

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

1. **Shri Ashok Basu, Chairperson**
2. **Shri K.N.Sinha. Member**
3. **Shri Bhanu Bhushan, Member**
4. **Shri A.H. Jung, Member**

**Petition No.70/2004
With
I.A.No. 37/2005**

In the matter of

Approval for tariff for 400 kV Jeypore-Gazuwaka transmission line along with associated bays and 500 MW HVDC back to back station at Gazuwaka between Southern Region and Eastern Region for the period from 1.4.2004 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 Department, Govt. of Pondicherry, Pondicherry
6. Bihar State Electricity Board, Patna
7. West Bengal State Electricity Board, Calcutta
8. Grid Corporation of Orissa Ltd, Bhubneshwar
9. Demodar Valley Corporation, Calcutta
10. Power Deptt., Govt. of Sikkim, Gangtok
11. Jharkahnd State Electricity Board, Ranchi

.... Respondents

The following were present:

1. Shri U.K. Tyagi, PGCIL
2. Shri P.C. Pankaj, PGCIL
3. Shri Rakesh Prasad, PGCIL
4. Shri M.M. Mondal, PGCIL
5. Shri R. Balachandran, KSEB
6. Shri Ramesh Babu, KSEB
7. Shri N.Vijaya Bhaskar, KPTCL
8. Shri Chikkananjappa, KPTCL

**ORDER
(DATE OF HEARING: 22.9.2005)**

The petition has been filed for approval for transmission charges for 400 kV Jeypore-Gazuwaka transmission line along with associated bays and 500 MW HVDC back to back station at Gazuwaka (the transmission assets) between Southern Region

and Eastern Region for the period from 1.4.2004 to 31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”). The petitioner has also prayed that it be permitted to continue the billing of transmission charges on the same basis as charged on 31.3.2004, pending determination of tariff in the present petition. No other specific relief is prayed for.

2. I.A. No. 37/2005 has been filed for approval of additional capital expenditure for the period 1.4.2001 to 31.3.2004 and consequent revision of tariff. I.A. was heard along with main petition, after notice.

3. The approval for the cost estimate of the transmission line of Rs. 65998.00 lakh, including IDC of Rs. 10959.00 lakh was accorded by the Ministry of Power under its letter dated 21.2.1995. The date of commercial operation of the transmission assets with line length of 440 ckt-kms (for O&M purpose) is 1.9. 1999.

4. The annual transmission charges for the period from 1.4.2001 to 31.3.2004 were decided by the Commission in its order dated 18.7.2003 in petition No. 51/2002 subsequently revised vide order dated 10.9.2004 at a gross block of Rs. 63064.34 lakh, including FERV of Rs. 96.81 lakh up to 31.3.2001.

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

	(Rs. in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	2085.43	2085.43	2085.43	2085.43	2085.43
Interest on Loan	2044.46	1678.19	1307.88	970.64	739.31
Return on Equity	1406.16	1406.16	1406.16	1406.16	1406.16
Advance against Depreciation	3085.65	3136.61	3193.33	1763.20	0.00
Interest on Working Capital	253.74	254.13	254.90	230.74	203.04
O & M Expenses	690.40	718.09	747.06	776.43	807.94
Total	9565.84	9278.61	8994.76	7232.60	5241.88

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

(Rs. in lakh)					
	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	823.67	873.09	925.47	981.00	1039.86
O & M expenses	57.53	59.84	62.26	64.70	67.33
Receivables	1594.31	1546.44	1499.13	1205.43	873.65
Total	2475.51	2479.37	2486.85	2251.14	1980.84
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	253.74	254.13	254.90	230.74	203.04

7. The replies to the petition have been filed by Tamil Nadu State Electricity Board, Karnataka Power Transmission Corporation Ltd., Bihar State Electricity Board, West Bengal State Electricity Board and Kerala State Electricity Board. No comments or suggestion have been received from the general public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003.

Additional Capitalisation – 2001-2004

8. The petitioner has sought approval of tariff after accounting for additional capital expenditure of Rs. 103.85 lakh incurred on account of left over/balance payments for the transmission line/sub-stations as per details given below:

S.No.	Year	Amount claimed (Rs. in lakh)	Nature of expenditure
1.	2001-02	60.06	Retention payment for the transmission line
2.	2002-03	43.79	Retention payment for building work
3.	2003-04	0.00	-
	Total	103.85	

9. The above expenditure was not considered by the Commission in its orders dated 18.7.2003 and 10.9.2004 ibid while approving tariff for the period ending 31.3.2004. The capital expenditure claimed is found to be in order as it is against the committed liability and is within the original scope of work. Accordingly, the additional capital expenditure of Rs. 103.85 lakh is approved.

CAPITAL COST

10. As per clause (2) of Regulation 52 of the 2004 regulations in case of the projects existing up to 31.3.2004, the project cost admitted by the Commission for determination of tariff prior to 1.4.2004 shall form the basis for determination of tariff.

11. The petitioner has considered the capital expenditure of Rs. 65374.67 lakh after accounting for additional capitalization of Rs. 103.85 lakh on works and Rs. 2206.48 lakh on account of FERV for the period 1.4.2001 to 31.3.2004 over the capital expenditure of Rs. 63064.34 lakh admitted by the Commission in the orders dated 18.7.2003 and 10.9.2004 *ibid*.

Extra Rupee Liability during the years 2001-04:

12. Regulation 1.13 (a) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 provided as under:

- (a) Extra rupee liability towards interest payment and loan repayment actually incurred, in the relevant year shall be admissible; provided it directly arises out of foreign exchange rate variation and is not attributable to Utility or its suppliers or contractors. Every utility shall follow the method as per the Accounting Standard-11 (Eleven) as issued by the Institute of Chartered Accountants of India to calculate the impact of exchange rate variation on loan repayment
- (b) Any foreign exchange rate variation to the extent of the dividend paid out on the permissible equity contributed in foreign currency, subject to the ceiling of permissible return shall be admissible. This as and when paid, may be spread over the twelve-month period in arrears

13. Regulation 1.7 of the 2001 further provided that recovery of foreign exchange rate variation would be done directly by the utilities from the beneficiaries without filing

a petition before the Commission. In case of any objections by the beneficiaries to the amounts claimed on these counts, they may file an appropriate petition before the Commission.

14. Despite the objections raised by the some of the beneficiaries to the petitioner's claim for Rs. 2206.48 lakh on account of FERV, we allow Rs. 2206.58 lakh (after slight adjustment over the petitioner's claim) based on the provision of the terms and conditions of tariff applicable during 1.4.2001 to 31.3.2004, reproduced above. FERV worked out by the petitioner is matching with calculations submitted, and is in accordance with provisions of AS-11, applicable for the period up to 31.3.2004. Accordingly, Rs. 2206.58 lakh on account of FERV has been considered for tariff calculations.

15. Based on the above, after adjustment of additional capitalization of Rs. 103.85 lakh on works and FERV of Rs 2206.58 lakh, the gross block as on 1.4.2004 comes to Rs. 65374.77 lakh.

DEBT- EQUITY RATIO

16. Regulation 54 of the 2004 regulations *inter alia* provides that,-

(1) In case of the existing project, 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.

(2) In case of the transmission system for which investment approval was accorded prior to 1.4.2004 and which is 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 is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

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

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

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of 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.”

17. The petitioner has claimed tariff based on debt-equity ratio of 84.77:15.23 as considered by the Commission in its orders dated 18.7.2003 and 10.9.2004 *ibid*. The entire amount of Rs 103.85 lakh on account of additional capitalisation on works during 2001-02 to 2003-04 has been taken as equity by the petitioner and additional capitalization amount of Rs 2206.58 lakh on account of FERV has been apportioned between debt and equity in the same ratio as considered in the orders dated 18.7.2003 and 10.9.2004, that is, ratio of 84.77:15.23. Based on this, Rs. 10053.84 lakh as on 1.4.2004 has been taken as the equity by the petitioner for the purpose of determination of tariff in the present petition.

18. The petitioner has stated in the petition that the approved debt-equity ratio is 82.43:17.57. Therefore, in order to bring debt and equity close to the approved debt-equity ratio, the amounts of Rs. 103.85 lakh capitalized on account of works and Rs.

2206.48 lakh on account of FERV have been adjusted against debt and equity. Accordingly, for the purpose of tariff, an amount of Rs. 11486.35 lakh has been considered as equity as on 1.4.2004 against the equity of Rs. 9604.07 lakh considered in the order dated 18.7.2003 and 10.9.2004.

RETURN ON EQUITY

19. 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.

20. The petitioner has claimed return on equity of Rs. 10053.84 lakh after accounting for equity of Rs. 103.85 lakh on account of additional capitalization on works for the period 1.4.2001 to 31.3.2004 and on account of FERV, over equity of Rs. 9604.07 lakh considered in the order dated 18.7.2003 and 10.9.2004 *ibid*. For the reasons given hereinabove in para 18, we have taken equity of Rs. 11486.35 lakh. Accordingly, the petitioner shall be entitled to return on equity @ Rs. 1608.09 lakh each year during the tariff period.

INTEREST ON LOAN

21. 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 as per regulation 54 minus cumulative repayment as admitted by the Commission for the period up to 31.3.2004. The repayment for the period 2004-09 shall be worked out accordingly on normative basis.

(c) The transmission licensee shall make every effort to swap the loan as long as it results in net benefit to the long-term transmission customers. The costs associated with such swapping shall be borne by the long-term transmission customers.

(d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefits passed on to the beneficiaries.

(e) 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.

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

(i) Gross loans, cumulative loan repayment up to 31.3.2004 and outstanding balance up to that year as admitted by the Commission in the order dated 18.7.2003 and 10.9.2004 have been taken.

(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 as admitted by the Commission in the order dated 18.7.2003 and 10.9.2004 *ibid* 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.

(iv) Notional loan component of FERV up to 31.3.2001 has been considered separately and actual applicable rate of interest on foreign loan have been considered to workout the interest on this component

23. In our calculation, the interest on loan has been worked out as detailed below:
- (i) Details of net outstanding loan as on 31.3.2004, repayment schedule for the period 2004-09, rate of interest as on 1.4.2004, exchange rate as on 31.3.2004 etc. have been taken from the loan allocation statement submitted by the petitioner for working out weighted average rate of interest.
 - (ii) The actual loans, actual repayments for the period 2004-09 are reduced in line with the admitted loans in 2001-04 tariff while determining the weighted average interest rate for respective year.
 - (iii) Gross loan and cumulative repayment up to 31.3.2004 has been taken from the order dated 18.7. 2003 and 10.9.2004.
 - (iv) Notional loan arising out of additional capitalisation/de-capitalization during the years 2001-04 has been considered.
 - (v) Repayment of notional loan arising due to additional capitalisation/de-capitalization during the years 2001-04 has been worked out in proportion to the repayment of admitted loan during these years.
 - (vi) Tariff is worked out considering normative loan and normative repayments. Once the normative loan is arrived at, it is considered for all purposes in the tariff. Normative repayment is worked out by the following formula:

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$
 - (vii) Moratorium in repayment of loan is 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 is considered as moratorium and depreciation during the year is deemed as normative repayment of loan during the year.

(viii) Weighted average rate of interest on actual loan worked out as per (i) above is applied on the average loan during the year to arrive at the interest on loan.

(ix) PNB-I, Corporation Bank and ADB-I loans carry the floating rate of interest and rate of interest as applicable as on 1.4.2004 have 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.

(x) The petitioner in affidavit dated 14.10.2005 has submitted that no resetting of interest rate/swapping of loans has taken place. But as per loan reconciliation statement for the period 2004-09, SBI-I refinanced with Bond XI option-II SBI-II, refinanced with Bond XIII option-II and WMB-II refinanced with SBI London loan, are refinanced with lower interest rate loans. Refinancing has been considered for determining the tariff.

(xi) WMB-II loan has been refinanced with SBI, London loan on 19. 2.2003 whereas loan repayment instalment due on 22. 2.2003 is shown as repaid from WMB-II loan in loan reconciliation statement. Hence refinancing of this loan has been considered accordingly.

(xii) Tariff for the period 2001-04 has not been revised on account of refinancing of loans as the repayment instalments of the refinanced loans and previous loans are same. Except interest on loan and interest on working capital all other components of 2001-04 tariff remain same after considering the effect of refinancing.

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

(Rs. in lakh)

Details of loan	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan						
Gross loan as per order dated 18.7. 2003 and 10.9.2004	53460.27					
Addition due to additional capitalisation	19.24					
Addition due to FERV	408.91					
Gross Normative Loan	53888.42	53888.42	53888.42	53888.42	53888.42	53888.42
Cumulative Repayment up to Previous Year		24981.09	30048.26	35164.78	40335.69	44089.33
Net Loan-Opening		28907.34	23840.16	18723.64	13552.73	9799.10
Repayment during the year		5067.18	5116.52	5170.91	3753.63	2085.46
Net Loan-Closing		23840.16	18723.64	13552.73	9799.10	7713.64
Average Loan		26373.75	21281.90	16138.19	11675.91	8756.37
Weighted Average Rate of Interest on Loan		7.5201%	7.6409%	7.8386%	8.0229%	8.0246%
Interest		1983.34	1626.12	1265.01	936.75	702.66

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. The gross depreciable value of the asset, as per (ii) above, is 0.9 x Rs. 65374.77 lakh = Rs. 58794.14 lakh. Cumulative depreciation and AAD recovered in tariff up to 31.3.2004 is Rs. 18956.21 lakh. Remaining depreciable value as on 1.4.2004 is thus Rs. 39837.93 lakh.

27. For the period 1.4.2004 to 31.3.2009 the depreciation works out to Rs. 2085.46 lakh each year by applying rate of depreciation of 3.19% as shown below:

(Rs. in lakh)

Details of Depreciation		Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
As per order dated 18.7.2003 and 10.9.2004		63064.34					
Addition during 2001-04 due to Additional Capitalisation		103.85					
Addition during 2001-04 due to FERV		2206.58					
Gross Block as on 31.3.2004		65374.77	65374.77	65374.77	65374.77	65374.77	65374.77
Rate of Depreciation	3.19%						
Depreciable Value	90%		58794.14	58794.15	58794.15	58794.15	58794.15
Balance Useful life of the asset	-		-	-	-	-	-
Remaining Depreciable Value			39837.93	34770.76	29654.24	24483.33	20729.70
Depreciation			2085.46	2085.46	2085.46	2085.46	2085.46

ADVANCE AGAINST DEPRECIATION

28. 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.

29. 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.

30. The petitioner has claimed Advance Against Depreciation in the following manner:

- (i) 1/10th of gross loan is worked out from the gross loan admitted by the Commission in the order dated 18.7.2003 *ibid*.
- (ii) Cumulative loan as well as repayment of notional loan during the year have been considered.
- (iii) Depreciation as claimed in the petition.
- (iv) In cumulative depreciation, Advance Against Depreciation allowed up to 2003-04 as per order dated 18.7.2003 *ibid* has not been considered.

31. In our calculation, the 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 24 above.
- (ii) Cumulative loan as well as repayment of notional loan during the year has been considered as per para 24 above.
- (iii) Depreciation as worked out as per para 27 has been taken into account.
- (iv) In cumulative depreciation recovered up to 2003-04, Advance Against Depreciation has been included as per order dated 18.7.2003 *ibid*.

32. The details of Advance Against Depreciation allowed for the transmission system, is given hereunder:

(Rs in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	5388.84	5388.84	5388.84	5388.84	5388.84
Repayment of the Loan	5067.18	5116.52	5170.91	3753.63	2085.46
Minimum of the above	5067.18	5116.52	5170.91	3753.63	2085.46
Depreciation during the year	2085.46	2085.46	2085.46	2085.46	2085.46
(A) Difference	2981.71	3031.05	3085.45	1668.17	0.00
Cumulative Repayment of the Loan	30048.26	35164.78	40335.69	44089.33	46174.79
Cumulative Depreciation/ Advance against Depreciation	21041.68	26108.85	31225.37	36396.28	40149.91
(B) Difference	9006.59	9055.93	9110.32	7693.04	6024.87
Advance against Depreciation Minimum of (A) and (B)	2981.71	3031.05	3085.45	1668.17	0.00

OPERATION & MAINTENANCE EXPENSES

33. 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

34. The petitioner has claimed O & M expenses for 440 ckt-kms of line length and 21 bays (18 at Gazuwaka and 3 at Jeypore sub-stations), which has been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(Rs. in lakh)

	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses for 440 ckt-kms line length	99.88	103.84	108.24	112.20	117.04
O & M expenses for 21 bays	590.52	614.25	638.82	664.23	690.90
Total	690.40	718.09	747.06	776.43	807.94

35. The petitioner has submitted that the wage revision of its employees is due with effect from 1.1.2007. Therefore, 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

36. 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 is Rs. 57883.17 lakh, 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. 756.34 lakh as on 1.4.2004.

(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.

37. The necessary computations in support of interest on working capital are appended hereinbelow:

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	756.34	801.72	849.82	900.81	954.86
O & M expenses	57.53	59.84	62.26	64.70	67.33
Receivables	1599.39	1552.71	1506.50	1216.42	900.20
Total	2413.27	2414.27	2418.57	2181.94	1922.39
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	247.36	247.46	247.90	223.65	197.04

TRANSMISSION CHARGES

38. The capital cost and other relevant details are contained in the summary sheet attached. The transmission charges being allowed for transmission line are summarised below:

(Rs.in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	2085.46	2085.46	2085.46	2085.46	2085.46
Interest on Loan	1983.34	1626.12	1265.01	936.75	702.66
Return on Equity	1608.09	1608.09	1608.09	1608.09	1608.09
Advance against Depreciation	2981.71	3031.05	3085.45	1668.17	0.00
Interest on Working Capital	247.36	247.46	247.90	223.65	197.04
O & M Expenses	690.40	718.09	747.06	776.43	807.94
Total	9596.37	9316.28	9038.97	7298.55	5401.20

39. 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. These transmission charges shall be included in the regional transmission tariff for Southern Region and Eastern Region and shall be shared by the regional beneficiaries in accordance with the 2004 regulations.

Impact of additional capitalization for the years 2001-04

40. In the petitions filed by NTPC for approval of revised fixed charges for additional capitalization for the period 1.4.2001 to 31.3.2004, the Commission has decided that additional capital expenditure be added to the gross block as on 1.4.2001 to arrive at gross block as on 1.4.2004 for the purpose of fixation of tariff for the period 2004-05 to 2008-09. The Commission has further ordered that NTPC would be entitled to earn return on equity @ 16% on equity portion of additional capitalization approved and interest on loan at the rate as applicable during 2001-02 to 2003-04. The return on equity and interest on loan are payable on additional capitalization from 1st April of the financial year following the financial year to which additional capital expenditure relates. Out of the amount of additional capitalization of Rs. 103.85 lakh allowed for the period 2001-2004, an amount of Rs. 84.61 lakh has been considered

as equity and the balance as loan. Accordingly, the petitioner shall be entitled to recover ROE of Rs.21.37 lakh for 2001-2004 on additional equity of Rs. 84.61 lakh and interest on loan of Rs. 2.28 lakh as shown below:

(Rs. in lakh)

	2001-02	2002-03	2003-04	Total
Period	1.00	1.00	1.00	S
Additional Capitalisation	60.06	43.79	0.00	103.85
Financing of Additional Capitalisation				
Notional Loan	11.13	8.11	0.00	19.24
Notional Equity	48.93	35.68	0.00	84.61
Total	60.06	43.79	0.00	103.85
Effective Additional Capitalisation				
Opening Loan Balance	0.00	9.04	15.66	
Addition of Loan	11.13	8.11	0.00	19.24
Repayment of Loan	2.09	1.50	2.24	5.82
Closing Loan Balance	9.04	15.66	13.43	
Effective Loan		9.04	15.66	
Weighted Average Rate of Interest on Loan	9.8052%	9.1623%	9.2469%	
Effective Equity		48.93	84.61	
Interest on Loan		0.83	1.45	2.28
Return on Equity	16%	7.83	13.54	21.37
Impact of Additional Capitalisation		8.66	14.99	23.64

41. The petitioner has sought approval for the reimbursement of expenditure of Rs. 2, 86,111/- 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.5.20 lakh paid. A final view on reimbursement of filing fee is yet to be taken by the Commission for which views of the stakeholder have been called for. The view taken on consideration of the comments received shall apply in the present case as regards reimbursement of filing fee.

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

43. This order disposes of Petition No.70/2004 as also I.A. No. 37/2005.

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

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

**sd-/
(K.N.SINHA)
MEMBER**

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

New Delhi dated the 16th February 2006

Summary Sheet				
Name of the Company:		PGCIL		
Name of the Element:		400 KV Jeypore-Gazuwaka Transmission Line along with associated bays and 500 MW HVDC Back to Back Station at Gazuwaka between Southern Region and Eastern Region		
Actual DOCO:		1.9.1999		
Petition No.:		70/2004		
Tariff setting Period:		2004-09		
				(Rs.in lakh)
1	Capital Cost of the Project			65998.00
2	Admitted Capital Cost as on 01.04.2004 for Calculation of Debt and Equity¹			63064.34
3	Additional Capitalisation (works)			103.85
	2001-02		60.06	
	2002-03		43.79	
	2003-04		0.00	
	Total		103.85	
4	Additional Capitalisation (FERV)			2206.58
	2001-02		1172.78	
	2002-03		881.47	
	2003-04		152.33	
	Total		2206.58	
5	Total Capital Cost as on 1. 4.2004(2+3+4)			65374.77
6	Means of Finance¹ :			
	Debt	82.43%	53888.42	
	Equity	17.57%	11486.35	
	Total	100.00%	65374.77	
7	Gross Loan as on 1. 4.2004			53888.42
8	Cumulative Repayment up to 31.3.2009 :			46174.79
	Repaid up to 31. 3.2004		24856.52	
	1. 4.2001 to 31. 3.2004 (ACE & FERV)		124.56	
	1. 4.2004 to 31. 3.2009		21193.70	
	Total		46174.79	
9	Balance Loan to be repaid beyond 31. 3.2009 :			7713.64
10	Depreciation recovered up to 31. 3.2009 :			40149.91
		Dep	AAD	Total
	Recovered up to 31. 3.2004	12759.52	6058.49	18818.01
	1. 4.2001 to 31. 3.2004 (ACE & FERV)	138.20	0.00	138.20
	1.04.2004 to 31. 3.2009	10427.32	10766.38	21193.70
	Total			40149.91
11	Balance Depreciation to be recovered beyond 31. 3.2009 :			18644.23
	Capital cost for the purpose of Depreciation			63064.34
	ACE + FERV			2310.43
	Capital cost as 1. 4.2004			65374.77
	Less: Land Cost			47.94
				65326.83
	90% of Capital Cost as above			58794.15
	Cum. Depreciation to be recovered up to 31. 3.2009			40149.91
	Balance Depreciation to be recovered beyond 31. 3.2009			18644.23