

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 301/2010**

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

**Date of Hearing: 26.4.2011**

**Date of Order: 17.6.2011**

**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, 2004, for determination of revised transmission tariff due to replacement of Government of India Loan by LIC-III Loan for ATS of Ranganadi HEP in North Eastern Region from 01.04.2004 to 31.03.2009.

**And**

**In the matter of:**

Power Grid Corporation of India Ltd., Gurgaon

**...Petitioner**

Vs

1. Assam State Electricity Board, Guwahati
2. Meghalaya Energy Corporation Ltd, Shillong
3. Government of Arunachal Pradesh, Itanagar
4. Power and Electricity Department, Govt, of Mizoram, Aizwal
5. Electricity Department, Govt. of Manipur, Imphal
6. Department of Power, Govt. of Nagaland, Kohima
7. Tripura State Electricity Corporation Ltd., Agartala

**.....Respondents**

**The following were present:**

Shri. U K Tyagi, PGCIL  
Shri. S.S. Raju, PGCIL  
Shri Rajeev Gupta, PGCIL



## **ORDER**

This Miscellaneous Petition has been filed seeking approval for determination of revised transmission tariff due to replacement of Government of India Loan by LIC-III Loan for ATS of Ranganadi HEP in North Eastern Region (hereinafter referred to as “the transmission system”) from 1.4.2004 to 31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as “the 2004 regulations”). The petitioner has sought the following reliefs:

- (a) Accord approval for revision of transmission tariff on account of refinancing of GOI loan with LIC – III loan during 2007-08 and 2008-09;
- (b) Approve the reimbursement from the respondents of the expenditure towards filing of the petition and licence fee.

2. The petitioner has submitted that transmission tariff for 132 kV S/C Nirjuli-Dikrong transmission line (hereinafter referred to as “the transmission asset”) for the period 1.4.2009 to 31.3.2009 were approved by the Commission by its order dated 19.8.2009 in petition No. 84/2006. Subsequent to the filing of the petition No.84/2006, the petitioner replaced the Government of India loan employed in the project with LIC III loan on 12.9.2007, during the financial year 2007-08. The impact of refinancing of LIC loan in place of Government of India loan has been considered in the present petition and the tariff for the period 2007-08 and 2008-09 have been revised.



3. The petitioner has submitted that the Commission has approved the transmission tariff vide order dated 19.8.2009 in petition no. 84/2006 as under:

**(₹ in lakh)**

Year	2004-05	2005-06	2006-07	2007-08	2008-09
132 kV S/C Nirjuli-Dikrong Transmission Line (DOCO: 1.10.2001)	156.62	154.00	151.45	148.92	146.51

4. The petitioner has calculated the revised transmission charges after taking into account the impact of the refinancing of loan as under:

**(₹ in lakh)**

Year	2004-05	2005-06	2006-07	2007-08	2008-09
132 kV S/C Nirjuli-Dikrong Transmission Line (DOCO: 1.10.2001)	156.63	154.00	151.45	144.56	139.84

5. The petitioner has submitted that the impact of refinancing of loan will be as under:

**(₹ in lakh)**

Year	2004-05	2005-06	2006-07	2007-08	2008-09
132 kV S/C Nirjuli-Dikrong Transmission Line (DOCO: 1.10.2001)	0.00	0.00	0.00	-4.36	-6.67

6. On account of refinancing of the loan, there is no change in the capital cost, debt-equity ratio, return on equity, depreciation and operation and maintenance expenses. Accordingly, the charges under these heads admitted vide order dated 19.8.2009 in petition No. 84/2006 have been considered while arriving at the annual transmission charges in this order. However, calculation of interest on loan and interest on working capital has been revised in the succeeding paragraphs.

## **INTEREST ON LOAN**

7. Clause (i) of Regulation 56 of the 2004 regulations *inter-alia* provides that,-

*“(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 54.*

*(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 54 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.*

*(c) The transmission licensee shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such refinancing shall be borne by the beneficiaries.”*

8. In our calculation, the interest on loan has been worked out as detailed below:

(a) Interest on loan has been worked out as per the previous calculations in order dated 19.8.2009 in petition No. 84/2006.

(b) In tune with the above provision, the petitioner has swapped the Government of India Loan, carrying interest rate of 14.59% in respect of the transmission asset, with LIC-III Loan which carried 10% interest rate.

(c) LIC-III loan to the tune of ₹ 4931.83 lakh was drawn on 12.9.2007 and ₹ 134.00 lakh was apportioned against the transmission asset. Repayment of loan is starting with effect from 31.3.2008 in 10 installments as per the Loan Agreement enclosed with the petition.



(d) Weighted average rate of interest on actual loan has been worked out and has been applied on the notional loan during the year to arrive at the interest on loan. Details of the calculation of the weighted average rate of interest on actual loan are as per Annexure attached.

(e) In the previous calculations, interest on normative loan was ₹ 24.80 lakh and ₹ 20.83 lakh for the years 2007-08 and 2008-09 respectively. However, after replacement of Government of India Loan by LIC-III in 2007-08, normative IOL works out to ₹ 20.51 lakh and ₹ 14.27 lakh for 2007-08 and 2008-09, respectively.

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

	(` in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Gross Loan	397.13	397.13	397.13	397.13	397.13
Cumulative Repayment upto DOCO/Previous Year	131.87	159.09	186.32	213.55	240.78
Net Loan-Opening	265.26	238.04	210.81	183.58	156.35
Addition due to Add cap	0.00				
Repayment during the year	27.23	27.23	27.23	27.23	27.23
Net Loan-Closing	238.04	210.81	183.58	156.35	129.12
Average Loan	251.65	224.42	197.19	169.96	142.74
Weighted Average Rate of Interest on Loan	14.59%	14.59%	14.59%	12.07%	10.00%
<b>Interest</b>	<b>36.72</b>	<b>32.74</b>	<b>28.77</b>	<b>20.51</b>	<b>14.27</b>

### **INTEREST ON WORKING CAPITAL**

10. All elements of Interest on Working Capital remain the same except the receivables which have been worked out on the basis of two months of annual



transmission charges worked out after taking into consideration the swapping of Government of India loan with LIC III loan. Revised calculation in respect of interest on working capital of the transmission asset are as under:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	9.19	9.74	10.33	10.95	11.60
O & M expenses	2.77	2.88	2.99	3.11	3.24
Receivables	26.10	25.67	25.24	24.09	23.31
<b>Total</b>	<b>38.06</b>	<b>38.29</b>	<b>38.56</b>	<b>38.15</b>	<b>38.15</b>
Rate of Interest	<b>3.90</b>	<b>3.92</b>	<b>3.95</b>	<b>3.91</b>	<b>3.91</b>
Interest	10.25%	10.25%	10.25%	10.25%	10.25%

## TRANSMISSION CHARGES

11. The transmission charges being allowed for the transmission line are summarized below:

	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	27.23	27.23	27.23	27.23	27.23
Interest on Loan	36.72	32.74	28.77	20.51	14.27
Return on Equity	55.60	55.60	55.60	55.60	55.60
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.90	3.92	3.95	3.91	3.91
O & M Expenses	33.18	34.51	35.90	37.31	38.83
<b>Total</b>	<b>156.62</b>	<b>154.00</b>	<b>151.45</b>	<b>144.56</b>	<b>139.84</b>

## Other issues

12. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. The Commission by order dated 11.9.2008 in Petition No. 129/2005 (suo motu) has decided that reimbursement of petition filing fee from the beneficiaries would not be admissible during the tariff period 2004-09. Accordingly, the petitioner's prayer for reimbursement of filing fee cannot be granted.



13. As regards the petitioner's prayer for reimbursement of license fee, it is clarified that the same is under consideration of the Commission and any decision as and when taken will apply to this case also.

14. The petitioner shall adjust the difference between transmission charges awarded vide order dated 19.8.2009 in Petition No. 84/2006 and the present order in one installment.

15. This order disposes of Petition No. 301/2010.

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

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

**Sd/-**  
**(Dr. Pramod Deo)**  
**Chairperson**



## CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ In lakh)

Details of Loan	2004-05	2005-06	2006-07	2007-08	2008-09
<b>1 Bond-I (Issue-I)</b>					
Gross Loan opening	7.00	7.00	7.00	7.00	7.00
Cumulative Repayment upto DOCO/previous year	7.00	7.00	7.00	7.00	7.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00
<b>2 Bond-I (Issue-II)</b>					
Gross Loan opening	6.00	6.00	6.00	6.00	6.00
Cumulative Repayment upto DOCO/previous year	6.00	6.00	6.00	6.00	6.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00
<b>3 Bond-I (Issue-III)</b>					
Gross Loan opening	14.00	14.00	14.00	14.00	14.00
Cumulative Repayment upto DOCO/previous year	14.00	14.00	14.00	14.00	14.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00





<b>4 Bond-II (Issue-I)</b>					
Gross Loan opening	26.00	26.00	26.00	26.00	26.00
Cumulative Repayment upto DOCO/previous year	26.00	26.00	26.00	26.00	26.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00
<b>5 Bond-II (Issue-II)</b>					
Gross Loan opening	2.00	2.00	2.00	2.00	2.00
Cumulative Repayment upto DOCO/previous year	2.00	2.00	2.00	2.00	2.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00
<b>6 Bond-III(Issue-I)</b>					
Gross Loan opening	2.00	2.00	2.00	2.00	2.00
Cumulative Repayment upto DOCO/previous year	2.00	2.00	2.00	2.00	2.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00
<b>7 Bond-III (Issue-II)</b>					
Gross Loan opening	13.00	13.00	13.00	13.00	13.00
Cumulative Repayment upto DOCO/previous year	13.00	13.00	13.00	13.00	13.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00



<b>8 UTI</b>					
Gross Loan opening	16.00	16.00	16.00	16.00	16.00
Cumulative Repayment upto DOCO/previous year	16.00	16.00	16.00	16.00	16.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest					
Interest	0.00	0.00	0.00	0.00	0.00
<b>9 LIC- III</b>					
Gross Loan opening	173.00	173.00	173.00	173.00	173.00
Cumulative Repayment upto DOCO/previous year	0.00	10.00	23.00	39.00	57.76
Net Loan-Opening	173.00	163.00	150.00	134.00	115.24
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	10.00	13.00	16.00	18.76	19.71
Net Loan-Closing	163.00	150.00	134.00	115.24	95.53
Average Loan	168.00	156.50	142.00	124.62	105.39
Rate of Interest	14.59%	14.59%	14.59%	12.07%	10.00%
Interest	24.51	22.83	20.72	15.04	10.54
<b>Total Loan</b>					
Gross Loan opening	259.00	259.00	259.00	259.00	259.00
Cumulative Repayment upto DOCO/previous year	86.00	96.00	109.00	125.00	143.76
Net Loan-Opening	173.00	163.00	150.00	134.00	115.24
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	10.00	13.00	16.00	18.76	19.71
Net Loan-Closing	163.00	150.00	134.00	115.24	95.53
Average Loan	168.00	156.50	142.00	124.62	105.39
Rate of Interest	14.59%	14.59%	14.59%	12.07%	10.00%
<b>Interest</b>	24.51	22.83	20.72	15.04	10.54

