

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 149/TT/2017

Coram:

**Shri P. K. Pujari, Chairperson
Shri A. K. Singhal, Member
Shri A. S. Bakshi, Member
Dr. M. K. Iyer, Member**

Date of Order : 28.06.2018

In the matter of:

Truing up of transmission tariff of 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 of "Loop-out of 220 k Jalandhar-Hamirpur line at Hamirpur (To be used as LILO of 1ST Ckt. of 220 kV Hamirpur-Jalandhar T/L)" under the "Strengthening Scheme in Northern Region" 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 Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon-122001
Haryana

....Petitioner

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.
Vidyut Bhawan, Vidyut Marg,
Jaipur-302 005
2. Ajmer Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
3. Jaipur Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Ltd.
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-147001
7. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6
Panchkula (Haryana) 134 109
8. Power Development Deptt.
Govt. Of Jammu & Kashmir
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Ltd.
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg
Lucknow - 226 001
10. Delhi Transco Ltd.
Shakti Sadan, Kotla Road,
New Delhi-110 002
11. BSES Yamuna Power Ltd.
BSES Bhawan, Nehru Plakhe ,
New Delhi
12. BSES Rajdhani Power Ltd.
BSES Bhawan, Nehru Plakhe,
New Delhi
13. North Delhi Power Ltd.
Power Trading & Load Dispatch Group
Cennet Building, Adjacent To 66/11 kV Pitampura-3
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,
New Delhi-110002

...Respondents

For Petitioner : Shri B. Dash, PGCIL
Shri S. K. Venkatesan, PGCIL
Shri S. S. Raju, PGCIL
Shri Vivek Kumar Singh, PGCIL
Shri K. Kiran, PGCIL
Shri Rakesh Prasad, PGCIL

For Respondents : Shri R. B. Sharma, Advocate, BRPL

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for truing up of capital expenditure 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 of respective asset to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from 1.4.2014 to 31.3.2019 of "Loop-out of 220 kV Jalandhar-Hamirpur line at Hamirpur (to be used as LILO of 1ST Ckt. of 220 kV Hamirpur-Jalandhar T/L)" under the "Strengthening Scheme in Northern Region" in Northern Region (hereinafter referred as "transmission asset").

2. 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 letter No. C/CP/IA/SS dated 26.10.2012 for ₹10055 lakh including an IDC of ₹489 lakh. The instant asset



was put into commercial operation on 1.1.2014

(b) The tariff for the instant asset for the 2009-14 period was allowed vide order dated 8.2.2016 in Petition No. 28/TT/2014 in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 tariff period is as under:-

(₹ in lakh)	
Particulars	2013-14 (pro-rata)
Depreciation	9.54
Interest on Loan	12.38
Return on Equity	10.62
Interest on Working Capital	0.77
O&M Expenses	0.63
Total	33.93

(c) The capital cost of ₹721.34 lakh was considered as on COD for determination of tariff in order dated 8.2.2016.

(d) 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.

3. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003. BSES Rajdhani Power Limited (BRPL), Respondent No. 12 has filed reply vide affidavit dated 16.2.2018. BRPL has raised the issue of initial spares, IDC on cash basis, wage revision, reimbursement of expenditure towards filing fee, license fee etc. The petitioner has filed rejoinder vide affidavit dated 13.3.2018 to the reply of BRPL. The objections raised by the respondents and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.



4. Having heard the representatives of the petitioner on 24.5.2018 and perused the material on record, we proceed to dispose of the petition.

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

5. The tariff of the instant asset for the period from 1.1.2014 to 30.3.2014 has been trued up as discussed below.

Capital Cost

6. The petitioner has claimed the capital cost of ₹722.40 lakh, as on COD of 1.1.2014 for the instant asset.

7. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides that:-

“(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 asset forming part of the project, but not in use shall be taken out of the capital cost.”

8. The petitioner has submitted the Auditor’s Certificate certifying the capital cost as on COD and additional capitalization claimed thereafter. Thus, the capital cost has been considered as ₹722.40 lakh as on COD.

9. The petitioner was directed to submit- (a) clarification regarding discharge of IDC on cash basis, (b) Copy of Revised Cost Estimate (RCE) and (c) Form-5B as



per RCE. In response, the petitioner vide affidavit dated 6.4.2018 has submitted the copy of RCE, Form-5B and details regarding cash IDC and initial spares. As regards initial spares, the petitioner has submitted that Auditor's certificate is prepared on cash basis for the initial spare based on year-wise discharge of the initial spare which means initial spare discharged during COD has been included in the COD cost and initial spare discharged after COD has been included in the Add Cap of the respective year when it has been discharged as given in the Auditor's certificate. It is further submitted that initial spares amounting to ₹17.75 lakh has been discharged during 2015-16.

10. We have considered the capital cost as on COD after adjustment of initial spares and IDC paid on cash basis.

Treatment of IDC

11. The petitioner has submitted that the IDC discharged upto COD and IDC to be discharged after COD for the instant asset is as follows:-

(₹ in lakh)		
Claimed as on COD as per the Auditor's Certificate	Discharged up to COD	Balance Accrued IDC as on COD discharged during 2014-15
19.52	18.58	0.94

12. The petitioner has submitted actual capital expenditure from 1.1.2014 to 31.3.2014 for truing up as per the 2009 Tariff Regulations and also submitted the estimated capital expenditure for determination of tariff during 2014-19 tariff period in accordance with the 2014 Tariff Regulations.

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 claimed initial spares of ₹17.75 lakh for the instant asset. In this regard, the petitioner has submitted that the allowable initial spares as per Regulation 13(iv) of the 2009 Tariff Regulations are ₹10.76 lakh. The excess initial spares of ₹6.99 lakh was adjusted in the additional capitalization during 2015-16.

15. We have considered the submissions of the petitioner. The initial spares of ₹10.76 lakh has been capitalized in the capital cost as per the Regulation 8 of the 2009 Tariff Regulations. The initial spares of ₹6.99 lakh is more than the ceiling limit specified in the regulations and hence it is not admissible.

Additional Capital Expenditure

16. The petitioner has claimed additional capitalization of ₹2.05 lakh for the instant asset for 2013-14 on account of balance and retention payment within cut-off date under Regulation 9(1) of the 2009 Tariff Regulations. Clause (1), sub-clause (i) of Regulation 9 of the 2009 Tariff Regulations provides as under:-

“**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...;”

17. The total capital cost of ₹723.51 lakh (excluding cash IDC after COD) including actual additional capitalization claimed by the petitioner is within the overall approved cost of the asset. The claim of additional capitalization falls within the



meaning of Regulation 9(1) of the 2009 Tariff Regulations and hence it is allowed under Regulation 9(1)(i) of the 2009 Tariff Regulations as given below:-

(₹ in lakh)				
Particulars	Approved apportioned cost (RCE)	Capital cost as on COD	Additional Capital Expenditure 2013-14	Capital cost as on 31.3.2014
Approved in order dated 8.2.2016	1282.95	721.46	2.05	723.51
Allowed in This order		721.46*	2.05	723.51

*after adjustment of IDC on cash basis discharged after COD of ₹0.94 lakh and the same is included in the add cap of 2014-15.

Debt: Equity

18. Clause 1 and 3 of Regulation 12 of the 2009 Tariff Regulations provide as follows:-

“(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.”

19. The petitioner has claimed true up Annual Fixed Charge based on debt-equity ratio of 70:30 admitted as on COD in order dated 8.2.2016 in Petition No. 28/TT/2014. The debt:equity ratio of 70:30 as on COD for the instant asset is in accordance with the 2009 Tariff Regulations and thus, considered for the purpose of true up of the approved tariff of tariff period 2009-14. The details of debt:equity



ratio as on the COD and on 31.3.2014, including additional capitalisation are as given under:-

(₹ in lakh)

Particulars				
	Amount	(%)	Amount	(%)
Debt	505.02	70.00	506.46	70.00
Equity	216.44	30.00	217.05	30.00
Total	721.46	100.00	723.51	100.00

Return on Equity (“ROE”)

20. 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 trued up in accordance with Regulation 6 of these regulations.”

21. RoE has been worked out by considering year wise MAT rate submitted by the petitioner in accordance with Regulation 15 of the 2009 Tariff Regulations. The tax rate for the year 2013-14 applicable to the petitioner for the purpose of grossing up of ROE is as under:-

Particulars	MAT Rate (t) %	Grossed up ROE (Base rate/(1-t))
2013-14	20.961	19.610



22. We have considered the submissions of the petitioner and have approved ROE in accordance with the provisions of the 2009 Tariff Regulations. Accordingly, the ROE as trued up in accordance with the 2009 Tariff Regulations is shown in the table below:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Opening Equity	216.44
Addition due to Additional Capitalisation	0.62
Closing Equity	217.05
Average Equity	216.75
Return on Equity (Base Rate)	15.50%
Tax rate	20.96%
Rate of Return on Equity (Pre Tax)	19.610%
Return on Equity (Pre Tax)	10.48

Interest on Loan (“IOL”)

23. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan.

24. 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.

25. In the calculations, the interest on loan has been worked out as detailed below:-

- (i) Gross amount of loan, repayment of installments and rate of interest have been considered as per Form-13 given in the petition for working out the weighted average rate of interest.



(ii) The normative repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period.

(iii) Weighted average rate of interest on actual average loan worked out as per (i) above, is applied on the notional average loan during the year to arrive at the interest on loan.

26. The details of weighted average rate of interest are given in **Annexure-I**. The IOL allowed under Regulation 16 of the 2009 Tariff Regulations is as follows:-

Particulars	(₹ in lakh)
	2013-14 (Pro-rata)
Gross Normative Loan	505.02
Cumulative Repayment up to Previous Year	0.00
Net Loan-Opening	505.02
Addition due to Additional Capitalization	1.44
Repayment during the year	9.41
Net Loan-Closing	497.05
Average Loan	501.04
Weighted Average Rate of Interest on Loan	9.885%
Interest	12.21

Depreciation

27. 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 | 25years |
| (d) Hydro generating station | 35years |
| (e) Transmission line | 35years” |

28. 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 asset 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 asset.”

29. Depreciation has been calculated annually based on Straight Line Method and at rates specified in the 2009 Tariff Regulations. The depreciation for the tariff period 2009-14 has been trued up in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Opening Gross Block	721.46
Addition during 2009-14	2.05
Closing Gross Block	723.51
Average Gross Block	722.49
Rate of Depreciation	5.280%
Depreciable Value	650.24
Remaining Depreciable Value	650.24
Depreciation	9.41

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

30. The petitioner has computed O&M Expenses for the instant asset 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 the period from COD to 31.3.2014 is the same that was approved in order dated 28.2.2016 in Petition No. 28/TT/2014.

31. The O&M Expenses claimed by the petitioner, allowed and trued up are the same and are as follows:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Approved vide order dated 28.2.2016	0.63
As claimed by the petitioner	0.63
Allowed after trued up	0.63



Interest on working capital (“IWC”)

32. 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.

33. The petitioner submitted the rate of interest on working capital as 13.20% for the period from COD to 31.3.2014 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.

34. Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations. It is calculated based on the State Bank of India Base Rate as on 1.4.2012 plus 350 basis points. State Bank of India Base Rate on 1.4.2013 was 9.70%. Therefore, interest rate of 13.20% (9.70% plus 350 basis points) has been considered to work out the interest on working capital in the instant case.

35. The IWC trued up is as under:-

(₹ in lakh)	
Particulars	2013-14 (pro-rata)
Maintenance Spares	0.38
O & M expenses	0.21
Receivables	22.63
Total	23.23
Rate of Interest (%)	13.20
Interest	0.76



ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

36. The detailed computation of the various components of the trued up annual fixed charges for the period from COD to 31.3.2014 is summarized below:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Depreciation	9.41
Interest on Loan	12.21
Return on Equity	10.48
Interest on Working Capital	0.76
O & M Expenses	0.63
Total	33.49

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

37. The petitioner has claimed the following transmission charges for the 2014-19 tariff period:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	45.15	54.44	56.80	56.80	56.80
Interest on Loan	56.31	63.95	61.55	55.86	50.21
Return on equity	50.30	60.66	63.28	63.28	63.28
Interest on Working Capital	3.62	4.25	4.31	4.19	4.06
O & M Expenses	2.27	2.35	2.43	2.51	2.60
Total	157.65	185.65	188.37	182.64	176.95

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.34	0.35	0.36	0.38	0.39
O & M expenses	0.19	0.20	0.20	0.21	0.21
Receivables	26.28	30.94	31.40	30.44	29.49
Total	26.81	31.49	31.96	31.03	30.10
Rate of Interest (%)	13.5	13.5	13.5	13.5	13.5
Interest	3.62	4.25	4.31	4.19	4.06

Capital Cost

39. Clause (1) and (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 modernization as admitted by this Commission in accordance with Regulation 15.”

40. The petitioner has claimed capital cost of ₹723.51 lakh as on 31.3.2014 and additional capitalization of ₹263.08 lakh, ₹89.09 lakh (excluding excess initial spares of ₹6.99 lakh) for the 2014-19 tariff period. The trued up capital cost of ₹723.51 lakh as on 31.3.2014 is considered to work out tariff for 2014-19 tariff period.

Additional Capital Expenditure

41. The petitioner has proposed combined additional capitalization of ₹263.08 lakh and ₹89.09 lakh for the instant asset for 2014-15, 2015-16 respectively, towards balance and retention payments under Clause 1 of Regulation 14 of the 2014 Tariff Regulations and the same is allowed. BRPL has submitted that the IDC accrued is not recognized under Regulation 14(1)(i) of the 2014 Tariff Regulations and hence it may not be allowed. In response, the petitioner has submitted that the accrued IDC was not considered while calculating the tariff as the same was undischarged upto COD. The accrued IDC has been taken out of COD expenditure and added in the respective years add-cap when it was discharge.

42. Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations provides as follows:-



“(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:

.....

(i) Undischarged liabilities recognized to be payable at a future date;

43. The total capital cost of the transmission asset including additional capitalization incurred during the 2014-19 tariff period works out to ₹1075.68 lakh for the instant asset, which is within the approved apportioned cost of the asset. It is observed that the additional capitalization proposed is mainly towards balance and retention payments of undischarged liabilities for works executed within cut-off date. Accordingly, the capital cost claimed by the petitioner is allowed in accordance with Regulation 14(1)(i) of the 2014 Tariff Regulations.

44. The total capital cost of the transmission asset including additional capitalization projected to be incurred during 2014-19 is shown below:-

Approved Apportioned Cost as per RCE	Admitted capital cost as on 31.3.2014	Additional capitalization				Total capital cost including additional capitalization
		2014-15	2015-16	2016-17	2017-18	
1282.95	723.51	*263.08	#89.09	--	--	1075.68

*Add cap after adding accrual IDC of ₹ 0.94 lakh
(₹263.08 lakh = ₹262.014 lakh + ₹0.94 lakh)

#Add cap after adjusting of initial spares of ₹6.99 lakh
(₹89.09 lakh = ₹96.08 lakh - ₹6.99 lakh)

Debt:Equity Ratio

45. 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.”

46. 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	506.46	70.00
Equity	217.05	30.00
Total	723.51	100.00

47. The petitioner has proposed normative debt:equity ratio of 70:30 for additional capitalization, 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	752.98	70.00
Equity	322.70	30.00
Total	1075.68	100.00

Return on Equity("ROE")

48. Clause (1) and (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.”



49. The petitioner has submitted ROE at the rate of 19.610% after grossing up the ROE of 15.50% 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. 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.

50. 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 allowed is given below:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	217.05	295.98	322.70	322.70	322.70
Additional Capitalization	78.92	26.73	0.00	0.00	0.00
Closing Equity	295.98	322.70	322.70	322.70	322.70
Average Equity	256.52	309.34	322.70	322.70	322.70



Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the year (%)	20.96%	20.96%	20.96%	20.96%	20.96%
Rate of Return on Equity (Pre Tax) (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	50.30	60.66	63.28	63.28	63.28

Interest on Loan (“IOL”)

51. Clause (5) and (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.

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

52. 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 allowed as follows:-

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	506.46	690.61	752.98	752.98	752.98
Cumulative Repayment up to previous year	9.41	54.56	109.00	165.80	222.59
Net Loan-Opening	497.05	636.06	643.98	587.18	530.38
Additions during the year	184.16	62.36	0.00	0.00	0.00
Repayment during the year	45.15	54.44	56.80	56.80	56.80
Net Loan-Closing	636.06	643.98	587.18	530.38	473.59
Average Loan	566.55	640.02	615.58	558.78	501.99
Rate of Interest (%)	9.941%	9.993%	10.000%	9.999%	10.005%
Interest	56.32	63.96	61.56	55.87	50.22



Depreciation

53. 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 asset 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 asset.

(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 asset."

54. The petitioner has computed depreciation considering capital expenditure of ₹723.51 lakh as on 31.3.2014 with additional capitalization of ₹263.08 lakh, ₹89.09 lakh for 2014-15, 2015-16 respectively, during the 2014-19 tariff period. The effective date of commercial operation (May, 2013) and weighted average useful life of 35 years has been considered in accordance to Regulation 26 of the 2014 Tariff Regulations considering actual COD and capital cost of all the elements of the transmission system for working out the depreciation for combined asset.

55. We have considered the submissions of the petitioner. The depreciation is allowed considering capital expenditure of ₹1075.68 lakh as on 31.3.2014 under Regulation 27 of the 2014 Tariff Regulations. 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	723.51	986.59	1075.68	1075.68	1075.68
Additional Capitalization	263.08	89.09	0.00	0.00	0.00
Closing Gross block	986.59	1075.68	1075.68	1075.68	1075.68
Average gross block	855.05	1031.14	1075.68	1075.68	1075.68
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	769.55	928.02	968.11	968.11	968.11
Remaining Depreciable Value	760.14	873.46	859.11	802.32	745.52
Depreciation	45.15	54.44	56.80	56.80	56.80

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

56. The petitioner has computed normative O&M Expenses as per sub-clause of clause (3) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner’s entitlement to O&M Expenses has been worked out as given hereunder:-

(₹ in lakh)						
Particular		2014-15	2015-16	2016-17	2017-18	2018-19
As per norms	Double Circuit (single Conductor)/km	0.303	0.313	0.324	0.334	0.346
	7.503 km D/C single conductor T/L	2.27	2.35	2.43	2.51	2.60

57. 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. BRPL has submitted that the petitioner should take care of the increase in the employee cost wages due to wage revision by increase its productivity.



58. We have considered the submissions made by the petitioner. 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, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

59. The details of O&M Expenses allowed for the instant asset are given hereunder:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	2.27	2.35	2.43	2.51	2.60

Interest on Working Capital ("IWC")

60. 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 onemonth"

"(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 basispoints;"

61. The petitioner has submitted that it has computed Interest on working capital for the tariff period 2014-19 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%.

62. 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 interest on working capital worked is given below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.34	0.35	0.36	0.38	0.39
O & M Expenses	0.19	0.20	0.20	0.21	0.22
Receivables	26.28	30.94	31.40	30.44	29.49
Total	26.81	31.49	31.96	31.03	30.10
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	3.62	4.25	4.32	4.19	4.06

Annual Transmission Charges

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	45.15	54.44	56.80	56.80	56.80
Interest on Loan	56.32	63.96	61.56	55.87	50.22
Return on Equity	50.30	60.66	63.28	63.28	63.28
Interest on Working Capital	3.62	4.25	4.32	4.19	4.06
O & M Expenses	2.27	2.35	2.43	2.51	2.60
Total	157.66	185.67	188.38	182.65	176.97

Filing Fee and Publication Expenses

64. 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. BRPL has submitted that filing fee and the publication expenses may not be allowed. The petitioner is 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.



License Fee and RLDC Fees and Charges

65. 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 license 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

66. 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. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

67. 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.

68. This order disposes of Petition No.149/TT/2017.

(Dr. M. K. Iyer)
Member

(A. S. Bakshi)
Member

(A. K. Singhal)
Member

(P. K. Pujari)
Chairperson



Annexure-I**Calculation of Weighted Average Rate of Interest on loan during 2013-14****(₹ in lakh)**

Particulars	2013-14
SBI	
Gross loan opening	270.00
Cumulative Repayment upto COD/previous year	0.00
Net Loan-Opening	270.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	270.00
Average Loan	270.00
Rate of Interest	10.25%
Interest	27.68
Rep Schedule	
Bond XLIII	
Gross loan opening	25.00
Cumulative Repayment upto COD/previous year	0.00
Net Loan-Opening	25.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	25.00
Average Loan	25.00
Rate of Interest	7.93%
Interest	1.98
Bond XLV	
Gross loan opening	0.00
Cumulative Repayment upto COD/previous year	0.00
Net Loan-Opening	0.00
Additions during the year	1.44
Repayment during the year	0.00
Net Loan-Closing	1.44
Average Loan	0.72
Rate of Interest	9.65%
Interest	0.07
Bond XLV	
Gross loan opening	210.02
Cumulative Repayment upto COD/previous year	0.00
Net Loan-Opening	210.02
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	210.02
Average Loan	210.02
Rate of Interest	9.65%
Interest	20.27
Total Loan	



Gross loan opening	505.02
Cumulative Repayment upto COD/previous year	0.00
Net Loan-Opening	505.02
Additions during the year	1.44
Repayment during the year	0.00
Net Loan-Closing	506.46
Average Loan	505.74
Rate of Interest	9.885%
Interest	49.99



Annexure-II**Calculation of Weighted Average Rate of Interest on loan during 2014-19**

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
SBI					
Gross loan opening	270.00	270.00	270.00	270.00	270.00
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	24.55	49.10
Net Loan-Opening	270.00	270.00	270.00	245.45	220.90
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	24.55	24.55	24.55
Net Loan-Closing	270.00	270.00	245.45	220.90	196.35
Average Loan	270.00	270.00	257.73	233.18	208.63
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	27.68	27.68	26.42	23.90	21.38
Bond XLIII					
Gross loan opening	25.00	25.00	25.00	25.00	25.00
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	2.08
Net Loan-Opening	25.00	25.00	25.00	25.00	22.92
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	2.08	2.08
Net Loan-Closing	25.00	25.00	25.00	22.92	20.84
Average Loan	25.00	25.00	25.00	23.96	21.88
Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
Interest	1.98	1.98	1.98	1.90	1.74
Bond XLV					
Gross loan opening	1.44	1.44	1.44	1.44	1.44
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.12
Net Loan-Opening	1.44	1.44	1.44	1.44	1.32
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.12	0.12
Net Loan-Closing	1.44	1.44	1.44	1.32	1.20
Average Loan	1.44	1.44	1.44	1.38	1.26
Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
Interest	0.14	0.14	0.14	0.13	0.12
Bond XLV					
Gross loan opening	0.00	0.67	0.67	0.67	0.67
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.06
Net Loan-Opening	0.00	0.67	0.67	0.67	0.61



Additions during the year	0.67	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.06	0.06
Net Loan-Closing	0.67	0.67	0.67	0.61	0.55
Average Loan	0.34	0.67	0.67	0.64	0.58
Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
Interest	0.03	0.06	0.06	0.06	0.06
Bond XLV					
Gross loan opening	210.02	210.02	210.02	210.02	210.02
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	17.50
Net Loan-Opening	210.02	210.02	210.02	210.02	192.52
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	17.50	17.50
Net Loan-Closing	210.02	210.02	210.02	192.52	175.02
Average Loan	210.02	210.02	210.02	201.27	183.77
Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
Interest	20.27	20.27	20.27	19.42	17.73
SBI					
Gross loan opening	0.00	183.50	183.50	183.50	183.50
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	0.00	183.50	183.50	183.50	183.50
Additions during the year	183.50	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	183.50	183.50	183.50	183.50	183.50
Average Loan	91.75	183.50	183.50	183.50	183.50
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	9.40	18.81	18.81	18.81	18.81
SBI					
Gross loan opening	0.00	0.00	62.36	62.36	62.36
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	0.00	0.00	62.36	62.36	62.36
Additions during the year	0.00	62.36	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	62.36	62.36	62.36	62.36
Average Loan	0.00	31.18	62.36	62.36	62.36
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	0.00	3.20	6.39	6.39	6.39
Total Loan					
Gross loan opening	506.46	690.63	752.99	752.99	752.99



Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	24.55	68.86
Net Loan-Opening	506.46	690.63	752.99	728.44	684.13
Additions during the year	184.17	62.36	0.00	0.00	0.00
Repayment during the year	0.00	0.00	24.55	44.31	44.31
Net Loan-Closing	690.63	752.99	728.44	684.13	639.82
Average Loan	598.55	721.81	740.72	706.29	661.98
Rate of Interest	9.94%	9.99%	10.00%	10.00%	10.01%
Interest	59.50	72.13	74.07	70.62	66.23

