

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 186/TT/2015**

**Coram:**

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

**Date of Hearing : 03.02.2016  
Date of Order :30.03.2016**

**In the matter of:**

Truing up of transmission tariff for the 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for **Combined Asset-A& B:** (Asset A: 315 MVA ICT-I at Sikar 400/200 kV new sub-station with 1 No. 220 kV Line bay and Asset-B: LILO of ckt-I of Sikar (RVPN)- Ratangarh (RVPN) 220 kV D/C line at Sikar(PG), **Asset-C:** LILO of Ckt-II of Sikar(RVPN)-Ratangarh(RVPN) 220 kV D/C line at Sikar(PG), **Asset-D:** 315 MVA ICT-II at Sikar 400/200 kV New sub-station with 1 No. 220 kV line bay, **Combined Asset E to I** (Asset **E:** LILO of 1<sup>st</sup> circuits of 400 kV JhakriAbdullapur transmission line at Panchkula, Asset **F:** LILO of 2<sup>nd</sup> circuits of 400 kV JhakriAbdullapur transmission line at Panchkula, Asset **G:** 400/220 kV 315 MVA ICT-I along with associated bays at Panchkula sub-station, Asset **H:** 315 MVA ICT-II along with associated bays at Panchkula sub-station, Asset **I:** 125 MVAR bus reactor along with associated bays at Panchkula sub-station, **Asset -J:** 400 kV, 80 MVAR bus reactor along with associated bays at 400/220 kV Sikar sub-station under Sasan and Mundra Mega Power Project in Northern Region, under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

**And in the matter of:**

Power Grid Corporation of India Ltd.  
'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

**Versus**



1. Rajasthan RajyaVidyutPrasaran Nigam Limited  
VidyutBhawan, VidyutMarg,  
Jaipur – 302 005
2. Ajmer VidyutVitran Nigam Limited  
400 KV GSS Building (Ground floor), Ajmer road,  
Heerapura, Jaipur
3. Jaipur VidyutVitran Nigam Limited  
400 KV GSS Building (Ground floor), Ajmer road,  
Heerapura, Jaipur
4. Jodhpur VidyutVitran Nigam Limited  
400 KV GSS Building (Ground floor), Ajmer road,  
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board  
VidyutBhawan, Kumar House Complex Building II  
Shimla – 171 004
6. Punjab State Electricity Board  
Thermal shed TIA, Near 22 Phatak,  
Patiala – 147 001
7. Haryana Power Purchase Centre  
Shakti Bhawan, Sector-6  
Panchkula (Haryana) – 134 109
8. Power Development Department  
Government of Jammu & Kashmir,  
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited  
(Formerly Uttar Pradesh State Electricity Board)  
Shakti Bhawan,14, Ashok Marg,  
Lucknow – 226 001
10. Delhi Transco Limited  
Shakti Sadan, Kotla Road,  
New Delhi – 110 002
11. BSES Yamuna Power Limited  
BSES Bhawan, Nehru Place,  
New Delhi



12. BSES Rajdhani Power Limited  
BSES Bhawan, Nehru Place,  
New Delhi
  13. North Delhi Power Limited  
Power Trading & Load Dispatch group  
Cennet Building, Adjacent to 66/11 KV Pitampura-3  
Grid Building, Near PP Jewellers,  
Pitampura, New Delhi – 110 034
  14. Chandigarh Administration  
Sector-9, Chandigarh
  15. Uttarakhand Power Corporation Limited  
UrjaBhawan, Kanwali Road,  
Dehradun
  16. North Central Railway  
Allahabad
  17. New Delhi Municipal Council  
Palika Kendra, SansadMarg,  
New Delhi – 110 002
- .....**Respondents**

The following were present:-

For Petitioner: Smt.Sangeeta Edwards, PGCIL  
Shri S.C Taneja, PGCIL  
Shri M. M. Mondal, PGCIL  
ShriRakesh Prasad, PGCIL  
Shri S. S. Raju, PGCIL

For Respondent: Shri B.L Sharma, Advocate, Rajasthan Discoms  
Shri S. K. Agarwal, Advocate, Rajasthan Discoms  
Shri S. P. Das, Advocate, Rajasthan Discoms.

### **ORDER**

The present petition has been preferred by Power Grid Corporation of India Ltd. (“the petitioner”) for truing up of capital expenditure and tariff



for **Combined Asset-A& B**: (Asset A: 315 MVA ICT-I at Sikar 400/200 kV new Sub-station with 1 No. 220 kV Line bay and Asset-B: LILO of ckt-I of Sikar (RVPN)-Ratangarh (RVPN) 220 kV D/C line at Sikar(PG), **Asset-C**: LILO of Ckt-II of Sikar(RVPN)-Ratangarh(RVPN) 220 kV D/C line at Sikar(PG), **Asset-D**: 315 MVA ICT-II at Sikar 400/200 kV New Sub-station with 1 No. 220 kV line bay, **Combined Asset Eto I** (Asset **E**: LILO of 1<sup>st</sup> circuits of 400 kV JhakriAbdullapur transmission line at Panchkula, Asset **F**: LILO of 2<sup>nd</sup> circuits of 400 kV JhakriAbdullapur transmission line at Panchkula, Asset-**G**: 400/220 kV 315 MVA ICT-I along with associated bays at Panchkula Sub-station, Asset-**H**: 315 MVA ICT-II along with associated bays at Panchkula Sub-station, Asset-**I**: 125 MVAR bus reactor along with associated bays at Panchkula Sub-station, **Asset-J**: 400 kV, 80 MVAR bus reactor along with associated bays at 400/220 kV Sikar Sub-station under Sasan and Mundra Mega Power Project in Northern region Region(hereinafter referred as “transmission asset”) under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on actual capital expenditure for the period from COD of the assets 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 Combined Assets for the period from 1.4.2014 to 31.3.2019.



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

3. The petitioner has served the petition on the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 3.2.2016. Ajmer Vidyut Vitaran Nigam Ltd., Jaipur Vidyut Vitaran Nigam Ltd., and Jodhpur Vidyut Vitaran Nigam Ltd., Respondent Nos. 2, 3 and 4 respectively (collectively referred to as "Rajasthan Discoms") have filed a reply vide affidavit dated 25.1.2016. In response, the petitioner has submitted the rejoinder to the reply filed by the respondents vide affidavit dated 9.3.2016. The petitioner was directed to file certain information vide letter dated 30.1.2016 and Record of Proceedings (ROP) dated 9.2.2016, the petitioner has submitted the information vide affidavit dated 7.3.2016. The concerns expressed by respondents are being addressed in the respective para of this order.

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

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

- (a) The investment approval for the project was accorded by Board of Directors of the petitioner's company vide letter dated 10.12.2009 at an



estimated cost of ₹121683lakh, which included IDC of ₹5770lakh based on 2<sup>nd</sup> quarter 2009 price level. The petitioner has built the transmission asset in the Northern Region. The date of the commercial operation and approved apportioned cost of the instant assets is as follows:-

Asset	COD	Approved apportioned cost (₹ in lakh)
Combined Asset A & B	1.2.2012	3287.14
Asset-C	1.5.2012	933.79
Asset-D	1.4.2012	2353.35
Asset-E to I	1.3.2012	20367.51
Asset-J	1.9.2012	1242.52

(b) As per investment approval accorded on 10.12.2009, the transmission project was to be commissioned within 32 months from the date of investment approval i.e. by 1.9.2012. It is observed from the above table that all the assets have been commissioned within 1.9.2012, hence there is no time over-run for the said assets.

(c) The tariff from COD to 31.3.2014 for Combined Asset-A & B, Asset-C, Asset-D and Combined Asset E to I was allowed vide order dated 6.8.2013 in Petition No. 97/TT/2012 and tariff for Asset-J was allowed vide order dated 9.6.2015 in Petition No.61/TT/2013 in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 tariff period is as under:-

(₹ in lakh)			
Combined Asset-A & B	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	18.07	146.04	173.22
Interest on Loan	9.39	74.71	83.96



Return on Equity	18.67	154.52	186.41
Interest on Working Capital	2.71	18.82	20.83
O&M Expenses	37.24	236.21	249.72
<b>Total</b>	<b>86.08</b>	<b>630.30</b>	<b>714.13</b>

(₹ in lakh)

Asset- C	2012-13 (Pro-rata)	2013-14
Depreciation	37.06	46.56
Interest on Loan	17.08	20.37
Return on Equity	38.66	49.48
Interest on Working Capital	6.57	7.80
O&M Expenses	80.31	92.62
<b>Total</b>	<b>179.68</b>	<b>216.83</b>

(₹ in lakh)

Asset- D	2012-13	2013-14
Depreciation	112.27	130.62
Interest on Loan	58.80	64.79
Return on Equity	117.23	138.97
Interest on Working Capital	14.85	16.38
O&M Expenses	148.60	157.10
<b>Total</b>	<b>451.75</b>	<b>507.85</b>

(₹ in lakh)

Combined E to I	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	52.92	710.52	778.98
Interest on Loan	20.72	266.76	272.34
Return on Equity	58.92	787.08	862.56
Interest on Working Capital	6.20	80.32	85.88
O&M Expenses	74.12	940.22	993.98
<b>Total</b>	<b>212.88</b>	<b>2784.89</b>	<b>2993.73</b>

(₹ in lakh)

Asset- J	2012-13 (Pro-rata)	2013-14
Depreciation	28.59	57.52
Interest on Loan	7.55	14.33
Return on Equity	28.89	57.98
Interest on Working Capital	3.49	6.60



O&M Expenses	36.12	65.46
<b>Total</b>	<b>104.64</b>	<b>201.90</b>

(d) The petitioner has submitted that an amount of ₹246.73 lakh for land at Panchkula is payable to the landowner as annuity for next 28 years as per Haryana R&R policy. The annuity is however, not included in the capital cost of the project. The petitioner has submitted copy of Government Gazette Notification.

(e) The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.

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

6. The truing up of tariff for the 2009-14 tariff period for Asset-I and Asset-II has been determined as discussed below.

#### **Capital Cost**

7. The Commission had determined the tariff for Combined Asset-A & B, Asset-C, Asset-D and Combined Asset E to I vide order dated 6.8.2013 in Petition No. 97/TT/2012 and tariff for Asset-J vide order dated 9.6.2015 in Petition No.61/TT/2013 considering the capital cost as on COD of ₹1934.44 lakh, ₹664.87 lakh, ₹1820.75 lakh, ₹12870.98 lakh and ₹847.79 lakh respectively for the Assets. However, in the instant petition filed on 7.8.2015, the petitioner has





claimed revised capital cost as on COD for the assets as ₹1926.95 lakh, ₹652.87 lakh, ₹1817.75 lakh, ₹12870.97 lakh and ₹772.79 lakh for Combined Asset-A & B, Asset-C, Asset-D, Combined Asset E to I and Asset-J respectively.

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

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

(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:

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

9. The petitioner has submitted the Auditor’s Certificate dated 20.5.2015 for Combined Asset-A&B, Asset-C, Asset-D and Asset-J and Auditor’s Certificate dated 18.9.2014 for Combined Asset- E to I certifying the capital cost as on COD and additional capitalization claimed herein.

### **IDC and IEDC**

10. The petitioner has submitted asset wise IDC discharged on cash basis as on COD and thereafter which is as shown in the table below:-

Asset	IDC as per Certificate	IDC discharged as on COD	(₹ in lakh)
			IDC discharged in 2012-13
Combined Asset A & B	128.13	113.55	14.58
Asset-C	33.52	26.50	7.02



Asset	IDC as per Certificate	IDC discharged as on COD	IDC discharged in 2012-13
Asset-D	111.70	90.74	20.96
Combined Asset-E to I	332.63	280.51	52.12
Asset-J	35.42	33.72	1.70
<b>Total</b>	<b>641.40</b>	<b>545.02</b>	<b>96.38</b>

11. The petitioner has also submitted that, entire IEDC of ₹943.55 lakh has been discharged as on COD of the assets. We have considered the submissions of the petitioner. However, it is observed that the petitioner has claimed entire IDC and IEDC in the Capital Cost as on COD of the assets for computation of tariff. We have computed the tariff considering the IDC discharged on cash basis as on COD. The discharged IDC for 2012-13 has been considered as additional capitalization for 2012-13 for the assets. Entire IEDC has been considered as on COD for the assets.

### **Initial Spares**

12. The initial spares claimed by the petitioner for the instant assets are within the specified ceiling limits and accordingly the amount claimed by the petitioner towards initial spares is allowed.

### **Capital Cost**

13. The petitioner has claimed capital cost of ₹1926.95 lakh, ₹652.87 lakh, ₹1817.75 lakh, ₹12870.97 lakh and ₹772.79 lakh for Combined Asset-A & B, Asset-C, Asset-D and Combined Asset E to I and Asset-J respectively as on COD (as per Auditor's Certificate) for the purpose of tariff.

14. The petitioner was directed vide letter dated 30.1.2016, to submit the justification for claiming revised capital cost as on COD for Asset- C and Asset-D.



In response, vide affidavit dated 7.3.2016, the petitioner has submitted that, the instant assets were commissioned on 1.5.2012 and 1.4.2012 respectively. The IDC and IEDC were based on Management certificate which has undergone changes after audit for year 2012-13. The petitioner further submitted that, allocation of IDC/IEDC is done on estimated basis for assets commissioned during the year but is finalized at the end of financial year based on audit. Hence, there will be change in COD cost at time of truing up of the asset based on actual allocation/apportionment among various elements in the project.

15. We have considered the submissions of the petitioner. The petitioner has claimed revised capital cost as on COD, for the Assets in the instant petition which is supported by Auditor's Certificate dated 20.5.2015 for Combined Asset- A&B, Asset-C, Asset-D and Asset-J and Auditor's Certificate dated 18.9.2014 for Combined Asset- E to I.

16. It is also observed that the petitioner during the proceedings in Petition No.97/TT/2012 for Asset- A&B, has submitted the capital cost based on Auditor's certificate dated 10.2.2012, where expenditure upto 31.12.2011 was verified as per books of accounts, and estimated expenditure from 1.1.2012 to 31.3.2013 were on the basis of details furnished by the management of the petitioner. For Asset J, the Commission had stated in order dated 9.6.2015 in Petition No. 61/TT/2013 that, actual completion cost shall be reviewed at the time of truing up. Hence, we have considered the revised submissions claimed by the petitioner after adjustment of IDC on cash basis as on COD of the assets to work



out the capital cost and have accordingly tried up tariff for the 2009-14 tariff period. The capital cost considered for the instant assets is as follows:-

Asset	Approved apportioned cost	As claimed by the petitioner	IDC discharged in 2012-13	Capital cost as on COD approved
Combined Asset A & B	3287.14	1926.95	14.58	1912.37
Asset-C	933.79	652.87	7.02	645.85
Asset-D	2353.35	1817.75	20.96	1796.79
Combined Asset-E to I	20367.51	12870.97	52.12	12818.85
Asset-J	1242.52	772.79	1.70	771.09
<b>Total</b>	<b>28184.31</b>	<b>18041.33</b>	<b>96.38</b>	<b>17944.95</b>

### **Additional Capital Expenditure**

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

18. Clause (1), sub-clause(i) of Regulation 9 of the 2009 Tariff Regulations provides that:-

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

(i) Undischarged liabilities...;”

19. The petitioner has claimed total additional capitalization of ₹802.61 lakh, ₹76.32 lakh, ₹283.95 lakh, ₹4295.34 lakh and ₹81.80 lakh for Combine Asset-A&B, Asset-C, Asset-D, Combined Asset- E to I and Asset-J respectively from COD to 31.3.2014 towards balance and retention payment for works executed within cut-off date.



20. We have considered the submissions of the petitioner. The total capital cost including additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations for the assets after adjustment of IDC on cash basis is within the approved apportioned cost and is allowed as shown below:-

(₹ in lakh)

Asset	Particulars	Approved Apportioned cost	Capital cost as on COD	Additional capital expenditure (2009-14)			Total Add cap	Capital cost as on 31.3.2014
				2011-12 (Pro-rata)	2012-13	2013-14		
<b>Combined Asset A &amp; B</b>	Approved in order dated 6.8.2013	3287.14	1934.44	404.03	1216.01	-	1620.04	3554.48
	Actual incurred as per Auditor's certificate dated 20.5.2015		1926.95	329.34	228.69	244.58	802.61	2729.56
	<b>Allowed in this order</b>		<b>1912.37</b>	<b>329.34</b>	<b>243.27</b>	<b>244.58</b>	<b>817.19</b>	<b>2729.56</b>
<b>Asset-C</b>	Approved in order dated 6.8.2013	933.79	664.87	0.00	278.65	-	278.65	943.52
	Actual incurred as per Auditor's certificate dated 20.5.2015		652.87	0.00	13.04	63.28	76.32	729.19
	<b>Allowed in this order</b>		<b>645.85</b>	<b>0.00</b>	<b>20.06</b>	<b>63.28</b>	<b>83.34</b>	<b>729.19</b>
<b>Asset-D</b>	Approved in order dated 6.8.2013	2353.35	1820.75	0.00	829.13	-	829.13	2649.88
	Actual incurred as per Auditor's certificate dated 20.5.2015		1817.75	0.00	137.21	146.74	283.95	2101.70
	<b>Allowed in this order</b>		<b>1796.79</b>	<b>0.00</b>	<b>158.17</b>	<b>146.74</b>	<b>304.91</b>	<b>2101.70</b>
<b>Asset-E to I</b>	Approved in order dated 6.8.2013	20367.51	12870.98	1223.05	1828.48	1050.00	4101.53	16972.51
	Actual incurred as per Auditor's certificate dated 18.9.2014		12870.97	1202.60	2687.73	405.01	4295.34	17166.31
	<b>Allowed in this order</b>		<b>12818.85</b>	<b>1202.60</b>	<b>2739.85</b>	<b>405.01</b>	<b>4347.46</b>	<b>17166.31</b>



Asset	Particulars	Approved Appor- tioned cost	Capital cost as on COD	Additional capital expenditure (2009-14)			Total Add cap	Capital cost as on 31.3.2014
				2011-12 (Pro-rata)	2012-13	2013-14		
<b>Asset-J</b>	Approved in order dated 9.6.2015	1242.52	847.79	-	193.33	128.89	322.22	1170.01
	Actual incurred as per Auditor's certificate dated 20.5.2015		772.79	-	19.41	62.39	81.80	854.59
	<b>Allowed in this order</b>		771.09	0.00	21.11	62.39	<b>83.50</b>	<b>854.59</b>
Total Approved in previous orders		<b>28184.31</b>	18138.83	1627.08	4345.60	1178.89	7151.57	25290.40
Total Claimed			18041.33	1531.94	3086.08	922.00	5540.02	23581.35
<b>Total Approved in this order</b>			<b>17944.95</b>	<b>1531.94</b>	<b>3182.46</b>	<b>922.00</b>	<b>5636.40</b>	<b>23581.35</b>

### Debt: Equity

21. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provide that:-

“(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

.....

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

22. The petitioner has claimed true up Annual Fixed Charge based on debt-equity ratio of 70:30 admitted as on COD in order dated 6.8.2013 in Petition No.



97/TT/2012 for Combined Asset-A&B, Asset-C, Asset-D and Combined Asset-E to I and in order dated 9.6.2015 in Petition No.61/TT/2013 for Asset-J.

23. With respect to additional capitalization, the petitioner has claimed the debt:equity ratio of 70:30 as on COD for the instant assets. The petitioner was directed to confirm that the actual equity infused for additional capitalization during the 2009-14 tariff period is not less than 30%. In response, the petitioner vide affidavit dated 7.3.2016 has submitted that as per Form-13 of the assets, actual loans deployed for funding additional capitalization is 70%, accordingly, equity deployment is 30% as shown in Form-1A as per Regulation 12(3) of the 2009 Tariff Regulations.

24. The debt:equity ratio of 70:30as on CODfor the instant assets have been considered for the purpose of truing up of the approved tariff of tariff period 2009-14, as given under:-

(₹ in lakh)				
Particulars	Capital cost as on COD		Completion cost including additional capitalization	
	Amount	(%)	Amount	(%)
<b>Combined Asset-A&amp;B</b>				
Debt	1338.66	70.00	1910.69	70.00
Equity	573.71	30.00	818.87	30.00
<b>Total</b>	<b>1912.37</b>	<b>100.00</b>	<b>2729.56</b>	<b>100.00</b>
<b>Asset- C</b>				
Debt	452.10	70.00	510.43	70.00
Equity	193.76	30.00	218.76	30.00
<b>Total</b>	<b>645.85</b>	<b>100.00</b>	<b>729.19</b>	<b>100.00</b>
<b>Asset- D</b>				
Debt	1257.75	70.00	1471.19	70.00
Equity	539.04	30.00	630.51	30.00
<b>Total</b>	<b>1796.79</b>	<b>100.00</b>	<b>2101.70</b>	<b>100.00</b>
<b>Combined Asset-</b>				



Particulars	Capital cost as on COD		Completion cost including additional capitalization	
<b>E to I</b>				
Debt	8973.20	70.00	12016.43	70.00
Equity	3845.66	30.00	5149.88	30.00
<b>Total</b>	<b>12818.85</b>	<b>100.00</b>	<b>17166.31</b>	<b>100.00</b>
<b>Asset- J</b>				
Debt	539.76	70.00	598.21	70.00
Equity	231.33	30.00	256.38	30.00
<b>Total</b>	<b>771.09</b>	<b>100.00</b>	<b>854.59</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

25. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan.

26. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest. We have considered the submissions of the petitioner and accordingly calculated the IOL based on actual interest rate submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-

**(₹ in lakh)**

Combined Asset-A&B	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	9.39	74.71	83.96
As claimed by the petitioner	9.42	56.77	52.02
<b>Allowed after trued up</b>	<b>9.36</b>	<b>56.60</b>	<b>52.03</b>

**(₹ in lakh)**

Asset-C	2012-13 (Pro-rata)	2013-14
Approved vide order dated 6.8.2013	17.08	20.37





As claimed by the petitioner	13.15	12.79
<b>Allowed after trued up</b>	<b>13.07</b>	<b>12.78</b>

(₹ in lakh)

Asset-D	2012-13	2013-14
Approved vide order dated 6.8.2013	58.80	64.79
As claimed by the petitioner	47.63	43.08
<b>Allowed after trued up</b>	<b>47.37</b>	<b>43.09</b>

(₹ in lakh)

Combined Asset-E to I	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	20.72	266.76	272.34
As claimed by the petitioner	20.51	254.12	230.20
<b>Allowed after trued up</b>	<b>20.43</b>	<b>253.69</b>	<b>230.23</b>

(₹ in lakh)

Asset-J	2012-13 (Pro-rata)	2013-14
Approved vide order dated 9.6.2015	7.55	14.33
As claimed by the petitioner	6.13	9.36
<b>Allowed after trued up</b>	<b>6.11</b>	<b>9.33</b>

27. The interest on loan has reduced due to reduction in capital cost as on COD and variation in actual additional capitalization during the 2009-14 tariff period for both the assets.

### **Return on Equity (“ROE”)**

28. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provides that:-



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

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

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

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 may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be true up in accordance with Regulation 6 of these regulations.”

29. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 6.8.2013 in Petition No 97/TT/2012 for Combined Asset-A&B, Asset-C, Asset-D and Combined Asset-E to I and in order dated 9.6.2015 in Petition No. 61/TT/2013 for the Asset-J. The petitioner has submitted the variation in the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-

Particulars	MAT Rate	Grossed up ROE (Base rate/(1-t))
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

30. We have considered the revised MAT rate of 20.961% for grossing up ROE and the approved ROE is as shown in the table below:-



**(₹ in lakh)**

Combined Asset-A&B	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	18.67	154.52	186.41
As claimed by the petitioner	20.26	137.81	153.38
<b>Allowed after trued up</b>	<b>20.12</b>	<b>137.38</b>	<b>153.39</b>

**(₹ in lakh)**

Asset-C	2012-13 (Pro-rata)	2013-14
Approved vide order dated 6.8.2013	38.66	49.48
As claimed by the petitioner	35.14	41.04
<b>Allowed after trued up</b>	<b>34.95</b>	<b>41.04</b>

**(₹ in lakh)**

Asset-D	2012-13	2013-14
Approved vide order dated 6.8.2013	117.23	138.97
As claimed by the petitioner	109.64	119.31
<b>Allowed after trued up</b>	<b>109.05</b>	<b>119.33</b>

**(₹ in lakh)**

Combined Asset-E to I	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	58.92	787.08	862.56
As claimed by the petitioner	65.26	896.22	997.96
<b>Allowed after trued up</b>	<b>65.01</b>	<b>894.71</b>	<b>997.98</b>

**(₹ in lakh)**

Asset-J	2012-13 (Pro-rata)	2013-14
Approved vide order dated 9.6.2015	28.89	57.98



As claimed by the petitioner	26.53	48.43
<b>Allowed after trued up</b>	<b>26.51</b>	<b>48.44</b>

31. The variation in return on equity is on account of increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity, variation in capital cost and actual additional capitalization for both the assets.

**Depreciation**

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

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

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

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

**"17. Depreciation:**

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

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

34. Theweighted average useful life of the transmission asset has been considered as per Regulations3 (42) and 17 (4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 26, 28, 25, 30 and 25 years for Combined Asset-



A&B, Asset-C, Asset-D, Combined Asset-E to I and Asset-J. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under:

**(₹ in lakh)**

Combined Asset-A&B	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	18.07	146.04	173.22
As claimed by the petitioner	17.71	120.95	132.32
<b>Allowed after trued up</b>	<b>17.58</b>	<b>120.57</b>	<b>132.32</b>

**(₹ in lakh)**

Asset-C	2012-13 (Pro-rata)	2013-14
Approved vide order dated 6.8.2013	37.06	46.56
As claimed by the petitioner	31.16	35.56
<b>Allowed after trued up</b>	<b>31.00</b>	<b>35.56</b>

**(₹ in lakh)**

Asset-D	2012-13	2013-14
Approved vide order dated 6.8.2013	112.27	130.62
As claimed by the petitioner	97.39	104.22
<b>Allowed after trued up</b>	<b>96.84</b>	<b>104.21</b>

**(₹ in lakh)**

Combined Asset-E to I	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	52.92	710.52	778.98
As claimed by the petitioner	52.88	729.64	803.85
<b>Allowed after trued up</b>	<b>52.65</b>	<b>728.27</b>	<b>803.84</b>

**(₹ in lakh)**

Asset-J	2012-13 (Pro-rata)	2013-14
Approved vide order dated 9.6.2015	28.59	57.52
As claimed by the petitioner	23.61	42.62
<b>Allowed after trued up</b>	<b>23.58</b>	<b>42.62</b>



35. The variation in depreciation is on account of reduction in capital cost as on COD and variation in additional capitalization.

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

36. The petitioner has computed O&M expenses for the assets mentioned in the petition and in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in the tariff order dated 6.8.2013 in Petition No. 97/TT/2012 and order dated 9.6.2015 in Petition No.61/TT/2013. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

(₹ in lakh)

Combined Asset-A&B	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	37.24	236.21	249.72
As claimed by the petitioner	37.24	236.21	249.72
<b>Allowed after trued up</b>	<b>37.24</b>	<b>236.21</b>	<b>249.72</b>

(₹ in lakh)

Asset-C	2012-13 (Pro-rata)	2013-14
Approved vide order dated 6.8.2013	80.31	92.62
As claimed by the petitioner	80.31	92.62
<b>Allowed after trued up</b>	<b>80.31</b>	<b>92.62</b>

(₹ in lakh)

Asset-D	2012-13	2013-14
Approved vide order dated 6.8.2013	148.60	157.10
As claimed by the petitioner	148.60	157.10
<b>Allowed after trued up</b>	<b>148.60</b>	<b>157.10</b>



**(₹ in lakh)**

Combined Asset-E to I	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 6.8.2013	74.12	940.22	993.98
As claimed by the petitioner	74.12	940.22	993.98
<b>Allowed after trued up</b>	<b>74.12</b>	<b>940.22</b>	<b>993.98</b>

**(₹ in lakh)**

Asset-J	2012-13 (Pro-rata)	2013-14
Approved vide order dated 9.6.2015	36.12	65.46
As claimed by the petitioner	36.12	65.46
<b>Allowed after trued up</b>	<b>36.12</b>	<b>65.46</b>

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

37. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest of working capital.

38. The petitioner submitted the rate of interest on working capital as 13.50% for Asset-C, Asset-D and Asset-J for the period COD to 31.3.2014 and 11.75% for Combined Asset-A&B and Combined Asset- E to I for the period COD to 31.3.2014as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

39. Rate of interest in working capital is considered on normative basis in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations. It is



calculated equal to State Bank of India Base Rate as applicable as on 1.4.2013 plus 350 basis points. State Bank of India Base Rate on 1.4.2011 was 8.25% and as on 1.4.2012 was 10.00%. Therefore, interest rate of 13.50% (10.00% plus 350 basis points) for Asset-C, Asset-D and Asset-J and 11.75% (8.25% plus 350 basis points) for Combined Asset-A&B and Combined Asset- E to I has been considered to work out the interest on working capital in the instant case.

40. The IWC tried up is as under:-

**(₹ in lakh)**

Combined Asset- A&B	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	5.59	35.43	37.46
O & M expenses	3.10	19.68	20.81
Receivables	14.50	94.73	101.03
Total	23.19	149.84	159.30
Rate of Interest (%)	11.75	11.75	11.75
<b>Interest</b>	<b>2.73</b>	<b>17.61</b>	<b>18.72</b>

**(₹ in lakh)**

Asset-C	2012-13 (Pro-rata)	2013-14
Maintenance Spares	12.05	13.89
O & M expenses	6.69	7.72
Receivables	27.60	31.53
Total	46.33	53.14
Rate of Interest (%)	13.50	13.50
<b>Interest</b>	<b>6.26</b>	<b>7.17</b>

**(₹ in lakh)**

Asset-D	2012-13	2013-14
Maintenance Spares	22.29	23.57
O & M expenses	12.38	13.09
Receivables	69.32	73.09
Total	103.99	109.75
Rate of Interest (%)	13.50	13.50





Asset-D	2012-13	2013-14
Interest	<b>14.04</b>	<b>14.82</b>

(₹ in lakh)

Combined Asset- E to I	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	11.12	141.03	149.10
O & M expenses	6.18	78.35	82.83
Receivables	36.42	483.24	519.04
Total	53.71	702.63	750.97
Rate of Interest (%)	11.75	11.75	11.75
<b>Interest</b>	<b>6.31</b>	<b>82.56</b>	<b>88.24</b>

(₹ in lakh)

Asset-J	2012-13 (Pro-rata)	2013-14
Maintenance Spares	5.42	9.82
O & M expenses	3.01	5.46
Receivables	15.93	28.63
Total	24.36	43.90
Rate of Interest (%)	13.50	13.50
<b>Interest</b>	<b>3.29</b>	<b>5.93</b>

41. The variation in IWC is on account of variation in IOL, depreciation and ROE due to variation in capital cost, actual additional capitalization and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

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

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



(₹ in lakh)

Particulars	Combined Asset-A & B:			Asset-C	
	2011-12 (Pro-rata)	2012-13	2013-14	2012-13 (Pro-rata)	2013-14
<b>Gross Block</b>					
Opening Gross Block	1912.37	2241.71	2484.98	645.85	665.91
Additional Capitalization	329.34	243.27	244.58	20.06	63.28
Closing Gross block	2241.71	2484.98	2729.56	665.91	729.19
Average Gross block	2077.04	2363.35	2607.27	655.88	697.55
<b>Depreciation</b>					
Rate of Depreciation (%)	5.078	5.102	5.075	5.156	5.098
Depreciable Value	1831.20	2088.88	2308.41	575.04	612.54
Elapsed Life of the assets at beginning of the year	0	1	2	0	1
Weighted Balance Useful life of the assets	26	25	24	28	27
Remaining Depreciable Value	1831.20	2071.30	2170.26	575.04	581.54
Depreciation	17.58	120.57	132.32	31.00	35.56
<b>Interest on Loan</b>					
Gross Normative Loan	1338.66	1569.20	1739.49	452.10	466.14
Cumulative Repayment upto Previous Year	0.00	17.58	138.15	0.00	31.00
Net Loan-Opening	1338.66	1551.62	1601.34	452.10	435.14
Additions	230.54	170.29	171.21	14.04	44.30
Repayment during the year	17.58	120.57	132.32	31.00	35.56
Net Loan-Closing	1551.62	1601.34	1640.23	435.14	443.87
Average Loan	1445.14	1576.48	1620.78	443.62	439.51
Weighted Average Rate of Interest on Loan (%)	3.8842	3.5905	3.2104	3.2135	2.9083
Interest	9.36	56.60	52.03	13.07	12.78
<b>Return on Equity</b>					
Opening Equity	573.71	672.51	745.49	193.76	199.77
Additions	98.80	72.98	73.37	6.02	18.98
Closing Equity	672.51	745.49	818.87	199.77	218.76
Average Equity	623.11	709.00	782.18	196.76	209.27
Return on Equity (Base Rate)					



Particulars	Combined Asset-A & B:			Asset-C	
	2011-12 (Pro-rata)	2012-13	2013-14	2012-13 (Pro-rata)	2013-14
(%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the respective year (%)	20.008	20.008	20.961	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610	19.377	19.610
Return on Equity (Pre Tax)	20.12	137.38	153.39	34.95	41.04
<b>Interest on Working Capital</b>					
Maintenance Spares	5.59	35.43	37.46	12.05	13.89
O & M Expenses	3.10	19.68	20.81	6.69	7.72
Receivables	14.50	94.73	101.03	27.60	31.53
Total	23.19	149.84	159.30	46.33	53.14
Interest	2.73	17.61	18.72	6.26	7.17
<b>Annual Transmission Charges</b>					
Depreciation	17.58	120.57	132.32	31.00	35.56
Interest on Loan	9.36	56.60	52.03	13.07	12.78
Return on Equity	20.12	137.38	153.39	34.95	41.04
Interest on Working Capital	2.73	17.61	18.72	6.26	7.17
O & M Expenses	37.24	236.21	249.72	80.31	92.62
<b>Total</b>	<b>87.02</b>	<b>568.37</b>	<b>606.17</b>	<b>165.58</b>	<b>189.18</b>

(₹ in lakh)

Particulars	Asset-D		Combined Asset E to I		
	2012-13 (Pro-rata)	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
<b>Gross Block</b>					
Opening Gross Block	1796.79	1954.96	12818.85	14021.45	16761.30
Additional Capitalization	158.17	146.74	1202.60	2739.85	405.01
Closing Gross block	1954.96	2101.70	14021.45	16761.30	17166.31
Average Gross block	1875.88	2028.33	13420.15	15391.38	16963.81
<b>Depreciation</b>					
Rate of Depreciation (%)	5.162	5.138	4.708	4.732	4.739
Depreciable Value	1665.41	1802.62	10952.38	12723.93	14136.49



Particulars	Asset-D		Combined Asset E to I		
	2012-13 (Pro-rata)	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Elapsed Life of the assets at beginning of the year	0	1	0	1	2
Weighted Balance Useful life of the assets	25	24	30	29	28
Remaining Depreciable Value	1665.41	1705.78	10952.38	12671.28	13355.58
Depreciation	96.84	104.21	52.65	728.27	803.84
<b>Interest on Loan</b>					
Gross Normative Loan	1257.75	1368.47	8973.20	9815.03	11732.92
Cumulative Repayment upto Previous Year	0.00	96.84	0.00	52.65	780.91
Net Loan-Opening	1257.75	1271.63	8973.20	9762.38	10952.01
Additions	110.72	102.72	841.83	1917.90	283.51
Repayment during the year	96.84	104.21	52.65	728.27	803.84
Net Loan-Closing	1271.63	1270.14	9762.38	10952.01	10431.67
Average Loan	1264.69	1270.89	9367.79	10357.19	10691.84
Weighted Average Rate of Interest on Loan (%)	3.7455	3.3904	2.6167	2.4494	2.1533
Interest	47.37	43.09	20.43	253.69	230.23
<b>Return on Equity</b>					
Opening Equity	539.04	586.49	3845.66	4206.43	5028.38
Additions	47.45	44.02	360.77	821.96	121.50
Closing Equity	586.49	630.51	4206.43	5028.38	5149.88
Average Equity	562.76	608.50	4026.04	4617.40	5089.13
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the respective year (%)	20.008	20.961	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.610	19.377	19.377	19.610
Return on Equity (Pre Tax)	109.05	119.33	65.01	894.71	997.98
<b>Interest on Working Capital</b>					
Maintenance Spares	22.29	23.57	11.12	141.03	149.10
O & M Expenses	12.38	13.09	6.18	78.35	82.83



Particulars	Asset-D		Combined Asset E to I		
	2012-13 (Pro-rata)	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Receivables	69.32	73.09	36.42	483.24	519.04
Total	103.99	109.75	53.71	702.63	750.97
Interest	14.04	14.82	6.31	82.56	88.24
<b>Annual Transmission Charges</b>					
Depreciation	96.84	104.21	52.65	728.27	803.84
Interest on Loan	47.37	43.09	20.43	253.69	230.23
Return on Equity	109.05	119.33	65.01	894.71	997.98
Interest on Working Capital	14.04	14.82	6.31	82.56	88.24
O & M Expenses	148.60	157.10	74.12	940.22	993.98
<b>Total</b>	<b>415.89</b>	<b>438.54</b>	<b>218.51</b>	<b>2899.46</b>	<b>3114.27</b>

(₹ in lakh)

Asset-J	2012-13 (Pro-rata)	2013-14
<b>Gross Block</b>		
Opening Gross Block	771.09	792.20
Additional Capitalization	21.11	62.39
Closing Gross block	792.20	854.59
Average Gross block	781.65	823.40
<b>Depreciation</b>		
Rate of Depreciation (%)	5.171	5.176
Depreciable Value	695.86	733.43
Elapsed Life of the assets at beginning of the year	0	1
Weighted Balance Useful life of the assets	25	24
Remaining Depreciable Value	695.86	709.86
Depreciation	23.58	42.62
<b>Interest on Loan</b>		
Gross Normative Loan	539.76	554.54
Cumulative Repayment upto Previous Year	0.00	23.58
Net Loan-Opening	539.76	530.96
Additions	14.78	43.67



Asset-J	2012-13 (Pro-rata)	2013-14
Repayment during the year	23.58	42.62
Net Loan-Closing	530.96	532.01
Average Loan	535.36	531.49
Weighted Average Rate of Interest on Loan (%)	1.9568	1.7558
Interest	6.11	9.33
<b>Return on Equity</b>		
Opening Equity	231.33	237.66
Additions	6.33	18.72
Closing Equity	237.66	256.38
Average Equity	234.49	247.02
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.610
Return on Equity (Pre Tax)	26.51	48.44
<b>Interest on Working Capital</b>		
Maintenance Spares	5.42	9.82
O & M Expenses	3.01	5.46
Receivables	15.93	28.63
Total	24.36	43.90
Interest	3.29	5.93
<b>Annual Transmission Charges</b>		
Depreciation	23.58	42.62
Interest on Loan	6.11	9.33
Return on Equity	26.51	48.44
Interest on Working Capital	3.29	5.93
O & M Expenses	36.12	65.46
<b>Total</b>	<b>95.60</b>	<b>171.78</b>

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

43. The petitioner has claimed the transmission charges for the Combined Assets for the 2014-19 tariff period as under:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1142.51	1161.16	1177.04	1177.04	1177.04
Interest on Loan	309.33	284.19	258.74	228.99	199.80
Return on equity	1390.76	1411.93	1429.63	1429.63	1429.63
Interest on Working Capital	144.72	147.69	150.60	152.72	154.95
O & M Expenses	1435.29	1482.92	1532.20	1583.00	1635.54
<b>Total</b>	<b>4422.61</b>	<b>4487.89</b>	<b>4548.21</b>	<b>4571.38</b>	<b>4596.96</b>

44. 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
Maintenance Spares	215.29	222.44	229.83	237.45	245.33
O & M expenses	119.61	123.58	127.68	131.92	136.30
Receivables	737.10	747.98	758.04	761.90	766.16
Total	1072.00	1094.00	1115.55	1131.27	1147.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>144.72</b>	<b>147.69</b>	<b>150.60</b>	<b>152.72</b>	<b>154.95</b>

### **Capital Cost**

45. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify as follows:-

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.”

“(3) The Capital cost of an existing project shall include the following:

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



46. The petitioner has claimed capital cost of ₹23581.35lakh as on 31.3.2014 and additional capitalization of ₹719.66 lakh for the 2014-19 tariff period.

47. We have considered the submissions of the petitioner. Accordingly, the trued up capital cost of ₹23581.35lakh as on 31.3.2014 has been considered to workout the tariff for the 2014-19 tariff period.

### **Additional Capital Expenditure**

48. The petitioner has proposed additional capitalization of ₹719.66 lakh for 2014-19 tariff period i.e. ₹118.03lakh, ₹601.63 lakh, for 2014-15 and 2015-16 respectively towards balance and retention payments under Clause 1, sub-clause (i) of Regulation 14 and sub-clause (ix) of Clause 3 of Regulation 14 of the 2014 Tariff Regulations.

49. Clause 1, sub-clause (i) of Regulation 14 and Clause 3, sub-clause (ix) of Regulation 14 of the 2014 Tariff Regulations provides as follows:

“(1) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....

(i) Undischarged liabilities recognized to be payable at a future date;

.....

(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier





communication, DC batteries, replacement due to obsolesce of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system;”

50. The petitioner was directed vide affidavit dated 30.1.2016 to submit the amount of balance and retention amount yet to be made, details of contract for which payment has been retained along with the amount retained. In response the petitioner vide affidavit dated 7.3.2016 submitted the balance and retention amount to be made as on 31.3.2015 as ₹12.77 lakh, ₹211.17 lakh for Combined Asset-A&B for transmission line and sub-station respectively, ₹85.92 lakh, 125.25 lakh for sub-station of Asset- C and Asset-D respectively. For Combined Asset- E to I, ₹19.40 lakh, ₹17.47 lakh for misc package T&P purchase and misc parties respectively, and ₹166.52 lakh for sub-station for Asset-J.

51. The total capital cost of the transmission asset including additional capitalization incurred during the 2014-19 tariff period works out to ₹24301.01 lakh. We have considered the petitioner’s submission. It is observed that the additional capitalization proposed is mainly towards balance and retention payments due to undischarged liabilities for works executed within cut-off date. Further, the total completion cost is within the approved apportioned cost of the instant assets. Accordingly, the capital cost claimed by the petitioner is allowed in accordance with Clause 1, sub-clause(i) and Clause 3, sub-clause (ix) of Regulation 14 of the 2014 Tariff Regulations. The additional capitalisation for



tariff period 2014-19 shall be finally approved after the detailed scrutiny of additional capitalisation while carrying out the true up for 2014-19 tariff period.

52. The total capital cost of the transmission asset including additional capitalization projected to be incurred during 2014-19 is shown below:-

**(₹ in lakh)**

Particulars	Approved Apportioned Cost	Admitted capital cost as on 31.3.2014	Additional capitalization		Total additional capitalization	Total capital cost including additional capitalization
			2014-15	2015-16		
Combined Asset A & B	3287.14	2729.56	3.63	223.94	227.57	2957.13
Asset-C	933.79	729.19	-	85.92	85.92	815.11
Asset-D	2353.35	2101.70	3.63	125.25	128.88	2230.58
Combined Asset-E to I	20367.51	17166.31	36.87	-	36.87	17203.18
Asset-J	1242.52	854.59	73.90	166.52	240.42	1095.01
<b>Total</b>	<b>28184.31</b>	<b>23581.35</b>	<b>118.03</b>	<b>601.63</b>	<b>719.66</b>	<b>24301.01</b>

### **Debt:EquityRatio**

53. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-

“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

54. The petitioner has considered debt:equity ratio as 70:30 as on 31.3.2014. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The



details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Particulars	Capital cost as on 31.3.2014	(%)	Addition al Capitalization 2014-19	(%)	Capital Cost as on 31.3.2019	(%)
Debt	16506.96	70.00	503.76	70.00	17010.72	70.00
Equity	7074.39	30.00	215.90	30.00	7290.29	30.00
<b>Total</b>	<b>23581.35</b>	<b>100.00</b>	<b>719.66</b>	<b>100.00</b>	<b>24301.01</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

55. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced as under:-

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.”

56. We have considered the petitionersubmissions.Accordingly we have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL has been worked out and allowed as follows:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	16506.96	16589.58	17010.72	17010.72	17010.72
Cumulative Repayment up to previous year	2189.03	3331.54	4492.69	5669.73	6846.77
Net Loan-Opening	14317.93	13258.04	12518.03	11340.99	10163.95
Additions during the year	82.62	421.14	0.00	0.00	0.00
Repayment during the year	1142.51	1161.15	1177.04	1177.04	1177.04
Net Loan-Closing	13258.04	12518.03	11340.99	10163.95	8986.91
Average Loan	13787.98	12888.03	11929.51	10752.47	9575.43
Rate of Interest (%)	2.2439	2.2054	2.1694	2.1300	2.0872
<b>Interest</b>	<b>309.39</b>	<b>284.24</b>	<b>258.80</b>	<b>229.02</b>	<b>199.86</b>

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

57. Clause (1)& (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

**"24. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.  
(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system"

**"25. Tax on Return on Equity:**

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

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

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

58. The petitioner has submitted ROE at the rate of 20.243% after grossing up the ROE of 15.50% with MAT rate as per the above Regulation. The petitioner



has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

59. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.

60. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE allowed is given below:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	7074.39	7109.80	7290.29	7290.29	7290.29
Additional Capitalization	35.41	180.49	0.00	0.00	0.00
Closing Equity	7109.80	7290.29	7290.29	7290.29	7290.29
Average Equity	7092.10	7200.05	7290.29	7290.29	7290.29
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
<b>Return on Equity (Pre Tax)</b>	<b>1390.76</b>	<b>1411.93</b>	<b>1429.63</b>	<b>1429.63</b>	<b>1429.63</b>

### Depreciation

61. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

**"27. Depreciation:**

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

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

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

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



62. The petitioner has computed depreciation considering capital expenditure of ₹23581.35lakh as on 31.3.2014 with additional capitalization of ₹719.66 lakh for the 2014-19 tariff period. The effective date of commercial operation (1.3.2012) has been considered in accordance to Regulation 26 of the 2014 Tariff Regulations considering actual COD and capital cost of all the elements of the transmission system for working out the depreciation of for the Combined Assets.

63. We have considered the submissions of the petitioner and have allowed depreciation considering capital expenditure of ₹23581.35lakh as on 31.3.2014 under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	23581.35	23699.39	24301.02	24301.02	24301.02
Additional Capitalization	118.03	601.63	0.00	0.00	0.00
Gross block at the end of the year	23699.39	24301.02	24301.02	24301.02	24301.02
Average gross block	23640.37	24000.21	24301.02	24301.02	24301.02
Rate of Depreciation (%)	4.833	4.838	4.844	4.844	4.844
Depreciable Value	20058.88	20382.73	20653.46	20653.46	20653.46
Elapsed Life of the assets at beginning of the year	3	4	5	6	7
Weighted Balance Useful life of the assets	26	25	24	23	22
Remaining Depreciable Value	17869.85	17051.19	16160.77	14983.73	13806.69
<b>Depreciation</b>	<b>1142.51</b>	<b>1161.15</b>	<b>1177.04</b>	<b>1177.04</b>	<b>1177.04</b>



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

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

		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Norms as per Regulation	Double Circuit (Single Conductor) (₹lakh/km)	0.303	0.313	0.324	0.334	0.346
	Double Circuit (Twin & Triple Conductor) (₹lakh/km)	0.707	0.731	0.755	0.78	0.806
	400 kV (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
	220 kV (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.1
Actual	Double Circuit (Single Conductor)	5.83	5.83	5.83	5.83	5.83
	Double Circuit (Twin & Triple Conductor)	48.89	48.89	48.89	48.89	48.89
	400 kV (Rs lakh/bay)	12	12	12	12	12
	220 kV (Rs lakh/bay)	16	16	16	16	16
<b>Total (₹ lakh)</b>		<b>1435.29</b>	<b>1482.92</b>	<b>1532.20</b>	<b>1583.00</b>	<b>1635.54</b>

65. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of its employees is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for





suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

66. Rajasthan Discoms vide affidavit dated 25.1.2016, submitted that no specific details are provided for O&M Expenses. In response, the petitioner vide affidavit dated 9.3.2016 submitted that transmission charges claimed are inclusive of O&M expenses, the rationale for which have been derived based on SOR(statement of reasons). Further, the norms for O&M Expenses for transmission system has been specified under Regulation 29(3)(a) of the 2014 Tariff Regulations after considering (i) normalized actual O&M expenses of the petitioner on its various projects and various regions during the year 2008-13.

67. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>O&amp;M Expenses Allowed</b>	<b>1435.29</b>	<b>1482.92</b>	<b>1532.20</b>	<b>1583.00</b>	<b>1635.54</b>

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

69. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

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

---



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

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(iii) Operation and maintenance expenses for one month”

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

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

71. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The interest on working capital worked is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	215.29	222.44	229.83	237.45	245.33
O & M Expenses	119.61	123.58	127.68	131.92	136.29
Receivables	737.11	747.99	758.04	761.90	766.17
Total	1072.01	1094.00	1115.56	1131.27	1147.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>144.72</b>	<b>147.69</b>	<b>150.60</b>	<b>152.72</b>	<b>154.95</b>



## Annual Transmission Charges

72. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarised below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Gross Block</b>					
Opening Gross Block	23581.35	23699.39	24301.02	24301.02	24301.02
Additional Capitalization	118.03	601.63	0.00	0.00	0.00
Closing Gross Block	23699.39	24301.02	24301.02	24301.02	24301.02
Average Gross Block	23640.37	24000.21	24301.02	24301.02	24301.02
<b>Depreciation</b>					
Rate of Depreciation (%)	4.833	4.838	4.844	4.844	4.844
Depreciable Value	20058.88	20382.73	20653.46	20653.46	20653.46
Elapsed Life of the assets at beginning of the year	3	4	5	6	7
Weighted Balance Useful life of the assets	26	25	24	23	22
Remaining Depreciable Value	17869.85	17051.19	16160.77	14983.73	13806.69
Depreciation	1142.51	1161.15	1177.04	1177.04	1177.04
<b>Interest on Loan</b>					
Gross Normative Loan	16506.96	16589.58	17010.72	17010.72	17010.72
Cumulative Repayment upto Previous Year	2189.03	3331.54	4492.69	5669.73	6846.77
Net Loan-Opening	14317.93	13258.04	12518.03	11340.99	10163.95
Additions	82.62	421.14	0.00	0.00	0.00
Repayment during the year	1142.51	1161.15	1177.04	1177.04	1177.04
Net Loan-Closing	13258.04	12518.03	11340.99	10163.95	8986.91
Average Loan	13787.98	12888.03	11929.51	10752.47	9575.43
Weighted Average Rate of Interest on Loan (%)	2.2439	2.2054	2.1694	2.1300	2.0872
Interest	309.39	284.24	258.80	229.02	199.86



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Return on Equity</b>					
Opening Equity	7074.39	7109.80	7290.29	7290.29	7290.29
Additions	35.41	180.49	0.00	0.00	0.00
Closing Equity	7109.80	7290.29	7290.29	7290.29	7290.29
Average Equity	7092.10	7200.05	7290.29	7290.29	7290.29
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	1390.76	1411.93	1429.63	1429.63	1429.63
<b>Interest on Working Capital</b>					
Maintenance Spares	215.29	222.44	229.83	237.45	245.33
O & M expenses	119.61	123.58	127.68	131.92	136.29
Receivables	737.11	747.99	758.04	761.90	766.17
Total	1072.01	1094.00	1115.56	1131.27	1147.79
Interest	144.72	147.69	150.60	152.72	154.95
<b>Annual Transmission Charges</b>					
Depreciation	1142.51	1161.15	1177.04	1177.04	1177.04
Interest on Loan	309.39	284.24	258.80	229.02	199.86
Return on Equity	1390.76	1411.93	1429.63	1429.63	1429.63
Interest on Working Capital	144.72	147.69	150.60	152.72	154.95
O & M Expenses	1435.29	1482.92	1532.20	1583.00	1635.54
<b>Total</b>	<b>4422.67</b>	<b>4487.93</b>	<b>4548.26</b>	<b>4571.41</b>	<b>4597.01</b>

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

73. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations.



74. Rajasthan Discoms vide affidavit dated 25.1.2016 submitted that, for filing fees petition the Commission should conduct prudence check. In response, the petitioner vide affidavit dated 9.3.2016 submitted that, expenditure towards petition filing fee is in accordance with Regulation 42 of the 2009 Tariff Regulations.

75. The petitioner is entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

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

76. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. We have considered the submissions of the petitioner and respondent submissions. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

#### **Service Tax**

77. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future.



78. Rajasthan Discom vide affidavit dated 25.1.2016, submitted that, the Commission should conduct prudence check before taking a view on service tax. In response, the petitioner vide affidavit dated 9.3.2016 has submitted that service tax for transmission system is currently under negative list w.e.f 1.4.2012, and is to be paid by respondents only if the same is paid by the petitioner. We are of the view that the petitioner's prayer of Service Tax is premature.

### **Foreign Exchange Rate Variation**

79. The petitioner has sought recovery of FERV on foreign loans deployed as provided in Clause 50 of the 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 Clause 1 of Regulation 51 of the 2014 Tariff Regulations.

### **Sharing of Transmission Charges**

80. 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.

81. This order disposes of Petition No. 186/TT/2015.

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

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



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

(₹ in lakh)

Combined Asset- A&B	Interest Rate (%)	Loan deployed as on COD (1.4.2010)	Additions during the tariff period	Total
BOND XXX-1.DOCO Loan1-	8.80	240.00	0.00	240.00
BOND XXXIII-2.DOCO LOAN2-	8.64	105.00	0.00	105.00
BOND-XXXIV-6.LOAN 3-	8.84	50.29	0.00	50.29
IBRD V-3.DOCO LOAN4-50.08	2.08	953.52	0.00	953.52
IBRD V-4.ADDCAP FOR 2011-2012 Addcap-58.88	2.08	0.00	230.54	230.54
IBRD V-5.ADDCAP FOR 2012-2013 Addcap-61.27	1.97	0.00	160.09	160.09
IBRD V-7.ADDCAP-62.36	1.71	0.00	171.20	171.20
<b>Total</b>		<b>1348.81</b>	<b>561.83</b>	<b>1910.64</b>

Asset- C	Interest Rate (%)	Loan deployed as on COD (1.8.2011)	Additions during the tariff period	Total
BOND XXX-15.DOCO LOAN1-	8.80	60.00	0.00	60.00
BOND XXXIII-16.DOCO LOAN2-	8.64	20.00	0.00	20.00
BOND-XXXIV-17.DOCO LOAN3-	8.84	5.03	0.00	5.03
IBRD V-18.DOCO LOAN4-53.14	1.96	371.98	0.00	371.98
IBRD V-19.ADDCAP FOR 2012-2013 Addcap Loan-62.36	1.96	0.00	9.13	9.13
IBRD V-20.ADDCAP FOR 2013-2014 addcap-62.36	1.71	0.00	44.29	44.29
<b>Total</b>		<b>457.01</b>	<b>53.42</b>	<b>510.43</b>

Asset-D	Interest Rate (%)	Loan deployed as on COD (1.8.2011)	Additions during the tariff period	Total
BOND XXX-21.DOCO Loan 1-	8.80	220.00	0.00	220.00



Asset-D	Interest Rate (%)	Loan deployed as on COD (1.8.2011)	Additions during the tariff period	Total
BOND XXXIII-22.DOCO LOAN 2-	8.64	90.00	0.00	90.00
BOND-XXXIV-23.DOCO LOAN 3-	8.84	34.72	0.00	34.72
IBRD V-24.doco-51.63	1.97	927.79	0.00	927.79
IBRD V-25.ADDCAP FOR 2012-2013 ADDCAP-62.36	1.97	0.00	96.03	96.03
IBRD V-26.ADDCAP-62.36	1.71	0.00	102.72	102.72
<b>Total</b>		<b>1272.51</b>	<b>198.75</b>	<b>1471.26</b>

Combined Asset- E to I	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXX-8.doco loan1-	8.80	460.00	0.00	460.00
BOND XXXIII-9.doco loan2-	8.64	163.00	0.00	163.00
BOND-XXXIV-10.doco loan3-	8.84	133.26	0.00	133.26
IBRD V-11.doco loan4-49.62	2.08	8253.44	0.00	8253.44
IBRD V-12.ADDCAP FOR 2011-2012 addcap1-60.46	2.08	0.00	841.83	841.83
IBRD V-13.ADDCAP FOR 2012-2013 addcap2-62.82	1.97	0.00	1881.46	1881.46
IBRD V-14..ADDCAP FOR 2013-2014 addcap3-62.36	1.71	0.00	283.51	283.51
<b>Total</b>		<b>9009.70</b>	<b>3006.80</b>	<b>12016.50</b>

Asset-J	Interest Rate(%)	Loan deployed as on COD (1.8.2011)	Additions during the tariff period	Total
BOND-XXXIV-30.loan 5-	8.84	3.70	0.00	3.70
IBRD V-27.Loan 1-56.19	1.91	537.29	0.00	537.29
IBRD V-28.ADDCAP FOR 2013-2014 Loan 3.-62.36	1.71	<b>0.00</b>	<b>43.67</b>	43.67
IBRD V-29.ADDCAP FOR 2012-2013 Loan 2.-62.36	1.91	<b>0.00</b>	<b>13.59</b>	13.59





Asset-J	Interest Rate(%)	Loan deployed as on COD (1.8.2011)	Additions during the tariff period	Total
<b>Total</b>		<b>540.99</b>	<b>57.26</b>	<b>598.25</b>

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

(₹ in lakh)

Combined Asset-A&B	2011-12 (Pro-rata)	2012-13	2013-14
Gross Opening Loan	1348.81	1579.35	1739.44
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	1348.81	1579.35	1739.44
ADD: Drawl(s) During the year	230.54	160.09	171.20
Less: Repayment(s) of Loan During the year	0.00	0.00	20.00
Net Closing Loan	1579.35	1739.44	1890.64
Average Net Loan	1464.08	1659.40	1815.04
Rate of Interest on Loan(%)	3.8842	3.5905	3.2104
Interest on Loan	56.87	59.58	58.27

Asset-C	2012-13 (Pro-rata)	2013-14
Gross Opening Loan	457.01	466.14
Cumulative Repayments of Loans upto Previous Year	0.00	0.00
Net Loans Opening	457.01	466.14
ADD: Drawl(s) During the year	9.13	44.29
Less: Repayment(s) of Loan During the year	0.00	5.00
Net Closing Loan	466.14	505.43
Average Net Loan	461.58	485.79
Rate of Interest on Loan(%)	3.2135	2.9083
Interest on Loan	14.83	14.13

Asset-D	2012-13 (Pro-rata)	2013-14
Gross Opening Loan	1272.51	1368.54
Cumulative Repayments of Loans upto Previous Year	0.00	0.00



Net Loans Opening	1272.51	1368.54
ADD: Drawl(s) During the year	96.03	102.72
Less: Repayment(s) of Loan During the year	0.00	18.33
Net Closing Loan	1368.54	1452.93
Average Net Loan	1320.53	1410.74
Rate of Interest on Loan(%)	3.7455	3.3904
Interest on Loan	49.46	47.83

Combined Asset-E to I	2011-12 (Pro-rata)	2012-13	2013-14
Gross Opening Loan	9009.70	9851.53	11732.99
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	9009.70	9851.53	11732.99
ADD: Drawl(s) During the year	841.83	1881.46	283.51
Less: Repayment(s) of Loan During the year	0.00	0.00	38.33
Net Closing Loan	9851.53	11732.99	11978.17
Average Net Loan	9430.62	10792.26	11855.58
Rate of Interest on Loan (%)	2.6167	2.4494	2.1533
Interest on Loan	246.77	264.35	255.29

Asset-J	2012-13 (Pro-rata)	2013-14
Gross Opening Loan	540.99	554.58
Cumulative Repayments of Loans upto Previous Year	0.00	0.00
Net Loans Opening	540.99	554.58
ADD: Drawl(s) During the year	13.59	43.67
Less: Repayment(s) of Loan During the year	0.00	0.00
Net Closing Loan	554.58	598.25
Average Net Loan	547.79	576.42
Rate of Interest on Loan(%)	1.9568	1.7558
Interest on Loan	10.72	10.12



**ANNEXURE-II****DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)****(₹ in lakh)**

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXX-1.DOCO Loan1-	8.80	240.00	0.00	240.00
BOND XXX-15.DOCO LOAN1-	8.80	60.00	0.00	60.00
BOND XXX-21.DOCO Loan 1-	8.80	220.00	0.00	220.00
BOND XXX-8.doco loan1-	8.80	460.00	0.00	460.00
BOND XXXIII-16.DOCO LOAN2-	8.64	20.00	0.00	20.00
BOND XXXIII-2.DOCO LOAN2-	8.64	105.00	0.00	105.00
BOND XXXIII-22.DOCO LOAN 2-	8.64	90.00	0.00	90.00
BOND XXXIII-9.doco loan2-	8.64	163.00	0.00	163.00
BOND-XXXIV-10.doco loan3-	8.64	133.26	0.00	133.26
BOND-XXXIV-17.DOCO LOAN3-	8.84	5.03	0.00	5.03
BOND-XXXIV-23.DOCO LOAN 3-	8.84	34.72	0.00	34.72
BOND-XXXIV-30.loan 5-	8.84	3.70	0.00	3.70
BOND-XXXIV-6.LOAN 3-	8.84	50.29	0.00	50.29
IBRD V-11.doco loan4-49.62	1.61	8253.44	0.00	8253.44
IBRD V-12.ADDCAP FOR 2011-2012 addcap1-60.46	1.61	841.83	0.00	841.83
IBRD V-13.ADDCAP FOR 2012-2013 addcap2-62.82	1.61	1881.46	0.00	1881.46
IBRD V-14..ADDCAP FOR 2013-2014 addcap3-62.36	1.61	283.51	0.00	283.51
IBRD V-18.DOCO LOAN4-53.14	1.61	371.98	0.00	371.98
IBRD V-19.ADDCAP FOR 2012-2013 Addcap Loan-62.36	1.61	9.13	0.00	9.13
IBRD V-20.ADDCAP FOR 2013-2014 addcap-62.36	1.61	44.29	0.00	44.29
IBRD V-24.doco-51.63	1.61	927.79	0.00	927.79
IBRD V-25.ADDCAP FOR 2012-2013 ADDCAP-62.36	1.61	96.03	0.00	96.03
IBRD V-26.ADDCAP-62.36	1.61	102.72	0.00	102.72
IBRD V-27.Loan 1-56.19	1.61	537.29	0.00	537.29
IBRD V-28.ADDCAP FOR 2013-2014 Loan 3.-62.36	1.61	43.67	0.00	43.67
IBRD V-29.ADDCAP FOR 2012-2013 Loan 2.-62.36	1.61	13.59	0.00	13.59



Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
IBRD V-3.DOCOLOAN4-50.08	1.61	953.52	0.00	953.52
IBRD V-4 ADDCAP FOR 2011-12 Add cap-58.88	1.61	230.54	0.00	230.54
IBRD V-5.ADD CAP FOR 2012-13- 61.27	1.61	160.09	0.00	160.09
IBRD V-7.ADD CAP- 62.36	1.61	171.20	0.00	171.20
<b>Total</b>		<b>16507.08</b>	<b>0.00</b>	<b>16507.08</b>

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	16507.08	16507.08	16507.08	16507.08	16507.08
Cumulative Repayments of Loans upto Previous Year	81.66	483.83	1160.58	1843.29	2531.97
Net Loans Opening	16425.42	16023.25	15346.50	14663.79	13975.11
ADD: Drawl(s) During the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan During the year	402.17	676.75	682.71	688.68	691.64
Net Closing Loan	16023.25	15346.50	14663.79	13975.11	13283.47
Average Net Loan	16224.34	15684.88	15005.15	14319.45	13629.29
<b>Rate of Interest on Loan (%)</b>	2.2439	2.2054	2.1694	2.1300	2.0872
Interest on Loan	364.06	345.92	325.52	305.00	284.47

