

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.190/TT/2011

Coram:

**Shri S. Jayaraman, Member
Shri M. Deena Dayalan, Member**

Date of Hearing: 15.05.2011

Date of Order : 11.03.2013

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 in respect of Hassan –Mysore 400 kV D/C Line and extension of 400/220kV Mysore & Hassan sub-stations under System Strengthening –IX in Southern Regional Grid from the date of commercial operation i.e. 1.7.2011 to 31.3.2014

And

In the matter of:

Power Grid Corporation of India Limited, Gurgaon

.....**Petitioner**

Vs

1. Karnataka Power Transmission Corporation, Ltd. Bangalore
2. Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
3. Kerala State Electricity Board, Thiruvananthapuram
4. Tamil Nadu Generation and Distribution Company Ltd., (TANGEDCO), Chennai
5. Electricity Department, Govt. of Goa, Panaji
6. Electricity Department, Govt. of Pondicherry, Pondicherry
7. Eastern Power Distribution Company of Andhra Pradesh Ltd., Visakhapatnam
8. Southern Power Distribution Company of Andhra Pradesh Ltd., Tirupati
9. Central Power Distribution Company of Andhra Pradesh Ltd., Hyderabad
10. Northern Power Distribution Company of Andhra Pradesh Ltd., Warangal
11. Bangalore Electricity Supply Company Ltd., Bangalore



12. Gulbarga Electricity Supply Company Ltd., Gulbarga
13. Hubli Electricity Supply Company Ltd., Hubli
14. Mangalore Electricity Supply Company Ltd., Mangalore
15. Chamundeswari Electricity Supply Company Ltd., Mysore

... Respondents

The following were present:

1. Shri. M M Mondal, PGCIL
2. Shri S S Raju, PGCIL

ORDER

This petition has been filed by Power Grid Corporation of India (PGCIL) for determination of transmission tariff in respect of Hassan –Mysore 400 kV D/C Line and extension of 400/220kV Mysore & Hassan sub-station (hereinafter referred to as “transmission assets”) under System Strengthening –IX in Southern Regional Grid from the date of commercial operation i.e. 1.7.2011 to 31.3.2014 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 of the Transmission Project “System Strengthening-IX in Southern Regional Grid” was accorded by the Board of Directors of the petitioner vide Memorandum Ref:- C/CP/SR-IX dated 16.2.2009 for `12062 lakh including an IDC of `956 lakh based on 1st Quarter, 2010 price level. The asset was commissioned on 1.7.2011.

3. The scope of work covered under the project includes construction of the following transmission line and sub-station:-



Transmission line

- (a) Hassan –Mysore 400kV D/C line-100 km.

Sub-Station

- (a) Extension of Mysore 400/220kV sub-station (Powergrid)
(b) Extension of Hassan 400/220kV sub-station(Powergrid)

4. Details of the transmission charges claimed by the petitioner are as under:-

(` in lakh)

Particulars	2011-12 (pro- rata)	2012-13	2013-14
Depreciation	391.35	579.05	582.44
Interest on Loan	446.45	619.54	572.01
Return on equity	400.82	593.12	596.59
Interest on Working Capital	35.58	51.07	51.13
O & M Expenses	226.12	318.72	336.91
Total	1500.32	2161.50	2139.08

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

(` in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Maintenance Spares	45.22	47.81	50.54
O & M expenses	25.12	26.56	28.08
Receivables	333.40	360.25	356.51
Total	403.74	434.62	435.13
Rate of Interest	11.75%	11.75%	11.75%
Interest	35.58	51.07	51.13

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, 2003. Reply to the petition has been filed only by Respondent No.4, Tamil Nadu



Generation and Distribution Company Ltd (TANGEDCO), successor entity of erstwhile Tamil Nadu Electricity Board. The respondent has raised the issue of capital cost, additional return on equity, capitalization of initial spares etc. The objections have been 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.

8. The details of capital cost, as on the actual date of commercial operation and additional capital expenditure projected to be incurred for the asset covered in this petition, submitted by the petitioner, are summarized as below:-

(` in lakh)

Apportioned approved cost	Capital expenditure incurred up to date of commercial operation	Projected additional capital expenditure		Total estimated completion cost
		2011-12	2012-13	
12062.00	8852.70	2040.42	128.21	11021.33

The total estimated completion cost includes initial spares of `145.52 lakh pertaining to sub-station.

Capital cost

9. As regards the capital cost, Regulation 7 (1) of the 2009 Tariff Regulations provides as under:-

“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.”

10. TANGEDCO in its reply, vide affidavit dated 8.11.2011, has submitted that the investment approval for the subject scheme was accorded on 16.2.2009 at an estimated cost of ₹12062 lakh for executing line of 100 Km. whereas, the actual length of the line executed is only 95.875 km. TANGEDCO has submitted that the capital cost be admitted after prudence check duly considering the reduction in the length of the actually executed line. The petitioner in its rejoinder has clarified that 100 km. of line length shown in the investment approval was based on the estimate, whereas the actual line length of 95.875 km was after optimization of the route during actual construction of the line. We have considered the submissions of both the petitioner and the respondent. We would like to clarify that the capital cost is arrived at after due prudence check.

11. The petitioner has claimed capital cost of `8852.70 lakh for the transmission asset as on the date of commercial operation i.e. 1.7.2011 vide auditor's certificate dated 2.7.2011.

Treatment of initial spares

12. The petitioner has claimed initial spares of `145.52 lakh pertaining to the sub-station which exceeds the ceiling limit specified in Regulation 8 of the 2009 Tariff Regulations by `111.21 lakh.

13. The petitioner has prayed that the provisions of Regulation 8 (iv) of the 2009 Tariff Regulations be relaxed to allow the excess amount on initial spares. In support



of its prayer for relaxation, the petitioner has submitted that Mysore and Hassan sub-station are green field sub-stations which were commissioned in 2006 and 2010 respectively. According to the petitioner, normally large number of bays and other sub-station equipments like ICTs, Reactors etc. are commissioned in green field sub-stations but in the instant case there are only two bays each at Mysore and Hassan sub-station for Mysore-Hassan line, which is an extension project for both the sub-stations. The petitioner has further submitted that even though similar types of spares have been procured for this system as is normally done for green field sub-stations, the percentage of cost of initial spares w.r.t. the capital cost is higher because of less population of equipments in present project compared to other projects having assets in green field sub-stations. In response to a query, the petitioner has submitted that generally no specific recommendation is made by OEM regarding the quantum of initial spares for the subject asset.

14. TANGDECO has requested to restrict capitalization of initial spares to the norms specified in the 2009 Tariff Regulations.

15. We are of the view that 2009 Tariff Regulations specify the norms for spares for transmission line or sub-station of a project as a percentage of capital cost. The regulations do not distinguish between the projects having more number of equipments or less number of equipments for the purpose of initial spares. Therefore, there is no justification for allowing initial spares over and above the norms only because the project has less number of equipments. Accordingly, the petitioner's claim for initial spares has been restricted to the admissible amount based on the ceiling norms specified for sub-station i.e. 2.50% under Regulation 8 of



the 2009 Tariff Regulations. Hence, the excess initial spares amounting to ₹111.21 lakh has been deducted proportionately from the sub-station component i.e. sub-station equipment, PLCC as on the date of commercial operation as per the details given hereunder:-

(₹ in lakh)					
Description	Project cost as on cut-off date	Apportioned initial spares claimed	Ceiling limits as per Regulation 8 of 2009 Tariff Regulation	Initial spares worked out and allowed as part of capital cost	Excess initial spares claimed and deducted
	(a)	(b)	(c)	$(d) = \frac{(a-b) \times c}{100-c}$	$(e) = (d) - (b)$
Sub-station (including PLCC)	1483.76*	145.52	2.50%	34.31	111.21

*Cost pertaining to sub-station is inclusive of sub-station equipment, land, building, civil works and PLCC.

16. Initial spares allowed, as above will be reviewed at the time of truing up. The capital cost considered for the purpose of tariff determination, after deducting the excess amount of initial spares claimed, is as under:-

(₹ in lakh)		
Capital cost claimed as on date of commercial operation	Excess initial spares disallowed	Capital cost considered as on date of commercial operation excluding excess initial spares
(a)	(b)	$(c) = (a) - (b)$
8852.70	111.21	8741.49

Additional capital expenditure

17. With regard to additional capital expenditure, clause 9(1) of the 2009 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.”

18. As per 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 incase 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 3 years of the year of commercial operation”.

19. Therefore, the cut-off date in respect of the transmission assets covered in the instant petition is 31.3.2014.

20. The petitioner has claimed projected additional capital expenditure of `2040.42 lakh and `128.21 lakh for the year 2011-12 (from date of commercial operation to 31.3.2012) and 2012-13 respectively:-

(` in lakh)

Year	Element	Additional capital expenditure	Reason
2011-12	Building & Civil works	20.00	(Balance/ Retention Payments)
	Transmission Line	1151.14	
	Sub-Station	833.15	
	PLCC	36.13	
	Sub-Total	2040.42	
2012-13	Transmission Line	128.21	Balance/Retention payment
	Sub-Total	128.21	
	Total	2168.63	



21. Projected additional capital expenditure claimed falls within the cut-off date. Hence, the same has been considered for the purpose of tariff calculation.

Debt- equity ratio

22. Regulation 12 of the 2009 regulations provides that:-

“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.”

23. Details of debt-equity in respect of the transmission assets as on the date of commercial operation are as under:-

(` in lakh)

Capital cost as on date of commercial operation i.e. 1.7.2011		
	Amount	%
Debt	6119.15	70.00
Equity	2622.34	30.00
Total	8741.49	100.00



24. As regards the additional capital expenditure, debt-equity ratio is given overleaf:-

(` in lakh)

Particulars	Additional capital expenditure for 2011-12	
	Amount	%
	Normative	
Debt	1428.29	70.00
Equity	612.13	30.00
Total	2040.42	100.00
Particulars	Additional capital expenditure for 2012-13	
	Amount	%
Debt	89.75	70.00
Equity	38.46	30.00
Total	128.21	100.00

25. Debt- equity ratio as on 31.3.2014 is as under:-

(` in lakh)

Capital cost as on 31.3.2014		
	Amount	%
Debt	7637.20	70.00
Equity	3272.93	30.00
Total	10910.12	100.00

Return on equity

26. Regulation 15 of the 2009 Tariff Regulations provides that:-

“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 normal tax rate for the year 2008-09 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 tried up in accordance with Regulation 6 of these regulations"

27. The petitioner has submitted that as per the investment approval dated 16.2.2009, the assets under SRSS-IX, namely, 400 kV D/C Hassan - Mysore line and extension of 400/220 kV Mysore and Hassan sub-stations were to be commissioned within 36 months from the date of investment approval. Accordingly, the commissioning schedule works out to 15.12.2012, i.e. 1.3.2012, against which the assets were commissioned on 1.7.2011. Hence, there is no time over-run. The Appendix-II to the 2009 Tariff Regulations specifies the qualifying timeline for additional RoE of 0.5%, provided for in Regulation 15 of the 2009 Tariff Regulations. As per Appendix-II the qualifying timeline for additional RoE is 28 months. The petitioner has submitted that the assets were been commissioned within 28 months from the date of investment approval and therefore qualify for additional RoE of 0.5% under Regulation 15 (2) of the 2009 Tariff Regulations. Accordingly, the petitioner



has requested to allow additional RoE of 0.5% under Regulation 15 (2) of the 2009 Tariff Regulations.

28. TANGEDCO has submitted that the petitioner has put the assets under commercial operation on 1.7.2011, which is 28 months and 15 days from the date of investment approval and it exceeds the time line of 28 months prescribed in Appendix – II of 2009 Tariff Regulations. Hence, the unjust claim of the petitioner for additional return on equity may be summarily rejected.

29. In the RoP for the hearing dated 15.5.2011, the Commission had directed the petitioner to submit documents showing that the assets were completed within 28 months from the date of investment approval (i.e. before 16.6.2011) in order to qualify for additional RoE.

30. The petitioner in its affidavit dated 21.6.2012 has submitted that in terms of Regulation 3(12)(c) of 2009 Tariff Regulations the assets can only be declared under commercial operation from the 1st day of a month after commissioning in the previous month. Since, the transmission charges are payable from the first day of the succeeding month after commissioning of the asset, it does not have any relation with the commissioning in the previous month. The petitioner has also submitted that irrespective of the date of the commissioning of the assets, the date of commercial operation of the assets shall be the first of the succeeding month and transmission charges shall be payable from the date of commercial operation. The petitioner has also submitted that the qualifying timeline of 28 months should be reckoned from the 1st of the succeeding month in which the investment approval was granted and not



from the date of investment approval. This philosophy has been followed by the Commission while assessing the completion time from investment approval in normal cases.

31. We have considered the submissions of the petitioner and respondents.

Regulation 3(12)(c) of the 2009 Tariff Regulations provides as under:-

"(12) 'date of commercial operation' or 'COD' means

(c) in relation to the transmission system, the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful charging and trial operation:

Provided that the date shall be the first day of a calendar month and transmission charge for the element shall be payable and its availability shall be accounted for, from that date:

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the transmission licensee, its suppliers or contractors, the Commission may approve the date of commercial operation prior to the element coming into regular service."

According to the above regulation, the date of commercial operation shall be the first day of the month and the transmission charges shall be payable and availability shall be accounted for accordingly. However, the provision cannot extend the period of execution of the project prescribed in the Appendix-II to the 2009 Regulations for the purpose of admissibility of additional RoE as it would dilute the timelines specified by extending the period from the due date computed with reference to the investment approval till the 1st of the succeeding month. Therefore, provision of Regulation 3(12)(c) of the 2009 Tariff Regulations cannot be pressed into service for the purpose of determining the timeline for additional RoE. It needs to be seen whether the asset was ready for commissioning within the timeline



recommended as per Appendix-II irrespective of the actual date of commercial operation, the purpose of admissibility of additional RoE.

32. The petitioner has submitted a copy of the letters dated 28.5.2011 and 17.6.2011 addressed to Regional Inspectorial Organization (RIO), Central Electricity Authority along with the affidavit dated 21.6.2012, regarding "Clearance for Energisation of 400 kV Mysore – 1 & 2 Bays & 220 kV line bays at Hassan sub-station". The petitioner in that letter has requested RIO for inspection of the Transmission Line and the electrical system executed so that the same could be energized. Subsequently, the petitioner has requested the RIO, CEA (vide letter dated 17.6.2011) to make it convenient to inspect the installation for approval to energize 400 kV Mysore – 1 & 2 Bays, 2 Nos 220 kV line bays at Hassan sub-station and 400 kV D/C twin conductor Hassan- Mysore transmission line as the works have been completed in all respect for energisation. Therefore, the subject transmission line was ready for inspection only on 17.6.2011 and it was not ready for energisation as on 16.6.2011. Inspection was carried out by CEA on 29.6.2011 and certificate was issued on 30.6.2011. The line was put under commercial operation only on 1.7.2011. Therefore, it cannot be said that the line was ready for commercial operation as on 16.6.2011 which would entitle the asset for additional RoE. In view of our discussion, we are of the view that the petitioner is not entitled for additional RoE in terms of Regulation 15(2) of the 2009 Tariff Regulations and accordingly, the request for additional RoE is rejected.



33. The petitioner's prayer to allow grossing up the base rate of ROE based on the tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per the relevant Finance Act, shall be settled in accordance with the provisions of Regulation 15 of 2009 Tariff Regulations as amended from time to time.

34. In view of the above, the following amount of equity has been considered for calculation of return of equity:-

(₹ in lakh)

Equity on the date of commercial operation	Notional equity due to ACE for the period 2011-12	Average equity considered for tariff calculation for the period 2011-12	Notional equity due to ACE for the period 2012-13	Average equity considered for tariff calculations for the period 2012-13	Notional equity due to ACE for the period 2013-14	Average equity considered for tariff calculations for the period 2013-14
2622.34	612.13	2928.40	38.46	3253.70	0.00	3272.93

35. Based on the above, the following return on equity has been allowed:-

(₹ in lakh)

Particulars	2011-12 (pro- rata)	2012-13	2013-14
Opening Equity	2622.34	3234.47	3272.93
Addition due to Additional capital expenditure	612.13	38.46	0.00
Closing Equity	3234.47	3272.93	3272.93
Average Equity	2928.40	3253.70	3272.93
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)	383.94	568.78	572.14

Interest on loan

36. Regulation 16 of the 2009 Tariff Regulations provides that,-



“16. (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.”

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



(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 project 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.

38. Detailed calculation of the weighted average rate of interest has been given in the Annexure to this order.

39. Details of the interest on loan worked on the above basis is as under:-

Particulars	(` in lakh)		
	2011-12 (pro rata)	2012-13	2013-14
Gross Normative Loan	6119.15	7547.45	7637.20
Cumulative Repayment upto Previous Year	0.00	386.88	959.96
Net Loan-Opening	6119.15	7160.57	6677.24
Addition due to additional capital expenditure	1428.29	89.75	0.00
Repayment during the year	386.88	573.08	576.47
Net Loan-Closing	7160.57	6677.24	6100.77
Average Loan	6639.86	6918.90	6389.00
Weighted Average Rate of Interest on Loan	8.8641%	8.8641%	8.8637%
Interest	441.42	613.30	566.30



Depreciation

40. Regulation 17 of the 2009 Tariff Regulations provides for computation of depreciation in the following manner, namely:-

“17. (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.”

41. The transmission assets in the instant petition were put on commercial operation on 1.7.2011 and accordingly will complete 12 years beyond 2013-14 and



thus depreciation has been calculated annually based on straight line Method and at rates specified in Appendix-III to the 2009 Tariff Regulations.

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

Particulars	(` in lakh)		
	2011-12 (pro -rata)	2012-13	2013-14
Opening gross block	8741.49	10781.91	10910.12
Addition during 2009-14 due to Projected Additional capital expenditure	2040.42	128.21	0.00
Closing Gross Block	10781.91	10910.12	10910.12
Average Gross Block	9761.70	10846.02	10910.12
Rate of Depreciation	5.2843%	5.2838%	5.2838%
Depreciable Value	8785.53	9761.42	9819.11
Remaining Depreciable Value	8785.53	9374.54	8859.15
Depreciation	386.88	573.08	576.47

Operation & maintenance expenses

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

Elements	(` in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
400 kV D/C twin & triple conductor, T/Line (` in lakh/km)	0.701	0.741	0.783
400 kV Bays (` in lakh/bay)	58.57	61.92	65.46

44. Based on the above norms, the petitioner has calculated the following operation and maintenance expenses which is allowed: -

Assets	(` in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14



95.875 Km, 400 kV D/C twin conductor, T/Line	50.41	71.04	75.07
4 Nos. 400 kV bays	175.71	247.68	261.84
Total O&M allowable	226.12	318.72	336.91

45. The petitioner has submitted that O & M expenses for the year 2009-14 had been arrived at on the basis of normalized actual O & M expenses during the period 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 expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for suitable revision in the norms for O & M expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.

46. It is clarified that, if any, application for revision of norms of O&M expenses is filed by the petitioner in future, it will be dealt with in accordance with law.

Interest on working capital

47. 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 2 months transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 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

SBI base rate of 8.25% plus 350Bps i.e. 11.75%, as on 1.4.2011, has been considered as the rate of interest on working capital.

48. Necessary computations in support of interest on working capital are appended herein below:-

	(` in lakh)		
	2011-12 (pro- rata)	2012-13	2013-14
Maintenance Spares	45.22	47.81	50.54
O & M expenses	25.12	26.56	28.08
Receivables	327.42	354.04	350.37
Total	397.77	428.40	428.98
Interest	35.05	50.34	50.41

Transmission charges

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



	(` in lakh)		
	2011-12 (pro- rata)	2012-13	2013-14
Depreciation	386.88	573.08	576.47
Interest on Loan	441.42	613.30	566.30
Return on equity	383.94	568.78	572.14
Interest on Working Capital	35.05	50.34	50.41
O & M Expenses	226.12	318.72	336.91
Total	1473.41	2124.22	2102.23

Filing fee and the publication expenses

50. 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 beneficiary on *pro-rata* basis.

Licence fee

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

Service tax

52. 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 the prayer of the petitioner pre-mature and accordingly this prayer is rejected.



Sharing of transmission charges

53. The billing, collection & disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (sharing of inter-state transmission charges and losses) Regulations, 2010 as amended.

54. This order disposes of Petition No. 190/TT/2011.

sd/-
(M Deena Dayalan)
Member

sd/-
(S. Jayaraman)
Member



Annexure

(' in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
Sr.	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXIV			
	Gross loan opening	834.00	834.00	834.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	834.00	834.00	834.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	834.00	834.00	834.00
	Average Loan	834.00	834.00	834.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	73.73	73.73	73.73
	Rep Schedule	12 Annual instalments from 21.10.2014		
2	Bond XXXIII			
	Gross loan opening	1855.00	1855.00	1855.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1855.00	1855.00	1855.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1855.00	1855.00	1855.00
	Average Loan	1855.00	1855.00	1855.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	160.27	160.27	160.27
	Rep Schedule	12 Annual instalments from 8.7.2014		
3	Bond XXXV			
	Gross loan opening	483.00	483.00	483.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	483.00	483.00	483.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	483.00	483.00	483.00
	Average Loan	483.00	483.00	483.00
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	46.56	46.56	46.56
	Rep Schedule	12 Annual instalments from 31.5.2015		



4	Bond XXXI			
	Gross loan opening	2551.00	2551.00	2551.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	2551.00	2551.00	2551.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	212.58
	Net Loan-Closing	2551.00	2551.00	2338.42
	Average Loan	2551.00	2551.00	2444.71
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	227.04	227.04	217.58
	Rep Schedule	12 Annual instalments from 25.2.2014		
5	Bond XXX			
	Gross loan opening	474.00	474.00	474.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	474.00	474.00	474.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	39.50
	Net Loan-Closing	474.00	474.00	434.50
	Average Loan	474.00	474.00	454.25
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	41.71	41.71	39.97
	Rep Schedule	12 Annual instalments from 29.9.2013		
	Total Loan			
	Gross loan opening	6197.00	6197.00	6197.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	6197.00	6197.00	6197.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	252.08
	Net Loan-Closing	6197.00	6197.00	5944.92
	Average Loan	6197.00	6197.00	6070.96
	Weighted Average Rate of Interest	8.86%	8.86%	8.86%
	Interest	549.31	549.31	538.11

