

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 112/2010**

**Coram: Shri S.Jayaraman, Member  
Shri V.S.Verma, Member  
Shri M. Deena Dayalan, Member**

**Date of Hearing: 23.12. 2010**

**Date of Order: 9 .2.2011**

**In the matter of:**

Approval under Regulation 86 of Central Electrical Regulatory Commission (Conduct of Business) Regulations, 1999 for determination of Transmission Tariff i) 40% fixed series compensation on Gooty – Neelmangla line-II at Gooty and ii) 40% fixed series compensation on Gooty – Neelmangla line-I at Gooty , Kadapa Nagarjunasagar Circuit –I and Circuit-II at Kadapa under Fixed Series Compensation Package in Southern Region for the period from 1.4.2009 to 31.3.2014.

**In the matter of:**

Power Grid Corporation of India Ltd., 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., Warrangal
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 was present:**

1. Shri.M M Mondal, PGCIL
2. Shri Rajeev Gupta, PGCIL
3. Shri Rakesh Prasad, PGCIL

## ORDER

This petition has been filed seeking approval of transmission tariff in respect of i) 40% fixed series compensation on Gooty – Neelmangla line-II at Gooty (Asset-I) and ii) 40% fixed series compensation on Gooty – Neelmangla line-I at Gooty , Kadapa Nagarjunasagar Circuit –I and Circuit-II at Kadapa (Asset-II) (bothe the assets collectively referred to as “the transmission assets”) under Fixed Series Compensation Package in Southern Region 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 “the 2009 regulations”). The petitioner has also sought the following reliefs:

(a) Invoke the provisions of Regulation 44(Power to Relax) of the 2009 regulations, for relaxation of clause (3) of regulation 15 thereof so that grossing up the base rate of Return on Equity (ROE) may be allowed considering the revised rate of MAT, surcharge, any other cess, charges, levies etc. as per the relevant Finance Acts and accordingly allow consequential impact of tariff on account of truing up, to be billed and settled directly with the beneficiaries every year in the tariff block.

(b) Allow the petitioner to recover full depreciation during the useful life of the assets which are combined to calculate transmission charges.

(c) Approve the reimbursement, of expenditure, by the beneficiaries 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 petitioner is subjected to such service tax.

(e) Allow the petitioner to bill and recover licence fee separately from the respondents

(f) Pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

2. Investment approval for the transmission scheme was accorded by the Board of Directors of the petitioner company vide letter dated 22.10.2002 at an estimated cost of ₹.5793 lakh, including IDC of ₹. 443 lakh. The transmission asset was declared under commercial operation on 1.5.2006.

3. The transmission charges for the transmission asset were initially approved by the Commission in its order dated 23.3.2007 in Petition No. 129/2006 for the period 1.5.2005 to 31.3.2009 based on capital cost of ₹. 1382.59 lakh as on the date of commercial operation and ₹. 1461.40 lakh as on 31.3.2006, after considering additional capital expenditure of ₹. 78.81 lakh

for the period 1.5.2005 to 31.3.2006. Later the transmission charges were again revised vide Commission's order dated 26.6.2010 in Petition NO. 49/2009 by taking into consideration the additional capital expenditure during 2006-07.

4. The petitioner has claimed the following transmission charges:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	291.09	291.09	291.09	291.09	291.09
Interest on Loan	237.04	212.68	188.32	163.95	139.58
Return on equity	242.01	242.01	242.01	242.01	242.01
Interest on Working Capital	26.54	26.63	26.75	26.92	27.12
O & M Expenses	209.60	221.60	234.28	247.68	261.84
<b>Total</b>	<b>1006.28</b>	<b>994.01</b>	<b>982.45</b>	<b>971.65</b>	<b>961.64</b>

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	31.44	33.24	35.14	37.15	39.28
O & M expenses	17.47	18.47	19.52	20.64	21.82
Receivables	167.71	165.67	163.74	161.94	160.27
<b>Total</b>	<b>216.62</b>	<b>217.38</b>	<b>218.40</b>	<b>219.73</b>	<b>221.37</b>
Interest	26.54	26.63	26.75	26.92	27.12
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%

6. Reply to the petition has been filed only by Tamil Nadu Electricity Board viz. respondent No. 4. The respondent, vide its reply has objected to the reimbursement of filing fee, revision of normative O&M charges based on impact of wage revision, and reimbursement of license fee. Besides, the respondent has also made the following prayers in its reply:

- (a) To ensure that the beneficiaries are not burdened by combining of assets.

(b) To allow reimbursement of impact on tariff on account of income tax, if any, at the end of the tariff period only.

(c) To defer the decision on service tax claim till the finality is reached in the matter.

7. The petitioner in its rejoinder has reiterated its claim and has prayed that transmission tariff as prayed for be approved 100%.

8. Having heard the representatives of the petitioner and having examined the material on record, we proceed to dispose of the petition.

### **CAPITAL COST**

9. Last Proviso to clause (2) of Regulation 7 of the 2009 regulations, provides as under:

*“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 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.”*

10. The admitted capital expenditure as per the Commission's order dated 23.3.2007 in Petition No. 129/2006, was ₹ 1461.40 lakh and ₹ 4047.55 lakh in respect of Asset-I and Asset –II respectively. Subsequently, the capital cost in respect of Asset-I was revised to ₹ 1465.59 lakh. Accordingly, capital expenditure of ₹ 5513.14 lakh as on 1.4.2009 has been considered for tariff determination for the transmission assets for 2009-14 period.

## **ADDITIONAL CAPITAL EXPENDITURE**

11. The petitioner has not projected any additional capital expenditure during the period 2009-14.

## **DEBT- EQUITY RATIO**

12. Clause (2) of Regulation 12 of the 2009 regulations *inter alia* provides that,-

*“(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.”*

13. Based on the above, the following debt-equity claimed by the petitioner is allowed for the purpose of tariff determination:

<b>Admitted on 31.3.2009</b>		
	Amount (₹ in lakh)	%
Debt	4128.72	74.89%
Equity	1384.42	25.11%
<b>Total</b>	<b>5513.14</b>	<b>100.00%</b>

## **RETURN ON EQUITY**

14. Regulation 15 of the 2009 regulations provides that,-

*“15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.*

*(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% 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 normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:*

*Provided that return on equity with respect to the actual 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 separately for each year of the tariff period along with the tariff petition filed for the next tariff period.*

*(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.”*

15. The petitioner has computed ROE on pre- tax basis on 11.33% MAT in accordance with the tax rate applicable for 2008-09 and has claimed return on equity @ 17.481%.

16. Petitioner’s prayer to invoke the provisions of Regulation 44 of the 2009 regulations for relaxation of Regulation 15(3) thereof so that grossing up the base rate of ROE may be allowed considering 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 raised by the petitioner. Relevant portion of the said order is extracted as under:

*“We are of the view that this issue of ‘grossing up the base rate with the normal tax rate for the year 2008-09’ is generic in nature and therefore, it will be appropriate to make suitable provisions in the 2009*

*regulations to cater to any future changes in the tax rate. Accordingly, we direct the staff of the Commission to prepare and submit draft amendment to the 2009 regulations for allowing grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis. Any under/over recovery on account of direct settlement of tax liability shall be subject to the final adjustment at the time of true up exercise.”*

17. The petitioner has computed ROE on pre- tax basis on 11.33% MAT in accordance with the tax rate applicable for 2008-09 and has claimed return on equity @ 17.481%.

18. Petitioner’s prayer to invoke the provisions of Regulation 44 of the 2009 regulations for relaxation of Regulation 15(3) thereof so that grossing up the base rate of ROE may be allowed considering 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 raised by the petitioner. Relevant portion of the said order is extracted as under:

*“We are of the view that this issue of ‘grossing up the base rate with the normal tax rate for the year 2008-09’ is generic in nature and therefore, it will be appropriate to make suitable provisions in the 2009 regulations to cater to any future changes in the tax rate. Accordingly, we direct the staff of the Commission to prepare and submit draft amendment to the 2009 regulations for allowing grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis. Any under/over recovery on account of direct settlement of tax liability shall be subject to the final adjustment at the time of true up exercise.”*



19. Pending decision on revision of MAT rate, ROE has been computed as per Regulation 15 of the 2009 regulations, and pre-tax ROE of 17.481% has been considered.

20. Detailed calculation of the ROE in respect the transmission assets is as under:

		(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	1384.42					
Addition due to Additional Capitalisation	0.00					
Opening Equity	1384.42	1384.42	1384.42	1384.42	1384.42	1384.42
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00
Closing Equity		1384.42	1384.42	1384.42	1384.42	1384.42
Average Equity		1384.42	1384.42	1384.42	1384.42	1384.42
Return on Equity (Base Rate )		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09		11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax )		17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)		<b>242.01</b>	<b>242.01</b>	<b>242.01</b>	<b>242.01</b>	<b>242.01</b>

### **INTEREST ON LOAN**

21. 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.”*

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

(a) Details of net outstanding loan as on 31.3.2009, cumulative repayment up to 31.3.2009, repayment schedule for the loans, rate of

interest etc. have been taken from the order dated 26.06.2009 in petition no: 49/2009 for Asset 1 and order dated 23.03.2007 in petition No: 129/2006 for Asset 2 for working out weighted average rate of interest.

(b) Tariff is worked out considering normative loan and normative repayments. Depreciation allowed has been taken as normative repayment for the tariff period 2009-14.

(c) Weighted average rate of interest on actual loan worked out as above has been applied on the notional average loan during the year to arrive at the interest on loan.

23. Details of the calculation of Interest on Loan are as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	4128.72					
Addition due to Additional Capitalisation	0.00					
Gross Normative Loan	4128.72	4128.72	4128.72	4128.72	4128.72	4128.72
Cumulative Repayment upto Previous Year		1140.25	1431.34	1722.44	2013.53	2304.63
Net Loan-Opening		2988.47	2697.38	2406.28	2115.19	1824.09
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00
Repayment during the year		291.09	291.09	291.09	291.09	291.09
Net Loan-Closing		2697.38	2406.28	2115.19	1824.09	1533.00
Average Loan		2842.92	2551.83	2260.74	1969.64	1678.55
Weighted Average Rate of Interest on Loan		8.3380%	8.3346%	8.3300%	8.3239%	8.3153%
<b>Interest</b>		<b>237.04</b>	<b>212.68</b>	<b>188.32</b>	<b>163.95</b>	<b>139.58</b>

## **DEPRECIATION**

24. 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.....

Provided further that.....

(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.”

25. Depreciation has been worked out on the admitted capital expenditure as on 1.4.2009 and projected additional capitalization thereafter.

26. For the period 1.4.2009 to 31.3.2014 the depreciation worked out are as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	90%	4961.83	4961.83	4961.83	4961.83	4961.83
Remaining Depreciable Value		3821.58	3530.48	3239.39	2948.29	2657.20
<b>Depreciation</b>		<b>291.09</b>	<b>291.09</b>	<b>291.09</b>	<b>291.09</b>	<b>291.09</b>

## **OPERATION & MAINTENANCE EXPENSES**

27. Clause (g) of Regulation 19 the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and line. The petitioner has calculated the operation and maintenance expenses in accordance with the above norms and the same are allowed as such.

28. The petitioner has stated that it reserves the right to approach the Commission for suitable revision in the norms for O&M expenses in case the impact of wage hike is more than 50%. We clarify that petition if any, filed by the petitioner shall be dealt with in accordance with law.

## **INTEREST ON WORKING CAPITAL**

29. As per the 2009 regulations the components of the working capital and the interest thereon are discussed hereunder:

**(i) Receivables:** As per Regulation 18(1)(c)(i) of the 2009 regulations, receivables will be equivalent to two months' average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months' 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 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 to 'nil' because the O&M expenditure has not been awarded in the instant case.

**(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. As O&M has not been allowed, this component of working capital is 'nil'

**(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 @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

30. Necessary computations in support of interest on working capital are appended hereinbelow:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	31.44	33.24	35.14	37.15	39.28
O & M expenses	17.47	18.47	19.52	20.64	21.82
Receivables	167.71	165.67	163.74	161.94	160.27
<b>Total</b>	<b>216.62</b>	<b>217.38</b>	<b>218.41</b>	<b>219.73</b>	<b>221.37</b>
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	<b>26.54</b>	<b>26.63</b>	<b>26.76</b>	<b>26.92</b>	<b>27.12</b>

## TRANSMISSION CHARGES

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	291.09	291.09	291.09	291.09	291.09
Interest on Loan	237.04	212.68	188.32	163.95	139.58
Return on equity	242.01	242.01	242.01	242.01	242.01
Interest on Working Capital	26.54	26.63	26.76	26.92	27.12
O & M Expenses	209.60	221.60	234.28	247.68	261.84
<b>Total</b>	<b>1006.28</b>	<b>994.02</b>	<b>982.46</b>	<b>971.65</b>	<b>961.64</b>

### Application fee and the publication expenses

32. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with our 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.

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

### Service Tax

34. 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 is withdrawn and the transmission

power service is notified as a taxable service. Should such a contingency arise, the petitioner is at liberty to file a petition in accordance with law. .

35. The transmission charges allowed in this order shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with Regulation 33 of the 2009 regulations.

36. This order disposes of Petition No. 112/2010.

**Sd/-**  
**(M.Deena Dayalan)**  
**Member**

**Sd/-**  
**(V.S.Verma)**  
**Member**

**Sd/-**  
**(S.Jayaraman)**  
**Member**