

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 148/TT/2016

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

Date of Hearing: 06.09.2016
Date of Order : 09.09.2016

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 and Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 of (i) LILO of Korba-Raipur at Sipat, (ii) 765 kV Sipat-Seoni Circuit-I, (iii) 400/220 kV ICT-I at Seoni, (iv) Circuit-II of 400 kV Nagda-Dehgam Line, (v) Circuit-I of Nagda-Dehgam Line, (vi) 400 kV D/C Seoni-Khandwa Transmission Line, 80 MVAR Bus Reactor, 765/400 kV ICT-II at Seoni Sub-station, LILO of Sardar-Sarovar-Nagda Line at Rajgarh, (vii) 765 kV Sipat-Seoni Circuit-II and (viii) 315 MVA 400/220 kV ICT-II at Seoni Sub-station, ICT-I at Rajgarh and (ix) 315 MVA 400/220 kV ICT-II at Rajgarh under Sipat-I Transmission System in Western Region based on the RCE-II.

And in the Matter of:

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

.....Petitioner

Versus

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur
Jabalpur - 482008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor
Andheri (East), Mumbai - 400 052



3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara - 390 007
4. Electricity Department Govt. Of Goa
Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa - 403 001
5. Electricity Department
Administration of Daman & Diu
Daman - 396 210
6. Electricity Department
Administration Of Dadra Nagar Haveli
U.T., Silvassa - 396 230
7. Chhattisgarh State Electricity Board
P.O.Sunder Nagar, Dangania, Raipur
Chhatisgarh-492013
8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road,
Indore-452 008

.....Respondent(s)

The following were present:

For Petitioner: Shri Jasbir Singh, PGCIL
Shri Mohd. Mohsin, PGCIL
Shri S K Venkatesan, PGIL

For Respondents: None

ORDER

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “2009 Tariff Regulations”) based on truing



up of capital expenditure for the period 1.4.2009 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 “2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of (i) LILO of Korba-Raipur at Sipat, (ii) 765 kV Sipat-Seoni Circuit-I, (iii) 400/220 kV ICT-I at Seoni, (iv) Circuit-II of 400 kV Nagda-Dehgam Line, (v) Circuit-I of Nagda-Dehgam Line, (vi) 400 kV D/C Seoni-Khandwa Transmission Line, 80 MVAR Bus Reactor, 765/400 kV ICT-II at Seoni Sub-station, LILO of Sardar-Sarovar-Nagda Line at Rajgarh, (vii) 765 kV Sipat-Seoni Circuit-II (hereinafter “Combined Assets Part-I”) and (viii) 315 MVA 400/220 kV ICT-II at Seoni Sub-station, ICT-I at Rajgarh and (ix) 315 MVA 400/220 kV ICT-II at Rajgarh (hereinafter “Combined Assets Part-II”) under Sipat-I Transmission System in Western Region (hereinafter referred to as “the transmission assets”) based on RCE II.

2. The petitioner executed transmission assets under Sipat-I Transmission System in Western Region. The annual transmission charges for 2009-14 tariff period were determined vide order dated 27.4.2011 in Petition No. 270/2010 based on admitted capital cost of the transmission assets and debt:equity as on 31.3.2009. The details of assets covered in Sipat-I Transmission System and in the instant petition and their date of commercial operation are given hereunder:-

Asset	Name of the Asset	COD
Combined Assets Part-I	Notional COD: 1.5.2008	
Asset-I	LILO of Korba-Raipur 400 kV S/C line	1.5.2006
Asset-II	765 kV Sipat-Seoni Ckt 1 along with associated bays, 765/400 kV ICT-I at Seoni and LILO of 400 kV Bhilai-Satpura line along with bay equipment	1.11.2007
Asset-III	400/220 kV ICT along with two 220 kV line bays	1.12.2007
Asset-IV	Ckt II of 400 kV D/C Nagada-Dehgam line	1.1.2008



Asset	Name of the Asset	COD
Asset-V	Ckt 1 of 400 kV D/C Nagda-Dehgam line	1.2.2008
Asset-VI	400 kV D/C Seoni-Khandwa TL, 80 MVAR Bus reactor, 765/400 kV ICT II at Seoni S/S, LILO of Sarda-Sarovar-Nagda line	1.4.2008
Asset-VII	765 kV Sipat-Seoni Ckt II	1.5.2008
Combined Assets Part-II	Notional COD: 1.4.2009	
Asset-VIII	315 MVA 400/220 kV ICT II at Seoni S/S, 315 MVA 400/220 kV ICT I	1.4.2008
Asset-IX	315 MVA ICT II	1.4.2009

3. The petitioner filed Petition No. 552/TT/2014 for truing up of 2009-14 tariff period and determination of tariff for 2014-19 for Combined Assets Part I and Part II and the same was allowed vide order dated 28.1.2016 in Petition No. 552/TT/2014 (hereinafter "the said order"). The capital cost of Combined Assets Part II was restricted to the approved apportioned cost. the petitioner had not submitted the apportioned approved cost with regard to Asset VIII and Asset IX. However, the petitioner was given the liberty to approach the Commission with the RCE and justification for cost over-run in respect of Assets VIII and IX. The relevant portion of the said order is extracted below:-

"13. It is observed that the capital cost of Asset- VIII is ₹4888.05 lakh, which exceeds its apportioned approved cost of ₹3995.00 lakh. The cost over-run for Asset-VIII has substantial variation as compared to the approved apportioned cost estimate. Therefore, the petitioner is required to submit the apportioned approved cost baed on revised cost estimate (RCE) duly approved by its Board. The petitioner has not furnished the RCE for the asset covered in the instant case. Accordingly, the capital cost of this asset is restricted to the apportioned approved cost. This approach has been upheld by the Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No. 165 of 2012, and subsequently the Commission, vide its order dated 18.2.2014 in Petition No. 216/TT/2012, has considered the apportioned approved cost of individual asset for restricting the capital expenditure due to cost over-run for the purpose of tariff determination. The same approach has been adopted in the present case and capital expenditure has been restricted to apportioned approved cost. Accordingly, the capital cost of Asset-VIII considered for tariff determination purpose, after restricting it to the apportioned approved cost, is considered to be ₹3995.00 lakh. However, the petitioner is at liberty to approach the Commission with the RCE and justification for cost over-run in respect of Asset-VIII. is on account of undischarged liability towards balance and retention payments and the same has been certified by the Auditor vide Certificates dated 19.7.2014 and 9.9.2014 for the instant transmission assets. The petitioner has submitted, vide affidavit dated 22.1.2016, that the additional expenditure incurred against the land component after the COD of Asset-II and VII has been for additional compensation as per the Government Order. It is further observed that the actual additional capital expenditure

in respect of Asset-VII and Asset-IX exceeds the additional capital expenditure approved by the Commission vide order dated 27.4.2011. Further, the total capital cost of Asset-IX as on 31.3.2014, after including the actual additional capital expenditure of ₹134.44, is ₹1414.12 lakh and the same exceeds the apportioned approved cost of ₹1401.66 lakh. The total cost of Asset-IX is more than its approved apportioned cost estimate. Therefore, the petitioner is required to submit the apportioned cost based revised cost estimate (RCE) duly approved by its Board. The petitioner has not furnished the RCE for Asset- IX covered in the instant case. Accordingly, the total capital cost of this asset (including additional capital expenditure during 2009-14 period) is restricted to the apportioned approved cost, in line with the approach adopted in para 13. However, the petitioner is at liberty to approach the Commission with the RCE and justification for cost over-run in respect of Asset-IX.”

“17. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14. The above mentioned additional capital expenditure is on account of undischarged liability towards balance and retention payments and the same has been certified by the Auditor vide Certificates dated 19.7.2014 and 9.9.2014 for the instant transmission assets. The petitioner has submitted, vide affidavit dated 22.1.2016, that the additional expenditure incurred against the land component after the COD of Asset-II and VII has been for additional compensation as per the Government Order. It is further observed that the actual additional capital expenditure in respect of Asset-VII and Asset-IX exceeds the additional capital expenditure approved by the Commission vide order dated 27.4.2011. Further, the total capital cost of Asset-IX as on 31.3.2014, after including the actual additional capital expenditure of ₹134.44, is ₹1414.12 lakh and the same exceeds the apportioned approved cost of ₹1401.66 lakh. The total cost of Asset-IX is more than its approved apportioned cost estimate. Therefore, the petitioner is required to submit the apportioned cost based revised cost estimate (RCE) duly approved by its Board. The petitioner has not furnished the RCE for Asset- IX covered in the instant case. Accordingly, the total capital cost of this asset (including additional capital expenditure during 2009-14 period) is restricted to the apportioned approved cost, in line with the approach adopted in para 13. However, the petitioner is at liberty to approach the Commission with the RCE and justification for cost over-run in respect of Asset-IX.”

4. Accordingly, the petitioner has filed the instant petition praying for revision of trueed up tariff of 2009-14 period and redetermination of tariff of 2014-19 period of Assets VIII and IX based RCE-II.

5. The Investment approval for the transmission system was accorded by the Ministry of Power vide its letter no. 12/4/2001-PG dated 10.12.2003 at an estimated cost of ₹167298 lakh including IDC of ₹12323 lakh. Subsequently, Ministry of Power, vide its letter No. 12/1/2007–PG dated 5.3.2008 accorded approval for revised cost estimate of ₹233114 lakh including IDC of ₹16072 lakh (4th quarter, 2006 price level).



Further, Board of Director of the petitioner's company had accorded RCE-II on 28.3.2012 of the Sipat Stage-I STPP (3x660 MW).

6. The Commission vide order dated 28.1.2016 in Petition No. 552/TT/2014 has allowed following trued up tariff for 2009-14 tariff period and tariff for 2014-19 tariff period with regard to Combined Assets Part-II:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	278.30	281.52	283.49	283.49	283.49
Interest on Loan	288.50	267.45	247.60	226.03	201.93
Return on Equity	246.29	258.86	261.27	261.27	264.42
Interest on Working Capital	41.32	42.61	43.76	44.87	46.08
O & M Expenses	487.32	515.22	544.71	575.82	608.76
Total	1341.72	1365.66	1380.83	1391.48	1404.67

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	283.49	283.49	283.49	283.49	283.49
Interest on Loan	179.13	156.87	134.90	113.27	92.03
Return on Equity	264.42	264.42	264.42	264.42	264.42
Interest on Working Capital	47.71	48.23	48.79	49.39	50.03
O & M Expenses	560.79	579.39	598.65	618.48	639.03
Total	1335.55	1332.40	1330.25	1329.05	1329.00

7. The petitioner has served the copy of the petition to the respondents on 29.7.2016. The hearing in this matter was held on 6.9.2016. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.

8. The petitioner has submitted that the capital cost of Assets VIII and IX was restricted to the approved cost of RCE-I and it was given the liberty to approach the Commission with the RCE and justification for cost over-run in respect of Assets VIII and IX. The petitioner has submitted that the instant petition has been filed in accordance with the liberty given by the Commission in order dated 28.1.2016 in

Petition No.552/TT/2014 for revision of the trued up tariff of 2009-14 period and redetermination of 2014-19 tariff of Assets VIII and IX. As regards the cost over-run, the petitioner has submitted that the cost over-run in case of Asset VIII is due to increase in service tax portion i.e. control room building (₹148.00 lakh), power supply (₹25 lakh), roads & drainage (₹18.00 lakh), control & relay panel (₹56.00 lakh) and hence service tax (₹156.00 lakh). The petitioner has also submitted that there was increase in cost of testing instrument also (₹70.00 lakh) based on competitive bidding and increase of ₹420.00 lakh is due to increase in PV & cost of equipment, civil works and auxiliaries received in competitive bidding.

9. We have considered the submissions of the petitioner. It is observed that the RCE II was approved by the petitioner's Board on 28.3.2012 however the petitioner has not submitted the same at the time of filing of the truing up petition. In response to a query regarding why the RCE-II, which was approved on 28.3.2012, was not filed at the time of truing up, the petitioner has submitted that the total cost of the Sipat Transmission System I was within the approved cost and hence the RCE II was not filed at the truing up. The cost over-run in case of Asset IX is marginal and we are convinced with the justification given by the petitioner for the cost over-run in case of Asset VIII accordingly, the cost over-run in case of Assets VIII and IX is allowed. RCE II filed by the petitioner is taken on record and the tariff of Assets VIII and IX is revised as prayed by the petitioner as a special case and it cannot be quoted as a precedent. The petitioner is directed to submit the RCE, if any, at the time of filing of the petition or during the course of proceedings in future. Any information, including RCE, filed after the given time will not be considered for computation of tariff.



10. Accordingly, the trued tariff of 2009-14 and tariff of 2014-19 tariff period allowed for Assets VIII and IX , i.e. Combined Assets Part II, vide order dated 28.1.2016 in Petition No.552/TT/2014 is revised on the basis of RCE II. The petitioner has claimed following tariff for truing up of 2009-14 tariff period with regard to Combined Assets Part-II:-

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	314.86	328.2	330.66	330.66	330.66
Interest on Loan	304.69	291.02	268.01	242.79	214.85
Return on Equity	335.58	362.79	365.85	365.85	370.25
Interest on Working Capital	44.28	46.24	47.35	48.38	49.54
O & M Expenses	487.32	515.22	544.71	575.82	608.76
Total	1486.73	1543.47	1556.58	1563.5	1574.06

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

Capital Cost

11. 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”.

12. Accordingly, the capital cost of ₹5788.54 lakh for Combined Assets Part-II admitted by the Commission as on 31.3.2009 has been considered as opening capital cost as on 1.4.2009 for determination of trued up tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

Additional Capital Expenditure

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

“(1) 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”

14. The petitioner has submitted that it has actually incurred an additional capital expenditure of ₹513.63 lakh in case of Combined Assets Part-II during 2009-14 towards balance and retention payments, for the works completed before the cut-off date, as depicted below:-



(₹ in lakh)

Assets	Admitted cost as on 31.3.2009	Actual Additional capital expenditure						Estimated total cost up to 31.3.2014
		2009-10	2010-11	2011-12	2012-13	2013-14	Total	
Asset-VIII	4508.86	372.89	6.30	0.00	0.00	0.00	379.19	4888.05
Asset-IX	1279.68	47.46	86.98	0.00	0.00	0.00	134.44	1414.12
Sub-total (Combined Assets Part-II)	5788.54	420.35	93.28	0.00	0.00	0.00	513.63	6302.17

15. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14. The above mentioned additional capital expenditure is on account of undischarged liability towards balance and retention payments and the same has been certified by the Auditor vide Certificates dated 19.7.2014 for the instant transmission assets.

16. For the Combined Assets Part-II, the additional capital expenditure towards balance and retention payments falls within the cut-off date of 31.3.2012 and is for the works executed within the original scope of work.

17. The total completion cost of the system is within the cost approved as per RCE II dated 28.3.2012. Thus, the additional capital expenditure in respect of Combined Assets Part-II is allowed for the purpose of revision of tariff in accordance with Regulation 6 and Regulation 9(1) of the 2009 Tariff Regulations.

Debt: Equity

18. 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.”

19. 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.

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

(₹ in lakh)

Asset	Capital cost as on 31.3.2009		Additional capital expenditure during 2009-14		Total cost as on 31.3.2014	
	Debt	Equity	Debt	Equity	Debt	Equity
Combined Assets Part-II	4054.29	1734.25	359.54	154.09	4413.83	1888.34
%	70.04	29.96	70.00	30.00	70.04	29.96

Return on Equity (“ROE”)

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

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

22. 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

23. The ROE as allowed for Combined Assets Part-II is as follows:-

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity	1734.25	1860.35	1888.34	1888.34	1888.34
Additions	126.11	27.98	0.00	0.00	0.00
Closing Equity	1860.35	1888.34	1888.34	1888.34	1888.34
Average Equity	1797.30	1874.34	1888.34	1888.34	1888.34
Return on Equity (%)	15.500	15.500	15.500	15.500	15.500
MAT rate for the 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	335.62	362.84	365.90	365.90	370.31

Interest on Loan (“IoL”)

24. 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”.

25. 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 are placed in Annexure-1. The IoL worked out for Combined Assets Part-II is as follows:-

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	4054.29	4348.54	4413.83	4413.83	4413.83
Cumulative Repayment upto Previous Year	206.35	521.21	849.41	1180.08	1510.75
Net Loan-Opening	3847.94	3827.33	3564.42	3233.75	2903.08
Additions	294.25	65.30	0.00	0.00	0.00
Repayment during the year	314.86	328.21	330.67	330.67	330.67
Net Loan-Closing	3827.33	3564.42	3233.75	2903.08	2572.41
Average Loan	3837.64	3695.88	3399.09	3068.42	2737.75
Weighted Average Rate of Interest on Loan (%)	7.9388	7.8736	7.8843	7.9118	7.8467
Interest on Loan	304.66	291.00	268.00	242.77	214.82

Depreciation

26. The depreciation has been worked out as per the methodology provided in the Regulation 17 of the 2009 Tariff Regulations. The depreciation allowed for Combined Assets Part-II is as follows:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	5788.54	6208.89	6302.17	6302.17	6302.17
Additional Capitalisation	420.35	93.28	0.00	0.00	0.00
Closing Gross Block	6208.89	6302.17	6302.17	6302.17	6302.17
Average Gross Block	5998.72	6255.53	6302.17	6302.17	6302.17
Rate of Depreciation (%)	5.25	5.25	5.25	5.25	5.25
Depreciable Value	5394.72	5815.01	5709.81	5667.83	5667.83
Balance Useful life of the asset	25	24	23	22	21
Elapsed Life (at beginning)	0	1	2	3	4
Remaining Depreciable Value	5394.72	5311.00	5024.77	4694.10	4363.43
Depreciation during the year	314.86	328.21	330.67	330.67	330.67

Operation & Maintenance Expenses (O&M Expenses)

27. 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 trued up. Accordingly, the total allowable O&M expenses for the instant assets have been worked out based on Combined Assets Part-II norms of O&M Expenses and the details are as follows:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses	487.32	515.22	544.71	575.82	608.76

Interest on Working Capital (IWC)

28. The IWC has been worked out as per the methodology provided in the Regulation 18 of the 2009 Tariff Regulations and allowed for Combined Assets Part-II as under:-

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
O & M expenses	40.61	42.94	45.39	47.99	50.73
Maintenance Spares	73.10	77.28	81.71	86.37	91.31
Receivables	247.79	257.25	259.44	260.59	262.35
Total	361.50	377.47	386.54	394.95	404.39
Rate of Interest	12.25	12.25	12.25	12.25	12.25
Interest on Working Capital	44.28	46.24	47.35	48.38	49.54



APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

29. The detailed computation of the various components of the trued up annual fixed charges for Combined Assets Part-II for the tariff period 2009-14 is summarised below:-

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
(₹ in lakh)					
Depreciation					
Opening Gross Block	5788.54	6208.89	6302.17	6302.17	6302.17
Additional Capitalisation	420.35	93.28	0.00	0.00	0.00
Closing Gross Block	6208.89	6302.17	6302.17	6302.17	6302.17
Average Gross Block	5998.72	6255.53	6302.17	6302.17	6302.17
Rate of Depreciation	5.25	5.25	5.25	5.25	5.25
Depreciable Value	5394.72	5815.01	5709.81	5667.83	5667.83
Balance Useful life of the asset	25	24	23	22	21
Elapsed Life	0	1	2	3	4
Remaining Depreciable Value	5394.72	5311.00	5024.77	4694.10	4363.43
Depreciation during the year	314.86	328.21	330.67	330.67	330.67
Interest on Loan					
Gross Normative Loan	4054.29	4348.54	4413.83	4413.83	4413.83
Cumulative Repayment upto Previous Year	206.35	521.21	849.41	1180.08	1510.75
Net Loan-Opening	3847.94	3827.33	3564.42	3233.75	2903.08
Additions	294.25	65.30	0.00	0.00	0.00
Repayment during the year	314.86	328.21	330.67	330.67	330.67
Net Loan-Closing	3827.33	3564.42	3233.75	2903.08	2572.41
Average Loan	3837.64	3695.88	3399.09	3068.42	2737.75
Weighted Average Rate of Interest on Loan (%)	7.9388	7.8736	7.8843	7.9118	7.8467
Interest on Loan	304.66	291.00	268.00	242.77	214.82
Return on Equity					
Opening Equity	1734.25	1860.35	1888.34	1888.34	1888.34
Additions	126.11	27.98	0.00	0.00	0.00
Closing Equity	1860.35	1888.34	1888.34	1888.34	1888.34
Average Equity	1797.30	1874.34	1888.34	1888.34	1888.34
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500	15.500
MAT rate for the 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	335.62	362.84	365.90	365.90	370.31
Interest on Working Capital					
O & M expenses	40.61	42.94	45.39	47.99	50.73
Maintenance Spares	73.10	77.28	81.71	86.37	91.31
Receivables	247.79	257.25	259.44	260.59	262.35
Total	361.50	377.47	386.54	394.95	404.39
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on Working Capital	44.28	46.24	47.35	48.38	49.54
Annual Transmission Charges					
Depreciation	314.86	328.21	330.67	330.67	330.67
Interest on Loan	304.66	291.00	268.00	242.77	214.82
Return on Equity	335.62	362.84	365.90	365.90	370.31

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Interest on Working Capital	44.28	46.24	47.35	48.38	49.54
O & M Expenses	487.32	515.22	544.71	575.82	608.76
Total	1486.74	1543.51	1556.63	1563.54	1574.10

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

30. The petitioner has claimed the following tariff for 2014-19 tariff period for Combined Assets Part-II:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	330.66	330.66	330.66	330.66	330.66
Interest on Loan	188.32	162.36	136.71	111.38	86.36
Return on Equity	370.25	370.25	370.25	370.25	370.25
Interest on Working Capital	51.45	51.88	52.35	52.86	53.42
O & M Expenses	560.79	579.39	598.65	618.48	639.03
Total	1501.47	1494.54	1488.62	1483.63	1479.72

31. The details submitted by the petitioner in support of its claim for interest on working capital with regard to Combined Assets Part-II are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	46.73	48.28	49.89	51.54	53.25
Maintenance Spares	84.12	86.91	89.80	92.77	95.85
Receivables	250.25	249.09	248.10	247.27	246.62
Total	381.10	384.28	387.79	391.58	395.72
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	51.45	51.88	52.35	52.86	53.42

Capital Cost

32. 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:

- 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;
- additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- 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;”

33. The capital cost of ₹6302.17 lakh for Combined Assets Part-II worked out as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

34. The petitioner has not claimed any additional capital expenditure for 2014-19 tariff period.

Debt: Equity

35. 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.”

36. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period with regard to Combined Assets Part-II are as follows:-

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	4414.09	70.04	00.00	00.00	4414.09	70.04
Equity	1888.08	29.96	00.00	00.00	1888.08	29.96
Total	6302.17	100.00	00.00	00.00	6302.17	100.00

Return on Equity (“ROE”)

37. 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.”

38. 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 Combined Assets Part-II as follows:-

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1888.13	1888.13	1888.13	1888.13	1888.13
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1888.13	1888.13	1888.13	1888.13	1888.13
Average Equity	1888.13	1888.13	1888.13	1888.13	1888.13



Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
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	370.27	370.27	370.27	370.27	370.27

Interest on Loan (“IoL”)

39. 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.”

40. The weighted average rate of IoL has been considered 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 for 2014-19 tariff period are placed in Annexure 2. IoL with regard to Combined Assets Part-II has been worked out and allowed as follows:-

	(₹ in lakh)				
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	4414.04	4414.04	4414.04	4414.04	4414.04
Cumulative Repayment upto Previous Year	1841.42	2172.09	2502.76	2833.43	3164.10
Net Loan-Opening	2572.62	2241.95	1911.28	1580.61	1249.94
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	330.67	330.67	330.67	330.67	330.67



Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan-Closing	2241.95	1911.28	1580.61	1249.94	919.27
Average Loan	2407.28	2076.62	1745.95	1415.28	1084.61
Weighted Average Rate of Interest on Loan (%)	7.8227	7.8182	7.8298	7.8693	7.9611
Interest on Loan	188.31	162.35	136.70	111.37	86.35

Depreciation

41. 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."

42. 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 transmissions assets will be completing 12 years beyond 2014-19 tariff period. Hence, depreciation up to 2014-19 tariff period has been calculated annually based on Straight Line Method and at rates specified in Appendix-II of the 2014 Tariff Regulations. The detailed calculations for depreciation for the Combined Assets Part-II are worked out and allowed as follows:-



(₹ in lakh)

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	6302.17	6302.17	6302.17	6302.17	6302.17
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	6302.17	6302.17	6302.17	6302.17	6302.17
Average Gross Block	6302.17	6302.17	6302.17	6302.17	6302.17
Rate of Depreciation	5.25	5.25	5.25	5.25	5.25
Depreciable Value	5667.83	5667.83	5667.83	5667.83	5667.83
Balance Useful life of the asset	20	19	18	17	16
Elapsed Life	5	6	7	8	9
Remaining Depreciable Value	4032.76	3702.09	3371.42	3040.75	2710.08
Depreciation	330.67	330.67	330.67	330.67	330.67
Cumulative depreciation	1965.74	2296.41	2627.08	2957.75	3288.42

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

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	3	3	3	3	3
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
220 kV Bays:					
No. of Bays	9	9	9	9	9
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1
Total O&M Expenses (₹ lakh)	560.79	579.39	598.65	618.48	639.03

Interest on Working Capital (IWC)

44. 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;”

45. The petitioner has considered the rate of interest on working capital to be 13.50%. 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 with regard to Combined Assets Part-II thereon have been worked as follows:-

(₹ in lakh)					
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	46.73	48.28	49.89	51.54	53.25
Maintenance Spares	84.12	86.91	89.80	92.77	95.85
Receivables	250.25	249.09	248.11	247.28	246.62
Total	381.10	384.28	387.79	391.59	395.73
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	51.45	51.88	52.35	52.86	53.42

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

46. The transmission charges allowed for the instant transmission assets for the 2014-19 tariff period with regard to Combined Assets Part-II are summarised below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	6302.17	6302.17	6302.17	6302.17	6302.17
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	6302.17	6302.17	6302.17	6302.17	6302.17
Average Gross Block	6302.17	6302.17	6302.17	6302.17	6302.17
Rate of Depreciation	5.25	5.25	5.25	5.25	5.25
Depreciable Value	5667.83	5667.83	5667.83	5667.83	5667.83
Balance Useful life of the asset	20	19	18	17	16
Elapsed Life	5	6	7	8	9
Remaining Depreciable Value	4032.76	3702.09	3371.42	3040.75	2710.08

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	330.67	330.67	330.67	330.67	330.67
Cumulative depreciation	1965.74	2296.41	2627.08	2957.75	3288.42
Interest on Loan					
Gross Normative Loan	4414.04	4414.04	4414.04	4414.04	4414.04
Cumulative Repayment upto Previous Year	1841.42	2172.09	2502.76	2833.43	3164.10
Net Loan-Opening	2572.62	2241.95	1911.28	1580.61	1249.94
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	330.67	330.67	330.67	330.67	330.67
Net Loan-Closing	2241.95	1911.28	1580.61	1249.94	919.27
Average Loan	2407.28	2076.62	1745.95	1415.28	1084.61
Weighted Average Rate of Interest on Loan	7.8227	7.8182	7.8298	7.8693	7.9611
Interest	188.31	162.35	136.70	111.37	86.35
Return on Equity					
Opening Equity	1888.13	1888.13	1888.13	1888.13	1888.13
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1888.13	1888.13	1888.13	1888.13	1888.13
Average Equity	1888.13	1888.13	1888.13	1888.13	1888.13
Return on Equity	15.500	15.500	15.500	15.500	15.500
MAT rate for the 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	370.27	370.27	370.27	370.27	370.27
Interest on Working Capital					
O & M expenses	46.73	48.28	49.89	51.54	53.25
Maintenance Spares	84.12	86.91	89.80	92.77	95.85
Receivables	250.25	249.09	248.11	247.28	246.62
Total	381.10	384.28	387.79	391.59	395.73
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	51.45	51.88	52.35	52.86	53.42
Annual Transmission Charges					
Depreciation	330.67	330.67	330.67	330.67	330.67
Interest on Loan	188.31	162.35	136.70	111.37	86.35
Return on Equity	370.27	370.27	370.27	370.27	370.27
Interest on Working Capital	51.45	51.88	52.35	52.86	53.42
O & M Expenses	560.79	579.39	598.65	618.48	639.03
Total	1501.49	1494.56	1488.65	1483.66	1479.74

47. Except for the above, all other terms contained in our order dated 28.1.2016 in Petition No. 552/TT/2014 remains unchanged.

48. This order disposes of Petition No. 148/TT/2016.

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

Sd/-
(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD****Combined Assets Part-II**

(₹ in lakh)

Particulars	Rate of interest					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
BOND XVII- DOCO DRAWL ON 22-SEP-2005 - 22-SEP-2005-	7.39	7.39	7.39	7.39	7.39	6.00	0.00	6.00
BOND XVIII- DOCO DRAWL ON 09-MAR- 2006 - 09-MAR- 2006-	8.15	8.15	8.15	8.15	8.15	6.00	0.00	6.00
BOND XIX- DOCO DRAWL ON 24-JUL-2006 - 24-JUL-2006-	9.25	9.25	9.25	9.25	9.25	114.00	0.00	114.00
BOND XX-DOCO DRAWL ON 07- SEP-2006 - 07- SEP-2006-	8.93	8.93	8.93	8.93	8.93	177.00	0.00	177.00
BOND XXI- DOCO DRAWL ON 11-OCT- 2006 - 11-OCT- 2006-	8.73	8.73	8.73	8.73	8.73	849.00	0.00	849.00
BOND XXII- DOCO DRAWL ON 07-DEC- 2006 - 07-DEC- 2006-	8.68	8.68	8.68	8.68	8.68	291.00	0.00	291.00
BOND XXIII- DOCO DRAWL ON 09-FEB-2007 - 09-FEB-2007-	9.25	9.25	9.25	9.25	9.25	521.00	0.00	521.00
BOND XXIV- DOCO DRAWL ON 26-MAR- 2007 - 26-MAR- 2007-	9.95	9.95	9.95	9.95	9.95	6.00	0.00	6.00
BOND XXV- DOCO DRAWL ON 12-JUN-2007 - 12-JUN-2007-	10.10	10.10	10.10	10.10	10.10	464.00	0.00	464.00



Particulars	Rate of interest					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
ADB II LB-DOCO DRAWL ON 01-APR-2008 - 01-APR-2008-40.19	2.4956	1.9213	1.8846	2.0870	1.8317	856.05	0.00	856.05
BOND XXVIII-ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008 - 15-DEC-2008-	9.33	9.33	9.33	9.33	9.33	190.81	0.00	190.81
BOND XXVIII-DOCO DRAWL ON 15-DEC-2008 - 15-DEC-2008-	9.33	9.33	9.33	9.33	9.33	688.00	0.00	688.00
BOND-XXXIV-ADDCAP FOR 2010-2011 loan-1-	0.00	8.84	8.84	8.84	8.84	0.00	65.30	65.30
Total						4168.86	65.30	4234.16

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	4168.86	4168.86	4234.16	4234.16	4234.16
Cumulative Repayments of Loans up to Previous Year	79.17	116.10	319.75	566.14	890.26
Net Loans Opening	4089.69	4052.76	3914.41	3668.02	3343.90
Add: Drawl(s) during the Year	0.00	65.30	0.00	0.00	0.00
Less: Repayments during the year	36.93	203.65	246.39	324.12	329.05
Net Closing Loan	4052.76	3914.41	3668.02	3343.90	3014.85
Average Net Loan	4071.23	3983.59	3791.22	3505.96	3179.38
Rate of Interest on Loan (%)*	7.9388%	7.8736%	7.8843%	7.9118%	7.8467%
Interest on Loan	323.20	313.65	298.91	277.38	249.48

*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan up to two decimal points.



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)**Combined Assets Part-II**

(₹ in lakh)

Particulars	Rate of interest					Loan deployed as on 1.4.2014	Additions during the tariff period	Total
	2014-15	2015-16	2016-17	2017-18	2018-19			
BOND XVII- DOCO DRAWL ON 22-SEP-2005 - 22-SEP-2005-	7.39	7.39	7.39	7.39	7.39	6.00	0.00	6.00
BOND XVIII- DOCO DRAWL ON 09-MAR- 2006 - 09-MAR- 2006-	8.15	8.15	8.15	8.15	8.15	6.00	0.00	6.00
BOND XIX- DOCO DRAWL ON 24-JUL-2006 - 24-JUL-2006-	9.25	9.25	9.25	9.25	9.25	114.00	0.00	114.00
BOND XX-DOCO DRAWL ON 07- SEP-2006 - 07- SEP-2006-	8.93	8.93	8.93	8.93	8.93	177.00	0.00	177.00
BOND XXI- DOCO DRAWL ON 11-OCT- 2006 - 11-OCT- 2006-	8.73	8.73	8.73	8.73	8.73	849.00	0.00	849.00
BOND XXII- DOCO DRAWL ON 07-DEC- 2006 - 07-DEC- 2006-	8.68	8.68	8.68	8.68	8.68	291.00	0.00	291.00
BOND XXIII- DOCO DRAWL ON 09-FEB-2007 - 09-FEB-2007-	9.25	9.25	9.25	9.25	9.25	521.00	0.00	521.00
BOND XXIV- DOCO DRAWL ON 26-MAR- 2007 - 26-MAR- 2007-	9.95	9.95	9.95	9.95	9.95	6.00	0.00	6.00
BOND XXV- DOCO DRAWL ON 12-JUN-2007 - 12-JUN-2007-	10.10	10.10	10.10	10.10	10.10	464.00	0.00	464.00
ADB II LB-DOCO DRAWL ON 01- APR-2008 - 01- APR-2008-40.19	1.7741	1.7741	1.7741	1.7741	1.7741	856.05	0.00	856.05



Particulars	Rate of interest					Loan deployed as on 1.4.2014	Additions during the tariff period	Total
	2014-15	2015-16	2016-17	2017-18	2018-19			
BOND XXVIII- ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008 - 15-DEC-2008-	9.33	9.33	9.33	9.33	9.33	190.81	0.00	190.81
BOND XXVIII- DOCO DRAWL ON 15-DEC-2008 - 15-DEC-2008-	9.33	9.33	9.33	9.33	9.33	688.00	0.00	688.00
BOND-XXXIV - ADDCAP FOR 2010-2011 loan-1-	8.84	8.84	8.84	8.84	8.84	65.30	0.00	65.30
Total						4234.16	0.00	4234.16

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	4234.16	4234.16	4234.16	4234.16	4234.16
Cumulative Repayments of Loans up to Previous Year	1219.31	1559.25	1905.08	2257.48	2617.15
Net Loans Opening	3014.85	2674.91	2329.08	1976.68	1617.01
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	339.94	345.83	352.40	359.67	367.72
Net Closing Loan	2674.91	2329.08	1976.68	1617.01	1249.29
Average Net Loan	2844.88	2502.00	2152.88	1796.85	1433.15
Rate of Interest on Loan (%)*	7.8227%	7.8182%	7.8298%	7.8693%	7.9611%
Interest on Loan	222.55	195.61	168.57	141.40	114.09

*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan up to two decimal points