

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 149/TT/2016

Coram:

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

**Date of Hearing : 11.11.2016
Date of Order : 28.12.2016**

In the matter of:

Determination of transmission tariff under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2014 for 400/220 kV Ludhiana Sub-station: (+) 600 MVAR / (-) 400 MVAR under "Static VAR Compensator (SVCs) in Northern Region".

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
2. Ajmer Vidyut Vitran Nigam Limited
400 kV GSS Building, Ajmer Road,
Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Ltd
400 kV GSS Building, Ajmer Road,
Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Ltd
400 kV GSS Building, Ajmer Road,
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board



Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004

6. Punjab State Power Corporation Limited
Thermal Shed T-1A, Near 22 Phatak
Patiala-147001
7. Haryana Power Purchase Centre, II Floor
Shakti Bhawan, Sector~6
Panchkula (Haryana) 134109
8. Power Development Deptt.
Govt. of Jammu & Kashmir,
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Ltd.
10th Floor Shakti Bhawan
14, Ashok Marg
Lucknow - 226001
10. Delhi Transco Ltd
Shakti Sadan, Kotla Road,
New Delhi-110002
11. BSES Yamuna Power Ltd,
BSES Bhawan, Nehru Place ,
New Delhi.
12. BSES Rajdhani Power Ltd,
BSES Bhawan, Nehru Place,
New Delhi
13. North Delhi Power Ltd.
Power Trading & Load Dispatch Group
Cennet Building, Adjacent to 66/11 kV,
Pitampura, Grid Building, Near PP Jewellers,
Pitampura, New Delhi-110034
14. Chandigarh Administration
Sector -9, Chandigarh.
15. Uttarakhand Power Corporation Ltd.
Urja Bhawan, Kanwali Road, Dehradun.
16. North Central Railway,
Allahabad.
17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,



The following were present:-

For Petitioner: Shri S. S. Raju, PGCIL
Shri Rakesh Prasad, PGCIL
Shri S.K. Venkatsan, PGCIL

For Respondent: None

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for determination of tariff for 400/220 kV Ludhiana Sub-station: (+) 600 MVAR / (-) 400 MVAR (hereinafter referred to as "Asset") under "Static VAR Compensator (SVCs) in Northern Region" (hereinafter referred to as "Transmission Project") under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "2014 Tariff Regulations") for the period from date of commercial operation to 31.3.2019.

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 brief facts of the case are as follows:-

(a) Provision of SVC was approved in the 30th Standing Committee held on 19.12.2011. The investment approval for the project was accorded by Board of Directors of the petitioner company, vide Memorandum



16.5.2014 with an estimated cost of ₹82998 lakh including an IDC of ₹4527 lakh, based on price level of February, 2014. As per the investment approval, the transmission assets were scheduled to be commissioned within 27 months from the date of investment approval, i.e. by 13.8.2016.

(b) The transmission charges claimed by the petitioner are as under:-

Particulars	(₹ in lakh)		
	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	295.21	1017.95	1070.88
Interest on Loan	316.26	1038.61	1010.56
Return on Equity	328.93	1134.21	1193.18
Interest on Working Capital	21.62	73.03	74.98
O&M Expenses	21.46	66.51	68.71
Total	983.48	3330.31	3418.31

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

Particulars	(₹ in lakh)		
	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	5.37	5.54	5.73
Maintenance Spares	9.66	9.98	10.31
Receivables	491.74	555.05	569.72
Total	506.76	570.57	585.75
Rate of Interest (%)	12.80	12.80	12.80
Interest	21.62	73.03	74.98

4. The petitioner has served the petition on 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. Respondent No. 1, 2, 3, and 4 (collectively hereinafter called as "Rajasthan Discoms") have filed reply vide affidavit dated

30.9.2016. The petitioner has filed rejoinder to the reply vide affidavit dated 28.10.2016. The hearing in this matter was held on 11.11.2016.

Commercial Operation Date (“COD”)

5. Clause (3) of Regulation 4 of the 2014 Tariff Regulations provides as follows:-

“4. Date of Commercial Operation: The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

xxx

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

xxx

xxx”

6. The petitioner has submitted in the petition that instant asset was anticipated to be commissioned on 1.9.2016. Later, vide affidavit dated 19.10.2016 submitted that the revised anticipated date of commercial operation as 1.11.2016. During the hearing on 11.11.2016 the petitioner has submitted that the date of commercial operation has again been revised and the asset is now anticipated to be commissioned on 1.12.2016. The petitioner has submitted revised forms as on 1.12.2016 vide affidavit dated 19.10.2016 The date of commercial operation of the instant asset is provisionally admitted as 1.12.2016. The petitioner is directed to submit RLDC trial run certificates in accordance with Regulation 5(2) of the 2014 Tariff Regulations indicating completion of successful



trial operation. The tariff for the instant asset is worked out from the date of provisional COD to 31.3.2019.

Capital Cost

7. The petitioner has claimed the capital cost ₹14768.55 lakh as on anticipated COD. The details of approved apportioned cost, estimated capital cost on COD, additional capital expenditure projected to be incurred and estimated completion cost claimed by the petitioner are given below:-

Apportioned approved cost as per FR	Capital cost as on COD	Estimated addition capital expenditure				(₹ in lakh)
		2016-17	2017-18	2018-19	Total	Total estimated capital cost as on 31.3.2019
31215.60	14768.55	4009.67	1002.42	1002.42	6014.51	20783.06

8. Regulation 9 (1), 9(2) and 10 (1) of the 2014 Tariff Regulations specify as follows:-

“9. Capital Cost: (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.

(2) The Capital Cost of a new project shall include the following:

- the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- Interest during construction and financing charges, on the loans (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;
- Increase in cost in contract packages as approved by the Commission;
- Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

- h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

“10. Prudence Check of Capital Expenditure: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time: Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff.”

Time over-run

9. As per the investment approval, the commissioning schedule of the project was 27 months from the date of investment approval. The investment approval was accorded on 16.5.2014 and hence the schedule date of commercial operation of the instant assets was 13.8.2016. The petitioner has submitted that instant asset is anticipated to be commissioned on 1.12.2016. Hence, there is time over-run of 111 days in commissioning of the instant assets.

10. The petitioner has submitted reasons for time over-run as follows:-

- a) The petitioner has submitted that the project SVC at Ludhiana was first of kind in world which was to be established in India under "MAKE IN INDIA" initiation and the MV bus rating of SVC is approximately 12000 Ampere and on MV side such higher rating was to be used for first time in India. The petitioner submitted that it took time to evaluate and finalizing the type of bus bar arrangement. Ultimately a combination of 'C' channel and 8" Indian



Pipe standard tube is used, the 'C' channel is also used in pair and made up of Aluminium.

- b) The petitioner has further submitted that this 'C' channel is first time made in India and was first time manufactured by the supplier and this rating was to be used for the first time ever hence requiring special skills, the clamp and connector of these MV buses are also developed for first time and considerable time was spent in developing the same. The petitioner further submitted that in spite of utmost care 2 nos. 26 kV MV Filter Resistors were damaged during transportation and these resistors are used in Double tuned Filter(DTF), As these filters are required to take SVC into service, without replenishment of these resistors it was not possible to take SVC into service. These resistors were supplied by Metal Deploy, France, the replenishment took approximately 4 month.

11. We have considered the submissions of the petitioner. The instant asset is not yet commissioned and it is anticipated to be commissioned on 1.12.2016. It is observed that there is already 111 days of time over-run and the petitioner has not submitted detailed justification with regard to time over-run. Hence, the issue of time over-run will be considered after actual commissioning of the instant asset or at the time of truing up. Accordingly, IDC and IEDC for 111 days of time over-run is not allowed at this stage.

IDC and IEDC



12. The petitioner in vide affidavit dated 23.11.2016 has submitted that as per Regulation 11(A)(1) of 2014 Tariff Regulations the breakup of IDC and IEDC on cash basis upto SCOD, from SCOD to COD and beyond COD shall be submitted after actual COD. We have considered the submission of the petitioner. IDC and IEDC given in Auditor's Certificate dated 22.11.2016 and the details are as follows:-.

(₹ in lakh)	
IEDC up to COD	IDC up to COD
187.39	547.32

13. IDC and IEDC of 111 days have been deducted from the capital cost as on COD. The IDC and IEDC disallowed is shown as below:-

(₹ in lakh)				
IDC and IEDC as per Auditor's Certificate up to anticipated COD	Amount	Period of IDC and IEDC infusion (in days)	Disallowed time over-run (in days)	Disallowed IDC and IEDC
IDC	547.32	931	111	65.26
IEDC	187.39	931	111	22.34

14. The petitioner is directed to submit breakup of IDC and IEDC discharged upto SCOD, from SCOD to COD and beyond COD on cash basis as per Regulation 11(A)(1) of 2014 Tariff Regulations at the time of truing up.

15. Capital cost after adjustment of IDC is as follows:-

(₹ in lakh)			
Capital Cost as on COD after deduction of IDC and IEDC	Additional Capital Expenditure after adjustment of IDC		
	2016-17	2017-18	2018-19
14579.76	4009.67	1002.42	1002.42



Cost over-run

16. The petitioner, vide Auditor's certificate dated 22.11.2016 has submitted that total estimated completion cost as on 31.3.2019 is ₹ 20594.27 lakh against apportioned approved cost of ₹31215.60 lakh. There is over-estimation in the completion cost of the instant asset. The petitioner is directed to adopt better ways to prepare the cost estimates.

17. Rajasthan Discoms have submitted that the petitioner has not submitted that how such additional capitalisation would lead for enhancement of design energy. The petitioner in its rejoinder has submitted that the completion cost of the asset is within the apportioned approved cost.

18. We have considered the submission of the petitioner and the respondent. The estimated completion cost as on 31.3.2019 of the instant asset claimed by the petitioner is within the apportioned approved cost and there is no cost over-run in case of instant assets. Accordingly, it is allowed.

Initial Spares

19. The petitioner has claimed initial spares of ₹1298.92 lakh pertaining to sub-stations on the "cut-off" date of 31.3.2019. The petitioner has also submitted Auditor's certificate dated 22.11.2016 in support of its claim.

20. Regulation 13 of the 2014 Tariff Regulations provide for ceiling norms for capitalization of initial spares. Regulation 13 of the 2014 Tariff Regulations specify as follows:-

"13. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

.

.



- .
- (d) Transmission system
 - (i) Transmission line - 1.00%
 - (ii) Transmission Sub-station (Green Field) - 4.00%
 - (iii) Transmission Sub-station (Brown Field) - 6.00%
 - (iv) Series Compensation devices and HVDC Station - 4.00%
 - (v) Gas Insulated Sub-station (GIS) - 5.00%
 - (vi) Communication system - 3.5%

Provided that:

....

....

iv. for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break up of head wise IDC & IEDC in its tariff application."

21. The ceiling limit is 6.00% with regard to sub-station of the Plant and Machinery Cost of the element for brown-field projects. Accordingly, the initial spares are allowed as specified in the 2014 Tariff Regulations and it is as under:-

(₹in lakh)	
Particulars	Sub-station
Plant and Machinery cost claimed as on cut-off date after deducting IDC, IEDC and civil works	20048.34
Initial spares as per Auditor's Certificate	1298.02
Ceiling limit as per Regulation 13 of 2014 regulations	6.00%
Initial spares worked out as per norms	1196.83
Excess initial spares claimed	101.19

22. The initial spares claimed by the petitioner are in excess by ₹101.19 lakh pertaining to sub-station as prescribed under Regulation 13 of the 2014 Tariff Regulation. The initial spares allowed for the instant assets are as follows:-

(₹in lakh)	
Excess initial spares disallowed	Capital cost allowed as on COD for tariff determination purpose
101.19	14579.76

23. There is discrepancy in Form-14 with regard to Plant and Machinery cost (excluding IDC and IEDC) up to COD as compared to Auditor's Certificate



submitted by the petitioner. Hence, the petitioner is directed to submit revised Form-14 at the time of truing up.

Additional Capital Expenditure

24. The petitioner has proposed additional capitalization of ₹6014.51 lakh towards balance and retention payment under Regulation 14(1) (i) of 2014 Tariff Regulations.

25. Clause (1)(i) 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 13;
- (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:

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff."

26. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines "cut-off" date as under:-

"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 the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation".

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer,"



27. The cut-off date of the instant transmission asset is 31.3.2019.

28. Rajasthan Discoms have submitted that undischarged liabilities recognized to be payable at a future date, works deferred for execution, procurement of initial capital spares within the original scope of work and liabilities to meet award of arbitration etc. which are all presumptive in nature and far away from the actual concerns. Even if that be taken into consideration, the steep hike in completion cost from the original approval remains unexplained in an un-ambiguous term.

29. The petitioner has submitted that additional capital expenditure claimed in the Petition is due to balance and retention payment pertaining to the instant assets and the claim is as per the 2014 Tariff Regulations. As regards, Rajasthan Discoms contradiction that the petitioner has not submitted the details of enhancement of design energy, the petitioner has submitted that it is not applicable to the instant asset.

30. We have considered the submission of the petitioner and the respondent. The petitioner claim of additional capital expenditure for 2016-17, 2017-18 is towards balance and retention. hence it is allowed under Regulation 14(1)(i) of 2014 Tariff Regulation, subject to true up on actual basis and it is as follows:-

Approved apportioned cost	Exp. up to COD	Additional capital expenditure			Total	Estimated completion cost
		2016-17	2017-18	2018-19		
31215.60	14579.76	4009.67	1002.42	1002.42	6014.51	20594.27

Debt: Equity Ratio

31. Regulation 19 (1) of the 2014 Tariff Regulations specifies 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:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.”

32. The petitioner has considered debt:equity ratio as 70:30 as on COD and debt:equity ratio as 70:30 for additional capitalization during 2016-17, 2017-18 and 2018-19. Accordingly, we have considered the same for the purpose of tariff computation for the 2014-19 tariff period. The details of debt:equity as on COD, as on 31.3.2019 and for additional capital expenditure is as follows:-

Particulars	(₹ in lakh)					
	As on COD		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	10205.83	70.00	4210.16	70.00	6178.28	70.00
Equity	4373.93	30.00	1804.35	30.00	14415.99	30.00
Total	14579.76	100.00	6014.51	100.00	20594.27	100.00

Interest on Loan (“IOL”)

33. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations provides 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.”

34. We have considered the weighted average rate of IOL on the basis of rate prevailing as on COD. Further, the petitioner has prayed to allow it to bill and adjust impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2014-19 period, if any from the respondents. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The petitioner's prayer to bill and adjust the impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2014-19 period from the respondents will be considered at the time of truing up. The petitioner has claimed proposed loan for 2014-19 tariff period. We have considered the proposed loan and the petitioner is hereby directed to submit details with regard to the proposed loan at the time of truing up. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out as follows:-

(₹ in lakh)			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Gross loan opening	10205.83	13012.60	13714.30
Cumulative Repayment upto previous year	0.00	290.29	1298.28
Net Loan-Opening	10205.83	12722.31	12416.02
Additions during the year	2806.77	701.69	701.69
Repayment during the year	290.29	1007.99	1060.91
Net Loan-Closing	12722.31	12416.02	12056.80
Average Loan	11464.07	12569.17	12236.41
Rate of Interest (%)	8.1835	8.1835	8.1835
Interest on Loan	311.01	1028.60	1001.37



Return on Equity ("ROE")

35. Clause (1) & (2) of Regulation 24 and Clause (2) of Regulation 25(2) 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 and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

i. in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

ii. the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

iii. additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

xxx

xxx

"

"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."

36. The petitioner has claimed ROE at the rate of 19.61% during 2016-17 to 2018-19 after grossing up the ROE of 15.50% with MAT rate as per the above said Regulation.



37. 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.

38. Rajasthan Discoms have submitted that the petitioner sought tariff as per of MAT Rate, ROE and Service Tax etc. on the basis of norms would not be tenable. In reply, the petitioner has submitted that ROE has been claimed by grossing up with MAT rate for 2014-15 in line with the 2014 Tariff Regulations.

39. 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 claimed that MAT rate of 20.96% is applicable to the petitioner's company during 2016-17. Accordingly, the MAT rate applicable during 2016-17 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. The ROE allowed for the instant transmission asset is given below:-

(₹ in lakh)			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	4373.93	5576.83	5877.56
Additional Capitalization	1202.90	300.73	300.73
Closing Equity	5576.83	5877.56	6178.28
Average Equity	4975.38	5727.19	6027.92
Return on Equity (Base Rate) (%)	15.500	15.500	15.500

Particulars	2016-17 (pro-rata)	2017-18	2018-19
Tax rate for the year (%)	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610
Return on Equity	323.45	1123.13	1182.10

Depreciation

40. 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."

41. Clause (67) of Regulation 3 of the 2014 Tariff Regulations defines useful life as follows:-

"(67) '**Useful life**' in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:

- (a) Coal/Lignite based thermal generating station 25 years
- (b) Gas/Liquid fuel based thermal generating station 25 years
- (c) AC and DC sub-station 25 years
- (d) Gas Insulated Substation (GIS) 25 years
- (d) Hydro generating station including pumped Storage hydro generating stations 35 years
- (e) Transmission line (including HVAC & HVDC) 35 years
- (f) Communication system 15 years"

42. The weighted average useful life of the instant asset has been considered as 25 years in accordance with the above regulation. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Gross block	14579.76	18589.43	19591.85
Additional Capitalization	4009.67	1002.42	1002.42
Closing Gross block	18589.43	19591.85	20594.27
Average Gross block	16584.60	19090.64	20093.06
Rate of Depreciation (%)	5.28	5.28	5.28
Depreciable Value	14926.14	17181.58	18083.76
Balance useful life of the assets	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	14926.14	15883.30	15724.57
Depreciation during the year	290.29	1007.99	1060.91
Cumulative depreciation	290.29	1298.28	2359.19

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

43. The norms for O&M Expenses specified for the instant asset in Regulation 29 of the 2014 Tariff Regulations is as follows:-

(₹ in lakh)			
Particulars	2016-17	2017-18	2018-19
400 kV Bay			
Norms bays (₹ lakh per Bay)	64.37	66.51	68.71

44. The total allowable O&M Expenses for the instant assets as per the above norms are as follows:-

(₹ in lakh)			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
400 kV Bay			
No. of Bay	1	1	1
Total O&M Expenses	21.34	66.51	68.71

45. 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.

46. Rajasthan Discoms have submitted that O&M Expenses are of stereotyped in nature without laying any focus on the actual aspect of the matter. In reply the, the petitioner has submitted that O&M has been computed in line with the 2014 Tariff Regulations.

47. We have considered the submissions of the petitioner and the respondent. 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.

Interest on Working Capital (“IWC”)

48. As per 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

(i) Receivables

As per Regulation 28(1) (c) (i) of the 2014 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis

of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance Spares

Regulation 28 (1) (c) (ii) of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses from 1.4.2014. The petitioner has claimed maintenance spares for the instant asset and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

(iii) O & M Expenses

Regulation 28 (1) (c) (iii) of the 2014 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M Expenses for the instant asset and value of O & M Expenses has accordingly been worked out by considering 1 month O&M Expenses.

(iv) Rate of interest on working capital

Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later. Further, the 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. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

49. The interest on working capital allowed is shown in the table below:-

(₹ in lakh)			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M expenses	5.36	5.54	5.73
Maintenance Spares	9.66	9.98	10.31
Receivables	486.35	549.76	564.57
Total	501.37	565.28	580.60
Rate of Interest (%)	12.80	12.80	12.80
Interest on Working Capital	21.27	72.36	74.32

Annual Transmission Charges

50. 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	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation			
Opening Gross Block	14579.76	18589.43	19591.85
Additional Capitalisation	4009.67	1002.42	1002.42
Closing Gross Block	18589.43	19591.85	20594.27
Average Gross Block	16584.60	19090.64	20093.06
Rate of Depreciation (%)	5.28	5.28	5.28
Depreciable Value	14926.14	17181.58	18083.76
Balance useful life of the asset	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	14926.14	15883.30	15724.57
Depreciation during the year	290.29	1007.99	1060.91
Cumulative depreciation	290.29	1298.28	2359.19
Interest on Loan			
Gross Normative Loan	10205.83	13012.60	13714.30
Cumulative Repayments upto Previous Year	0.00	290.29	1298.28
Net Loan-Opening	10205.83	12722.31	12416.02
Additions	2806.77	701.69	701.69
Repayment during the year	290.29	1007.99	1060.91
Net Loan-Closing	12722.31	12416.02	12056.80

Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Average Loan	11464.07	12569.17	12236.41
Weighted Average Rate of Interest on Loan (%)	8.1835	8.1835	8.1835
Interest on Loan	311.01	1028.60	1001.37
Return on Equity			
Opening Equity	4373.93	5576.83	5877.56
Additions	1202.90	300.73	300.73
Closing Equity	5576.83	5877.56	6178.28
Average Equity	4975.38	5727.19	6027.92
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610
Return on Equity	323.45	1123.13	1182.10
Interest on Working Capital			
O & M Expenses	5.36	5.54	5.73
Maintenance Spares	9.66	9.98	10.31
Receivables	486.35	549.76	564.57
Total Working Capital	501.37	565.28	580.60
Rate of Interest (%)	12.80	12.80	12.80
Interest of working capital	21.27	72.36	74.32
Annual Transmission Charges			
Depreciation	290.29	1007.99	1060.91
Interest on Loan	311.01	1028.60	1001.37
Return on Equity	323.45	1123.13	1182.10
Interest on Working Capital	21.27	72.36	74.32
O & M Expenses	21.34	66.51	68.71
Total	967.36	3298.58	3387.41

Filing Fee and Publication Expenses

51. 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. Rajasthan Discoms have submitted that the petitioner has not provided details of expenses incurred on publication of notices in newspapers. We have considered the submission of the petitioner and the respondent. The petitioner has filed the details of expenditure towards publishing of notices in newspaper vide affidavit dated 9.9.2016. 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

52. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. Rajasthan Discoms have submitted that the petitioner has not submitted the details of RLDC fees and license fees and the same may not be allowed. In rejoinder, the petitioner has submitted that license fee shall be recovered separately from the respondents as per Central Electricity Regulatory Commission (Terms and Conditions on Tariff) (Third Amendment), Regulations 2012. 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

53. 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. Rajasthan Discoms have submitted that service tax on transmission charges including cess etc. shall be allowed only as per applicable laws. We have considered the submission of the petitioner and the respondent. We are of the view that the petitioner's prayer of service tax is premature.

Goods and Services Tax

54. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. Rajasthan Discoms have submitted that prayer for GST is not tenable in view of the likely commencement of GST Act wherein several taxes would come under one umbrella at uniform rate. In reply, the petitioner has submitted that the Commission should allow to recover GST from the beneficiaries, if imposed on transmission charges under the proposed GST when implemented by Government of India. We are of the view that petitioner's prayer is premature.

Sharing of Transmission Charges

55. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.

56. This order disposes of Petition No. 149/TT/2016

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

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Repayment	Total
SBI 10000 (1.5.2014)	9.35	2148.16	0.00	0.00	2148.16
BOND LI	8.40	3156.30	0.00	0.00	3156.30
Proposed Loan 2016-17 (7.55%)	7.55	5033.52	0.00	0.00	5033.52
Total		10337.98	0.00	0.00	10337.98

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

(₹ in lakh)

Summary	2016-17	2017-18	2018-19
Gross Opening Loan	10337.98	10337.98	10337.98
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	10337.98	10337.98	10337.98
Add: Draw(s) during the Year	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00
Net Closing Loan	10337.98	10337.98	10337.98
Average Net Loan	10337.98	10337.98	10337.98
Rate of Interest on Loan (%)	8.184	8.184	8.184
Interest on Loan	846.01	846.01	846.01

