

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 232/TT/2015

Coram:

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

Date of Hearing : 14.03.2016

Date of Order : 23.03.2016

In the matter of:

Determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for replacement of 315 MVA 400/220 kV ICT I with 500 MVA 400/220 kV ICT at Purnea Substation under Eastern Region Strengthening Scheme (ERSS XII) for 2014-19 Tariff block period in Eastern Region, under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

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

.....**Petitioner**

Versus

1. Bihar State Power (Holding) Company Ltd.,
(Formerly 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. Damodar Valley Corporation, DVC Tower, Maniktala
Civic Centre, VIPO Road, Calcutta-700054
5. Power Department, Govt. of Sikkim,
Gangtok-737101
6. Jharkhand State Electricity Board,
In front of Main Secretariat,
Doranda, Ranchi-834002

.....Respondents

The following were present:

For Petitioner : Shri Rakesh Prasad, PGCIL
Shri Jasbir Singh, PGCIL
Shri Subhash C.Taneja , PGCIL
Shri S.S. Raju, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K. Venkatesan, PGCIL

For Respondent: None

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ("the petitioner"), for determination of tariff for replacement of 315 MVA 400/220Kv ICT I with 500 MVA 400/220 kV ICT at Purnea Sub-station under Eastern Region Strengthening Scheme (ERSS XII) for 2014-19 Tariff block period in Eastern Region (hereinafter referred as "transmission asset") 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 13.7.2015 to 31.3.2019.

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

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of 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. None of the respondents have filed any reply to the petition. The hearing in this matter was held on 14.3.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

(a) Investment approval was accorded by Board of Directors of POWERGRID, vide the Memorandum No. C/CP/ERSS-XII TPS dated 19.5.2014 at an estimated cost of ₹52229 lakh, which included IDC of ₹3324 lakh. The petitioner has built the transmission asset in the Eastern Region and put under commercial operation w.e.f 13.7.2015. The approved apportioned cost is ₹2044.63 lakh for the said asset

(b) The scope of work covered under the project is as follows:-

Sub-stations

(i) Reactive Compensation at 400 kV Sub-stations



- Installation of 1X125 MVAR Bus Reactor at Baripada with GIS bay.
 - Installation of 1X125 MVAR Bus Reactor at Maithon with GIS bay.
 - Conversion of 50 MVAR Line Reactor presently installed at Jeerat end of Baharampur – Jeerat 400 kV line as Bus Reactor in parallel with existing Bus Reactor at Jeerat.
- (ii) Augmentation of Transformation Capacity
- Addition of 1x500 MVA, 400/220 kV ICT with GIS bays at Baripada 400/220/132kV sub-station of POWERGRID
 - Replacement of 2x315 MVA, 400/220 kV ICTs with 2x500 MVA, 400/220 kV ICTs at Purnea
 - Replacement of 2x315 MVA, 400/220 kV ICTs with 2x500 MVA, 400/220 kV ICTs at Patna
 - Replacement of 2x315 MVA, 400/220 kV ICTs with 2x500 MVA, 400/220 kV ICTs at Pusauli
 - Shifting of 1x315 MVA, 400/220 kV ICT from any suitable location (after replacement by 1x500MVA ICT) and install it at Jamshedpur 400/220 kV Substation as 3rd ICT along with associated bays.
 - Shifting of 1X315 MVA, 400/220 kV ICT from any suitable location (after replacement by 1x500MVA ICT) and install it at Farakka 400/220 kV Substation as 2nd ICT alongwith associated bays.
 - Out of the 6 nos. 315 MVA ICTs released from Purnea, Patna & Pusauli substations, one each would be kept as spare at Patna and Pusauli substation, one each would be diverted to Jamshedpur and Farakka substation and remaining 2x315 MVA, 400/220kV ICTs would be utilized as Regional Spare.
 - Replacement of 1X100 MVA (3rd ICT), 220/132kV ICTs with 1X160 MVA, 220/132 kV ICT at Purnea 220/132 kV sub-station of POWERGRID, along with necessary bay equipment /protection system
 - Replacement of existing 100 MVA, 220/132kV ICTs with 1X160 MVA, 220/132 kV ICT at Siliguri 220/132 kV sub-station of POWERGRID, along with necessary bay equipment /protection system
 - Replacement of existing 100 MVA, 220/132kV ICTs with 1X160 MVA, 220/132 kV ICT at Birpara 220/132 kV sub-station of POWERGRID, along with necessary bay equipment /protection system
 - 100 MVA ICTs thus released from Purnea, Siliguri & Birpara shall be kept in the regional pool of spare ICTs.
- (iii) 2 no. 500 MVA Single Phase Spare Unit of 765/400 kV ICT for Eastern Region



- (iv) Procurement of two 500 MVA, Single Phase unit of 765/400 kV ICT for Eastern Region to be stationed at Angul and Jharsuguda sub-station.
 - (v) 1 no. Spare unit of 765kV, 110 MVAR Single Phase Reactor to be stationed at Sasaram.
 - (vi) Modification of 132kV bus arrangement including switchgear to Double Main Scheme at 220/132kV Siliguri and Purnea Substation with GIS bays
 - (vii) Construction of 4 nos. 220 kV line bays at Kishanganj sub-station of POWERGRID
- (c) The transmission system was scheduled to be commissioned within 30 months from the date of investment approval i.e. 19.5.2014. Therefore, the scheduled date of commissioning (SCOD) of the transmission system works out to 19.11.2016 against which the transmission asset was put under commercial operation with effect from 13.7.2015, i.e., no delay as per investment approval. Therefore the element achieved COD within the timeline specified in the regulations.
- (d) Provisional tariff for the instant asset was allowed vide order dated 17.12.2015 in Petition No. 232/TT/2015.

5. The petitioner has further submitted that the in the 25th ERPC meeting it was discussed and approved that out of 6 nos. of 315 MVA 400/220 kV ICTs to be released from Purnea, Patna and Pasauli Sub-station, one would be kept as spare at Patna and one as spare at Pasauli, one to be diverted and utilised at Jamshedpur as 3rd ICTs, one to be diverted and installed as 2nd ICT and the remaining ICTs would be utilized as regional spare. The petitioner has further submitted a copy of the 25th ERPC MOM. Hence, the petitioner has not



considered de-capitalization in the instant petition and not claimed Operation and Maintenance expenses.

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

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

Particulars	(₹ in lakh)			
	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	51.24	81.79	89.59	92.19
Interest on Loan	55.52	83.34	84.83	80.09
Return on equity	57.09	91.13	99.82	102.72
Interest on Working Capital	3.77	5.90	6.31	6.33
O & M Expenses	0.00	0.00	0.00	0.00
Total	167.62	262.16	280.55	281.33

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

Particulars	(₹ in lakh)			
	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00
O & M Expenses	0.00	0.00	0.00	0.00
Receivables	38.92	43.69	46.76	46.89
Total	38.92	43.69	46.76	46.89
Rate of Interest	13.50	13.50	13.50	13.50
Interest	5.25	5.90	6.31	6.33
Pro-rata Interest	3.77	5.90	6.31	6.33

8. The petitioner is directed to provide the certificate issued by RLDC as per Regulation 5 (2) of the 2014 Tariff Regulations in support of trial operation or commercial operation date. In response the petitioner submitted that the RLDC certificate issued by ERLDC, POSOCO. Further, the petitioner was directed to submit the color SLD of all the assets under the scheme, clearly identifying the assets covered in the instant petition along with the upstream and downstream



systems. In response the petitioner, vide its affidavit dated 10.2.2016, has submitted the information sought.

Capital Cost

9. The petitioner has claimed the capital expenditure of ₹1253.66 lakh as on COD 13.7.2015. In addition to this, the petitioner has claimed additional capitalization of ₹196.92 lakh, ₹196.92 lakh and ₹98.46 lakh during 2015-16, 2016-17 and 2017-18 respectively, in the tariff period 2014-19. The petitioner has submitted Auditor's Certificate dated 26.8.2015 in support of capital cost incurred up to COD and additional capitalization projected for 2014-19 tariff period.

10. Regulations 9 and 10 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:

- a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- b) 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;
- c) Increase in cost in contract packages as approved by the Commission;
- d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- g) 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.



...

(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;
- c) In case of hydro generating station any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State government by following a two stage transparent process of bidding; and
- d) the proportionate cost of land which is being used for generating power from generating station based on renewable energy:

Provided that any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;

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.”

IDC and IEDC

11. As per investment approval dated 19.5.2014, the asset was scheduled to be commissioned within 30 months from the date of investment approval. Therefore, the SCOD of the transmission system works out to 19.11.2016 against which the transmission asset was put under commercial operation with effect from 13.7.2015. Accordingly, there is no delay.



12. The petitioner has claimed the IDC and IEDC of ₹5.63 lakh and ₹64.64 lakh upto COD. Further, the petitioner in instant petition has submitted the detailed breakup of IDC and IEDC discharged upto COD as follows:-

(₹ in lakh)		
Statement showing IDC & IEDC	IDC	IEDC
Total IDC/IEDC as per certificate	5.63	64.44
IDC/IEDC discharged upto COD	0.00	64.44
Accrual IDC/IEDC to be discharged in 2016-17	5.63	0.00

13. We have considered the submissions of the petitioner and have adjusted the accrual IDC of ₹5.63 lakh in capital cost. Thus, the capital cost as on COD is worked out to be ₹1248.03 lakh (i.e. equal to ₹1253.66 lakh - ₹5.63 lakh). The petitioner has already submitted the Investment Approval dated 19.5.2014.

Initial Spares

14. Regulation 13(d) of the 2014 Tariff Regulations provides that initial spares shall be capitalised as a percentage of plant and machinery cost upto cut-off date, subject to following ceiling norms:-

“(d) Transmission System	
Transmission line:	1.00%
Transmission sub-station (Green Field):	4.00%
Transmission sub-station (Brown Field):	6.00%”

15. The initial spares of ₹ 64.90 lakh for sub-station (brown-field) claimed by the petitioner are within the specified ceiling limits as given below:-



(₹ in lakh)

Description Sub-station (including PLCC)	Cut-off date	Capital cost as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
		(a)	(b)	(c)	(d)= ((a-b)*c)/(100-c)%	(e)=(d)-(b)
Asset	31.3.2018	1745.96	64.90	6.00%	107.30	0.00

16. Accordingly, the initial spares of ₹64.90 lakh for sub-station claimed by the petitioner are allowed.

Additional Capital Expenditure

17. The petitioner has claimed additional capital expenditure of ₹196.92 lakh, ₹196.92 lakh and ₹98.46 lakh during 2015-16, 2016-17 and 2017-18 respectively, towards balance and retention payments under Clause 1(i) of Regulation 14 of the 2014 Tariff Regulations.

18. 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;

19. The petitioner was directed to submit the amount of balance and retention payment yet to be made along with the details of contract for which the payment has been retained. In response the petitioner vide affidavit dated 10.2.2016 has submitted that contractor wise details of balance and retention payment of ₹492.30 lakh, which is yet to be made.



20. We have considered the submissions of the petitioner. As the accrual IDC of ₹5.63 is to be discharged in 2016-17, we have considered the same and have allowed the additional capital expenditure of ₹202.55 lakh (i.e., equal to ₹196.92 lakh + ₹5.63 lakh). It is observed that the total estimated completion cost of ₹1745.96 lakh (including additional capital expenditure during 2014-19 tariff period) is well within the approved apportioned cost of ₹2044.63 lakh. Hence, we have considered capital cost of ₹1248.03 lakh as on COD and additional capital expenditure of ₹196.92 lakh, ₹202.55 lakh and ₹98.46 lakh during 2015-16, 2016-17 and 2017-18 respectively, for tariff computation for the 2014-19 tariff period as follows on provisional basis. The additional capitalization during 2014-19 will be considered subject to prudence check while carrying out the truing up of tariff for 2014-19 period.

(₹ in lakh)

Approved apportioned cost: ₹2044.63 lakh						
Name of the element	Expenditure upto COD	Additional Capital Expenditure				Total estimated completion cost
		2015-16 (Pro-rata)	2016-17	2017-18	Total	
Asset	1248.03	196.92	202.55	98.46	497.93	1745.96

21. The estimated capital cost of ₹1248.03 lakh is well within the approved apportioned cost of ₹2044.63 lakh for the said asset as mentioned in subsequent paras. Hence, there is no cost over-run for the said asset. Accordingly, the capital cost of ₹1248.03 lakh as on COD is allowed and considered for the purpose of tariff computation for tariff period 2014-19.



Debt : Equity Ratio

22. Clause 3 of Regulation 19 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.”

23. The petitioner has considered debt:equity ratio as 70:30 both for capital cost as on COD and for additional capitalization during the tariff period 2014-19. The details of the debt:equity considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

Particulars	Capital Cost as on COD		Estimated Completion cost including additional capitalization	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	873.62	70.00	1222.17	70.00
Equity	374.41	30.00	523.79	30.00
Total	1248.03	100.00	1745.96	100.00

Interest on Loan (“IOL”)

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

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



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

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

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

25. 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 at the time of truing up.

26. We have considered the petitioner’s submissions. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. Further, with regard to floating rate of interest, variation in interest rate if any shall be considered at the time of true up. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-

(₹ in lakh)				
Details of Loan	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross loan opening	873.62	1011.47	1153.25	1222.17
Cumulative Repayment upto DOCO/previous year	0.00	51.09	132.73	222.32
Net Loan-Opening	873.62	960.38	1020.52	999.86
Additions during the year	137.84	141.79	68.92	0.00
Repayment during the year	51.09	81.64	89.59	92.19
Net Loan-Closing	960.38	1020.52	999.86	907.67
Average Loan	917.00	990.45	1010.19	953.76
Rate of Interest (%)	8.4000	8.4000	8.4000	8.4000
Interest	55.35	83.20	84.86	80.12



Return on Equity (“ROE”)

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

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.
(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system...

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.”

“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.”

28. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE 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.

29. 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.

30. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE determined by the Commission is given below:-



(₹ in lakh)

Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	374.41	433.49	494.25	523.79
Additional Capitalisation	59.08	60.77	29.54	0.00
Closing Equity	433.49	494.25	523.79	523.79
Average Equity	403.95	463.87	509.02	523.79
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%
MAT rate for the year (%)	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax) (%)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	56.92	90.96	99.82	102.71

Depreciation

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

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

.....

(c) AC and DC Sub-station: 25 years

(d) Gas Insulated Sub-station: 25 years

(e) Transmission line (including HVAC & HVDC): 35 years”

32. 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.”

33. The petitioner in its petition has computed depreciation considering capital cost of ₹1253.66 lakh as on COD and additional capitalization of ₹196.92 lakh, ₹196.92 lakh and ₹98.46 lakh during 2015-16, 2016-17 and 2017-18 respectively. As per Clause 67 of Regulation 3 of the 2014 Tariff Regulations, weighted average value of asset as on COD has been considered to work out the weighted average life of the transmission system as 25 years.

34. We have computed depreciation considering capital cost of ₹1248.03 lakh as on COD and additional capital expenditure of ₹196.92 lakh, ₹202.55 lakh and ₹98.46 lakh during 2015-16, 2016-17 and 2017-18 respectively, in the tariff period 2014-19. Depreciation is allowed as provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed is given hereunder:-

Particulars	(₹ in lakh)			
	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	1248.03	1444.95	1647.50	1745.96
Additional Capitalization	196.92	202.55	98.46	0.00
Closing Gross block	1444.95	1647.50	1745.96	1745.96
Average Gross block	1346.49	1546.23	1696.73	1745.96
Rate of Depreciation (%)	5.280	5.280	5.280	5.280
Depreciable Value	1211.84	1391.60	1527.06	1571.36
Elapsed Life of the assets at beginning of the year	0.00	1.00	2.00	3.00



Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Weighted Balance Useful life of the assets	25.00	24.00	23.00	22.00
Remaining Depreciable Value	1211.84	1340.52	1394.33	1349.05
Depreciation	51.09	81.64	89.59	92.19

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

35. The petitioner has not claimed any O&M expenses for asset replacement. Accordingly, the O&M expenses is NIL for the asset.

Interest on Working Capital (“IWC”)

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

“28. Interest on Working Capital

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

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

37. 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%.

38. 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 allowed is shown in the table below:-

(₹ in lakh)				
Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00	0.00
Receivables	27.85	43.62	46.76	46.89
Total	27.85	43.62	46.76	46.89
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest	3.76	5.89	6.31	6.33

Annual Transmission Charges

39. 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	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Block				
Opening Gross Block	1248.03	1444.95	1647.50	1745.96
Additional Capitalisation	196.92	202.55	98.46	0.00
Closing Gross Block	1444.95	1647.50	1745.96	1745.96
Average Gross Block	1346.49	1546.23	1696.73	1745.96
Depreciation				
Rate of Depreciation	5.280	5.280	5.280	5.280
Depreciable Value	1211.84	1391.60	1527.06	1571.36
Elapsed Life of the assets at beginning of the year	0.00	1.00	2.00	3.00
Weighted Balance Useful life of the assets	25.00	24.00	23.00	22.00
Remaining Depreciable Value	1211.84	1340.52	1394.33	1349.05
Depreciation	51.09	81.64	89.59	92.19
Interest on Loan				
Gross Normative Loan	873.62	1011.47	1153.25	1222.17



Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Cumulative Repayment upto Previous Year	0.00	51.09	132.73	222.32
Net Loan-Opening	873.62	960.38	1020.52	999.86
Additions	137.84	141.79	68.92	0.00
Repayment during the year	51.09	81.64	89.59	92.19
Net Loan-Closing	960.38	1020.52	999.86	907.67
Average Loan	917.00	990.45	1010.19	953.76
Weighted Average Rate of Interest on Loan (%)	8.4000	8.4000	8.4000	8.4000
Interest	55.35	83.20	84.86	80.12
Return on Equity				
Opening Equity	374.41	433.49	494.25	523.79
Additions	59.08	60.77	29.54	0.00
Closing Equity	433.49	494.25	523.79	523.79
Average Equity	403.95	463.87	509.02	523.79
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (PreTax) (%)	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	56.92	90.96	99.82	102.71
Interest on Working Capital				
Maintenance Spares	0.00	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00	0.00
Receivables	27.85	43.62	46.76	46.89
Total	27.85	43.62	46.76	46.89
Interest	3.76	5.89	6.31	6.33
Annual Transmission Charges				
Depreciation	51.09	81.64	89.59	92.19
Interest on Loan	55.35	83.20	84.86	80.12
Return on Equity	56.92	90.96	99.82	102.71
Interest on Working Capital	3.76	5.89	6.31	6.33
O & M Expenses	0.00	0.00	0.00	0.00
Total	167.12	261.69	280.57	281.35



Filing Fee and the Publication Expenses

40. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

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

Service Tax

42. 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

43. 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.

44. This Order disposes of Petition No. 232/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
Proposed Loan 2015-16 (8.40%)-COD funding	8.40	877.56	0.00	877.56
Total	8.40	877.56	0.00	877.56

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	877.56	877.56	877.56	877.56	877.56
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	877.56	877.56	877.56	877.56	877.56
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	877.56	877.56	877.56	877.56	877.56
Average Net Loan	877.56	877.56	877.56	877.56	877.56
Interest on Loan	73.72	73.72	73.72	73.72	73.72
Rate of Interest on Loan (%)	8.4000	8.4000	8.4000	8.4000	8.4000

