

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 215/TT/2015

Coram:

Shri A.S. Bakshi, Member

Dr. M.K. Iyer, Member

Date of Hearing : 14.03.2016

Date of Order : 25.04.2016

In the matter of:

Determination of transmission tariff for 2019 for 1 No. 50 MVA, 132/66 kV, 3-Ph., ICT at Gangtok Sub-station under provision of spare ICTs and reactors for Eastern, Northern, Southern and Western Region for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and 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 -BSEB)
Vidyut Bhavan, Bailey Road, Patna – 800 001
2. West Bengal State Electricity Distribution Company
Bidyut Bhawan, Bidhan Nagar
Block DJ, sector-II, Salt Lake City
Kolkata - 700 091
3. Grid Corporation of Orissa Ltd.
Shahid Nagar, Bhubaneshwar- 751007



4. Damodar Valley Corporation
DVC Tower, Maniktala
Civic Centre, VIP Road, Kolkata-700054
5. Power Department
Government of Sikkim, Gangtok-737101
6. Jharkhand State Electricity Board
Doranda, Ranchi-834002

....**Respondents**

The following were present:-

For Petitioner: Shri S.S. Raju, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri Jasbir Singh, PGCIL
 Shri Aryaman Saxena, PGCIL
 Shri M.M. Mondal, 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 1 No. 50 MVA, 132/66 kV, 3-Ph., ICT at Gangtok Sub-station under provision of spare ICTs and reactors for Eastern, Northern, Southern and Western Region (referred as "Asset I") under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from date of commercial operation to 31.3.2019.



1. 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 Eastern and North Eastern Region.

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 Memorandum C/CP/Spare ICTs & Reactors dated 4.8.2011 for ₹19,919 lakh including an IDC of ₹538 lakh based on 1st quarter, 2011 price level. The total approved apportioned cost for the instant asset is ₹471.65 lakh.

(b) The scope of work covered under “Provision of spare ICTs and Reactors for Eastern, Northern, Southern and Western Region” is as follows:-

| No. of Spare ICT & Reactors | Locations |
|----------------------------------------|--------------------------------------------------------------------------------|
| 04 Nos. 315 MVA, 400/220/33 kV ICTs | Biharshariff (Bihar), Durgapur (WB), Jamshedpur (Jharkhand), Rourkela (Orissa) |
| 02 Nos. 160 MVA, 220/132 kV ICTs | Baripada (Orissa), Siliguri (WB) |
| 01 No. 50 MVA, 132/66 kV ICTs | Gangtok (Sikkim) |
| 01 No. 80 MVAR Shunt Reactor | Rourkela (Orissa) |

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



(₹ in lakh)

| Particulars | 2015-16 (pro-rata) | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|-----------------------|--------------|--------------|--------------|
| Depreciation | 13.19 | 23.69 | 23.69 | 23.69 |
| Interest on Loan | 16.51 | 28.29 | 25.96 | 23.64 |
| Return on Equity | 14.70 | 26.40 | 26.40 | 26.40 |
| Interest on Working Capital | 1.02 | 1.80 | 1.75 | 1.70 |
| O&M Expenses | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 45.42 | 80.18 | 77.80 | 75.43 |

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

(₹ in lakh)

| Particulars | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|----------------------------|-------------|-------------|-------------|-------------|
| O & M Expenses | 0.00 | 0.00 | 0.00 | 0.00 |
| Maintenance Spares | 0.00 | 0.00 | 0.00 | 0.00 |
| Receivables | 7.99 | 13.36 | 12.97 | 12.57 |
| Total | 7.99 | 13.36 | 12.97 | 12.57 |
| Rate of Interest (%) | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest (pro-rata) | 1.02 | 1.80 | 1.75 | 1.70 |

3. The annual fixed charges for the instant assets was allowed under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC charges vide order dated 17.12.2015 based on actual COD. The petitioner has submitted the cash IDC, Auditor Certificates and tariff forms in petition and the same has been considered for the purpose of computation of tariff.

4. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the



public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 14.3.2016. None of the respondents have filed their reply. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

Commercial Operation Date (“COD”)

5. The petitioner has claimed the date of the commercial operation of the instant transmission Asset I as 20.4.2015.

6. Regulation 4(3) 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”

7. The petitioner has submitted letter declaring COD in support of the claim of commercial operation of the instant assets. Accordingly, the commercial operation date considered for the instant transmission asset is 20.4.2015 and the period of tariff worked is from 20.4.2015 to 31.3.2019.



Capital Cost

8. The petitioner has claimed the capital cost ₹78.75 lakh for the instant transmission asset as on actual COD. In the auditor certificate and tariff forms the petitioner has claimed the following cost:-

(₹ in lakh)

| Asset | Approved apportioned cost as per FR | Capital cost as on COD | Additional capital expenditure | | | Estimated completion cost as on 31.3.2019 |
|---------|-------------------------------------|------------------------|--------------------------------|---------|---------|-------------------------------------------|
| | | | 2014-15 | 2015-16 | 2016-17 | |
| Asset I | 471.65 | 78.75 | 0.00 | 370.00 | 0.00 | 448.75 |

9. Regulation 9 (1) and (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:

- 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.”



“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.”

10. The capital cost claimed by the petitioner is considered for the purpose of tariff subjected to prudence check as discussed in subsequent paragraph.

11. The petitioner vide Auditor certificate dated 26.5.2015 has submitted IDC and IEDC upto COD on accrual basis for the instant transmission assets as ₹6.57 lakh and ₹10.58 lakh respectively. The petitioner has further submitted the IDC discharged as below:-

(₹ in lakh)

| Asset | IDC discharged upto COD | Accrual IDC upto COD (to be discharged during 2015-16) |
|---------|-------------------------|--------------------------------------------------------|
| Asset I | 6.27 | 0.30 |

12. For determination of tariff for the 2014-19 tariff period for the instant transmission assets we have considered the capital cost as on COD after adjusting the IDC discharged on cash basis for the instant asset.



Time over-run

13. As per the investment approval, the commissioning schedule of the project is 16 months from the date of investment approval. The investment approval was accorded on 2.8.2011 and hence the schedule date of commercial operation (SCOD) was 2.1.2013. The COD for the instant transmission asset as submitted by the petitioner is 20.4.2015. Hence, there is time over-run of 27 months and 18 days for the instant transmission asset.

14. The petitioner has submitted vide affidavit dated 28.4.2016 that the subject asset was to be delivered at Gangtok Sub-station in December, 2011 as per schedule. However, the same was delivered in April, 2015 accounting for a delay in commissioning of around 28 months. The petitioner has submitted the following reasons for delay:-

(a) Delay due to transportation problem

- i) The consignment containing the subject asset was stopped before the Bridge of Rangpo River, by State Government agencies due to disastrous failure of bridge over River Rangchang in December 2012 resulting in heavy loss of property and human life. Keeping in view of the incident at Bridge over Rangchang River, the transportation of heavy consignment over the bridge of Rangpo River was banned by Border Road Organization (hereinafter "BRO") and Government of Sikkim.
- ii) Due to non-permission of transportation over Rangpo River Bridge, the transporter constructed a diversion road to cross the Rangpo



River for transportation of the subject asset. However, the diversion road was washed away due to sudden outbreak of artificial reservoir in the river upstream and resultant rush of water in the river. Afterwards the monsoon in Sikkim started and the transportation of the subject asset was postponed until the monsoon was over.

- iii) In the meantime the strengthening work on the Rangpo River Bridge was complete and permission to transport the subject asset over the bridge was granted by the BRO on 30.8.2013.
- iv) After crossing the Rangpo River Bridge the consignment was again stopped near Jalipool Bridge over Ranipool River due to low capacity of the bridge and transportation of the subject asset was not feasible. Three alternative routes were considered for further transportation, and out of the three the transporter decided to use the Rangpo-Rorathang-Pakyong-Ranipool route for transportation of the subject asset.
- v) The petitioner has submitted the photographs, newspaper articles and minutes of meeting dated 12.5.2013 held with the contractors discussing the transportation issue.

(b) Delay due to road accident

- i) While passing through the Rangpo-Rorathang-Pakyong-Ranipool route the trailer containing the subject asset toppled on 9.11.2013



and the asset got damaged. The same was lifted and sent back to the manufacturer for repair.

- ii) Further, while returning to the manufacturer, the trailer met another accident near Rangpo on 25.11.2013 and the subject asset got completely damaged.
- iii) The manufacturer replaced the damaged subject asset with a new one and dispatched it. The subject asset reached Siliguri on 2.9.2014 however due to collapse of Rambh Bridge the transporter was unable to transport the subject asset. The transporter temporarily unloaded the subject asset at New Siliguri Sub-station on 2.9.2014.
- iv) After the completion of the repair works of the Rambh Bridge the subject asset was finally delivered at Gangtok Sub-station on 19.4.2015.

15. We have considered the submissions of the petitioner with regard to the subject asset. As per the petitioner, due to failure of bridge over River Rangchang in December, 2011 and the resultant restriction in transportation by BRO and Government of Sikkim, the petitioner was unable to transport the subject asset over the Bridge of Rangpo River. The petitioner has substantiated its claim by photographs, newspaper articles and minutes of meeting dated 12.5.2013 held with the contractors discussing the transportation issue. The petitioner has submitted letter dated 30.8.2013 issued by BRO for permitting the transporter to transport through Rangpo Bridge. However, in the



same letter, the date of application seeking NOC to transport through Rangpo Bridge is mentioned as 21.8.2013. Therefore, as per the document submitted, there is a delay of 9 days in grant of permission to cross the Bridge after the application. Further, the SCOD for the subject asset is 2.1.2013 and the developments as mentioned in the letter regarding transportation of the asset have happened after the SCOD i.e. in the month of August 2013. Hence, the delay on account of transportation problem is condoned.

16. As regards delay on account of road accident, the petitioner has submitted its letters dated 11.11.2013 and 3.12.2013 mentioning the road accidents on 9.11.2013 and 25.11.2013 respectively. The petitioner has also submitted the letter by the supplier dated 2.9.2014 mentioning the constraint in transportation of the subject asset due to on-going strengthening works of the Rambhi Bridge. The petitioner has further submitted its "Inter Office Memo" dated 19.4.2015 confirming the delivery of the subject asset at Gangtok Sub-station on 19.4.2015. Therefore, there is a delay of 17 months and 8 days on account of road accidents and the constraints in transporting the subject asset to Gangtok Sub-station. The delay on account of road accidents and the constraints in transportation were beyond the control of the petitioner. Hence, the delay of 17 months and 8 days is condoned.

17. In view of the above, the total delay of 27 months and 18 days from SCOD to actual COD is condoned. Accordingly, after adjusting IDC and IEDC



discharged on cash basis, the capital cost considered for tariff calculation is ₹78.45 lakh.

18. During the hearing dated 14.3.2016 the Commission had sought the details of the financial implications of the time over-run on the capital cost and the details of LD and insurance amount received by the petitioner due to damage in the ICT. In its response, the petitioner has submitted that recovery of insurance and LD is in under process and the same will be adjusted in the capital cost at the time of truing-up. The petitioner is directed to submit the amount of LD and insurance realised at the time of truing-up. We admit the petitioner's submission and the financial implications of the time over-run on the capital cost due to damage in the ICT will be considered at the time of truing up.

Initial Spares

19. The petitioner has claimed initial spares for the instant transmission asset as ₹10.08 lakh which is 2.34% of the plant and machinery cost.

20. The total initial spares claimed by the petitioner for the instant asset is within the limits prescribed under Regulation 13 of the Tariff Regulation, 2014 and therefore allowed for capitalisation.

Additional Capital Expenditure

21. The petitioner has proposed additional capitalization of ₹370.00 lakh for the year 2015-16 towards balance and retention payment under Regulation 14(1) (i) of 2014 Tariff Regulations.



22. 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;”

23. The cut-off date of the transmission asset is 31.3.2018. It is observed that total estimated completion cost of ₹448.75 lakh including the additional capitalization of ₹370.30 lakh (₹ 0.30 lakh IDC discharged on 2015-16) is within the cut-off date and lies within the approved apportioned cost of ₹471.65 lakh. Accordingly, additional capitalization for the subject asset is allowed under Regulation 14(1)(i) of 2014 Tariff Regulations.

| Asset | Approved Apportioned Cost as per FR | Capital cost as on COD | Additional Capital Expenditure | | | Estimated Completion Cost as on 31.3.2019 |
|---------|-------------------------------------|------------------------|--------------------------------|---------|---------|-------------------------------------------|
| | | | 2014-15 | 2015-16 | 2016-19 | |
| Asset I | 471.65 | 78.45 | 0.00 | 370.30 | 0.00 | 448.75 |

Debt: Equity Ratio

24. 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.”

25. The petitioner has considered debt:equity ratio as 70.01:29.99 as on COD and debt:equity ratio as 70:30 for additional capitalization during 2015-16. Accordingly, we have considered the same for the purpose of tariff computation for the 2014-19 tariff period is as follows:-

(₹ in lakh)

| Asset | As on 20.4.2015 | | Additional capitalization during 2014-19 | | As on 31.3.2019 | |
|--------------|-----------------|---------------|------------------------------------------|---------------|-----------------|---------------|
| | Amount | (%) | Amount | (%) | Amount | (%) |
| Debt | 54.92 | 70.01 | 259.21 | 70.00 | 314.13 | 70.00 |
| Equity | 23.53 | 29.99 | 111.09 | 30.00 | 134.62 | 30.00 |
| Total | 78.45 | 100.00 | 370.30 | 100.00 | 448.75 | 100.00 |

Interest on Loan (“IOL”)

26. 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.”



27. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. 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 petitioner has also prayed that they will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase. 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 details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out as follows:-

| (₹ in lakh) | | | | |
|-----------------------------------------|-----------------------|---------|---------|---------|
| Particulars | 2015-16 (pro-rata) | 2016-17 | 2017-18 | 2018-19 |
| Gross loan opening | 54.92 | 314.13 | 314.13 | 314.13 |
| Cumulative Repayment upto previous year | 0.00 | 13.20 | 36.89 | 60.58 |
| Net Loan-Opening | 54.92 | 300.94 | 277.24 | 253.55 |
| Additions during the year | 259.21 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 13.20 | 23.69 | 23.69 | 23.69 |
| Net Loan-Closing | 300.94 | 277.24 | 253.55 | 229.86 |
| Average Loan | 177.93 | 289.09 | 265.40 | 241.70 |
| Rate of Interest (%) | 9.7913% | 9.7869% | 9.7815% | 9.7796% |
| Interest | 16.52 | 28.29 | 25.96 | 23.64 |



Return on Equity (“ROE”)

28. 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:

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.”

29. The petitioner has claimed ROE at the rate of 20.961% after grossing up the ROE of 15.5% with MAT rate as per the above said 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.

30. 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.

31. 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. The ROE allowed for the instant transmission asset is given below:-

| (₹ in lakh) | | | | |
|---------------------------|-----------------------|---------|---------|---------|
| Particulars | 2015-16 (pro-rata) | 2016-17 | 2017-18 | 2018-19 |
| Opening Equity | 23.53 | 134.62 | 134.62 | 134.62 |
| Additional Capitalization | 111.09 | - | - | - |
| Closing Equity | 134.62 | 134.62 | 134.62 | 134.62 |



| Particulars | 2015-16 (pro-rata) | 2016-17 | 2017-18 | 2018-19 |
|-------------------------------------------|-----------------------|---------|---------|---------|
| Average Equity | 79.07 | 134.62 | 134.62 | 134.62 |
| Return on Equity (Base Rate) (%) | 15.500% | 15.500% | 15.500% | 15.500% |
| Tax 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) | 14.70 | 26.40 | 26.40 | 26.40 |

Depreciation

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. 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”

34. The petitioner has claimed depreciation considering capital expenditure of ₹78.75 lakh as on 20.4.2015 and additional capitalization of ₹370.00 lakh for the 2014-19 tariff period.

35. We have computed depreciation considering capital expenditure of ₹69.12 lakh as on 20.4.2015 and additional capitalization of ₹370.00 lakh for 2015-16. The weighted average useful life of the 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 | 2015-16 (pro-rata) | 2016-17 | 2017-18 | 2018-19 |
| Opening Gross block | 78.45 | 448.75 | 448.75 | 448.75 |
| Additional Capitalization | 370.30 | - | - | - |
| Closing Gross block | 448.75 | 448.75 | 448.75 | 448.75 |
| Average Gross block | 263.60 | 448.75 | 448.75 | 448.75 |
| Rate of Depreciation (%) | 5.28% | 5.28% | 5.28% | 5.28% |
| Depreciable Value | 237.24 | 403.88 | 403.88 | 403.88 |
| Elapsed Life of the assets at beginning of the year | 25 | 24 | 23 | 22 |
| Weighted Balance Useful life of the assets | - | 1 | 2 | 3 |
| Remaining Depreciable Value | 237.24 | 390.68 | 366.99 | 343.29 |
| Depreciation during the year | 13.20 | 23.69 | 23.69 | 23.69 |
| Depreciation upto previous year | 0.00 | 13.20 | 36.89 | 60.58 |
| Cumulative depreciation | 13.20 | 36.89 | 60.58 | 84.28 |



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

36. The petitioner has not claimed any O&M expenses for the subject asset as it is spare ICT.

Interest on Working Capital (“IWC”)

37. 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).

38. 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 |
| O & M expenses | 0.00 | 0.00 | 0.00 | 0.00 |
| Maintenance Spares | 0.00 | 0.00 | 0.00 | 0.00 |
| Receivables | 7.56 | 13.37 | 12.97 | 12.57 |
| Total | 7.56 | 13.37 | 12.97 | 12.57 |
| Rate of Interest (%) | 13.50% | 13.50% | 13.50% | 13.50% |
| Interest | 0.97 | 1.80 | 1.75 | 1.70 |



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 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | | | | |
| Opening Gross Block | 78.45 | 448.75 | 448.75 | 448.75 |
| Additional Capitalisation | 370.30 | 0.00 | 0.00 | 0.00 |
| Closing Gross Block | 448.75 | 448.75 | 448.75 | 448.75 |
| Average Gross Block | 263.60 | 448.75 | 448.75 | 448.75 |
| Rate of Depreciation (%) | 5.28% | 5.28% | 5.28% | 5.28% |
| Depreciable Value | 237.24 | 403.88 | 403.88 | 403.88 |
| Balance useful life of the asset | 25.00 | 24.00 | 23.00 | 22.00 |
| Elapsed life | 0.00 | 1.00 | 2.00 | 3.00 |
| Remaining Depreciable Value | 237.24 | 390.68 | 366.99 | 343.29 |
| Depreciation during the year | 13.20 | 23.69 | 23.69 | 23.69 |
| Depreciation upto previous year | 0.00 | 13.20 | 36.89 | 60.58 |
| Cumulative depreciation | 13.20 | 36.89 | 60.58 | 84.28 |
| | | | | |
| Interest on Loan | | | | |
| Gross Normative Loan | 54.92 | 314.13 | 314.13 | 314.13 |
| Cumulative Repayment upto Previous Year | 0.00 | 13.20 | 36.89 | 60.58 |
| Net Loan-Opening | 54.92 | 300.94 | 277.24 | 253.55 |
| Additions | 259.21 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 13.20 | 23.69 | 23.69 | 23.69 |
| Net Loan-Closing | 300.94 | 277.24 | 253.55 | 229.86 |
| Average Loan | 177.93 | 289.09 | 265.40 | 241.70 |
| Weighted Average Rate of Interest on Loan (%) | 9.7913% | 9.7869% | 9.7815% | 9.7796% |
| Interest on Loan | 16.52 | 28.29 | 25.96 | 23.64 |
| | | | | |
| Return on Equity | | | | |
| Opening Equity | 23.53 | 134.62 | 134.62 | 134.62 |
| Additions | 111.09 | 0.00 | 0.00 | 0.00 |



| Particulars | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--------------------------------------|----------------|----------------|----------------|----------------|
| Closing Equity | 134.62 | 134.62 | 134.62 | 134.62 |
| Average Equity | 79.07 | 134.62 | 134.62 | 134.62 |
| Return on Equity (Base Rate)(%) | 15.500% | 15.500% | 15.500% | 15.500% |
| MAT rate for the respective year (%) | 20.961% | 20.961% | 20.961% | 20.961% |
| Rate of Return on Equity (%) | 19.610% | 19.610% | 19.610% | 19.610% |
| Return on Equity | 14.70 | 26.40 | 26.40 | 26.40 |
| | | | | |
| Interest on Working Capital | | | | |
| O & M expenses | 0.00 | 0.00 | 0.00 | 0.00 |
| Maintenance Spares | 0.00 | 0.00 | 0.00 | 0.00 |
| Receivables | 7.56 | 13.37 | 12.97 | 12.57 |
| Total | 7.56 | 13.37 | 12.97 | 12.57 |
| Rate of Interest | 13.500% | 13.500% | 13.500% | 13.500% |
| Interest on Working Capital | 0.97 | 1.80 | 1.75 | 1.70 |
| | | | | |
| Annual Transmission Charges | | | | |
| Depreciation | 13.20 | 23.69 | 23.69 | 23.69 |
| Interest on Loan | 16.52 | 28.29 | 25.96 | 23.64 |
| Return on Equity | 14.70 | 26.40 | 26.40 | 26.40 |
| Interest on Working Capital | 0.97 | 1.80 | 1.75 | 1.70 |
| O & M Expenses | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 45.38 | 80.19 | 77.80 | 75.43 |

Filing Fee and 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 of Service Tax 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. 215/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19

| Particulars | Interest Rate (%) | Loan deployed as on COD | Additions during the tariff period | Total |
|----------------------------|-------------------|-------------------------|------------------------------------|--------------|
| SBI (21.3.2012)- DOCO Loan | 10.10 | 17.31 | 0.00 | 17.31 |
| BOND XLV-DOCO- | 9.65 | 37.81 | 0.00 | 37.81 |
| Total | | 55.12 | 0.00 | 55.12 |

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

| Particulars | (₹in lakh) | | | |
|-------------------------------------------------|-------------|-------------|-------------|-------------|
| | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Gross Opening Loan | 55.12 | 55.12 | 55.12 | 55.12 |
| Cumulative Repayment of loan upto previous year | 0.00 | 0.00 | 1.57 | 6.29 |
| Net Loan Opening | 55.12 | 55.12 | 53.55 | 48.83 |
| Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 0.00 | 1.57 | 4.72 | 4.72 |
| Net Loan Closing | 55.12 | 53.55 | 48.83 | 44.11 |
| Average Loan | 55.12 | 54.34 | 51.19 | 46.47 |
| Rate of Interest | 9.7913% | 9.7869% | 9.7815% | 9.7796% |
| Interest | 5.40 | 5.32 | 5.01 | 4.54 |

