CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 186/TT/2011

Coram:

Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member

Date of Hearing : 13.08.2013
Date of Order : 03.02.2014

In the matter of:

Approval under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 for determination of transmission tariff from projected date of commercial operation 1.1.2012 to 31.3.2014 for 220/132 kV 100 MVA ICT and associated bays at Raebareli under augmentation of 220/132 kV transformation capacity at Raebareli (Power Grid) by 1X100 MVA transformer, for tariff block 2009-14 period in Northern Region.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamani", Plot No.2,
Sector-29, Gurgaon -122 001.

………Petitioner

Vs

Uttar Pradesh Power Corporation Ltd.,
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226 001.

….Respondents

For the Petitioner : Shri Prashant Sharma, PGCIL
Shri S.S Raju, PGCIL
Ms. Sangeeta Edwards,PGCIL
D. Nikaandia,PGCIL
Shri M.M. Mondal, PGCIL

For the Respondent : Shri Padamjit Singh, PSPCL

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) for approval of transmission tariff for 220/132 kV 100 MVA ICT and associated bays at Raebareli under the augmentation of 220/132 kV transformation capacity at Raebareli (Powergrid) by 1X100 MVA transformer (hereinafter referred to as "transmission asset"), in Northern Region for tariff block 2009-14 period, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The investment approval for the transmission project was accorded by the Board of Directors of PGCIL vide Memorandum No. C/CP/Augmentation Raebareli dated 26.8.2010 for ₹1057 lakh including an IDC of ₹44 lakh based on 1st Quarter, 2010 price level. The project was to be completed within 18 months, i.e. by February 2012. The scope of work covered under the project is given below: -

Substation

Extension of Raibareilly 220/132 kV (POWERGRID) Sub-station – 1X 100 MVA 220/132 kV transformer along with associated bays*

*132 kV bays to be carried out on deposit work basis by UPPCL on behalf of Powergrid as 132 kV switchyard is owned by UPPCL.

3. In the instant petition, the petitioner initially claimed tariff from anticipated date of commercial operation i.e. 1.1.2012 to 31.3.2014. Subsequently, the petitioner has submitted vide affidavit dated 19.12.2011 that the asset covered

in the instant petition has been put under commercial operation on 1.10.2011. There is no time over-run. The petitioner has submitted revised capital cost as per revised date of commercial operation along with auditor's certificate and revised tariff calculations vide affidavit dated 4.4.2013.

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

(₹ in lakh)

Particulars	**2011-12**	**2012-13**	**2013-14**
Depreciation	10.28	26.06	30.67
Interest on Loan	12.51	30.16	33.24
Return on Equity	10.53	26.71	31.45
Interest on working capital	2.35	5.22	5.67
O & M Expenses	35.14	74.30	78.55
Total	**70.81**	**162.45**	**179.58**

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

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Maintenance Spares	10.54	11.14	11.78
O & M Expenses	5.86	6.19	6.55
Receivables	23.60	27.08	29.93
Total	**40.00**	**44.42**	**48.26**
Interest	2.35	5.22	5.67
Rate of Interest	11.75%	11.75%	11.75%

6. 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. Punjab state Power Corporation Limited (PSPCL), Respondent No. 7, has filed reply vide affidavit dated 22.8.2013. The objections raised by PSPCL in its reply are dealt with in relevant paragraphs of this order.

7. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.

Capital cost

8. Regulation 7 (1) of the 2009 Tariff Regulations provides as under:-

> **"(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 fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.

9. The details of capital cost as per FR, capital cost as on actual date of commercial operation and estimated additional capital expenditure projected to be incurred for the asset covered in this petition are summarized below:

(₹ in lakh)

Apportioned approved cost	Actual cost incurred as on date of commercial operation*	Projected additional capital expenditure			Total estimated completion cost
		2011-12	2012-13	2013-14	
1057.00	334.44	109.56	98.99	75.93	618.92

*****Inclusive of initial spares, pertaining to Sub-station, amounting to ₹32.34 lakh.

Time over-run

10. As per investment approval dated 26.8.2010, the asset was to be commissioned within 18 months from the date of investment approval i.e. by 1.3.2012. The asset has been commissioned on 1.10.2011. Hence, there in no time over-run.

11. During the hearing on 13.8.2013, the representative of PSPCL submitted that the petition has been filed on the basis of anticipated date of commercial operation, i.e. 1.1.2012 and hence the petitioner should file the certificate regarding the date of commercial operation. The representative of PSPCL further submitted that the Investment Approval (IA) states that 132 kV bays are to be carried out on deposit work basis by UPPCL on behalf of the petitioner as 132 kV switchyard is owned by UPPCL. It has been stated more than once in the petition that 132 kV bays are to be erected by UPPCL. The petitioner should clarify whether additional 132 kV bay is to be erected by the petitioner besides the 132 kV bay erected by UPPCL

12. During the hearing the representative of the petitioner clarified that certificate regarding date of commercial operation has already been filed and only one 132 kV bay is to be erected as per the IA by UPPCL on behalf of the petitioner on deposit work basis and that has been erected by UPPCL within the time schedule.

Initial Spares

13. In the instant petition, the petitioner has claimed initial spares of 6.56% of capital cost against the ceiling of 2.5% in the 2009 Tariff Regulations. The petitioner has submitted that Raebareli Sub-station was commissioned during 2007 with LILO of 220 kV D/C Unchahar– Lucknow line, 220 kV Unchahar Raebareli line III along with two ICTs i.e. ICT II and ICT III. The mandatory spares have been procured by the petitioner for the assets commissioned in 2007 and balance spares are being procured along with assets covered under

instant petition leading to higher amount of initial spares. The petitioner has further submitted, vide affidavit dated 29.2.2012, that Raebareli Sub-station is a green field Sub-station. Normally a large number of bays and other substation equipments like ICTs etc. are commissioned in green field substations. In order to run the system with minimum interruption in case of breakdown, optimum spares are procured with specific project, otherwise restoration of failed equipments through fresh procurement requires long time as the lead time of procurement is high. Moreover, spares for main equipments like ICTs, CBs, etc., installed at sub-station are proprietary items. Even the equipment procured from same manufacturer after some time gap has a lot of up-gradations/ changes from previous models. The initial spares of one model cannot be used in other models; hence initial spares are to be procured. The petitioner has further submitted that most of the sub-station equipments including ICT-II and ICT-III at Raebareli Sub-station have been commissioned in one project and ICT-I has been commissioned under a different project at a later date. Had this ICT-I been commissioned along with all other assets at Raebareli Sub-station, the ICT-I also would have been commissioned along with the other assets as an asset of green field sub-station. Therefore, the overall percentage of initial spares of all the assets in Raebareli sub-station including ICT-I as green field sub-station is within the norms of 2009 Tariff Regulations. No specific recommendations are made by OEM on the subject type of assets. Break-up for initial spares submitted by the petitioner is as follows:-

a) Initial spares for 100 MVA ICT-I= ₹8.03 Lakh

b) Initial spares for 220 kV & 132 kV bays for ICT-I= ₹23.24 Lakh.

c) Balance initial spares for the other assets already commissioned at

Raebareli Sub-station= Nil.

It has further been submitted that initial spares with reference to capital cost of all the assets in Raebareli Sub-station is 1.96%, which is within the applicable norms as per the 2009 Tariff Regulations.

14. During the hearing on 13.8.2013, the representative of PSPCL has submitted that the initial spares claimed are more than the limit specified in Regulation 8 of the 2009 Tariff Regulations and no justification has been given for pooling the instant ICT-I with ICT-II and ICT-III commissioned in 2007. Moreover, it is the function of Central Transmission Utility under Section 38(c) of the Electricity Act to ensure development of an efficient, co-ordinate and economical system of inter-state transmission lines. He requested that pooling of ICTs and higher initial spares should not be allowed.

15. The norms given by the Commission covers all type of assets and these were prepared on the basis of data given by the petitioner at the time of framing of the 2009 Tariff Regulations. No separate treatment was given to green field sub-stations while these norms were formulated. Hence, the spares are being allowed as per the 2009 Tariff Regulations. Therefore, overall percentage of initial spares of all the assets in Raebareli Sub-station including ICT-I as green field substation has been considered as per applicable norms of 2009 Tariff Regulations.

16. Accordingly, excess initial spares claimed has been reduced from the capital cost of the asset as on date of commercial operation as per details given hereunder:-

(₹ in lakh)

Capital Cost up to cut off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation 2009	Initial spares worked out	Excess initial spares
(a)	(b)	(c)	(d)={(a)-(b)}*(c)/{100%-(c)}	(e) = (d)-(b)
618.92	32.34	2.50%	15.04	-17.30

Initial spares allowed will be reviewed at the time of truing up on the submission of actual expenditure incurred up to cut off date.

Cost over-run

17. As per the petition, total estimated completion cost of the asset is ₹618.92 lakh against the total apportioned approved FR cost of ₹1057 lakh. The petitioner in its affidavit dated 29.2.2012 has submitted that the estimates are prepared by the petitioner as per the well defined procedures for cost estimate. The cost estimate is broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts. In the instant case, reason of cost variation in Form 5B is due to the variation in estimated and the awarded price.

18. The petitioner, vide affidavit dated 4.4.2013, has submitted C.A. certificate for the asset as per date of commercial operation and indicated the total completion cost as ₹618.92 lakh. The completion cost is within the estimated apportioned approved cost and hence there is no cost over-run.

19. During the hearing on 13.8.2013**,** the Commission directed the petitioner to submit the revised Form 5C and to file a copy of the Investment Approval for the instant project, as there is a huge over estimation of cost of certain items. The petitioner, vide affidavit dated 9.10.2013, has submitted the revised copy of Form 5C and a copy of Investment approval for the instant project.

20. The reason/ justification submitted by the petitioner is in order. Details of the capital cost claimed and considered for the purpose of tariff calculation after deducting excess initial spares claimed are given hereunder:-

(₹ in lakh)

Capital Cost claimed as on date of commercial operation	Excess Initial Spares	Capital cost considered for the purpose of tariff calculation
334.44	(17.30)	317.14

Projected additional capital expenditure

21. Regulation 9 (1) 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;
> (ii) Works deferred for execution;
> (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;
> (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
> (v) Change in Law:"

22. As per the 2009 Tariff Regulations,

> "cut-off date" means 31st March of the year closing after 2 years of the year of commercial operation of the project, and in case 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 3 years of the year of commercial operation".

23. Therefore, the cut-off date for the above mentioned asset is 31.3.2014.

24. The petitioner has claimed additional capital expenditure of ₹109.56 lakh, ₹98.99 lakh and ₹75.93 lakh for 2011-12 (date of commercial operation to 31.3.2012), 2012-13 and 2013-14 respectively for sub-station equipment. The additional capital expenditure claimed by the petitioner falls within the cut-off date and is mainly on account of balance and retention payments. Hence, the same has been considered for the purpose of tariff determination in accordance with Regulations 9 (1) of the 2009 Tariff Regulations.

Debt- equity ratio

25. Regulation 12 of the 2009 Tariff Regulations provides as under:-

> "12. Debt-Equity Ratio (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.
>
> **Explanation-** The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.
>
> (2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.
> (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."

26. Details of debt-equity in respect of the assets as on dates of commercial operation are given hereunder:-

(₹ in lakh)

As on date of commercial operation i.e. 1.4.2012		
	Amount	**%**
Debt	222.00	70.00%
Equity	95.14	30.00%
Total	**317.14**	**100.00%**

27. Details of debt-equity ratio of assets as on 31.3.2014 is as follows:-

(₹ in lakh)

	Amount	**%**
Debt	421.14	70.00%
Equity	180.48	30.00%
Total	**601.62**	**100.00%**

28. The debt-equity ratio for projected additional capital expenditure considered is given hereunder:-

(₹ in lakh)

Asset-1	**2011-12**	
Particulars	**Amount**	**%**
	Normative	
Debt	76.69	70.00
Equity	32.87	30.00
Total	**109.56**	**100.00**
	2012-13	
Particulars	**Amount**	**%**
	Normative	
Debt	69.29	70.00
Equity	29.70	30.00
Total	**98.99**	**100.00**
Asset-2	**2013-14**	
Particulars	**Amount**	**%**
	Normative	
Debt	53.15	70.00
Equity	22.78	30.00
Total	**75.93**	**100.00**

Return on equity

29. Regulation 15 of the 2009 Tariff Regulations provides as under:-

> "15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.
>
> (2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:
>
> Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:
>
> Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.
>
> (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 financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations".

30. The petitioner has submitted that the transmission asset was anticipated to be commissioned on 1.1.2012. The asset was commissioned on 1.10.2011, i.e. within 18 months from the date of investment approval. The schedule

timeline for this asset is 18 months from date of investment approval as per Appendix-II to the 2009 Tariff Regulations. The petitioner has submitted vide affidavit dated 29.2.2012 that all the works, i.e. award of contract, execution of the project, testing, commissioning etc. is a new work, and all the equipments installed are new. Hence, the petitioner has invoked Regulation 44 (Power to Relax) of the 2009 Tariff Regulations, for relaxation of Regulation 15(2), Appendix-II, so that the timeline for the extension of sub-station is considered same as the timeline of the new sub-station for the purpose of additional return on equity. The petitioner has claimed additional return on equity for those assets which are commissioned within the qualifying time only.

31. PSPCL has submitted that claim of additional return on equity of 0.5% on account of early commissioning should not be allowed, since the petitioner has not given details/ confirmation of 132 kV bays for transmitting the additional power of this ICT.

32. As per Appendix-II to the 2009 Tariff Regulations, the schedule given for "New 220 kV A.C. Sub-station" is 18 months for becoming eligible for additional RoE. This is because a new sub-station requires activities like land acquisition, civil works etc., which take more time as compared to providing an ICT at existing Sub-station. In the present case, the Board of Directors of the petitioner company themselves, in the investment approval for the subject project, had given time schedule for completion of the project as 18 months, knowing that the asset is an ICT commissioned in an existing sub-station, for which there is no timeline prescribed in the Appendix-II to the 2009 Tariff Regulations. Therefore,

we are not inclined to apply Regulation 44 (Power to Relax) of 2009 Tariff Regulations to allow additional RoE.

33. Keeping in view, ROE has been computed @ 17.481% p.a on average equity in line with the 2009 Tariff Regulations as per details given hereunder:-

(₹ in lakh)

Particular	**2011-12**	**2012-13**	**2013-14**
Opening Equity	95.14	128.01	157.71
Addition due to Additional Capitalisation	32.87	29.70	22.78
Closing Equity	128.01	157.71	180.48
Average Equity	111.57	142.86	169.09
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	**9.75**	**24.97**	**29.56**

Interest on loan

34. Regulation 16 of the 2009 Tariff Regulations provides as under:-

> "16. **Interest on loan capital** (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.
>
> (2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.
>
> (3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:
>
> (4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.
>
> (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:
>
> 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.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

35. In these calculations, interest on loan has been worked out as per details given hereunder:-

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.

(b) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period.

(c) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the asset and shall be equal to the annual depreciation allowed

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

36. Detailed calculations in support of the weighted average rates of interest have been given in Annexure to this order.

37. Accordingly, the interest on loan has been calculated on the basis of prevailing rate available as on date of commercial operation. Any change in the rate of interest subsequent to date of commercial operation will be considered at the time of truing up. The interest on normative loan is worked out as under:-

(₹ in lakh)

Particulars	**2011-12**	**2012-13**	**2013-14**
Gross Normative Loan	222.00	298.69	367.99
Cumulative Repayment upto previous year	0.00	9.82	34.96
Net Loan-Opening	222.00	288.87	333.02
Addition due to additional capital expenditure	76.69	69.29	53.15
Repayment during the year	9.82	25.14	29.76
Net Loan-Closing	288.87	333.02	356.41
Average Loan	255.44	310.95	344.72
Weighted Average Rate of Interest on Loan	9.3570%	9.3623%	9.3623%
Interest	**11.95**	**29.11**	**32.27**

Depreciation

38. Regulation 17 of the 2009 Tariff Regulations provides as under:-

> "17. **Depreciation** (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.
>
> (2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.
>
> Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site;
>
> Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.
>
> (3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
>
> (4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.
>
> (5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.
>
> (6) 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."

39. The transmission asset was put under commercial operation on 1.10.2011. Accordingly, the asset will complete 12 years beyond 2013-14. Thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 Tariff Regulation.

40. Details of the depreciation worked out are given hereunder:-

(₹ in lakh)

Particulars	**2011-12**	**2012-13**	**2013-14**
Opening Gross Block	317.14	426.70	525.69
Addition due to Projected Additional Capitalisation	109.56	98.99	75.93
Closing Gross Block	426.70	525.69	601.62
Average Gross Block	371.92	476.20	563.66
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	334.73	428.58	507.29
Remaining Depreciable Value	334.73	418.76	472.33
Depreciation	9.82	25.14	29.76

Operation & maintenance expenses

41. Clause (g) of Regulation 19 of the 2009 Tariff Regulations prescribes the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms prescribed in respect of the elements covered in the instant petition are as under:-

(₹ in lakh per day)

Element	2009-10	2010-11	2011-12	2012-13	2013-14
220 kV bay	36.68	38.78	41.00	43.34	45.82
132 kV and below bay	26.20	27.70	29.28	30.96	32.73

42. The allowable O&M expenses for the asset are given hereunder:-

(₹ in lakh)

Element	**2011-12 (Pro-rata for 6 months)**	**2012-13**	**2013-14**
1 no 220 kV bay	20.50	43.34	45.82
1 no 132 kV bay	14.64	30.96	32.73
Total O&M	**35.14**	**74.30**	**78.55**

43. The petitioner has submitted that O&M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O&M expenses during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O&M charges for tariff period 2009-14.

44. The Commission has given effect to the impact of pay revision in the 2009 Tariff Regulations of pay revision by factoring 50% on account of the employees of PSUs after extensive consultation with stakeholders. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. However, in case the petitioner approaches with any such applications, the same shall be dealt with in accordance with law.

Interest on working capital

45. As per the 2009 Tariff Regulations, the components of the working capital and the interest thereon are discussed hereunder: -

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of two months' transmission charges in the petition. In the tariff being allowed, receivables have been worked out on the basis of two months' transmission charges.

(ii) Maintenance spares

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M expenses from 1.4.2009. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year. This has been considered in the working capital.

(iv) Rate of interest on working capital

Interest on working capital has been worked out considering interest rate @ 11.75% (base rate as on 1.4.2011 i.e. 8.25% and 350 basis points) for asset.

46. Necessary computations in support of interest on working capital are given hereunder:-

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Maintenance Spares	10.54	11.15	11.78
O & M Expenses	5.86	6.19	6.55
Receivables	22.99	26.45	29.29
Total	39.39	43.78	47.62
Interest	**2.31**	**5.14**	**5.60**

Transmission charges

47. The transmission charges being allowed for the assets are summarized hereunder:-

(₹ in lakh)

Particulars	**2011-12**	**2012-13**	**2013-14**
Depreciation	9.82	25.14	29.76
Interest on Loan	11.95	29.11	32.27
Return on Equity	9.75	24.97	29.56
Interest on Working Capital	2.31	5.14	5.60
O & M Expenses	35.14	74.30	78.55
Total	**68.98**	**158.67**	**175.74**

Filing fee and the publication expenses

48. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. In accordance with the Commission's order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee directly from the beneficiaries on *pro-rata* basis. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis.

Licence fee

49. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents.

50. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations

Service tax

51. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

52. 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.

53. This order disposes of Petition No. 186/TT/2011.

Sd/-	Sd/-
(M. Deena Dayalan) **Member**	**(V. S. Verma)** **Member**

Annexure

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in lakh)

	Details of Loan	2011-12	2012-13	2013-14
1	**Bond XXXVI**			
	Gross loan opening	**234.11**	**234.11**	**234.11**
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	**0.00**
	Net Loan-Opening	234.11	234.11	234.11
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	234.11	234.11	234.11
	Average Loan	234.11	234.11	234.11
	Rate of Interest	9.35%	9.35%	9.35%
	Interest	**21.89**	**21.89**	**21.89**
	Rep Schedule	12 Annual installments from 29.8.2016		
2	**Bond XXXIX (Add Cap for 2011-12, Drawl on 31.3.2012)**			
	Gross loan opening	**0.00**	**76.69**	**76.69**
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	76.69	76.69
	Additions during the year	76.69	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	76.69	76.69	76.69
	Average Loan	38.35	76.69	76.69
	Rate of Interest	9.40%	9.40%	9.40%
	Interest	**3.60**	**7.21**	**7.21**
	Rep Schedule	Bullet payment 29.3.2027		
	Total Loan			
	Gross loan opening	234.11	310.80	310.80
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	234.11	310.80	310.80
	Additions during the year	76.69	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	310.80	310.80	310.80
	Average Loan	272.46	310.80	310.80
	Weighted Average Rate of Interest	**9.3570%**	**9.3623%**	**9.3623%**
	Interest	25.49	29.10	29.10