

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 81/TT/2012

Coram:

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

**Date of Hearing : 26.11.2013
Date of Order : 30.10.2014**

In the matter of:

Approval of transmission tariff for 1 no. 400 kV 63 MVAR Line Reactor at Cochin (DOCO-1.1.2012) for the period from DOCO to 31.3.2014 under Kudankulam ATS in Southern Region for Tariff block 2009-14 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. Karnataka Power Transmission Corporation Ltd. (KPTCL),
Kaveri Bhawan, Bangalore-560 009.
2. Transmission Corporation of Andhra Pradesh Ltd. (APTRANSCO),
Vidyut Soudha,
Hyderabad-500 082.
3. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram-695 004.
4. Tamil Nadu Generation and Distribution Corporation Ltd.
NPKRR Maaligai, 800, Anna Salai,
Chennai-600 002.
5. Electricity Department
Government of Goa
Vidyuti Bhawan, Panji, Goa-403001



6. Electricity Department, Government of Pondicherry,
Pondicherry-605 001.
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. Northern Power Distribution Company of Andhra Pradesh Ltd. (APNPDCL),
Opp. NIT Petrol Pump,
Chaitanyapuri, Kazipet,
Warangal-506 004.
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,
Saraswatipuram, Mysore-570 009.

.....Respondents

For petitioner : Shri S.S Raju, PGCIL
Shri M.M. Mondal, PGCIL
Shri Prashant Sharma, PGCIL
Shri B.K. Sahoo, PGCIL
Shri A.M. Pavgi, PGCIL
Mrs. Sangeeta Edwards, 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 one 400 kV 63 MVAR Line Reactor at Cochin from the date of commercial operation to 31.3.2014 under Kudankulam ATS in Southern Region for Tariff block 2009-14 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 project was accorded by Government of India vide the Memorandum No. 12/18/2003-PG dated 25.5.2005 of Ministry of Power at an estimated cost of `177929 lakh including Interest During Construction of `7141 lakh at 4th Quarter 2004 price level. Revised cost estimates of project has been approved by Board of Directors of the petitioner vide Memorandum C/CP/Kudankulam dated 3.9.2010 at an estimated cost of `215907 lakh including Interest During Construction of `22342 lakh at 1st Quarter of 2010 price level. The project was scheduled to be commissioned within 42 months from the date of investment approval i.e. 1.12.2008. The scope of works covered broadly includes:-

A. Transmission Lines:

- (i) Kudankulam (NPC) - Tirunelveli (Powergrid) 400 kV (QUAD) D/C Line -1
- (ii) Kudankulam (NPC) - Tirunelveli (Powergrid) 400 kV (QUAD) D/C Line - II
- (iii) Tirunelveli (Powergrid) - Udumalpet (Powergrid) 400 kV D/C Line
- (iv) Tirunelveli (Powergrid) - Edamon (Kerala State Electricity Board) 400 kV Multi – Circuit Line
- (v) Edamon (Kerala State Electricity Board) - Muvattupuzha (Powergrid) 400 kV (Quad) D/C Line
- (vi) Muvattupuzha (Powergrid) - North Trichur (Powergrid) 400 kV (Quad) D/C Line
- (vii) LILO of both Circuits of Madurai (Powergrid) - Trivandrum (Powergrid) 400 kV D/C Line at Tirunelveli

B. Sub-stations:

- (i) 400/220 kV Tirunelveli (Powergrid) Sub-Station (New)
- (ii) 400/220 kV Muvattupuzha (Powergrid) Sub-Station (New)
- (iii) 400/220 kV North Trichur (Powergrid) Sub-Station (Extension)
- (iv) 400/220 kV Udumalpet (Powergrid) Sub-Station (Extension)
- (v) 400/220 kV Trivandrum (Powergrid) Sub-Station (Extension)

3. The instant petition covers determination of transmission tariff for one 400 kV 63 MVAR Line Reactor at Cochin (hereinafter referred to as transmission asset), which was commissioned on 1.1.2012.

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

(` in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	9.28	38.54	39.25
Interest on Loan	3.22	12.69	11.77
Return on Equity	9.22	38.28	38.98
Interest on Working capital	1.14	4.76	4.94
O & M Expenses	14.64	61.92	65.46
Total	37.50	156.19	160.40

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

(` in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Maintenance Spares	8.78	9.29	9.82
O & M Expenses	4.88	5.16	5.46
Receivables	25.00	26.03	26.73
Total	38.66	40.48	42.01
Rate of Interest	11.75%	11.75%	11.75%
Interest	1.14	4.76	4.94

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 records, we proceed to dispose of the petition.

Capital Cost

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

“(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.
- (b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and
- (c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.

(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.”

9. The details of apportioned approved cost, cost as on actual date of commercial operation and estimated additional capital expenditure projected to be incurred for the asset covered in the instant petition is given below :-

(` in lakh)					
Apportioned approved cost as per FR	Apportioned approved cost as per RCE	Expenditure up to DOCO	Projected additional capital expenditure		Total estimated completion cost
			2011-12	2012-13	
419.00	751.00	689.65	26.85	26.85	743.35

Cost Over-run

10. Total estimated completion cost of the transmission asset is `743.35 lakh against the RCE of `751.00 lakh and hence there is no overall cost over-run. However, as per Form 5B there is significant increase in cost of certain heads like “Compensating Equipments (Reactor, SVCs etc.)” by 84.75%, “Control, Relay & Protection Panel” by 192.86%, “Erection” by 87.61% and “Total Sub-station Equipments” by 51.44%. The petitioner was directed to submit the reasons for increase in the cost of above mentioned items.

11. In response, the petitioner vide affidavit dated 14.6.2012 has submitted as under:-

- (i) Compensating equipments (Reactors, SVCs etc): The estimated completion cost is `412 lakh including taxes & duties against the apportioned approved cost of `223 lakh including taxes & duties.
- (ii) Control, Relay Protection Panel: The estimated completion cost is `41 lakh including taxes & duties against the apportioned approved cost of `14 lakh including taxes & duties.
- (iii) Erection: The estimated completion cost is `42 lakh including taxes & duties against the apportioned approved cost of `23 lakh including taxes & duties.
- (iv) Total sub-station equipments: The estimated completion cost is `527 lakh including taxes & duties against the apportioned approved cost of `348 lakh including taxes & duties.
- (v) The cost over-run is mainly due to higher award cost received during competitive bidding compared to initial estimates. The best

competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon the prevailing market conditions. The award prices represent the lowest prices available at the time of bidding.

12. We have considered the submission made by the petitioner for cost variation. The reasons for cost variation are beyond the control of the petitioner and as such the cost variation is allowed.

Time Over-run

13. As per the investment approval dated 25.5.2005, the instant transmission asset was to be completed within 42 months from the date of investment approval i.e. 1.12.2008. However, the transmission asset was commissioned on 1.1.2012 after a delay of 37 months. The petitioner has submitted in the petition that the transmission asset is part of Kudankulam Transmission System and it is linked to readiness of the generation of Kudankulam Generating Station. Generation of Kudankulam Power Plant is yet to commence and hence on completion of the asset, the same has been commissioned and declared under commercial operation w.e.f. 1.1.2012 and there is no time over run in commissioning of the subject element.

14. The Commission vide letter dated 27.4.2012, sought the reasons for not commissioning the reactor along with 400 kV (Quad) D/C Line Cochin (Muvattupuzha)-North Trichur T/L and the actual date of commercial operation of

both these assets. In response, the petitioner has submitted vide affidavit dated 14.6.2012 that the 63 MVAR Reactor at Cochin Sub-station is provided for Tirunelveli-Edamon-Cochin Line and the other line connected to the sub-station is 400 kV D/C North Trichur-Cochin and no reactor is provided for this line. The 63 MVAR Reactor at Cochin Sub-station and the 400 kV D/C North Trichur-Cochin line are two separate elements and they are commissioned and put under commercial operation separately on 1.12.2011 and 1.1.2012 respectively.

15. During hearing on 26.11.2013, Commission directed the petitioner to clarify whether the instant reactor is a line reactor or a bus reactor and the reasons for change. The petitioner was further directed to submit the approvals obtained for change in the usage of the reactor.

16. In response, petitioner vide affidavit dated 6.2.2014 has submitted as under:-

- (i) The 2x315 MVA, 400/220 kV sub-station at Cochin was planned to receive power from Cochin-Thrissur 400 kV D/C and Tirunelveli-Cochin 400 kV D/C lines. The Cochin-Tirunelveli 400 kV D/C line was inordinately delayed, due to reasons beyond the control of the petitioner. The Cochin-Thrissur 400 kV D/C line was put under commercial operation on 1.12.2011.
- (ii) The power-flow in the Thrissur-Cochin 400 kV D/C line was only upto about 160 MW. In order to facilitate power flow through this line and to keep the voltage within the permissible limits the said line

reactor was commissioned to use as Bus Reactor and the same was informed to SR constituents in 19th SRPC meeting held at Bangalore on 1.6.2012.

17. Further, the petitioner vide affidavit dated 30.6.2014 has submitted that the use of line reactor as bus reactor was again put to SR constituents in the 24th SRPC meeting held on 15.3.2014 and after detailed discussion it was conveyed by SRLDC that the line reactor was effectively used as bus reactor as per system requirement and accordingly, the same was formally agreed and consented by SR constituents. The petitioner has further submitted that its Board of Directors approve the assets/systems for its investment approval and the system requirements are discussed in RPC. In the instant case, the RPC has agreed for using the line reactor as bus reactors.

18. The instant transmission asset is a part of Kudankulam transmission system and it is linked to readiness of generation of the Kudankulam generating station. The generating station was not commissioned at the time of completion of the transmission asset. The petitioner has also submitted that there is no IA with Kudankulam generating station. We are of the view that the petitioner should have entered into an IA to ensure matching of commissioning of associated Transmission system with generating station. The transmission asset has been utilized as per the system requirement and has been agreed upon by the constituents in SRPC and hence we condone the delay of 37 months.

Initial Spares

19. The petitioner has claimed initial spares of `10.32 lakh. However, the details of initial spares claimed were not given in the petition. The details of initial spares were sought from the petitioner. The petitioner, vide affidavit dated 14.6.2012, has submitted that the entire value of initial spares claimed pertains to sub-station and the same was not mentioned in the Auditor's Certificate inadvertently. The petitioner's claim of `10.32 lakh pertains to the sub-station. The claim made by the petitioner falls within ceiling limit specified in Regulation 8 of the 2009 Tariff Regulations. Accordingly, an amount of `10.32 lakh is allowed. The details of the initial spares claimed and allowed are as follows:-

(` in lakh)			
Capital Cost up to cut off date	Initial Spares Claimed	Initial Spares worked put	Excess Initial Spares
743.35	10.32	18.80	0.00

Projected Additional Capital Expenditure

20. Clause (1) of 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.”

21. Clause (11) of Regulation 3 of the 2009 Tariff Regulations defines “cut-off” date as under:-

“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”.

Therefore, the cut-off date for the instant assets is 31.3.2015.

22. The petitioner has claimed additional capital expenditure of `26.85 lakh each for the years 2011-12 and 2012-13. The petitioner has submitted, vide affidavit 14.6.2012 that the balance payment of `53 lakh (i.e. 26.85 lakh for 2011-12 and 2012-13 each) indicated in the petition is towards final retention payments under the contract which can be released upon fulfillment of the terms and conditions as per the provisions of the contract and requested to allow the same. It is mainly on account of balance and retention payments. The additional capital expenditure claimed falls under Regulation 9(1) of the 2009 Tariff Regulations and accordingly it has been considered for working out the transmission tariff of the transmission asset.

Debt- Equity Ratio

23. 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.”

24. The petitioner has claimed debt-equity ratio as on the date of commercial operation of the assets and additional capital expenditure in the ratio 70:30, which is in accordance with Regulation 17 of the 2009 Tariff Regulations, as stated above. The debt-equity ratio of 70:30 has been considered to work out the transmission tariff for the transmission asset.

Return on Equity

25. 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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".

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

Particulars	` in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Opening Equity	206.90	214.95	223.01
Addition due to Additional Capitalisation	8.06	8.06	0.00
Closing Equity	214.95	223.01	223.01
Average Equity	210.92	218.98	223.01
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	9.22	38.28	38.98

27. The petitioner's prayer 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 shall be dealt under Regulation 15(3) as state above. Return on Equity has been computed @ 17.481% p.a on average equity.

Interest on Loan

28. 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.”

29. 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:-

(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) 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.

(d) 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.

30. 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.

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

32. Based on the above, interest on loan has been calculated as given hereunder:-

Particulars	(` in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Gross Normative Loan	482.76	501.55	520.35
Cumulative Repayment upto Previous Year	0.00	9.28	47.82
Net Loan-Opening	482.76	492.27	472.52
Addition due to Additional Capitalisation	18.80	18.80	0.00
Repayment during the year	9.28	38.54	39.25
Net Loan-Closing	492.27	472.52	433.28
Average Loan	487.51	482.40	452.90
Weighted Average Rate of Interest on Loan	2.6383%	2.6302%	2.5986%
Interest	3.22	12.69	11.77

Depreciation

33. 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.”

34. The petitioner has claimed actual depreciation as a component of Annual Fixed Charges. The instant transmission assets were put under commercial operation on 1.1.2012. Accordingly 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 hereunder:-

Particulars	(` in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Opening Gross Block	689.65	716.50	743.35
Addition due to Projected Additional Capitalisation	26.85	26.85	0.00
Closing Gross Block	716.50	743.35	743.35
Average Gross Block	703.08	729.93	743.35
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	632.77	656.93	669.02
Remaining Depreciable Value	632.77	647.65	621.19
Depreciation	9.28	38.54	39.25

Cumulative Depreciation	9.28	47.82	87.07
-------------------------	------	-------	-------

Operation & Maintenance Expenses (O&M Expenses)

35. 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. The norms for the instant assets are as follows:-

Element	2011-12	2012-13	2013-14
400 kV bay (` in lakh/ bay)	58.57	61.97	65.46

36. The instant petition covers a 400 kV Edamon-I (Tirunelveli-I) bay at 400 kV Cochin Sub-station. As per the 2009 Tariff Regulations, allowable O&M expenses for the asset covered in this petition are as under:-

Element	2011-12 (Pro-rata)	2012-13	2013-14
1 no 400 kV bay	14.64	61.92	65.46
Total	14.64	61.92	65.46

(` in lakh)

37. The petitioner has submitted that O&M Expenses for 2009-14 tariff block was arrived on the basis of normalized actual O&M Expenses of the petitioner 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 was also considered while

calculating the O&M Expenses for tariff period 2009-14. The petitioner has submitted that it would approach the Commission for suitable revision in the norms for O&M Expenses due to wage revision, if any. The petitioner further submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees was not captured and the license fee may be allowed to be recovered separately from the beneficiaries.

38. The Commission has given effect to impact of pay revision in the 2009 Tariff Regulations by factoring 50% on account of pay revision of the employees of PSUs after extensive stakeholders' consultation. 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 application, the same shall be dealt with in accordance with law.

Interest on Working Capital

39. 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

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses as part of the working capital 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 O&M Expenses for one month to be included in the 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

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 of @ 11.75% (Base rate as on 1.4.2012 and 350 basis points) for asset. The interest on working capital for the assets covered in the petition has been worked out accordingly.

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

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

Maintenance Spares	8.78	9.29	9.82
O & M Expenses	4.88	5.16	5.46
Receivables	24.99	26.03	26.73
Total	38.66	40.48	42.01
Interest	1.14	4.76	4.94

Transmission Charges

41. The transmission charges being allowed for the assets are summarized overleaf:-

Particulars	(` in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	9.28	38.54	39.25
Interest on Loan	3.22	12.69	11.77
Return on Equity	9.22	38.28	38.98
Interest on Working Capital	1.14	4.76	4.94
O & M Expenses	14.64	61.92	65.46
Total	37.49	156.18	160.40

Filing Fee and the Publication Expenses

42. 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 42A (1) (a) of the 2009 Tariff Regulations.

Licence Fee

43. 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

44. 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

45. The actual date of commercial operation of the instant transmission asset is 1.1.2012. Accordingly, 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.

46. This order disposes of Petition No. 81/TT/2012.

sd/-

(A. K. Singhal)
Member

sd/-

(M. Deena Dayalan)
Member

sd/-

(Gireesh B. Pradhan)
Chairperson

Annexure

Calculation of Weighted Average Rate of Interest on Actual Loans

(` in lakh)

	Details of Loan	2011-12 Pro-Rata	2012-13	2013-14
1	Bond XXVIII			
	Gross loan opening	50.00	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	4.17
	Net Loan-Opening	50.00	50.00	45.83
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	4.17	4.17
	Net Loan-Closing	50.00	45.83	41.67
	Average Loan	50.00	47.92	43.75
	Rate of Interest	9.33%	9.33%	9.33%
	Interest	4.67	4.47	4.08
	Rep Schedule	12 annual installments from 15.12.2012		
2	ADB-III			
	Gross loan opening	432.74	432.74	432.74
	Cumulative Repayment upto DOCO/previous year	28.08	36.00	53.05
	Net Loan-Opening	404.66	396.74	379.69
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	7.92	17.05	18.78
	Net Loan-Closing	396.74	379.69	360.91
	Average Loan	400.70	388.21	370.30
	Rate of Interest	1.80%	1.80%	1.80%
	Interest	7.23	7.00	6.68
	Rep Schedule	30 half yearly Installments w.e.f. 15.1.2010		
	Total Loan			
	Gross loan opening	482.74	482.74	482.74
	Cumulative Repayment upto DOCO/previous year	28.08	36.00	57.22
	Net Loan-Opening	454.66	446.74	425.52
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	7.92	21.22	22.95
	Net Loan-Closing	446.74	425.52	402.57
	Average Loan	450.70	436.13	414.05
	Rate of Interest	2.6383%	2.6302%	2.5986%
	Interest	11.89	11.47	10.76