

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

- 1. Shri Ashok Basu, Chairperson**
- 2. Shri Bhanu Bhushan, Member**
- 3. Shri A.H. Jung, Member**

**Petition No. 21/2006**

**In the matter of**

Approval of transmission tariff for 400 kV Ramagundam-Hyderabad D/C transmission line and 400 kV S/C Hyderabad-Kurnool-Gooty transmission line along with associated bays and equipment under Ramagundam Stage-III Transmission System in Southern Region from date of commercial operation to 31.3.2009

**And in the matter of**

Power Grid Corporation of India Limited

**...Petitioner**

Vs

1. Karnataka Power Transmission Corporation Ltd., Bangalore
2. Transmission Corporation of Andhra Pradesh Ltd. Hyderabad
3. Kerala State Electricity Board, Thiruvananthapuram
4. Tamil Nadu Electricity Board, Chennai
5. Electricity Deptt. Govt. Of Pondicherry, Pondicherry

**..Respondents**

**The following were present:**

1. Shri P.C. Pankaj, PGCIL
2. Shri U.K. Tyagi, PGCIL
3. Shri C. Kannan, PGCIL
4. Shri Prashant Sharma, PGCIL
5. Shri J Mazumder, PGCIL
6. Shri Rakesh Prasad, PGCIL
7. Shri. A.K. Nagpal, PGCIL
8. Shri Kashish Bhambhani, PGCIL
9. Shri A.V.S. Ramesh, PGCIL

**ORDER**

**(DATE OF HEARING: 24.8.2006)**

This petition has been filed for approval of tariff for 400 kV Ramagundam-Hyderabad D/C transmission line and 400 kV S/C Hyderabad-Kurnool-Gooty transmission line along with associated bays and equipment under Ramagundam Stage-III Transmission System (also briefly referred to as "the transmission system") in Southern Region for the period from date of commercial operation to 31.3.2009 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the

2004 regulations”). The petitioner has also prayed for reimbursement of expenditure from the beneficiaries incurred towards publishing of notices in newspapers and the petition filing fee.

2. The administrative approval and expenditure sanction for the transmission system was accorded by the Central Government in Ministry of Power vide letter dated 29/30.8.2001 at an estimated cost of Rs. 39012 lakh (4<sup>th</sup> quarter, 2000 price level), which included IDC of Rs. 4204 lakh. The provisional transmission charges for the two assets covered in the present petition were approved by the Commission in its orders dated 21.12.2005 and 13.2.2006 in Petition No. 41/2005 and 107/2005, respectively. The details of the assets covered in the present petition and their dates of commercial operation, with line length are stated to be as under:

S. No.	Name of the assets	Date of commercial operation	Line length in ckt kms (for O & M purpose)
1.	400 kV D/C Ramagundam-Hyderabad transmission line along with associated bays	1.11.2004	402.5
2.	400 kV S/C Hyderabad-Kurnool-Gooty transmission line along with associated bays	1.3.2005	310.69

3. The details of the apportioned approved cost and the estimated completion cost of the transmission assets are stated to be as under:

Name of the assets	Apportioned approved cost (Rs in lakh)	Estimated competition Cost (Rs in lakh)		
		Up to date of commercial operation	Balance	Total
400 kV D/C Ramagundam-Hyderabad transmission line	10372	9172	147	9319
400 kV S/C Hyderabad-Kurnool-Gooty transmission line	9401	8048	792	8841

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

(Rs.in lakh)

	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line				
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09	2004-05 (1.3.2005 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Depreciation	100.91	242.18	242.18	242.18	242.18	18.13	217.53	217.53	217.53	217.53
Interest on Loan	126.65	303.36	296.75	284.05	270.52	25.54	300.48	294.75	283.41	270.91
Return on Equity	108.58	260.58	260.58	260.58	260.58	21.09	253.13	253.13	253.13	253.13
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	11.43	27.82	28.46	29.02	29.62	2.22	26.80	27.41	27.95	28.52
O & M Expenses	61.50	153.49	159.86	165.90	172.87	15.25	190.32	198.11	205.75	214.24
<b>Total</b>	<b>409.07</b>	<b>987.43</b>	<b>987.82</b>	<b>981.72</b>	<b>975.77</b>	<b>82.24</b>	<b>988.27</b>	<b>990.93</b>	<b>987.77</b>	<b>984.34</b>

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

(Rs.in lakh)

	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line				
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09	2004-05 (1.3.2005 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	91.72	94.01	99.65	105.63	111.97	80.48	80.88	85.74	90.88	96.33
O & M expenses	12.30	12.79	13.32	13.82	14.41	15.25	15.86	16.51	17.15	17.85
Receivables	163.63	164.57	164.64	163.62	162.63	164.47	164.71	165.16	164.63	164.06
<b>Total</b>	<b>267.65</b>	<b>271.38</b>	<b>277.61</b>	<b>283.08</b>	<b>289.01</b>	<b>260.20</b>	<b>261.45</b>	<b>267.40</b>	<b>272.65</b>	<b>278.24</b>
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	11.43	27.82	28.46	29.02	29.62	2.22	26.80	27.41	27.95	28.52

6. The reply to the petition has been filed by Karnataka Power Transmission Corporation Ltd. 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**

7. 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.

8. The petitioner has claimed tariff based on the total capital expenditure of Rs. 9172.10 lakh and Rs. 8048.20 lakh for Ramagundam-Hyderabad transmission line and Hyderabad-Kurnool-Gooty transmission line, respectively as on the date of commercial operation of the respective asset. The petitioner has furnished further the following details of the capital expenditure:

(Rs. in lakh)

	400 kV D/C Ramagundam- Hyderabad transmission line	400 kV S/C Hyderabad-Kurnool- Gooty transmission line
Expenditure up to date of commercial operation	9172.10	8048.20
Expenditure from date of commercial operation to 31.3.2005	138.07	-
Gross Block on 1.4.2005 (Based on audited accounts)	9310.172	8048.20
Expenditure from 1.4.2005 to 30.9.2005 (Based on books of accounts)	-	525.19
Balance estimated expenditure	8.82	267.25
Estimated completion cost	9318.99	8840.64

9. Against the scheduled of August 2005, the commissioning of both lines was preponed.

10. The issue regarding preponement of date of commissioning of 400 kV D/C Ramagundam-Hyderabad transmission line was discussed in 135<sup>th</sup> SREB meeting held on 10.8.2004 and it was decided that commercial operation of the transmission line be declared w.e.f. 1<sup>st</sup> day of the succeeding month in which unit of NTPC at Ramagundam shall start supplying regular infirm power to the Grid. The unit of Ramagundam was synchronized with grid on 26.9.2004 and supplied 'regular infirm

power' during September and October months. Therefore, Ramagundam-Hyderabad transmission line was declared under commercial operation w.e.f. 1.11.2004.

11. The issue regarding commissioning of Hyderabad-Kurnool-Gooty transmission line was discussed in 137<sup>th</sup> SREB meeting held on 12.4.2004 and it was decided that commercial operation of this line shall be declared w.e.f. 1.3.2005.

12. Accordingly, tariff is being allowed on the capital cost on the date of commercial operation as claimed by the petitioner.

### **DEBT- EQUITY RATIO**

13. Regulation 54 of the 2004 regulations amended on 3.9.2004 and 1.6.2006, 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 considered 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.

(2) In case of the transmission systems for which investment approval was accorded prior to 1.4.2004 and which are likely to be declared under

commercial operation during the period 1.4.2004 to 31.3.2009, debt-equity in the ratio of 70:30 shall be considered:

Provided that where deployment of equity employed to finance the project is less than 30%, the actual debt and equity shall be considered for the purpose of determination of tariff.

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the transmission licensee is able to establish to the satisfaction of the Commission that deployment of equity higher than 30% was in the interest of general public;

- (3) In case of the transmission systems for which investment approval is accorded on or after 1.4.2004, debt-equity in the ratio of 70:30 shall be considered for determination of tariff:

Provided that where equity actually employed is more than 30%, the equity in excess of 30% shall be treated as notional loan.

Provided that where deployment of equity is less than 30%, the actual debt and equity shall be considered for determination of tariff.

- (4) The debt and equity amount arrived at in accordance with above sub-clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.”

14. The Note 1 below Regulation 53 lays own that any expenditure on account of committed liabilities within the original scope of work is to be serviced in the normative debt-equity ratio specified in Regulation 54.

15. The petitioner has considered debt-equity ratio of 79.71:20.29 and 77.53:22.47 for Ramagundam Hyderabad transmission line and Hyderabad-Kurnool-Gooty transmission line, respectively as actually deployed on the date of commercial operation. Based on this, Rs. 1861.02 lakh for Ramagundam Hyderabad transmission line and Rs. 1808.08 lakh for Hyderabad-Kurnool-Gooty transmission line, respectively have been considered as equity for the purpose of determination of tariff in the present petition.

### **RETURN ON EQUITY**

16. 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.

17. The petitioner has claimed return on equity of Rs. 1861.32 lakh for Ramagundam-Hyderabad transmission line and Rs. 1808.08 lakh for Hyderabad-Kurnool-Gooty transmission line, respectively. Accordingly, return on equity each year during the tariff period is given hereunder:

Name of the transmission asset	(Rs. in lakh)	
	Return in Equity	
	2004-05 (date of commercial operation to 31.3.2005)	2005-09 (each year)
400 kV D/C Ramagundam-Hyderabad transmission line	108.58	260.58
400 kV S/C Hyderabad-Kurnool-Gooty transmission line	21.09	253.13

### **INTEREST ON LOAN**

18. 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 re-financing 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.”

19. The petitioner has claimed interest on loan in the following manner:

(i) Gross loans up to previous year have been taken as the opening balance as on 1.4.2004.

(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 loans at (i) above has been considered as notional loan and the weighted average rate of interest on loan for respective years as per above has been multiplied to arrive at interest on loan.

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

(i) Gross amount of loan, outstanding loan and repayment of instalments as per the loan allocation statement up to 2004-05 has been prepared on the basis of loan allocation details submitted by the petitioner. The rate of interest has been taken as per the loan details submitted by the petitioner, for working out weighted average rate of interest, even though repayment instalment of ADB-Iluv loan is different in the petition.

- (ii) Tariff has been worked out considering normative loan and normative repayments. Once the normative loan has been arrived at, it has been considered for all purposes in the tariff. Normative repayment has been worked out by the following formula :

Actual repayment of actual loan during the year

----- X Opening balance of normative  
Opening balance of actual loan during the year      loan during the year

- (iii) 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.
- (iv) 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.
- (v) PNB-II and OBC loans carry the floating rate of interest and rate of interest as applicable as on 1.3.2004 has been considered in the calculation, subject to mutual settlement between the parties in case of any change/resetting of the interest rate during the tariff period. In case of 400 kV S/C Hyderabad-Kurnool-Gooty transmission line, ADB-II pool and ADB-II LB loans carry floating rate of interest. The loan reconciliation statement indicates the base interest rates as on 1.4.2004. For calculations, the ADB loan interest rates as submitted by the petitioner have been considered. In support of the interest rates for pool based single currency loan has been submitted by the petitioner ADB's letter dated 21.4.2006.

21. The petitioner has placed on record ADB letter dated 21.4.2006, wherein it is mentioned that all pool- based single currency loans that carry variable lending rates, LIBOR-based loans, fixed-rate and floating-rate market based loans that carry a lending spread of 60 basis points and are outstanding during 1 July 2006- 30 June 2007 will be entitled to the 20 basis point waiver of the lending spread. From effective dates 1 July 2004 and 1 July 2005, a waiver of 0.2% on the fixed interest spread has been indicated.

22. The petitioner has submitted that the effect of this waiver along with the floating rate of interest will be mutually settled between the petitioner and the beneficiaries on year to year basis. Therefore, this loan spread waiver has not been considered in our calculations.

23. Based on the above, the year-wise details of interest worked out are given hereunder:

(Rs. in lakh)

Details of loan	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan										
Opening Gross Loan	7310.78	7310.78	7310.78	7310.78	7310.78	6240.12	6240.12	6240.12	6240.12	6240.12
Cumulative Repayment	2.92	103.83	346.00	643.04	964.88	1.75	19.88	237.41	484.49	753.23
Net Loan-Opening	7307.86	7206.95	6964.78	6667.74	6345.90	6238.37	6220.24	6002.71	5755.63	5486.89
Additions due to Additional Capitalisation	0.00	-	-	-	-	0.00	-	-	-	-
Repayment during the year	100.91	242.18	297.04	321.84	349.83	18.13	217.53	247.08	268.73	300.49
Net Loan-Closing	7206.95	6964.78	6667.74	6345.90	5996.07	6220.24	6002.71	5755.63	5486.89	5186.40
Average Loan	7257.41	7085.86	6816.26	6506.82	6170.98	6229.31	6111.48	5879.17	5621.26	5336.65
Weighted Average Rate of Interest on Loan	4.1602%	4.1557%	4.1430%	4.1244%	4.1057%	4.82%	4.82%	4.81%	4.80%	4.79%
<b>Interest</b>	125.80	294.47	282.40	268.37	253.36	25.04	294.60	282.97	269.98	255.68

## **DEPRECIATION**

24. 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.

25. The petitioner has claimed the depreciation on the capital cost of Rs. 9172.10 lakh and Rs. 8048.20 lakh, respectively.

26. Depreciation allowed has been worked out as calculated below:

(Rs.in lakh)

	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line				
Details of Depreciation	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09	2004-05 (1.3.2005 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Gross block at the beginning of the period	9172.10	9172.10	9172.10	9172.10	9172.10	8048.20	8048.20	8048.20	8048.20	8048.20
Additional Capitalisation during the period	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gross Block at the end of the	9172.10	9172.10	9172.10	9172.10	9172.10	8048.20	8048.20	8048.20	8048.20	8048.20

period										
Rate of Depreciation	2.6404%	2.6404%	2.6404%	2.6404%	2.6404%	2.7029%	2.7029%	2.7029%	2.7029%	2.7029%
Depreciable Value (90%)	8254.89	8254.89	8254.89	8254.89	8254.89	7243.38	7243.38	7243.38	7243.38	7243.38
Balance Useful life of the asset	-	-	-	-	-	-	-	-	-	-
Remaining Depreciable Value	8254.89	8153.98	7911.81	7614.77	7292.93	7243.38	7225.25	7007.72	6760.64	6491.90
<b>Depreciation</b>	100.91	242.18	242.18	242.18	242.18	18.13	217.53	217.53	217.53	217.53

### **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:

$$\text{AAD} = \text{Loan repayment amount as per regulation 56 (i) subject to a ceiling of } 1/10\text{th of loan amount as per regulation 54 minus depreciation as per schedule}$$

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 claimed Advance Against Depreciation in the following manner:

- (i) 1/10th of gross loan considered for tariff computation.
- (ii) Cumulative loan as well as repayment of notional loan considered during the year.
- (iii) Depreciation as claimed in the petition.

30. In our calculation, Advance Against Depreciation has been worked as under:

- (i) 1/10th of gross loan has been worked out from the gross notional loan as per para 23 above.

- (ii) Repayment of notional loan during the year has been considered as per para 23 above.
- (iii) Depreciation as worked out as per para 26 has been taken into account.

31. The details of Advance Against Depreciation allowed for the two assets is given hereunder:

(Rs. in lakh)

	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	731.08	731.08	731.08	731.08	731.08	624.01	624.01	624.01	624.01	624.01
Repayment of Loan	100.91	242.18	297.04	321.84	349.83	18.13	217.53	247.08	268.73	300.49
Minimum of the above	100.91	242.18	297.04	321.84	349.83	18.13	217.53	247.08	268.73	300.49
Depreciation during the year	100.91	242.18	242.18	242.18	242.18	18.13	217.53	217.53	217.53	217.53
(A) Difference	0.00	0.00	54.86	79.66	107.66	0.00	0.00	29.55	51.20	82.96
Cumulative Repayment of the Loan	103.83	346.00	643.04	964.88	1314.71	19.88	237.41	484.49	753.23	1053.72
Cumulative Depreciation/ Advance against Depreciation	100.91	343.08	585.26	882.30	1204.14	18.13	235.66	453.20	700.28	969.01
(B) Difference	2.92	2.92	57.78	82.58	110.58	1.75	1.75	31.30	52.95	84.71
<b>Advance Against Depreciation Minimum of (A) and (B)</b>	0.00	0.00	54.86	79.66	107.66	0.00	0.00	29.55	51.20	82.96

### **OPERATION & MAINTENANCE EXPENSES**

32. 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

33. The petitioner has claimed O & M expenses for 402.5 ckt- km of line length and 2 bays of the Ramagundam-Hyderabad transmission line and 310.69 ckt-km and 4 bays of Hyderabad-Kurnool-Gooty transmission line, which has been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line					
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2007-08		2004-05 (1.3.2005 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
O&M expenses for 402.5 ckt-kms line length	38.07	94.99	99.02	102.64	107.07	O&M expenses for 310.69 ckt-kms line length	5.88	73.32	76.43	79.23	82.64
O&M expenses for 2 bays	23.43	58.50	60.84	63.26	65.80	O&M expenses for 4 bays	9.37	117.00	121.68	126.52	131.60
<b>TOTAL</b>	<b>61.50</b>	<b>153.49</b>	<b>159.86</b>	<b>165.90</b>	<b>172.87</b>	<b>TOTAL</b>	<b>15.25</b>	<b>190.32</b>	<b>198.11</b>	<b>205.75</b>	<b>214.24</b>

34. 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 from that date. 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**

35. 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. 91.72 lakh and Rs. 80.48 lakh respectively as on 1.3.2005. The necessary details are given hereunder:

Name of the transmission asset	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)
400 kV D/C Ramagundam-Hyderabad transmission line	1.11.2004	9172.10	91.72
400 kV S/C Hyderabad-Kurnool-Gooty transmission line	1.3.2005	8048.20	80.48

**(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 @ 10.25% based on SBI PLR as on 1.4.2004, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)

	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line				
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09	2004-05 (1.3.2005 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	91.72	94.01	99.65	105.63	111.97	80.48	80.88	85.74	90.88	96.33
O & M expenses	12.30	12.79	13.32	13.83	14.41	15.25	15.86	16.51	17.15	17.85
Receivables	163.28	163.06	171.51	174.47	177.97	163.45	163.71	168.17	171.03	175.54
Total	267.30	269.87	284.48	293.93	304.35	259.18	260.46	270.42	279.06	289.73
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	11.42	27.66	29.16	30.13	31.20	2.21	26.70	27.72	28.60	29.70

### **TRANSMISSION CHARGES**

37. A summary sheet showing basic details of capital cost and other related aspects is annexed to this order. The transmission charges being allowed for the two transmission assets are summarized below.

(Rs.in lakh)

	400 kV D/C Ramagundam-Hyderabad transmission line					400 kV S/C Hyderabad-Kurnool-Gooty transmission line				
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09	2004-05 (1.3.2005 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Depreciation	100.91	242.18	242.18	242.18	242.18	18.13	217.53	217.53	217.53	217.53
Interest on Loan	125.80	294.47	282.40	268.37	253.36	25.04	294.60	282.97	269.98	255.68
Return on Equity	108.58	260.58	260.58	260.58	260.58	21.09	253.13	253.13	253.13	253.13
Advance against Depreciation	0.00	0.00	54.86	79.66	107.66	0.00	0.00	29.55	51.20	82.96
Interest on Working Capital	11.42	27.66	29.16	30.13	31.20	2.21	26.70	27.72	28.60	29.70
O & M Expenses	61.50	153.49	159.86	165.90	172.87	15.25	190.32	198.11	205.75	214.24
Total	408.20	978.38	1029.04	1046.82	1067.85	81.72	982.29	1009.01	1026.19	1053.24

38. 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.

39. The petitioner has sought approval for the reimbursement of expenditure of Rs.1,17,937/- 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

40. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's interim direction. The provisional billing of tariff shall be adjusted in the light of final tariff now approved by us.

41. This order disposes of Petition No.21/2006.

Sd-/  
**(A.H. JUNG)**  
MEMBER

sd-/  
**(BHANU BHUSHAN)**  
MEMBER

sd-/  
**(ASHOK BASU)**  
CHAIRPERSON

New Delhi dated the 22<sup>nd</sup> November 2006

### SUMMARY SHEET

Name of the Element:		400 kV D/C Ramagundam-Hyderabad transmission line				400 kV S/C Hyderabad-Kurnool-Gooty transmission line			
Actual date of commercial operation:		1.11.2004				1.3.2005			
Tariff setting Period:		2004-09				2004-09			
		(Rs. in lakh)				(Rs. in lakh)			
1	Capital Cost of the Project				9172.10				8048.20
2	Additional Capitalisation(works)				0.00				0.00
	For the year 2004.05			0.00				0.00	
	Total			0.00				0.00	
3	Total Capital Cost as on 1.4.2005(2+3+4)				9172.10				8048.20
4	Means of Finance :								
	Debt		79.71%	7310.78			77.53%	6240.12	
	Equity		20.29%	1861.32			22.47%	1808.08	
	Total		100.00%	9172.10			100.00%	8048.20	
5	Gross Loan				7310.78				6240.12
	As on date of commercial operation			7310.78				6240.12	
	Notional loan corresponding to ACE during 2004-05			0.00				0.00	
	Total			7310.78				6240.12	
6	Cumulative Repayment up to 31.3.2009 :				1314.71				1053.72
	Up to date of commercial operation			2.92				0.00	

	Date of commercial operation to 31.3.2009		1311.79				1051.97	
	Total		1314.71				1053.72	
7	Balance Loan to be repaid beyond 31.3.2009 :				<b>5996.07</b>			<b>5186.40</b>
8	Depreciation recovered up to 31.3.2009 :				<b>1311.79</b>			<b>1051.97</b>
		<b>Dep</b>	<b>AAD</b>	<b>Total</b>		<b>Dep</b>	<b>AAD</b>	<b>Total</b>
	Date of commercial operation to 31.3.2009			1311.79		888.26	163.71	1051.97
		1069.62	242.18					
	Total			1311.79				1051.97
9	Balance Depreciation to be recovered beyond 31.3.2009 :				<b>6943.10</b>			<b>6191.41</b>
	Capital cost for the purpose of Depreciation			9172.10				8048.20
	ACE during 2004-05			0.00				0.00
	Capital cost as 1.4.2005			9172.10				8048.20
	Less: Land Cost			0.00				0.00
				9172.10				8048.20
	90% of Capital Cost as above			8254.89				7243.38
	Cum. Depreciation to be recovered up to 31.3.2009			1311.79				1051.97
	Balance			6943.10				6191.41