

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 306/2010

**Coram: Dr. Pramod Deo, Chairperson
Shri S. Jayaraman. Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

Date of Hearing: 5.5.2011

Date of Order:19.8.2011

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 for Tirunelveli- Edamon 400kV D/C line (initially to be operated at 220 kV) along with associated bays and equipments at Tirunelveli and Edamon (KSEB) under transmission system associated with Kudankulam Atomic Power Project in Southern Region for the 2009-14 period.

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 Electricity Board, Chennai
5. Electricity Department, Govt. of Pondicherry, Pondicherry
6. Eastern Power Distribution Company of Andhra Pradesh
Ltd., Visakhapatnam
7. Southern Power Distribution Company of Andhra
Pradesh Ltd., Tirupati
8. Central Power Distribution Company of Andhra Pradesh
Ltd., Hyderabad



9. Northern Power Distribution Company of Andhra Pradesh Ltd., Warangal
10. Bangalore Electricity Supply Company Ltd., Bangalore
11. Gulbarga Electricity Supply Company Ltd., Gulbarga
12. Hubli Electricity Supply Company Ltd., Hubli
13. Mangalore Electricity Supply Company Ltd., Mangalore
14. Chamundeswari Electricity Supply Company Ltd., Mysore
15. Electricity Department, Govt. of Goa, Panaji

..... Respondents

The following were present:

1. Shri M.M. Mondal, PGCIL
2. Shri Rajiv Gupta, PGCIL
3. Shri . S. S. Raju, PGCIL

ORDER

This petition has been filed seeking approval for determination of transmission tariff for Tirunelveli-Edamon 400 kV D/C line (initially to be operated at 220 kV) along with associated bays and equipments at Tirunelveli and Edamon (KSEB) (hereinafter referred to as “the transmission asset”) under the transmission system associated with Kudankulam Atomic Power Project (hereinafter “the Project”) in Southern Region for the 2009-14 period, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 regulations”). The petitioner has also sought the following reliefs:-

- (a) Approve the additional capitalization incurred/projected to be incurred;
- (b) Allow grossing up of base rate of return with the applicable tax rate as per the relevant Finance Acts and direct settlement of tax liability with the long term transmission customers on year to year basis;



- (c) Approve the reimbursement, by the beneficiaries, of expenditure, towards petition filing fee and publishing of notices in newspapers in terms of Regulation 42 of the 2009 regulations and other expenditure (if any) in relation to the filing of petition;
- (d) Allow the petitioner to bill and recover Service Tax on Transmission charges separately from the respondents, if at any time the exemption from service tax is withdrawn and transmission of power is notified as a taxable service;
- (e) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in interest rate due to floating rate of interest applicable during 2009-14 period, if any, from the respondents; and
- (f) Allow the petitioner to bill and recover license fee separately from the respondents.

2. The investment approval for the transmission systems associated with the Project (2X1000MW) was accorded by the Government of India vide 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. Subsequently, the Revised Cost Estimate for the above transmission system was approved by the Board of Directors of the petitioner vide Memorandum C/CCP/Kudankulam dated 3.9.2010 at an estimated revised cost of ₹ 215907 lakh including Interest During Construction of ₹ 22342 lakh, at 1st Quarter, 2010 price level.



3. Details of the elements comprising the transmission system are as under:-

Transmission Lines

- (a) Kudankulam (NPC) – Tirunelveli (POWERGRID) 400 kV (QUAD) D/C Line-I
- (b) Kudankulam (NPC) – Tirunelveli (POWERGRID) 400 kV (QUAD) D/C Line-II
- (c) Tirunelveli (POWERGRID) - Udumalpet (POWERGRID) 400 kV D/C Line
- (d) Tirunelveli (POWERGRID) – Edamon (Kerala state Electricity Board) 400 kV Multicircuit Line.
- (e) Edamon (Kerala state Electricity Board) – Muvattupuzha (POWERGRID) 400 kV (QUAD) D/C Line
- (f) Muvattupuzha (POWERGRID) – North Trichur (POWERGRID) 400 kV (QUAD) D/C Line
- (g) LILO of both circuits of Madurai (POWERGRID) – Trivandrum (POWERGRID) 400 kV D/C Line at Tirunelveli

Sub-Stations

- (a) 400/220 kV Tirunelveli (POWERGRID) Substation (New)
- (b) 400/220 kV Muvattupuzha (POWERGRID) Substation (New)
- (c) 400/220 kV North Trichur (POWERGRID) Substation (Extension)
- (d) 400/220 kV Udumalpet (POWERGRID) Substation (Extension)
- (e) 400/220 kV Trivandrum (POWERGRID) Substation (Extension)

4. The present petition covers determination of transmission tariff for Tirunelveli-Edamon 400 kV D / C line (initially to be operated at 220 kV) along



with associated bays and equipments at Tirunelveli and Edamon (KSEB) along with associated bays and equipments at Tirunelveli and Edamon (KSEB) (DOCO – 01.07.2010) under transmission system associated with Kudankulam in Southern Region for the period from DOCO (01.07.2010) to 31.03.2014.

5. In the present petition, the petitioner has claimed transmission tariff based on the actual expenditure incurred up to date of commercial operation and additional capital expenditure projected to be incurred from the date of commercial operation to 31.3.2011 and during the years 2011-12 and 2012-13.

6. The petitioner has claimed the following transmission charges:-

	(in lakh)			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Depreciation	1083.94	1476.06	1482.02	1485.56
Interest on Loan	522.45	655.63	591.39	527.46
Return on equity	1083.09	1475.84	1482.01	1485.52
Interest on Working Capital	61.25	82.67	82.24	81.74
O & M Expenses	157.06	221.41	234.05	247.41
Total	2907.79	3911.61	3871.71	3827.69

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

	(in lakh)			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Maintenance Spares	31.41	33.21	35.11	37.11
O & M expenses	17.45	18.45	19.50	20.62
Receivables	646.18	651.94	645.29	637.95
Total	695.04	703.60	699.90	695.68
Rate of Interest	11.75%	11.75%	11.75%	11.75%
Interest	61.25	82.67	82.24	81.74

8. 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.

9. Reply to the petition has been filed only by Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), successor of the fourth respondent, viz. Tamil Nadu Electricity Board. The objections raised by TANGEDCO are as hereunder:-

(a) That the initial spares capitalized are of the order of 2.26% which is more than the norms prescribed in the 2009 regulations and this should be restricted in line with Regulation 8 of the 2009 regulations;

(b) The delay of nearly 19 months in commissioning of the project has been attributed by the petitioner to the delay in the commissioning of the Kudankulam Atomic Power Project, which is yet to be commissioned. According to the respondent, IDC must be limited as per the original approval. That there is no justification for an increase of 213% in IDC (from ₹ 7141 lakh as per the original sanction to ₹ 22342 lakh as per the Revised Cost Estimate) while the capital cost increase is only ₹ 177929 lakh to ₹ 215900 lakh;

(c) That the apportioned cost of the asset is ₹ 29518 lakh for estimated length of 110 km of transmission line. The apportioned cost as per RCE is ₹ 28641 lakh for an actual length of 81 km and that the total estimated completion cost of the asset is ₹ 28326.39 lakh. The



respondent has requested the Commission to allow the capital cost and additional capital expenditure after prudence check based on bench mark norms specified by the Commission and to limit the apportioned cost for tariff purposes;

(d) Prayer for grossing up of the rate of return based on the tax rate of the relevant Finance Act should be linked with the proposed amendment to the regulation by the Commission;

(e) Claim for reimbursement of service tax be rejected because transmission of power has been exempted from payment of service tax;

(f) Petitioner's request to revise the norms of O&M expenditure due to impact of wage revision should be negated; and

(g) Claim of the petitioner for reimbursement of license fee should be negated as the same is not covered under the regulations.

10. The petitioner in his rejoinder, filed vide affidavit dated 9.2.2011, clarified its position on the points raised by the TANGEDCO as under:-

(a) That the restriction of spares is not element-wise but, is applicable for the total project cost and the present petition covers only two elements of the project. The final view in the matter should be taken at the time of completion of the project.

- (b) The delay in commissioning of the 400 kV Tirunelveli-Edamon D/C line is due to the delay in commissioning of the Kudankulam project and the date of commencement of operation (of 1.4.2009) of the other asset has already been approved by the Commission (Petition No. 81/2010).
- (c) The difference in approved cost of the assets is due to increase in cost of material cost and erection cost, which is on account of change in price levels of awarded contracts.
- (d) That the tariff for the subject asset has been calculated taking actual expenditure upto DOCO and estimated additional capitalization from DOCO to 31.3.2013, as prescribed in the 2009 regulations.
- (e) That the issue of MAT would be addressed once the 2009 regulations are amended by the Commission.
- (f) That the beneficiaries should share the service tax once exemption of transmission service from service tax is withdrawn.
- (g) That the interest rate may increase or decrease during the tariff period and hence, it would be fair to allow annual adjustment of difference in interest rate.
- (h) That the petitioner furnished the actual O&M cost, transmission line and bay details of its transmission line for the five year period starting from 2004-05 to 2007-08, for the purpose of determination of norms from 2009-14 without taking into account expected manpower cost implications on account of wage revision. The compensation allowed in

the 2009 regulations on account of employee cost is insufficient to meet the actual expenditure due to wage revision. That the petitioner may be allowed to approach the Commission with actual manpower costs on account of wage revision during the tariff block 2009-14 for claiming the tariff.

- (i) That the payment towards licensee fee is not represented in the actual O&M expenses and it is an extra cost on the petitioner and hence, it should be reimbursed.

11. As pointed out by the respondent, there is time over-run of 20 months. The main reason for the delay is that the transmission system was to be matched with the Kudankulam generation which was getting rescheduled every six months. The transmission assets form part of the Transmission System associated with the Project. The Commission in order dated 29.4.2010 in Petition No. 81/2010 has come to the conclusion that the reasons for delay in the declaration of the commercial operation of Kudankulam (NPC) - Tirunelveli (Power Grid) 400 kV (Quad) D/C Line I and II with associated bays were beyond the control of the petitioner. As the transmission assets form part of the Project, we condone the delay in commissioning of the same.

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



CAPITAL COST

13. Regulation 7 of the 2009 regulations, as amended vide Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011, provides as under:-

*“7. **Capital Cost.** (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 funds 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 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.”

14. Details of the apportioned approved cost, the admitted cost as on date of commercial operation and estimated additional capital expenditure projected to be incurred on the transmission assets are summarized are given overleaf:-



(` in lakh)

Apportioned Approved Cost as per FR	Apportioned Approved Cost as per RCE	Actual cost incurred as on date of commercial operation	Proposed Expenditure from commercial operation to 31.3.2011	Proposed Expenditure during 2011-12	Proposed Expenditure during 2012-13.	Total Estimated Completion cost
29518.00	28641.00	26982.72	1108.44	101.23	134.00	28326.39

Treatment of initial spares

15. In this petition the petitioner has claimed initial spares amounting to ₹ 627.43 lakh as against the ceiling limit of ₹ 198.39 lakh. Therefore, there is an excess claim of ₹ 429.04 lakh. Regulation 8 of the 2009 regulations provides that initial spares shall be capitalized as a percentage of the original project cost. In this case, the transmission system associated with the Kudankulam Atomic Power Project was accorded investment approval by the Government of India, Ministry of Power's letter dated 25.5.2005, covering in its scope the transmission lines and sub-station mentioned in para 3 of this order. Some of the assets were commissioned during 2004-09 and the remaining assets have been commissioned or are likely to be commissioned during 2009-14. Therefore, the initial spares shall be admissible based on the total project cost as per the ceiling limits specified for the respective tariff periods. Accordingly, the initial spares for the transmission assets, which were commissioned during 2004-09 have been determined as per the ceiling limit of 1.5%, specified in the 2004 tariff regulations. Initial spares for the transmission assets commissioned during 2009-14 have been determined as per the ceiling limits specified in the 2009 regulations. Any shortfalls in the initial spares of the assets commissioned during 2004-09 have been adjusted against the excess claims made in case of the assets commissioned during



2009-14 tariff period.

16. The details of the initial spares claimed by the petitioner, the claim allowed by the Commission and the adjustments made in Petition Nos. 192/2009, 258/2010, 307/2010 and 307/2010 are given below:-

In Petition No. 192/2010					
Particulars	Cost as on 31.03.2009	Apportioned Initial Spares Claimed	Ceiling Limit as per Regulation 2004	Initial Spares worked out	Bifurcation of short fall
Capital Cost	24046.70	222.45	1.50%	362.81	140.35
Transmission Line	10599.21				63.61
Sub- Station	12786.39				76.74

In Petition No. 258/2010 and 307/2010							
Particulars	Cost as on Cut off date	Apportioned Initial Spares Claimed	Ceiling Limit as per Regulation 2009	Initial Spares worked out	Excess Initial Spares claimed	Short fall of 192/2009 adjusted	Balance
Transmission Line	54154.77	324.05	0.75%	406.78	0.00	0	NIL
Sub- Station	6820.82	199.08	2.50%	169.79	-29.29	-29.29	NIL
Total		523.13		576.57	-29.29		

In Petition No. 306/2010								
Particulars	Cost as on Cut off date	Apportioned Initial Spares Claimed	Ceiling Limit as per Regulation 2009	Initial Spares worked out	Excess Initial Spares claimed	Short fall of Pet 192/2009 and 258/2010	Initial Spares Deducted in Petition No 307/2010	Initial Spares deducted in current Petition
Transmission Line	26881.28	627.43	0.75	198.39	-429.04	146.35	105.92	-176.77
Sub- Station	819.69	0.00	2.50	21.02	0.00	0	0	0.00
Total		627.43		219.41	-429.04		105.92	

17. We also notice that transmission assets amounting to ₹ 101291 lakh covered under the project have not yet been commissioned. After the commissioning of all the transmission systems, admissibility of initial spares shall be reviewed as per Regulation 8 of 2009 regulations at the time of truing up.



18. Accordingly, capital cost of ₹ 26805.95 lakh (excluding excess initial spares claimed) as on 1.7.2010 has been considered for the purpose of Tariff calculation.

ADDITIONAL CAPITAL EXPENDITURE

19. With regard to additional capital expenditure, Regulation 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;”

20. The 2009 regulations further 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 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”.

21. As per the above definition, cut-off date in respect of the transmission line is 31.3.2013.

22. The petitioner has claimed additional capital expenditure amounting to ₹ 1108.44 Lakh, ₹ 101.23 lakh and ₹ 134.00 lakh for the year 2010-11 (from the date of commercial operation to 31.03.2011), 2011-12 and 2012-13 respectively as per the details given overleaf:-

Year	Work/Equipment proposed to be added after commercial operation up to cut off date	Amount capitalized and proposed to be capitalized	Justification as per purpose
2010-11	Transmission line	1010.63	Balance & retention payments
	Building & Civil Works	93.81	Balance & retention payments
	PLCC	4.00	Balance & retention payments
	Subtotal	1108.44	
2011-12	Transmission line	76.00	Balance & retention payments
	Building & Civil Works	25.00	Balance & retention payments
	PLCC	0.23	Balance & retention payments
	Subtotal	101.23	
2012-13	Transmission line	134.00	Balance & retention payments
	Subtotal	134.00	

23. As the additional capital expenditure claimed by the petitioner falls within the cut-off date, the same has been considered for the purpose of tariff calculation.

DEBT- EQUITY RATIO

24. Regulation 12(1) of the 2009 regulations provides as under:-

“(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.”

25. The petitioner has claimed tariff based on debt-equity ratio of 70:30 for the transmission asset as under:-

Particulars	Approved		Capital Cost as on DOCO	
	Amount (₹ lakh)	%	Amount (₹ lakh)	%
Debt	20049.00	70.00	18887.88	70.000
Equity	8592.00	30.00	8094.84	30.000
Total	28641.00	100.00	26982.72	100.00



26. The capital cost claimed by the petitioner has been pruned on account of modification of the cost of initial spares allowed. Accordingly the debt-equity allowed based on the admitted capital cost is as under:-

Particulars	Approved		Capital Cost as on DOCO	
	Amount (₹ lakh)	%	Amount (₹ lakh)	%
Debt	20049.00	70.00	18764.17	70.000
Equity	8592.00	30.00	8041.79	30.000
Total	28641.00	100.00	26805.95	100.00

27. As regards the additional capital expenditure (referred to as “Add Cap” in the table below) the debt-equity ratio of 70:30 has been allowed as detailed hereunder:-

Normative		
	in lakh	%
Add Cap for 2010-11		
Debt	775.91	70.00
Equity	332.53	30.00
Total	1108.44	100.00
Add Cap for 2011-12		
Debt	70.86	70.00
Equity	30.37	30.00
Total	101.23	100.00
Add Cap for 2012-13		
Debt	93.80	70.00
Equity	40.20	30.00
	134.00	100.00

RETURN ON EQUITY

28. Regulation 15 of the 2009 regulations, as amended vide Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011, provides as under:-

“(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% to 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 year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations."

29. Return on Equity has been calculated based on the average equity corresponding to additional capital expenditure during the period of projected additional capital expenditure. Return on Equity has been calculated as $\text{Base rate}/(1-t)$, where Base Rate is 15.5% and 't' is normal tax rate for the period 2008-09 applicable to the petitioner which is under MAT i.e. 10%+ surcharge @ 10%+3% Education Cess.

30. 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 Acts, has already been taken cognizance of in the Commission's order dated 3.8.2010 in Petition No. 17/2010 wherein a decision has been taken to address the issue by amendment to 2009



regulations. Presently, the amendment to 2009 regulation is in the process and will take care of the concern of the petitioner after issue of notification in this regard.

31. Details of return on equity calculated are as under:-

	(` in lakh)			
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Opening Equity	8041.79	8374.32	8404.69	8444.89
Addition due to additional capital expenditure	332.53	30.37	40.20	0.00
Closing Equity	8374.32	8404.69	8444.89	8444.89
Average Equity	8208.05	8389.50	8424.79	8444.89
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481	17.481	17.481	17.481
Return on Equity (Pre Tax)	1076.14	1466.57	1472.74	1476.25

INTEREST ON LOAN

32. Regulation 16 of the 2009 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.”

33. 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) As regards the 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.

(e) The methodology followed for the calculation of weighted average Rate of Interest in case of floating interest loans in Petition No. 132/2010, has been adopted in the instant petition. Accordingly, the interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009/date of commercial operation. Any change in rate of Interest subsequent to 1.4.2009/date of commercial operation will be considered at the time of truing up.

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

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

	(₹ in lakh)			
	2010-11 (pro-rata)	2011-12	2012-13	2013-14
Gross Normative Loan	18764.17	19540.07	19610.93	19704.73
Cumulative Repayment upto Previous Year	0.00	1076.94	2543.66	4016.35
Net Loan-Opening	18764.17	18463.14	17067.27	15688.38
Addition due to additional capital expenditure	775.91	70.86	93.80	0.00
Repayment during the year	1076.94	1466.72	1472.69	1476.23
Net Loan-Closing	18463.14	17067.27	15688.38	14212.16
Average Loan	18613.65	17765.21	16377.83	14950.27
Weighted Average Rate of Interest on Loan	3.7184%	3.6674%	3.5884%	3.5062%
Interest	519.10	651.52	587.71	524.18

DEPRECIATION

36. Regulation 17 of the 2009 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.”

37. The transmission line was put under commercial operation with effect from 1.7.2010. Accordingly, the same 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 of the 2009 regulations.

38. Details of the depreciation worked out are as under:-

	(₹ in lakh)			
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Opening Gross Block	26805.95	27914.39	28015.62	28149.62
Addition during 2009-14 due to Projected Additional Capitalisation	1108.44	101.23	134.00	0.00
Closing Gross Block	27914.39	28015.62	28149.62	28149.62
Average Gross Block	27360.17	27965.01	28082.62	28149.62
Rate of Depreciation	5.2482%	5.2448%	5.2441%	5.2442%
Depreciable Value (90%)	24624.15	25168.50	25274.36	25334.66
Remaining Depreciable Value	24624.15	24091.57	22730.70	21318.31
Depreciation	1076.94	1466.72	1472.69	1476.23

OPERATION & MAINTENANCE EXPENSES

39. Regulation 19(g) of the 2009 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:-

Assets	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C twin conductor T/Line (₹ Lakh/ Km)	0.627	0.663	0.701	0.741	0.783
220 kV bay (₹ Lakh/ bay)	36.68	38.78	41.00	43.34	45.82

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

	(₹ in lakh)			
Assets	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
81.899 kms (2.607+79.292) 400 kV D/C, twin conductor transmission line	40.73	57.41	60.69	64.13
4 No 220 kV bays	116.34	164.00	173.36	183.28
Total O&M for the transmission assets	157.07	221.41	234.05	247.41

41. The petitioner has submitted that O & M expenditure 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 charges for the tariff period 2009-14. The petitioner has further submitted that it reserves the right to approach the Commission for suitable revision in the norms for O & M expenditure in case the impact of wage hike with effect from 1.1.2007 is more than 50%. The petitioner has further submitted that in O & M norms for the period 2009-14, the cost associated with license fees had not been captured and therefore licence fee be allowed to be recovered separately from the respondents.

42. We observe that these issues have been raised by the petitioner in other petitions also. A view is yet to be taken by the Commission on reimbursement of the cost of wage hike and reimbursement of licence fees. The decision as and when taken will be applicable to the present case also.

INTEREST ON WORKING CAPITAL

43. As per the 2009 regulations the components of the working capital and the interest thereon are discussed here under:-

(i) Receivables: As per Regulation 18(1) (c) (i) of the 2009 regulations, receivables will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of two months transmission charges. In the 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 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 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for one month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital: As per Regulation 18(3) of the 2009 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 11.75%. The petitioner is eligible only for 11% interest on working capital as per the second amendment to the 2009 Regulations, dated 21.6.2011. Accordingly, 11% interest on working capital is allowed.



44. Necessary computations in support of interest on working capital are appended given as under:-

	(` in lakh)			
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Maintenance Spares	31.41	33.21	35.11	37.11
O & M expenses	17.45	18.45	19.50	20.62
Receivables	641.37	647.18	640.61	633.35
Total	690.24	698.84	695.22	691.08
Rate of Interest	11.00%	11.00%	11.00%	11.00%
Interest	56.94	76.87	76.47	76.02

TRANSMISSION CHARGES

45. The transmission charges being allowed for the transmission lines are summarized below:-

	(` in lakh)			
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
Depreciation	1076.94	1466.72	1472.69	1476.23
Interest on Loan	519.40	651.52	587.71	524.18
Return on equity	1076.14	1466.57	1472.74	1476.25
Interest on Working Capital	56.94	76.87	76.47	76.02
O & M Expenses	157.06	221.41	234.05	247.41
Total	2886.18	3883.09	3843.66	3800.09

Filing fee, publication expenses and licence fee

46. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with the Commission's decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee from the beneficiaries.

47. Accordingly, expenses incurred by the petitioner on petition filing fees and publication of notices in connection with the present petition shall be directly recovered from the beneficiary on pro-rata basis.

48. The petitioner has also prayed that it may be allowed to bill and recover Licensee fee separately from the respondents. In this regard, it is clarified that the matter is engaging the attention of the Commission. Any decision on the issue as and when taken shall apply to this case well.

Service Tax

49. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on Transmission charges separately from the respondents if the exemption granted to it is withdrawn and transmission of power is made a taxable service. We consider the prayer pre-mature. The petitioner is at liberty to approach the Commission for any relief at the appropriate time as per law.

50. 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 regulations upto 30.6.2011. With effect from 1.7.2011, the billing collection and 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 and the Removal of Difficulties orders issued thereunder.

51. This order disposes of Petition No. 306/2010.

Sd/-	Sd/-	Sd/-	Sd/-
(M.Deena Dayalan) Member	(V.S.Verma) Member	(S.Jayaraman) Member	(Dr. Pramod Deo) Chairperson



	Details of Loan	2010-11	2011-12	2012-13	2013-14
1	ADB-III				
	Gross loan opening	13940.28	13940.28	13940.28	13940.28
	Cumulative Repayment upto DOCO/previous year	210.50	662.16	1159.83	1709.08
	Net Loan-Opening	13729.78	13278.12	12780.45	12231.20
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	451.67	497.67	549.25	605.01
	Net Loan-Closing	13278.12	12780.45	12231.20	11626.19
	Average Loan	13503.95	13029.28	12505.83	11928.70
	Rate of Interest	1.72%	1.72%	1.72%	1.72%
	Interest	232.27	224.10	215.10	205.17
	Rep Schedule	30 Half yearly installments w.e.f. 15.01.2010			
2	Bond XXII				
	Gross loan opening	2500.00	2500.00	2500.00	2500.00
	Cumulative Repayment upto DOCO/previous year	0.00	208.33	416.67	625.00
	Net Loan-Opening	2500.00	2291.67	2083.33	1875.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	208.33	208.33	208.33	208.33
	Net Loan-Closing	2291.67	2083.33	1875.00	1666.67
	Average Loan	2395.83	2187.50	1979.17	1770.83
	Rate of Interest	8.68%	8.68%	8.68%	8.68%
	Interest	207.96	189.88	171.79	153.71
	Rep Schedule	12 Equal Annual Installments from 07.12.2010			
3	Bond XXI				
	Gross loan opening	200.00	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	16.67	33.33	50.00
	Net Loan-Opening	200.00	183.33	166.67	150.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	16.67	16.67	16.67	16.67
	Net Loan-Closing	183.33	166.67	150.00	133.33
	Average Loan	191.67	175.00	158.33	141.67
	Rate of Interest	8.73%	8.73%	8.73%	8.73%
	Interest	16.73	15.28	13.82	12.37
	Rep Schedule	12 Equal Annual Installments from 11.10.2010			

4	Bond XXV				
	Gross loan opening	1747.60	1747.60	1747.60	1747.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	145.63	291.27
	Net Loan-Opening	1747.60	1747.60	1601.97	1456.33
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	145.63	145.63	145.63
	Net Loan-Closing	1747.60	1601.97	1456.33	1310.70
	Average Loan	1747.60	1674.78	1529.15	1383.52
	Rate of Interest	10.10%	10.10%	10.10%	10.10%
	Interest	176.51	169.15	154.44	139.74
	Rep Schedule	12 Equal Annual Installments from 12.06.2011			
5	Bond XXIV				
	Gross loan opening	500.00	500.00	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	41.67	83.33	125.00
	Net Loan-Opening	500.00	458.33	416.67	375.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	41.67	41.67	41.67	41.67
	Net Loan-Closing	458.33	416.67	375.00	333.33
	Average Loan	479.17	437.50	395.83	354.17
	Rate of Interest	9.95%	9.95%	9.95%	9.95%
	Interest	47.68	43.53	39.39	35.24
	Rep Schedule	12 Equal Annual Installments from 26.03.2011			
	Total Loan				
	Gross loan opening	18887.88	18887.88	18887.88	18887.88
	Cumulative Repayment upto DOCO/previous year	210.50	928.83	1838.80	2800.34
	Net Loan-Opening	18677.38	17959.05	17049.08	16087.54
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	718.33	909.97	961.55	1017.31
	Net Loan-Closing	17959.05	17049.08	16087.54	15070.23
	Average Loan	18318.22	17504.07	16568.31	15578.88
	Rate of Interest	3.7184%	3.6674%	3.5884%	3.5062%
	Interest	681.14	641.94	594.54	546.22

