

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 205/TT/2014

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

Date of Hearing : 02.12.2015
Date of Order : 08.01.2016

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 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 and Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 for **Asset-I:** (a) 50 MVAR Reactor at Narendra Sub-station, (b) Narendra - Davanagere 400 kV D/C TL and 50 MVAR Bus Reactor at Mysore, (c) LIL0 of Kolar-Sriperambudur 400 kV S/C line along with one 50 MVAR Reactor at Kalivanthapattu, **Asset-II:** (d) 2nd 315 MVA Auto Transformer at Hiriyur Sub-station, **Asset-III:** (e) 1st 315 MVA Auto Transformer at Kalivanthapattu Sub-station and (f) 2nd 315 MVA Auto Transformer at Kalivanthapattu Sub-station along with associated bays and Equipments under "Transmission System associated with Kaiga-3 & 4 (2x235 MW) Project" 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), KaveriBhawan, Bangalore – 560009



2. Transmission Corporation of Andhra Pradesh Limited,
(APTRANSCO), VidyutSoudha,
Hyderabad- 500082
3. Kerala State Electricity Board (KSEB),
VaidyuthiBhavanam,
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, Govt. of Pondicherry,
Pondicherry - 605001
6. Eastern Power Distribution Company of Andhra Pradesh Limited,
(APEPDCL) P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh
7. Southern Power Distribution Company of Andhra Pradesh Limited,
(APSPDCL), Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517 501, Chittoor District, Andhra Pradesh
8. Central Power Distribution Company of Andhra Pradesh Limited,
(APCPDCL), Corporate Office, Mint Compound,
Hyderabad - 500 063, Andhra Pradesh
9. Northern Power Distribution Company of Andhra Pradesh Limited,
(APNPDCL), Opp. NIT Petrol Pump,
Chaitanyapuri, Kazipet, Warangal - 506 004, Andhra Pradesh
10. Bangalore Electricity Supply Company Ltd. (BESCOM),
Corporate Office, KR.Circle
Bangalore - 560001, Karnataka
11. Gulbarga Electricity Supply Company Ltd (GESCOM)
Station Main Road, Gulbarga, Karnataka



12. Hubli Electricity Supply Company Ltd, (HESCOM)
Navanagar, PB Road, Hubli, Karnataka

13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore – 575001, Karnataka

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

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

....Respondent(s)

The following were present:

For Petitioner: Shri S.K. Niranjana, PGCIL
Shri S.S. Raju, PGCIL
Shri AngaruNaresh Kumar PGCIL
Shri Jasbir Singh, PGCIL
Shri ShashiBhushan, PGCIL
Shri J. Mazumder, PGCIL
Shri R. Prasad, PGCIL
Shri Sunil Kumar, PGCIL
Shri Rakesh Prasad, PGCIL
Shri AnshulGarg, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K Venkatesan, PGCIL
Shri Jayaprakash. R, PGCIL

For Respondents: Shri S. Vallinayagam, Advocate, TANGEDCO



ORDER

The petition has been preferred by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”), a transmission licensee, for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on truing up of capital expenditure for the period 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 for (a) 50 MVAR Reactor at Narendra Sub-station, (b) Narendra - Davanagere 400 kV DIC TL and 50 MVAR Bus Reactor at Mysore, (c) LILO of Kolar-Sriperambudur 400 kV S/C line along with one 50 MVAR Reactor at Kalivanthapattu (hereinafter referred as “the transmission asset I”), (d) 2nd 315 MVA Auto Transformer at Hiriyur Sub-station (hereinafter referred as “the transmission asset II”), (e) 1st 315 MVA Auto Transformer at Kalivanthapattu Sub-station and (f) 2nd 315 MVA Auto Transformer at Kalivanthapattu Sub-station (hereinafter referred as “the transmission asset III”) along with associated bays and Equipments under "Transmission System associated with Kaiga-3 & 4 (2x235 MW) Project" in Southern Region.

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

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



a) Investment approval of the transmission scheme was accorded by Govt. of India vide letter dated 29.03.2005 at an estimated cost of ₹58825.00 lakh, including IDC of ₹3072.00 lakh. Subsequently, the approval for revised cost estimate was accorded by the Board of Directors of the petitioner company vide its memorandum dated 29.12.2008 at an estimated cost of ₹100716.00 lakh including IDC of ₹9503 lakh

b) The date of commercial operation for the transmission asset I is 1.6.2008, for the transmission asset II is 1.4.2008 and for the transmission asset III is 1.7.2008. The Commission, vide its order dated 14.2.2011 in Petition No. 241/2010, had approved the following capital cost and debt:equity for each of the assets as on 31.3.2009 as under:-

Particulars	Asset-I		Asset-II		Asset-III	
	Admitted as on 31.3.2009 (₹ in lakh)	Percentage (%)	Admitted as on 31.3.2009 (₹ in lakh)	Percentage (%)	Admitted as on 31.3.2009 (₹ in lakh)	Percentage (%)
Debt	19109.56	70.00	1739.12	70.00	2852.56	70.00
Equity	8188.61	30.00	745.33	30.00	1222.45	30.00
Capital Cost	27298.17	100.00	2484.45	100.00	4075.01	100.00

c) The petitioner had approached to the Commission vide Petition No. 241/2010 for approval of estimated additional capital expenditure towards balance /retention payments during 2009-10, 2010-11 and 2011-12 for all the assets and determination of tariff for 2009-14 tariff period.

d) The Commission, vide order dated 14.2.2011, had allowed an additional capital expenditure of ₹612.28 lakh for 2009-10, ₹25.00 lakh for 2010-11 and



₹25.00 lakh for 2011-12 for the transmission asset-I, ₹29.38 lakh for 2009-10 and ₹45.66 lakh for 2010-11 for the transmission asset-II, ₹48.13 lakh for 2009-10 and ₹80.27 lakh for 2010-11 for the transmission asset-III. The Commission determined the tariff for all the transmission asset for tariff period 2009-14 as on 31.3.2009 and estimated additional capital expenditure for tariff period 2009-14 as given below:-

Transmission Asset-I

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1432.21	1448.10	1449.42	1450.08	1450.08
Interest on Loan	1656.39	1543.45	1411.46	1277.39	1142.53
Return on Equity	1447.51	1464.22	1465.53	1466.18	1466.18
Interest on Working Capital	124.00	124.02	123.10	122.22	121.39
O & M Expenses	588.96	622.70	658.34	695.98	735.70
Total	5249.08	5202.49	5107.86	5011.85	4915.89

Transmission Asset-II

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	131.01	133.00	134.20	134.20	134.20
Interest on Loan	148.65	138.87	128.02	115.55	103.07
Return on Equity	131.06	133.03	134.23	134.23	134.23
Interest on Working Capital	16.69	17.03	17.35	17.60	17.89
O & M Expenses	162.44	171.74	181.57	191.94	202.92
Total	589.86	593.67	595.37	593.52	592.31

Transmission Asset-III

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	216.25	219.64	221.76	221.76	221.76
Interest on Loan	249.32	233.00	214.90	194.02	173.17
Return on Equity	214.96	218.32	220.43	220.43	220.43
Interest on Working Capital	30.43	31.17	31.86	32.46	33.13
O & M Expenses	324.88	343.48	363.14	383.88	405.84
Total	1035.85	1045.61	1052.09	1052.56	1054.33



4. Regulation 6 of the 2009 Tariff 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. 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. In this context, the petitioner has filed the instant petition on 30.10.2014, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

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

5. TANGEDCO, Respondent No. 4, filed its reply vide affidavit dated 8.5.2015.

(a) The respondent submitted as follows:-

- “(i) The associated transmission system of Kaiga-II power project covered in the instant petition was approved in the 16th meeting of the Standing Committee for Power Systems Planning in Southern Region (SCPSP SR)
- (ii) Subsequently, in the 28th meeting of the standing Committee for Power System Planning, the following modifications has been approved:
“Extending the 400kV D/c of the original Vallur TPS transmission system from LILO point to Melakottaiyur (Kalivanthapattu) by suitably utilizing part of the LILO of Kolar-Sriperumbudur 400kV S/C line at Melakottaiyur (Kalivanthapattu). The Kolar-Sriperumbudur 400kV line shall be restored as direct lines”
- (iii) The Vallur- Kalivanthapattu 400kV DC line was declared under commercial operation with effect from 01.04.2013. Also, the Kolar-Sriperumbudur 400kV line was restored.



- (iv) In this connection, the Hon`ble Commission has approved the provisional tariff for Vallur-Kalivanthapattu 400 kV DC line vide its order dated 18.03.2013 in the petition No. 48/TT/2013.
 - (v) Further, in the 32nd meeting of Standing Committee for Power System Planning, LILO of Kolar- Sriperumbudur 400 kV S/c line at Thiruvalam 400 kV SS was approved under system strengthening. The Kolar-Thiruvalam and Sriperumbudur-Thiruvalam 400 kV S/c lines were declared under Commercial Operation with effect from 01.04.2014. The Hon`ble Commission has approved the transmission tariff vide order dated 19.6.2014 in the Petition No. TT/102/2014.”
- (b) TANGEDCO has further submitted that the petitioner’s claim is erroneous and the petition is not maintainable as the petitioner has claimed tariff for an asset which does not exist due to the modification.
- (c) TANGEDCO further requested to direct the petitioner to furnish the details of modifications actually made to the instant lines and the actual expenditure incurred on account of the modification, in a fresh petition.

6. The petitioner vide its rejoinder dated 31.12.2015 has clarified that the Kolar-Sriperumbudur 400 kV transmission line was implemented under Talcher Stage-II transmission system. There is no modification to the instant scheme. The petitioner has further submitted that in the instant project Kolar-Sriperumbudur 400 kV S/C transmission line has been LILoed at Kalivanthapattu Sub-station. Further, Vallur TPS has been connected to Melakottaiyar by connecting it to the LILo portion of Kolar-Sriperumbudur at Melakottaiyar. The Kolar-Sriperumbudur line has been LILoed at Thiruvalam by connecting it to the portion of Vallur- Melakottaiyar line. The petitioner has further clarified that only the LILo portions are claimed in the respective petitions, keeping the original scheme of Kolar-Sriperumbudur line under Talcher Stage-II. The petitioner has also submitted a schematic diagram of Kaiga 3 & 4 Transmission System and Vallur TPS.



7. TANGEDCO raised the issue during the hearing held on 2.12.2015. The petitioner was directed to submit the Original Line diagram of the scheme and the modified line diagram of the scheme in order to identify the transmission line as pointed by the respondent. The petitioner has submitted vide affidavit dated 31.12.2015 that there is no modification to the instant scheme from the original scheme. The petitioner has also submitted a schematic diagram of Kaiga 3 & 4 Transmission System and Vallur TPS. We have considered the submissions made by the petitioner and TANGEDCO. We are of the view that there is no change to the instant scheme. Accordingly, tariff of the assets covered in the instant petition is allowed.

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

8. 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”.

9. 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

10. The petitioner has claimed admitted capital cost of ₹27298.17 lakh, ₹2484.45 lakh and ₹4075.01 lakh as on 31.3.2009 for Asset-I, Asset-II and Asset-III respectively, for the purpose of tariff determination. 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 admitted capital cost as on 31.3.2009 has been considered as opening capital cost as on 1.4.2009 for truing up tariff in accordance with Regulation 7 of the 2009 Tariff Regulations.

Additional Capital Expenditure

12. Clause (1) of Regulation 6 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...”

13. The petitioner has submitted that it has incurred some additional capital expenditure 2009-10, 2010-11 and 2011-12 for all the transmission assets towards balance and retention payments as certified by its Auditor vide certificate dated 17.10.2014 as depicted below:-

Transmission Asset-I

(₹ in lakh)

Capital cost admitted as on 31.3.2009	Additional capital expenditure	2009-10	2010-11	2011-12	2012-13	2013-14	Total cost as on 31.3.2014
27298.17	Approved vide order dated 14.2.2011	612.28	25.00	25.00	0.00	0.00	27960.45
27298.17	Actual incurred during 2009-14	627.58	35.82	0.00	0.00	0.00	27961.57



Transmission Asset-II

(₹ in lakh)

Capital cost admitted as on 31.3.2009	Additional capital expenditure	2009-10	2010-11	2011-12	2012-13	2013-14	Total cost as on 31.3.2014
2484.45	Approved vide order dated 14.2.2011	29.38	45.66	0.00	0.00	0.00	2559.49
2484.45	Actual incurred during 2009-14	30.28	0.00	12.89	0.00	0.00	2527.62

Transmission Asset-III

(₹ in lakh)

Capital cost admitted as on 31.3.2009	Additional capital expenditure	2009-10	2010-11	2011-12	2012-13	2013-14	Total cost as on 31.3.2014
4075.01	Approved vide order dated 14.2.2011	48.13	80.27	0.00	0.00	0.00	4203.41
4075.01	Actual incurred during 2009-14	0.00	0.00	86.86	0.00	0.00	4161.87

14. The petitioner, vide rejoinder dated 2.12.2015, has submitted that the payments to contractors could not be made due to non-closure of reconciliation with them and accordingly there was some outstanding payments towards balance and retention incurred in 2009-10 and 2010-11. It has further submitted that ₹11.36 lakh is on account of reimbursement of Service Tax during 2009-10 and ₹38.71 lakh towards balance and retention payments.



15. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-10, 2010-11 and 2011-12 for all the transmission assets I, II and III. The capital addition is based on actual capital expenditure incurred as per the Auditor Certificate submitted by the petitioner. The actual additional capital expenditure incurred is within the original scope of work and the total capital expenditure during 2009-14 is within the limits of the total approved capital expenditure. We have considered the actual additional capital expenditure incurred by the petitioner for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations.

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

Debt: Equity

17. 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.”

18. The petitioner has claimed the tariff based on the debt: equity ratio of 70:30 as on 31.3.2009 for all the transmission assets as admitted by the Commission in its order dated 14.2.2011 in petition no.241/2010. The admitted debt:equity ratio as on 31.3.2009 has been considered as opening debt:equity ratio 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 which is in line with the 2009 Tariff Regulations.

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

Transmission Asset-I

Capital Structure	Capital Cost as on 31.3.2009		Additional Capital Expenditure during 2009-14		Capital Cost as on 31.3.2014	
	(₹ in lakh)	(%)	(₹ in lakh)	(%)	(₹ in lakh)	(%)
Debt	19109.56	70.00	464.38	70.00	19573.94	70.00
Equity	8188.61	30.00	199.02	30.00	8387.63	30.00
Total	27298.17	100.00	663.40	100.00	27961.57	100.00

Transmission Asset-II

Capital Structure	Capital Cost as on 31.3.2009		Additional Capital Expenditure during 2009-14		Capital Cost as on 31.3.2014	
	(₹ in lakh)	(%)	(₹ in lakh)	(%)	(₹ in lakh)	(%)
Debt	1739.12	70.00	30.22	70.00	1769.34	70.00
Equity	745.33	30.00	12.95	30.00	758.28	30.00
Total	2484.45	100.00	43.17	100.00	2527.62	100.00



Transmission Asset-III

Capital Structure	Capital Cost as on 31.3.2009		Additional Capital Expenditure during 2009-14		Capital Cost as on 31.3.2014	
	(₹ in lakh)	(%)	(₹ in lakh)	(%)	(₹ in lakh)	(%)
Debt	2852.56	70.00	60.80	70.00	2913.36	70.00
Equity	1222.45	30.00	26.06	30.00	1248.51	30.00
Total	4075.01	100.00	86.86	100.00	4161.87	100.00

Return on Equity ('ROE')

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

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

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

Rate of pre-tax return on equity = 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.”



21. 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 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%

22. 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:-

Transmission Asset-I

(₹ in lakh)

Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	1447.51	1464.22	1465.53	1466.18	1466.18
Claimed by the petitioner	1546.72	1622.64	1625.27	1625.27	1644.81
Allowed after true up in this order	1546.68	1622.66	1625.27	1625.27	1644.85

Transmission Asset-II

(₹ in lakh)

Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	131.06	133.03	134.23	134.23	134.23
Claimed by the petitioner	140.03	146.04	146.56	146.93	148.70
Allowed after true up in this order	140.03	146.04	146.56	146.93	148.70



Transmission Asset-III

(₹ in lakh)

Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	214.96	218.32	220.43	220.43	220.43
Claimed by the petitioner	228.28	236.64	239.40	241.92	244.83
Allowed after true up in this order	228.28	236.65	239.40	241.92	244.84

The variation in the return on equity is on account of change in the applicable MAT rate considered for the purpose of grossing up of base rate of return on equity.

Interest on Loan ('IoL')

23. 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”.

24. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest for the tariff period 2009-14. Regulation 16 of the 2009 Tariff Regulations provides that the weighted average interest rate of loan is to be worked out based on actual loan portfolio. The weighted average rate of interest is worked out based on the actual loan interest rate and repayments submitted by the petitioner and placed in Annexure - 1. Accordingly, the IoL has been calculated based on actual weighted average interest rate worked out as above, in accordance with the Regulation 16 of the 2009 Tariff Regulations. The IoL worked out is as follows:-



Transmission Asset-I

(₹ in lakh)

Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	1656.39	1543.45	1411.46	1277.39	1142.53
Claimed by the petitioner	1656.83	1544.53	1411.82	1276.78	1141.80
Allowed after true up in this order	1656.84	1544.53	1411.82	1276.78	1141.80

Transmission Asset-II

(₹ in lakh)

Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	148.65	138.87	128.02	115.55	103.07
Claimed by the petitioner	148.68	137.49	125.71	113.80	101.49
Allowed after true up in this order	148.68	137.49	125.71	113.81	101.49

Transmission Asset-III

(₹ in lakh)

Interest on Loan	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	249.32	233.00	214.90	194.02	173.17
Claimed by the petitioner	247.88	227.67	210.05	192.21	171.57
Allowed after true up in this order	247.88	227.66	210.05	192.21	171.57

The variation in IoL for the assets is on account of change in additional capitalization, corresponding normative debt and weighted average rate of interest.

Depreciation

25. 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:-



Transmission Asset-I

(₹ in lakh)

Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	1432.21	1448.10	1449.42	1450.08	1450.08
Claimed by the petitioner	1433.26	1450.47	1451.42	1451.42	1451.42
Allowed after true up in this order	1433.25	1450.47	1451.42	1451.42	1451.42

Transmission Asset-II

(₹ in lakh)

Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	131.01	133.00	134.20	134.20	134.20
Claimed by the petitioner	131.04	131.84	132.18	132.52	132.52
Allowed after true up in this order	131.04	131.84	132.18	132.52	132.52

Transmission Asset-III

(₹ in lakh)

Depreciation	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	216.25	219.64	221.76	221.76	221.76
Claimed by the petitioner	215.16	215.16	217.36	219.56	219.56
Allowed after true up in this order	215.16	215.16	217.36	219.57	219.57

The variation in depreciation is due to change in additional capital expenditure and corresponding gross block during the 2009-14 tariff period.

Interest on Working Capital ('IWC')

26. The IWC has been worked out as per the Regulation 18 of the 2009 Tariff Regulations as under:-



Transmission Asset-I

(₹ in lakh)

Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	124.00	124.02	123.10	122.22	121.39
Claimed by the petitioner	126.10	127.39	126.48	125.55	125.13
Allowed after true up in this order	126.10	127.39	126.48	125.55	125.13

Transmission Asset-II

(₹ in lakh)

Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	16.69	17.03	17.35	17.60	17.89
Claimed by the petitioner	16.87	17.25	17.51	17.80	18.13
Allowed after true up in this order	16.87	17.25	17.51	17.80	18.13

Transmission Asset-III

(₹ in lakh)

Interest on Working Capital	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	30.43	31.17	31.86	32.46	33.13
Claimed by the petitioner	30.66	31.34	32.06	32.83	33.56
Allowed after true up in this order	30.66	31.34	32.06	32.83	33.55

The variation in IWC is due to change in additional capital expenditure, corresponding receivables and change in ROE on account of variation in applicable MAT rate during the 2009-14 tariff period.

Operation & Maintenance Expenses ('O&M Expenses')

27. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The normative O&M Expenses are not



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

Transmission Asset-I

(₹ in lakh)

O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	588.96	622.70	658.34	695.98	735.70
Claimed by the petitioner	588.96	622.70	658.34	695.98	735.70
Allowed after true up in this order	588.96	622.70	658.34	695.98	735.70

Transmission Asset-II

(₹ in lakh)

O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	162.44	171.74	181.57	191.94	202.92
Claimed by the petitioner	162.44	171.74	181.57	191.94	202.92
Allowed after true up in this order	162.44	171.74	181.57	191.94	202.92

Transmission Asset-III

(₹ in lakh)

O&M Expenses	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide Order dated 14.2.2011	324.88	343.48	363.14	383.88	405.84
Claimed by the petitioner	324.88	343.48	363.14	383.88	405.84
Allowed after true up in this order	324.88	343.48	363.14	383.88	405.84

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

28. 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:-



Transmission Asset-I

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	27298.17	27925.75	27961.57	27961.57	27961.57
Additional Capitalization	627.58	35.82	0.00	0.00	0.00
Closing Gross Block	27925.75	27961.57	27961.57	27961.57	27961.57
Average Gross Block	27611.96	27943.66	27961.57	27961.57	27961.57
Rate of Depreciation (%)	5.19	5.19	5.19	5.19	5.19
Depreciable Value	24525.92	25106.86	24856.69	24840.57	24840.57
Balance useful life of the asset	32	31	30	29	28
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	23730.11	22595.38	21161.03	19709.62	18258.20
Depreciation during the year	1433.25	1450.47	1451.42	1451.42	1451.42
Cumulative depreciation (incl. of AAD)	2229.06	3679.53	5130.95	6582.37	8033.78
Interest on Loan					
Gross Normative Loan	19109.56	19548.87	19573.94	19573.94	19573.94
Cumulative Repayments upto Previous Year	795.81	2229.06	3679.53	5130.95	6582.37
Net Loan-Opening	18313.75	17319.80	15894.41	14442.99	12991.57
Additions	439.31	25.07	0.00	0.00	0.00
Repayment during the year	1433.25	1450.47	1451.42	1451.42	1451.42
Net Loan-Closing	17319.80	15894.41	14442.99	12991.57	11540.16
Average Loan	17816.78	16607.10	15168.70	13717.28	12265.87
Weighted Average Rate of Interest on Loan (%)	9.2993	9.3004	9.3075	9.3078	9.3088
Interest on Loan	1656.84	1544.53	1411.82	1276.78	1141.80
Return on Equity					
Opening Equity	8188.61	8376.88	8387.63	8387.63	8387.63
Additions	188.27	10.75	0.00	0.00	0.00
Closing Equity	8376.88	8387.63	8387.63	8387.63	8387.63
Average Equity	8282.75	8382.26	8387.63	8387.63	8387.63
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	1546.68	1622.66	1625.27	1625.27	1644.85
Interest on Working Capital					
O & M Expenses	49.06	51.87	54.84	57.97	61.28
Maintenance Spares	88.34	93.40	98.75	104.40	110.35
Receivables	891.97	894.62	878.89	862.50	849.82
Total Working Capital	1029.38	1039.90	1032.48	1024.87	1021.45



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	126.10	127.39	126.48	125.55	125.13
Annual Transmission Charges					
Depreciation	1433.25	1450.47	1451.42	1451.42	1451.42
Interest on Loan	1656.84	1544.53	1411.82	1276.78	1141.80
Return on Equity	1546.68	1622.66	1625.27	1625.27	1644.85
Interest on Working Capital	126.10	127.39	126.48	125.55	125.13
O & M Expenses	588.96	622.70	658.34	695.98	735.70
Total	5351.83	5367.74	5273.32	5174.98	5098.90

Transmission Asset-II

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	2484.45	2514.73	2514.73	2527.62	2527.62
Additional Capitalisation	30.28	0.00	12.89	0.00	0.00
Closing Gross Block	2514.73	2514.73	2527.62	2527.62	2527.62
Average Gross Block	2499.59	2514.73	2521.18	2527.62	2527.62
Rate of Depreciation (%)	5.24	5.24	5.24	5.24	5.24
Depreciable Value	2249.63	2276.88	2269.06	2280.66	2274.86
Balance useful life of the asset	24	23	22	21	20
Elapsed life	1	2	3	4	5
Remaining Depreciable Value	2165.11	2047.70	1921.66	1795.28	1662.76
Depreciation during the year	131.04	131.84	132.18	132.52	132.52
Cumulative depreciation (incl. of AAD)	215.56	347.40	479.57	612.09	744.61
Interest on Loan					
Gross Normative Loan	1739.12	1760.32	1760.32	1769.34	1769.34
Cumulative Repayments upto Previous Year	84.52	215.56	347.40	479.57	612.09
Net Loan-Opening	1654.60	1544.76	1412.92	1289.76	1157.25
Additions	21.20	0.00	9.02	0.00	0.00
Repayment during the year	131.04	131.84	132.18	132.52	132.52
Net Loan-Closing	1544.76	1412.92	1289.76	1157.25	1024.73
Average Loan	1599.68	1478.84	1351.34	1223.50	1090.99
Weighted Average Rate of Interest on Loan (%)	9.2945	9.2973	9.3024	9.3015	9.3024
Interest on Loan	148.68	137.49	125.71	113.80	101.49
Return on Equity					
Opening Equity	745.33	754.41	754.41	758.28	758.28



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Additions	9.08	0.00	3.87	0.00	0.00
Closing Equity	754.41	754.41	758.28	758.28	758.28
Average Equity	749.87	754.41	756.35	758.28	758.28
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.00	19.93	20.01	20.01	20.96
Rate of Return on Equity (%)	18.67	19.36	19.38	19.38	19.61
Return on Equity	140.03	146.04	146.56	146.93	148.70
Interest on Working Capital					
O & M Expenses	13.53	14.31	15.12	15.99	16.90
Maintenance Spares	24.37	25.76	27.24	28.79	30.44
Receivables	99.84	100.73	100.59	100.50	100.63
Total Working Capital	137.74	140.79	142.95	145.28	147.97
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	16.87	17.25	17.51	17.80	18.13
Annual Transmission Charges					
Depreciation	131.04	131.84	132.18	132.52	132.52
Interest on Loan	148.68	137.49	125.71	113.80	101.49
Return on Equity	140.03	146.04	146.56	146.93	148.70
Interest on Working Capital	16.87	17.25	17.51	17.80	18.13
O & M Expenses	162.44	171.74	181.57	191.94	202.92
Total	599.06	604.36	603.52	602.99	603.75

Transmission Asset-III

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation					
Opening Gross Block	4075.01	4075.01	4075.01	4161.87	4161.87
Additional Capitalization	0.00	0.00	86.86	0.00	0.00
Closing Gross Block	4075.01	4075.01	4161.87	4161.87	4161.87
Average Gross Block	4075.01	4075.01	4118.44	4161.87	4161.87
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	3667.51	3667.51	3706.60	3784.77	3745.68
Balance useful life of the asset	25	24	23	22	21
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	3557.61	3342.45	3166.38	2988.11	2768.54
Depreciation during the	215.16	215.16	217.36	219.57	219.57



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
year					
Cumulative depreciation (incl. of AAD)	325.06	540.21	757.57	977.14	1196.71
Interest on Loan					
Gross Normative Loan	2852.56	2852.56	2852.56	2913.36	2913.36
Cumulative Repayments upto Previous Year	109.90	325.06	540.21	757.57	977.14
Net Loan-Opening	2742.66	2527.50	2312.35	2155.79	1936.22
Additions	0.00	0.00	60.80	0.00	0.00
Repayment during the year	215.16	215.16	217.36	219.57	219.57
Net Loan-Closing	2527.50	2312.35	2155.79	1936.22	1716.65
Average Loan	2635.08	2419.93	2234.07	2046.00	1826.43
Weighted Average Rate of Interest on Loan (%)	9.4068	9.4079	9.4023	9.3946	9.3936
Interest on Loan	247.88	227.66	210.05	192.21	171.57
Return on Equity					
Opening Equity	1222.45	1222.45	1222.45	1248.51	1248.51
Additions	0.00	0.00	26.06	0.00	0.00
Closing Equity	1222.45	1222.45	1248.51	1248.51	1248.51
Average Equity	1222.45	1222.45	1235.48	1248.51	1248.51
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	228.28	236.65	239.40	241.92	244.84
Interest on Working Capital					
O & M Expenses	27.06	28.61	30.25	31.98	33.81
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
Receivables	174.47	175.71	177.00	178.40	179.23
Total Working Capital	250.27	255.85	261.72	267.96	273.91
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest of working capital	30.66	31.34	32.06	32.83	33.55
Annual Transmission Charges					
Depreciation	215.16	215.16	217.36	219.57	219.57
Interest on Loan	247.88	227.66	210.05	192.21	171.57
Return on Equity	228.28	236.65	239.40	241.92	244.84
Interest on Working Capital	30.66	31.34	32.06	32.83	33.55
O & M Expenses	324.88	343.48	363.14	383.88	405.84
Total	1046.85	1054.29	1062.01	1070.41	1075.37



DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD:-

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

Transmission Asset-I

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1451.42	1451.42	1451.42	1451.42	1451.42
Interest on Loan	1006.9	871.99	737.08	602.16	467.23
Return on Equity	1644.81	1644.81	1644.81	1644.81	1644.81
Interest on Working Capital	131.74	129.87	128.05	126.26	124.52
O & M Expenses	675.03	697.52	720.65	744.58	769.25
Total	4909.90	4795.61	4682.01	4569.23	4457.23

Transmission Asset-II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	132.52	132.52	132.52	132.52	132.52
Interest on Loan	89.18	76.86	64.55	52.24	39.92
Return on Equity	148.7	148.7	148.7	148.7	148.7
Interest on Working Capital	18.85	18.91	18.98	19.06	19.16
O & M Expenses	186.93	193.13	199.55	206.16	213.01
Total	576.18	570.12	564.3	558.68	553.31

Transmission Asset-III

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	219.56	219.56	219.56	219.56	219.56
Interest on Loan	150.94	130.32	109.69	89.06	68.44
Return on Equity	244.83	244.83	244.83	244.83	244.83
Interest on Working Capital	34.82	35.03	35.26	35.52	35.80
O & M Expenses	373.86	386.26	399.10	412.32	426.02
Total	1024.01	1016.00	1008.44	1001.29	994.65



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

Transmission Asset -I

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	56.25	58.13	60.05	62.05	64.10
Maintenance Spares	101.25	104.63	108.10	111.69	115.39
Receivables	818.32	799.27	780.34	761.54	742.87
Total	975.82	962.03	948.49	935.28	922.36
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	131.74	129.87	128.05	126.26	124.52

Transmission Asset -II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	15.58	16.09	16.63	17.18	17.75
Maintenance Spares	28.04	28.97	29.93	30.92	31.95
Receivables	96.03	95.02	94.05	93.11	92.22
Total	139.65	140.08	140.61	141.21	141.92
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	18.85	18.91	18.98	19.06	19.16

Transmission Asset -III

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	31.16	32.19	33.26	34.36	35.50
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
Receivables	170.66	169.32	168.07	166.88	165.77
Total	257.90	259.45	261.20	263.09	265.17
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	34.82	35.03	35.26	35.52	35.80



Capital Cost

31. 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;”

32. The capital cost of ₹34651.06 lakh (combined for all the transmission assets) worked out as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure

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

Debt: Equity

34. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provide as under:-

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



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

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as 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.”

35. The petitioner has considered the debt:equity ratio of 70:30 as on 31.3.2014 for all the transmission assets, which is in line with the 2014 Tariff Regulations. The details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

Transmission Asset-I

Funding	Total Cost as on 31.3.2014		Additional Capital Expenditure during 2014-19		Total Cost as on 31.3.2019	
	(₹ in lakh)	(%)	(₹ in lakh)	(%)	(₹ in lakh)	(%)
Debt	19573.94	70.00	0.00	0.00	19573.94	70.00
Equity	8387.63	30.00	0.00	0.00	8387.63	30.00
Total	27961.57	100.00	0.00	0.00	27961.57	100.00

Transmission Asset-II

Funding	Total Cost as on 31.3.2014		Additional Capital Expenditure during 2014-19		Total Cost as on 31.3.2019	
	(₹ in lakh)	(%)	(₹ in lakh)	(%)	(₹ in lakh)	(%)
Debt	1769.34	70.00	0.00	0.00	1769.34	70.00
Equity	758.28	30.00	0.00	0.00	758.28	30.00
Total	2527.62	100.00	0.00	0.00	2527.62	100.00



Transmission Asset-III

Funding	Total Cost as on 31.3.2014		Additional Capital Expenditure during 2014-19		Total Cost as on 31.3.2019	
	(₹ in lakh)	(%)	(₹ in lakh)	(%)	(₹ in lakh)	(%)
Debt	2913.36	70.00	0.00	0.00	2913.36	70.00
Equity	1248.51	30.00	0.00	0.00	1248.51	30.00
Total	4161.87	100.00	0.00	0.00	4161.87	100.00

Return on Equity ('ROE')

36. 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.”

37. 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:-



Transmission Asset-I

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	8387.63	8387.63	8387.63	8387.63	8387.63
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	8387.63	8387.63	8387.63	8387.63	8387.63
Average Equity	8387.63	8387.63	8387.63	8387.63	8387.63
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	1644.85	1644.85	1644.85	1644.85	1644.85

Transmission Asset-II

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	758.28	758.28	758.28	758.28	758.28
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	758.28	758.28	758.28	758.28	758.28
Average Equity	758.28	758.28	758.28	758.28	758.28
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	148.70	148.70	148.70	148.70	148.70

Transmission Asset-III

(₹ in lakh)

Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1248.51	1248.51	1248.51	1248.51	1248.51
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1248.51	1248.51	1248.51	1248.51	1248.51
Average Equity	1248.51	1248.51	1248.51	1248.51	1248.51
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	244.84	244.84	244.84	244.84	244.84



Interest on Loan ('IoL')

38. 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.”

39. 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:-

Transmission Asset-I

(₹ in lakh)

Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	19573.94	19573.94	19573.94	19573.94	19573.94
Cumulative Repayment upto Previous Year	8033.78	9485.20	10936.61	12388.03	13839.44
Net Loan-Opening	11540.16	10088.74	8637.33	7185.91	5734.50
Additions	0.00	0.00	0.00	0.00	0.00



Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Repayment during the year	1451.42	1451.42	1451.42	1451.42	1451.42
Net Loan-Closing	10088.74	8637.33	7185.91	5734.50	4283.08
Average Loan	10814.45	9363.04	7911.62	6460.21	5008.79
Weighted Average Rate of Interest on Loan (%)	9.3107	9.3132	9.3166	9.3212	9.3282
Interest on Loan	1006.90	872.00	737.09	602.17	467.23

Transmission Asset-II

(₹ in lakh)

Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1769.34	1769.34	1769.34	1769.34	1769.34
Cumulative Repayment upto Previous Year	744.61	877.13	1009.65	1142.17	1274.69
Net Loan-Opening	1024.73	892.21	759.69	627.17	494.65
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	132.52	132.52	132.52	132.52	132.52
Net Loan-Closing	892.21	759.69	627.17	494.65	362.13
Average Loan	958.47	825.95	693.43	560.91	428.39
Weighted Average Rate of Interest on Loan (%)	9.3044	9.3061	9.3084	9.3129	9.3179
Interest on Loan	89.18	76.86	64.55	52.24	39.92

Transmission Asset-III

(₹ in lakh)

Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2913.36	2913.36	2913.36	2913.36	2913.36
Cumulative Repayment upto Previous Year	1196.71	1416.28	1635.85	1855.42	2074.99
Net Loan-Opening	1716.65	1497.08	1277.51	1057.94	838.37
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	219.57	219.57	219.57	219.57	219.57
Net Loan-Closing	1497.08	1277.51	1057.94	838.37	618.80
Average Loan	1606.86	1387.29	1167.73	948.16	728.59
Weighted Average Rate of Interest on Loan (%)	9.3937	9.3933	9.3935	9.3929	9.3921
Interest on Loan	150.94	130.31	109.69	89.06	68.43



Depreciation

40. 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."

41. 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:-

Transmission Asset-I

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	27961.57	27961.57	27961.57	27961.57	27961.57
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	27961.57	27961.57	27961.57	27961.57	27961.57



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Gross Block	27961.57	27961.57	27961.57	27961.57	27961.57
Rate of Depreciation (%)	5.19	5.19	5.19	5.19	5.19
Depreciable Value	24840.57	24840.57	24840.57	24840.57	24840.57
Balance useful life of the asset	27	26	25	24	23
Elapsed life	5	6	7	8	9
Remaining Depreciable Value	16806.79	15355.37	13903.96	12452.54	11001.12
Depreciation during the year	1451.42	1451.42	1451.42	1451.42	1451.42
Cumulative depreciation	9485.20	10936.61	12388.03	13839.44	15290.86

Transmission Asset-II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	2527.62	2527.62	2527.62	2527.62	2527.62
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	2527.62	2527.62	2527.62	2527.62	2527.62
Average Gross Block	2527.62	2527.62	2527.62	2527.62	2527.62
Rate of Depreciation (%)	5.24	5.24	5.24	5.24	5.24
Depreciable Value	2274.86	2274.86	2274.86	2274.86	2274.86
Balance useful life of the asset	19	18	17	16	15
Elapsed life	6	7	8	9	10
Remaining Depreciable Value	1530.25	1397.73	1265.21	1132.69	1000.17
Depreciation during the year	132.52	132.52	132.52	132.52	132.52
Cumulative depreciation	877.13	1009.65	1142.17	1274.69	1407.20

Transmission Asset-III

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	4161.87	4161.87	4161.87	4161.87	4161.87
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	4161.87	4161.87	4161.87	4161.87	4161.87
Average Gross Block	4161.87	4161.87	4161.87	4161.87	4161.87
Rate of Depreciation (%)					



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	5.28	5.28	5.28	5.28	5.28
Depreciable Value	3745.68	3745.68	3745.68	3745.68	3745.68
Balance useful life of the asset	20	19	18	17	16
Elapsed life	5	6	7	8	9
Remaining Depreciable Value	2548.97	2329.40	2109.83	1890.26	1670.69
Depreciation during the year	219.57	219.57	219.57	219.57	219.57
Cumulative depreciation	1416.28	1635.85	1855.42	2074.99	2294.56

Operation & Maintenance Expenses ('O&M Expenses')

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

Transmission Asset-I

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400KV:					
No. of Bays	9	9	9	9	9
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	675.03	697.52	720.65	744.58	769.25

Transmission Asset-II

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400KV:					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
220KV:					
No. of Bays	3	3	3	3	3
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1
Total O&M Expenses (₹ lakh)	186.93	193.13	199.55	206.16	213.01



Transmission Asset-III

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400KV:					
No. of Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
220KV:					
No. of Bays	6	6	6	6	6
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1
Total O&M Expenses (₹ lakh)	373.86	386.26	399.10	412.32	426.02

43. 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 to 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')

44. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specifies as follows:

“28. Interest on Working Capital

- (c) (i) Receivables equivalent to two months of fixed cost;
(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
(iii) Operation and maintenance expenses for one month”



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

45. The petitioner has 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%.

46. 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:-

Transmission Asset-I

(₹ in lakh)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	56.23	58.10	60.03	62.02	64.08
Maintenance Spares	101.25	104.63	108.10	111.69	115.39
Receivables	818.32	799.28	780.34	761.55	742.88
Total	975.81	962.01	948.47	935.26	922.34
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	131.73	129.87	128.04	126.26	124.52

Transmission Asset-II

(₹ in lakh)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	15.57	16.09	16.62	17.17	17.74
Maintenance Spares	28.04	28.97	29.93	30.92	31.95
Receivables	96.03	95.02	94.05	93.11	92.22
Total	139.64	140.08	140.60	141.21	141.91
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	18.85	18.91	18.98	19.06	19.16



Transmission Asset-III

(₹ in lakh)

Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	31.14	32.18	33.25	34.35	35.49
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
Receivables	170.67	169.33	168.08	166.88	165.78
Total	257.89	259.45	261.19	263.08	265.17
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	34.82	35.03	35.26	35.52	35.80

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

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

Transmission Asset-I

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	27961.57	27961.57	27961.57	27961.57	27961.57
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	27961.57	27961.57	27961.57	27961.57	27961.57
Average Gross Block	27961.57	27961.57	27961.57	27961.57	27961.57
Rate of Depreciation (%)	5.19	5.19	5.19	5.19	5.19
Depreciable Value	24840.57	24840.57	24840.57	24840.57	24840.57
Balance useful life of the asset	27	26	25	24	23
Elapsed life	5	6	7	8	9
Remaining Depreciable Value	16806.79	15355.37	13903.96	12452.54	11001.12
Depreciation during the year	1451.42	1451.42	1451.42	1451.42	1451.42
Cumulative depreciation (incl. of AAD)	9485.20	10936.61	12388.03	13839.44	15290.86
Interest on Loan					
Gross Normative Loan	19573.94	19573.94	19573.94	19573.94	19573.94
Cumulative Repayments upto Previous Year	8033.78	9485.20	10936.61	12388.03	13839.44
Net Loan-Opening	11540.16	10088.74	8637.33	7185.91	5734.50



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1451.42	1451.42	1451.42	1451.42	1451.42
Net Loan-Closing	10088.74	8637.33	7185.91	5734.50	4283.08
Average Loan	10814.45	9363.04	7911.62	6460.21	5008.79
Weighted Average Rate of Interest on Loan (%)	9.3107	9.3132	9.3166	9.3212	9.3282
Interest on Loan	1006.90	872.00	737.09	602.17	467.23
Return on Equity					
Opening Equity	8387.63	8387.63	8387.63	8387.63	8387.63
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	8387.63	8387.63	8387.63	8387.63	8387.63
Average Equity	8387.63	8387.63	8387.63	8387.63	8387.63
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	1644.85	1644.85	1644.85	1644.85	1644.85
Interest on Working Capital					
O & M Expenses	56.23	58.10	60.03	62.02	64.08
Maintenance Spares	101.25	104.63	108.10	111.69	115.39
Receivables	818.32	799.28	780.34	761.55	742.88
Total Working Capital	975.81	962.01	948.47	935.26	922.34
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	131.73	129.87	128.04	126.26	124.52
Annual Transmission Charges					
Depreciation	1451.42	1451.42	1451.42	1451.42	1451.42
Interest on Loan	1006.90	872.00	737.09	602.17	467.23
Return on Equity	1644.85	1644.85	1644.85	1644.85	1644.85
Interest on Working Capital	131.73	129.87	128.04	126.26	124.52
O & M Expenses	675.03	697.52	720.65	744.58	769.25
Total	4909.94	4795.66	4682.05	4569.28	4457.27

Transmission Asset-II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	2527.62	2527.62	2527.62	2527.62	2527.62
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	2527.62	2527.62	2527.62	2527.62	2527.62
Average Gross Block	2527.62	2527.62	2527.62	2527.62	2527.62



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Depreciation (%)	5.24	5.24	5.24	5.24	5.24
Depreciable Value	2274.86	2274.86	2274.86	2274.86	2274.86
Balance useful life of the asset	19	18	17	16	15
Elapsed life	6	7	8	9	10
Remaining Depreciable Value	1530.25	1397.73	1265.21	1132.69	1000.17
Depreciation during the year	132.52	132.52	132.52	132.52	132.52
Cumulative depreciation (incl. of AAD)	877.13	1009.65	1142.17	1274.69	1407.20
Interest on Loan					
Gross Normative Loan	1769.34	1769.34	1769.34	1769.34	1769.34
Cumulative Repayments upto Previous Year	744.61	877.13	1009.65	1142.17	1274.69
Net Loan-Opening	1024.73	892.21	759.69	627.17	494.65
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	132.52	132.52	132.52	132.52	132.52
Net Loan-Closing	892.21	759.69	627.17	494.65	362.13
Average Loan	958.47	825.95	693.43	560.91	428.39
Weighted Average Rate of Interest on Loan (%)	9.3044	9.3061	9.3084	9.3129	9.3179
Interest on Loan	89.18	76.86	64.55	52.24	39.92
Return on Equity					
Opening Equity	758.28	758.28	758.28	758.28	758.28
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	758.28	758.28	758.28	758.28	758.28
Average Equity	758.28	758.28	758.28	758.28	758.28
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	148.70	148.70	148.70	148.70	148.70
Interest on Working Capital					
O & M Expenses	15.57	16.09	16.62	17.17	17.74
Maintenance Spares	28.04	28.97	29.93	30.92	31.95
Receivables	96.03	95.02	94.05	93.11	92.22
Total Working Capital	139.64	140.08	140.60	141.21	141.91
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	18.85	18.91	18.98	19.06	19.16
Annual Transmission Charges					
Depreciation	132.52	132.52	132.52	132.52	132.52
Interest on Loan	89.18	76.86	64.55	52.24	39.92
Return on Equity	148.70	148.70	148.70	148.70	148.70



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital	18.85	18.91	18.98	19.06	19.16
O & M Expenses	186.93	193.13	199.55	206.16	213.01
Total	576.18	570.13	564.30	558.68	553.31

Transmission Asset-III

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	4161.87	4161.87	4161.87	4161.87	4161.87
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	4161.87	4161.87	4161.87	4161.87	4161.87
Average Gross Block	4161.87	4161.87	4161.87	4161.87	4161.87
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	3745.68	3745.68	3745.68	3745.68	3745.68
Balance useful life of the asset	20	19	18	17	16
Elapsed life	5	6	7	8	9
Remaining Depreciable Value	2548.97	2329.40	2109.83	1890.26	1670.69
Depreciation during the year	219.57	219.57	219.57	219.57	219.57
Cumulative depreciation (incl. of AAD)	1416.28	1635.85	1855.42	2074.99	2294.56
Interest on Loan					
Gross Normative Loan	2913.36	2913.36	2913.36	2913.36	2913.36
Cumulative Repayments upto Previous Year	1196.71	1416.28	1635.85	1855.42	2074.99
Net Loan-Opening	1716.65	1497.08	1277.51	1057.94	838.37
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	219.57	219.57	219.57	219.57	219.57
Net Loan-Closing	1497.08	1277.51	1057.94	838.37	618.80
Average Loan	1606.86	1387.29	1167.73	948.16	728.59
Weighted Average Rate of Interest on Loan (%)	9.3937	9.3933	9.3935	9.3929	9.3921
Interest on Loan	150.94	130.31	109.69	89.06	68.43
Return on Equity					
Opening Equity	1248.51	1248.51	1248.51	1248.51	1248.51
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1248.51	1248.51	1248.51	1248.51	1248.51
Average Equity	1248.51	1248.51	1248.51	1248.51	1248.51
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



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(%)					
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity	244.84	244.84	244.84	244.84	244.84
Interest on Working Capital					
O & M Expenses	31.14	32.18	33.25	34.35	35.49
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
Receivables	170.67	169.33	168.08	166.88	165.78
Total Working Capital	257.89	259.45	261.19	263.08	265.17
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	34.82	35.03	35.26	35.52	35.80
Annual Transmission Charges					
Depreciation	219.57	219.57	219.57	219.57	219.57
Interest on Loan	150.94	130.31	109.69	89.06	68.43
Return on Equity	244.84	244.84	244.84	244.84	244.84
Interest on Working Capital	34.82	35.03	35.26	35.52	35.80
O & M Expenses	373.86	386.26	399.10	412.32	426.02
Total	1024.03	1016.01	1008.45	1001.30	994.66

Deferred Tax Liability

48. 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

49. 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

50. 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

51. 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.

Sharing of Transmission Charges

52. 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.

53. This order disposes of Petition No. 205/TT/2014.

S/d
(Dr. M.K. Iyer)
Member

S/d
(A.S. Bakshi)
Member



Asset 1:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XIX-DOCO- 1-FEB-2008-	9.25	260.00	0.00	260.00
BOND XIX-DOCO- 1-MAY-2008-	9.25	10.00	0.00	10.00
BOND XIX-DOCO-01-JAN-2008 -01-JAN-2008-	9.25	130.00	0.00	130.00
BOND XX-DOCO- 1-FEB-2008-	8.93	930.00	0.00	930.00
BOND XX-DOCO-DRAWL ON 01-MAY-2008 -01-MAY-2008-	8.93	30.00	0.00	30.00
BOND XX-DOCO- 01-JAN-2008- 01-JAN-2008-	8.93	300.00	0.00	300.00
BOND XXI-DOCO- 01-JAN-2008-	8.73	200.00	0.00	200.00
BOND XXI-DOCO-DRAWL ON 01-FEB-2008- 01-FEB-2008-	8.73	1600.00	0.00	1600.00
BOND XXI-DOCO-DRAWL ON 01-MAY-2008- 01-MAY-2008-	0.00	200.00	0.00	200.00
BOND XXII-DOCO- 1-JAN-2008-	8.68	200.00	0.00	200.00
BOND XXII-DOCO-DRAWL ON 01-FEB-2008- 01-FEB-2008-	8.68	3860.00	0.00	3860.00
BOND XXII-DOCO-DRAWL ON 01-MAY-2008- 01-MAY-2008-	8.68	1700.00	0.00	1700.00
BOND XXIV-DOCO-01-FEB-2008-	9.95	1690.00	0.00	1690.00
BOND XXIV-DOCO-DRAWL ON 01-MAY-2008- 01-MAY-2008-	9.95	900.00	0.00	900.00



Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XXIV-DOCO-01-JAN-2008- 01-JAN-2008-	9.95	400.00	0.00	400.00
BOND XXV-DOCO-DRAWL ON 01-FEB-2008- 01-FEB-2008-	10.10	2903.00	0.00	2903.00
BOND XXV-DOCO-DRAWL ON 01-MAY-2008- 01-MAY-2008-	10.10	1200.00	0.00	1200.00
BOND XXV-DOCO- 01-JAN-2008- 01-JAN-2008-	10.10	24.00	0.00	24.00
BOND XXVI-ADDCAP FOR 2007-2008 31-MAR-2008-	9.30	234.00	0.00	234.00
BOND XXVI-DOCO-DRWAL ON 01-MAY-2008- 01-MAY-2008-	9.30	1069.00	0.00	1069.00
BOND XXVIII-ADDCAP FOR 2008-2009-DRWAL ON 15-DEC-2008- 15-DEC-2008-	9.33	791.07	0.00	791.07
BOND XXVIII-ADDCAP FOR 2008-2009-DRWAL ON 29-SEP-2008- 29-SEP-2008-	9.33	763.81	0.00	763.81
BOND XXX-ADDCAP FOR 2009-2010-ADDCAP 2009-10 ACTUAL-	8.80	0.00	432.31	432.31
BOND XXX ADDCAP FOR 2010-2011 AOCAP 2010-11- ACTUAL-	0.00	0.00	25.07	25.07
Total		19394.88	457.38	19852.26



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	19394.88	19827.19	19852.26	19852.26	19852.26
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	1034.17	2520.84	4137.08
Net Loans Opening	19394.88	19827.19	18818.09	17331.42	15715.18
Add: Draw(s) during the Year	432.31	25.07	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	1034.17	1486.67	1616.24	1654.36
Net Closing Loan	19827.19	18818.09	17331.42	15715.18	14060.82
Average Net Loan	19611.04	19322.64	18074.76	16523.30	14888.00
Rate of Interest on Loan (%)	9.2993	9.3004	9.3075	9.3078	9.3088
Interest on Loan	1823.69	1797.08	1682.30	1537.96	1385.89



Asset 2:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XIX-DOCO-	9.25	50.00	0.00	50.00
BOND XX-DOCO-	8.93	200.00	0.00	200.00
BOND XXI-DOCO-	8.73	200.00	0.00	200.00
BOND XXII-DOCO-	8.68	200.00	0.00	200.00
BOND XXIV-DOCO-	9.95	100.00	0.00	100.00
BOND XXV-DOCO-	10.10	300.00	0.00	300.00
BOND XXVI-DOCO-	9.30	519.00	0.00	519.00
BOND XXVIII-ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008-	9.33	169.95	0.00	169.95
BOND XXX-ADDCAP FOR 2009-2010 ADDCAP 2009-10-ACTUAL	8.80	0.00	21.20	21.20
BOND XXX-ADDCAP FOR 2011-2012 ADDCAP 2011-12-ACTUAL-	0.00	0.00	9.02	9.02
Total		1738.95	30.22	1769.17



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	1738.95	1760.15	1760.15	1769.17	1769.17
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	62.51	193.27	338.19
Net Loans Opening	1738.95	1760.15	1697.64	1575.90	1430.98
Add: Draw(s) during the Year	21.20	0.00	9.02	0.00	0.00
Less: Repayments of Loan during the year	0.00	62.51	130.76	144.92	147.44
Net Closing Loan	1760.15	1697.64	1575.90	1430.98	1283.54
Average Net Loan	1749.55	1728.90	1636.77	1503.44	1357.26
Rate of Interest on Loan (%)	9.2945	9.2973	9.3024	9.3015	9.3024
Interest on Loan	162.61	160.74	152.26	139.84	126.26



Asset 3:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the tariff period	Total
BOND XX-DOCO-DRAWL ON 01-JUN-2008-01-JUN-2008	8.93	20.00	0.00	20.00
BOND XXI-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008	8.73	50.00	0.00	50.00
BOND XXII-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008	8.68	200.00	0.00	200.00
BOND XXIV-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008-	9.95	200.00	0.00	200.00
BOND XXV-DOCO-01-JUL-2008-	10.10	220.00	0.00	220.00
BOND XXV-DOCO-DRAWL ON 01-JUN-2008-01-JUN-2008-	10.10	200.00	0.00	200.00
BOND XXVI-DOCO-DRAWL ON 01-JUL-2008-01-JUN-2008-	9.30	559.00	0.00	559.00
BOND XXVI-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008-	9.30	996.00	0.00	996.00
BOND XXVIII-ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008-15-DEC-2008	9.33	582.05	0.00	582.05
BOND XXX-ADDCAP FOR 2011-2012 ADDCAP 2011-12-ACTUAL-	0.00	0.00	60.80	60.80
Total		3027.05	60.80	3087.85



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	3027.05	3027.05	3027.05	3087.85	3087.85
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	39.18	242.94	495.20
Net Loans Opening	3027.05	3027.05	2987.87	2844.91	2592.65
Add: Draw(s) during the Year	0.00	0.00	60.80	0.00	0.00
Less: Repayments of Loan during the year	0.00	39.18	203.76	252.26	257.33
Net Closing Loan	3027.05	2987.87	2844.91	2592.65	2335.32
Average Net Loan	3027.05	3007.46	2916.39	2718.78	2463.99
Rate of Interest on Loan (%)	9.4069	9.4080	9.4022	9.3944	9.3937
Interest on Loan	284.75	282.94	274.21	255.41	231.46



Asset-1:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period (2014-19)	Total
BOND XIX-DOCO- 1-FEB-2008-	9.25	260.00	0.00	260.00
BOND XIX-DOCO- 1-MAY-2008-	9.25	10.00	0.00	10.00
BOND XIX-DOCO-01-JAN-2008 -01-JAN-2008-	9.25	130.00	0.00	130.00
BOND XX-DOCO- 1-FEB-2008-	8.93	930.00	0.00	930.00
BOND XX-DOCO- DRAWL ON 01-MAY-2008 -01-MAY-2008-	8.93	30.00	0.00	30.00
BOND XX-DOCO- 01-JAN-2008- 01-JAN-2008-	8.93	300.00	0.00	300.00
BOND XXI-DOCO- 01-JAN-2008-	8.73	200.00	0.00	200.00
BOND XXI-DOCO- DRAWL ON 01-FEB-2008- 01-FEB-2008-	8.73	1600.00	0.00	1600.00
BOND XXI-DOCO- DRAWL ON 01-MAY-2008- 01-MAY-2008-	0.00	200.00	0.00	200.00
BOND XXII-DOCO- 1-JAN-2008-	8.68	200.00	0.00	200.00
BOND XXII-DOCO- DRAWL ON 01-FEB-2008- 01-FEB-2008-	8.68	3860.00	0.00	3860.00
BOND XXII-DOCO- DRAWL ON 01-MAY-2008- 01-MAY-2008-	8.68	1700.00	0.00	1700.00
BOND XXIV-DOCO- 01-FEB-2008-	9.95	1690.00	0.00	1690.00
BOND XXIV-DOCO- DRAWL ON 01-MAY-2008- 01-MAY-2008-	9.95	900.00	0.00	900.00
BOND XXIV-DOCO- 01-JAN-2008- 01-JAN-2008-	9.95	400.00	0.00	400.00
BOND XXV-DOCO- DRAWL ON 01-FEB-2008- 01-FEB-2008-	10.10	2903.00	0.00	2903.00
BOND XXV-DOCO- DRAWL ON 01-MAY-2008- 01-MAY-2008-	10.10	1200.00	0.00	1200.00



Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period (2014-19)	Total
BOND XXV-DOCO- 01-JAN-2008- 01-JAN-2008-	10.10	24.00	0.00	24.00
BOND XXVI-ADDCAP FOR 2007-2008 31-MAR-2008-	9.30	234.00	0.00	234.00
BOND XXVI-DOCO- DRWAL ON 01-MAY-2008- 01-MAY-2008-	9.30	1069.00	0.00	1069.00
BOND XXVIII-ADDCAP FOR 2008-2009- DRWAL ON 15-DEC-2008- 15-DEC-2008-	9.33	791.07	0.00	791.07
BOND XXVIII-ADDCAP FOR 2008-2009- DRWAL ON 29-SEP-2008- 29-SEP-2008-	9.33	763.81	0.00	763.81
BOND XXX-ADDCAP FOR 2009-2010- ADDCAP 2009-10 ACTUAL-	8.80	432.31	0.00	432.31
BOND XXX AOOCAP FOR 2010-2011 AOOCAP 2010-11- ACTUAL-	8.80	25.07	0.00	25.07
Total		19852.26	0.00	19852.26

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	19852.26	19852.26	19852.26	19852.26	19852.26
Cumulative Repayments of Loans upto Previous Year	5791.44	7445.80	9100.16	10754.52	12408.88
Net Loans Opening	14060.82	12406.46	10752.10	9097.74	7443.38
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	1654.36	1654.36	1654.36	1654.36	1654.36
Net Closing Loan	12406.46	10752.10	9097.74	7443.38	5789.02
Average Net Loan	13233.64	11579.28	9924.92	8270.56	6616.20
Rate of Interest on Loan (%)	9.3107	9.3132	9.3165	9.3212	9.3282
Interest on Loan	1232.15	1078.40	924.66	770.92	617.17



Asset-2:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period (2014-19)	Total
BOND XIX-DOCO-	9.25	50.00	0.00	50.00
BOND XX-DOCO-	8.93	200.00	0.00	200.00
BOND XXI-DOCO-	8.73	200.00	0.00	200.00
BOND XXII-DOCO-	8.68	200.00	0.00	200.00
BOND XXIV-DOCO-	9.95	100.00	0.00	100.00
BOND XXV-DOCO-	10.10	300.00	0.00	300.00
BOND XXVI-DOCO-	9.30	519.00	0.00	519.00
BOND XXVIII-ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008-	9.33	169.95	0.00	169.95
BOND XXX-ADDCAP FOR 2009-2010 ADDCAP 2009-10-ACTUAL	8.80	21.20	0.00	21.20
BOND XXX-ADDCAP FOR 2011-2012 ADDCAP 2011-12-ACTUAL-	8.80	9.02	0.00	9.02
Total		1769.17	0.00	1769.17

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	1769.17	1769.17	1769.17	1769.17	1769.17



Cumulative Repayments of Loans upto Previous Year	485.63	633.07	780.51	927.95	1075.39
Net Loans Opening	1283.54	1136.10	988.66	841.22	693.78
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	147.44	147.44	147.44	147.44	147.44
Net Closing Loan	1136.10	988.66	841.22	693.78	546.34
Average Net Loan	1209.82	1062.38	914.94	767.50	620.06
Rate of Interest on Loan (%)	9.3041	9.3062	9.3089	9.3128	9.3185
Interest on Loan	112.56	98.87	85.17	71.48	57.78



Asset-3:**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period (2014-19)	Total
BOND XX-DOCO- DRAWL ON 01-JUN-2008-01-JUN-2008	8.93	20.00	0.00	20.00
BOND XXI-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008	8.73	50.00	0.00	50.00
BOND XXII-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008	8.68	200.00	0.00	200.00
BOND XXIV-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008-	9.95	200.00	0.00	200.00
BOND XXV-DOCO-01-JUL-2008-	10.10	220.00	0.00	220.00
BOND XXV-DOCO-DRAWL ON 01-JUN-2008-01-JUN-2008-	10.10	200.00	0.00	200.00
BOND XXVI-DOCO-DRAWL ON 01-JUL-2008-01-JUN-2008-	9.30	559.00	0.00	559.00
BOND XXVI-DOCO DRAWL ON 01-JUN-2008-01-JUN-2008-	9.30	996.00	0.00	996.00
BOND XXVIII-ADDCAP FOR 2008-2009 DRAWL ON 15-DEC-2008-15-DEC-2008	9.33	582.05	0.00	582.05
BOND XXX-ADDCAP FOR 2011-2012 ADDCAP 2011-12-ACTUAL-	8.80	60.80	0.00	60.80
Total		3087.85	0.00	3087.85



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

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	3087.85	3087.85	3087.85	3087.85	3087.85
Cumulative Repayments of Loans upto Previous Year	752.53	1009.86	1267.19	1524.52	1781.85
Net Loans Opening	2335.32	2077.99	1820.66	1563.33	1306.00
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	257.33	257.33	257.33	257.33	257.33
Net Closing Loan	2077.99	1820.66	1563.33	1306.00	1048.67
Average Net Loan	2206.66	1949.33	1692.00	1434.67	1177.34
Rate of Interest on Loan (%)	9.3936	9.3934	9.3932	9.3929	9.3925
Interest on Loan	207.28	183.11	158.93	134.76	110.58

