

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 380/TT/2014

Coram:

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

Date of Hearing : 13.1.2016

Date of Order : 29.01.2016

In the Matter of:

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 and determination of transmission tariff for 2014-19 tariff block Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 for Transmission System associated with Kathalguri Gas based Combined Cycle Project in North Eastern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999

And in the Matter of:

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

.....Petitioner

Versus

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



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

....Respondent(s)

The following were present:

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

For Respondents: None

ORDER

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”), a transmission licensee, for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure for the period 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 Asset I: 400 kV D/C Kathalguri-Mariani Transmission Line; Asset II: 400 kV D/C

Mariani-Misa & 400 kV Kathalguri-Misa Transmission Lines; Asset III: 400 kV Misa-Balipara Ckt. I & II, 400 kV Balipara-Bongaigaon & Balipara-Tezpur Transmission Lines; Asset IV: Bongaigaon-New Siliguri (inter-regional asset of Eastern Region and North Eastern Region) and Asset V: New Siliguri-Malda Transmission Line (hereinafter referred to as "transmission assets").

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

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

a) The approved cost of the total ATS of Kathalguri GBPP is ₹105990 lakh, inclusive of apportioned approved cost of ₹35560.44 lakh for 400 kV D/C Bongaigaon – Malda line.

b) The date of commercial operation for Asset I is 1.8.1995, Asset II is 1.4.1998, Asset III is 1.2.2000, Asset IV is 1.4.2000 and for Asset V is 1.4.2000. The Commission vide its order dated 23.11.2011 in Petition No. 313/2010 had approved the capital cost for all the assets as mentioned below:-

Admitted as on 31.3.2009	Amount (₹ in lakh)	Percentage (%)
Asset I		
Debt	4109.69	50.00
Equity	4109.69	50.00
Capital Cost	8219.37	100.00
Asset II & III		
Debt	34698.59	55.82
Equity	27464.91	44.18
Capital Cost	62163.50	100.00
Asset IV		
Debt	14059.09	66.60
Equity	7050.59	33.40
Capital Cost	21109.68	100.00

Admitted as on 31.3.2009	Amount (₹ in lakh)	Percentage (%)
Asset V		
Debt	9636.67	66.60
Equity	4832.77	33.40
Capital Cost	14469.44	100.00

c) The Commission had allowed the additional capital expenditure of ₹289.10 lakh for Asset I and ₹860.55 lakh for Combined Asset II & III for the 2009-14 tariff period in its order in Petition No. 313/2010.

d) The Commission determined the tariff for the Asset I, Combined Asset II & III, Asset IV and Asset V for tariff period 2009-14, based on total admitted capital cost of ₹105961.99 lakh for all the assets as on 31.3.2009 and estimated additional capital expenditure of ₹289.10 lakh for Asset I and ₹860.55 lakh for Combined Asset II & III for the 2009-14 tariff period in its order in Petition No. 313/2010 as given below:-

(₹ in lakh)

Asset I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	144.98	144.98	144.98	151.82	159.05
Interest on Loan	71.62	62.78	53.94	51.06	47.75
Return on Equity	718.41	718.41	718.41	725.99	733.58
Interest on Working Capital	26.43	26.64	26.88	27.56	28.27
O & M Expenses	138.8	146.76	155.17	164.02	173.34
Total	1100.24	1099.57	1099.38	1120.46	1141.98

(₹ in lakh)

Asset II & III					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	3210.76	3219.23	3227.7	1163.04	1175.82
Interest on Loan	683.4	484.16	286.8	150.34	89.32
Return on Equity	4801.14	4809.55	4817.97	4821.88	4836.03
Interest on Working Capital	256.38	256.88	257.67	216.67	221.03
O & M Expenses	1502.32	1588.39	1679.31	1775.29	1876.58
Total	10454.00	10358.20	10269.40	8127.22	8198.79



(₹ in lakh)

Asset IV					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1089.18	1089.18	1089.18	320.92	320.92
Interest on Loan	286.13	207.11	130.23	79.23	55.15
Return on Equity	1232.51	1232.51	1232.51	1232.51	1232.51
Interest on Working Capital	71.65	71.00	70.44	54.47	55.13
O & M Expenses	345.83	365.65	386.59	408.68	431.97
Total	3025.30	2965.46	2908.95	2095.82	2095.69

(₹ in lakh)

Asset V					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	763.99	763.99	763.99	192.08	192.08
Interest on Loan	195.53	140.26	86.58	52.16	37.27
Return on Equity	844.82	844.82	844.82	844.82	844.82
Interest on Working Capital	44.34	43.58	42.86	30.66	30.80
O & M Expenses	134.63	142.36	150.52	159.11	168.13
Total	1983.30	1935.00	1888.77	1278.82	1273.09

4. As per Regulation 6 of the 2009 Tariff Regulations, the Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up. Further, as per Regulation 15 of the 2009 Tariff Regulations, the petitioner is required to adjust the yearly impact of MAT rate in the truing up petition for 2009-14 tariff period.

5. The petitioner has filed the instant petition on 18.9.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

6. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the



Electricity Act, 2003. No comments/objections have been received from the public in response to the notice in newspaper. No submissions have been made by the respondents. The hearing in this matter was held on 13.1.2016. The Commission had directed the petitioner to submit additional information regarding the additional capital expenditure works for execution of pile foundation work, tower strengthening work, PLCC and supply of relays through its letter dated 14.1.2016. The petitioner has submitted additional information vide affidavit dated 25.1.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

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

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

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

Capital Cost

9. The petitioner has claimed admitted capital cost of ₹105961.99 lakh for all the assets as on 31.3.2009 for the purpose of tariff determination as mentioned below:-

(₹ in lakh)

Assets	Capital cost admitted as on 31.3.2009
Asset I	8219.37
Asset II & III	62163.50
Asset IV	21109.68
Asset V	14469.44
Total	105961.99

10. 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”.

11. The capital cost of ₹8219.37 lakh for Asset I, ₹62163.50 lakh for Asset II & III, ₹21109.68 lakh for Asset IV and ₹14469.44 lakh for Asset V as admitted by the Commission as on 31.3.2009 has been considered as opening capital cost as on 1.4.2009 for truing up of tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

Additional Capital Expenditure

12. 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, as admitted by the Commission after prudence check at the time of truing up.”

13. The petitioner has submitted that it has incurred an additional capital expenditure of ₹211.02 lakh for Asset I towards replacements of old PLCC and tower strengthening

works, ₹1160.36 lakh for Combined Asset II & III towards pile foundation works, tower strengthening works and replacement of old PLCC, ₹338.31 lakh for Asset IV towards tower strengthening works during the 2009-14 tariff period. The additional capital expenditure for 2009-14 tariff period approved by the Commission vide order dated 23.11.2011 and that claimed by the petitioner is depicted below:-

(₹ in lakh)

Assets	Capital cost admitted as on 31.3.2009	Approved / Claimed	Additional Capital Expenditure								Capital cost as on 31.3.2014
			2009-10	2010-11	2011-12		2012-13		2013-14		
			Add-Cap	Add-Cap	Add-Cap	De-Cap	Add-Cap	De-Cap	Add-Cap	De-Cap	
Asset I	8219.37	Approved	-	-	-	-	289.10	-	-	-	8508.47
		Claimed	-	-	17.32	2.51	3.47	-	192.74	-	8430.39
Asset II & III	62163.50	Approved	-	320.82	-	-	149.19	-	390.54	-	63024.05
		Claimed	107.92	335.15	63.21	13.49	240.44	1.40	438.22	9.69	63323.86
Asset IV	21109.68	Approved	-	-	-	-	-	-	-	-	21109.68
		Claimed	-	-	-	-	-	-	338.31	-	21447.99
Asset V	14469.44	Approved	-	-	-	-	-	-	-	-	14469.44
		Claimed	-	-	-	-	-	-	-	-	14469.44

14. The petitioner has submitted the Auditor's Certificates dated 14.7.2014 and 16.7.2014 certifying the actual capital cost of the transmission assets.

15. The Commission had directed the petitioner to submit additional information regarding the additional capital expenditure works for execution of pile foundation work, tower strengthening work, PLCC and supply of relays in respect of Asset I, II and III through its letter dated 14.1.2016. The petitioner has submitted its reply vide affidavit dated 25.1.2016. The petitioner has submitted that replacement of relays in respect of Asset I, II, III & IV are as per the CEA Regulations 2007, and the same has been approved by NERPC in 15th TCC and 15th NERPC meeting held on 20.8.2015 and 21.8.2015 at Guwahati.

16. Further in case of replacement of PLCC equipments the petitioner has submitted the PLCC equipments installed at Mariani, Kathalguri, Misa, Balipara and Bongaigaon Sub-stations under Kathalguri Transmission System faced number of component failures and tripping due to mall operation of these equipments. The supplier of the PLCC equipment was M/s WSTL which ceased to exist in 2005. Thus in order to keep the tele-protection system healthy for the reliability and stability of the grid the petitioner had to replace PLCC equipments.

17. In case of the tower strengthening works towards Asset I, II and III the petitioner has submitted that the same was approved in 15th NERPC and TCC meeting held on 20.8.2015 and 21.8.2015. Further in case of Asset IV i.e. 400kV Bongaigaon – New Siliguri Line the petitioner has submitted that 4 (four) nos. towers have collapsed on 3.5.2012 after the Commission's order in Petition No. 313/2010. Being an inter-regional asset the petitioner had to execute the tower strengthening works for this asset on priority, and the same was recommended by CEA in its recommendation dated 21.1.2013.

18. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14 tariff period. The capital addition of ₹211.02 lakh for Asset I and ₹1160.36 lakh for Asset II & III is based on actual capital expenditure incurred as per the Auditor Certificate dated 14.7.2014, and is within the scope of work as approved by the Commission in its order dated 23.11.2011 in Petition No. 313/2010. In case of Asset IV the capital addition of ₹338.31 lakh in 2013-14 towards tower strengthening works and is based on actual additional capital expenditure incurred as per the Auditor Certificate dated 14.7.2014 and is in line with the CEA

recommendations. Thus in view of statutory requirement as above, the additional capital expenditure claimed by the petitioner for Asset I, combined Asset II & III and Asset IV is allowed for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations.

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.

Debt: Equity

20. 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.”

21. The debt:equity ratio of 50.00:50.00 for Asset I, 55.82:44.18 for Asset II & III, 66.60:33.40 for Asset IV and 66.60:33.40 for Asset V was admitted by the Commission vide order dated 23.11.2011 in Petition No. 313/2010 as on 31.3.2009 and the same has been considered as on 1.4.2009 for determination of tariff in accordance with the

Regulation 12 of the 2009 Tariff Regulations. In respect of the additional capitalization, debt: equity ratio of 70:30 has been considered in line with the 2009 Tariff Regulations.

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

(₹ in lakh)

Funding	Capital cost as on 31.3.2009	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Asset I						
Debt	4109.69	50.00	147.71	70.00	4257.40	50.50
Equity	4109.69	50.00	63.31	30.00	4172.99	49.50
Total	8219.37	100.00	211.02	100.00	8430.39	100.00
Asset II & III						
Debt	34698.59	55.82	812.25	70.00	35510.84	56.08
Equity	27464.91	44.18	348.11	30.00	27813.02	43.92
Total	62163.50	100.00	1160.36	100.00	63323.86	100.00
Asset IV						
Debt	14059.09	66.60	236.82	70.00	14295.91	66.65
Equity	7050.59	33.40	101.49	30.00	7152.08	33.35
Total	21109.68	100.00	338.31	100.00	21447.99	100.00
Asset V						
Debt	9636.67	66.60	0.00	70.00	9636.67	66.60
Equity	4832.77	33.40	0.00	30.00	4832.77	33.40
Total	14469.44	100.00	0.00	100.00	14469.44	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 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%

25. The petitioner has claimed the additional capital expenditure in the debt:equity ratio of 70:30, which is in line with Regulation 12 of the 2009 Tariff Regulations.

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

(₹ in lakh)

Asset I					
Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	718.41	718.41	718.41	725.99	733.58
Claimed by the petitioner	767.44	795.55	796.76	797.29	812.65
Allowed after true up in this order	767.43	795.57	796.76	797.29	812.67



(₹ in lakh)

Asset II & III					
Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	4801.14	4809.55	4817.97	4821.88	4836.03
Claimed by the petitioner	5131.82	5332.66	5349.08	5357.47	5441.53
Allowed after true up in this order	5131.70	5332.74	5349.06	5357.45	5441.65

(₹ in lakh)

Asset IV					
Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	1232.51	1232.51	1232.51	1232.51	1232.51
Claimed by the petitioner	1316.63	1364.85	1366.19	1366.19	1392.57
Allowed after true up in this order	1316.60	1364.87	1366.19	1366.19	1392.60

(₹ in lakh)

Asset V					
Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	844.82	844.82	844.82	844.82	844.82
Claimed by the petitioner	902.47	935.53	936.45	936.45	947.71
Allowed after true up in this order	902.45	935.54	936.44	936.44	947.73

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

Interest on Loan (“IoL”)

27. 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”.



28. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, the IoL has been calculated based on actual interest rate submitted by the petitioner, in accordance with the Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest is placed in Annexure-1. The IoL worked out is as follows:-

(₹ in lakh)

Asset I					
Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	71.62	62.78	53.94	51.06	47.75
Claimed by the petitioner	71.62	62.78	54.24	45.76	40.90
Allowed after true up in this order	71.62	62.78	54.24	45.75	40.90

(₹ in lakh)

Asset II & III					
Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	683.40	484.16	286.80	150.34	89.32
Claimed by the petitioner	673.55	474.59	287.39	152.32	90.83
Allowed after true up in this order	673.55	474.59	287.39	152.32	90.83

(₹ in lakh)

Asset IV					
Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	286.13	207.11	130.23	79.23	55.15
Claimed by the petitioner	276.19	198.49	131.84	77.84	54.70
Allowed after true up in this order	276.19	198.49	131.84	77.84	54.70

(₹ in lakh)

Asset V					
Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	195.53	140.26	86.58	52.16	37.27
Claimed by the petitioner	188.73	134.42	87.65	51.24	33.48
Allowed after true up in this order	188.77	134.46	87.69	51.27	33.51

The difference in the approved IoL and that allowed after trueing up is on account of change in the weighted average rate of interest which is computed based on actual loan portfolio and rate of interest.

Depreciation

29. 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					
Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	144.98	144.98	144.98	151.82	159.05
Claimed by the petitioner	144.97	144.97	145.31	145.75	150.65
Allowed after true up in this order	144.98	144.98	145.31	145.74	150.65

(₹ in lakh)

Asset II & III					
Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	3210.76	3219.23	3227.70	1163.04	1175.82
Claimed by the petitioner	3213.62	3225.32	3235.73	1171.86	1187.67
Allowed after true up in this order	3213.62	3225.32	3235.74	1171.85	1187.66

(₹ in lakh)

Asset IV					
Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	1089.18	1089.18	1089.18	320.92	320.92
Claimed by the petitioner	1089.19	1089.19	1089.19	320.92	328.93
Allowed after true up in this order	1089.19	1089.19	1089.19	320.92	328.93

(₹ in lakh)

Asset V					
Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	763.99	763.99	763.99	192.08	192.08
Claimed by the petitioner	763.99	763.99	763.99	192.08	192.08
Allowed after true up in this order	763.99	763.99	763.99	192.08	192.08



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

Operation & Maintenance Expenses (O&M Expenses)

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

(₹ in lakh)

Asset I					
O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	138.80	146.76	155.17	164.02	173.34
Claimed by the petitioner	138.80	146.76	155.17	164.02	173.34
Allowed after true up in this order	138.80	146.76	155.17	164.02	173.34

(₹ in lakh)

Asset II & III					
O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	1502.32	1588.39	1679.31	1775.29	1876.58
Claimed by the petitioner	1502.32	1588.39	1679.31	1775.29	1876.58
Allowed after true up in this order	1502.32	1588.39	1679.31	1775.29	1876.58

(₹ in lakh)

Asset IV					
O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	345.83	365.65	386.59	408.68	431.97
Claimed by the petitioner	345.83	365.65	386.59	408.68	431.97
Allowed after true up in this order	345.83	365.65	386.59	408.68	431.97

(₹ in lakh)

Asset V					
O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	134.63	142.36	150.52	159.11	168.13



Asset V					
O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed by the petitioner	134.63	142.36	150.52	159.11	168.13
Allowed after true up in this order	134.63	142.36	150.52	159.11	168.13

Interest on Working Capital (IWC)

31. 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					
Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	26.43	26.64	26.88	27.56	28.27
Claimed by the petitioner	27.45	28.25	28.53	28.81	29.60
Allowed after true up in this order	27.45	28.25	28.53	28.81	29.60

(₹ in lakh)

Asset II & III					
Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	256.38	256.88	257.67	216.67	221.03
Claimed by the petitioner	263.12	267.71	268.92	228.06	233.93
Allowed after true up in this order	263.12	267.71	268.92	228.06	233.93

(₹ in lakh)

Asset IV					
Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	71.65	71.00	70.44	54.47	55.13
Claimed by the petitioner	73.20	73.58	73.26	57.23	58.63
Allowed after true up in this order	73.20	73.57	73.26	57.23	58.63

(₹ in lakh)

Asset V					
Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
As approved vide Order dated 23.11.2011	44.34	43.58	42.86	30.66	30.80
Claimed by the petitioner	45.40	45.34	44.80	32.55	32.86
Allowed after true up in this order	45.40	45.35	44.80	32.55	32.86



The difference in the approved IWC and that allowed after truing up is on account of change in the receivables during the 2009-14 tariff period.

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)

Asset I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	8219.37	8219.37	8219.37	8234.18	8237.65
Additional Capitalisation	0.00	0.00	14.81	3.47	192.74
Closing Gross Block	8219.37	8219.37	8234.18	8237.65	8430.39
Average Gross Block	8219.37	8219.37	8226.78	8235.92	8334.02
Rate of Depreciation (%)	1.76	1.76	1.77	1.77	1.81
Depreciable Value	7397.43	7397.43	7404.10	7418.99	7502.18
Balance useful life of the asset	22	21	20	19	18
Elapsed life	13	14	15	16	17
Remaining Depreciable Value	3189.46	3044.49	2906.18	2769.09	2711.65
Depreciation during the year	144.98	144.98	145.31	145.74	150.65
Cumulative depreciation (incl. of AAD)	4352.95	4497.92	4641.86	4787.60	4938.25
Interest on Loan					
Gross Normative Loan	4109.69	4109.69	4109.69	4120.05	4122.48
Cumulative Repayments upto Previous Year	2863.06	3008.04	3153.01	3298.32	3444.06
Net Loan-Opening	1246.63	1101.65	956.67	821.73	678.42
Additions	0.00	0.00	10.37	2.43	134.92
Repayment during the year	144.98	144.98	145.31	145.74	150.65
Net Loan-Closing	1101.65	956.67	821.73	678.42	662.69
Average Loan	1174.14	1029.16	889.20	750.08	670.55
Weighted Average Rate of Interest on Loan (%)	6.1000	6.1000	6.1000	6.1000	6.1000
Interest on Loan	71.62	62.78	54.24	45.75	40.90
Return on Equity					
Opening Equity	4109.69	4109.69	4109.69	4114.13	4115.17
Additions	0.00	0.00	4.44	1.04	57.82

Asset I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Closing Equity	4109.69	4109.69	4114.13	4115.17	4172.99
Average Equity	4109.69	4109.69	4111.91	4114.65	4144.08
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity	767.43	795.57	796.76	797.29	812.67
Interest on Working Capital					
O & M Expenses	11.57	12.23	12.93	13.67	14.45
Maintenance Spares	20.82	22.01	23.28	24.60	26.00
Receivables	191.71	196.39	196.67	196.94	201.19
Total Working Capital	224.10	230.63	232.87	235.21	241.64
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	27.45	28.25	28.53	28.81	29.60
Annual Transmission Charges					
Depreciation	144.98	144.98	145.31	145.74	150.65
Interest on Loan	71.62	62.78	54.24	45.75	40.90
Return on Equity	767.43	795.57	796.76	797.29	812.67
Interest on Working Capital	27.45	28.25	28.53	28.81	29.60
O & M Expenses	138.80	146.76	155.17	164.02	173.34
Total	1150.27	1178.33	1180.01	1181.62	1207.17

(₹ in lakh)

Asset II & III					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	62163.50	62271.42	62606.57	62656.29	62895.33
Additional Capitalisation	107.92	335.15	49.72	239.04	428.53
Closing Gross Block	62271.42	62606.57	62656.29	62895.33	63323.86
Average Gross Block	62217.46	62439.00	62631.43	62775.81	63109.60
Rate of Depreciation (%)	5.17	5.17	5.17	1.87	1.88
Depreciable Value	55949.14	56197.08	56472.53	56474.03	56859.63
Balance useful life of the asset	23	22	21	20	19
Elapsed life	9	10	11	12	13
Remaining Depreciable Value	32609.12	29594.88	26542.75	23436.95	22565.51
Depreciation during the year	3213.62	3225.32	3235.74	1171.85	1187.66
Cumulative depreciation (incl. of AAD)	26553.64	29778.96	33008.27	34179.38	35361.76
Interest on Loan					
Gross Normative Loan	34698.59	34774.13	35008.74	35043.54	35210.87
Cumulative Repayments upto	22210.38	25424.00	28649.32	31885.06	33056.91



Asset II & III					
Previous Year					
Net Loan-Opening	12488.21	9350.13	6359.42	3158.48	2153.96
Additions	75.54	234.61	34.80	167.33	299.97
Repayment during the year	3213.62	3225.32	3235.74	1171.85	1187.66
Net Loan-Closing	9350.13	6359.42	3158.48	2153.96	1266.27
Average Loan	10919.17	7854.77	4758.95	2656.22	1710.12
Weighted Average Rate of Interest on Loan (%)	6.1685	6.0421	6.0390	5.7344	5.3116
Interest on Loan	673.55	474.59	287.39	152.32	90.83
Return on Equity					
Opening Equity	27464.91	27497.29	27597.83	27612.75	27684.46
Additions	32.38	100.55	14.92	71.71	128.56
Closing Equity	27497.29	27597.83	27612.75	27684.46	27813.02
Average Equity	27481.10	27547.56	27605.29	27648.60	27748.74
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity	5131.70	5332.74	5349.06	5357.45	5441.65
Interest on Working Capital					
O & M Expenses	125.19	132.37	139.94	147.94	156.38
Maintenance Spares	225.35	238.26	251.90	266.29	281.49
Receivables	1797.39	1814.79	1803.40	1447.49	1471.78
Total Working Capital	2147.93	2185.42	2195.24	1861.73	1909.64
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	263.12	267.71	268.92	228.06	233.93
Annual Transmission Charges					
Depreciation	3213.62	3225.32	3235.74	1171.85	1187.66
Interest on Loan	673.55	474.59	287.39	152.32	90.83
Return on Equity	5131.70	5332.74	5349.06	5357.45	5441.65
Interest on Working Capital	263.12	267.71	268.92	228.06	233.93
O & M Expenses	1502.32	1588.39	1679.31	1775.29	1876.58
Total	10784.31	10888.75	10820.42	8684.97	8830.65

(₹ in lakh)

Asset IV					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	21109.68	21109.68	21109.68	21109.68	21109.68
Additional Capitalisation	0.00	0.00	0.00	0.00	338.31
Closing Gross Block	21109.68	21109.68	21109.68	21109.68	21447.99



Asset IV					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Average Gross Block	21109.68	21109.68	21109.68	21109.68	21278.84
Rate of Depreciation (%)	5.16	5.16	5.16	1.52	1.55
Depreciable Value	18896.21	18896.21	18896.21	18896.21	19048.45
Balance useful life of the asset	23	22	21	20	19
Elapsed life	9	10	11	12	13
Remaining Depreciable Value	9685.97	8596.78	7507.58	6418.39	6249.71
Depreciation during the year	1089.19	1089.19	1089.19	320.92	328.93
Cumulative depreciation (incl. of AAD)	10299.42	11388.62	12477.81	12798.73	13127.66
Interest on Loan					
Gross Normative Loan	14059.09	14059.09	14059.09	14059.09	14059.09
Cumulative Repayments upto Previous Year	9210.23	10299.42	11388.62	12477.81	12798.73
Net Loan-Opening	4848.86	3759.67	2670.47	1581.28	1260.36
Additions	0.00	0.00	0.00	0.00	236.82
Repayment during the year	1089.19	1089.19	1089.19	320.92	328.93
Net Loan-Closing	3759.67	2670.47	1581.28	1260.36	1168.24
Average Loan	4304.26	3215.07	2125.87	1420.82	1214.30
Weighted Average Rate of Interest on Loan (%)	6.4166	6.1737	6.2017	5.4787	4.5044
Interest on Loan	276.19	198.49	131.84	77.84	54.70
Return on Equity					
Opening Equity	7050.59	7050.59	7050.59	7050.59	7050.59
Additions	0.00	0.00	0.00	0.00	101.49
Closing Equity	7050.59	7050.59	7050.59	7050.59	7152.08
Average Equity	7050.59	7050.59	7050.59	7050.59	7101.34
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity	1316.60	1364.87	1366.19	1366.19	1392.60
Interest on Working Capital					
O & M Expenses	28.82	30.47	32.21	34.06	36.00
Maintenance Spares	51.87	54.85	57.99	61.30	64.79
Receivables	516.83	515.29	507.84	371.81	377.80
Total Working Capital	597.52	600.61	598.04	467.16	478.59
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	73.20	73.57	73.26	57.23	58.63
Annual Transmission Charges					
Depreciation	1089.19	1089.19	1089.19	320.92	328.93
Interest on Loan	276.19	198.49	131.84	77.84	54.70
Return on Equity	1316.60	1364.87	1366.19	1366.19	1392.60



Asset IV					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Interest on Working Capital	73.20	73.57	73.26	57.23	58.63
O & M Expenses	345.82	365.64	386.57	408.66	431.95
Total	3100.99	3091.77	3047.05	2230.84	2266.81

(₹ in lakh)

Asset V					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Average Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Rate of Depreciation (%)	5.28	5.28	5.28	1.33	1.33
Depreciable Value	13022.50	13022.50	13022.50	13022.50	13022.50
Balance useful life of the asset	26	25	24	23	22
Elapsed life	9	10	11	12	13
Remaining Depreciable Value	6709.74	5945.75	5181.77	4417.78	4225.70
Depreciation during the year	763.99	763.99	763.99	192.08	192.08
Cumulative depreciation (incl. of AAD)	7076.75	7840.73	8604.72	8796.80	8988.87
Interest on Loan					
Gross Normative Loan	9636.67	9636.67	9636.67	9636.67	9636.67
Cumulative Repayments upto Previous Year	6312.76	7076.75	7840.73	8604.72	8796.80
Net Loan-Opening	3323.91	2559.92	1795.94	1031.95	839.87
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	763.99	763.99	763.99	192.08	192.08
Net Loan-Closing	2559.92	1795.94	1031.95	839.87	647.80
Average Loan	2941.92	2177.93	1413.94	935.91	743.83
Weighted Average Rate of Interest on Loan (%)	6.4166	6.1737	6.2016	5.4785	4.5047
Interest on Loan	188.77	134.46	87.69	51.27	33.51
Return on Equity					
Opening Equity	4832.77	4832.77	4832.77	4832.77	4832.77
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	4832.77	4832.77	4832.77	4832.77	4832.77
Average Equity	4832.77	4832.77	4832.77	4832.77	4832.77
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.610
Return on Equity	902.45	935.54	936.44	936.44	947.73



Asset V					
Interest on Working Capital					
O & M Expenses	11.22	11.86	12.54	13.26	14.01
Maintenance Spares	20.19	21.35	22.58	23.87	25.22
Receivables	339.21	336.95	330.57	228.58	229.05
Total Working Capital	370.62	370.17	365.69	265.70	268.28
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	45.40	45.35	44.80	32.55	32.86
Annual Transmission Charges					
Depreciation	763.99	763.99	763.99	192.08	192.08
Interest on Loan	188.77	134.46	87.69	51.27	33.51
Return on Equity	902.45	935.54	936.44	936.44	947.73
Interest on Working Capital	45.40	45.35	44.80	32.55	32.86
O & M Expenses	134.63	142.36	150.52	159.11	168.13
Total	2035.24	2021.69	1983.44	1371.45	1374.31

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Asset I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	156.72	157.75	157.75	157.75	157.75
Interest on Loan	36.43	27.62	18.00	8.37	1.78
Return on Equity	819.40	820.48	820.48	820.48	820.48
Interest on Working Capital	32.00	32.14	32.21	32.30	32.47
O & M Expenses	157.35	162.66	168.02	173.58	179.37
Total	1201.90	1200.65	1196.46	1192.48	1191.85

(₹ in lakh)

Asset II & III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1209.55	1221.39	1221.39	1221.39	1221.39
Interest on Loan	40.82	7.50	0.00	0.00	0.00
Return on Equity	5467.29	5480.44	5480.44	5480.44	5480.44
Interest on Working Capital	249.64	252.62	255.70	259.07	262.55
O & M Expenses	1719.99	1777.37	1836.24	1897.17	1960.15
Total	8687.29	8739.32	8793.77	8858.07	8924.53



(₹ in lakh)

Asset IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	337.39	337.39	337.39	337.39	337.39
Interest on Loan	40.28	20.43	6.26	1.50	0.00
Return on Equity	1402.52	1402.52	1402.52	1402.52	1402.52
Interest on Working Capital	62.79	63.06	63.48	64.14	64.91
O & M Expenses	394.81	408.03	421.52	435.51	449.96
Total	2237.79	2231.43	2231.17	2241.06	2254.78

(₹ in lakh)

Asset V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	192.08	192.08	192.08	192.08	192.08
Interest on Loan	22.22	11.08	3.22	0.68	0.00
Return on Equity	947.71	947.71	947.71	947.71	947.71
Interest on Working Capital	35.13	35.16	35.27	35.50	35.80
O & M Expenses	151.81	156.96	162.12	167.49	173.07
Total	1348.95	1342.99	1340.40	1343.46	1348.66

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

(₹ in lakh)

Asset I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	13.11	13.56	14.00	14.47	14.95
Maintenance Spares	23.60	24.40	25.20	26.04	26.91
Receivables	200.32	200.11	199.36	198.73	198.64
Total working capital	237.03	238.07	238.56	239.24	240.50
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	32.00	32.14	32.21	32.30	32.47

(₹ in lakh)

Asset II & III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	143.33	148.11	153.02	158.10	163.35
Maintenance Spares	258.00	266.61	275.44	284.58	294.02



Asset II & III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Receivables	1447.88	1456.56	1465.63	1476.35	1487.42
Total working capital	1849.21	1871.28	1894.09	1919.03	1944.79
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	249.64	252.62	255.70	259.07	262.55

(₹ in lakh)

Asset IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	32.90	34.00	35.13	36.29	37.50
Maintenance Spares	59.22	61.20	63.23	65.33	67.49
Receivables	372.97	371.91	371.86	373.51	375.80
Total working capital	465.09	467.11	470.22	475.13	480.79
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	62.79	63.06	63.48	64.14	64.91

(₹ in lakh)

Asset V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	12.65	13.08	13.51	13.96	14.42
Maintenance Spares	22.77	23.54	24.32	25.12	25.96
Receivables	224.83	223.83	223.40	223.91	224.78
Total working capital	260.25	260.45	261.23	262.99	265.16
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	35.13	35.16	35.27	35.50	35.80

Capital Cost

35. 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;”

36. The capital cost of ₹107671.68 lakh worked out by the Commission for all the assets 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 as mentioned below:-

(₹ in lakh)

Assets	Capital cost admitted as on 31.3.2014
Asset I	8430.39
Asset II & III	63323.86
Asset IV	21447.99
Asset V	14469.44
Total	107671.68

Additional Capital Expenditure

37. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

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

- (i) Undischarged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation;
- (iv) Liabilities to meet award of arbitration or for compliance of the Order or decree of a court of law; and
- (v) Change in law or compliance of any existing law:”

38. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines

“Cut - off Date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut - off date shall be 31st March of the year closing after three years of the year of commercial operation:”

39. The petitioner has projected an additional capital expenditure amounting to ₹36.63 lakh during 2014-15 for Asset I towards retention payments and ₹447.23 lakh during 2014-15 for Combined Asset II & III towards tower strengthening works and balance and retention payment towards relays, PLCC and pile foundations.

40. The additional capital expenditure of ₹36.63 for Asset I is being allowed as the same is towards retention payments for works already executed and is within the limit of additional capital expenditure allowed by the Commission in its order in Petition No. 313/2010.

41. In case of Asset II & III, the petitioner has projected an additional expenditure of ₹447.23 lakh during 2014-15 towards strengthening of suspension towers and balance and retention payments for tower strengthening works, relays, PLCC and pile foundations. The Commission notes that the estimated expenditure during 2014-15 is too much in excess of the expenditure allowed by the Commission, vide order dated 23.11.2011, towards same set of activities. However in view of the submissions made by the petitioner as discussed in Para 15, 16 & 17, we are allowing the petitioner's claim of ₹447.23 lakh for Combined Asset II & III towards additional capital expenditure during 2014-15, subject to true up on actual basis.

Debt: Equity

42. Clause (1), (3) and (5) of Regulation 19 of the 2014 Tariff Regulations provide as under:-*

“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:”

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

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

43. The debt:equity ratio has been considered as 50.50:49.50 for Asset I, 56.08:43.92 for Combined Asset II & III, 66.65:33.35 for Asset IV and 66.60:33.40 for Asset V as on 31.3.2014, which is in line with the 2014 Tariff Regulations.

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

(₹ in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2019	(%)
Asset I						
Debt	4257.40	50.50	25.64	70.00	4283.04	50.58
Equity	4172.99	49.50	10.99	30.00	4183.98	49.42
Total	8430.39	100.00	36.63	100.00	8467.02	100.00
Asset II & III						
Debt	35510.84	56.08	313.06	70.00	35823.90	56.18
Equity	27813.02	43.92	134.17	30.00	27947.19	43.82
Total	63323.86	100.00	447.23	100.00	63771.09	100.00
Asset IV						
Debt	14295.91	66.65	0.00	70.00	14295.91	66.65
Equity	7152.08	33.35	0.00	30.00	7152.08	33.35
Total	21447.99	100.00	0.00	100.00	21447.99	100.00
Asset V						
Debt	9636.67	66.60	0.00	70.00	9636.67	66.60
Equity	4832.77	33.40	0.00	30.00	4832.77	33.40
Total	14469.44	100.00	0.00	100.00	14469.44	100.00

Return on Equity (ROE)

45. 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.”

46. 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)

Asset I					
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	4172.99	4183.98	4183.98	4183.98	4183.98
Additions	10.99	0.00	0.00	0.00	0.00
Closing Equity	4183.98	4183.98	4183.98	4183.98	4183.98
Average Equity	4178.49	4183.98	4183.98	4183.98	4183.98
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500



Asset I					
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
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	819.42	820.50	820.50	820.50	820.50

(₹ in lakh)

Asset II & III					
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	27813.02	27947.19	27947.19	27947.19	27947.19
Additions	134.17	0.00	0.00	0.00	0.00
Closing Equity	27947.19	27947.19	27947.19	27947.19	27947.19
Average Equity	27880.10	27947.19	27947.19	27947.19	27947.19
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	5467.41	5480.57	5480.57	5480.57	5480.57

(₹ in lakh)

Asset IV					
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	7152.08	7152.08	7152.08	7152.08	7152.08
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	7152.08	7152.08	7152.08	7152.08	7152.08
Average Equity	7152.08	7152.08	7152.08	7152.08	7152.08
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	1402.56	1402.56	1402.56	1402.56	1402.56

(₹ in lakh)

Asset V					
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	4832.77	4832.77	4832.77	4832.77	4832.77
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	4832.77	4832.77	4832.77	4832.77	4832.77
Average Equity	4832.77	4832.77	4832.77	4832.77	4832.77
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	947.73	947.73	947.73	947.73	947.73



Interest on Loan (IoL)

47. 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.”

48. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2014. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed in Annexure-2 and the IoL has been worked out and allowed as follows:-

(₹ in lakh)

Asset I					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	4257.40	4283.04	4283.04	4283.04	4283.04
Cumulative Repayment upto Previous Year	3594.71	3751.43	3909.18	4066.92	4224.67
Net Loan-Opening	662.69	531.61	373.86	216.12	58.37
Additions	25.64	0.00	0.00	0.00	0.00
Repayment during the year	156.72	157.75	157.75	157.75	157.75
Net Loan-Closing	531.61	373.86	216.12	58.37	0.00
Average Loan	597.15	452.74	294.99	137.24	29.18

Asset I					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Weighted Average Rate of Interest on Loan (%)	6.1000	6.1000	6.1000	6.1000	6.1000
Interest on Loan	36.43	27.62	17.99	8.37	1.78

(₹ in lakh)

Asset II & III					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	35510.84	35823.90	35823.90	35823.90	35823.90
Cumulative Repayment upto Previous Year	34244.57	35454.12	35823.90	35823.90	35823.90
Net Loan-Opening	1266.27	369.78	0.00	0.00	0.00
Additions	313.06	0.00	0.00	0.00	0.00
Repayment during the year	1209.55	369.78	0.00	0.00	0.00
Net Loan-Closing	369.78	0.00	0.00	0.00	0.00
Average Loan	818.03	184.89	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	4.9903	4.0579	1.9302	1.9303	1.9303
Interest on Loan	40.82	7.50	0.00	0.00	0.00

(₹ in lakh)

Asset IV					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	14295.91	14295.91	14295.91	14295.91	14295.91
Cumulative Repayment upto Previous Year	13127.66	13465.05	13802.44	14139.83	14295.91
Net Loan-Opening	1168.24	830.85	493.46	156.07	0.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	337.39	337.39	337.39	156.07	0.00
Net Loan-Closing	830.85	493.46	156.07	0.00	0.00
Average Loan	999.55	662.16	324.77	78.04	0.00
Weighted Average Rate of Interest on Loan (%)	4.0311	3.0864	1.9295	1.9294	1.9293
Interest on Loan	40.29	20.44	6.27	1.51	0.00

(₹ in lakh)

Asset V					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	9636.67	9636.67	9636.67	9636.67	9636.67
Cumulative Repayment upto Previous Year	8988.87	9180.95	9373.03	9565.11	9636.67
Net Loan-Opening	647.80	455.72	263.64	71.56	0.00
Additions	0.00	0.00	0.00	0.00	0.00



Asset V					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Repayment during the year	192.08	192.08	192.08	71.56	0.00
Net Loan-Closing	455.72	263.64	71.56	0.00	0.00
Average Loan	551.76	359.68	167.60	35.78	0.00
Weighted Average Rate of Interest on Loan (%)	4.0330	3.0880	1.9289	1.9287	1.9283
Interest on Loan	22.25	11.11	3.23	0.69	0.00

Depreciation

49. 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."

50. 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)

Asset I					
Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	8430.39	8467.02	8467.02	8467.02	8467.02



Asset I					
Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Additional Capitalization	36.63	0.00	0.00	0.00	0.00
Closing Gross Block	8467.02	8467.02	8467.02	8467.02	8467.02
Average Gross Block	8448.71	8467.02	8467.02	8467.02	8467.02
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	1.85	1.86	1.86	1.86	1.86
Elapsed life	18	19	20	21	22
Balance Useful life of the asset	17	16	15	14	13
Remaining Depreciable Value	2664.22	2523.98	2366.23	2208.48	2050.73
Depreciation during the year	156.72	157.75	157.75	157.75	157.75

(₹ in lakh)

Asset II & III					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	35511.92	35824.98	35824.98	35824.98	35824.98
Cumulative Repayment upto Previous Year	34244.57	35454.12	35824.98	35824.98	35824.98
Net Loan-Opening	1267.35	370.86	0.00	0.00	0.00
Additions	313.06	0.00	0.00	0.00	0.00
Repayment during the year	1209.55	370.86	0.00	0.00	0.00
Net Loan-Closing	370.86	0.00	0.00	0.00	0.00
Average Loan	819.10	185.43	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	4.9903	4.0579	1.9302	1.9303	1.9303
Interest on Loan	40.88	7.52	0.00	0.00	0.00

(₹ in lakh)

Asset IV					
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	14295.86	14295.86	14295.86	14295.86	14295.86
Cumulative Repayment upto Previous Year	13127.66	13465.05	13802.44	14139.83	14295.86
Net Loan-Opening	1168.20	830.81	493.42	156.03	0.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	337.39	337.39	337.39	156.03	0.00
Net Loan-Closing	830.81	493.42	156.03	0.00	0.00
Average Loan	999.51	662.12	324.73	78.02	0.00
Weighted Average Rate of Interest on Loan (%)	4.0311	3.0864	1.9295	1.9294	1.9293
Interest on Loan	40.29	20.44	6.27	1.51	0.00



(₹ in lakh)

Asset V					
Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Average Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	1.33	1.33	1.33	1.33	1.33
Elapsed life	14	15	16	17	18
Balance Useful life of the asset	21	20	19	18	17
Remaining Depreciable Value	4033.63	3841.55	3649.47	3457.39	3265.32
Depreciation during the year	192.08	192.08	192.08	192.08	192.08

Operation & Maintenance Expenses (O&M Expenses)

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

Asset I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
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)	162.864	162.864	162.864	162.864	162.864
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	157.35	162.66	168.02	173.58	179.37

Asset II & III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	15	15	15	15	15
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
220 kV Bays:					
No. of Bays	7	7	7	7	7
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.10
132 kV Bays:					
No. of Bays	3	3	3	3	3
Norms (₹ lakh/Bay)	30.15	31.15	32.18	33.25	34.36
Line: S/C Single Conductor:					



Asset II & III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Line Length (km)	8.623	8.623	8.623	8.623	8.623
Norms (₹ lakh/km)	0.202	0.209	0.216	0.223	0.230
Line: D/C Twin/Triple Conductor:					
Line Length (km)	605.128	605.128	605.128	605.128	605.128
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	1719.99	1777.37	1836.24	1897.17	1960.15

Asset IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
Line: D/C Twin/Triple Conductor:					
Line Length (km)	217.25	217.25	217.25	217.25	217.25
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	394.80	408.01	421.50	435.50	449.94

Asset V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Line: D/C Twin/Triple Conductor:					
Line Length (km)	214.725	214.725	214.725	214.725	214.725
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	151.81	156.96	162.12	167.49	173.07

52. The petitioner has further submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also prayed that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission asset as per prevailing norms.

Interest on Working Capital (IWC)

53. 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;”

54. 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%.

55. 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)

Asset I					
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	13.11	13.56	14.00	14.47	14.95
Maintenance Spares	23.60	24.40	25.20	26.04	26.91
Receivables	200.32	200.11	199.41	198.75	198.64
Total	237.04	238.07	238.62	239.25	240.50
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	32.00	32.14	32.21	32.30	32.47

(₹ in lakh)

Asset II & III					
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	143.33	148.11	153.02	158.10	163.35
Maintenance Spares	258.00	266.61	275.44	284.58	294.02
Receivables	1447.90	1456.58	1465.65	1476.37	1487.44
Total	1849.23	1871.30	1894.11	1919.04	1944.81
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	249.65	252.62	255.70	259.07	262.55

(₹ in lakh)

Asset IV					
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	32.90	34.00	35.13	36.29	37.50
Maintenance Spares	59.22	61.20	63.23	65.32	67.49
Receivables	372.97	371.91	371.87	373.51	375.80
Total	465.09	467.11	470.22	475.13	480.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	62.79	63.06	63.48	64.14	64.91

(₹ in lakh)

Asset V					
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	12.65	13.08	13.51	13.96	14.42
Maintenance Spares	22.77	23.54	24.32	25.12	25.96
Receivables	224.83	223.84	223.40	223.91	224.78
Total	260.26	260.46	261.23	262.99	265.16
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	35.13	35.16	35.27	35.50	35.80

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Asset I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	8430.39	8467.02	8467.02	8467.02	8467.02
Additional Capitalisation	36.63	0.00	0.00	0.00	0.00
Closing Gross Block	8467.02	8467.02	8467.02	8467.02	8467.02
Average Gross Block	8448.71	8467.02	8467.02	8467.02	8467.02



Asset I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Depreciation (%)	1.85	1.86	1.86	1.86	1.86
Depreciable Value	7690.57	7636.80	7620.32	7620.32	7620.32
Balance useful life of the asset	17	16	15	14	13
Elapsed life	18	19	20	21	22
Remaining Depreciable Value	2664.22	2523.98	2366.23	2208.48	2050.73
Depreciation during the year	156.72	157.75	157.75	157.75	157.75
Cumulative depreciation (incl. of AAD)	5094.96	5252.71	5410.46	5568.21	5725.96
Interest on Loan					
Gross Normative Loan	4257.40	4283.04	4283.04	4283.04	4283.04
Cumulative Repayments upto Previous Year	3594.71	3751.43	3909.18	4066.92	4224.67
Net Loan-Opening	662.69	531.61	373.86	216.12	58.37
Additions	25.64	0.00	0.00	0.00	0.00
Repayment during the year	156.72	157.75	157.75	157.75	157.75
Net Loan-Closing	531.61	373.86	216.12	58.37	0.00
Average Loan	597.15	452.74	294.99	137.24	29.18
Weighted Average Rate of Interest on Loan (%)	6.1000	6.1000	6.1000	6.1000	6.1000
Interest on Loan	36.43	27.62	17.99	8.37	1.78
Return on Equity					
Opening Equity	4172.99	4183.98	4183.98	4183.98	4183.98
Additions	10.99	0.00	0.00	0.00	0.00
Closing Equity	4183.98	4183.98	4183.98	4183.98	4183.98
Average Equity	4178.49	4183.98	4183.98	4183.98	4183.98
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	819.42	820.50	820.50	820.50	820.50
Interest on Working Capital					
O & M Expenses	13.11	13.56	14.00	14.47	14.95
Maintenance Spares	23.60	24.40	25.20	26.04	26.91
Receivables	200.32	200.11	199.41	198.75	198.64
Total Working Capital	237.04	238.07	238.62	239.25	240.50
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	32.00	32.14	32.21	32.30	32.47
Annual Transmission Charges					
Depreciation	156.72	157.75	157.75	157.75	157.75
Interest on Loan	36.43	27.62	17.99	8.37	1.78
Return on Equity	819.42	820.50	820.50	820.50	820.50
Interest on Working Capital	32.00	32.14	32.21	32.30	32.47

Asset I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	157.35	162.66	168.02	173.58	179.37
Total	1201.92	1200.67	1196.48	1192.50	1191.86

(₹ in lakh)

Asset II & III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	63323.86	63771.09	63771.09	63771.09	63771.09
Additional Capitalisation	447.23	0.00	0.00	0.00	0.00
Closing Gross Block	63771.09	63771.09	63771.09	63771.09	63771.09
Average Gross Block	63547.48	63771.09	63771.09	63771.09	63771.09
Rate of Depreciation (%)	1.90	1.92	1.92	1.92	1.92
Depreciable Value	57338.99	57548.66	57347.41	57347.41	57347.41
Balance useful life of the asset	18	17	16	15	14
Elapsed life	14	15	16	17	18
Remaining Depreciable Value	21771.95	20763.65	19542.26	18320.86	17099.47
Depreciation during the year	1209.55	1221.39	1221.39	1221.39	1221.39
Cumulative depreciation (incl. of AAD)	36571.31	37792.70	39014.09	40235.49	41456.88
Interest on Loan					
Gross Normative Loan	35510.84	35823.90	35823.90	35823.90	35823.90
Cumulative Repayments upto Previous Year	34244.57	35454.12	35823.90	35823.90	35823.90
Net Loan-Opening	1266.27	369.78	0.00	0.00	0.00
Additions	313.06	0.00	0.00	0.00	0.00
Repayment during the year	1209.55	369.78	0.00	0.00	0.00
Net Loan-Closing	369.78	0.00	0.00	0.00	0.00
Average Loan	818.03	184.89	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	4.9903	4.0579	1.9302	1.9303	1.9303
Interest on Loan	40.82	7.50	0.00	0.00	0.00
Return on Equity					
Opening Equity	27813.02	27947.19	27947.19	27947.19	27947.19
Additions	134.17	0.00	0.00	0.00	0.00
Closing Equity	27947.19	27947.19	27947.19	27947.19	27947.19
Average Equity	27880.10	27947.19	27947.19	27947.19	27947.19
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	5467.41	5480.57	5480.57	5480.57	5480.57
Interest on Working Capital					
O & M Expenses	143.33	148.11	153.02	158.10	163.35



Asset II & III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	258.00	266.61	275.44	284.58	294.02
Receivables	1447.90	1456.58	1465.65	1476.37	1487.44
Total Working Capital	1849.23	1871.30	1894.11	1919.04	1944.81
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	249.65	252.62	255.70	259.07	262.55
Annual Transmission Charges					
Depreciation	1209.55	1221.39	1221.39	1221.39	1221.39
Interest on Loan	40.82	7.50	0.00	0.00	0.00
Return on Equity	5467.41	5480.57	5480.57	5480.57	5480.57
Interest on Working Capital	249.65	252.62	255.70	259.07	262.55
O & M Expenses	1719.99	1777.37	1836.24	1897.17	1960.15
Total	8687.42	8739.46	8793.91	8858.20	8924.66

(₹ in lakh)

Asset IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	21447.99	21447.99	21447.99	21447.99	21447.99
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	21447.99	21447.99	21447.99	21447.99	21447.99
Average Gross Block	21447.99	21447.99	21447.99	21447.99	21447.99
Rate of Depreciation (%)	1.57	1.57	1.57	1.57	1.57
Depreciable Value	19352.93	19200.69	19200.69	19200.69	19200.69
Balance useful life of the asset	18	17	16	15	14
Elapsed life	14	15	16	17	18
Remaining Depreciable Value	6073.02	5735.63	5398.24	5060.85	4723.46
Depreciation during the year	337.39	337.39	337.39	337.39	337.39
Cumulative depreciation (incl. of AAD)	13465.05	13802.44	14139.83	14477.22	14814.61
Interest on Loan					
Gross Normative Loan	14295.91	14295.91	14295.91	14295.91	14295.91
Cumulative Repayments upto Previous Year	13127.66	13465.05	13802.44	14139.83	14295.91
Net Loan-Opening	1168.24	830.85	493.46	156.07	0.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	337.39	337.39	337.39	156.07	0.00
Net Loan-Closing	830.85	493.46	156.07	0.00	0.00
Average Loan	999.55	662.16	324.77	78.04	0.00
Weighted Average Rate of Interest on Loan (%)	4.0311	3.0864	1.9295	1.9294	1.9293
Interest on Loan	40.29	20.44	6.27	1.51	0.00
Return on Equity					
Opening Equity	7152.08	7152.08	7152.08	7152.08	7152.08



Asset IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	7152.08	7152.08	7152.08	7152.08	7152.08
Average Equity	7152.08	7152.08	7152.08	7152.08	7152.08
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	1402.56	1402.56	1402.56	1402.56	1402.56
Interest on Working Capital					
O & M Expenses	32.90	34.00	35.13	36.29	37.50
Maintenance Spares	59.22	61.20	63.23	65.32	67.49
Receivables	372.97	371.91	371.87	373.51	375.80
Total Working Capital	465.09	467.11	470.22	475.13	480.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	62.79	63.06	63.48	64.14	64.91
Annual Transmission Charges					
Depreciation	337.39	337.39	337.39	337.39	337.39
Interest on Loan	40.29	20.44	6.27	1.51	0.00
Return on Equity	1402.56	1402.56	1402.56	1402.56	1402.56
Interest on Working Capital	62.79	63.06	63.48	64.14	64.91
O & M Expenses	394.80	408.01	421.50	435.50	449.94
Total	2237.82	2231.45	2231.19	2241.09	2254.79

(₹ in lakh)

Asset V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Average Gross Block	14469.44	14469.44	14469.44	14469.44	14469.44
Rate of Depreciation (%)	1.33	1.33	1.33	1.33	1.33
Depreciable Value	13022.50	13022.50	13022.50	13022.50	13022.50
Balance useful life of the asset	21	20	19	18	17
Elapsed life	14	15	16	17	18
Remaining Depreciable Value	4033.63	3841.55	3649.47	3457.39	3265.32
Depreciation during the year	192.08	192.08	192.08	192.08	192.08
Cumulative depreciation (incl. of AAD)	9180.95	9373.03	9565.11	9757.18	9949.26
Interest on Loan					
Gross Normative Loan	9636.67	9636.67	9636.67	9636.67	9636.67
Cumulative Repayments upto Previous Year	8988.87	9180.95	9373.03	9565.11	9636.67



Asset V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan-Opening	647.80	455.72	263.64	71.56	0.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	192.08	192.08	192.08	71.56	0.00
Net Loan-Closing	455.72	263.64	71.56	0.00	0.00
Average Loan	551.76	359.68	167.60	35.78	0.00
Weighted Average Rate of Interest on Loan (%)	4.0330	3.0880	1.9289	1.9287	1.9283
Interest on Loan	22.25	11.11	3.23	0.69	0.00
Return on Equity					
Opening Equity	4832.77	4832.77	4832.77	4832.77	4832.77
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	4832.77	4832.77	4832.77	4832.77	4832.77
Average Equity	4832.77	4832.77	4832.77	4832.77	4832.77
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	947.73	947.73	947.73	947.73	947.73
Interest on Working Capital					
O & M Expenses	12.65	13.08	13.51	13.96	14.42
Maintenance Spares	22.77	23.54	24.32	25.12	25.96
Receivables	224.83	223.84	223.40	223.91	224.78
Total Working Capital	260.26	260.46	261.23	262.99	265.16
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	35.13	35.16	35.27	35.50	35.80
Annual Transmission Charges					
Depreciation	192.08	192.08	192.08	192.08	192.08
Interest on Loan	22.25	11.11	3.23	0.69	0.00
Return on Equity	947.73	947.73	947.73	947.73	947.73
Interest on Working Capital	35.13	35.16	35.27	35.50	35.80
O & M Expenses	151.81	156.96	162.12	167.49	173.07
Total	1349.00	1343.04	1340.42	1343.49	1348.67

Deferred Tax Liability

57. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. The deferred

tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same gets materialized directly from the beneficiaries or long term transmission customers /DICs.

Filing Fee and the Publication Expenses

58. 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

59. 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

60. 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.

Foreign Exchange Rate Variation

The petitioner has sought recovery of FERV on foreign loans deployed under clause 50 of 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from

the beneficiaries or the long term transmission customers / DICs, as the case may be, in accordance with Regulation 51(1) of the 2014 Tariff Regulations

Sharing of Transmission Charges

61. 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.

62. This order disposes of Petition No. 380/TT/2014.

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

Sd/-
(A.S. Bakshi)
Member

ASSET I: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XIV-DOCO-	6.10	3299.00	0.00	3299.00
BOND III series-I-DOCO-	9.75	280.17	0.00	280.17
BOND-III SERIES - (2nd) (9.75%)-DOCO-	13.50	44.83	0.00	44.83
BOND-I (Issue-I)-DOCO-	16.75	3.00	0.00	3.00
BOND-I (Issue-II)-DOCO-	17.00	2.00	0.00	2.00
BOND-I (Issue-III)-DOCO-	9.00	248.79	0.00	248.79
LIC NEEPCO-DOCO-	14.00	245.00	0.00	245.00
Total		4122.79	0.00	4122.79

ASSET I: 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	4122.79	4122.79	4122.79	4122.79	4122.79
Cumulative Repayments of Loans up to Previous Year	2775.69	2968.13	3160.57	3353.01	3545.45
Net Loans Opening	1347.10	1154.66	962.22	769.78	577.34
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	192.44	192.44	192.44	192.44	192.44
Net Closing Loan	1154.66	962.22	769.78	577.34	384.90
Average Net Loan	1250.88	1058.44	866.00	673.56	481.12
Rate of Interest on Loan (%)*	6.1000%	6.1000%	6.1000%	6.1000%	6.1000%
Interest on Loan	76.30	64.56	52.83	41.09	29.35

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

ASSET II & III: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
BOND VII-DOCO - 01-FEB-2000-	13.64	13.64	13.64	13.64	13.64	465.00	0.00	465.00
BOND - XIII - Option - II-DOCO - 01-FEB-2000-	7.85	7.85	7.85	7.85	7.85	3490.00	0.00	3490.00
BOND XIV-DOCO - 01-APR-1998-	6.10	6.10	6.10	6.10	6.10	7398.00	0.00	7398.00
BOND XIV-DOCO - 01-FEB-2000-	6.10	6.10	6.10	6.10	6.10	13147.60	0.00	13147.60
CORPORATION BANK DOCO 01-FEB-2000-	10.5990	10.5651	12.5486	13.0000	13.0000	233.00	0.00	233.00
PUNJAB NATIONAL BANK-I-DOCO - 01-FEB-2000-	8.9512	9.7222	11.8627	11.8969	0.0000	465.00	0.00	465.00
BOI (Foreign Currency)-DOCO - 01-FEB-2000-44.31	2.7715	2.1673	2.1084	2.2839	2.0160	1683.34	0.00	1683.34
BOND-III series-I-DOCO - 01-APR-1998-	9.75	9.75	9.75	9.75	9.75	572.42	0.00	572.42
BOND-III series-I-DOCO - 01-FEB-2000-	9.75	9.75	9.75	9.75	9.75	1058.62	0.00	1058.62
BOND-III SERIES -(2nd) (9.75%)-DOCO - 01-APR-1998-	13.50	13.50	13.50	13.50	13.50	91.58	0.00	91.58
BOND-III SERIES -(2nd) (9.75%)-DOCO - 01-FEB-2000-	13.50	13.50	13.50	13.50	13.50	169.38	0.00	169.38
INDIAN OVERSEAS BANK II-DOCO - 01-FEB-2000-	9.4768	9.8142	11.9379	12.5664	0.0000	3293.00	0.00	3293.00
BOND-I (Issue-I)-DOCO - 01-APR-1998-	16.75	16.75	16.75	16.75	16.75	6.00	0.00	6.00
BOND-I (Issue-I)-DOCO - 01-FEB-2000-	16.75	16.75	16.75	16.75	16.75	397.00	0.00	397.00
BOND-I (Issue-II)-DOCO - 01-APR-1998-	17.00	17.00	17.00	17.00	17.00	4.00	0.00	4.00
BOND-I (Issue-II)-DOCO - 01-FEB-2000-	17.00	17.00	17.00	17.00	17.00	332.00	0.00	332.00



Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND-I (Issue-III)-OOCO - 01-APR-1998-	9.00	9.00	9.00	9.00	9.00	508.00	0.00	508.00
BOND-I (Issue-III)-DOCO - 01-FEB-2000	9.00	9.00	9.00	9.00	9.00	234.14	0.00	234.14
LIC NEEPCO-DOCO - 01-APR-1998-	14.00	14.00	14.00	14.00	14.00	453.00	0.00	453.00
Total						34001.08	0.00	34001.08

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	34001.08	34001.08	34001.08	34001.08	34001.08
Cumulative Repayments of Loans up to Previous Year	21468.35	23339.67	25210.99	27082.31	28953.63
Net Loans Opening	12532.73	10661.41	8790.09	6918.77	5047.45
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	1871.32	1871.32	1871.32	1871.32	1483.87
Net Closing Loan	10661.41	8790.09	6918.77	5047.45	3563.58
Average Net Loan	11597.07	9725.75	7854.43	5983.11	4305.52
Rate of Interest on Loan (%)*	6.1685%	6.0421%	6.0390%	5.7344%	5.3116%
Interest on Loan	715.37	587.64	474.33	343.09	228.69

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

ASSET IV: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
BOND VII-DOCO-	13.64	13.64	13.64	13.64	13.64	413.54	0.00	413.54
BOND - XIII - Option - II-DOCO-	7.85	7.85	7.85	7.85	7.85	3101.27	0.00	3101.27
BOND XIV-DOCO-	6.10	6.10	6.10	6.10	6.10	4934.61	0.00	4934.61
CORPORATION BANK-DOCO-	10.5990	10.5651	12.5486	13.0000	13.0000	206.47	0.00	206.47
PUNJAB NATIONAL BANK-I-DOCO-	8.9512	9.7222	11.8627	11.8969	0.0000	413.54	0.00	413.54
BOI (Foreign Currency)-DOCO-44.31	2.7715	2.1673	2.1084	2.2839	2.0160	1197.77	0.00	1197.77
BOND-III series-I-DOCO-	9.75	9.75	9.75	9.75	9.75	417.88	0.00	417.88
BOND-III SERIES - (2nd) (9.75%)-DOCO-	13.50	13.50	13.50	13.50	13.50	66.86	0.00	66.86
INDIAN OVERSEAS BANK II-DOCO-	9.4768	9.8142	11.9379	12.5664	0.0000	2927.42	0.00	2927.42
BOND-I (Issue-III)-DOCO-	9.00	9.00	9.00	9.00	9.00	379.72	0.00	379.72
Total						14059.08	0.00	14059.08

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	14059.08	14059.08	14059.08	14059.08	14059.08
Cumulative Repayments of Loans up to Previous Year	9210.72	9990.97	10771.22	11551.47	12331.72
Net Loans Opening	4848.36	4068.11	3287.86	2507.61	1727.36
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	780.25	780.25	780.25	780.25	435.83
Net Closing Loan	4068.11	3287.86	2507.61	1727.36	1291.53
Average Net Loan	4458.24	3677.99	2897.74	2117.49	1509.45
Rate of Interest on Loan (%)*	6.4166%	6.1737%	6.2017%	5.4787%	4.5044%
Interest on Loan	286.07	227.07	179.71	116.01	67.99

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



ASSET V: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2009-14

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2009	Additions during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
BOND VII-DOCO-	13.64	13.64	13.64	13.64	13.64	283.46	0.00	283.46
BOND - XIII - Option - II-DOCO-	7.85	7.85	7.85	7.85	7.85	2125.73	0.00	2125.73
BOND XIV-DOCO-	6.10	6.10	6.10	6.10	6.10	3382.39	0.00	3382.39
CORPORATION BANK-DOCO-	10.5990	10.5651	12.5486	13.0000	13.0000	141.53	0.00	141.53
PUNJAB NATIONAL BANK-I-DOCO-	8.9512	9.7222	11.8627	11.8969	0.0000	283.46	0.00	283.46
BOI (Foreign Currency)-DOCO-44.31	2.7715	2.1673	2.1084	2.2839	2.0160	821.00	0.00	821.00
BOND-III series-I-DOCO-	9.75	9.75	9.75	9.75	9.75	286.43	0.00	286.43
BOND-III SERIES - (2nd) (9.75%)-DOCO-	13.50	13.50	13.50	13.50	13.50	45.83	0.00	45.83
INDIAN OVERSEAS BANK II-DOCO-	9.4768	9.8142	11.9379	12.5664	0.0000	2006.58	0.00	2006.58
BOND-I (Issue-III)-DOCO-	9.00	9.00	9.00	9.00	9.00	260.28	0.00	260.28
Total						9636.69	0.00	9636.69

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	9636.69	9636.69	9636.69	9636.69	9636.69
Cumulative Repayments of Loans up to Previous Year	6313.41	6848.23	7383.05	7917.87	8452.69
Net Loans Opening	3323.28	2788.46	2253.64	1718.82	1184.00
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	534.82	534.82	534.82	534.82	298.74
Net Closing Loan	2788.46	2253.64	1718.82	1184.00	885.26
Average Net Loan	3055.87	2521.05	1986.23	1451.41	1034.63
Rate of Interest on Loan (%)*	6.4166%	6.1737%	6.2016%	5.4785%	4.5047%
Interest on Loan	196.08	155.64	123.18	79.52	46.61

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



ASSET I: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XIV-DOCO-	6.10	3299.00	0.00	3299.00
BOND III series-I-DOCO-	9.75	280.17	0.00	280.17
BOND-III SERIES -(2nd) (9.75%)-DOCO-	13.50	44.83	0.00	44.83
BOND-I (Issue-I)-DOCO-	16.75	3.00	0.00	3.00
BOND-I (Issue-II)-DOCO-	17.00	2.00	0.00	2.00
BOND-I (Issue-III)-DOCO-	9.00	248.79	0.00	248.79
LIC NEEPCO-DOCO-	14.00	245.00	0.00	245.00
Total		4122.79	0.00	4122.79

ASSET I: 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	4122.79	4122.79	4122.79	4122.79	4122.79
Cumulative Repayments of Loans up to Previous Year	3737.89	3930.33	4122.77	4122.77	4122.77
Net Loans Opening	384.90	192.46	0.02	0.02	0.02
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	192.44	192.44	0.00	0.00	0.00
Net Closing Loan	192.46	0.02	0.02	0.02	0.02
Average Net Loan	288.68	96.24	0.02	0.02	0.02
Rate of Interest on Loan (%)*	6.1000%	6.1000%	6.1000%	6.1000%	6.1000%
Interest on Loan	17.61	5.87	0.00	0.00	0.00

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

ASSET II & III: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND VII-DOCO - 01-FEB-2000-	13.64	465.00	0.00	465.00
BOND - XIII - Option - II-DOCO - 01-FEB-2000-	7.85	3490.00	0.00	3490.00
BOND XIV-DOCO - 01-APR-1998-	6.10	7398.00	0.00	7398.00
BOND XIV-DOCO - 01-FEB-2000-	6.10	13147.60	0.00	13147.60
CORPORATION BANK DOCO 01-FEB-2000-	13.00	233.00	0.00	233.00
PUNJAB NATIONAL BANK-I-DOCO - 01-FEB-2000-	11.66	465.00	0.00	465.00
BOI (Foreign Currency)-DOCO - 01-FEB-2000-44.31	1.93	1683.34	0.00	1683.34
BOND-III series-I-DOCO - 01-APR-1998-	9.75	572.42	0.00	572.42
BOND-III series-I-DOCO - 01-FEB-2000-	9.75	1058.62	0.00	1058.62
BOND-III SERIES -(2nd) (9.75%)-DOCO - 01-APR-1998-	13.50	91.58	0.00	91.58
BOND-III SERIES -(2nd) (9.75%)-DOCO - 01-FEB-2000-	13.50	169.38	0.00	169.38
INDIAN OVERSEAS BANK II-DOCO - 01-FEB-2000-	12.90	3293.00	0.00	3293.00
BOND-I (Issue-I)-DOCO - 01-APR-1998-	16.75	6.00	0.00	6.00
BOND-I (Issue-I)-DOCO - 01-FEB-2000-	16.75	397.00	0.00	397.00
BOND-I (Issue-II)-DOCO - 01-APR-1998-	17.00	4.00	0.00	4.00
BOND-I (Issue-II)-DOCO - 01-FEB-2000-	17.00	332.00	0.00	332.00
BOND-I (Issue-III)-OOCO - 01-APR-1998-	9.00	508.00	0.00	508.00
BOND-I (Issue-III)-DOCO - 01-FEB-2000	9.00	234.14	0.00	234.14
LIC NEEPCO-DOCO - 01-APR-1998-	14.00	453.00	0.00	453.00
Total		34001.08	0.00	34001.08



**ASSET II & III: 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	34001.08	34001.08	34001.08	34001.08	34001.08
Cumulative Repayments of Loans up to Previous Year	30437.35	31909.42	33381.49	33470.09	33558.84
Net Loans Opening	3563.73	2091.66	619.59	530.99	442.24
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	1472.07	1472.07	88.60	88.75	88.75
Net Closing Loan	2091.66	619.59	530.99	442.24	353.49
Average Net Loan	2827.70	1355.63	575.29	486.62	397.87
Rate of Interest on Loan (%)*	4.9903%	4.0579%	1.9302%	1.9303%	1.9303%
Interest on Loan	141.11	55.01	11.10	9.39	7.68

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

ASSET IV: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND VII-DOCO-	13.64	413.54	0.00	413.54
BOND - XIII - Option - II-DOCO-	7.85	3101.27	0.00	3101.27
BOND XIV-DOCO-	6.10	4934.61	0.00	4934.61
CORPORATION BANK-DOCO-	13.00	206.47	0.00	206.47
PUNJAB NATIONAL BANK-I-DOCO-	11.66	413.54	0.00	413.54
BOI (Foreign Currency)-DOCO-44.31	1.93	1197.70	0.00	1197.70
BOND-III series-I-DOCO-	9.75	417.88	0.00	417.88
BOND-III SERIES -(2nd) (9.75%)-DOCO-	13.50	66.86	0.00	66.86
INDIAN OVERSEAS BANK II-DOCO-	12.90	2927.42	0.00	2927.42
BOND-I (Issue-III)-DOCO-	9.00	379.72	0.00	379.72
Total		14059.01	0.00	14059.01

ASSET IV: 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	14059.01	14059.01	14059.01	14059.01	14059.01
Cumulative Repayments of Loans up to Previous Year	12767.58	13193.09	13618.60	13681.75	13744.90
Net Loans Opening	1291.43	865.92	440.41	377.26	314.11
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	425.51	425.51	63.15	63.15	63.15
Net Closing Loan	865.92	440.41	377.26	314.11	250.96
Average Net Loan	1078.68	653.17	408.84	345.69	282.54
Rate of Interest on Loan (%)*	4.0311%	3.0864%	1.9295%	1.9294%	1.9293%
Interest on Loan	43.48	20.16	7.89	6.67	5.45

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



ASSET V: DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND VII-DOCO-	13.64	283.46	0.00	283.46
BOND - XIII - Option - II-DOCO-	7.85	2125.73	0.00	2125.73
BOND XIV-DOCO-	6.10	3382.39	0.00	3382.39
CORPORATION BANK-DOCO-	13.00	141.53	0.00	141.53
PUNJAB NATIONAL BANK-I-DOCO-	11.66	283.46	0.00	283.46
BOI (Foreign Currency)-DOCO-44.31	1.93	820.18	0.00	820.18
BOND-III series-I-DOCO-	9.75	286.43	0.00	286.43
BOND-III SERIES -(2nd) (9.75%)-DOCO-	13.50	45.83	0.00	45.83
INDIAN OVERSEAS BANK II-DOCO-	12.90	2006.58	0.00	2006.58
BOND-I (Issue-III)-DOCO-	9.00	260.28	0.00	260.28
Total		9635.87	0.00	9635.87

ASSET V: 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	9635.87	9635.87	9635.87	9635.87	9635.87
Cumulative Repayments of Loans up to Previous Year	8751.43	9043.09	9334.75	9378.03	9421.31
Net Loans Opening	884.44	592.78	301.12	257.84	214.56
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the year	291.66	291.66	43.28	43.28	43.28
Net Closing Loan	592.78	301.12	257.84	214.56	171.28
Average Net Loan	738.61	446.95	279.48	236.20	192.92
Rate of Interest on Loan (%)*	4.0330%	3.0880%	1.9289%	1.9287%	1.9283%
Interest on Loan	29.79	13.80	5.39	4.56	3.72

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

