CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Coram:

- 1. Dr. Pramod Deo, Chairperson
- 2. Shri R.Krishnamoorthy, Member
- 3. Shri S.Jayaraman, Member

Petition No. 125/2008

In the matter of

Determination of final transmission tariff for (a) 80 MVAR Reactor at Nellore (b) 315 MVA ICT at Cuddapah (c) 315 MVA ICT at Gooty, 3x167 MVA ICT at Kolar and provision of switching arrangement for existing reactor at Somanhalli (d) 315 MVA ICT at Guzuwaka (e) 315 MVA ICT at Munirabad and (f) 315 ICT at Khammam including tariff on additional capital expenditure from the date of commercial operation to 31.3.2008 for all the above assets except ICT at Khammam under system strengthening-V of Southern Region Grid from the date of commercial operation to 31.3.2009 in Southern Region.

And in the matter of

Power Grid Corporation of India Limited, Gurgaon

..Petitioner

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- 1. Karnataka Power Transmission Corporation Ltd., Bangalore
- 2. Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
- 3. Kerala State Electricity Board, Thiruvanathapuram
- 4. Tamil Nadu Electricity Board, Chennai
- 5. Electricity Department, Govt. of Pondicherry, PondicherryRespondents

The following were present:

- 1. Shri U.K.Tyaqi, PGCIL
- 2. Shri V.V.Sharma, PGCIL
- 3. Shri A.K.Nagpal, PGCIL
- 4. Shri B.C.Pant, PGCIL
- 5. Shri Harmeet Singh, PGCIL
- 6. Shri Mohd. Mohsin, PGCIL
- 7. Shri M.G.Ramachandran, Advocate, PGCIL

ORDER (DATE OF HEARING: 17.2.2009)

This petition has been filed for approval of transmission charges for (a) 80 MVAR Reactor at Nellore (Asset-I), (b) 315 MVA ICT at Cuddapah (Asset-II), (c) 315 MVA ICT at Gooty, 3 x167 MVA ICT at Kolar and provision of switching arrangement for existing reactor at Somanhalli (Asset-III), (d) 315 MVA ICT at Gazuwaka (Asset-IV), (e) 315 MVA ICT at Munirabad (Asset-V) and (f) 315 MVA ICT at Khammam

(Asset-VI) (collectively "the transmission assets") under the System Strengthening Scheme-V of Southern Region grid (the transmission scheme) from the date of commercial operation of the respective transmission asset 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") after accounting for additional capitalization during 2007-08. The petitioner has also prayed for reimbursement of expenditure from the beneficiaries incurred towards publishing of notices in newspapers and the petition filing fee.

- 2. The investment approval for the transmission scheme was accorded by Board of Directors of the petitioner company vide memorandum dated 13.7.2004 at an estimated cost of Rs. 9212 lakh, which includes IDC of Rs. 482 lakh. Subsequently, revised cost estimate for the transmission scheme was approved by Board of Directors vide memorandum dated 21.10.2008 at an estimated cost of Rs. 13180 lakh which included an IDC of Rs. 268 lakh.
- 3. The provisional transmission charges for transmission assets covered under the transmission scheme were approved by the Commission in its order dated 13.3.2008 in Petition No.7/2008. The dates of commercial operation of the transmission assets as indicated by the petitioner are as under:

S. No.	Name of the assets	Date of commercial operation
1.	Asset-I	1.7.2007
2.	Asset-II	1.8.2007
3.	Asset-III	1.9.2007
4.	Asset-IV	1.10.2007
5.	Asset-V	1.11.2007
6.	Asset-VI	1.2.2008

4. The details of the apportioned approved cost, the estimated completion cost, etc. of the transmission assets noted at para 1 above are as under:

(Rs. in lakh)

					/-	(Or 111 Tartif)
Name of	Apportioned	Capital	Capital	Capital	Balance	Total
the assets	approved	expenditure on	Expenditure	Expenditure	Expenditure	estimated
	cost	the date of	from the date of	on 31.3.2008		completion
		commercial	commercial			cost
		operation	operation to			
			31.3.2008			
Asset- I	815.68	903.16	58.86	962.02	246.28	1208.30
Asset-II	1074.94	1296.02	134.58	1430.60	303.61	1734.21
Asset-III	3471.65	3947.23	105.22	4052.45	847.05	4899.50
Asset- IV	1244.89	1173.76	204.96	1378.72	313.90	1692.62
Asset-V	1559.29	1696.70	119.35	1816.05	413.85	2229.90
Asset-VI	1045.47	1258.29	0.00	1258.29	281.83	1540.12
Total	9211.92	10275.16	622.97	10898.13	2406.52	13304.65

5. The petitioner has claimed the transmission charges as under:

(Rs. in lakh)

	Asset	t-l	Asset-II		Asset	Asset-III		t-IV	Asset	t-V	Asset-\	/I
	2007-	2008-	2007-	2008-	2007-	2008-	2007-	2008-	2007-	2008-	2007-08	2008-
	08	09	08	09	08	09	08	09	08	09		09
Depreciation	25.18	34.63	32.72	51.50	84.34	146.48	22.97	49.63	26.35	65.38	7.55	45.30
Interest on Loan	43.87	57.64	59.35	89.49	138.72	249.79	37.01	84.84	42.11	112.42	12.57	78.97
Return on Equity	29.40	40.43	38.19	60.12	98.00	170.21	26.78	57.85	30.78	76.37	8.83	52.96
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.64	4.97	5.11	7.93	13.61	24.12	3.53	7.58	4.60	11.59	1.20	7.34
O & M Expenses	23.72	32.90	42.17	65.80	129.16	230.30	31.63	65.80	52.72	131.60	10.54	65.80
Total	125.81	170.57	177.55	274.84	463.82	820.89	121.91	265.71	156.55	397.36	40.69	250.37

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

(Rs.in lakh)

	Asset-I		Asset-II		Asset-III		Asset	-IV	Asset	t-V Asset-\		-VI
	2007- 08	2008- 09	2007- 08	2008- 09	2007-08	2008-09	2007- 08	2008- 09	2007- 08	2008- 09	2007- 08	2008- 09
Maintenance Spares	9.03	9.44	12.96	13.48	39.47	40.85	11.74	12.09	16.97	17.39	12.58	12.71
O & M expenses	2.64	2.74	5.27	5.48	18.45	19.19	5.27	5.48	10.54	10.97	5.27	5.48
Receivables	27.96	28.43	44.39	45.81	132.52	136.82	40.64	44.28	62.62	66.23	40.69	41.73
Total	39.62	40.61	62.62	64.77	190.44	196.86	57.65	61.86	90.13	94.58	58.54	59.92
Rate of Interest	12.25 %	12.25 %	12.25 %	12.25 %	12.25%	12.25%	12.25 %	12.25 %	12.25 %	12.25 %	12.25 %	12.25 %
Interest	3.64	4.97	5.11	7.93	13.61	24.12	3.53	7.58	4.60	11.59	1.20	7.34

7. The petition was heard after notice to the parties. None of the respondents has filed any reply. In response to the public notices published by the petitioner in accordance with the procedure specified by the Commission, no comments have been received from the general public.

CAPITAL COST

- 8. As per clause (1) of Regulation 52 of the 2004 regulations, subject to prudence check, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalised initial spares subject to a ceiling norm as 1.5% of original project cost. The regulation is applicable in case of the transmission system declared under commercial operation on or after 1.4.2004.
- 9. The petitioner has claimed tariff after accounting for additional capitalization in respect of transmission assets up to 31.3.2008 as given in the table below para 4 above.

ADDITIONAL CAPITALIZATION 2007-08

- 10. Clause (1) of Regulation 53 of the 2004 regulations provides-
 - "(1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:
 - (i) Deferred liabilities;
 - (ii) Works deferred for execution;
 - (iii) Procurement of initial capital spares in the original scope of works subject to the ceiling norm specified in regulation 52;
 - (iv) Liabilities to meet award of arbitration or compliance of the order or decree of a court; and
 - (v) On account of change in law:

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff:

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the transmission system."

11. The additional capital expenditure claimed for the transmission assets is within the original scope of work and is found to be in order as it was against the committed liability. Accordingly, capitalization of the additional expenditure claimed by the petitioner has been allowed for the transmission assets.

Cost Over-run

- 12. As against the approved cost of Rs. 13180 lakh, the actual expenditure incurred up to date of commercial operation was Rs. 10275 lakh. The actual expenditure incurred from date of commercial operation to 31.3.2008 was Rs. 623 lakh. The total expected completion cost is stated to be Rs. 13305 lakh. The overall cost variation amounts to Rs. 4093 lakh. The petitioner has explained that the main reason for higher cost was (i) "letter of award" cost was higher than estimated cost; (iii) higher cost variation, more than 10%; (iiii) additional cost of entry free tax.
- 13. For the present petition, we are considering the cost of Rs. 10898 lakh incurred up to 31.3.2008 which is within the scope of approved cost. As such, the justification for cost over-run has not been gone into and may be considered at the stage of approval of tariff against the total approved cost of Rs. 13180 lakh.

TOTAL CAPITAL COST

14. Based on the above, gross block as given below has been considered for the purpose of tariff for the transmission assets, after allowing additional capitalization on woks as claimed by the petitioner, which is within the limits of apportioned approved cost:

	Expenditure as on the	Additional capital	Total capital
	date of commercial	expenditure up to	expenditure
	operation	31.3.2008	
Asset- I	903.16	58.86	962.02
Asset-II	1296.02	134.58	1430.60
Asset-III	3947.23	105.22	4052.45
Asset- IV	1173.76	204.96	1378.72
Asset-V	1696.70	119.35	1816.05
Asset-VI	1258.29	0.00	1258.29
Total	10275.16	622.97	10898.13

.DEBT- EQUITY RATIO

- 15. Clause (1) of Regulation 54 of the 2004 regulations inter alia provides that,-
 - "(1) In case of the existing projects, debt-equity ratio Considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff with effect from 01.04.2004:

Provided that in cases where the tariff for the period ending 31.3.2004 has not been determined by the Commission, debt-equity ratio shall be as may be decided by the Commission:

Provided further that in case of the existing projects where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 53, equity in the additional capitalisation to be considered shall be:-

- (a) 30% of the additional capital expenditure admitted by the Commission, or
- (b) equity approved by the competent authority in the financial package, for additional capitalisation, or
- (c) actual equity employed,

whichever is the least:

Provided further that in case of additional expenditure admitted under the second proviso, the Commission may consider equity of more than 30% if the transmission licensee is able to satisfy the Commission that deployment of such equity of more than 30% was in the interest of general public."

- 16. The Note 1 below Regulations 53 lays down that any expenditure on account of committed liabilities with the original scope of work is to be serviced in the normative debt-equity ratio specified in Regulation 54.
- 17. The petitioner has considered debt-equity ratio as actually deployed on the date of commercial operation of the respective asset. The petitioner has further considered the amount of additional capitalization in the debt-equity ratio of 70:30. In our calculations, debt-equity ratio as claimed has been considered. The overall debt-equity ratio works out to 69.98:30.02. Accordingly, for the purpose of tariff, equity considered for each of the transmission asset is as under:

(Rs. in lakh)

	Capital cost as	Equity on the	Additional	Capital	Addition	Equity
	on date of	date of	capital	cost as on	of equity	considered
	commercial	commercial	expenditure	1.4.2008		as on
	operation	operation	during 2007-08			1.4.2008
Asset- I	903.16	270.95	58.86	962.02	17.66	288.61
Asset-II	1296.02	388.81	134.58	1430.60	40.37	429.18
Asset-III	3947.23	1184.23	105.22	4052.45	31.57	1215.80
Asset- IV	1173.76	351.76	204.96	1378.72	61.49	413.25
Asset-V	1696.70	509.01	119.35	1816.05	35.80	544.81
Asset-VI	1258.29	377.49	0.00	1258.29	0.00	377.49

RETURN ON EQUITY

- 18. As per clause (iii) of Regulation 56 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.
- 19. Equity has been considered as on the date of commercial operation and as on 1.4.2008 onwards as given in the table in para 17 above. However, tariff for the period from date of commercial operation to 31.3.2008 has been allowed on average equity. Accordingly, the petitioner shall be entitled to return on equity as under:

Name of the	Equity as on the	Addition due to	Average equity	Return or	equity
assets	date of commercial	additional capitalization		2007-08 (Pro rata)	2008-09
	operation				
Asset- I	270.95	17.66	279.78	29.38	40.41
Asset-II	388.81	40.37	408.99	38.17	60.08
Asset-III	1184.23	31.57	1200.02	98.00	170.21
Asset- IV	351.76	61.49	382.51	26.78	57.86
Asset-V	509.01	35.80	526.91	30.74	76.27
Asset-VI	377.49	0.00	377.49	8.81	52.85

INTEREST ON LOAN

- 20. 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 re-financing shall be borne by the beneficiaries.
 - (d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.
 - (e) In case of dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the transmission licensee during pendency of any dispute relating to re-financing of loan;
 - (f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.
 - (g) The transmission licensee shall not make any profit on account of refinancing of loan and interest on loan;
 - (h) The transmission licensee may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa, at its own cost and gains or losses as a result of such swapping shall accrue to the transmission licensee:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest."

- 21. The petitioner has claimed interest on loan in the following manner:
 - (i) Gross loans opening has been considered from 2007-08;

- (ii) On the basis of actual rate of interest on actual average loan, the weighted average rate of interest on loan is worked out for various years;
- (iii) Gross loan at (i) above have been considered along with the loan utilised after date of commercial operation and the weighted average rate of interest on loan for respective years as per above has been has been multiplied to arrive at interest on loan, considering deprecation as repayment.
- 22. In our calculation, the interest on loan has been worked out as detailed below:
 - (i) Gross amount of loan, repayment of instalments and rate of interest submitted by the petitioner have been used to work out weighted average rate of interest on actual loan.
 - (ii) Notional loan arising out of additional capitalization from date of commercial operation to 31.3.2008 has been added in loan amount as on date of commercial operation to arrive at total notional loan. This adjusted gross loan has been considered as normative loan for tariff calculations

- (iv) Moratorium in repayment of loan has been considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation during the year, it has been considered as moratorium and depreciation during the year has been deemed as normative repayment of loan during the year.
- (v) Weighted average rate of interest on actual loan worked out as per (i) above has been applied on the average loan during the year to arrive at the interest on loan.
- (vi) For some of the assets, Bridge Financing of loan from ICICI Bank having a rate of interest of 8.00% was replaced with Bond XXVI with a rate of interest of 9.30%. Therefore, in sch cases, weighted average rate of interest, based on number of days, have been arrived at before calculating the interest pertaining to this loan.
- (vii) Although, the date of drawl for Bond XXVII was 31.3.2008, the interest has been worked out on the basis of average net loan during, which is accordance with regulations
- 23. Based on the above, the year-wise details of interest worked out are given under:

	Asse	t-l	Asse	t-II	Asst-I	ll .	Asset	t-IV	Asset-\	/	Asset	:-VI
Details of loan	2007- 08	2008- 09	2007- 08	2008-09	2007-08	2008-09	2007- 08	2008- 09	2007-08	2008- 09	2007- 08	2008- 09
Opening Gross Loan	632.21	673.41	907.21	1001.42	2763.00	2836.65	822.00	965.47	1187.69	1271.24	880.80	880.80
Cumulative Repayment	0.00	25.18	0.00	32.72	0.00	84.34	0.00	22.97	0.00	26.35	0.00	7.55
Net Loan-Opening	632.21	648.23	907.21	968.70	2763.00	2752.31	822.00	942.50	1187.69	1244.89	880.80	873.25
Additions due to Additional Capitalisation	41.20		94.21		73.65		143.47		83.55		0.00	
Repayment during the year	25.18	34.63	32.72	51.50	84.34	146.48	22.97	49.63	26.35	65.38	7.55	45.30
Net Loan-Closing	648.23	613.60	968.70	917.20	2752.31	2605.83	942.50	892.86	1244.89	1179.52	873.25	827.95
Average Loan	640.22	630.92	937.96	942.95	2757.66	2679.07	882.25	917.68	1216.29	1212.21	877.03	850.60
Weighted Average Rate of Interest on Loan	9.14%	9.14%	9.49%	9.49%	8.62%	9.32%	8.39%	9.25%	8.32%	9.28%	8.61%	9.29%
Interest	43.88	57.66	59.36	89.51	138.72	249.79	37.01	84.84	42.15	112.48	12.58	79.04

24. The detailed calculations in support of the weighted average rate of interest are contained in Annexure-I, Annexure-II, Annexure-III, Annexure-IV, Annexure-V and Annexure-VI attached.

DEPRECIATION

- 25. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:
 - (i) The value base for the purpose of depreciation shall be the historical cost of the asset.
 - (ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.
 - (iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.
 - (iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

26. Depreciation allowed has been worked out as below:

(Rs.in lakh)

	Asset-		Asset-	·	Asst-I		Asset-	·IV	Asset-	·V	Asset-	·VI
Details of Depreciation	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
Gross block as on the date of commercial operation	903.16	962.02	1296.02	1430.60	3947.23	4052.45	1173.76	1378.72	1696.70	1816.05	1258.29	1258.29
Additional Capitalisation during 2006-07	58.86		134.58		105.22		204.96		119.35		0.00	
Gross Block at the end of the year	962.02	962.02	1430.60	1430.60	4052.45	4052.45	1378.72	1378.72	1816.05	1816.05	1258.29	1258.29
Rate of Depreciation	3.6000%	3.6000%	3.6000%	3.6000%	3.6147%	3.6145%	3.6000%	3.6000%	3.6000%	3.6000%	3.6000%	3.6000%
Depreciable Value (90%)	839.33	865.82	1226.98	1287.54	3599.86	3647.21	1148.62	1240.85	1580.74	1634.45	1132.46	1132.46
Remaining Depreciable Value	839.33	840.64	1226.98	1254.82	3599.86	3562.87	1148.62	1217.88	1580.74	1608.10	1132.46	1124.91
Depreciation	25.18	34.63	32.72	51.50	84.34	146.48	22.97	49.63	26.35	65.38	7.55	45.30

ADVANCE AGAINST DEPRECIATION

- 27. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is entitled to Advance Against Depreciation, computed in the manner given hereunder:
 - AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule
- 28. It is provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year. It is further provided that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.
- 29. The petitioner has not claimed Advance Against Depreciation and accordingly, Advance Against Depreciation has not been considered.

OPERATION & MAINTENANCE EXPENSES

30. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for O & M expenses

	Year								
	2004-05	2005-06	2006-07	2007-08	2008-09				
O&M expenses (Rs in lakh per ckt-km)	0.227	0.236	0.246	0.255	0.266				
O&M expenses (Rs in lakh per bay)	28.12	29.25	30.42	31.63	32.90				

31. The petitioner has claimed O & M expenses for 1 bay for Asset-I, 2 bays for Asset – II, 7 bays for Asset-III, 2 bays for Asset-IV, 4 bays for Asset-V and 2 bays for Asset-VI which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(Rs. in lakh)

	Asset	-		Asset	-11		Asset-	Ш		Asset	-IV		Asset	-V		Asset	-VI
	2007- 08 (Pro rata)	2008- 09															
O&M	23.72	32.9	O&M	42.17	65.80	O&M	129.16	230.30	O&M	31.63	65.80	O&M	52.72	131.6	O&M	10.54	65.8
expenses			expenses			expenses			expenses			expenses			expenses		
for 1			for 2			for 7			for 2			for 4			for 2		
bays			bays			bays			bays			bays			bays		
Total	23.72	32.9	Total	42 17	65.80	Total	129 16	230.30	Total	31.63	65.80	Total	52 72	131.6	Total	10.54	65.8

32. The petitioner has submitted that the wage revision of its employees is due with effect from 1.1.2007. Therefore, according to the petitioner, O & M expenses should be subject to revision on account of revision of employee cost. In the alternative, it has been prayed that the increase in employee cost due to wage revision be allowed as per actuals for extra cost to be incurred consequent to wage revision. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for a relief in this regard at an appropriate stage in accordance with law.

INTEREST ON WORKING CAPITAL

- 33. The components of the working capital and the interest thereon are discussed hereunder:
 - (i) Maintenance spares

Regulation 56(v) (1) (b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. In the present case, element wise capital expenditure on the date of commercial operation which has been considered as the historical cost for the purpose of the present petition and maintenance spares have been worked out accordingly by escalating 1% of the historical cost @ 6% per annum. In this manner, the value of maintenance spares works out to Rs. 9.03 lakh, Rs. 12.96 lakh, Rs. 39.47 lakh, Rs. 11.74 lakh, Rs. 16.97 and Rs. 12.58 lakh for Asset-II, Asset-III, Asset-III, Asset-IV, Asset-V and Asset-VI, respectively as on date of commercial operation. The necessary details are given hereunder:

Transmission assets	Date of Commercial Operation	Capital Expenditure (Rs. in lakh) on the date of commercial operation	Escalated spares Cost as on 1.4.2004 (Rs. in lakh)
Asset-I	1.7.2007	903.16	9.03
Asset-II	1.8.2007	1296.02	. 12.96
Asset-III	1.9.2007	3947.23	39.47
Asset-IV	1.10.2007	1173.76	11.74
Asset-V	1.11.2007	1696.70	16.97
Asset-VI	1.2.2008	1258.29	12.58

(ii) O & M expenses

Regulation 56(v)(1)(a) of the 2004 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 O&M expenses of the respective year as claimed in the petition. This has been considered in the working capital.

(iii) Receivables

As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level.

The petitioner has claimed the receivables on the basis 2 months' transmission

charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

(iv) Rate of interest on working capital

As per Regulation 56(v) (2) of the 2004 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 1.4.2004 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 1.4.2007, which is in accordance with the 2004 regulations and has been allowed.

34. The necessary computations in support of interest on working capital are appended herein below:

(Rs.in lakh)

	Asset-I		Asset-II Asset-III Asset-IV		·IV	Asset	t-V	Asset-	·VI			
	2007- 08	2008- 09	2007- 08	2008- 09	2007- 08	2008- 09	2007- 08	2008- 09	2007- 08	2008- 09	2007- 08	2008- 09
Maintenance Spares	9.03	9.44	12.96	13.48	39.47	40.85	11.74	12.09	16.97	17.39	12.58	12.71
O & M expenses	2.64	2.74	5.27	5.48	18.45	19.19	5.27	5.48	10.54	10.97	5.27	5.48
Receivables	27.95	28.43	44.38	45.80	132.52	136.82	40.64	44.28	62.62	66.22	40.68	41.72
Total	39.62	40.61	62.62	64.77	190.45	196.86	57.65	61.86	90.13	94.58	58.53	59.91
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	3.64	4.97	5.11	7.93	13.61	24.12	3.53	7.58	4.60	11.59	1.19	7.34

TRANSMISSION CHARGES

35. The transmission charges being allowed for the two transmission assets are summarised below:

				(113.	iii iakii <i>j</i>
Asset-I	Asset-II	Asset-III	Asset-IV	Asset-V	Asset-VI

	2007- 08	2008- 09										
Depreciation	25.18	34.63	32.72	51.50	84.34	146.48	22.97	49.63	26.35	65.38	7.55	45.30
Interest on Loan	43.88	57.66	59.36	89.51	138.72	249.79	37.01	84.84	42.15	112.48	12.58	79.04
Return on Equity	29.38	40.41	38.17	60.08	98.00	170.21	26.78	57.86	30.74	76.27	8.81	52.85
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.64	4.97	5.11	7.93	13.61	24.12	3.53	7.58	4.60	11.59	1.19	7.34
O & M Expenses	23.72	32.90	42.17	65.80	129.16	230.30	31.63	65.80	52.72	131.60	10.54	65.80
Total	125.80	170.57	177.54	274.83	463.83	820.89	121.92	265.71	156.55	397.32	40.68	250.33

- **36**. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2004 regulations.
- 37. The petitioner has sought approval for the reimbursement of expenditure of Rs.98,696/- incurred on publication of notices in the newspapers. The petitioner shall claim reimbursement of the said expenditure directly from the respondents in one installment in the ratio applicable for sharing of transmission charges. The petitioner has also sought reimbursement of filing fee of Rs.5 lakh paid. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 has decided that the petitioner shall not be allowed reimbursement of the petition filing fee.
- 38. This order disposes of Petition No. 125/2008.

sd/- sd/- sd/- (S.JAYARAMAN) (R.KRISHNAMOORTHY) (DR.PRAMOD DEO)

MEMBER MEMBER CHAIRPERSON

New Delhi dated the 16th March 2009

Annexure-I

Calculation of weighted average rate of interest on loan

80 MVAR Reactor at Nellore

			Rs. in lakh)
	Details of Loan	2007-08	2008-09
1	Bond-XX		
	Gross Loan opening	338.00	338.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	338.00	338.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	338.00	338.00
	Average Loan	338.00	338.00
	Rate of Interest	8.93%	8.93%
	Interest	30.18	30.18
	Repayment Schedule	12 Annual instalments from	om 7. 9.2010
2	Bond-XXI		
	Gross Loan opening	42.00	42.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	42.00	42.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	42.00	42.00
	Average Loan	42.00	42.00
	Rate of Interest	8.73%	8.73%
	Interest	3.67	3.67
	Repayment Schedule	12 Annual instalments fro	om 11.10.2010
3	Bond-XXII		
	Gross Loan opening	99.00	99.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	99.00	99.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	99.00	99.00
	Average Loan	99.00	99.00
	Rate of Interest	8.68%	8.68%
	Interest	8.59	8.59
_	Repayment Schedule	12 Annual instalments fro	om 7.12.2010
4	Bond-XXIV	0400	04.00
	Gross Loan opening	94.00	94.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening Additions during the year	94.00	94.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	94.00	94.00
	Average Loan	94.00	94.00
	Average Loan	94.00	94.00

	Rate of Interest	9.95%	9.95%
	Interest	9.35	9.35
	Repayment Schedule	12 Annual instalments fro	m 26. 3.2011
5	Bond-XXV		
	Gross Loan opening	59.00	59.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	59.00	59.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	59.00	59.00
	Average Loan	59.00	59.00
	Rate of Interest	10.10%	10.10%
	Interest	5.96	5.96
	Repayment Schedule	12 Annual instalments from 12. 6.201	
	Total Loan		
	Gross Loan opening	632.00	632.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	632.00	632.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	632.00	632.00
	Average Loan	632.00	632.00
	Rate of Interest	9.14%	9.14%
	Interest	57.76	57.76

Annexure-II

315 MVA ICT at Cuddapah

	Details of Loan	2007-08	2008-09
1	Bond-XX		
	Gross Loan opening	108.00	108.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	108.00	108.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	108.00	108.00
	Average Loan	108.00	108.00
	Rate of Interest	8.93%	8.93%
	Interest	9.64	9.64
	Repayment Schedule	12 Annual instalments fror	n 7. 9.2010
2	Bond-XXI		
	Gross Loan opening	84.00	84.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	84.00	84.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	84.00	84.00
	Average Loan	84.00	84.00
	Rate of Interest	8.73%	8.73%
	Interest	7.33	7.33
	Repayment Schedule	12 Annual instalments fror	n 11.10.2010
3	Bond-XXII		
	Gross Loan opening	196.00	196.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	196.00	196.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	196.00	196.00
	Average Loan	196.00	196.00
	Rate of Interest	8.68%	8.68%
	Interest	17.01	17.01
	Repayment Schedule	12 Annual instalments from	n 07.12.2010
4	Bond-XXIV	105.00	105.00
	Gross Loan opening	195.00	195.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	195.00	195.00
	Additions during the year Repayment during the year	0.00	0.00
	Net Loan-Closing	195.00	195.00
	Average Loan	195.00	195.00
	Rate of Interest	9.95%	9.95%
	Interest	19.40	19.40
	IIIICICOL	19.40	19.40

	Repayment Schedule	12 Annual instalments from 26.03.2011		
5	Bond-XXV			
	Gross Loan opening	324.00	324.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	
	Net Loan-Opening	324.00	324.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	324.00	324.00	
	Average Loan	324.00	324.00	
	Rate of Interest	10.10%	10.10%	
	Interest	32.72	32.72	
	Repayment Schedule	12 Annual instalments from	m 12.06.2011	
6	Bond- XXVII			
	Gross Loan opening	0.00	97.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	
	Net Loan-Opening	0.00	97.00	
	Additions during the year	97.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	97.00	97.00	
	Average Loan	48.50	97.00	
	Rate of Interest	9.47%	6 9.47%	
	Interest	4.59	9 9.19	
	Repayment Schedule	12 Annual instalments from	m 31-3-2012	
	Total Loan			
	Gross Loan opening	907.00	0 1004.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	
	Net Loan-Opening	907.00	0 1004.00	
	Additions during the year	97.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	1004.00	1004.00	
	Average Loan	955.50	0 1004.00	
	Rate of Interest	9.49%	6 9.49%	
	Interest	90.7	1 95.30	

Annexure-III 315 MVA ICT at Gooty, 3x167 MVA ICT at Kolar and provision of switching arrangement for existing reactor at Somanhalli

	Details of Loan	2007-08	2008-09
1	Bond-XX		
	Gross Loan opening	520.00	520.00
	Cumulative Repayment up to DOCO/previous	0.00	0.00
	year		
	Net Loan-Opening	520.00	520.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	520.00	520.00
	Average Loan	520.00	520.00
	Rate of Interest	8.93%	8.93%
	Interest	46.44	46.44
	Repayment Schedule	12 Annual instalment	s from 7. 9.2010
2	Bond-XXI		
	Gross Loan opening	86.00	86.00
	Cumulative Repayment up to DOCO/previous	0.00	0.00
	year		
	Net Loan-Opening	86.00	86.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	86.00	86.00
	Average Loan	86.00	86.00
	Rate of Interest	8.73%	8.73%
	Interest	7.51	7.51
	Repayment Schedule	12 Annual instalments f	rom 11.10.2010
3	Bond-XXII		
	Gross Loan opening	40.00	40.00
	Cumulative Repayment up to DOCO/previous	0.00	0.00
	year		
	Net Loan-Opening	40.00	40.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	40.00	40.00
	Average Loan	40.00	40.00
	Rate of Interest	8.68%	8.68%
	Interest	3.47	3.47
	Repayment Schedule	12 Annual instalment	s from 7.12.2010
4	Bond-XXIV		
	Gross Loan opening	80.00	80.00

	Cumulative Repayment up to DOCO/previous	0.00	0.00
	year		
	Net Loan-Opening	80.00	80.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	80.00	80.00
	Average Loan	80.00	80.00
	Rate of Interest	9.95%	9.95%
	Interest	7.96	7.96
	Repayment Schedule	12 Annual instalments f	rom 26.03.2011
5	Bond-XXV		
	Gross Loan opening	350.00	350.00
	Cumulative Repayment up to DOCO/previous	0.00	0.00
	year		
ļ	Net Loan-Opening	350.00	350.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	350.00	350.00
-	Average Loan	350.00	350.00
	Rate of Interest	10.10% 35.35	10.10%
-	Interest Schodule	12 Annual instalments f	35.35
6	Repayment Schedule Bond-XXVI/icici	12 Annual Installients I	10111 12. 0.2011
	Gross Loan opening	1687.00	1687.00
	Cumulative Repayment up to DOCO/previous	0.00	0.00
	year	0.00	0.00
	Net Loan-Opening	1687.00	1687.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1687.00	1687.00
	Average Loan	1687.00	1687.00
	Rate of Interest	8.15%	9.30%
	Interest	137.53	156.89
	Repayment Schedule	12 Annual instalment	
	Total Loan		
	Gross Loan opening	2763.00	2763.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00
	year		
	Net Loan-Opening	2763.00	2763.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2763.00	2763.00
	Average Loan	2763.00	2763.00
	Rate of Interest	8.62%	9.32%
	Interest	238.26	257.62

Annexure-IV

315 MVA ICT at Guzwaka

	Details of Loan	2007-08	2008-09
1	Bond-XX		
	Gross Loan opening	75.00	75.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	75.00	75.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	75.00	75.00
	Average Loan	75.00	75.00
	Rate of Interest	8.93%	8.93%
	Interest	6.70	6.70
	Repayment Schedule	12 Annual instalment	s from 7. 9.2010
2	Bond-XXII		
	Gross Loan opening	75.00	75.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	75.00	75.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	75.00	75.00
	Average Loan	75.00	75.00
	Rate of Interest	8.68%	8.68%
	Interest	6.51	6.51
	Repayment Schedule	12 Annual instalment	ts from 7.12.2010
3	Bond-XXIV		
	Gross Loan opening	45.00	45.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	45.00	45.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	45.00	45.00
	Average Loan	45.00	45.00
	Rate of Interest	9.95%	9.95%
	Interest	4.48	4.48
	Repayment Schedule	12 Annual instalments from 26. 3.2011	
4	Bond-XXVI/icici		
	Gross Loan opening	627.00	627.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	627.00	627.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00

627.00	627.00
627.00	627.00
8.18%	9.30%
51.27	58.31
12 Annual instalment	s from 7-3-2012
822.00	822.00
0.00	0.00
822.00	822.00
0.00	0.00
0.00	0.00
822.00	822.00
822.00	822.00
8.39%	9.25%
68.96	76.00
	822.00 8.18% 51.27 12 Annual instalment 822.00 0.00 822.00 0.00 0.00 822.00 822.00 822.00 839%

Annexure-V

315 MVA ICT at Munirabad

	<u> </u>	(Rs. In lakn)		
	Details of Loan	2007-08	2008-09	
1	Bond-XX			
	Gross Loan opening	59.00	59.00	
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	
	Net Loan-Opening	59.00	59.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	59.00	59.00	
	Average Loan	59.00	59.00	
	Rate of Interest	8.93%	8.93%	
	Interest	5.27	5.27	
	Repayment Schedule	12 Annual instalments fro	m 7. 9.2010	
2	Bond-XXII			
	Gross Loan opening	41.00	41.00	
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	
	Net Loan-Opening	41.00	41.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	41.00	41.00	
	Average Loan	41.00	41.00	
	Rate of Interest	8.68%	8.68%	
	Interest	3.56	3.56	
	Repayment Schedule	12 Annual instalments fro	m 7.12.2010	
3	Bond-XXIV			
	Gross Loan opening	35.00	35.00	
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	
L	Net Loan-Opening	35.00	35.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	35.00	35.00	
	Average Loan	35.00	35.00	
	Rate of Interest	9.95%	9.95%	
	Interest	3.48	3.48	
	Repayment Schedule	12 Annual instalments fro	m 26. 3.2011	
4	Bond-XXVI/ICICI			
	Gross Loan opening	1052.00	1052.00	
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	
	Net Loan-Opening	1052.00	1052.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
		_1		

	1050.00	4050.00	
Net Loan-Closing	1052.00	1052.00	
Average Loan	1052.00	1052.00	
Rate of Interest	8.21%	9.30%	
Interest	86.41	97.84	
Repayment Schedule	12 Annual instalments fro	s from 7-3-2012	
Total Loan			
Gross Loan opening	1187.00	1187.00	
Cumulative Repayment up to DOCO/previous year	0.00	0.00	
Net Loan-Opening	1187.00	1187.00	
Additions during the year	0.00	0.00	
Repayment during the year	0.00	0.00	
Net Loan-Closing	1187.00	1187.00	
Average Loan	1187.00	1187.00	
Rate of Interest	8.32%	9.28%	
Interest	98.72	110.15	

Annexure-IV

315 ICT at Khammam

	Details of Loan	2007-08	2008-09
1	Bond-XXII	2007 00	2000 00
•	Gross Loan opening	45.00	45.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	45.00	45.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	45.00	45.00
	Average Loan	45.00	45.00
	Rate of Interest	8.68%	8.68%
	Interest	3.91	3.91
	Repayment Schedule	12 Annual instalments from 7.12.2010	
2	Bond-XXIV		
	Gross Loan opening	21.00	21.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	21.00	21.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	21.00	21.00
	Average Loan	21.00	21.00
	Rate of Interest	9.95%	9.95%
	Interest	2.09	2.09
	Repayment Schedule	12 Annual instalments from 26. 3.2011	
3	Bond-XXVI/ICICI		
	Gross Loan opening	768.00	768.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	768.00	768.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	768.00	768.00
	Average Loan	768.00	768.00
	Rate of Interest	8.54%	9.30%
	Interest	65.60	71.42
	Repayment Schedule	12 Annual instalments from 7-3-2012	
4	Bond- XXVII		
-	Gross Loan opening	0.00	46.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	, and a supplied the supplied of the supplied	0.00	5.00

Net Loan-Opening	0.00	46.00
Additions during the year	46.00	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	46.00	46.00
Average Loan	23.00	46.00
Rate of Interest	9.47%	9.47%
Interest	2.18	4.36
Repayment Schedule	12 Annual instalments from 31-3-2012	
Total Loan		
Gross Loan opening	834.00	880.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	834.00	880.00
Additions during the year	46.00	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	880.00	880.00
Average Loan	857.00	880.00
Rate of Interest	8.61%	9.29%
Interest	73.77	81.78