

**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.51/2005

In the matter of

Approval for tariff for 400 kV D/C Biharsharif-Sasaram-Sarnath transmission lines with associated bays under Eastern-Northern inter-regional HVDC transmission system 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. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Board, Calcutta
3. Grid Corporation of Orissa Ltd., Bhubaneswar
4. Damodar Valley Corporation, Calcutta
5. Power Deptt., Govt. of Sikkim, Gangtok
6. Jharkhand State Electricity Board, Ranchi
7. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
8. Ajmer Vidyut Vitran Nigam Ltd., Ajmer
9. Jaipur Vidyut Vitran Nigam Ltd., Jaipur
10. Jodhpur Vidyut Vitran Nigam Ltd., Jodhpur
11. Himachal Pradesh State Electricity Board, Shimla
12. Punjab State Electricity Board, Patiala
13. Haryana Vidyut Prasaran Nigam Ltd., Panchkula
14. Power Development Deptt., Govt. of Jammu & Kashmir, Jammu
15. Uttar Pradesh Power Corporation Limited, Lucknow
16. Delhi Transco Limited, New Delhi
17. Chandigarh Administration, Chandigarh
18. Uttaranchal Power Corporation Limited, Dehradun
19. Chief Electrical Distribution Engineer, Northern Railway, New Delhi.. **Respondents**

The following were present:

1. Shri U.K. Tyagi, PGCIL
2. Shri P.C. Pankaj, PGCIL
3. Shri C. Kannan, PGCIL
4. Shri M.M. Mondal, PGCIL

5. Shri A. Mohan, PGCIL
6. Shri S.R. Sarangi, GRIDCO
7. Shri G.M. Agarwal, SE, RVPNL
8. Shri S.K. Yadav, SE, RVPNL
9. Shri P.K. Gupta, SE (RPPC), JDVVNL
10. Shri Padamjit Singh, Advocate, PSEB
11. Shri V.K. Gupta, Consultant, PSEB
12. Shri T.P.S. Bawa, OSD, PSEB
13. Shri V.K. Malhotra, DTL
14. Shri R.K. Arora, XEN, HPGCL

ORDER
(DATE OF HEARING: 9.8.2005)

The petition has been filed for approval for transmission charges for 400 kV D/C Biharsharif-Sasaram-Sarnath transmission lines with associated bays under Eastern-Northern inter-regional HVDC transmission system (the transmission lines) 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 allowed return on equity on additional capitalisation for the capital expenditure during 2001-2004 after date of commercial operation and that the reimbursement of expenditure from the beneficiaries towards publishing of notices in newspapers and petition filing fee be approved.

2. The administrative approval and expenditure sanction for Eastern-Northern inter-regional HVDC transmission system was accorded by the Central Government in Ministry of Power under its letter dated 4.9.1998 at an estimated cost of Rs.67156.00 lakh, including IDC of Rs.9219.00 lakh. Subsequently, because of change in the scope of work based on system studies, the revised cost estimate for Rs.59310.00 lakh, including IDC of Rs.4607.00 lakh and financing charges of Rs.464.00 lakh was approved by CEA. The apportioned TEC cost of the transmission lines is Rs.18233.00

lakh. The date of commercial operation of the transmission lines is 1.7.2001 and line lengths (for O&M) are as given below:

400 kV D/C Biharsharif – Sasaram transmission line	- 388 ckt-kms
400 kV D/C Sasaram –Sarnath transmission line	- 154 ckt-kms
	542

3. The annual transmission charges for the period 1.7.2001 to 31.3.2004 were decided by the Commission in its order dated 3.3.2005 in petition No. 55/2002 at a gross block of Rs. 17950.00 lakh.

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

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	458.12	458.12	458.12	458.12	458.12
Interest on Loan	694.12	642.40	588.72	530.95	472.77
Return on Equity	449.46	449.46	449.46	449.46	449.46
Advance against Depreciation	0.00	0.00	0.00	0.00	138.67
Interest on Working Capital	56.02	56.68	57.42	58.15	61.41
O & M Expenses	235.51	244.91	255.01	264.73	275.77
Total	1893.23	1851.57	1808.73	1761.41	1856.20

5. 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	211.32	224.00	237.44	251.69	266.79
O & M expenses	19.63	20.41	21.25	22.06	22.98
Receivables	315.54	308.60	301.46	293.57	309.37
Total	546.48	533.01	560.15	567.32	599.14
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	56.02	56.68	57.42	58.15	61.41

6. The replies to the petition have been filed by West Bengal State Electricity Board, Bihar State Electricity Board, Jaipur Vidyut Vitran Nigam Ltd, Ajmer Vidyut Vitran Nigam Ltd and Jodhpur Vidyut Vitran Nigam Ltd. 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 – 2001-04

7. The petitioner has sought approval of tariff after accounting for additional capital expenditure of Rs. 51.05 lakh incurred during the 2002-03 on account of left over/balance payments for the transmission line.

8. The expenditure was not considered by the Commission in its order dated 3.3.2005 ibid while approving tariff for the period ending 31.3.2004. The capital expenditure claimed is found to be in order as it was against the committed liability. Accordingly, the additional capital expenditure of Rs. 51.05 lakh is in order.

9. The petitioner has filed an affidavit dated 29.8.2005 in Petition No 109/2004 wherein it has been stated that two Nos 50 MVA line reactors were shifted from Moga sub-station installed as a part of Chamera Stage-1 Transmission System in Northern Region to Sarnath sub-station under the transmission lines presently under consideration. The petitioner by its affidavit dated 25.8.2005 has advised capitalisation of an amount of Rs. 62,013,006/- for installation of these two Nos 50 MVAR line reactors at Sarnath sub-station, which is already included in the capital cost of Rs.17950.00 lakh considered by order dated 3.3.2005 ibid. The petitioner has further stated in the affidavit that after commercial operation of Sasaram HVDC station on

1.12.2002 and completion of Biharsharif-Sasaram-Sarnath line up to Allahabad, the two 50 MVAR line reactors at Sarnath sub-station have become surplus, and are being shifted to Rihand-II transmission system. It implies that these 50 MVAR line reactors in question were useful for the transmission lines from 1.7.2001 to 30.11.2002 and have become redundant thereafter. Accordingly, an amount of Rs. 620.00 lakh, representing the capital cost of two 50 MVAR line reactors has been de-capitalised. The net de-capitalisation during 2002-03, thus works out to Rs. 568.95 lakh after adjusting additional capitalisation of Rs.51.05 lakh as per para 8 above.

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.17138.54 lakh after accounting for additional capitalization of Rs.51.05 lakh and decapitalization on account of FERV of Rs.862.51 lakh for the period 1.7.2001 to 31.3.2004 over the capital expenditure of Rs.17950.00 lakh admitted by the Commission in the order dated 3.3.2005 *ibid*. However, for the reason given in para 9 above, gross block of Rs. 17381.05 lakh excluding FERV has been considered by us for the purpose of tariff.

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. As no objections are raised by the beneficiaries to the petitioner's claim for de-capitalization of Rs.862.51 lakh on account of FERV, and FERV worked out is matching with calculations submitted by the petitioner, the claim has been admitted for tariff calculations.

15. Based on the above, gross block of Rs.17381.05 lakh (excluding FERV) as on 1.4.2004 has been considered for the purpose of tariff. After adjustment of FERV, the gross block as on 1.4.2004 comes to Rs.16518.54 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 81.51:18.49 as considered by the Commission in its order dated 3.3.2005 *ibid*. The entire amount of Rs.51.05 lakh on account of additional capitalisation during 2002-03 has been taken by the petitioner as equity and the de-capitalised amount of Rs.862.51 lakh on account of FERV has been apportioned between debt and equity in the same ratio as considered in the order dated 3.3.2005. Based on this, Rs.3210.45 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 80:20. Therefore, in order to bring debt and equity equal to the approved debt-equity ratio, the amounts of Rs.568.95 lakh and Rs.862.51 lakh (total Rs.1431.46 lakh) de-capitalized on account of works and FERV respectively have been apportioned between debt and equity as Rs.1416.29 lakh and Rs.15.17 lakh respectively. Accordingly, for the purpose of tariff, an amount of Rs.3303.71 lakh has been considered as equity as on 1.4.2004 against the equity of Rs.3318.88 lakh considered in the order dated 3.3.2005.

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.3210.45 lakh after accounting for equity of Rs.51.05 lakh on account of additional capitalization for the period 1.7.2001 to 31.3.2004 and decapitalization of Rs.159.48 lakh on account of FERV over equity of Rs.3318.88 lakh considered in the order dated 3.3.2005 *ibid*. For the reasons given hereinabove, we have taken equity of Rs.3303.71 lakh. Accordingly, the petitioner shall be entitled to return on equity @ Rs.462.52 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 partitioner 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 3.3.2005 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) Loans as admitted by the Commission in the order dated 3.3.2005 *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) An amount of Rs.1416.29 lakh on account of de-capitalisation has been adjusted against loan.
- (ii) 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 above loan allocation statement for working out weighted average rate of interest.
- (iii) Gross notional loan and cumulative repayment up to 31.3.2004 has been taken from the order dated 3.3.2005.
- (iv) Notional loan arising out of additional capitalisation and FERV during the years 2001-04 has been considered.
- (v) Repayment of notional loan arising due to additional capitalisation and FERV during the years 2001-04 has been worked out in proportion to the repayment of actual 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 notional average loan during the year to arrive at the interest on loan.
- (ix) PNB-I, Corporation Bank, Bank of India Foreign Currency Loan and IBRD-II loans carry floating rate of interest and rate of interest as applicable as on 1.4.2004 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:.

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 3.3.2005	14631.12					
Addition due to additional capitalisation	(-) 562.92					
Addition due to FERV	(-) 853.37					
Gross Normative Loan	13214.83	13214.83	13214.83	13214.83	13214.83	13214.83
Cumulative Repayment up to Previous Year		226.58	748.36	1270.13	2050.48	3114.16
Net Loan-Opening		12988.25	12466.47	11944.70	11164.35	10100.67
Repayment during the year		521.77	521.77	780.35	1063.68	1071.02
Net Loan-Closing		12466.47	11944.70	11164.35	10100.67	9029.65
Average Loan		12727.36	12205.59	11554.52	10632.51	9565.16
Weighted Average Rate of Interest on Loan		5.1814%	4.5949%	4.3351%	4.2281%	4.1401%
Interest		659.46	560.83	500.90	449.56	396.01

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 $0.9 \times \text{Rs. } 16518.54 \text{ lakh} = \text{Rs. } 14866.68 \text{ lakh}$. Cumulative depreciation and AAD recovered in tariff up to 31.3.2004 is Rs. 1276.25 lakh. Remaining depreciable value as on 1.4.2004 is thus Rs.13590.44 lakh.

27. For the period 1.4.2004 to 31.3.2009 the depreciation works out to Rs. 435.79 lakh each year by applying rate of depreciation of 2.6382% 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 3.3.2005	17950.00						
Addition during 2001-04 due to Additional Capitalisation	(-) 568.95						
Addition during 2001-04 due to FERV	(-) 862.51						
Gross Block as on 31.3.2004	16518.54	16518.54	16518.54	16518.54	16518.54	16518.54	16518.54
Rate of Depreciation	2.6382%						
Depreciable Value	90%		14866.68	14866.68	14866.68	14866.68	14866.68
Balance Useful life of the asset			-	-	-	-	-
Remaining Depreciable Value			13590.44	13154.64	12718.85	12283.06	11752.52
Depreciation			435.79	435.79	435.79	435.79	435.79

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 notional loan admitted by the Commission order dated 3.3.2005.

- (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 3.3.2005 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 3.3.2005 ibid.

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

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	1321.48	1321.48	1321.48	1321.48	1321.48
Repayment of Loan	521.77	521.77	780.35	1063.68	1071.02
Minimum of the above	521.77	521.77	780.35	1063.68	1071.02
Depreciation during the year	435.79	435.79	435.79	435.79	435.79
(A) Difference	85.98	85.98	344.56	627.88	635.22
Cumulative Repayment of the Loan	748.36	1270.13	2050.48	3114.16	4185.18
Cumulative Depreciation/ Advance against Depreciation	1712.04	2147.83	2583.63	3019.42	3549.95
(B) Difference	(-) 963.68	(-) 877.70	(-) 533.15	94.74	635.22
Advance Against Depreciation Minimum of (A) and (B)	0.00	0.00	0.00	94.74	635.22

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 542 ckt-kms of line length and 4 bays (two each at Biharsharif and Sarnath 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 542 ckt-kms line length	123.03	127.91	133.33	138.21	144.17
O&M expenses for 4 bays	112.48	117.00	121.68	126.52	131.60
Total	235.51	244.91	255.01	264.73	275.77

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. 17950.00 lakh, which has been considered as the historical cost for the purpose of the present petition and maintenance spares haven 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. 209.91 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	209.91	222.50	235.85	250.00	265.00
O & M expenses	19.63	20.41	21.25	22.06	22.98
Receivables	308.06	293.17	284.96	294.23	378.95
Total	537.60	536.08	542.07	566.29	666.93
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	55.10	54.95	55.56	58.05	68.36

TRANSMISSION CHARGES

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

(Rs.in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	435.79	435.79	435.79	435.79	435.79
Interest on Loan	659.46	560.83	500.90	449.56	396.01
Return on Equity	462.52	462.52	462.52	462.52	462.52
Advance against Depreciation	0.00	0.00	0.00	94.74	635.22
Interest on Working Capital	55.10	54.95	55.56	58.05	68.36
O & M Expenses	235.51	244.91	255.01	264.73	275.77
Total	1848.39	1759.00	1709.78	1765.38	2273.68

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 Eastern and Northern Regions and shall be shared by the two regions and 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. These principles are equally applicable in case of de-capitalisation of expenditure.

41. Based on the above, the petitioner shall adjust the following amounts already paid by the respondents through tariff for the period ending 31.3.2004 on account of apportionment of de-capitalised amount between debt and equity:

(Rs. in lakh)

Impact of ACE	As worked out		
	2002-03	2003-04	Total
Interest on Loan	0.00	(-) 33.94	(-) 33.94
Return on Equity	0.00	(-) 0.96	(-) 0.96
Total	0.00	(-) 34.90	(-) 34.90

42. The main reasons for difference in the impact of additional capitalisation for the years 2001-04 as allowed and as claimed by the petitioner are that the petitioner has not considered de-capitalisation of Rs. 620.00 lakh on account 2 Nos 50 MVAR line reactors that have become surplus at Sarnath sub-station and segregating notionally between debt and equity the de-capitalised amount on account of FERV and ACE during 2001-04, so as to restrict over all debt-equity to the approved ratio of 80:20.

43. The petitioner has sought approval for the reimbursement of expenditure of Rs. 3,71,206/- 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. 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.

44. 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.

45. This order disposes of Petition No.51/2005.

Sd/-
(A.H. JUNG)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

Sd/-
(K.N. SINHA)
MEMBER

Sd/-
(ASHOK BASU)
CHAIRPERSON

New Delhi dated the 25th January 2006

Summary Sheet				
Name of the Company:		PGCIL		
Name of the Element:		400 kV Biharshariff-Sasaram-Sarnath Transmission lines alongwith bays etc.under Eastern-Northern inter-regional HVDC Transmission System		
Actual DOCO:		01.07.2001		
Petition No.:		51/2005		
Tariff setting Period:		2004-09		
(Rs. in lakh)				
1	Capital Cost of the Project			18233.00
2	Admitted Capital Cost as on 1.4.2004 for Calculation of Debt and Equity			17950.00
3	Additional Capitalisation(works)			(-) 568.95
	2001-02		0.00	
	2002-03		(-) 568.95	
	2003-04		0.00	
	Total		(-) 568.95	
4	Additional Capitalisation(FERV)			(-) 862.51
	2001-02		123.38	
	2002-03		(-) 239.58	
	2003-04		(-) 746.31	
	Total		(-) 862.51	
5	Total Capital Cost as on 1.4.2004(2+3+4)			16518.54
6	Means of Finance :			
	Debt	80.00%	13214.83	
	Equity	20.00%	3303.71	
	Total	100.00%	16518.54	
7	Gross Loan as on 01.04.2004			13214.83
8	Cumulative Repayment upto 31.3.2009 :			4185.18
	Repaid up to 31.3.2004		250.87	
	1.4.2001 to 31.3.2004 (ACE & FERV)		-24.28	
	1.4.2004 to 31.3.2009		3958.59	
	Total		4185.18	
9	Balance Loan to be repaid beyond 31.03.2009 :			9029.65
10	Depreciation recovered up to 31.3.09 :			4185.18
		Dep	AAD	Total
	Recovered up to 31.3.2004	1319.62	0.00	1319.62
	1.4.2001 to 31.3.2004 (ACE & FERV)	-43.37	0.00	-43.37
	1.4.2004 to 31.3.2009	2178.97	729.96	2908.93
	Total			4185.18
11	Balance Depreciation to be recovered beyond 31.3.2009 :			10681.51
	Capital cost for the purpose of Depreciation			17950.00
	ACE + FERV			-1431.46
	Capital cost as 1.4.2004			16518.54
	Less: Land Cost			0.00
				16518.54
	90% of Capital Cost as above			14866.68
	Cum. Depreciation to be recovered up to 31.3.09			4185.18
	Balance Depreciation to be recovered beyond 31.3.09			10681.51