

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 313/TT/2015

Coram:

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

Date of Hearing :03.02.2016

Date of Order :23.05.2016

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for **Asset I**: LILO of both circuits of 400 kV D/C Bamnauli-Mundka/Bawana at Jatikalan 765/400 kV Sub-station, **Asset-II**: Agra – Jatikalan 765 kV S/C Transmission Line, **Asset-III**: Agra – Meerut 765 kV S/C Transmission Line under 765 kV system for Central Part of Northern Grid Part-I in Northern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

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

.....**Petitioner**

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Vidyut Marg,
Jaipur – 302 005
2. Ajmer Vidyut Vitran Nigam Limited
400 KV GSS Building (Ground floor), Ajmer Road,
Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited
400 KV GSS Building (Ground floor), Ajmer Road,
Heerapura, Jaipur



4. Jodhpur Vidyut Vitran Nigam Limited
400 KV GSS Building (Ground floor), Ajmer Road,
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board
Vidyut Bhawan, Kumar House Complex Building II
Shimla – 171 004
6. Punjab State Electricity Board
Thermal Shed TIA, Near 22 Phatak,
Patiala – 147 001
7. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6
Panchkula (Haryana) – 134 109
8. Power Development Department
Govt. of Jammu & Kashmir,
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg,
Lucknow – 226 001
10. Delhi Transco Limited
Shakti Sadan, Kotla Road,
New Delhi – 110 002
11. BSES Yamuna Power Limited
BSES Bhawan, Nehru Place,
New Delhi
12. BSES Rajdhani Power Limited
BSES Bhawan, Nehru Place,
New Delhi
13. North Delhi Power Limited
Power Trading & Load Dispatch group
Cennet Building, Adjacent to 66/11 KV Pitampura-3
Grid Building, Near PP Jewellers,
Pitampura, New Delhi – 110 034
14. Chandigarh Administration
Sector-9, Chandigarh



15. Uttarakhand Power Corporation Limited
Urja Bhawan, Kanwali Road,
Dehradun
16. North Central Railway
Allahabad
17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi – 110 002

....Respondents

The following were present:-

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

For Respondent: Shri B.L. Sharma, Advocate, Rajasthan Discoms

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (“the petitioner”)for truing up of capital expenditure ofLILO of both circuits of 400 kV D/C Bamnoui-Mundka/Bawana at Jatikalan 765/400 kV Sub-Station (COD: 1.10.2012) (hereinafter referred as “**Asset I**”), Agra-Jatikalan 765 kV S/C transmission Line, (COD: 1.5.2013) (hereinafter referred as “**Asset-II**”), Agra-Meerut 765 kV S/C transmission Line (COD: 1.6.2013) (hereinafter referred as “**Asset-III**”) under 765 kV system for Central Part of Northern Grid Part-I in Northern Region (hereinafter referred as “transmission asset”) under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of



Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on actual capital expenditure for the period from COD to 31.3.2014, and for determination of tariff for the period from 1.4.2014 to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

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

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (“the Act”). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 3.2.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

(a) The investment approval for the project was accorded by Board of Directors of the petitioner company vide Memorandum, dated 20.9.2009 at an estimated cost of ₹134732 lakh, which included IDC of ₹10270 lakh. The petitioner has built the transmission asset in the Northern Region. The date of the commercial operation of the transmission assets are as under:-



Particulars	Date of Commercial Operation
Asset-I	1.10.2012
Asset-II	1.5.2013
Asset-III	1.6.2013

(b) The tariff from COD to 31.3.2014 for the assets was allowed vide order dated 9.1.2015 in Petition No. 199/TT/2012 in accordance with the 2009 Tariff Regulations. The tariff allowed for the tariff period 2009-14 is as under:-

Particulars	(₹ in lakh)			
	Asset-I		Asset-II	Asset-III
	2013-14 (pro-rata)	2013-14	2013-14 (pro-rata)	2013-14 (pro-rata)
Depreciation	48.60	100.57	1718.76	1766.51
Interest on Loan	56.14	109.61	2008.13	2057.99
Return on Equity	48.27	99.89	1707.14	1754.57
Interest on Working Capital	3.92	7.97	130.61	133.56
O&M Expenses	7.17	15.16	155.00	149.30
Total	164.10	333.20	5719.64	5861.93

(c) As per investment approval, accorded on 20.9.2009, the transmission project was to be commissioned within 30 months from the date of investment approval i.e. by 1.3.2012. There was time over-run in commissioning of the instant transmission assets. The COD and the time over-run in case of the instant assets is as follows:-

Particulars	Date of Commercial Operation	Delay (Months)
Asset-I	1.10.2012	7
Asset-II	1.5.2013	14
Asset-III	1.6.2013	15



- (d) The delay was condoned by the Commission vide order dated 9.1.2015 in Petition No. 199/TT/2012 as the delay in the commissioning of the asset was not attributable to the petitioner.
- (e) There is cost over-run in case of Assets-I and II and hence the Commission in its order dated 9.1.2015 in the Petition No. 199/TT/2012 restricted the cost of the assets to the approved apportioned cost.
- (f) Tariff was allowed vide order dated 9.1.2015 in Petition No. 199/TT/2012, from COD to 31.3.2014 considering the capital cost of ₹1777.15 lakh for Asset-I, ₹35511.57 lakh for Asset-II and ₹39596.86 lakh for Asset-III.
- (g) The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.

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

5. 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”.

6. 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.



Cost Over run

7. As stated above, the estimated completion cost for Assets-I and II exceeded the approved apportioned cost and the same was restricted to approved apportioned cost. However, the estimated completion cost of Asset-III was within the apportioned approved cost. The petitioner in the instant petition has submitted that cost increase is mainly on account of increase in line length from 5 km to 12.91 km in case of Asset-I and from 240 km to 252 km in case of Asset-II. The petitioner has stated that on account of increase in line length, preliminary investigation/ROW/forest clearance/general civil works, tower quantity, conductor, Earth wire and Hardware fittings cost has exceeded the apportioned approved cost. Though the cost of Assets I and II was restricted the capital cost to apportioned approved cost for the purpose of O&M Expenses, the Commission considered the increased length of the transmission line. The decision to restrict the capital cost to the apportioned approved cost gets further sustenance from the Hon'ble Appellate Tribunal for Electricity (APTEL) judgement dated 28.11.2013 in Appeal No. 165/2012 where the APTEL has upheld the Commission's order restricting capital cost to the approved apportioned cost.

Capital Cost

8. The petitioner has claimed capital cost of ₹2034.55 lakh for Asset-I, ₹38854.65 lakh for Asset-II and ₹39596.89 lakh for Asset-III as on CODf or the purpose of truing up of tariff.



9. Regulation 7(1) of the 2009 Tariff Regulations provides as follows:-

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

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

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

(c) additional capital expenditure determined under regulation 9:

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

10. The petitioner has submitted the Auditor’s Certificate certifying the capital cost as on COD and additional capitalization claimed thereafter.

11. In response to a query of the Commission regarding the cost over-run in case of Assets I and II, the petitioner submitted that the RCE is under advanced stage and requested for two months time to submit the same. The petitioner had not yet submitted the revised cost estimates and hence in the absence of RCE we have restricted the capital cost to apportioned approved cost as on COD of Assets-I and II.

12. The details of the Capital cost as on COD are given as under:-

(₹ in lakh)

Particulars	Approved apportioned cost	Admitted capital cost	Capital cost as claimed by the petitioner	Capital cost allowed
Asset-I	1904.70	1777.15*	2034.55	1904.70
Asset-II	35511.57	35511.57*	38854.65	35511.57
Asset-III	43837.99	39596.89	39596.89	39596.89



*Cost restricted to apportioned approved cost on account of cost over run as per CERC order 199/TT/2012 dated 9.1.2015

Initial Spares

13. Regulation 8 of the 2009 tariff Regulations provides that:-

“Initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:

- (iv) Transmission system
 - (a) Transmission line - 0.75%
 - (b) Transmission Sub-station - 2.5%
 - (c) Series Compensation devices and HVDC Station - 3.5%.....”

14. The petitioner has not claimed any initial spares for the assets covered in the instant petition.

15. The total capital cost as on the cut-off date exceeds the approved apportioned cost. Therefore, we have restricted the capital cost upto cut-off date to approved apportioned cost.

Additional Capital Expenditure

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

17. Regulation 9(1)(i) of the 2009 Tariff Regulations provides as follows:-

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

- (i) Undischarged liabilities....;”



18. The petitioner has claimed additional capitalization of ₹63.38 lakh and ₹87.07 lakh for the year 2012-13 and 2013-14 respectively for Asset-I, ₹1154.41 lakh for the year 2013-2014 for Asset-II and ₹1102.03 lakh for the year 2013-14 for Asset-III towards balance and retention payment for works executed within cut-off date.

19. It is observed that total completion cost of ₹2185 lakh for Asset-I, ₹40009.06 lakh for Asset-II and ₹40699.19 lakh for Asset-III as on 31.3.2014 claimed by the petitioner exceeds the approved apportioned cost of ₹1904.70 lakh for Asset-I and ₹35511.57lakh for Asset-II. In case of Asset-III, the capital cost claimed by the petitioner is well within the approved apportioned cost. We have therefore restricted the completion cost of Asset-I and Asset-II to approved apportioned cost. Accordingly, the true up of the transmission tariff is being worked out to the extent of variation in additional capitalisation, floating rate of interest and MAT rate by restricting capital cost to ₹1904.70 lakh for Asset-I and ₹35511.57 lakh for Asset-II.

Asset-I			
(₹ in lakh)			
Approved apportioned cost: ₹1904.70 lakh			
Particulars	Capital cost up to COD	Total additional capital expenditure	Total capital cost including additional capitalization as on 31.3.2014
Approved in order dated 9.1.2015	1777.15	127.55	1904.70
Actual Claimed by the petitioner *	2034.55	150.45	2185.00
Allowed in this order	1904.70	0.00	1904.70



Asset-II**(₹ in lakh)**

Approved apportioned cost: ₹35511.57 lakh			
Particulars	Capital cost up to COD	Total additional capital expenditure	Total capital cost including additional capitalization as on 31.3.2014
Approved in order dated 9.1.2015	35511.57	0.00	35511.57
Actual Claimed by the petitioner*	38854.65	1154.41	40009.06
Allowed in this order	35511.57	0.00	35511.57

Asset-III**(₹ in lakh)**

Approved apportioned cost: ₹43837.99 lakh			
Particulars	Capital cost up to COD	Total add cap	Total capital cost including additional capitalization as on 31.3.2014
Approved in order dated 9.1.2015	39596.89	1102.30	40699.19
Actual Claimed by the petitioner*	39596.89	1102.30	40699.19
Allowed in this order	39596.89	1102.30	40699.19

*As per Auditor's certificate dated 19.10.2015

Debt: Equity

20. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provides that:-

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

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

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

.....

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life



extension shall be serviced in the manner specified in clause (1) of this regulation.”

21. The petitioner has claimed true up Annual Fixed Charge based on admitted debt-equity ratio of 70:30 as on COD which is in line with the Regulation 12 of the 2009 Tariff Regulations. The same has been considered for the purpose of true up of the tariff of 2013-14 tariff period, as given under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	1333.29	70.00	24858.10	70.00	27717.82	70.00
Equity	571.41	30.00	10653.47	30.00	11879.07	30.00
Capital Cost	1904.70	100.00	35511.57	100.00	39596.89	100.00

22. With respect to additional capitalization, the petitioner has claimed the debt:equity ratio of 70:30 for 2012-13 and 2013-14 respectively. The overall debt equity ratio as on 31.3.2014 for the instant transmission set including additional capitalization is as under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	1333.29	70.00	24858.10	70.00	28489.43	70.00
Equity	571.41	30.00	10653.47	30.00	12209.76	30.00
Capital Cost	1904.70	100.00	35511.57	100.00	40699.19	100.00

23. The additional capitalization claimed for Asset-I and Asset-II has not been allowed. In case of Asset-III, the additional capitalization claimed is as per debt-equity ratio of 70:30. The petitioner in Form 13 has submitted that an amount of ₹771.61 lakh has been drawn from Bond XLIII-ADDCAP for 2013-14 which is



equal to 70% of the additional capitalisation and therefore the equity contribution works out to be 30%. We have accordingly considered the same.

Interest on Loan (“IOL”)

24. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 has held that:-

“...in case of floating rate of interest, any change in the rates of interest during the tariff period will be considered at the time of true up”.

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

(₹ in lakh)				
Particulars	Asset-1		Asset-II	Asset-III
	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)	2013-14 (pro-rata)
Approved vide order dated 9.1.2015	56.14	109.61	2008.13	2057.99
As claimed by the petitioner	64.97	126.59	2225.07	2052.19
Allowed after true up	59.89	112.43	2003.88	2052.17

26. There is variation in interest on loan due to variation in capital cost as on COD, weighted average interest rate and actual additional capitalization during 2012-14 tariff period.



Return on Equity (“ROE”)

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

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

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

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 trueed up in accordance with Regulation 6 of these regulations.”

28. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 9.1.2015. The petitioner has submitted the variation in the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-

Particulars	MAT Rate (t) %	Grossed up ROE (Base rate/(1-t)) %
2013-14	20.961	19.691
2012-13	20.008	19.377



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

(₹ in lakh)				
Particulars	Asset-1		Asset-II	Asset-III
	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)	2013-14 (pro-rata)
Approved vide order dated 9.1.2015	48.27	99.89	1707.14	1754.57
As claimed by the petitioner	60.06	125.98	2126.46	1968.26
Allowed after trued up	55.36	112.05	1915.05	1968.26

30. The variation in return on equity is on account of increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity and also due to variation in capital cost as on COD and actual additional capitalization during 2012-14 tariff period.

Depreciation

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

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

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

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

"17. Depreciation:

...

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



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

33. The depreciation was allowed in accordance with Regulation 17 of the 2009 Tariff Regulations in its order dated 9.1.2015 in Petition No. 199/TT/2012.

34. The weighted average useful life of the transmission asset has been considered as per Regulations 3 (42) and 17 (4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the assets covered in the petition as on COD has been considered as 35 years for all the Assets. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under:-

(₹ in lakh)				
Particulars	Asset-1		Asset-II	Asset-III
	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)	2013-14 (pro-rata)
Approved vide order dated 9.1.2015	48.60	100.57	1718.76	1766.51
As claimed by the petitioner	54.55	113.07	1908.50	1766.51
Allowed after trued up	50.28	100.57	1718.76	1766.51

35. The variation in depreciation is on account of difference in capital cost as on COD and additional capitalization considered from COD to 31.3.2014.

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

36. The petitioner has computed O&M Expenses for the assets mentioned in the petition and in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The O&M Expenses claimed



by the petitioner for tariff period 2009-14 are same as that approved in the tariff order dated 9.1.2015 in Petition No. 199/TT/2012. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

(₹ in lakh)				
Particulars	Asset-1		Asset-II	Asset-III
	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)	2013-14 (pro-rata)
Approved vide order dated 9.1.2015	7.17	15.16	155.00	149.30
As claimed by the petitioner	7.17	15.16	155.00	149.86
Allowed after trued up	7.17	15.16	155.00	149.86

Interest on working capital("IWC")

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

38. The petitioner submitted the rate of interest on working capital as 13.50% for the period COD to 31.3.2014 for Asset-I and rate of interest on working capital as 13.20% for the period COD to 31.3.20014 for Asset-II and Asset-III as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

39. The Commission in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations, has considered the rate of interest on working capital on



normative basis, i.e., equal to State Bank of India Base Rate as applicable as on 1.4.2012 for Asset-I plus 350 basis points and 1.4.2013 for Asset-II and Asset-III plus 350 basis points. State Bank of India Base Rate on 1.4.2012 was 10.00% and on 1.4.2013 it is 9.70%. Therefore, interest rate of 13.50% (10.00% plus 350 basis points) has been considered to work out the interest on working capital for Asset-I and interest rate of 13.20% (9.70% plus 350 basis points) for Asset-II and Asset-III has been considered in the instant petition.

40. The IWC trued up is as under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II	Asset-III
	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)	2013-14 (pro-rata)
Maintenance Spares	1.08	2.27	23.25	22.48
O & M expenses	0.60	1.26	12.92	12.49
Receivables	29.49	58.09	987.98	1012.51
Total	31.16	61.62	1024.15	1047.48
Rate of Interest (%)	13.500%	13.500%	13.200%	13.200%
Interest	4.21	8.32	135.19	138.27

(₹ in lakh)

Particulars	Asset-1		Asset-II	Asset-III
	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)	2013-14 (pro-rata)
Approved vide order dated 9.1.2015	3.92	7.97	130.61	133.56
As claimed by the petitioner	4.53	9.25	162.75	138.27
Allowed after trued up	4.21	8.32	135.19	138.27

41. The variation in IWC is on account of variation in IOL, depreciation and ROE due to variation in capital cost as on COD & additional capitalisation during



and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

42. The detailed computation of the various components of the trued up annual fixed charges of the instant asset for the 2012-14 tariff period is summarised below:-

(₹ in lakh)				
Particulars	Asset-I		Asset-II	Asset-III
	2012-13 (Pro-Rata)	2013-14	2013-14 (Pro-Rata)	2013-14 (Pro-Rata)
Gross Block				
Opening Gross Block	1904.70	1904.70	35511.57	39596.89
Additional Capitalization	0.00	0.00	0.00	1102.30
Closing Gross block	1904.70	1904.70	35511.57	40699.19
Average Gross block	1904.70	1904.70	35511.57	40148.04
Depreciation				
Rate of Depreciation (%)	5.280	5.280	5.280	5.280
Depreciable Value	1714.23	1714.23	31960.41	36133.24
Elapsed Life of the assets at beginning of the year	0	1	0	0
Weighted Balance Useful life of the assets	35	34	35	35
Remaining Depreciable Value	1714.23	1663.95	31960.41	36133.24
Depreciation	50.28	100.57	1718.76	1766.51
Interest on Loan				
Gross Normative Loan	1333.29	1333.29	24858.10	27717.82
Cumulative Repayment upto Previous Year	0.00	50.28	0.00	0.00
Net Loan-Opening	1333.29	1283.01	24858.10	27717.82
Additions	0.00	0.00	0.00	771.61
Repayment during the year	50.28	100.57	1718.76	1766.51
Net Loan-Closing	1283.01	1182.44	23139.34	26722.92



Particulars	Asset-I		Asset-II	Asset-III
	2012-13 (Pro-Rata)	2013-14	2013-14 (Pro-Rata)	2013-14 (Pro-Rata)
Average Loan	1308.15	1232.72	23998.72	27220.37
Weighted Average Rate of Interest on Loan (%)	9.1572	9.1203	9.1090	9.0469
Interest	59.89	112.43	2003.88	2052.17
Return on Equity				
Opening Equity	571.41	571.41	10653.47	11879.07
Additions	0.00	0.00	0.00	330.69
Closing Equity	571.41	571.41	10653.47	12209.76
Average Equity	571.41	571.41	10653.47	12044.41
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT rate for the respective year (%)	20.008	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.610	19.610	19.610
Return on Equity (Pre Tax)	55.36	112.05	1915.05	1968.26
Interest on Working Capital				
Maintenance Spares	1.08	2.27	23.25	22.48
O & M Expenses	0.60	1.26	12.92	12.49
Receivables	29.49	58.09	987.98	1012.51
Total	31.16	61.62	1024.15	1047.48
Interest	4.21	8.32	135.19	138.27
Annual Transmission Charges				
Depreciation	50.28	100.57	1718.76	1766.51
Interest on Loan	59.89	112.43	2003.88	2052.17
Return on Equity	55.36	112.05	1915.05	1968.26
Interest on Working Capital	4.21	8.32	135.19	138.27
O & M Expenses	7.17	15.16	155.00	149.86
Total	176.92	348.53	5927.88	6075.06



DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4382.28	4430.01	4472.21	4472.21	4472.21
Interest on Loan	4720.08	4382.52	4031.17	3624.85	3219.58
Return on Equity	4882.76	4935.94	4982.95	4982.95	4982.95
Interest on Working Capital	340.07	335.25	329.82	321.13	312.46
O&M Expenses	328.83	340.20	351.07	363.00	374.94
Total	14654.02	14423.92	14167.22	13764.14	13362.14

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	49.32	51.03	52.66	54.45	56.24
O & M Expenses	27.40	28.35	29.26	30.25	31.25
Receivables	2442.34	2403.99	2361.20	2294.02	2227.02
Total	2519.06	2483.37	2443.12	2378.72	2314.51
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	340.07	335.25	329.82	321.13	312.46

Capital Cost

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

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

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

(a) the capital cost admitted by the Commission prior to 1.4.2014 duly 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.”

46. The petitioner has claimed capital cost of ₹2185.00lakh as on 31.3.2014 for Asset-I, ₹40009.06 lakh for Asset-II and ₹40699.19 lakh for Asset-III also additional capitalization of ₹248.98 lakh for Asset-I, ₹695.85 lakh for Asset-II and ₹862.77 lakh for Asset-III for the 2014-19 tariff period. We have considered capital cost of ₹1904.70lakh for Asset-I ₹35511.57 lakh for Asset-II and ₹40699.19 lakh for Asset-III as on 31.3.2014 for the tariff determination for the 2014-19 tariff period. As discussed above we have restricted the completion cost as on COD to approved apportioned cost.

Additional Capital Expenditure

47. The petitioner has proposed additional capitalization of ₹248.98 lakh, ₹695.85 lakh and ₹862.77 lakh for Asset-I,II and III for the 2014-19 tariff period towards balance and retention payments under Clause 1(i) of Regulation 14 of the 2014 Tariff Regulations and under Clause 3 (ix) of Regulation 14 of the 2014 Tariff Regulation for the proposed additional capitalization beyond cut-off date.

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

“(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;

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be



incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolesce of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system;

49. As discussed above, we have restricted the completion cost as on 31.3.2014 to approved apportioned cost for Assets-I and II. However, with regard to Asset-III, we have considered the additional capitalisation projected by the petitioner. The additional capital expenditure approved for Asset-III during the 2014-19 tariff period is as shown in the table below:-

Approved apportioned cost: ₹43837.99 lakh				
Particulars	Capital cost as on 31.3.2014	Total add-cap		Total capital cost including additional capitalization as on 31.3.2019
		2014-15	2015-16	
Asset-III	40699.19	37.88	824.89	41561.96

Debt:Equity Ratio

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

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

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



31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Particulars	Amount	(%)
Debt	54680.82	70.00
Equity	23434.64	30.00
Total	78115.46	100.00

52. For additional capitalization, the petitioner has proposed normative debt:equity ratio of 70:30 and the same has been considered. The details of the debt:equity including additional capitalization as on 31.3.2019 is as follows:-

(₹ in lakh)

Particulars	Amount	(%)
Debt	55284.76	70.00
Equity	23693.47	30.00
Total	78978.23	100.00

Interest on Loan (“IOL”)

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

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

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

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

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



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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	54680.82	54707.34	55284.76	55284.76	55284.76
Cumulative Repayment upto previous year	3636.13	7761.62	11909.90	16079.95	20250.00
Net Loan-Opening	51044.70	46945.72	43374.87	39204.81	35034.76
Additions during the year	26.52	577.42	0.00	0.00	0.00
Repayment during the year	4125.50	4148.27	4170.05	4170.05	4170.05
Net Loan-Closing	46945.72	43374.87	39204.81	35034.76	30864.71
Average Loan	48995.21	45160.29	41289.84	37119.79	32949.74
Rate of Interest (%)	9.0658	9.0752	9.0793	9.0786	9.0807
Interest	4441.79	4098.41	3748.81	3369.94	2992.05

Return on Equity("ROE")

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

"24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system"

"25. Tax on Return on Equity:

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

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

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."

56. The petitioner has submitted ROE at the rate of 20.961% after grossing up the ROE of 15.5% with MAT rate as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

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

58. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity.



The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE determined by the Commission is given below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	23434.64	23446.00	23693.47	23693.47	23693.47
Additional Capitalization	11.36	247.47	0.00	0.00	0.00
Closing Equity	23446.00	23693.47	23693.47	23693.47	23693.47
Average Equity	23440.32	23569.74	23693.47	23693.47	23693.47
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year (%)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax) (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	4596.65	4622.03	4646.29	4646.29	4646.29

Depreciation

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

"27. Depreciation:

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

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



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

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

60. The petitioner has computed depreciation considering capital expenditure of ₹2185.00 lakh for Asset-I, ₹40009.06 lakh for Asset-II and ₹40699.19 for Asset-III as on 31.3.2014 with additional capitalization of ₹248.98 for Asset-I, ₹695.85 lakh for Asset-II and ₹862.77 lakh for Asset-III for the 2014-19 tariff period.

61. We have computed depreciation considering capital expenditure of ₹1904.70 lakh for Asset-1, ₹35511.57 lakh for Asset-II and ₹40699.19 lakh for Asset-III as on 31.3.2014 and on additional capitalization allowed for Asset-III.

The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	78115.46	78153.34	78978.23	78978.23	78978.23
Additional Capitalization	37.88	824.89	0.00	0.00	0.00
Closing Gross block	78153.34	78978.23	78978.23	78978.23	78978.23
Average Gross block	5.280	5.280	5.280	5.280	5.280
Rate of Depreciation(%)	70320.96	70709.21	71080.41	71080.41	71080.41
Depreciable Value	66684.83	62947.58	59170.51	55000.46	50830.41
Elapsed Life of the assets at beginning of the year	4125.50	4148.27	4170.05	4170.05	4170.05
Weighted Balance Useful life of the assets	78115.46	78153.34	78978.23	78978.23	78978.23
Remaining Depreciable Value	37.88	824.89	0.00	0.00	0.00
Depreciation	78153.34	78978.23	78978.23	78978.23	78978.23



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

62. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations. The petitioner has computed O&M Expenses for the assets mentioned in the petition, in accordance with the O&M norms for D/C and S/C transmission line specified in Regulation 19(g) of the 2009 Tariff Regulations. The petitioner has claimed O&M Expenses for D/C transmission line of 12.91 km line length and S/C transmission line of 520 km line length. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in the tariff order dated 9.1.2015 in Petition No. 199/TT/2012. Accordingly, the petitioner’s entitlement to O&M Expenses has been worked out as given hereunder:-

Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Actual	Double Circuit (Bundled conductor with four or more sub-conductors) (kms)	12.91	12.91	12.91	12.91	12.91
	Single Circuit (Bundled Conductor with four sub- conductors kms)	520	520	520	520	520
Norms as per Regulation	Double Circuit (Bundled conductor with four or more sub-conductors) (₹ lakh/km)	1.062	1.097	1.133	1.171	1.21
	Single Circuit (Bundled Conductor with four sub- conductors)(₹ lakh/km)	0.606	0.627	0.647	0.669	0.691



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Total (₹ in lakh)	328.83	340.20	351.07	363.00	374.94

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

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

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

Particulars	Year				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed	328.83	340.20	351.07	363.00	374.94



Interest on Working Capital (“IWC”)

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

“28. Interest on Working Capital

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

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

(iii) Operation and maintenance expenses for one month”

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

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

68. 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) for all the assets covered in this petition. The interest on working capital allowed is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	49.32	51.03	52.66	54.45	56.24
O & M expenses	27.40	28.35	29.26	30.25	31.25
Receivables	2302.32	2253.99	2204.14	2141.64	2079.31
Total	2379.05	2333.37	2286.05	2226.34	2166.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest	321.17	315.00	308.62	300.56	292.52

Annual Transmission Charges

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	78115.46	78153.34	78978.23	78978.23	78978.23
Additional Capitalisation	37.88	824.89	0.00	0.00	0.00
Closing Gross Block	78153.34	78978.23	78978.23	78978.23	78978.23
Average Gross Block	78134.40	78565.79	78978.23	78978.23	78978.23
Depreciation					
Rate of Depreciation	5.280	5.280	5.280	5.280	5.280
Depreciable Value	70320.96	70709.21	71080.41	71080.41	71080.41
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	33	32	31	30	29
Remaining Depreciable Value	66684.83	62947.58	59170.51	55000.46	50830.41
Depreciation	4125.50	4148.27	4170.05	4170.05	4170.05
Interest on Loan					
Gross Normative Loan	54680.82	54707.34	55284.76	55284.76	55284.76
Cumulative Repayment upto Previous Year	3636.13	7761.62	11909.90	16079.95	20250.00
Net Loan-Opening	51044.70	46945.72	43374.87	39204.81	35034.76
Additions	26.52	577.42	0.00	0.00	0.00
Repayment during the year	4125.50	4148.27	4170.05	4170.05	4170.05
Net Loan-Closing	46945.72	43374.87	39204.81	35034.76	30864.71
Average Loan	48995.21	45160.29	41289.84	37119.79	32949.74



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Weighted Average Rate of Interest on Loan (%)	9.0658	9.0752	9.0793	9.0786	9.0807
Interest	4441.79	4098.41	3748.81	3369.94	2992.05
Return on Equity					
Opening Equity	23434.64	23446.00	23693.47	23693.47	23693.47
Additions	11.36	247.47	0.00	0.00	0.00
Closing Equity	23446.00	23693.47	23693.47	23693.47	23693.47
Average Equity	23440.32	23569.74	23693.47	23693.47	23693.47
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	4596.65	4622.03	4646.29	4646.29	4646.29
Interest on Working Capital					
Maintenance Spares	49.32	51.03	52.66	54.45	56.24
O & M expenses	27.40	28.35	29.26	30.25	31.25
Receivables	2302.32	2253.99	2204.14	2141.64	2079.31
Total	2379.05	2333.37	2286.05	2226.34	2166.79
Interest	321.17	315.00	308.62	300.56	292.52
Annual Transmission Charges					
Depreciation	4125.50	4148.27	4170.05	4170.05	4170.05
Interest on Loan	4441.79	4098.41	3748.81	3369.94	2992.05
Return on Equity	4596.65	4622.03	4646.29	4646.29	4646.29
Interest on Working Capital	321.17	315.00	308.62	300.56	292.52
O & M Expenses	328.83	340.20	351.07	363.00	374.94
Total	13813.93	13523.91	13224.83	12849.84	12475.85



Filing Fee and Publication Expenses

70. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. 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 clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

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

Service Tax

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

Sharing of Transmission Charges

73. 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.

74. This order disposes of Petition No. 313/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member



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

(₹ in lakh)

Particulars	Asset-I			
	Interest Rate (%)	Loan deployed as on COD (1.10.2012)	Additions during the tariff period	Total
BOND XXVIII-7.DOCO-	9.33	555.00	0.00	555.00
BOND XXIX-8.DOCO-	9.20	205.00	0.00	205.00
BOND XXX-1.DOCO DRAWL ON 01-OCT-2012-	8.80	40.00	0.00	40.00
BOND XXXI-2.DOCO DRAWL ON 01-OCT-2012-	8.90	70.00	0.00	70.00
BOND XXXIII-3.DOCO DRAWL ON 01-OCT-2012-	8.64	80.00	0.00	80.00
BOND-XXXIV-4.DOCO DRAWL ON 01-OCT-2012-	8.84	200.00	0.00	200.00
BOND-XXXV-5.DOCO DRAWL ON 01-OCT-2012-	9.64	20.00	0.00	20.00
BOND XXXVI-6.DOCO DRAWL ON 01-OCT-2012-	9.35	22.00	0.00	22.00
BOND XL-9.DOCO-	9.30	224.56	0.00	224.56
BOND XLI-10.DOCO-	8.85	7.62	0.00	7.62
BOND - XLI-11.ADDCAP FOR 2012-2013 ADDCAP 1-	8.85	0.00	44.37	44.37
BOND - XLIII-12.ADDCAP FOR 2013-2014 ADDCAP 2-	7.93	0.00	60.95	60.95
Total		1424.18	105.32	1529.50



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2009-14

(₹ in lakh)

2009-14	Asset-II			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.5.2013)	Additions during the tariff period	Total
BOND XXVIII-22.DOCO-	9.33	50.00	0.00	50.00
BOND XXIX-14.DOCO DRAWL ON 01-MAY-2013-	9.20	1230.00	0.00	1230.00
BOND XXX-15.DOCO DRAWL ON 01-MAY-2013	8.80	1600.00	0.00	1600.00
BOND XXXI-16.DOCO DRAWL ON 01-MAY-2013-	8.90	3650.00	0.00	3650.00
BOND XXXIII-17.DOCO DRAWL ON 01-MAY-2013-	8.64	3100.00	0.00	3100.00
BOND-XXXIV-18.DOCO DRAWL ON 01-MAY-2013-	8.84	5550.00	0.00	5550.00
BOND-XXXV-19.DOCO DRAWL ON 01-MAY-2013-	9.64	660.00	0.00	660.00
BOND XXXVI-20.DOCO DRAWL ON 01-MAY-2013-	9.35	3680.00	0.00	3680.00
SBI (21.03.2012)-24.DOCO-	10.28	2428.25	0.00	2428.25
BOND XL-21.DOCO DRAWL ON 01-MAY-2013-	9.30	4000.00	0.00	4000.00
BOND - XLI-23.DOCO-	8.85	1250.00	0.00	1250.00
BOND - XLIII-25.ADDCAP FOR 2013-2014 ADDCAP 1-	7.93	0.00	808.09	808.09
Total		27198.25	808.09	28006.34



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2009-14

2009-14	Asset-III			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.6.2013)	Additions during the tariff period	Total
BOND XXVIII-34.DOCO-	9.33	48.00	0.00	48.00
BOND XXIX-35.DOCO-	9.20	765.00	0.00	765.00
BOND XXX-27.DOCO DRAWL ON 01-JUN-2013-	8.80	1370.00	0.00	1370.00
BOND XXXI-28.DOCO DRAWL ON 01-JUN-2013-	8.90	4113.00	0.00	4113.00
BOND XXXIII-29.DOCO DRAWL ON 01-JUN-2013-	8.64	3540.00	0.00	3540.00
BOND-XXXIV-30.DOCO DRAWL ON 01-JUN-2013-	8.84	6262.00	0.00	6262.00
BOND-XXXV-31.DOCO DRAWL ON 01-JUN-2013-	9.64	737.00	0.00	737.00
BOND XXXVI-32.DOCO DRAWL ON 01-JUN-2013-	9.35	4996.41	0.00	4996.41
SBI (21.03.2012)-37.DOCO-	10.26	2692.91	0.00	2692.91
BOND XL-33.DOCO DRAWL ON 01-JUN-2013-	9.30	244.34	0.00	244.34
BOND - XLI-36.DOCO-	8.85	2141.00	0.00	2141.00
BOND - XLIII-38.DOCO-	7.93	808.16	0.00	808.16
BOND - XLIII-39.ADDCAP FOR 2013-2014 ADDCAP 1-	7.93	0.00	771.61	771.61
BOND XLIX-40.ADDCAP FOR 2014-2015 ADDCAP 2-	8.15	771.61	0.00	771.61
Total		27717.82	771.61	28489.43



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

(₹ in lakh)

2009-14 Particulars	Asset-I		Asset-II	Asset-III
	2012-13	2013-14	2013-14	2013-14
Gross Opening Loan	1424.18	1468.55	27198.25	27717.82
Cumulative Repayments of Loans upto Previous Year	0.00	63.33	106.67	67.75
Net Loans Opening	1424.18	1405.22	27091.58	27650.07
Add: Drawl(s) during the year	44.37	60.95	808.09	771.61
Less: Repayment(s) of Loan during the year	63.33	72.49	544.17	524.67
Net Closing Loan	1405.22	1393.68	27355.50	27897.01
Average Net Loan	1414.70	1399.45	27223.54	27773.54
Interest on Loan	129.55	127.63	2479.80	2512.65
Rate of Interest on Loan (%)	9.1572	9.1203	9.1090	9.0469

ANNEXURE-II

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)

(₹ in lakh)

2014-19 Particulars	Combined Asset-I, II and III			
	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVIII-22.DOCO-	9.33	50.00	0.00	50.00
BOND XXVIII-34.DOCO-	9.33	48.00	0.00	48.00
BOND XXVIII-7.DOCO-	9.33	555.00	0.00	555.00
BOND XXIX-14.DOCO DRAWL ON 01-MAY-2013-	9.20	1230.00	0.00	1230.00
BOND XXIX-35.DOCO-	9.20	765.00	0.00	765.00
BOND XXIX-8.DOCO-	9.20	205.00	0.00	205.00
BOND XXX-1.DOCO DRAWL ON 01-OCT-2012-	8.80	40.00	0.00	40.00
BOND XXX-15.DOCO DRAWL ON 01-MAY-2013	8.80	1600.00	0.00	1600.00
BOND XXX-27.DOCO DRAWL ON 01-JUN-2013-	8.80	1370.00	0.00	1370.00
BOND XXXI-16.DOCO DRAWL	8.90	3650.00	0.00	3650.00



2014-19 Particulars	Combined Asset-I, II and III			
	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
ON 01-MAY-2013-				
BOND XXXI-2.DOCO DRAWL ON 01-OCT-2012-	8.90	70.00	0.00	70.00
BOND XXXI-28.DOCO DRAWL ON 01-JUN-2013-	8.90	4113.00	0.00	4113.00
BOND XXXIII-17.DOCO DRAWL ON 01-MAY-2013-	8.64	3100.00	0.00	3100.00
BOND XXXIII-29.DOCO DRAWL ON 01-JUN-2013-	8.64	3540.00	0.00	3540.00
BOND XXXIII-3.DOCO DRAWL ON 01-OCT-2012-	8.64	80.00	0.00	80.00
BOND-XXXIV-18.DOCO DRAWL ON 01-MAY-2013-	8.84	5550.00	0.00	5550.00
BOND-XXXIV-30.DOCO DRAWL ON 01-JUN-2013-	8.84	6262.00	0.00	6262.00
BOND-XXXIV-4.DOCO DRAWL ON 01-OCT-2012-	8.84	200.00	0.00	200.00
BOND-XXXV-19.DOCO DRAWL ON 01-MAY-2013-	9.64	660.00	0.00	660.00
BOND-XXXV-31.DOCO DRAWL ON 01-JUN-2013-	9.64	737.00	0.00	737.00
BOND-XXXV-5.DOCO DRAWL ON 01-OCT-2012-	9.64	20.00	0.00	20.00
BOND XXXVI-20.DOCO DRAWL ON 01-MAY-2013-	9.35	3680.00	0.00	3680.00
BOND XXXVI-32.DOCO DRAWL ON 01-JUN-2013-	9.35	4996.41	0.00	4996.41
BOND XXXVI-6.DOCO DRAWL ON 01-OCT-2012-	9.35	22.00	0.00	22.00
SBI (21.03.2012)-24.DOCO-	10.25	2428.25	0.00	2428.25
SBI (21.03.2012)-37.DOCO-	10.25	2692.91	0.00	2692.91
BOND XL-21.DOCO DRAWL ON 01-MAY-2013-	9.30	4000.00	0.00	4000.00
BOND XL-33.DOCO DRAWL ON 01-JUN-2013-	9.30	244.34	0.00	244.34
BOND XL-9.DOCO-	9.30	224.56	0.00	224.56
BOND XLI-10.DOCO-	8.85	7.62	0.00	7.62
BOND - XLI-11.ADDCAP FOR 2012-2013 ADDCAP 1-	8.85	44.37	0.00	44.37
BOND - XLI-23.DOCO-	8.85	1250.00	0.00	1250.00
BOND - XLI-36.DOCO-	8.85	2141.00	0.00	2141.00
BOND - XLIII-12.ADDCAP FOR 2013-2014 ADDCAP 2-	7.93	60.95	0.00	60.95



2014-19	Combined Asset-I, II and III			
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND - XLIII-25.ADDCAP FOR 2013-2014 ADDCAP 1-	7.93	808.09	0.00	808.09
BOND - XLIII-38.DOCO-	7.93	808.16	0.00	808.16
BOND - XLIII-39.ADDCAP FOR 2013-2014 ADDCAP 1-	7.93	771.61	0.00	771.61
BOND XLIX-13.ADDCAP FOR 2014-2015 ADDCAP 3-	8.15	0.00	44.25	44.25
BOND XLIX-26.ADDCAP FOR 2014-2015 ADDCAP 2-	8.15	0.00	75.61	75.61
BOND XLIX-40.ADDCAP FOR 2014-2015 ADDCAP 2-	8.15	0.00	26.52	26.52
Total		58025.27	146.38	58171.65

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	58025.27	58171.65	58171.65	58171.65	58171.65
Cumulative Repayments of Loans upto Previous Year	1379.08	4081.41	6901.83	11427.03	16156.30
Net Loans Opening	56646.19	54090.24	51269.82	46744.62	42015.35
Add: Drawl(s) during the year	146.38	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	2702.33	2820.42	4525.20	4729.27	4729.27
Net Closing Loan	54090.24	51269.82	46744.62	42015.35	37286.08
Average Net Loan	55368.22	52680.03	49007.22	44379.99	39650.72
Rate of Interest on Loan (%)	9.0658	9.0752	9.0793	9.0786	9.0807
Interest on Loan	5019.55	4780.84	4449.49	4029.06	3600.55

