

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 498/TT/2014

Coram:

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

**Date of Hearing : 14.03.2016
Date of Order : 18.03.2016**

In the matter of:

Determination of transmission tariff for 125 MVAR 400 kV Bus Reactor along with associated bay at Bihar Sharif Sub-station under "Augmentation of Transformation Capacity and Reactive Compensation in Eastern Region for 2014-19 tariff block, under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the Matter of:

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

.....Petitioner

Versus

1. Bihar State Electricity Board,
Vidyut Bhawan, Bailey Road Patna - 800001
2. West Bengal State Electricity Distribution Company,
Bidyut Bhawan, Bidhan Nagar Block DJ,
Sector-II, Salt Lake City Calcutta - 700091
3. Grid Corporation of Orissa Ltd.,
Shahid Nagar, Bhubaneswar - 751007
4. Jharkhand State Electricity Board,
In Front off Main Secretariat Doranda,
Ranchi – 834002
5. Damodar Valley Corporation,



DVC Tower, Maniktala,
Civic Centre, VIP Road, Calcutta – 700054

6. Power Department,
Govt. Of Sikkim, Gangtok – 737101

....Respondent(s)

The following were present:

For Petitioner: Shri S.S. Raju, PGCIL
Shri Jasbir Singh, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Aryaman Saxena, PGCIL
Shri M.M. Mondal, PGCIL

For Respondents: None

ORDER

The petition has been filed by Power Grid Corporation of India Limited (“the petitioner”) 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 COD to 31.3.2019 in respect of 125 MVAR 400 kV Bus Reactor along with associated bay at Bihar Sharif Sub-station under “Augmentation of Transformation Capacity and Reactive Compensation in Eastern Region (hereinafter referred to as “the transmission asset”)

2. The petitioner has been entrusted with Augmentation of Transformation Capacity and Reactive Compensation in Northern & Eastern Region. The scope of work covered in the “Augmentation of Transformation Capacity and Reactive Compensation in Northern & Eastern Region” is as follows:-

Part-I: Augmentation of transformation capacity in Northern Region:



- a) 1x315 MVA, 400/220 kV transformer at Nalagarh S/s alongwith associated bays;
- b) 1x315 MVA, 400/220 kV transformer at Abdullapur S/s alongwith associated bays;
- c) 1x500 MVA, 400/220 kV transformer at Amritsar S/s alongwith associated bays and 3 nos of 220 kV line bays;
- d) 4x105 MVA, 400/220 kV transformer at Kisenpur S/s alongwith associated bays;

Part-II: Augmentation of Transformation capacity and Reactive compensation in Eastern Region:

- a) 2x160 MVA, 220/132 kV transformer at Purnea S/s alongwith associated bays;
- b) 1x125 MVAR, 400kV Bus Reactor at Biharsharif S/s alongwith associated bays.

3. The respondents in the instant petition are distribution licensees, who are procuring transmission service from the petitioner, mainly beneficiaries of Eastern Region.

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

- a) The investment approval and expenditure sanction to the transmission project was accorded by Board of Directors of POWERGRID, vide Memorandum dated 2.7.2012 for ₹9197 lakh including an IDC of ₹290 lakh for Part I (i.e. Augmentation of transformation capacity and reactive compensation in NR) and for ₹3080 lakh including IDC of ₹125 lakh for Part-

II (i.e. Augmentation of transformation capacity and reactive compensation in ER) based on April 2012 price level.

b) The petitioner has submitted the Revised Cost Estimates (RCE) vide affidavit dated 11.3.2016. As per the RCE the estimated cost for the Part II is ₹3294 lakh including an IDC of ₹86 lakh based on the August 2015 price levels.

c) The transmission asset was scheduled to be commissioned within 20 months from the date of IA in a progressive manner. Thus, the scheduled date of commissioning of the transmission asset was 27.2.2014. However, the asset was commissioned on 30.3.2015 and thus there is a total time over-run of 13 (thirteen) months in commissioning of the instant transmission asset.

d) The petitioner has submitted that the delay in commissioning of the transmission asset is mainly on account of delay in award of contract for the subject sub-station packages due to the adoption of Single Stage Two Envelope (SSTE) bidding procedure.

e) The Commission, vide its order dated 15.4.2015, in Petition No. 498/TT/2014 had approved the provisional tariff for the transmission asset for the years 2014-15 and 2015-16 for inclusion in PoC charges as per Regulation 7(7)(i) of the 2014 Tariff Regulations. The provisional tariff approved in the said order is as follows:-

Asset	(₹ in lakh)	
	2014-15	2015-16
125 MVAR 400 kV Bus Reactor along with associated bay at Bihar Sharif Sub-station	43.71	154.01



f) The petitioner has claimed a capital cost of ₹607.79 lakh as on COD (30.3.2015) for the transmission asset and an additional capital expenditure of ₹417.97 lakh in 2015-16 and ₹148 lakh in 2016-17 during 2014-19 tariff period.

5. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act 2003. No comments/objections have been received from the public in response to the notice in newspaper. No submissions have been made by the respondents. The hearing in this matter was held on 14.3.2016.

6. The Commission vide its ROP dated 31.1.2015 had directed the petitioner to submit the COD certificate and revised tariff forms. The petitioner in response to the Commission's direction has filed its replies vide affidavit dated 27.3.2015, 15.10.2015 and 11.3.2016.

7. Having heard the representatives of the petitioner and respondents, and perused the material on record, we proceed to determine the tariff in accordance with the Tariff Regulations, 2014.

8. The transmission charges claimed by the petitioner based on the actual date of commercial operation are as below:-

(₹ in lakh)

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	0.17	43.13	58.07	61.97	61.97
Interest on Loan	0.19	45.39	57.56	56.88	51.76
Return on Equity	0.19	48.29	65.01	69.39	69.39

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital	0.03	6.59	7.71	8.01	8.01
O & M Expenses	0.32	62.30	64.37	66.51	68.71
Total	0.90	205.70	252.72	262.76	259.84

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

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	4.96	5.19	5.36	5.54	5.73
Maintenance Spares	8.93	9.35	9.66	9.98	10.31
Receivables	27.92	34.28	42.12	43.79	43.31
Total working capital	41.81	48.82	57.14	59.31	59.35
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest on working capital	5.64	6.59	7.71	8.01	8.01
Pro-rata Interest on working capital	0.03	6.59	7.71	8.01	8.01

10. Annual Fixed charges for 2014-19 tariff period are being determined in the succeeding paragraphs.

Capital Cost

11. 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;”

12. The petitioner vide its submission dated 15.10.2015 has claimed a capital cost of ₹614.81 lakh as on COD for the transmission asset. The capital cost claimed by the petitioner is certified by the Auditor's Certificate dated 10.9.2015. Further, the petitioner vide its submission dated 11.3.2016 has revised the capital cost as on COD. The petitioner has submitted the accrual IDC amount upto COD is ₹7.02 lakh and the same is discharged during 2015-16. The petitioner has deducted the IDC amount of ₹7.02 lakh from the capital cost as on COD. The capital cost claimed the petitioner is as follows:-

(₹ in lakh)

Approved Apportioned Cost as per the RCE	Capital cost as on COD	Additional Capital Expenditure					Estimated Completion Cost
		2014-15	2015-16	2016-17	2017-18	2018-19	
1233.10	607.79	-	417.97	148	-	-	1173.76

Time Over-run

13. As per the investment approval, the transmission asset was scheduled to be commissioned within 20 months of the sanction i.e. on 27.2.2014. However, the transmission asset was commissioned on 30.3.2015. Thus, there is a time over-run of 13 months. The petitioner has submitted the trial run operation certificate dated 25.6.2015 and inspection certificate dated 27.3.2015 in respect of the actual COD.

14. The petitioner has submitted that the delay in commissioning of the transmission asset is mainly on account of delay in award of contract for the subject substation packages which was due to the adoption of Single Stage Two Envelope (SSTE) bidding procedure.

15. The petitioner has submitted that the procurement for the sub-station packages under the current scheme was initially taken up together with the other packages of Eastern Region for the purpose of cost effectiveness, efficiency and availability of prospective Bidders. The Bids for the subject package were invited immediately after investment approval (IA) for which IFB (invitation of Bids) was published in October 2012 under Single Stage Two Envelope (SSTE) Bidding Procedure introduced w.e.f. the year 2012 as directed by the CVC.

16. The petitioner has further submitted that under the SSTE bidding procedure, the Second Envelope (i.e. the price bid) is opened only for those bidders whose bids are responsive to the specified requirements, who are assessed to have the requisite capability and the capacity to execute the contract in case of award. As such in line with the provisions of the bidding documents and the extant policy and procedure, determination of substantial responsiveness of bids received as well as the assessment of capability and capacity of the bidders, is to be carried out at the First Envelope stage itself. Whereas, under SSSE bidding procedure, this exercise is largely limited to 2 to 4 short listed bidders, and to only the lowest evaluated bidder in respect of capacity and capability analysis/ assessment. In addition the process also involves opening of the Second Envelope by inviting the responsive bidders and allowing them sufficient time to attend the bid opening of Second Envelopes. This also adds to the time taken under SSTE system.

17. The petitioner has submitted that the assessment of capability and capacity of three of the bidders was involved in the instant case. Since the petitioner did not have past experience with these bidder, the award was placed on 8.8.2013. The petitioner further submits that the bidding process under SSTE bidding procedure



has caused an unavoidable initial delay of 13 months and work could physically start only after August 2013.

18. We have considered the submission of the petitioner. As per the petitioner's submission the overall delay in the commissioning of the transmission assets is due to the adoption of the SSTE bidding procedure, which led to delay in tendering process and consequential delay in award of the packages. The petitioner has only compared the complex nature of the SSTE over the SSSE bidding procedure and not has not furnished any proper justification for the time over-run.

19. We are of view that the time over-run caused due to the adoption of the SSTE bidding procedure was controllable to most extent. The petitioner should have expedited the tendering and the award process and avoided the delay of 13 months. However, considering the additional time and effort involved in the SSTE bidding process over the normal SSSE process and the lack of petitioner's experience with new bidders we condone the time over-run of 6 (six) months out of the overall time over-run of 13 months. We disallow the time over-run of 7 (seven) months and subsequently disallow the IDC and IEDC of 7 months for the period from SCOD to COD.

20. The petitioner in its affidavit dated 15.10.2015 has submitted the IDC and IEDC during the period from SCOD and the COD as mentioned below:-

(₹ in lakh)

Infusion Date	IEDC /IDC from SCOD to COD (27.2.2014 to 30.3.2015)	Amount	Total Days
15.5.2014	IDC	7.02	319.00
27.2.2014	IEDC	19.61	396.00



21. Further, the petitioner vide affidavit dated 11.3.2016 has submitted that out of the total IDC amount of ₹7.02 lakh no IDC was discharged till the COD, and the same has been considered as the additional capital expenditure during 2015-16.

22. The details of IDC and IEDC claimed and the IDC and IEDC disallowed for 7 months is shown below:-

IEDC /IDC from SCOD to COD (27.2.2014 to 30.3.2015)	Amount (₹ in lakh)	Total months of IDC/IEDC	7 months IDC/IEDC to be disallowed (₹ in lakh)
IDC	7.02	10.49	4.69
IEDC	19.61	13.02	10.54
Total	26.63	-	15.23

23. The IEDC amount of ₹10.54 lakh as worked out above is disallowed from the capital cost of the transmission asset as on COD, whereas the IDC amount of ₹4.69 lakh as worked out above is disallowed from the additional capital expenditure claimed by the petitioner for 2015-16 as shown below:-

(₹ in lakh)

Claimed / Approved	Capital cost as on COD	Additional Capital Expenditure					Estimated Completion Cost
		2014- 15	2015- 16	2016- 17	2017- 18	2018- 19	
Claimed by the petitioner	607.79	-	417.97	148.00	-	-	1173.76
IDC Disallowed	-	-	4.69	-	-	-	-
IEDC Disallowed	10.54	-	-	-	-	-	-
Allowed after deducting IDC/IEDC	597.25	-	413.28	148.00	-	-	1158.53

Initial Spares

24. The petitioner has claimed the initial spares of ₹46.00 lakh in sub-station equipment. The same is allowed for computation of tariff since it is within the normative limit.

Additional Capital Expenditure

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

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

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

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

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

27. The petitioner has claimed an estimated additional capital expenditure of ₹417.97 lakh in 2015-16 which includes IDC of ₹7.02 lakh discharged during 2015-16 and balance and retention payments of ₹410.95 lakh, and ₹148.00 lakh in 2016-17 against balance and retention payments.

28. The IDC amount of ₹4.69 lakh as worked out in the para 22 is disallowed from the additional capital expenditure claimed in 2015-16.

29. The additional capital expenditure of ₹410.95 lakh in 2015-16 and ₹148.00 lakh on account of balance and retention payments is allowed under Regulation 14(1) of 2014 Tariff Regulations. Thus the additional capital expenditure allowed for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Capital cost as on COD	Additional Capital Expenditure					Estimated Completion Cost
	2014-15	2015-16	2016-17	2017-18	2018-19	
597.25	-	413.28	148.00	-	-	1158.53

Debt: Equity

30. 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.”

The petitioner has considered the debt: equity ratio of 70:30, which is in line with the 2014 Tariff Regulations, hence same is considered for calculation of tariff.

31. Accordingly, the details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

(₹ in lakh)

Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	418.07	70.00	392.90	70.00	810.97	70.00
Equity	179.17	30.00	168.39	30.00	347.56	30.00
Total	597.25	100.00	561.28	100.00	1158.53	100.00

Return on Equity (“ROE”)

32. 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.”

33. It further provides that in case the generating company or transmission licensee paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of ROE. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during the 2013-14 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in accordance with Clause (3) of Regulation 25 of the 2014 Tariff Regulations. The ROE allowed is as follows:-

(₹ in lakh)

Return on Equity	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	179.17	179.17	303.16	347.56	347.56
Additions	0.00	123.99	44.40	0.00	0.00
Closing Equity	179.17	303.16	347.56	347.56	347.56
Average Equity	179.17	241.17	325.36	347.56	347.56
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	0.19	47.29	63.80	68.16	68.16

Interest on Loan (“IoL”)

34. Clause 5 and 6 of Regulation 26 of 2014 Tariff Regulations provides that:-

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

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

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

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

35. The weighted average rate of IoL has been considered on the basis of rate prevailing as on COD. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed at Annexure-1, IoL allowed is as follows:-

(₹ in lakh)

Interest on Loan	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	418.07	418.07	707.37	810.97	810.97
Cumulative Repayment upto Previous Year	0.00	0.17	42.62	99.88	161.05
Net Loan-Opening	418.07	417.90	664.75	711.09	649.92
Additions	0.00	289.30	103.60	0.00	0.00
Repayment during the year	0.17	42.45	57.26	61.17	61.17
Net Loan-Closing	417.90	664.75	711.09	649.92	588.75
Average Loan	417.99	541.33	687.92	680.51	619.33
Weighted Average Rate of Interest on Loan (%)	8.2511	8.2511	8.2511	8.2511	8.2511
Interest on Loan	0.19	44.67	56.76	56.15	51.10

Depreciation

36. Clause (2), (5) and (6) of Regulation 27 of 2014 Tariff Regulations provide that:-

"27. Depreciation:

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

...

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

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

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

37. 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 depreciation worked out for the instant transmission asset are as follows:-

(₹ in lakh)

Depreciation	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	597.25	597.25	1010.53	1158.53	1158.53
Additional Capitalization	0.00	413.28	148.00	0.00	0.00
Closing Gross Block	597.25	1010.53	1158.53	1158.53	1158.53
Average Gross Block	597.25	803.89	1084.53	1158.53	1158.53
Freehold Land (Av. Cost)	0.00	0.00	0.00	0.00	0.00
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Elapsed life	0	1	2	3	4
Balance Useful life of the asset	25	24	23	22	21
Remaining Depreciable Value	537.52	723.33	933.46	942.80	881.63
Depreciation during the year	0.17	42.45	57.26	61.17	61.17
Cumulative depreciation (incl. of AAD)	0.17	42.62	99.88	161.05	222.22



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

38. The petitioner has 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 submitted that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	60.300	62.300	64.370	66.510	68.710
Total O&M Expenses (₹ lakh)	0.33	62.30	64.37	66.51	68.71

39. The petitioner has submitted that being a CPSU, the scheme of wage revision is binding on the petitioner. However, the actual impact of wage hike (due w.e.f. 1.1.2017) has not been factored in fixation of the normative O&M rates prescribed for the 2014-19 tariff period.

40. We have considered the submissions of the petitioner and the respondents. 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 assets as per the prevailing norms.

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

Interest on Working Capital

42. 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;”

43. The petitioner has considered the rate of interest on working capital to be 13.50%.

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

(₹ in lakh)

Interest on Working Capital	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M expenses	5.02	5.19	5.36	5.54	5.72
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	27.53	33.87	41.64	43.32	42.85
Total	41.60	48.41	56.66	58.84	58.88
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.02	6.54	7.65	7.94	7.95

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	597.25	597.25	1010.53	1158.53	1158.53
Additional Capitalisation	0.00	413.28	148.00	0.00	0.00
Closing Gross Block	597.25	1010.53	1158.53	1158.53	1158.53
Average Gross Block	597.25	803.89	1084.53	1158.53	1158.53
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	537.52	723.50	1162.06	1109.28	1042.68
Balance useful life of the asset	25.00	24.00	23.00	22.00	21.00
Elapsed life	0.00	1.00	2.00	3.00	4.00
Remaining Depreciable Value	537.52	723.33	933.46	942.80	881.63
Depreciation during the year	0.17	42.45	57.26	61.17	61.17
Cumulative depreciation (incl. of AAD)	0.17	42.62	99.88	161.05	222.22
Interest on Loan					
Gross Normative Loan	418.07	418.07	707.37	810.97	810.97
Cumulative Repayments upto Previous Year	0.00	0.17	42.62	99.88	161.05
Net Loan-Opening	418.07	417.90	664.75	711.09	649.92
Additions	0.00	289.30	103.60	0.00	0.00
Repayment during the year	0.17	42.45	57.26	61.17	61.17
Net Loan-Closing	417.90	664.75	711.09	649.92	588.75
Average Loan	417.99	541.33	687.92	680.51	619.33
Weighted Average Rate of Interest on Loan (%)	8.2511	8.2511	8.2511	8.2511	8.2511
Interest on Loan	0.19	44.67	56.76	56.15	51.10
Return on Equity					
Opening Equity	179.17	179.17	303.16	347.56	347.56
Additions	0.00	123.99	44.40	0.00	0.00
Closing Equity	179.17	303.16	347.56	347.56	347.56
Average Equity	179.17	241.17	325.36	347.56	347.56
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	0.19	47.29	63.80	68.16	68.16
Interest on Working Capital					
O & M Expenses	5.02	5.19	5.36	5.54	5.72
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	27.53	33.87	41.64	43.32	42.85
Total Working Capital	41.60	48.41	56.66	58.84	58.88
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	0.02	6.54	7.65	7.94	7.95
Annual Transmission Charges					
Depreciation	0.17	42.45	57.26	61.17	61.17
Interest on Loan	0.19	44.67	56.76	56.15	51.10



Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Return on Equity	0.19	47.29	63.80	68.16	68.16
Interest on Working Capital	0.02	6.54	7.65	7.94	7.95
O & M Expenses	0.33	62.30	64.37	66.51	68.71
Total	0.91	203.24	249.85	259.93	257.09

Filing Fee and the Publication Expenses

46. 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

47. 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

48. 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

49. 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.

50. This order disposes of Petition No. 498/TT/2014.

Sd/-

(Dr. M.K. Iyer)
Member

Sd/-

(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XLVI -DOCO loan-	9.30	20.00	0.00	20.00
Bond XLVIII-DOCO loan 1-	8.20	410.37	0.00	410.37
Total		430.37	0.00	430.37

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

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	430.37	430.37	430.37	430.37	430.37
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	430.37	430.37	430.37	430.37	430.37
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	430.37	430.37	430.37	430.37	430.37
Average Net Loan	430.37	430.37	430.37	430.37	430.37
Rate of Interest on Loan (%)	8.2511	8.2511	8.2511	8.2511	8.2511
Interest on Loan	35.51	35.51	35.51	35.51	35.51