

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 107/TT/2013

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A. K. Singhal, Member**

Date of Hearing : 27.03.2014

Date of Order : 02.12.2014

In the matter of:

Approval of transmission tariff for the period 2009-14 for Up-gradation of Transfer Capacity of Talcher-Kolar HVDC Bipole for the period from 1.4.2009 to 31.3.2014 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.

And in the matter of:

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

.....Petitioner

Vs

1. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram-695 004.
2. Tamil Nadu Generation and Distribution Corporation Ltd.
(Formerly known as TNEB)
NPKRR Maaligai, 800, Anna Salai,
Chennai-600 002.
3. Electricity Department, Government of Pondicherry,
Pondicherry-605 001.
4. Electricity Department
Government of Goa
Vidyuti Bhawan, Panji, Goa-403001



5. Transmission Corporation of Andhra Pradesh Ltd. (APTRANSCO),
Vidyut Soudha,
Hyderabad-500 082.
6. Northern Power Distribution Company of Andhra Pradesh Ltd. (APNPDCL),
Opp. NIT Petrol Pump,
Chaitanyapuri, Kazipet,
Warangal-506 004.
7. Eastern Power Distribution Company of Andhra Pradesh Ltd. (APEPDCL),
APEPDCL, P&T Colony,
Seethmmadhara, Vishakhapatnam,
Andhra Pradesh.
8. Southern Power Distribution Company of Andhra Pradesh Ltd.
(APSPDCL),
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517 501.
9. Central Power Distribution Company of Andhra Pradesh Ltd. (APCPDCL),
Corporate Office, Mint Compound,
Hyderabad-500 063.
10. Karnataka Power Transmission Corporation Ltd. (KPTCL),
Kaveri Bhawan, Bangalore-560 009.
11. Bangalore Electricity Supply Company Ltd. (BESCOM),
Corporate Office, K. R. Circle,
Bangalore-560 001.
12. Gulbarga Electricity Supply Company Ltd. (GESCOM),
Station Main Road, Gulbarga.
Karnataka.
13. Hubli Electricity Supply Company Ltd. (HESCOM),
Navanagar, PB Road,
Hubli, Karnataka.
14. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575 001.
15. Chamundeswari Electricity Supply Corporation Ltd. (CESC),
927, L J Avenue, Ground Floor,
New Kantharaj Urs Road,

For petitioner : Shri S.S Raju, PGCIL
Mrs. Sangeeta Edwards, PGCIL
Shri S. K. Venkatesan, PGCIL
Shri RVMM Rao, PGCIL
Mrs. Seema Gupta, PGCIL
Shri M.M. Mondal, PGCIL

For respondent : None

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of the transmission charges for the period 2009-14 for Up-gradation of Transfer Capacity of Talcher-Kolar HVDC Bipole (hereinafter referred to as "transmission asset") for the period from 1.4.2009 to 31.3.2014 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "2009 Tariff Regulations").

2. Instant transmission asset was commissioned on 1.8.2007. The Commission has approved the transmission tariff for the period from 1.8.2007 to 31.3.2009 for the instant asset vide order dated 30.4.2009 in Petition No. 131/2008, wherein IEDC was restricted. Aggrieved by the said order, an appeal i.e. 127 of 2009 was filed by the petitioner before the Hon'ble Appellate Tribunal for Electricity (hereinafter the "Tribunal") and it was dismissed by the Tribunal. The petitioner filed a Civil Appeal No. 3166/2011 before Hon'ble Supreme Court which is pending for disposal.

3. The annual transmission charges from the date of commercial operation to 31.3.2009 was revised by the Commission due to additional capital expenditure incurred during 2008-09 vide its order dated 4.4.2013 in Petition No. 8/2010 in accordance with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004. The tariff allowed by the Commission herein will be subject to outcome of decision by the Hon'ble Supreme Court in Civil Appeal No. 3166/2011.

4. The transmission charges claimed by the petitioner in the instant petition are as follows:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	539.83	540.23	540.23	540.81	542.37
Interest on Loan	589.70	537.39	484.50	432.41	381.53
Return on Equity	586.46	586.85	586.85	587.43	588.99
Interest on Working capital	35.77	34.69	33.59	32.53	31.53
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Total	1751.76	1699.16	1645.17	1593.18	1544.42

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

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables	291.96	283.19	274.20	265.53	257.40
Total	291.96	283.19	274.20	265.53	257.40
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	35.77	34.69	33.59	32.53	31.53

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. None of the respondents have filed any reply.

7. Having heard the representatives of the parties and perused the material on record including the affidavits dated 19.12.2013 and 28.8.2014, we proceed to dispose of the petition.

Capital Cost

8. Regulation 7 (2) of the 2009 Tariff Regulations provides as follows:-

"(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.

Provided also that the Commission may issue guidelines for vetting of capital cost of hydro-electric projects by independent agency or expert and in that event the capital cost as vetted by such agency or expert may be considered by the Commission while determining the tariff for the hydro generating station

Provided also that the Commission may issue guidelines for scrutiny and commissioning schedule of the hydro-electric projects in accordance with the tariff policy issued by the Central Government under section 3 of the Act from time to time.

Provided also that in case the site of a hydro generating station is awarded to a developer (not being a State controlled or owned company), by a State Government by following a two stage transparent process of bidding, any expenditure incurred or committed to be incurred by the project developer for getting the project site allotted shall not be included in the capital cost:

Provided also that the capital cost in case of such hydro generating station shall include:

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) project in the affected area:

Provided also that the capital cost of the generating station shall include the cost for creating infrastructure for supply of power to the rural households located within a radius of five kilometers of the power station if the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.

Provided also that where the power purchase agreement entered into between the generating company and the beneficiaries or the implementation agreement and the transmission service agreement entered into between the transmission licensee and the long-term transmission customer, as the case may be, provide for ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of tariff:

Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff.”

9. The details of apportioned approved cost, admitted capital expenditure as on 31.3.2009 in Petition No. 8/2010 and projected additional capital expenditure for 2009-14 tariff block, claimed by the petitioner for the transmission asset are summarized below:-

(₹ in lakh)

Approved cost	Admitted cost as on 31.3.2009	Projected additional capital expenditure			Total estimated completion cost
		2009-10	2012-13	2013-14	
11833.00	10216.60	14.94	22.18	42.40	10290.75

10. The Commission vide order dated 4.4.2013 in Petition No. 8/2010 has admitted capital cost of ₹10216.60 lakh as on 31.3.2009. The same has been considered for the purpose of calculation of transmission tariff for 2009-14 tariff period as on 1.4.2009.

Projected Additional Capital Expenditure

11. Regulation 9 of the 2009 Tariff Regulations provides as follows:-

“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:

(2) The capital expenditure or projected to be incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and
- (vi) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line

carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009

(vi) In case of gas/ liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations;

Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed;

(vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receipt system arising due to non-materialisation of full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station;

(viii) Any undischarged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc;

(ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.”

12. The petitioner has claimed projected additional capital expenditure of ₹14.94 lakh, ₹22.18 lakh and ₹42.40 lakh pertaining to sub-station for the years 2009-10, 2012-13 and 2013-14 respectively.

13. The petitioner vide its affidavit dated 19.12.2013 submitted that the additional capital expenditure claimed in the instant petition is on account of Balance and Retention Payments towards supply & erection incurred/to be incurred during 2009-14. According to the petitioner, these payments could not be materialized during 2004-09 period. The petitioner has submitted that ₹14.94 lakh claimed in 2009-10 was towards balance retention payments withheld towards minor rectification works and ₹22.18 lakh claimed in 2012-13 was due to final retention payment released upon finalization of LD towards On-shore supply and On-shore services portion. Similarly, ₹42.40 lakh claimed by the petitioner during 2013-14 was due to final retention payment released upon finalization of LD towards Off-shore supply portion. The petitioner has also submitted that at the time of filing the petition an amount of ₹37.03 lakh was projected based on Euro rate prevailing in the month of April, 2013. However, the actual payment was made in August, 2013 and the difference was due to exchange rate variation of Euro. The petitioner has claimed additional capital expenditure under Regulation 9(2) of the 2009 Tariff Regulations.

14. In order to consider the differential amount due to exchange rate variation, the petitioner was directed to furnish the details of final retention payment released on account of LD amount, exchange rate prevailing as on the date of commercial operation, exchange rate on the date of payment and proof of exchange rate variation in the books of account duly certified by the Auditor. In response the petitioner vide affidavit dated 28.8.2014 has submitted that payment released after adjustment on account of LD was Euro 52584.23 (net of LD

recovery of Euro 23,554.77) which works out to ₹42,40,181.97 (considering exchange rate of ₹80.636 per Euro). The exchange rate prevailing as on the date of commercial operation is ₹55.8800 per Euro. The petitioner has further submitted that initially the additional capital expenditure for 2013-14 was mentioned as ₹37.03 lakh (exchange rate of 1 Euro was ₹70.42 as on 28.3.2013) and due to variation in the exchange rate on the date of actual payment, additional capital expenditure works out to ₹42.40 lakh (exchange rate of 1 Euro was ₹80.636 as on 2.8.2013). The exchange rate variation is booked to the capital cost in the books of accounts in the year 2013-14 which was duly audited by statutory auditors.

15. We have considered the submissions of the petitioner. The variation in the additional capital expenditure during 2013-14 is due to variation in the exchange rate of Euro and accordingly additional capital expenditure of ₹42.40 lakh during 2013-14 has been allowed under Regulation 9(2) of the 2009 Tariff Regulations and considered for the purpose of calculation of transmission tariff.

Debt- Equity Ratio

16. 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.”

17. The petitioner has claimed Debt and Equity of ₹6864 lakh and ₹3352.60 lakh respectively as on 31.3.2009. The debt:equity ratio works out as 67.18:32.82. As provided under Regulation 12(2) of 2009 Tariff Regulation, the debt: equity ratio admitted by the Commission as on 31.3.2009 in its order dated 4.4.2013 in Petition No. 8/2010 has been considered for the purpose of tariff calculation.

18. The details of debt-equity ratio as on 1.4.2009 admitted by the Commission is as follows:-

Particulars	Approved		Admitted as on 1.4.2009	
	Amount	(%)	Amount	(%)
Debt	8283.10	70.00	7151.62	70.00
Equity	3549.90	30.00	3064.98	30.00
Total	11833.00	100.00	10216.60	100.00

19. As regards the additional capital expenditure, the debt-equity ratio is given hereunder:-

Particulars	(₹ in lakh)	
	Normative	
	Additional capital expenditure for 2009-10	
	Amount	(%)
Debt	10.46	70.00
Equity	4.48	30.00
Total	14.94	100.00
Additional capital expenditure for 2012-13		
Debt	15.53	70.00
Equity	6.65	30.00
Total	22.18	100.00
Additional capital expenditure for 2013-14		
Debt	29.68	70.00
Equity	12.72	30.00
Total	42.40	100.00

20. The debt-equity ratio as on 31.3.2014 is as under:-

Particulars	(₹ in lakh)			
	Approved		Capital cost as on 31.3.2014	
	Amount	(%)	Amount	(%)
Debt	8283.10	70.00	7207.29	70.00
Equity	3549.90	30.00	3088.84	30.00
Total	11833.00	100.00	10296.12	100.00

Return on Equity

21. 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".

22. The petitioner submitted that it may be allowed to recover the shortfall or refund the excess Annual Fixed Charges, on account on return on equity due to change in applicable Minimum Alternate Tax/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly without making any application before the Commission under Regulation 15(5) of the 2009 Tariff Regulations. We would like to clarify that the petitioner is allowed to recover the shortfall or refund the excess Annual Fixed Charges under Regulation 15(5) of the 2009 Tariff Regulations. Accordingly, Return on Equity has been computed @ 17.481% p.a on average equity as per Regulation 15(5) of the 2009 Tariff Regulations.

23. Based on the above, the return on equity has been considered as given hereunder:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity	3064.98	3069.46	3069.46	3069.46	3076.12
Addition due to Additional Capitalisation	4.48	0.00	0.00	6.65	12.72
Closing Equity	3069.46	3069.46	3069.46	3076.12	3088.84
Average Equity	3067.22	3069.46	3069.46	3072.79	3082.48
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	536.18	536.57	536.57	537.15	538.85

Interest on Loan

24. 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.”

25. The petitioner’s entitlement to interest on loan has been calculated as provided under Regulation 16 of the 2009 Tariff Regulations, on the following basis:-

- (i) Gross amount of loan, repayment of instalments, rate of interest and weighted average rate of interest on actual average loan have been considered;
- (ii) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period;
- (iii) 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; and

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

26. Accordingly, the interest on loan has been calculated on the basis of prevailing rate on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing up.

27. Detailed calculations in support of the weighted average rates of interest have been given in Annexure.

28. Based on the above, the following interest on loan has been calculated:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	7151.62	7162.08	7162.08	7162.08	7177.61
Cumulative Repayment upto Previous Year	562.25	1102.08	1642.31	2182.53	2723.34
Net Loan-Opening	6589.37	6060.00	5519.77	4979.55	4454.26
Addition due to Additional Capitalisation	10.46	0.00	0.00	15.53	29.68
Repayment during the year	539.83	540.23	540.23	540.81	542.52
Net Loan-Closing	6060.00	5519.77	4979.55	4454.26	3941.43
Average Loan	6324.69	5789.89	5249.66	4716.91	4197.85
Weighted Average Rate of Interest on Loan	9.7680%	9.7667%	9.7641%	9.7624%	9.7618%
Interest	617.79	565.48	512.58	460.48	409.79

Depreciation

29. Regulation 17 of the 2009 Tariff Regulations provides as follows:-

“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.”

30. The petitioner has claimed actual depreciation as a component of Annual Fixed Charges. The assets 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 Regulations, as per details given overleaf:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
As per last order (Opening Gross Block)	10216.60	10231.54	10231.54	10231.54	10253.72
Addition due to Projected Additional Capitalisation	14.94	0.00	0.00	22.18	42.40
Closing Gross Block	10231.54	10231.54	10231.54	10253.72	10296.12
Average Gross Block	10224.07	10231.54	10231.54	10242.63	10274.92
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	9201.66	9208.39	9208.39	9218.37	9247.43
Remaining Depreciable Value	8639.41	8106.31	7566.08	7035.84	6524.09
Depreciation	539.83	540.23	540.23	540.81	542.52

Operation & Maintenance Expenses (O&M Expenses)

31. The petitioner has not claimed O & M Expenses as the same has been approved by the Commission vide order dated 12.3.2013 in Petition No. 188/TT/2011 for combined assets of Talcher and Kolar System which did not include up-gradation (covered in the instant petition). Accordingly, O&M Expenses has been considered as NIL for the purpose of determination of transmission tariff in the instant petition.

Interest on Working Capital

32. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of 2 months of annual 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 and O & M Expenses

Maintenance spares and O&M expenses for the purpose of computation of interest on working capital as per Regulation 19 of 2009 Tariff Regulations works out to NIL as petitioner has not claimed O&M expenses.

(iii) Rate of Interest on Working Capital

In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, rate of interest on working capital shall be on normative basis and shall be equal to State Bank of India Base Rate 1.4.2009 (i.e. 12.25%) is considered as the rate of interest on working capital for asset. The interest on working capital for the assets covered in the petition has been worked out accordingly.

33. The Interest on Working Capital has been calculated as provided under Regulation 18 of the 2009 Tariff Regulations and it is as follows:-

	(₹ in lakh)				
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables	288.18	279.42	270.42	261.75	253.70
Total	288.18	279.42	270.42	261.75	253.70
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	35.30	34.23	33.13	32.06	31.08

Transmission Charges

34. The transmission charges being allowed for the instant transmission assets are as follows:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	539.83	540.23	540.23	540.81	542.52
Interest on Loan	617.79	565.48	512.58	460.48	409.79
Return on Equity	536.18	536.57	536.57	537.15	538.85
Interest on Working capital	35.30	34.23	33.13	32.06	31.08
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Total	1729.11	1676.51	1622.50	1570.51	1522.23

Filing Fee and the Publication Expenses

35. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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 Regulation 42 A (1) (a) of the 2009 Tariff Regulations.

Licence Fee

36. The petitioner has submitted that the petitioner may be allowed to bill and recover license fee separately from the respondents as provided in the 2009 Tariff Regulations. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations.

Service Tax

37. 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

38. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shared by the beneficiaries in accordance with Regulation 33 of the 2009 Tariff Regulation up to 30.6.2011. With effect from 1.7.2011, the billing, collection and disbursement of the transmission charges shall be governed by the provision of Central Electricity Regulatory Commission (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

39. This order disposes of Petition No. 107/TT/2013.

sd/-

(A. K. Singhal)
Member

sd/-

(Gireesh B. Pradhan)
Chairperson

Annexure

Calculation of Weighted Average Rate of Interest on Actual Loans

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	BondXXI					
	Gross loan opening	38.00	38.00	38.00	38.00	38.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	3.17	6.33	9.50
	Net Loan-Opening	38.00	38.00	34.83	31.67	28.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	3.17	3.17	3.17	3.17
	Net Loan-Closing	38.00	34.83	31.67	28.50	25.33
	Average Loan	38.00	36.42	33.25	30.08	26.92
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	3.32	3.18	2.90	2.63	2.35
	Rep Schedule	12 Annual installments from 11.10.2010				
2	Bond XXII					
	Gross loan opening	41.00	41.00	41.00	41.00	41.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	3.42	6.83	10.25
	Net Loan-Opening	41.00	41.00	37.58	34.17	30.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	3.42	3.42	3.42	3.42
	Net Loan-Closing	41.00	37.58	34.17	30.75	27.33
	Average Loan	41.00	39.29	35.88	32.46	29.04
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	3.56	3.41	3.11	2.82	2.52
	Rep Schedule	12 Annual installments from 07.12.2010				
3	Bond XXIV					
	Gross loan opening	1643.00	1643.00	1643.00	1643.00	1643.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	136.92	273.83	410.75
	Net Loan-Opening	1643.00	1643.00	1506.08	1369.17	1232.25
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	136.92	136.92	136.92	136.92

	Net Loan-Closing	1643.00	1506.08	1369.17	1232.25	1095.33
	Average Loan	1643.00	1574.54	1437.63	1300.71	1163.79
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	163.48	156.67	143.04	129.42	115.80
	Rep Schedule	12 Annual installments from 26.03.2011				
4	Bond- XXV					
	Gross loan opening	2724.00	2724.00	2724.00	2724.00	2724.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	227.00	454.00
	Net Loan-Opening	2724.00	2724.00	2724.00	2497.00	2270.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	227.00	227.00	227.00
	Net Loan-Closing	2724.00	2724.00	2497.00	2270.00	2043.00
	Average Loan	2724.00	2724.00	2610.50	2383.50	2156.50
	Rate of Interest	10.100%	10.100%	10.100%	10.100%	10.100%
	Interest	275.12	275.12	263.66	240.73	217.81
	Rep Schedule	12 Annual installments from 12.06.2011				
5	Bond- XXVI					
	Gross loan opening	2014.00	2014.00	2014.00	2014.00	2014.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	167.83	335.67
	Net Loan-Opening	2014.00	2014.00	2014.00	1846.17	1678.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	167.83	167.83	167.83
	Net Loan-Closing	2014.00	2014.00	1846.17	1678.33	1510.50
	Average Loan	2014.00	2014.00	1930.08	1762.25	1594.42
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	187.30	187.30	179.50	163.89	148.28
	Rep Schedule	12 Annual installments from 07.03.2012				
6	Bond XXVIII					
	Gross loan opening	404.00	404.00	404.00	404.00	404.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	33.67
	Net Loan-Opening	404.00	404.00	404.00	404.00	370.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	33.67	33.67
	Net Loan-Closing	404.00	404.00	404.00	370.33	336.67
	Average Loan	404.00	404.00	404.00	387.17	353.50

	Rate of Interest	9.330%	9.33%	9.33%	9.33%	9.33%
	Interest	37.69	37.69	37.69	36.12	32.98
	Rep Schedule	12 Annual installments from 15.12.2012				
	Total Loan					
	Gross loan opening	6864.00	6864.00	6864.00	6864.00	6864.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	143.50	681.83	1253.83
	Net Loan-Opening	6864.00	6864.00	6720.50	6182.17	5610.17
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	143.50	538.33	572.00	572.00
	Net Loan-Closing	6864.00	6720.50	6182.17	5610.17	5038.17
	Average Loan	6864.00	6792.25	6451.33	5896.17	5324.17
	Rate of Interest	9.7680%	9.7667%	9.7641%	9.7624%	9.7618%
	Interest	670.47	663.38	629.91	575.61	519.74