>		<b>2860.39</b>	<b>183.99</b>	<b>3044.38</b>





**ASSET 4 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14  
TARIFF PERIOD**

(₹ in lakh)

Particulars	2009-10	2010-11
Gross Opening Loan	2860.39	3040.70
Cumulative Repayments of Loans upto Previous Year	0.00	26.78
<b>Net Loans Opening</b>	<b>2860.39</b>	<b>3013.92</b>
Add: Draw(s) during the Year	180.31	3.68
Less: Repayments of Loan during the year	26.78	30.19
<b>Net Closing Loan</b>	<b>3013.92</b>	<b>2987.41</b>
Average Net Loan	2937.16	3000.67
Rate of Interest on Loan (%)	4.4972	4.3472
<b>Interest on Loan</b>	<b>132.09</b>	<b>130.45</b>

**COMBINED ASSETS 1, 3 & 5 - 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 XIX-DOCO-	9.25	720.00	0.00	720.00
BOND XXI-DOCO-	8.73	1090.00	0.00	1090.00
BOND XXII-DOCO-	8.68	2340.00	0.00	2340.00
BOND XXIV-DOCO-	9.95	1300.00	0.00	1300.00
BOND XXV-doco-	10.10	7142.20	0.00	7142.20
BOND XXVI-doco-	9.30	3075.51	0.00	3075.51
ADB III-ADDCAP FOR 2010-2011 add cap 1-49.02	2.00	0.00	152.45	152.45
ADB III-ADDCAP FOR 2010-2011 add cap 2-53.956	2.00	0.00	275.45	275.45
ADB III-DOCO 1-48.77	2.00	1950.80	0.00	1950.80
ADB III-DOCO 2-49.29	2.00	22426.95	0.00	22426.95
ADB III-DOCO 5-46.69	2.00	2307.42	0.00	2307.42
ADB III-doco 1-45.719	2.00	837.16	0.00	837.16
ADB III-doco 2-49.026	2.00	76.48	0.00	76.48
BOND XXVIII-DOCO-	9.33	450.00	0.00	450.00
BOND XXX-DOCO-	8.80	760.00	0.00	760.00
BOND XXXI-doco-	8.90	40.00	0.00	40.00
BOND XXXII-doco-	8.84	1649.60	0.00	1649.60
<b>Total</b>		<b>46166.12</b>	<b>427.90</b>	<b>46594.02</b>



**COMBINED ASSETS 1, 3 & 5 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN  
DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

<b>Particulars</b>	<b>2010-11</b>
Gross Opening Loan	46166.12
Cumulative Repayments of Loans upto Previous Year	789.71
<b>Net Loans Opening</b>	<b>45376.41</b>
Add: Draw(s) during the Year	427.90
Less: Repayments of Loan during the year	0.00
<b>Net Closing Loan</b>	<b>45804.31</b>
Average Net Loan	45590.36
Rate of Interest on Loan (%)	5.0361
<b>Interest on Loan</b>	<b>2295.96</b>

**COMBINED ASSETS 1, 3, 5 & 9 - DETAILS OF LOAN BASED ON ACTUAL LOAN  
PORTFOLIO FOR 2009-14**

(₹ in lakh)

<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on COD</b>	<b>Additions during the tariff period</b>	<b>Total</b>
BOND XIX-DOCO-	9.25	751.00	0.00	751.00
BOND XXI-DOCO-	8.73	1148.00	0.00	1148.00
BOND XXII-DOCO-	8.68	2430.00	0.00	2430.00
BOND XXIV-DOCO-	9.95	1355.00	0.00	1355.00
BOND XXV-DOCO-	10.10	7456.20	0.00	7456.20
BOND XXVI-DOCO-	9.30	3215.51	0.00	3215.51
ADB III-ADDCAP FOR 2011 2012 add cap 1-56.88	0.00	0.00	39.93	39.93
ADB III-ADDCAP FOR 2011-2012 add cap 4-56.367	0.00	0.00	536.90	536.90
ADB III-ADDCAP FOR 2011-2012 add cap 5-56.097	0.00	0.00	687.41	687.41
ADB III-ADDCAP FOR 2011-2012 add cap 6-56.34	0.00	0.00	13.92	13.92
ADB III-ADDCAP FOR 2012-2013 add cap 7-56.34	0.00	0.00	21.41	21.41
ADB III-ADDCAP FOR 2012-2013 add cap 8-56.28	0.00	0.00	48.01	48.01
ADB III-DOCO 1-48.77	1.97	1950.80	0.00	1950.80
ADB III-DOCO 3-49.29	1.97	22426.95	0.00	22426.95
ADB III-DOCO 5-46.69	1.97	2307.42	0.00	2307.42
ADB III-add cap 10-53.956	1.97	0.00	206.54	206.54
ADB III-add cap 10-11-49.02	1.97	0.00	114.71	114.71



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
ADB III-add cap 11-56.88	1.97	0.00	2.22	2.22
ADB III-doco 1-45.719	1.97	837.16	0.00	837.16
ADB III-doco 3-53.956	1.97	68.85	0.00	68.85
ADB III-doco 9-49.026	1.97	114.72	0.00	114.72
BOND XXVIII-DOCO-	9.33	479.50	0.00	479.50
BOND XXX-DOCO-	8.80	760.00	0.00	760.00
BOND XXXI-DOCO-	8.90	46.00	0.00	46.00
BOND XXXII-doco-	8.84	1649.60	0.00	1649.60
<b>Total</b>		<b>46996.71</b>	<b>1671.05</b>	<b>48667.76</b>

**COMBINED ASSETS 1, 3, 5 & 9 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	46996.71	47320.18	48598.34	48667.76
Cumulative Repayments of Loans upto Previous Year	795.12	1637.01	4000.40	6552.16
<b>Net Loans Opening</b>	<b>46201.59</b>	<b>45683.17</b>	<b>44597.94</b>	<b>42115.60</b>
Add: Draw(s) during the Year	323.47	1278.16	69.42	0.00
Less: Repayments of Loan during the year	841.89	2363.39	2551.76	2893.47
<b>Net Closing Loan</b>	<b>45683.17</b>	<b>44597.94</b>	<b>42115.60</b>	<b>39222.13</b>
Average Net Loan	45942.38	45140.56	43356.77	40668.86
Rate of Interest on Loan (%)	5.0825	4.9488	4.9581	4.7281
<b>Interest on Loan</b>	<b>2335.04</b>	<b>2233.91</b>	<b>2149.67</b>	<b>1922.86</b>

**COMBINED ASSETS 4 & 6 - 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 XIX-DOCO-	9.25	35.00	0.00	35.00
BOND XXI-DOCO-	8.73	65.00	0.00	65.00
BOND XXII-DOCO-	8.68	100.00	0.00	100.00
BOND XXIV-DOCO-	9.95	55.00	0.00	55.00
BOND XXV-doco-	10.10	1217.80	0.00	1217.80
BOND XXVI-DOCO-	9.30	150.00	0.00	150.00
ADB III-ADDCAP FOR 2010-2011 add cap1 -	2.00	0.00	67.74	67.74



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
56.88				
ADB III-DOCO 4-49.29	2.00	1972.59	0.00	1972.59
ADB III-DOCO 6-46.69	2.00	233.45	0.00	233.45
ADB III-doco 1-49.05	2.00	180.31	0.00	180.31
ADB III-doco 2-49.02	2.00	3.68	0.00	3.68
BOND XXVIII-DOCO-	9.33	50.00	0.00	50.00
BOND XXX-DOCO-	8.80	85.00	0.00	85.00
BOND XXXI-DOCO-	8.90	5.00	0.00	5.00
BOND XXXIII-doco-	8.64	10.00	0.00	10.00
BOND XXXII-doco-	8.84	207.70	0.00	207.70
<b>Total</b>		<b>4370.53</b>	<b>67.74</b>	<b>4438.27</b>

**COMBINED ASSETS 4 & 6 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2010-11
Gross Opening Loan	4370.53
Cumulative Repayments of Loans upto Previous Year	66.11
<b>Net Loans Opening</b>	<b>4304.42</b>
Add: Draw(s) during the Year	67.74
Less: Repayments of Loan during the year	0.00
<b>Net Closing Loan</b>	<b>4372.16</b>
Average Net Loan	4338.29
Rate of Interest on Loan (%)	5.5038
<b>Interest on Loan</b>	<b>238.77</b>

**COMBINED ASSETS 4, 6 & 7 - 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 XIX-DOCO-	9.25	70.00	0.00	70.00
BOND XXI-DOCO-	8.73	130.00	0.00	130.00
BOND XXII-DOCO-	8.68	200.00	0.00	200.00
BOND XXIV-DOCO-	9.95	110.00	0.00	110.00
BOND XXV-doco-	10.10	1547.80	0.00	1547.80



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXVI-DOCO-	9.30	300.00	0.00	300.00
ADB III-ADDCAP FOR 2010-2011 add cap - 56.88	1.99	0.00	127.13	127.13
ADB III-ADDCAP FOR 2011-2012 add cap - 55.98	0.00	0.00	47.36	47.36
ADB III-ADDCAP FOR 2011-2012 add cap 6,7 - 56.34	0.00	0.00	74.93	74.93
ADB III-ADDCAP FOR 2012-2013 add cap1 - 55.74	0.00	0.00	6.58	6.58
ADB III-DOCO 4-49.29	1.99	1972.59	0.00	1972.59
ADB III-DOCO 6-46.69	1.99	233.45	0.00	233.45
ADB III-DOCO 7-47.44	1.99	274.20	0.00	274.20
ADB III-doco 1-49.05	1.99	180.31	0.00	180.31
ADB III-doco 2-49.02	1.99	3.68	0.00	3.68
ADB III-doco 3-56.88	1.99	8.53	0.00	8.53
BOND XXVIII-DOCO-	9.33	100.00	0.00	100.00
BOND XXX-DOCO-	8.80	170.00	0.00	170.00
BOND XXXI-DOCO-	8.90	10.00	0.00	10.00
BOND XXXIII-doco-	8.64	19.00	0.00	19.00
BOND XXXII-doco-	8.84	397.70	0.00	397.70
<b>Total</b>		<b>5727.26</b>	<b>256.00</b>	<b>5983.26</b>

**COMBINED ASSETS 4, 6 & 7 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	5727.26	5854.39	5976.68	5983.26
Cumulative Repayments of Loans upto Previous Year	76.50	156.21	452.46	771.80
<b>Net Loans Opening</b>	<b>5650.76</b>	<b>5698.18</b>	<b>5524.22</b>	<b>5211.46</b>
Add: Draw(s) during the Year	127.13	122.29	6.58	0.00
Less: Repayments of Loan during the year	79.71	296.25	319.34	381.15
<b>Net Closing Loan</b>	<b>5698.18</b>	<b>5524.22</b>	<b>5211.46</b>	<b>4830.31</b>
Average Net Loan	5674.47	5611.20	5367.84	5020.89
Rate of Interest on Loan (%)	6.0404	5.8837	5.8743	5.6743
<b>Interest on Loan</b>	<b>342.76</b>	<b>330.14</b>	<b>315.32</b>	<b>284.90</b>



**ASSET 8 - 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 XIX-DOCO-	9.25	90.00	0.00	90.00
BOND XXI-DOCO-	8.73	170.00	0.00	170.00
BONO XXII-DOCO-	8.68	270.00	0.00	270.00
BOND XXIV-DOCO-	9.95	140.00	0.00	140.00
BOND XXV-DOCO-	10.10	870.00	0.00	870.00
BOND XXVI-DOCO-	9.30	390.00	0.00	390.00
ADB III-ADDCAP FOR 2010-2011 add cap-56.88	1.99	0.00	39.25	39.25
ADB III-ADDCAP FOR 2011-2012 add cap-56.34	0.00	0.00	13.01	13.01
ADB III-DOCO-46.69	1.97	669.53	0.00	669.53
BOND XXVIII-DOCO-	9.33	130.00	0.00	130.00
BOND XXX-DOCO-	8.80	220.00	0.00	220.00
BOND XXXI-DOCO-	8.90	10.00	0.00	10.00
BOND XXXII-DOCO-	8.84	77.20	0.00	77.20
<b>Total</b>		<b>3036.73</b>	<b>52.26</b>	<b>3088.99</b>

**ASSET 8 - WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14  
TARIFF PERIOD**

(₹ in lakh)

Particulars	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	3036.73	3075.98	3088.99	3088.99
Cumulative Repayments of Loans upto Previous Year	25.20	84.43	269.91	469.81
<b>Net Loans Opening</b>	<b>3011.53</b>	<b>2991.55</b>	<b>2819.08</b>	<b>2619.18</b>
Add: Draw(s) during the Year	39.25	13.01	0.00	0.00
Less: Repayments of Loan during the year	59.23	185.48	199.90	228.86
<b>Net Closing Loan</b>	<b>2991.55</b>	<b>2819.08</b>	<b>2619.18</b>	<b>2390.32</b>
Average Net Loan	3001.54	2905.32	2719.13	2504.75
Rate of Interest on Loan (%)	7.8003	7.7082	7.6881	7.5638
<b>Interest on Loan</b>	<b>234.13</b>	<b>223.95</b>	<b>209.05</b>	<b>189.45</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 XIX-DOCO-	9.25	961.00	0.00	961.00
BOND XXI-DOCO-	8.73	1848.00	0.00	1848.00
BOND XXII-DOCO-	8.68	3100.00	0.00	3100.00
BOND XXIV-DOCO-	9.95	1878.00	0.00	1878.00
BOND XXV-DOCO-	10.10	9874.00	0.00	9874.00
BOND XXVI-DOCO-	9.30	3985.50	0.00	3985.50
ADB III-DOCO 1-48.77	1.98	4145.45	0.00	4145.45
ADB III-DOCO 11-56.35	1.98	536.96	0.00	536.96
ADB III-DOCO 13-56.1	1.98	687.45	0.00	687.45
ADB III-DOCO 2-49.29	1.98	24399.54	0.00	24399.54
ADB III-DOCO 3-46.69	1.98	3210.40	0.00	3210.40
ADB III-DOCO 4-47.44	1.98	274.20	0.00	274.20
ADB III-doco 11-49.02	1.98	257.06	0.00	257.06
ADB III-doco 12-49.05	1.98	180.31	0.00	180.31
ADB III-doco 15-56.28	1.98	48.01	0.00	48.01
ADB III-doco 16-55.98	1.98	47.30	0.00	47.30
ADB III-doco 17-55.74	1.98	6.69	0.00	6.69
ADB III-doco 18-56.34	1.98	123.27	0.00	123.27
ADB III-doco 5-45.719	1.98	837.16	0.00	837.16
ADB III-doco 8-53.958	1.98	275.40	0.00	275.40
ADB III-doco 9-56.88	1.98	216.71	0.00	216.71
BOND XXVIII-DOCO-	9.33	709.50	0.00	709.50
BOND XXX-DOCO-	8.80	1150.00	0.00	1150.00
BOND XXXI-DOCO-	8.90	66.00	0.00	66.00
BONDXXXIII-doco-	8.64	19.00	0.00	19.00
BOND XXXII-doco-	8.84	2124.50	0.00	2124.50
<b>Total</b>		<b>60961.41</b>	<b>0.00</b>	<b>60961.41</b>

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	60961.41	60961.41	60961.41	60961.41	60961.41
Cumulative Repayments of Loans upto Previous Year	11923.91	15766.05	19782.40	23994.36	28419.57
<b>Net Loans Opening</b>	<b>49037.50</b>	<b>45195.36</b>	<b>41179.01</b>	<b>36967.05</b>	<b>32541.84</b>



<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	3842.14	4016.35	4211.96	4425.21	4656.34
<b>Net Closing Loan</b>	<b>45195.36</b>	<b>41179.01</b>	<b>36967.05</b>	<b>32541.84</b>	<b>27885.50</b>
Average Net Loan	47116.43	43187.19	39073.03	34754.45	30213.67
Rate of Interest on Loan (%)	4.8711	4.7622	4.6441	4.5129	4.3619
<b>Interest on Loan</b>	<b>2295.11</b>	<b>2056.67</b>	<b>1814.57</b>	<b>1568.43</b>	<b>1317.89</b>