

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 102/TT/2016

Coram:

Shri. A.S. Bakshi, Member

Dr. M. K. Iyer, Member

Date of Hearing: 11.07.2016

Date of Order : 25.07.2016

In the Matter of:

Approval under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999, Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 for determination of (i) trueing up transmission tariff for 2009-14 tariff block and (ii) transmission tariff for 2014-19 tariff block for (a) LILO of both circuit of 400kV D/C, Gazuwaka-Vijayawada line at Vemagiri and (b) Extension of 400/220 kV substation at Vijayawada under System Strengthening-VI of Southern Region Grid in Southern Region

And in the Matter of:

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

.....Petitioner

Versus

1. Karnataka Power Transmission Corporation Limited,
(KPTCL), Kaveri Bhawan, Bangalore – 560009
2. Transmission Corporation of Andhra Pradesh Limited,
(APTRANSCO), Vidyut Soudha,
Hyderabad- 500082
3. Kerala State Electricity Board (KSEB),



Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram - 695 004

4. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO),
(Formerly Tamil Nadu Electricity Board - TNEB),
NPKRR Maaligai, 800, Anna Salai,
Chennai - 600 002
5. Electricity Department, Government of Goa,
Vidyuti Bhawan, Panaji, Goa - 403001
6. Electricity Department, Govt. of Pondicherry,
Pondicherry - 605001
7. Eastern Power Distribution Company of Andhra Pradesh Limited,
(APEPDCL) P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh
8. Southern Power Distribution Company of Andhra Pradesh Limited,
(APSPDCL), Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517 501, Chittoor District, Andhra Pradesh
9. Central Power Distribution Company of Andhra Pradesh Limited,
(APCPDCL), Corporate Office, Mint Compound,
Hyderabad - 500 063, Andhra Pradesh
10. Northern Power Distribution Company of Andhra Pradesh Limited,
(APNPDCL), Opp. NIT Petrol Pump,
Chaitanyapuri, Kazipet, Warangal - 506 004, Andhra Pradesh
11. Bangalore Electricity Supply Company Ltd. (BESCOM),
Corporate Office, KR.Circle
Bangalore - 560001, Karnataka
12. Gulbarga Electricity Supply Company Ltd (GESCOM)
Station Main Road, Gulbarga, Karnataka
13. Hubli Electricity Supply Company Ltd, (HESCOM)
Navanagar, PB Road, Hubli, Karnataka
14. MESCOM Corporate Office,



Paradigm Plaza, AB Shetty Circle,
Mangalore – 575001, Karnataka

15. Chamundeswari Electricity Supply Corporation Ltd.,
(CESC), # 927, L J Avenue, Ground Floor,
New Kantharaj Urs Road, Saraswatipuram,
MYSORE - 570 009, Karnataka

16. IL&FS Tamil Nadu power Company Ltd.,
B-Block, 4th Floor, Navin's Presidium,
103, Nelson Manickam Road, Aminjikaral,
Chennai, Tamil Nadu - 600029

17. PEL Power Limited,
8-2-293/A/76. Road No. 9A, Jubilee Hills,
Hyderabad, Andhra Pradesh-500033

....Respondent(s)

The following were present:

For Petitioner: Shri. M. M. Mondal, PGCIL
Shri. Jasbir Singh, PGCIL
Shri. S. S. Raju, PGCIL

For Respondents: None

ORDER

The petitioner, Power Grid Corporation of India Limited (“the petitioner”), a transmission licensee, has preferred this petition for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure for the period 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 “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 in respect of (a) LILO of both circuit of 400kV D/C Gazuwaka-Vijayawada line at Vemagiri (DOCO: 1.4.2008) (hereinafter referred to as “the transmission Asset I”) and (b) Extension of 400/220 kV substation at Vijayawada (hereinafter referred to as “ the transmission Asset II”) under System Strengthening-VI of Southern Region Grid in Southern Region. The respondents are distribution licensees, who are procuring transmission service from the petitioner, mainly beneficiaries of Southern Region.

2. In the instant petition, two separate assets are involved. The tariff was awarded to a single asset, which comprised of the two assets. The capital cost of Asset I and Asset II was worked out separately by the petitioner with the objective to determined the tariff separately. The Commission had determined the separate tariff for the Asset I and II for tariff period 2009-14 in the order dated 25.2.2011 in petition 202/2010. The relevant Para of this order is extracted as under:

“4. As noted above, Commission vide order dated 8.4.2010, had admitted the capital cost of Rs. 12380.66 lakh as on 31.03.2009. The tariff was awarded to a single asset, which comprised of the two assets. Consequent to the Commission’s order dated 28.3.2008 in Petition No. 85/2007 (suo-moto), tariff for downstream network is to be borne by the beneficiaries directly being served, therefore, the petitioner has apportioned the admitted cost as on 31.3.2009 among the two assets.”

3. The petitioner filed Petition No. 367/TT/2014 for true up tariff for 2009-14 and fixation of tariff for 2014-19 tariff period. Though the capital cost of Asset I & Asset II was available separately, the petitioner preferred to combine the capital cost for the purpose of true up of tariff during 2009-14 tariff period. The petitioner

had also prayed to allow the recovery of this combined transmission charges as per the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (“the sharing Regulations”).

4. The Commission determined the true up tariff on 26.11.2015 for combined transmission Asset I and Asset II (“collectively referred as “combined assets”) for truing up for 2009-14 period. The same approach of combined assets was also followed for tariff period 2014-19. The tariff for period 2009-14 and 2014-19 was determined as under:

(₹ in lakh)

Particulars	Combined Tariff for Asset I and II				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	654.40	657.83	660.57	660.57	660.57
Interest on Loan	767.06	708.80	649.32	586.13	522.92
Return on Equity	694.32	723.55	727.26	727.26	736.03
Interest on Working Capital	50.99	50.86	50.17	49.29	48.62
O & M Expenses	137.88	145.79	154.13	162.94	172.23
Total	2304.66	2286.83	2241.46	2186.19	2140.36

(₹ in lakh)

Particulars	Combined Tariff for Asset I and II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	660.57	660.57	660.57	660.57	660.57
Interest on Loan	459.76	396.60	333.44	270.28	207.11
Return on Equity	736.03	736.03	736.03	736.03	736.03
Interest on Working Capital	51.43	50.27	49.11	47.97	46.83
O & M Expenses	157.54	162.81	168.20	173.77	179.55
Total	2065.33	2006.27	1947.34	1888.61	1830.08

5. While determining the aforesaid transmission charges in the order dated 26.11.2015 in the petition 367/TT/2014, the Commission had allowed the

petitioner's prayer for recovery of the transmission charges as per the sharing Regulations. The Commission had also held that the recovery of the transmission charges would be governed as per as per 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. The relevant Para is extracted as under:

“54. 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”

6. Subsequent to order dated 26.11.2015, the petitioner find it difficult to implement the recovery of transmission charges as per the sharing Regulations. According to the petitioner, the sharing of the transmission charges is to be followed as per the sharing mechanism prevailing prior to implementation of the sharing Regulations i.e. prior to 1.7.2011. The sharing mechanism prior to 1.7.2011 has been perused. It is observed that the Commission laid down the mechanism for sharing of the transmission charges mandated in its order dated 25.2.2011 in petition 202/2010. The relevant Para is extracted as under:

41. TNEB has submitted that the Asset-II is a down-stream of Andhra Pradesh and should not be claimed with the regional assets. In response the petitioner has submitted that the transmission charges for the Asset-I are to be borne by the regional beneficiaries and transmission charges for the Asset-II are to be borne by the beneficiaries of Andhra Pradesh and PGCIL has requested to pass an order in line with 2009 regulations. In this regard it is clarified that the petitioner has claimed Asset-II as down-stream of Andhra Pradesh which is to be shared by beneficiaries of Andhra Pradesh only. Therefore, the transmission charges for Asset-I shall be borne by the regional beneficiaries and transmission chargers for Asset-II

shall be borne by the beneficiaries of Andhra Pradesh as per the order dated 28.3.2008 in Petition No. 85/2007 (Suo motu).

7. In the instant case, Asset II i.e. extension of 400/220 kV substation at Vijayawada is downstream system used by the host state only. Prior to introduction of the sharing Regulations from 1.7.2011, there was a settled criteria laid down by the Commission that the transmission charges of the downstream assets should be borne by the respective host state. This is evident from the order dated 28.3.2008 in Petition No. 85/2007 (Suo- motu). This philosophy was repealed after implementation of revised transmission pricing mechanism with effect from 1.7.2011 as per the sharing Regulations. In order to enable the recovery of the Asset II by the host state beneficiaries, the tariff of Asset II were to be determined separately upto 30.6.2011.

8. The petitioner accepted that assets have been combined inadvertently from 1.4.2009 in Petition No. 367/TT/2014 for determination of trueing up tariff for 2009-14 period and determination of tariff for 2014-19 period instead of from 1.7.2011. The petitioner has faced difficulties in billing based on combined tariff determined by the Commission in Petition No. 367/TT/2014. Therefore, the petitioner has approached this Commission to revise the combined tariff of Asset I and Asset II determined in the petition 367/TT/2014. The petitioner has sought the approval for separation of tariff of Asset I and Asset II from 1.4.2009 to 30.6.2011 (“**Pre-POC period**”) and combined tariff from 1.7.2011 to 31.3.2014 (“**Post-POC period**”).

9. The petitioner has claimed the revision of tariff on account of separation of the transmission Asset I and Asset II for the Pre-POC period and post POC period of 2009-14 tariff block as under:

Pre POC period (Tariff upto 30.6.2011)

(₹ in lakh)

Name of Asset	2009-10	2010-11	2011-12 Up to 30.6.2011
Asset-I	1887.61	1867.51	456.41
Asset-II	417.05	419.31	103.95

Post POC period (Tariff up to 1.7.2011 to 31.3.2014)

(₹ in lakh)

Name of Asset	2009-10	2010-11	2011-12 1.7.2011 to 31.3.2012	2012-13	2013-14
Combine Asset-I & II	--	-	1681.08	2186.19	2140.36

For 2014-19 period : Approved by the Commission vide order dated 26.11.2015 in pet. No/367/TT/2014.

Name of Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Combine Asset-I & II	2065.33	2006.27	1947.34	1888.61	1830.08

10. We have considered the submission of the petitioner. Taking into cognizance of the philosophy prevailing as per the order dated 28.3.2008 in Petition No. 85/2007 (Suo-motu) prior to introduction of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 that the transmission charges of Asset II is to be apportioned to the host state only, we feel that the tariff determined in the order dated 26.11.2015 in the petition 367/TT/2014 is to be separated between Asset I

and Asset II upto 30.6.2011 to enable the recovery of the transmission charges from host State. The separate working of the tariff for the individual asset involves the determination of separate capital cost, change in opening equity, gross opening loan, and net normative opening loan as on 1.4.2009, the tariff of individual assets has been determined in accordance with the 2009 Tariff Regulations. Accordingly, separation of true up transmission tariff for block 2009-14 has been worked out for the period up to 30.6.2011 & from 1.7.2011 to 31.3.2014 as discussed in the subsequent paragraph. The tariff determined in this order will supersede the tariff determination in the order dated 26.11.2015 in petition no 367/TT/2014 for the tariff period 2009-14 and 2014-19.

**TRUING UP OF ANNUAL FIXED CHARGES FROM 1.4.2009 TO 30.6.2011
TARIFF PERIOD AND FROM 1.7.2011 TO 31.3.2014:-**

11. Clause (3) of the Regulation 6 of the 2009 Tariff Regulations provides as under:-

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditor”.

12. The petitioner has submitted the information as required under the 2009 Tariff Regulations for truing up of annual fixed charges for 2009-14 tariff period. The truing up of tariff for 2009-14 tariff period has been determined in the subsequent paragraphs:-

Capital Cost

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

“Provided that in case of the existing projects, the capital cost admitted by the Commission prior to 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”.

14. The petitioner has submitted capital cost vide Auditor's Certificate dated 22.7.2014. The capital cost of ₹10629.10 lakh for Asset I and ₹1881.67 lakh for Asset II has been considered for determination of tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

Additional Capital Expenditure

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

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

16. Further, Clause (3) of Regulation 9 of 2014 Tariff Regulation provides that:-

“(3) The Capital cost of an existing project shall include the following:
(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.

.....

(6) The following shall be excluded or removed from the capital cost of the existing and new project:
(a) The assets forming part of the project, but not in use; (b) Decapitalisation of Asset;”

17. The petitioner has submitted that additional capital expenditure in 2009-10 and 2010-11 incurred towards balance/retention payments as follows:-

(₹ in lakh)

Particulars	Capital cost as admitted on 31.3.2009	Additional Capital Expenditure (During 2009-14)			Capital cost as on 31.3.2014
		2009-10	2010-11	2011-14	
Asset-I	10527.54	2.13	99.43	-	10629.10
Asset-II	1853.12	24.36	4.19	-	1881.67

18. The additional capital expenditure claimed for the Asset I and Asset II was examined by the Commission in order dated 26.11.2015 in petition 367/TT/2014 separately after considering the submission of the petitioner and the respondents and held as under:

“15. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-10 and 2010-11. Since the capital addition of ₹130.11 lakh is based on actual capital expenditure incurred and is within the original scope of work and the overall capital cost of the project is within the limits of the total approved capital cost, as per the revised cost estimate of ₹12684 lakh vide Memorandum dated 20.10.2008, the same is allowed for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations.”

19. Accordingly, the additional capital expenditure allowed by the Commission in order dated 26.11.2015 in petition 367/TT/2014 has been considered for the purpose of separate out tariff in the instant petition as under:-

(₹ in lakh)

Particulars	Capital cost as on 1.4.2009	Additional Capital Expenditure (During 2009-14)			Capital cost as on 30.6.2011
		2009-10	2010-11	1.4.2011-30.6.2011	
Asset-I	10527.54	2.13	99.43	-	10629.10
Asset-II	1853.12	24.36	4.19	-	1881.67

(₹ in lakh)

Particulars	Capital cost as on 1.7.2011	Additional Capital Expenditure (During 2009-14)		Capital cost as on 31.3.2014
		1.7.2011-31.3.2012	2012-14	
Asset-I	10629.10	-	-	10629.10
Asset-II	1881.67	-	-	1881.67



Debt: Equity

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

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

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

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

.....

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

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

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

(in ₹ lakh)

Asset 1 (Pre POC)						
Particulars	As on 1.4.2009		Additional capitalization during 1.4.2009-30.6.2011		As on 30.6.2011	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	7369.28	70.00	71.09	70.00	7440.37	70.00
Equity	3158.26	30.00	30.47	30.00	3188.73	30.00
Total	10527.54	100.00	101.56	100.00	10629.10	100.00

(in ₹ lakh)

Asset 2 (Pre POC)						
Particulars	As on 1.4.2009		Additional capitalization during 1.4.2009-30.6.2011		As on 30.6.2011	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	1297.18	70.00	19.99	70.00	1317.17	70.00
Equity	555.94	30.00	8.57	30.00	564.50	30.00
Total	1853.12	100.00	28.55	100.00	1881.67	100.00

(in ₹ lakh)

Combined Assets I and II (Post POC)						
Particulars	As on 1.7.2011		Additional capitalization during 1.7.2011-31.3.2014		As on 31.3.2014	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	8757.54	70.00	-	-	8757.54	70.00
Equity	3753.23	30.00	-	-	3753.23	30.00
Total	12510.77	100.00	-	-	12510.77	100.00

Return on Equity (“ROE”)

23. 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.”

24. 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 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%

25. Regulation 15 of the 2009 Tariff Regulations provides for grossing up of ROE with the actual tax rate for the purpose of ROE. The petitioner has submitted that MAT rate was applicable during the various years of 2009-14 tariff period. The ROE has been worked out by considering year wise MAT rate submitted by the petitioner in accordance with Regulation 15 of the 2009 Tariff Regulations. The ROE allowed is as follows:-

(₹ in lakh)			
Asset I (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Opening Equity	3158.26	3158.90	3188.73
Additional Capitalization	0.64	29.83	0.00
Closing Equity	3158.90	3188.73	3188.73
Average Equity	3158.58	3173.82	3188.73
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
Tax rate for the year (%)	16.995	19.931	20.008
Rate of Return on Equity (Pre Tax) (%)	18.674	19.358	19.377
Return on Equity	589.82	614.40	589.82

(₹ in lakh)

Asset II (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Opening Equity	555.94	563.24	564.50
Additional Capitalization	7.31	1.26	0.00
Closing Equity	563.24	564.50	564.50
Average Equity	559.59	563.87	564.50
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
Tax rate for the year (%)	16.995	19.931	20.008
Rate of Return on Equity (Pre Tax) (%)	18.674	19.358	19.377
Return on Equity	104.50	109.16	27.35

(₹ in lakh)

Combined Assets I and II (Post POC)			
Particulars	1.7.2011-31.3.2012	2012-13	2013-14
Opening Equity	3753.23	3753.23	3753.23
Additional Capitalization	0.00	0.00	0.00
Closing Equity	3753.23	3753.23	3753.23
Average Equity	3753.23	3753.23	3753.23
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
Tax rate for the year (%)	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610
Return on Equity	545.45	727.26	736.03

Interest on Loan (“IoL”)

26. 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 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”.

27. 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 at Annexure-1 the IoL worked out is as follows:-

(₹ in lakh)

Asset I (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Gross loan opening	7369.28	7370.77	7440.37
Cumulative Repayment upto previous year	266.24	822.15	1380.74
Net Loan-Opening	7103.04	6548.62	6059.63
Additions during the year	1.49	69.60	0.00
Repayment during the year	555.91	558.59	561.22
Net Loan-Closing	6548.62	6059.63	5498.41
Average Loan	6825.83	6304.12	5779.02
Rate of Interest (%)	9.5686	9.5702	9.5716
Interest on Loan	653.14	603.32	138.29

(₹ in lakh)

Asset II (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Gross loan opening	1297.18	1314.24	1317.17
Cumulative Repayment upto previous year	61.93	160.42	259.66
Net Loan-Opening	1235.25	1153.82	1057.51
Additions during the year	17.05	2.93	0.00
Repayment during the year	98.49	99.24	99.35
Net Loan-Closing	1153.82	1057.51	958.16
Average Loan	1194.54	1105.66	1007.83
Rate of Interest (%)	9.5372	9.5400	9.5415
Interest on Loan	113.93	105.48	24.04

(₹ in lakh)

Combined Assets I and II (Post POC)			
Particulars	1.7.2011-31.3.2012	2012-13	2013-14
Gross loan opening	8757.54	8757.54	8757.54
Cumulative Repayment upto previous year	1640.40	2300.97	2961.54
Net Loan-Opening	7117.14	6456.57	5796.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	660.57	660.57	660.57
Net Loan-Closing	6456.57	5796.00	5135.43
Average Loan	6786.85	6126.28	5465.72
Rate of Interest (%)	9.5674	9.5674	9.5672
Interest on Loan	649.32	586.13	486.99

Depreciation

28. Regulation 17 of the 2009 Tariff Regulations provides the methodology for working out depreciation. The depreciation has been worked out as per the



methodology provided in the Regulation 17 of the 2009 Tariff Regulations. The depreciation allowed is as follows:-

(₹ in lakh)

Asset I (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Opening Gross block	10527.54	10529.67	10629.10
Additional Capitalization	2.13	99.43	0.00
Closing Gross block	10529.67	10629.10	10629.10
Average Gross block	10528.61	10579.39	10629.10
Rate of Depreciation (%)	5.28	5.28	5.28
Depreciable Value	9475.74	9522.41	9610.93
Balance useful life	35.00	34.00	33.00
Elapsed life	1.00	2.00	3.00
Remaining Depreciable Value	9209.50	8699.30	8185.45
Depreciation during the year	555.91	558.59	140.30
Cumulative depreciation	822.15	1380.74	1521.05

(₹ in lakh)

Asset II (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Opening Gross block	1853.12	1877.48	1881.67
Additional Capitalization	24.36	4.19	0.00
Closing Gross block	1877.48	1881.67	1881.67
Average Gross block	1865.30	1879.58	1881.67
Rate of Depreciation (%)	5.28	5.28	5.28
Depreciable Value	1678.77	1702.58	1695.39
Balance useful life of the assets	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	1616.84	1531.20	1433.84
Depreciation during the year	98.49	99.24	24.84
Cumulative depreciation	160.42	259.66	284.50

(₹ in lakh)

Combined Assets I and II (Post POC)			
Particulars	1.7.2011-31.3.2012	2012-13	2013-14
Opening Gross block	12510.77	12510.77	12510.77
Additional Capitalization	0.00	0.00	0.00
Closing Gross block	12510.77	12510.77	12510.77
Average Gross block	12510.77	12510.77	12510.77
Rate of Depreciation (%)	5.28	5.28	5.28
Depreciable Value	11306.32	11259.69	11259.69
Balance useful life of the assets	32.00	31.00	30.00
Elapsed life	3.00	4.00	5.00
Remaining Depreciable Value	9619.29	8958.72	8298.15
Depreciation during the year	495.43	660.57	660.57
Cumulative depreciation	2300.97	2961.54	3622.11



Interest on Working Capital (“IWC”)

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

(₹ in lakh)

Asset I (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
O & M expenses	4.07	4.30	4.55
Maintenance Spares	7.32	7.74	8.18
Receivables	314.60	311.25	600.55
Total	325.99	323.29	613.28
Rate of Interest (%)	12.25	12.25	12.25
Interest on Working Capital	39.93	39.60	18.78

(₹ in lakh)

Asset II (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
O & M expenses	7.42	7.85	8.29
Maintenance Spares	13.36	14.13	14.94
Receivables	69.51	69.89	69.30
Total	90.29	91.86	92.53
Rate of Interest (%)	12.25	12.25	12.25
Interest on Working Capital	11.06	11.25	2.83

(₹ in lakh)

Combined Assets I and II (Post POC)			
Particulars	1.7.2011-31.3.2012	2012-13	2013-14
O & M expenses	12.84	13.57	14.35
Maintenance Spares	23.12	24.44	25.83
Receivables	373.58	364.36	356.73
Total	409.54	402.38	396.91
Rate of Interest (%)	12.25	12.25	12.25
Interest on Working Capital	37.63	49.29	48.62

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

30. 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 norms of O&M Expenses and the details are as follows:-

(₹ in lakh)

Asset I (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
O & M expenses	48.80	51.61	13.64

(₹ in lakh)

Asset II (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
O & M expenses	89.08	94.18	24.89

(₹ in lakh)

Combined Assets I and II (Post POC)			
Particulars	1.7.2011-31.3.2012	2012-13	2013-14
O & M expenses	115.60	162.94	172.23

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)

Asset I (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Depreciation			
Opening Gross Block	10527.54	10529.67	10629.10
Additional Capitalisation	2.13	99.43	0.00
Closing Gross Block	10529.67	10629.10	10629.10
Average Gross Block	10528.61	10579.39	10629.10
Rate of Depreciation	5.28	5.28	5.28
Depreciable Value	9475.74	9522.41	9610.93
Balance Useful life of the asset	35.00	34.00	33.00
Elapsed Life	1.00	2.00	3.00
Remaining Depreciable Value	9209.50	8699.30	8185.45

Asset I (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Depreciation during the year	555.91	558.59	140.30
Cumulative depreciation	822.15	1380.74	1521.05
Interest on Loan			
Gross Normative Loan	7369.28	7370.77	7440.37
Cumulative Repayment upto Previous Year	266.24	822.15	1380.74
Net Loan-Opening	7103.04	6548.62	6059.63
Additions	1.49	69.60	0.00
Repayment during the year	555.91	558.59	561.22
Net Loan-Closing	6548.62	6059.63	5498.41
Average Loan	6825.83	6304.12	5779.02
Weighted Average Rate of Interest on Loan (%)	9.5686	9.5702	9.5716
Interest on Loan	653.14	603.32	138.29
Return on Equity			
Opening Equity	3158.26	3158.90	3188.73
Additions	0.64	29.83	0.00
Closing Equity	3158.90	3188.73	3188.73
Average Equity	3158.58	3173.82	3188.73
Return on Equity (Base Rate)	15.500	15.500	15.500
MAT rate for the respective year	16.995	19.931	20.008
Rate of Return on Equity	18.674	19.358	19.377
Return on Equity	589.82	614.40	154.47
Interest on Working Capital			
O & M expenses	4.07	4.30	4.55
Maintenance Spares	7.32	7.74	8.18
Receivables	314.60	311.25	304.27
Total	325.99	323.29	317.00
Rate of Interest	12.25	12.25	12.25
Interest on Working Capital	39.93	39.60	9.71
Annual Transmission Charges			
Depreciation	555.91	558.59	140.30
Interest on Loan	653.14	603.32	138.29
Return on Equity	589.82	614.40	154.47
Interest on Working Capital	39.93	39.60	9.71
O & M Expenses	48.80	51.61	13.64
Total	1887.61	1867.51	456.41

(₹ in lakh)

Asset II (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Depreciation			
Opening Gross Block	1853.12	1877.48	1881.67
Additional Capitalisation	24.36	4.19	0.00
Closing Gross Block	1877.48	1881.67	1881.67
Average Gross Block	1865.30	1879.58	1881.67
Rate of Depreciation	5.28	5.28	5.28
Depreciable Value	1678.77	1702.58	1695.39
Balance Useful life of the asset	25.00	24.00	23.00
Elapsed Life	0.00	1.00	2.00
Remaining Depreciable Value	1616.84	1531.20	1433.84
Depreciation during the year	98.49	99.24	24.84
Cumulative depreciation	160.42	259.66	284.50
Interest on Loan			
Gross Normative Loan	1297.18	1314.24	1317.17
Cumulative Repayment upto Previous Year	61.93	160.42	259.66
Net Loan-Opening	1235.25	1153.82	1057.51
Additions	17.05	2.93	0.00
Repayment during the year	98.49	99.24	99.35
Net Loan-Closing	1153.82	1057.51	958.16
Average Loan	1194.54	1105.66	1007.83
Weighted Average Rate of Interest on Loan (%)	9.5372	9.5400	9.5415
Interest on Loan	113.93	105.48	24.04
Return on Equity			
Opening Equity	555.94	563.24	564.50
Additions	7.31	1.26	0.00
Closing Equity	563.24	564.50	564.50
Average Equity	559.59	563.87	564.50
Return on Equity (Base Rate)	15.500	15.500	15.500
MAT rate for the respective year	16.995	19.931	20.008
Rate of Return on Equity	18.674	19.358	19.377
Return on Equity	104.50	109.16	27.35
Interest on Working Capital			
O & M expenses	7.42	7.85	8.29
Maintenance Spares	13.36	14.13	14.94
Receivables	69.51	69.89	69.30
Total	90.29	91.86	92.53



Asset II (Pre POC)			
Particulars	2009-10	2010-11	1.4.2011-30.6.2011
Rate of Interest	12.25	12.25	12.25
Interest on Working Capital	11.06	11.25	2.83
Annual Transmission Charges			
Depreciation	98.49	99.24	24.84
Interest on Loan	113.93	105.48	24.04
Return on Equity	104.50	109.16	27.35
Interest on Working Capital	11.06	11.25	2.83
O & M Expenses	89.08	94.18	24.89
Total	417.05	419.31	103.95

(₹ in lakh)

Combined Assets I and II (Post POC)			
Particulars	1.7. 2011-31.3.2012	2012-13	2013-14
Depreciation			
Opening Gross Block	12510.77	12510.77	12510.77
Additional Capitalisation	0.00	0.00	0.00
Closing Gross Block	12510.77	12510.77	12510.77
Average Gross Block	12510.77	12510.77	12510.77
Rate of Depreciation	5.28	5.28	5.28
Depreciable Value	11306.32	11259.69	11259.69
Balance Useful life of the asset	32.00	31.00	30.00
Elapsed Life	3.00	4.00	5.00
Remaining Depreciable Value	9619.29	8958.72	8298.15
Depreciation during the year	495.43	660.57	660.57
Cumulative depreciation	2300.97	2961.54	3622.11
Interest on Loan			
Gross Normative Loan	8757.54	8757.54	8757.54
Cumulative Repayment upto Previous Year	1640.40	2300.97	2961.54
Net Loan-Opening	7117.14	6456.57	5796.00
Additions	0.00	0.00	0.00
Repayment during the year	660.57	660.57	660.57
Net Loan-Closing	6456.57	5796.00	5135.43
Average Loan	6786.85	6126.28	5465.72
Weighted Average Rate of Interest on Loan (%)	9.5674	9.5674	9.5672
Interest on Loan	486.99	586.13	522.92
Return on Equity			



Combined Assets I and II (Post POC)			
Particulars	1.7. 2011-31.3.2012	2012-13	2013-14
Opening Equity	3753.23	3753.23	3753.23
Additions	0.00	0.00	0.00
Closing Equity	3753.23	3753.23	3753.23
Average Equity	3753.23	3753.23	3753.23
Return on Equity (Base Rate)	15.500	15.500	15.500
MAT rate for the respective year	20.008	20.008	20.961
Rate of Return on Equity	19.377	19.377	19.610
Return on Equity	545.45	727.26	736.03
Interest on Working Capital			
O & M expenses	12.84	13.57	14.35
Maintenance Spares	23.12	24.44	25.83
Receivables	373.58	364.36	356.73
Total	409.54	402.38	396.91
Rate of Interest	12.25	12.25	12.25
Interest on Working Capital	37.63	49.29	48.62
Annual Transmission Charges			
Depreciation	495.43	660.57	660.57
Interest on Loan	486.99	586.13	522.92
Return on Equity	545.45	727.26	736.03
Interest on Working Capital	37.63	49.29	48.62
O & M Expenses	115.60	162.94	172.23
Total	1681.09	2186.19	2140.36

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF

PERIOD:-

32. The petitioner has claimed the transmission charges as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	660.57	660.57	660.57	660.57	660.57
Interest on Loan	459.76	396.6	333.44	270.28	207.11
Return on Equity	736.01	736.01	736.01	736.01	736.01
Interest on Working Capital	51.43	50.27	49.11	47.97	46.83
O & M Expenses	157.54	162.81	168.2	173.77	179.55
Total	2065.31	2006.26	1947.33	1888.6	1830.07



Capital Cost

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

“(3) The Capital cost of an existing project shall include the following:
(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

“(6) The following shall be excluded or removed from the capital cost of the existing and new project:
(a) The assets forming part of the project, but not in use; (b) Decapitalisation of Asset;”

34. The capital cost of ₹12510.77 lakh admitted by the Commission as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

35. The petitioner has not claimed any additional capital expenditure during 2014-19 tariff period.

Debt: Equity

36. 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.”

37. The petitioner has considered the debt: equity ratio of 70:30, which is in line with the 2014 Tariff Regulations, hence same is considered for calculation of tariff. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

	Amount	(%)
Debt	8757.54	70.00%
Equity	3753.23	30.00%
Total	12510.77	100.00%

Return on Equity (“ROE”)

38. 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.”

39. It further provides that in case the generating company or transmission licensee paying Minimum Alternative Tax (MAT), the MAT rate including surcharge

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

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	3753.23	3753.23	3753.23	3753.23	3753.23
Additions	-	-	-	-	-
Closing Equity	3753.23	3753.23	3753.23	3753.23	3753.23
Average Equity	3753.23	3753.23	3753.23	3753.23	3753.23
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	736.03	736.03	736.03	736.03	736.03

Interest on Loan (“IoL”)

40. Clause 5 and 6 of Regulation 26 of 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.”

41. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2014. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed at Annexure-2 and the IoL 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	8757.54	8757.54	8757.54	8757.54	8757.54
Cumulative Repayment upto Previous Year	3622.11	4282.68	4943.24	5603.81	6264.38
Net Loan-Opening	5135.43	4474.86	3814.29	3153.73	2493.16
Additions	-	-	-	-	-
Repayment during the year	660.57	660.57	660.57	660.57	660.57
Net Loan-Closing	4474.86	3814.29	3153.73	2493.16	1832.59
Average Loan	4805.15	4144.58	3484.01	2823.44	2162.87
Weighted Average Rate of Interest on Loan (%)	9.5681%	9.5692%	9.5706%	9.5726%	9.5756%
Interest on Loan	459.76	396.60	333.44	270.28	207.11

Depreciation

42. Clause (2), (5) and (6) of Regulation 27 of 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.”

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	12510.77	12510.77	12510.77	12510.77	12510.77
Additional Capitalisation	-	-	-	-	-
Closing Gross Block	12510.77	12510.77	12510.77	12510.77	12510.77
Average Gross Block	12510.77	12510.77	12510.77	12510.77	12510.77
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Balance Useful life of the asset	29.00	28.00	27.00	26.00	25.00
Remaining Depreciable Value	7637.59	6977.02	6316.45	5655.88	4995.31
Depreciation during the year	660.57	660.57	660.57	660.57	660.57

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

44. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specify the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets allowed are as follows:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays :					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
220 kV Bays:					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.10
Line: D/C Twin/Triple Conductor:					
Line Length (km)	77.84	77.84	77.84	77.84	77.84
Norms (₹ lakh/km)	0.71	0.73	0.76	0.78	0.81
Total O&M Expenses (₹ lakh)	157.54	162.81	168.20	173.77	179.55

45. The petitioner has further submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also prayed that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

46. We have considered the submissions of the petitioner. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. These O&M Expenses are allowed for the instant transmission assets as per prevailing norms.

Interest on Working Capital

47. 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”

‘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;”

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

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

	(₹ in lakh)				
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	13.12	13.56	14.01	14.48	14.96
Maintenance Spares	23.63	24.42	25.23	26.07	26.93
Receivables	344.22	334.38	324.56	314.77	305.01
Total	380.98	372.36	363.80	355.31	346.90
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	51.43	50.27	49.11	47.97	46.83

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	12510.77	12510.77	12510.77	12510.77	12510.77
Additional Capitalisation	-	-	-	-	-
Closing Gross Block	12510.77	12510.77	12510.77	12510.77	12510.77
Average Gross Block	12510.77	12510.77	12510.77	12510.77	12510.77
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	11259.69	11259.69	11259.69	11259.69	11259.69
Elapsed Life	6.00	7.00	8.00	9.00	10.00
Balance Useful life of the asset	29.00	28.00	27.00	26.00	25.00
Remaining Depreciable Value	7637.59	6977.02	6316.45	5655.88	4995.31
Depreciation	660.57	660.57	660.57	660.57	660.57
Cumulative depreciation	4282.68	4943.24	5603.81	6264.38	6924.95
Interest on Loan					
Gross Normative Loan	8757.54	8757.54	8757.54	8757.54	8757.54
Cumulative Repayment upto Previous Year	3622.11	4282.68	4943.24	5603.81	6264.38
Net Loan-Opening	5135.43	4474.86	3814.29	3153.73	2493.16
Additions	-	-	-	-	-
Repayment during the year	660.57	660.57	660.57	660.57	660.57
Net Loan-Closing	4474.86	3814.29	3153.73	2493.16	1832.59
Average Loan	4805.15	4144.58	3484.01	2823.44	2162.87
Weighted Average Rate of Interest on Loan (%)	9.5681	9.5692	9.5706	9.5726	9.5756
Interest	459.76	396.60	333.44	270.28	207.11
Return on Equity					
Opening Equity	3753.23	3753.23	3753.23	3753.23	3753.23
Additions	-	-	-	-	-
Closing Equity	3753.23	3753.23	3753.23	3753.23	3753.23
Average Equity	3753.23	3753.23	3753.23	3753.23	3753.23
Return on Equity (Base Rate) (%)	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	736.03	736.03	736.03	736.03	736.03
Interest on Working Capital					
O & M expenses	13.12	13.56	14.01	14.48	14.96
Maintenance Spares	23.63	24.42	25.23	26.07	26.93
Receivables	344.22	334.38	324.56	314.77	305.01
Total	380.98	372.36	363.80	355.31	346.90
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	51.43	50.27	49.11	47.97	46.83
Annual Transmission Charges					
Depreciation	660.57	660.57	660.57	660.57	660.57



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Loan	459.76	396.60	333.44	270.28	207.11
Return on Equity	736.03	736.03	736.03	736.03	736.03
Interest on Working Capital	51.43	50.27	49.11	47.97	46.83
O & M Expenses	157.54	162.81	168.20	173.77	179.55
Total	2065.33	2006.27	1947.34	1888.61	1830.08

Deferred Tax Liability

51. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever it is materialized directly from the beneficiaries or long term transmission customers /DICs.

Filing Fee and the Publication Expenses

52. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 52 (1) of the 2014 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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

Service Tax

54. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature at this stage and accordingly it is rejected.

Sharing of Transmission Charges

55. 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.

56. However, the transmission charges for 2009-14 period upto 30.6.2011 shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in case of Asset-I and by beneficiaries of AP in case of Asset-II in accordance with Regulation 33 of CERC(Terms and Conditions of Tariff) Regulations,2009 .

57. This order disposes of Petition No. 102/TT/2016.

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

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

Annexure-1

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in lakh)

Asset I (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
BOND XX-DOCO					
Gross Opening Loan	605.65	605.65	605.65	605.65	605.65
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	50.47	100.94	151.41
Net Loans Opening	605.65	605.65	555.18	504.71	454.24
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	50.47	50.47	50.47	50.47
Net Closing Loan	605.65	555.18	504.71	454.24	403.77
Average Net Loan	605.65	580.42	529.95	479.48	429.01
Rate of Interest on Loan (%)	8.93	8.93	8.93	8.93	8.93
Interest on Loan	54.08	51.83	47.32	42.82	38.31
BOND XXI-DOCO					
Gross Opening Loan	550.28	550.28	550.28	550.28	550.28
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	45.86	91.72	137.58
Net Loans Opening	550.28	550.28	504.42	458.56	412.70
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	45.86	45.86	45.86	45.86
Net Closing Loan	550.28	504.42	458.56	412.70	366.84
Average Net Loan	550.28	527.35	481.49	435.63	389.77
Rate of Interest on Loan (%)	8.73	8.73	8.73	8.73	8.73
Interest on Loan	48.04	46.04	42.03	38.03	34.03
BOND XXII-DOCO					
Gross Opening Loan	571.91	571.91	571.91	571.91	571.91



Asset I (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	47.66	95.32	142.98
Net Loans Opening	571.91	571.91	524.25	476.59	428.93
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	47.66	47.66	47.66	47.66
Net Closing Loan	571.91	524.25	476.59	428.93	381.27
Average Net Loan	571.91	548.08	500.42	452.76	405.10
Rate of Interest on Loan (%)	8.68	8.68	8.68	8.68	8.68
Interest on Loan	49.64	47.57	43.44	39.30	35.16
BOND XXIV-DOCO					
Gross Opening Loan	1855.02	1855.02	1855.02	1855.02	1855.02
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	154.59	309.18	463.77
Net Loans Opening	1855.02	1855.02	1700.43	1545.84	1391.25
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	154.59	154.59	154.59	154.59
Net Closing Loan	1855.02	1700.43	1545.84	1391.25	1236.66
Average Net Loan	1855.02	1777.73	1623.14	1468.55	1313.96
Rate of Interest on Loan (%)	9.95	9.95	9.95	9.95	9.95
Interest on Loan	184.57	176.88	161.50	146.12	130.74
BOND XXV-DOCO					
Gross Opening Loan	1981.34	1981.34	1981.34	1981.34	1981.34
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	165.11	330.22
Net Loans Opening	1981.34	1981.34	1981.34	1816.23	1651.12
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	165.11	165.11	165.11
Net Closing Loan	1981.34	1981.34	1816.23	1651.12	1486.01
Average Net Loan	1981.34	1981.34	1898.79	1733.68	1568.57
Rate of Interest on Loan (%)	10.10	10.10	10.10	10.10	10.10
Interest on Loan	200.12	200.12	191.78	175.10	158.43
BOND XXVI-DOCO					
Gross Opening Loan	1088.44	1088.44	1088.44	1088.44	1088.44



Asset I (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	90.70	181.40
Net Loans Opening	1088.44	1088.44	1088.44	997.74	907.04
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	90.70	90.70	90.70
Net Closing Loan	1088.44	1088.44	997.74	907.04	816.34
Average Net Loan	1088.44	1088.44	1043.09	952.39	861.69
Rate of Interest on Loan (%)	9.30	9.30	9.30	9.30	9.30
Interest on Loan	101.22	101.22	97.01	88.57	80.14
BOND XXVII-DOCO					
Gross Opening Loan	481.92	481.92	481.92	481.92	481.92
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	40.16	80.32
Net Loans Opening	481.92	481.92	481.92	441.76	401.60
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	40.16	40.16	40.16
Net Closing Loan	481.92	481.92	441.76	401.60	361.44
Average Net Loan	481.92	481.92	461.84	421.68	381.52
Rate of Interest on Loan (%)	9.47	9.47	9.47	9.47	9.47
Interest on Loan	45.64	45.64	43.74	39.93	36.13
BOND-XXVIII-Doco-					
Gross Opening Loan	143.01	143.01	143.01	143.01	143.01
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	11.92
Net Loans Opening	143.01	143.01	143.01	143.01	131.09
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	11.92	11.92
Net Closing Loan	143.01	143.01	143.01	131.09	119.17
Average Net Loan	143.01	143.01	143.01	137.05	125.13
Rate of Interest on Loan (%)	9.33	9.33	9.33	9.33	9.33
Interest on Loan	13.34	13.34	13.34	12.79	11.67
BOND-XXIX-doco-					
Gross Opening Loan	80.45	80.45	80.45	80.45	80.45

Asset I (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	6.70
Net Loans Opening	80.45	80.45	80.45	80.45	73.75
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	6.70	6.70
Net Closing Loan	80.45	80.45	80.45	73.75	67.05
Average Net Loan	80.45	80.45	80.45	77.10	70.40
Rate of Interest on Loan (%)	9.20	9.20	9.20	9.20	9.20
Interest on Loan	7.40	7.40	7.40	7.09	6.48
BOND-XXXII-ADDCAP FOR 2010-2011 AddCap-					
Gross Opening Loan	0.00	0.00	43.33	43.33	43.33
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	0.00	0.00	43.33	43.33	43.33
Add: Draw(s) during the Year	0.00	43.33	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	3.61
Net Closing Loan	0.00	43.33	43.33	43.33	39.72
Average Net Loan	0.00	21.67	43.33	43.33	41.53
Rate of Interest on Loan (%)	0.00	8.84	8.84	8.84	8.84
Interest on Loan	0.00	1.92	3.83	3.83	3.67
Summary					
Gross Opening Loan	7358.02	7358.02	7401.35	7401.35	7401.35
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	298.58	893.13	1506.30
Net Loans Opening	7358.02	7358.02	7102.77	6508.22	5895.05
Add: Draw(s) during the Year	0.00	43.33	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	298.58	594.55	613.17	616.78
Net Closing Loan	7358.02	7102.77	6508.22	5895.05	5278.27
Average Net Loan	7358.02	7230.40	6805.50	6201.64	5586.66
Rate of Interest on Loan (%)	9.5686	9.5702	9.5716	9.5714	9.5720
Interest on Loan	704.06	691.96	651.39	593.58	534.75

(₹ in lakh)

Asset II (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
BOND XX-DOCO					
Gross Opening Loan	94.35	94.35	94.35	94.35	94.35
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	7.86	15.72	23.58
Net Loans Opening	94.35	94.35	86.49	78.63	70.77
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	7.86	7.86	7.86	7.86
Net Closing Loan	94.35	86.49	78.63	70.77	62.91
Average Net Loan	94.35	90.42	82.56	74.70	66.84
Rate of Interest on Loan (%)	8.93	8.93	8.93	8.93	8.93
Interest on Loan	8.43	8.07	7.37	6.67	5.97
BOND XXI-DOCO					
Gross Opening Loan	85.72	85.72	85.72	85.72	85.72
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	7.14	14.28	21.42
Net Loans Opening	85.72	85.72	78.58	71.44	64.30
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	7.14	7.14	7.14	7.14
Net Closing Loan	85.72	78.58	71.44	64.30	57.16
Average Net Loan	85.72	82.15	75.01	67.87	60.73
Rate of Interest on Loan (%)	8.73	8.73	8.73	8.73	8.73
Interest on Loan	7.48	7.17	6.55	5.93	5.30
BOND XXII-DOCO					
Gross Opening Loan	89.09	89.09	89.09	89.09	89.09
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	7.42	14.84	22.26
Net Loans Opening	89.09	89.09	81.67	74.25	66.83
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan	0.00	7.42	7.42	7.42	7.42



Asset II (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
during the year					
Net Closing Loan	89.09	81.67	74.25	66.83	59.41
Average Net Loan	89.09	85.38	77.96	70.54	63.12
Rate of Interest on Loan (%)	8.68	8.68	8.68	8.68	8.68
Interest on Loan	7.73	7.41	6.77	6.12	5.48
BOND XXIV-DOCO					
Gross Opening Loan	288.98	288.98	288.98	288.98	288.98
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	24.08	48.16	72.24
Net Loans Opening	288.98	288.98	264.90	240.82	216.74
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	24.08	24.08	24.08	24.08
Net Closing Loan	288.98	264.90	240.82	216.74	192.66
Average Net Loan	288.98	276.94	252.86	228.78	204.70
Rate of Interest on Loan (%)	9.95	9.95	9.95	9.95	9.95
Interest on Loan	28.75	27.56	25.16	22.76	20.37
BOND XXV-DOCO					
Gross Opening Loan	308.66	308.66	308.66	308.66	308.66
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	25.72	51.44
Net Loans Opening	308.66	308.66	308.66	282.94	257.22
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	25.72	25.72	25.72
Net Closing Loan	308.66	308.66	282.94	257.22	231.50
Average Net Loan	308.66	308.66	295.80	270.08	244.36
Rate of Interest on Loan (%)	10.10	10.10	10.10	10.10	10.10
Interest on Loan	31.17	31.17	29.88	27.28	24.68
BOND XXVI-DOCO					
Gross Opening Loan	169.56	169.56	169.56	169.56	169.56
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	14.13	28.26
Net Loans Opening	169.56	169.56	169.56	155.43	141.30
Add: Draw(s) during the	0.00	0.00	0.00	0.00	0.00



Asset II (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Year					
Less: Repayments of Loan during the year	0.00	0.00	14.13	14.13	14.13
Net Closing Loan	169.56	169.56	155.43	141.30	127.17
Average Net Loan	169.56	169.56	162.50	148.37	134.24
Rate of Interest on Loan (%)	9.30	9.30	9.30	9.30	9.30
Interest on Loan	15.77	15.77	15.11	13.80	12.48
BOND XXVII-DOCO					
Gross Opening Loan	75.08	75.08	75.08	75.08	75.08
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	6.26	12.52
Net Loans Opening	75.08	75.08	75.08	68.82	62.56
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	6.26	6.26	6.26
Net Closing Loan	75.08	75.08	68.82	62.56	56.30
Average Net Loan	75.08	75.08	71.95	65.69	59.43
Rate of Interest on Loan (%)	9.47	9.47	9.47	9.47	9.47
Interest on Loan	7.11	7.11	6.81	6.22	5.63
BOND-XXVIII-Doco-					
Gross Opening Loan	112.99	112.99	112.99	112.99	112.99
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	9.42
Net Loans Opening	112.99	112.99	112.99	112.99	103.57
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	9.42	9.42
Net Closing Loan	112.99	112.99	112.99	103.57	94.15
Average Net Loan	112.99	112.99	112.99	108.28	98.86
Rate of Interest on Loan (%)	9.33	9.33	9.33	9.33	9.33
Interest on Loan	10.54	10.54	10.54	10.10	9.22
BOND-XXIX-doco-					
Gross Opening Loan	63.56	63.56	63.56	63.56	63.56
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	5.30



Asset II (Pre POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Net Loans Opening	63.56	63.56	63.56	63.56	58.26
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	5.30	5.30
Net Closing Loan	63.56	63.56	63.56	58.26	52.96
Average Net Loan	63.56	63.56	63.56	60.91	55.61
Rate of Interest on Loan (%)	9.20	9.20	9.20	9.20	9.20
Interest on Loan	5.85	5.85	5.85	5.60	5.12
Summary					
Gross Opening Loan	1287.99	1287.99	1287.99	1287.99	1287.99
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	46.50	139.11	246.44
Net Loans Opening	1287.99	1287.99	1241.49	1148.88	1041.55
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	46.50	92.61	107.33	107.33
Net Closing Loan	1287.99	1241.49	1148.88	1041.55	934.22
Average Net Loan	1287.99	1264.74	1195.19	1095.22	987.89
Rate of Interest on Loan (%)	9.5372	9.5400	9.5415	9.5402	9.5405
Interest on Loan	122.84	120.66	114.04	104.49	94.25

(₹ in lakh)

Combined Assets I and II (Post POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
BOND XX-DOCO-					
Gross Opening Loan	700.00	700.00	700.00	700.00	700.00
Cumulative Repayments of Loans upto Previous Year		0.00	58.33	116.66	174.99
Net Loans Opening	700.00	700.00	641.67	583.34	525.01
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year		58.33	58.33	58.33	58.33
Net Closing Loan	700.00	641.67	583.34	525.01	466.68
Average Net Loan	700.00	670.84	612.51	554.18	495.85
Rate of Interest on Loan (%)	8.93	8.93	8.93	8.93	8.93
Interest on Loan	62.51	59.91	54.70	49.49	44.28



Combined Assets I and II (Post POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
BOND XXI-DOCO-					
Gross Opening Loan	636.00	636.00	636.00	636.00	636.00
Cumulative Repayments of Loans upto Previous Year		0.00	53.00	106.00	159.00
Net Loans Opening	636.00	636.00	583.00	530.00	477.00
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year		53.00	53.00	53.00	53.00
Net Closing Loan	636.00	583.00	530.00	477.00	424.00
Average Net Loan	636.00	609.50	556.50	503.50	450.50
Rate of Interest on Loan (%)	8.73	8.73	8.73	8.73	8.73
Interest on Loan	55.52	53.21	48.58	43.96	39.33
BOND XXII-DOCO-					
Gross Opening Loan	661.00	661.00	661.00	661.00	661.00
Cumulative Repayments of Loans upto Previous Year		0.00	55.08	110.16	165.24
Net Loans Opening	661.00	661.00	605.92	550.84	495.76
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year		55.08	55.08	55.08	55.08
Net Closing Loan	661.00	605.92	550.84	495.76	440.68
Average Net Loan	661.00	633.46	578.38	523.30	468.22
Rate of Interest on Loan (%)	8.68	8.68	8.68	8.68	8.68
Interest on Loan	57.37	54.98	50.20	45.42	40.64
BOND XXIV-DOCO-					
Gross Opening Loan	2144.00	2144.00	2144.00	2144.00	2144.00
Cumulative Repayments of Loans upto Previous Year		0.00	178.67	357.34	536.01
Net Loans Opening	2144.00	2144.00	1965.33	1786.66	1607.99
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year		178.67	178.67	178.67	178.67
Net Closing Loan	2144.00	1965.33	1786.66	1607.99	1429.32
Average Net Loan	2144.00	2054.67	1876.00	1697.33	1518.66
Rate of Interest on Loan (%)	9.95	9.95	9.95	9.95	9.95



Combined Assets I and II (Post POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Interest on Loan	213.33	204.44	186.66	168.88	151.11
BOND XXV-DOCO-					
Gross Opening Loan	2290.00	2290.00	2290.00	2290.00	2290.00
Cumulative Repayments of Loans upto Previous Year		0.00	0.00	190.83	381.66
Net Loans Opening	2290.00	2290.00	2290.00	2099.17	1908.34
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year			190.83	190.83	190.83
Net Closing Loan	2290.00	2290.00	2099.17	1908.34	1717.51
Average Net Loan	2290.00	2290.00	2194.59	2003.76	1812.93
Rate of Interest on Loan (%)	10.10	10.10	10.10	10.10	10.10
Interest on Loan	231.29	231.29	221.65	202.38	183.11
BOND XXVI-DOCO-					
Gross Opening Loan	1258.00	1258.00	1258.00	1258.00	1258.00
Cumulative Repayments of Loans upto Previous Year		0.00	0.00	104.83	209.66
Net Loans Opening	1258.00	1258.00	1258.00	1153.17	1048.34
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year			104.83	104.83	104.83
Net Closing Loan	1258.00	1258.00	1153.17	1048.34	943.51
Average Net Loan	1258.00	1258.00	1205.59	1100.76	995.93
Rate of Interest on Loan (%)	9.30	9.30	9.30	9.30	9.30
Interest on Loan	116.99	116.99	112.12	102.37	92.62
BOND XXVII-DOCO-					
Gross Opening Loan	557.00	557.00	557.00	557.00	557.00
Cumulative Repayments of Loans upto Previous Year		0.00	0.00	46.42	92.84
Net Loans Opening	557.00	557.00	557.00	510.58	464.16
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year			46.42	46.42	46.42
Net Closing Loan	557.00	557.00	510.58	464.16	417.74
Average Net Loan	557.00	557.00	533.79	487.37	440.95



Combined Assets I and II (Post POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Interest on Loan (%)	9.47	9.47	9.47	9.47	9.47
Interest on Loan	52.75	52.75	50.55	46.15	41.76
BOND XXVIII-ADDCAP for 2008-2009 drawal on 29-sep-2008-					
Gross Opening Loan	256.00	256.00	256.00	256.00	256.00
Cumulative Repayments of Loans upto Previous Year		0.00	0.00	21.33	21.33
Net Loans Opening	256.00	256.00	256.00	234.67	234.67
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year			21.33	21.33	21.33
Net Closing Loan	256.00	256.00	234.67	213.34	213.34
Average Net Loan	256.00	256.00	245.34	224.01	224.01
Rate of Interest on Loan (%)	9.33	9.33	9.33	9.33	9.33
Interest on Loan	23.88	23.88	22.89	20.90	20.90
BOND XXIX-ADDCAP FOR 2008-2009 DRAWAL ON 12-MAR-2009					
Gross Opening Loan	144.00	144.00	144.00	144.00	144.00
Cumulative Repayments of Loans upto Previous Year		0.00	0.00	0.00	12.00
Net Loans Opening	144.00	144.00	144.00	144.00	132.00
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year				12.00	12.00
Net Closing Loan	144.00	144.00	144.00	132.00	120.00
Average Net Loan	144.00	144.00	144.00	138.00	126.00
Rate of Interest on Loan (%)	9.20	9.20	9.20	9.20	9.20
Interest on Loan	13.25	13.25	13.25	12.70	11.59
BOND XXXII-ADDCAP FOR 2010-2011 ADDCAP FOR 2010-2011-					
Gross Opening Loan			43.33	43.33	43.33
Cumulative Repayments of Loans upto Previous Year		0.00	0.00	0.00	0.00
Net Loans Opening	0.00	0.00	43.33	43.33	43.33



Combined Assets I and II (Post POC)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Add: Draw(s) during the Year		43.33			
Less: Repayments of Loan during the year					3.61
Net Closing Loan	0.00	43.33	43.33	43.33	39.72
Average Net Loan	0.00	21.67	43.33	43.33	41.53
Rate of Interest on Loan (%)	8.84	8.84	8.84	8.84	8.84
Interest on Loan	0.00	1.92	3.83	3.83	3.67
Summary					
Gross Opening Loan	8646.00	8646.00	8689.33	8689.33	8689.33
Cumulative Repayments of Loans upto Previous Year		0.00	345.08	1053.57	1752.73
Net Loans Opening	8646.00	8646.00	8344.25	7635.76	6936.60
Add: Draw(s) during the Year	0.00	43.33	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	345.08	708.49	720.49	724.10
Net Closing Loan	8646.00	8344.25	7635.76	6915.27	6212.50
Average Net Loan	8646.00	8495.13	7990.01	7275.52	6574.55
Rate of Interest on Loan (%)	9.5640	9.5657	9.5674	9.5674	9.5672
Interest on Loan	826.90	812.62	764.43	696.08	629.00



Annexure-2

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
BOND XX-DOCO-					
Gross Opening Loan	700.00	700.00	700.00	700.00	700.00
Cumulative Repayments of Loans upto Previous Year	233.32	291.65	349.98	408.31	466.64
Net Loans Opening	466.68	408.35	350.02	291.69	233.36
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	58.33	58.33	58.33	58.33	58.33
Net Closing Loan	408.35	350.02	291.69	233.36	175.03
Average Net Loan	437.52	379.19	320.86	262.53	204.20
Rate of Interest on Loan (%)	8.93	8.93	8.93	8.93	8.93
Interest on Loan	39.07	33.86	28.65	23.44	18.23
BOND XXI-DOCO-					
Gross Opening Loan	636.00	636.00	636.00	636.00	636.00
Cumulative Repayments of Loans upto Previous Year	212.00	265.00	318.00	371.00	424.00
Net Loans Opening	424.00	371.00	318.00	265.00	212.00
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	53.00	53.00	53.00	53.00	53.00
Net Closing Loan	371.00	318.00	265.00	212.00	159.00
Average Net Loan	397.50	344.50	291.50	238.50	185.50
Rate of Interest on Loan (%)	8.73	8.73	8.73	8.73	8.73
Interest on Loan	34.70	30.07	25.45	20.82	16.19
BOND XXII-DOCO-					
Gross Opening Loan	661.00	661.00	661.00	661.00	661.00
Cumulative Repayments of Loans upto Previous Year	220.32	275.40	330.48	385.56	440.64
Net Loans Opening	440.68	385.60	330.52	275.44	220.36
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	55.08	55.08	55.08	55.08	55.08
Net Closing Loan	385.60	330.52	275.44	220.36	165.28



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Net Loan	413.14	358.06	302.98	247.90	192.82
Rate of Interest on Loan (%)	8.68	8.68	8.68	8.68	8.68
Interest on Loan	35.86	31.08	26.30	21.52	16.74
BOND XXIV-DOCO-					
Gross Opening Loan	2144.00	2144.00	2144.00	2144.00	2144.00
Cumulative Repayments of Loans upto Previous Year	714.68	893.35	1072.02	1250.69	1429.36
Net Loans Opening	1429.32	1250.65	1071.98	893.31	714.64
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	178.67	178.67	178.67	178.67	178.67
Net Closing Loan	1250.65	1071.98	893.31	714.64	535.97
Average Net Loan	1339.99	1161.32	982.65	803.98	625.31
Rate of Interest on Loan (%)	9.95	9.95	9.95	9.95	9.95
Interest on Loan	133.33	115.55	97.77	80.00	62.22
BOND XXV-DOCO-					
Gross Opening Loan	2290.00	2290.00	2290.00	2290.00	2290.00
Cumulative Repayments of Loans upto Previous Year	572.49	763.32	954.15	1144.98	1335.81
Net Loans Opening	1717.51	1526.68	1335.85	1145.02	954.19
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	190.83	190.83	190.83	190.83	190.83
Net Closing Loan	1526.68	1335.85	1145.02	954.19	763.36
Average Net Loan	1622.10	1431.27	1240.44	1049.61	858.78
Rate of Interest on Loan (%)	10.10	10.10	10.10	10.10	10.10
Interest on Loan	163.83	144.56	125.28	106.01	86.74
BOND XXVI-DOCO-					
Gross Opening Loan	1258.00	1258.00	1258.00	1258.00	1258.00
Cumulative Repayments of Loans upto Previous Year	314.49	419.32	524.15	628.98	733.81
Net Loans Opening	943.51	838.68	733.85	629.02	524.19
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	104.83	104.83	104.83	104.83	104.83
Net Closing Loan	838.68	733.85	629.02	524.19	419.36
Average Net Loan	891.10	786.27	681.44	576.61	471.78
Rate of Interest on Loan (%)	9.30	9.30	9.30	9.30	9.30
Interest on Loan	82.87	73.12	63.37	53.62	43.88
BOND XXVII-DOCO-					



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	557.00	557.00	557.00	557.00	557.00
Cumulative Repayments of Loans upto Previous Year	139.26	185.68	232.10	278.52	324.94
Net Loans Opening	417.74	371.32	324.90	278.48	232.06
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	46.42	46.42	46.42	46.42	46.42
Net Closing Loan	371.32	324.90	278.48	232.06	185.64
Average Net Loan	394.53	348.11	301.69	255.27	208.85
Rate of Interest on Loan (%)	9.47	9.47	9.47	9.47	9.47
Interest on Loan	37.36	32.97	28.57	24.17	19.78
BOND XXVIII-ADDCAP for 2008-2009 drawal on 29-sep-2008-					
Gross Opening Loan	256.00	256.00	256.00	256.00	256.00
Cumulative Repayments of Loans upto Previous Year	42.66	63.99	85.32	106.65	127.98
Net Loans Opening	213.34	192.01	170.68	149.35	128.02
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	21.33	21.33	21.33	21.33	21.33
Net Closing Loan	192.01	170.68	149.35	128.02	106.69
Average Net Loan	202.68	181.35	160.02	138.69	117.36
Rate of Interest on Loan (%)	9.33	9.33	9.33	9.33	9.33
Interest on Loan	18.91	16.92	14.93	12.94	10.95
BOND XXIX-ADDCAP FOR 2008-2009 DRAWAL ON 12-MAR-2009					
Gross Opening Loan	144.00	144.00	144.00	144.00	144.00
Cumulative Repayments of Loans upto Previous Year	24.00	36.00	48.00	60.00	72.00
Net Loans Opening	120.00	108.00	96.00	84.00	72.00
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	12.00	12.00	12.00	12.00	12.00
Net Closing Loan	108.00	96.00	84.00	72.00	60.00
Average Net Loan	114.00	102.00	90.00	78.00	66.00
Rate of Interest on Loan (%)	9.20	9.20	9.20	9.20	9.20
Interest on Loan	10.49	9.38	8.28	7.18	6.07
	0.00	0.00	0.00	0.00	0.00
BOND XXXII-ADDCAP FOR 2010-2011 ADDCAP FOR 2010-2011-					
Gross Opening Loan	43.33	43.33	43.33	43.33	43.33



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Cumulative Repayments of Loans upto Previous Year	3.61	7.22	10.83	14.44	18.05
Net Loans Opening	39.72	36.11	32.50	28.89	25.28
Add: Draw(s) during the Year					
Less: Repayments of Loan during the year	3.61	3.61	3.61	3.61	3.61
Net Closing Loan	36.11	32.50	28.89	25.28	21.67
Average Net Loan	37.92	34.31	30.70	27.09	23.48
Rate of Interest on Loan (%)	8.84	8.84	8.84	8.84	8.84
Interest on Loan	3.35	3.03	2.71	2.39	2.08
Summary					
Gross Opening Loan	8689.33	8689.33	8689.33	8689.33	8689.33
Cumulative Repayments of Loans upto Previous Year	2476.83	3200.93	3925.03	4649.13	5373.23
Net Loans Opening	6212.50	5488.40	4764.30	4040.20	3316.10
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	724.10	724.10	724.10	724.10	724.10
Net Closing Loan	5488.40	4764.30	4040.20	3316.10	2592.00
Average Net Loan	5850.45	5126.35	4402.25	3678.15	2954.05
Rate of Interest on Loan (%)	9.5681	9.5692	9.5706	9.5726	9.5756
Interest on Loan	559.78	490.55	421.32	352.10	282.87