

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 241/2010

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

Date of Hearing: 16.11.2010

Date of Order: 14.2.2011

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Term and Conditions of Tariff) Regulations, 2009 for determination of Transmission Tariff for transmission assets under "Kaiga 3 & 4 Transmission System" in the Southern Region for the period from 1.4.2009 to 31.3.2014.

And

In the matter of:

Power Grid Corporation of India Ltd, Gurgaon

Petitioner

Vs

1. Kerala State Electricity Board, Thiruvananthapuram
2. Tamil Nadu Electricity Board, Chennai
3. Electricity Department, Govt. of Pondicherry, Pondicherry
4. Electricity Department, Govt. of Goa, Panaji
5. Transmission Corporation of Andhra Pradesh Ltd. Hyderabad
6. Northern Power Distribution Company of Andhra Pradesh Ltd.,
7. Eastern Power Distribution Company of Andhra Pradesh Ltd., Visakhapatnam
8. Southern Power Distribution Company of Andhra Pradesh Ltd., Tirupati
9. Central Power Distribution Company of Andhra Pradesh Ltd., Hyderabad
10. Karnataka Power Transmission Corporation, Ltd. Bangalore
11. Bangalore Electricity Supply Company Ltd., Bangalore
12. Gulbarga Electricity Supply Company Ltd., Gulbarga
13. Hubli Electricity Supply Company Ltd., Hubli
14. Mangalore Electricity Supply Company Ltd., Mangalore
15. Chamundeswari Electricity Supply Company Ltd., Mysore

Respondents

The following were present:

1. Shri.U K Tyagi, PGCIL
2. Shri MM Mondal, PGCIL
3. Shri R Prasad, PGCIL
4. Shri R K Gupta, PGCIL



ORDER

This petition has been filed seeking approval of transmission tariff in respect of **Asset-I** consisting, (a) 50 MVAR Reactor at Narendra S/S, (b) Narendra-Devangiri 400 kV D/C T/L and 50 MVAR Bus Reactor at Mysore (c) LILO of Kolar-Sriperumbudur 400 kV S/C Line along with one 50 MVAR Reactor at Kalvindapattu; **Asset-II** consisting of. 2nd 315 MVA Auto Transformer at Hiriyur Sub-Station; and **Asset-III** consisting (a) 1st 315 MVA Auto Transformer at Kalvindapattu Sub-Station and (b) 2nd 315 MVA Auto Transformer at Kalvindapattu Sub-Station along with associated bays and Equipments (hereinafter collectively referred to as “the transmission assets”) under “Transmission System associated with Kaiga-3 & 4 (2x235 MW) Project” (hereinafter referred to as “the transmission system”) in Southern Region, for the period from 1.4.2009 to 31.3.2014, in accordance with 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 capital expenditure during 2009-12.
- (b) Invoke the provisions of Regulation 44 of the 2009 regulations (Power to relax) so that additional capitalization incurred/ to be incurred on account of undischarged liabilities after the cut-off date is allowed and considered for tariff fixation for the tariff period 2009-14.
- (c) Allow 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 customers on year to year basis.

(d) Allow the petitioner to recover, in the case of assets being combined to calculate the transmission charges, full depreciation of the assets during the useful life reckoning from the date of actual date of commercial operation.

(e) Allow the petitioner to bill and adjust impact on interest on loan due to change in interest rate on account of floating rate of interest, if any, during 2009-14.

(f) 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.

(g) Allow the petitioner to bill and recover Service Tax on Transmission charges separately from the respondents, if petitioner is subjected to such service tax.

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

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

2. Investment approval for the transmission system was accorded by Ministry of Power vide letter dated 29.3.2005 at an estimated cost of ₹ 58825 lakh including



interest during construction (IDC) of ₹ 3072 lakh. Subsequently, the approval of Revised Cost Estimate was accorded by the Board of Directors of the petitioner company vide its memorandum dated 29.12.2008 at an estimated cost of ₹.100716 lakh including IDC of ₹. 9503 lakh.

3. The Commission vide its order dated 20.7.2009 in Petition No. 5/2009, order dated 11.3.2010 in Petition No.180/2009 and order dated 13.5.2010 in Petition No. 290/2009 have admitted the total Capital Cost of ₹ 33857.63 lakh as on 31.3.2009 including Additional Capital Expenditure upto 31.3.2009.

4. The petitioner has claimed the following transmission charges:

(₹ in lakh)

Asset - I					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1432.21	1448.10	1449.42	1450.08	1450.08
Interest on Loan	1656.39	1543.45	1411.47	1277.39	1142.53
Return on equity	1447.51	1464.22	1465.53	1466.18	1466.18
Interest on Working Capital	124.00	124.02	123.10	122.22	121.40
O & M Expenses	588.96	622.70	658.34	695.98	735.70
Total	5249.07	5202.49	5107.86	5011.85	4915.89
Asset -II					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	131.01	133.00	134.20	134.20	134.20
Interest on Loan	148.65	138.87	128.02	115.55	103.07
Return on equity	131.06	133.03	134.23	134.23	134.23
Interest on Working Capital	16.69	17.03	17.35	17.60	17.89
O & M Expenses	162.44	171.74	181.57	191.94	202.92
Total	589.85	593.67	595.37	593.52	592.31
Asset III					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	216.25	219.64	221.76	221.76	221.76
Interest on Loan	249.32	233.00	214.90	194.03	173.17
Return on equity	214.96	218.32	220.43	220.43	220.43
Interest on Working Capital	30.43	31.17	31.86	32.46	33.13
O & M Expenses	324.88	343.48	363.14	383.88	405.84
Total	1035.84	1045.61	1052.09	1052.56	1054.33

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

(₹ in lakh)

Asset - I					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	88.34	93.40	98.75	104.40	110.36
O & M expenses	49.08	51.89	54.86	58.00	61.31
Receivables	874.85	867.08	851.31	835.31	819.32
Total	1012.27	1012.37	1004.92	997.71	990.99
Interest	124.00	124.02	123.10	122.22	121.40
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Asset -II					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	24.37	25.76	27.24	28.79	30.44
O & M expenses	13.54	14.31	15.13	16.00	16.91
Receivables	98.31	98.95	99.23	98.92	98.72
Total	136.22	139.02	141.60	143.71	146.07
Interest	16.69	17.03	17.35	17.60	17.89
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Asset - III					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M expenses	27.07	28.62	30.26	31.99	33.82
Receivables	172.64	174.27	175.35	175.43	175.72
Total	248.44	254.41	260.08	265.00	270.42
Interest	30.43	31.17	31.86	32.46	33.13
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 (TNEB), respondent No. 2 herein. No comments/submissions from the general public have been received in response to the public notice in the newspapers. TNEB has made the following submissions in its reply:

- (a) The petitioner's claim for estimated additional capital expenditure of ₹.80.27 lakh in respect of Kalivandapattu SS during 2010-11 and ₹. 25.00 lakh in respect of 400 kV Narendra-Devangere line on account of balance and retention payment beyond the cut-off date is not permissible under Regulation 9(2) of 2009 regulations and may be disallowed.

- (b) As regards the prayer for MAT rate as per the applicable Finance Act, the Commission has come out with draft amendment to the 2009 regulations and such regulations as and when amended may be made applicable in this case.
- (c) As regards the petitioner's prayer for adjusting the impact of floating rate of interest, it has been submitted that as there is no specific provision in the 2009 regulations in this regard, reimbursement, if any' may be allowed alongwith truing up of expenditure without any interest liability to the respondent.
- (d) As regards the reimbursement of service tax, it has been submitted that since transmission of electricity has been exempted from the purview of service tax, the petitioner's claim in this regard may be rejected.
- (e) As regards the petitioner's prayer for revision of norms for O&M expenditure due to impact of pay revision, it has been submitted that O & M expenses on account of pay revision has been fixed on normative basis during 2009-14 period and 2009 regulations do not provide for revisiting the normative O & M charges. Hence the petitioner's claim may be rejected.
- (f) Licence fee being a levy on the petitioner to be in transmission business, it should not be allowed over and above the O & M expenses.

7. The objections of the respondent have been dealt with in relevant paras of this order.

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

CAPITAL COST

9. As per the last proviso to clause (2) of Regulation 7 of the 2009 regulations, in case of the existing projects, 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. Details of the capital cost as on 31.3.2009 admitted by the Commission are as under:

Asset	Date of commercial operation	Admitted Cost as on 31.3.2009 (₹ in lakh)	Relevant order of the Commission
Asset-I (Notional Date of commercial operation: 1.6.2008)			
a) 50 MVAR Reactor at Narendra S/S	1.1.2008	2046.60	Order dated 13.5.2010 in Petition No. 290/2009
b) Narendra-Devangiri 400 kV D/C T/L and 50 MVAR Bus Reactor at Mysore	1.2.2008	17235.02	Order dated 13.5.2010 in Petition No. 290/2009
c) LILO of Kolar-Sriperumbudur 400 kV S/C Line along with one 50 MVAR Reactor at Kalvindapattu	1.6.2008	8016.55	Order dated 11.3.2010 in Petition No. 180/2009
Total		27298.17	
Asset-II (Actual Date of commercial operation: 1.4.2008)			
a) 2 nd 315 MVA Auto Transformer at Hiriyur S/S	1.4.2008	2484.45	Order dated 13.5.2010 in Petition No. 290/2009
Total		2484.45	
Asset-III (Notional Date of commercial operation: 1.7.2008)			
a) 1 st 315 MVA Auto Transformer at Kalvindapattu Sub-Station	1.6.2008	2664.53	Order dated 11.3.2010 in Petition No. 180/2009
b) 2 nd 315 MVA Auto Transformer at Kalvindapattu Sub-Station	1.7.2008	1410.48	Order dated 11.3.2010 in Petition No. 180/2009
Total		4075.01	
Grand Total		33857.63	

11. The above admitted capital cost has been considered as the opening capital cost as on 1.4.2009 for the purpose of determination of tariff.

ADDITIONAL CAPITAL EXPENDITURE

12. The petitioner has claimed the additional capital expenditure incurred/projected to be incurred during 2009-14 as under:

13. Details of the projected additional capital expenditure claimed by the petitioner are as under:

(₹ in lakh)

Assets	Expendiure from 1.4.2009 to 31.3.2010	Expendiure from 1.4.2010 to 31.3.2011	Expendiure from 1.4.2011 to 31.3.2012
Asset-I			
a) 50 MVAR Reactor at Narendra S/S	0.00	0.00	0.00
b) Narendra-Devangiri 400 kV D/C T/L and 50 MVAR Bus Reactor at Mysore	352.41	25.00	25.00
c) LILO of Kolar-Sriperumbudur 400 kV S/C line Along with one 50 MVAR Reactor at Kalvindapattu	259.87	0.00	0.00
Sub-Total	612.28	25.00	25.00
Asset-II			
a) 2nd 315 MVA Auto Transformer at Hiriyur S/S	29.38	45.66	0.00
Sub-Total	29.38	45.66	0.00
Asset-III			
a) 1st 315 MVA Auto Transformer at Kalvindapattu Sub Station	47.98	30.00	0.00
b) 2nd 315 MVA Auto Transformer at Kalvindapattu Sub Station	0.15	50.27	0.00
Sub-Total	48.13	80.27	0
Grand Total	689.79	150.93	25.00

14. The petitioner has submitted that a sum of ₹ 25 lakh is to be released during 2011-12 in respect of Asset – I. Apparently, the proposed payment is beyond the cut-off date which is 1.2.2008, in respect of 400 kV Narendra – Devangere D/C line and

50 MVAR Bus reactor at Mysore S/S. The petitioner has submitted that the above deferment of payment is attributable to contractual exigencies and other reasons beyond its control and has prayed that the Commission may invoke its powers under regulation 44 of the 2009 regulations and allow the above expenditure as part of the additional capital expenditure.

15. We have considered the issue in a number of petitions filed by the petitioner and have decided to allow the additional capital expenditure incurred after the cut-off date under Regulation 9(2) of 2009 regulations in exercise of our power of relaxation. In petition No.176/2010, the Commission has granted a general relaxation of Regulation 9(2) of 2009 regulations in order to allow the projected additional capital expenditure on account of balance and retention payments made after the cut-off date. Accordingly, capitalization of additional expenditure projected to be incurred during 2010-11 and 2011-12 to discharge the undischarged liability on account of balance/retention payment is allowed.

16. Accordingly, the additional capital expenditures claimed by the petitioner which has been extracted in para 13 above are allowed.

DEBT- EQUITY RATIO

17. 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.”

18. Details of debt-equity of the transmission assets as on 1.4.2009 as admitted by the Commission are given as under:

	Approved		Admitted as on 31.03.2009	
Asset-I				
	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	20728.40	0.00%	19109.56	70.00%
Equity	8883.60	0.00%	8188.61	30.00%
Total	29612.00	0.00%	27298.17	100.00%
Asset-II				
	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	2045.40	0.00%	1739.12	70.00%
Equity	876.60	0.00%	745.34	30.00%
Total	2922.00	0.00%	2484.46	100.00%
Asset- III				
	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	3419.50	0.00%	2852.56	70.00%
Equity	1465.50	0.00%	1222.45	30.00%
Total	4885.00	0.00%	4075.01	100.00%

19. Debt-equity details in respect of the additional capital expenditure are as follows:

	Approved		Admitted as on 31.3.2009	
Asset- I				
2009-10	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	0.00	0.00%	428.60	70.00%
Equity	0.00	0.00%	183.68	30.00%
Total	0.00	0.00%	612.28	100.00%
2010-11	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	0.00	0.00%	17.50	70.00%
Equity	0.00	0.00%	7.50	30.00%
Total	0.00	0.00%	25.00	100.00%
2011-12	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	0.00	0.00%	17.50	70.00%
Equity	0.00	0.00%	7.50	30.00%
Total	0.00	0.00%	25.00	100.00%
Asset-II				
2009-10	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	0.00	0.00%	20.57	70.01%
Equity	0.00	0.00%	8.81	29.99%
Total	0.00	0.00%	29.38	100.00%
2010-11	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	0.00	0.00%	31.96	70.00%
Equity	0.00	0.00%	13.70	30.00%
Total	0.00	0.00%	45.66	100.00%

Asset- III				
2009-10	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	0.00	0.00%	33.69	70.00%
Equity	0.00	0.00%	14.44	30.00%
Total	0.00	0.00%	48.13	100.00%
2010-11	Amount (Rs. Lakh)	%	Amount (Rs. Lakh)	%
Debt	0.00	0.00%	56.19	70.00%
Equity	0.00	0.00%	24.08	30.00%
Total	0.00	0.00%	80.27	100.00%

20. As the above details are in conformity with the provisions of the 2009 regulations, the same are accordingly being used in these calculations. The equity base for the purpose of computation of tariff in respect of the transmission assets is under:

(₹ in lakh)

Description	Equity on 1.4.2009	Notional equity due to ACE for the period 2009-10	Total equity considered for tariff calculations for the period 2009-10*	Notional equity due to ACE for the period 2010-11	Total equity considered for tariff calculations for the period 2010-11*	Notional equity due to ACE for the period 2011-12	Total equity considered for tariff calculations for the period 2011-12*	Notional equity due to ACE for the period 2012-13	Total equity considered for tariff calculations for the period 2012-14*
Asset-I	8188.61	183.68	8280.45	7.50	8376.05	7.50	8383.55	0.00	8387.30
Asset-II	745.34	8.81	749.74	13.70	761.00	0.00	767.85	0.00	767.85
Asset-III	1222.45	14.44	1229.67	24.08	1248.93	0.00	1260.97	0.00	1260.97

RETURN ON EQUITY

21. 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 tried 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:

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

Where *t* is the applicable tax rate in accordance with clause (3) of this regulation.

.....”

22. The petitioner has also prayed that it may be allowed the 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 with long term customers on year to year basis. TNEB has submitted that the Commission has come out with a draft amendment to 2009 regulations and the regulation as and when amended may be made applicable in this case. We are in agreement with the submissions of TNEB. The Commission after taking note of the problem being faced by the petitioner has proposed amendment to Regulation 15(3) of 2009 regulations and after issue of the amendment, the applicable tax rates as per the relevant Finance Act will be considered for grossing up of the base rate of return.

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

(₹ in lakh)

Asset - I						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	8188.61					
Addition due to Additional Capitalisation	0.00					
Opening Equity	8188.61	8188.61	8372.30	8379.80	8387.30	8387.30
Addition due to Additional Capitalisation		183.68	7.50	7.50	0.00	0.00
Closing Equity		8372.30	8379.80	8387.30	8387.30	8387.30
Average Equity		8280.45	8376.05	8383.55	8387.30	8387.30
Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)		11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	11.33%	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)		1447.51	1464.22	1465.53	1466.18	1466.18

(₹ in lakh)

Asset –II						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	745.34					
Addition due to Additional Capitalisation	0.00					
Opening Equity	745.34	745.34	754.15	767.85	767.85	767.85
Addition due to Additional Capitalisation		8.81	13.70	0.00	0.00	0.00
Closing Equity		754.15	767.85	767.85	767.85	767.85
Average Equity		749.74	761.00	767.85	767.85	767.85
Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)		11.33%	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)		17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)		131.06	133.03	134.23	134.23	134.23
Asset – III						
Gross Notional Equity	1222.45					
Addition due to Additional Capitalisation	0.00					
Opening Equity	1222.45	1222.45	1236.89	1260.97	1260.97	1260.97
Addition due to Additional Capitalisation		14.44	24.08	0.00	0.00	0.00
Closing Equity		1236.89	1260.97	1260.97	1260.97	1260.97
Average Equity		1229.67	1248.93	1260.97	1260.97	1260.97
Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)		11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	11.33%	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)		214.96	218.32	220.43	220.43	220.43

INTEREST ON LOAN

24. 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.”

25. 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) 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 132/2010, the same has been adopted in the instant petition. Accordingly, the interest on Loan has been calculated on the basis of rate prevailing as on 01.04.2009. Any change in rate of Interest subsequent to 1.4.2009 will be considered at the time of truing up.

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

(₹ in lakh)

Asset – I						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	19109.56					
Addition due to Additional Capitalisation	0.00					
Gross Normative Loan	19109.56	19109.56	19538.15	19555.65	19573.15	19573.15
Cumulative Repayment upto Previous Year		795.82	2228.04	3676.14	5125.56	6575.65
Net Loan-Opening		18313.73	17310.12	15879.51	14447.59	12997.51
Addition due to Additional Capitalisation		428.60	17.50	17.50	0.00	0.00
Repayment during the year		1432.21	1448.10	1449.42	1450.08	1450.08
Net Loan-Closing		17310.12	15879.51	14447.59	12997.51	11547.42
Average Loan		17811.93	16594.82	15163.55	13722.55	12272.47
Weighted Average Rate of Interest on Loan		9.2993%	9.3008%	9.3083%	9.3087%	9.3097%
Interest		1656.39	1543.45	1411.46	1277.39	1142.53
Asset – II						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	1739.12					
Addition due to Additional Capitalisation	0.00					
Gross Normative Loan	1739.12	1739.12	1759.68	1791.64	1791.64	1791.64
Cumulative Repayment upto Previous Year		84.52	215.54	348.54	482.74	616.94
Net Loan-Opening		1654.59	1544.14	1443.11	1308.91	1174.71
Addition due to Additional Capitalisation		20.57	31.96	0.00	0.00	0.00
Repayment during the year		131.01	133.00	134.20	134.20	134.20
Net Loan-Closing		1544.14	1443.11	1308.91	1174.71	1040.50
Average Loan		1599.37	1493.62	1376.01	1241.81	1107.60
Weighted Average Rate of Interest on Loan		9.2945%	9.2975%	9.3040%	9.3047%	9.3058%
Interest		148.65	138.87	128.02	115.55	103.07
Asset – III						
		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan	2852.56					
Addition due to Additional Capitalisation	0.00					
Gross Normative Loan	2852.56	2852.56	2886.25	2942.44	2942.44	2942.44
Cumulative Repayment upto Previous Year		109.90	326.15	545.79	767.56	989.32
Net Loan-Opening		2742.67	2560.10	2396.65	2174.89	1953.12
Addition due to Additional Capitalisation		33.69	56.19	0.00	0.00	0.00
Repayment during the year		216.25	219.64	221.76	221.76	221.76
Net Loan-Closing		2560.10	2396.65	2174.89	1953.12	1731.36
Average Loan		2651.38	2478.38	2285.77	2064.00	1842.24
Weighted Average Rate of Interest on Loan		9.4035%	9.4013%	9.4015%	9.4004%	9.4001%
Interest		249.32	233.00	214.90	194.02	173.17



DEPRECIATION

27. 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.....t

(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.”

28. The transmission assets were put on commercial operation on or after 1.4.2008 only. Accordingly, they 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.

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

(₹ in lakh)

Asset – I						
		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.1884%	5.1861%	5.1862%	5.1862%	5.1862%
Depreciable Value of Combined Assets	90%	24519.03	24805.81	24828.31	24839.56	24839.56
Remaining Depreciable Value		23723.21	22577.77	21152.17	19714.00	18263.91
Depreciation		1432.21	1448.10	1449.42	1450.08	1450.08
Asset – II						
		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.2424%	5.2430%	5.2433%	5.2433%	5.2433%
Depreciable Value of Combined Assets	90%	2249.23	2282.99	2303.54	2303.54	2303.54
Remaining Depreciable Value		2164.70	2067.45	1955.01	1820.80	1686.60
Depreciation		131.01	133.00	134.20	134.20	134.20
Asset – III						
		2009-10	2010-11	2011-12	2012-13	2013-14
Rate of Depreciation		5.2757%	5.2757%	5.2758%	5.2758%	5.2758%
Depreciable Value of Combined Assets	90%	3689.17	3746.95	3783.07	3783.07	3783.07
Remaining Depreciable Value		3579.27	3420.80	3237.27	3015.51	2793.75
Depreciation		216.25	219.64	221.76	221.76	221.76

OPERATION & MAINTENANCE EXPENSES

30. Clause (g) of Regulation 19 the 2009 regulations specifies 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.

INTEREST ON WORKING CAPITAL

31. 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.

(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 1 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 @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

32. Necessary computations in support of interest on working capital are as under:

(` in lakh)

Asset – I					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	88.34	93.41	98.75	104.40	110.36
O & M expenses	49.08	51.89	54.86	58.00	61.31
Receivables	874.85	867.08	851.31	835.31	819.32
Total	1,012.27	1,012.38	1,004.92	997.70	990.98
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	124.00	124.02	123.10	122.22	121.39

Asset –I					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	24.37	25.76	27.24	28.79	30.44
O & M expenses	13.54	14.31	15.13	16.00	16.91
Receivables	98.31	98.94	99.23	98.92	98.72
Total	136.21	139.02	141.59	143.71	146.07
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	16.69	17.03	17.35	17.60	17.89
Asset –II					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M expenses	27.07	28.62	30.26	31.99	33.82
Receivables	172.64	174.27	175.35	175.43	175.72
Total	248.45	254.41	260.08	265.00	270.42
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	30.43	31.17	31.86	32.46	33.13

TRANSMISSION CHARGES

33. The transmission charges being allowed for the transmission assets are summarized below:

(₹ in lakh)

Asset –I					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1432.21	1448.10	1449.42	1450.08	1450.08
Interest on Loan	1656.39	1543.45	1411.46	1277.39	1142.53
Return on equity	1447.51	1464.22	1465.53	1466.18	1466.18
Interest on Working Capital	124.00	124.02	123.10	122.22	121.39
O & M Expenses	588.96	622.70	658.34	695.98	735.70
Total	5249.08	5202.49	5107.86	5011.85	4915.89
Asset –II					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	131.01	133.00	134.20	134.20	134.20
Interest on Loan	148.65	138.87	128.02	115.55	103.07
Return on equity	131.06	133.03	134.23	134.23	134.23
Interest on Working Capital	16.69	17.03	17.35	17.60	17.89
O & M Expenses	162.44	171.74	181.57	191.94	202.92
Total	589.86	593.67	595.37	593.52	592.31
Asset –II					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	216.25	219.64	221.76	221.76	221.76
Interest on Loan	249.32	233.00	214.90	194.02	173.17
Return on equity	214.96	218.32	220.43	220.43	220.43
Interest on Working Capital	30.43	31.17	31.86	32.46	33.13
O & M Expenses	324.88	343.48	363.14	383.88	405.84
Total	1035.85	1045.61	1052.09	1052.56	1054.33

Application fee and the publication expenses

34. 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 on pro-rata basis. The petitioner shall also be eligible for reimbursement of expenses on account of publication of notices in newspapers by the beneficiaries on pro-rata basis.

Service Tax

35. The petitioner has made a specific prayer to be allowed to bill and recover the Service tax on Transmission charges from the respondents if at any time exemption from service tax is withdrawn and transmission is notified as a taxable service. The prayer of the petitioner is premature and is accordingly rejected.

Licence Fees

36. As regards the reimbursement of licence fee, a view is yet to be taken by the Commission in the matter.

37. 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.

38. This order disposes of Petition No. 241/2010.

Sd/-
(V.S.Verma)
Member

Sd/-
(S.Jayaraman)
Member

Sd/-
(Dr. Pramod Deo)
Chairperson



ANNEXURE

Name of the Tr. System:		Asset-1 : Combined assets if (a) Reactor at Narendra, (b) Narendra-Davengiri Line, (c) LILO of Kolar-Sripurmbudur				
Notional DOCO:		01.06.2008				
Petition No.:		241/2010				
Tarrif setting Period:		2009-14				
CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN						
(Rs. in Lacs)						
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond XXI					
	Gross loan opening	2000.00	2000.00	2000.00	2000.00	2000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	166.67	333.33	500.00
	Net Loan-Opening	2000.00	2000.00	1833.33	1666.67	1500.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	166.67	166.67	166.67	166.67
	Net Loan-Closing	2000.00	1833.33	1666.67	1500.00	1333.33
	Average Loan	2000.00	1916.67	1750.00	1583.33	1416.67
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	174.60	167.33	152.78	138.23	123.68
	Rep Schedule	12 Annual instalments from 11-10-2010				
2	Bond XXII					
	Gross loan opening	5760.00	5760.00	5760.00	5760.00	5760.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	480.00	960.00	1440.00
	Net Loan-Opening	5760.00	5760.00	5280.00	4800.00	4320.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	480.00	480.00	480.00	480.00
	Net Loan-Closing	5760.00	5280.00	4800.00	4320.00	3840.00
	Average Loan	5760.00	5520.00	5040.00	4560.00	4080.00
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	499.97	479.14	437.47	395.81	354.14
	Rep Schedule	12 Annual instalments from 07-12-2010				
3	Bond XIX					
	Gross loan opening	400.00	400.00	400.00	400.00	400.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	33.33	66.67	100.00
	Net Loan-Opening	400.00	400.00	366.67	333.33	300.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	33.33	33.33	33.33	33.33
	Net Loan-Closing	400.00	366.67	333.33	300.00	266.67
	Average Loan	400.00	383.33	350.00	316.67	283.33



	Rate of Interest	9.25%	9.25%	9.25%	9.25%
	Interest	37.00	35.46	32.38	29.29
	Rep Schedule	12 Annual instalments from 24.07.2010			
4	Bond XX				
	Gross loan opening	1260.00	1260.00	1260.00	1260.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	105.00	210.00
	Net Loan-Opening	1260.00	1260.00	1155.00	1050.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	105.00	105.00	105.00
	Net Loan-Closing	1260.00	1155.00	1050.00	945.00
	Average Loan	1260.00	1207.50	1102.50	997.50
	Rate of Interest	8.93%	8.93%	8.93%	8.93%
	Interest	112.52	107.83	98.45	89.08
	Rep Schedule	12 Annual instalments from 07.09.2010			
5	Bond XXIV				
	Gross loan opening	2990.00	2990.00	2990.00	2990.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	249.17	498.33
	Net Loan-Opening	2990.00	2990.00	2740.83	2491.67
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	249.17	249.17	249.17
	Net Loan-Closing	2990.00	2740.83	2491.67	2242.50
	Average Loan	2990.00	2865.42	2616.25	2367.08
	Rate of Interest	9.95%	9.95%	9.95%	9.95%
	Interest	297.51	285.11	260.32	235.52
	Rep Schedule	12 Annual instalments from 26-03-2011			
6	Bond XXV				
	Gross loan opening	4127.00	4127.00	4127.00	4127.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	343.92
	Net Loan-Opening	4127.00	4127.00	4127.00	3783.08
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	343.92	343.92
	Net Loan-Closing	4127.00	4127.00	3783.08	3439.17
	Average Loan	4127.00	4127.00	3955.04	3611.13
	Rate of Interest	10.10%	10.10%	10.10%	10.10%
	Interest	416.83	416.83	399.46	364.72
	Rep Schedule	12 Annual instalments from 12-6-2011			
7	Bond XXVI				
	Gross loan opening	1303.00	1303.00	1303.00	1303.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	108.58
	Net Loan-Opening	1303.00	1303.00	1303.00	1194.42



	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	108.58	108.58	108.58
	Net Loan-Closing	1303.00	1303.00	1194.42	1085.83	977.25
	Average Loan	1303.00	1303.00	1248.71	1140.13	1031.54
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	121.18	121.18	116.13	106.03	95.93
	Rep Schedule	12 Annual instalments from 07.03.2012				
8	Bond XXVIII					
	Gross loan opening	1554.88	1554.88	1554.88	1554.88	1554.88
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	129.57
	Net Loan-Opening	1554.88	1554.88	1554.88	1554.88	1425.31
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	129.57	129.57
	Net Loan-Closing	1554.88	1554.88	1554.88	1425.31	1295.73
	Average Loan	1554.88	1554.88	1554.88	1490.09	1360.52
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	145.07	145.07	145.07	139.03	126.94
	Rep Schedule	12 Annual instalments from 15.12.2012				
9	Bond XXX (AddCap for 2009-10 Drawl 31.03.2010)					
	Gross loan opening	0.00	428.60	428.60	428.60	428.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	428.60	428.60	428.60	428.60
	Additions during the year	428.60	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	35.72
	Net Loan-Closing	428.60	428.60	428.60	428.60	392.88
	Average Loan	214.30	428.60	428.60	428.60	410.74
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	18.86	37.72	37.72	37.72	36.15
	Rep Schedule	12 Annual instalments from 29.09.2013				
	Total Loan					
	Gross loan opening	19394.88	19823.48	19823.48	19823.48	19823.48
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1034.17	2520.83	4137.07
	Net Loan-Opening	19394.88	19823.48	18789.31	17302.65	15686.41
	Additions during the year	428.60	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1034.17	1486.67	1616.24	1651.96
	Net Loan-Closing	19823.48	18789.31	17302.65	15686.41	14034.45
	Average Loan	19609.18	19306.40	18045.98	16494.53	14860.43
	Weighted Average Rate of Interest	9.2993%	9.3008%	9.3083%	9.3087%	9.3097%
	Interest	1823.53	1795.65	1679.77	1535.42	1383.46

Name of the Tr. System:	Asset-2: 2nd 315 MVA Auto Transformer at Hiriyr Sub-Station
Actual DOCO:	01.04.2008
Petition No.:	241/2010
Tarrif setting Period:	2009-14

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(Rs. in Lacs)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond-XIX					
	Gross loan opening	50.00	50.00	50.00	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	4.17	8.33	12.50
	Net Loan-Opening	50.00	50.00	45.83	41.67	37.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	4.17	4.17	4.17	4.17
	Net Loan-Closing	50.00	45.83	41.67	37.50	33.33
	Average Loan	50.00	47.92	43.75	39.58	35.42
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	4.63	4.43	4.05	3.66	3.28
	Rep Schedule	12 Annual instalments from 24.07.2010				
2	Bond-XX					
	Gross loan opening	200.00	200.00	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.67	33.33	50.00
	Net Loan-Opening	200.00	200.00	183.33	166.67	150.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	16.67	16.67	16.67	16.67
	Net Loan-Closing	200.00	183.33	166.67	150.00	133.33
	Average Loan	200.00	191.67	175.00	158.33	141.67
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%
	Interest	17.86	17.12	15.63	14.14	12.65
	Rep Schedule	12 Annual instalments from 07.09.2010				
3	Bond-XXI					
	Gross loan opening	200.00	200.00	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.67	33.33	50.00
	Net Loan-Opening	200.00	200.00	183.33	166.67	150.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	16.67	16.67	16.67	16.67
	Net Loan-Closing	200.00	183.33	166.67	150.00	133.33



	Average Loan	200.00	191.67	175.00	158.33	141.67
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	17.46	16.73	15.28	13.82	12.37
	Rep Schedule	12 Annual instalments from 11.10.2010				
4	Bond-XXII					
	Gross loan opening	200.00	200.00	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.67	33.33	50.00
	Net Loan-Opening	200.00	200.00	183.33	166.67	150.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	16.67	16.67	16.67	16.67
	Net Loan-Closing	200.00	183.33	166.67	150.00	133.33
	Average Loan	200.00	191.67	175.00	158.33	141.67
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	17.36	16.64	15.19	13.74	12.30
	Rep Schedule	12 Annual instalments from 07.12.2010				
5	Bond- XXIV					
	Gross loan opening	100.00	100.00	100.00	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	8.33	16.67	25.00
	Net Loan-Opening	100.00	100.00	91.67	83.33	75.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	8.33	8.33	8.33	8.33
	Net Loan-Closing	100.00	91.67	83.33	75.00	66.67
	Average Loan	100.00	95.83	87.50	79.17	70.83
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	9.95	9.54	8.71	7.88	7.05
	Rep Schedule	12 Annual instalments from 26-03-2011				
6	Bond- XXV					
	Gross loan opening	300.00	300.00	300.00	300.00	300.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	25.00	50.00
	Net Loan-Opening	300.00	300.00	300.00	275.00	250.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	25.00	25.00	25.00
	Net Loan-Closing	300.00	300.00	275.00	250.00	225.00
	Average Loan	300.00	300.00	287.50	262.50	237.50
	Rate of Interest	10.10%	10.10%	10.10%	10.10%	10.10%
	Interest	30.30	30.30	29.04	26.51	23.99
	Rep Schedule	12 Annual instalments from 12-06-2011				
7	Bond- XXVI					
	Gross loan opening	519.00	519.00	519.00	519.00	519.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	43.25	86.50
	Net Loan-Opening	519.00	519.00	519.00	475.75	432.50



	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	43.25	43.25	43.25
	Net Loan-Closing	519.00	519.00	475.75	432.50	389.25
	Average Loan	519.00	519.00	497.38	454.13	410.88
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	48.27	48.27	46.26	42.23	38.21
	Rep Schedule	12 Annual instalments from 07-03-2012				
8	Bond- XXVIII					
	Gross loan opening	169.95	169.95	169.95	169.95	169.95
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	14.16
	Net Loan-Opening	169.95	169.95	169.95	169.95	155.79
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	14.16	14.16
	Net Loan-Closing	169.95	169.95	169.95	155.79	141.63
	Average Loan	169.95	169.95	169.95	162.87	148.71
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	15.86	15.86	15.86	15.20	13.87
	Rep Schedule	12 Annual instalments from 15.12.2012				
9	Bond XXX (AddCap for 2009-10 Drawl on 31.03.2010)					
	Gross loan opening	0.00	20.57	20.57	20.57	20.57
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	20.57	20.57	20.57	20.57
	Additions during the year	20.57	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	1.71
	Net Loan-Closing	20.57	20.57	20.57	20.57	18.86
	Average Loan	10.29	20.57	20.57	20.57	19.71
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	0.91	1.81	1.81	1.81	1.73
	Rep Schedule	12 Annual instalments from 29.09.2013				
	Total Loan					
	Gross loan opening	1738.95	1759.52	1759.52	1759.52	1759.52
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	62.50	193.25	338.16
	Net Loan-Opening	1738.95	1759.52	1697.02	1566.27	1421.36
	Additions during the year	20.57	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	62.50	130.75	144.91	146.63
	Net Loan-Closing	1759.52	1697.02	1566.27	1421.36	1274.73
	Average Loan	1749.24	1728.27	1631.65	1493.81	1348.04
	Rate of Interest	9.2945%	9.2975%	9.3040%	9.3047%	9.3058%
	Interest	162.58	160.69	151.81	139.00	125.45

Name of the Company:	PGCIL
Name of the Tr. System:	Asset-3 : Combined asset of ICT-I & ICT-II Auto Transformer at Kalvindapattu
Notional DOCO:	01.07.2008
Petition No.:	241/2010
Tarrif setting Period:	2009-14

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(Rs. in Lacs)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond XXI					
	Gross loan opening	50.00	50.00	50.00	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	4.17	8.33	12.50
	Net Loan-Opening	50.00	50.00	45.83	41.67	37.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	4.17	4.17	4.17	4.17
	Net Loan-Closing	50.00	45.83	41.67	37.50	33.33
	Average Loan	50.00	47.92	43.75	39.58	35.42
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	4.37	4.18	3.82	3.46	3.09
	Rep Schedule	12 Annual instalments from 11-10-2010				
2	Bond XXII					
	Gross loan opening	200.00	200.00	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.67	33.33	50.00
	Net Loan-Opening	200.00	200.00	183.33	166.67	150.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	16.67	16.67	16.67	16.67
	Net Loan-Closing	200.00	183.33	166.67	150.00	133.33
	Average Loan	200.00	191.67	175.00	158.33	141.67
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	17.36	16.64	15.19	13.74	12.30
	Rep Schedule	12 Annual instalments from 07-12-2010				
3	Bond XX					
	Gross loan opening	20.00	20.00	20.00	20.00	20.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1.67	3.33	5.00
	Net Loan-Opening	20.00	20.00	18.33	16.67	15.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1.67	1.67	1.67	1.67
	Net Loan-Closing	20.00	18.33	16.67	15.00	13.33
	Average Loan	20.00	19.17	17.50	15.83	14.17
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%
	Interest	1.79	1.71	1.56	1.41	1.27



	Rep Schedule	12 Annual instalments from 07.09.2010				
4	Bond XXIV					
	Gross loan opening	200.00	200.00	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.67	33.33	50.00
	Net Loan-Opening	200.00	200.00	183.33	166.67	150.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	16.67	16.67	16.67	16.67
	Net Loan-Closing	200.00	183.33	166.67	150.00	133.33
	Average Loan	200.00	191.67	175.00	158.33	141.67
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	19.90	19.07	17.41	15.75	14.10
	Rep Schedule	12 Annual instalments from 26-03-2011				
5	Bond XXV					
	Gross loan opening	420.00	420.00	420.00	420.00	420.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	35.00	70.00
	Net Loan-Opening	420.00	420.00	420.00	385.00	350.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	35.00	35.00	35.00
	Net Loan-Closing	420.00	420.00	385.00	350.00	315.00
	Average Loan	420.00	420.00	402.50	367.50	332.50
	Rate of Interest	10.10%	10.10%	10.10%	10.10%	10.10%
	Interest	42.42	42.42	40.65	37.12	33.58
	Rep Schedule	12 Annual instalments from 12-6-2011				
6	Bond XXVI					
	Gross loan opening	1555.00	1555.00	1555.00	1555.00	1555.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	129.58	259.17
	Net Loan-Opening	1555.00	1555.00	1555.00	1425.42	1295.83
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	129.58	129.58	129.58
	Net Loan-Closing	1555.00	1555.00	1425.42	1295.83	1166.25
	Average Loan	1555.00	1555.00	1490.21	1360.63	1231.04
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	144.62	144.62	138.59	126.54	114.49
	Rep Schedule	12 Annual instalments from 07.03.2012				
7	Bond XXVIII					
	Gross loan opening	582.05	582.05	582.05	582.05	582.05
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	48.50
	Net Loan-Opening	582.05	582.05	582.05	582.05	533.55
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	48.50	48.50
	Net Loan-Closing	582.05	582.05	582.05	533.55	485.04



	Average Loan	582.05	582.05	582.05	557.80	509.29
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	54.31	54.31	54.31	52.04	47.52
	Rep Schedule	12 Annual instalments from 15.12.2012				
8	Bond XXX (AddCap for 2009-10 Drawl 31.03.2010)					
	Gross loan opening	0.00	33.69	33.69	33.69	33.69
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	33.69	33.69	33.69	33.69
	Additions during the year	33.69	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	2.81
	Net Loan-Closing	33.69	33.69	33.69	33.69	30.88
	Average Loan	16.85	33.69	33.69	33.69	32.29
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	1.48	2.96	2.96	2.96	2.84
	Rep Schedule	12 Annual instalments from 29.09.2013				
	Total Loan					
	Gross loan opening	3027.05	3060.74	3060.74	3060.74	3060.74
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	39.17	242.92	495.17
	Net Loan-Opening	3027.05	3060.74	3021.57	2817.82	2565.57
	Additions during the year	33.69	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	39.17	203.75	252.25	255.06
	Net Loan-Closing	3060.74	3021.57	2817.82	2565.57	2310.51
	Average Loan	3043.90	3041.16	2919.70	2691.70	2438.04
	Weighted Average Rate of Interest	9.4035%	9.4013%	9.4015%	9.4004%	9.4001%
	Interest	286.23	285.91	274.50	253.03	229.18

