

**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.97/2004  
With  
IA No.24/2005**

**In the matter of**

Approval of transmission charges for the transmission system associated with Faridabad Gas Based Combined Cycle Power Project in Northern 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

Haryana Vidyut Prasaran Nigam Ltd, Panchkula

**.....Respondent**

**The following were present:**

1. Shri P.C. Pankaj, PGCIL
2. Shri U.K. Tyagi, PGCIL
3. Shri C. Kannan, PGCIL
4. Shri M.M.Mandol, PGCIL
5. Shri B.P.Kundu, PGCIL
6. Shri R.K.Arora, HPGCL

**ORDER  
(DATE OF HEARING: 17.8.2005)**

The petition has been filed for approval for transmission charges for the transmission system associated with Faridabad Gas Based Combined Cycle Power Project (the transmission system) in Northern 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 had 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. 24/2005 has also been filed for approval of additional capital expenditure incurred during the 2001-2004 and consequent revision of tariff. This IA was heard with main petition after notice.

3. The following assets form part of the transmission system, namely:

- (a) 220 kV D/C Faridabad-Samaypur transmission line with associated bays, and
- (b) 220 kV D/C Faridabad-Palla transmission line with associated bays.

4. The investment approval for the transmission system was accorded by the Board of Directors of the petitioner company at the estimated cost of Rs.47.97 crore, including IDC of Rs.3.35 crore under its delegated powers. The dates of commercial operation of the respective transmission line and its line length are as stated below:

Name of the transmission line	Date of commercial operation	Line length in Ckt-km (For O & M)
220 KV D/C Faridabad-Samaypur transmission line with associated bays	1.6.1999	35.38
220 KV D/C Faridabad-Palla transmission line with associated bays	1.2.2000	31.38
Total		66.76

5. The tariff for the period ending 31.3.2004 was decided by the Commission vide its order dated 15.10.2003 in petition No. 54/2002 on the gross block given below:

(Rs. in lakh)

Name of the transmission line	Capital Expenditure
220 KV D/C Faridabad-Samaypur transmission line with associated bays	2438.33
220 KV D/C Faridabad-Palla transmission line with associated bays	1945.86

6. The petitioner has claimed the revised transmission charges as under:

(Rs.in lakh)

	220 KV D/C Faridabad-Samaypur transmission line with associated bays					220 KV D/C Faridabad-Palla transmission line with associated bays				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	72.50	72.50	72.50	72.50	72.50	61.12	61.12	61.12	61.12	61.12
Interest on Loan	69.52	56.40	43.28	30.17	18.04	48.92	40.45	31.99	23.53	15.69
Return on Equity	217.61	217.61	217.61	217.61	217.61	189.20	189.20	189.20	189.20	189.20
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	12.74	12.84	12.96	13.09	13.26	11.82	11.99	12.18	12.39	12.62
O & M Expenses	120.51	125.35	130.38	135.54	141.01	147.72	153.66	159.82	166.15	172.85
<b>Total</b>	<b>492.88</b>	<b>484.70</b>	<b>476.73</b>	<b>468.90</b>	<b>462.42</b>	<b>458.78</b>	<b>456.43</b>	<b>454.32</b>	<b>452.39</b>	<b>451.48</b>

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

(Rs.in lakh)

	220 KV D/C Faridabad-Samaypur transmission line with associated bays					220 KV D/C Faridabad-Palla transmission line with associated bays				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	32.12	34.05	36.09	38.26	40.55	26.53	28.13	29.81	31.60	33.50
O & M expenses	10.04	10.45	10.87	11.30	11.75	12.31	12.81	13.32	13.85	14.40
Receivables	82.15	80.78	79.45	78.15	77.07	76.46	76.07	75.72	75.40	75.25
Total	124.31	125.28	126.41	127.70	129.38	115.31	117.00	118.85	120.85	123.15
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest</b>	<b>12.74</b>	<b>12.84</b>	<b>12.96</b>	<b>13.09</b>	<b>13.26</b>	<b>11.82</b>	<b>11.99</b>	<b>12.18</b>	<b>12.39</b>	<b>12.62</b>

8. No reply to the petition has been filed by the respondent. Nor any comments or suggestions have been received from the general public in response to the notices published by the petitioner in terms of the procedure specified by the Commission under Section 64 of the Electricity Act, 2003.

**I.A.No. 24/2005**

9. In the present case, the petitioner has claimed an additional capitalization of Rs. 178.61 lakh for the period 2001-2004 for 220 KV D/C Faridabad-Palla transmission line. The details submitted by the petitioner in support of its claim for additional capital expenditure are given hereunder:

S.No.	Year	Amount claimed (Rs. In lakh)	Details of expenditure
1.	2001-02	72.58	Erection payment of building - Rs. 1.77 lakh Sub-station - Rs. 66.21 lakh Final payment for transmission line - Rs. 4.64 lakh
2.	2002-03	94.92	Erection payment of building - Rs. 39.70 lakh Sub-station - Rs. 55.22 lakh
3.	2003-04	11.11	Erection payment of building - Rs. 11.11 lakh
	Total	178.61	

10. The capital cost of 220 KV D/C Faridabad-Palla transmission line considered in the order dated 15.10.2003 was without capitalization of the above amounts. The capital expenditure incurred was within the scope of the original work and is also found to be in order. Accordingly, the additional capital expenditure of Rs. 178.61 lakh as claimed has been allowed.

**CAPITAL COST**

11. 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.

12. The petitioner has considered the capital expenditure admitted by the Commission in the order dated 15.10.2003 *ibid*. The petitioner has not claimed additional capitalisation on works or FERV for 220 KV D/C Faridabad-Samaypur transmission line. However, the petitioner has considered additional capitalisation on works and de-capitalisation on account of FERV for 220 KV D/C Faridabad-Palla transmission line. The capital expenditure and FERV considered by the petitioner for tariff purpose are given hereunder:

(Rs.in lakh)

Name of the Element	Admitted capital cost	Additional Capitalisation	FERV for the period 1.4.2001 to 31.3.2004	Capital expenditure
220 KV D/C Faridabad-Samaypur transmission line with associated bays	2438.33	-	-	2438.33
220 KV D/C Faridabad-Palla Ttransmission line with associated bays	1945.86	178.61	(-) 12.28	2112.19
<b>Total</b>	4384.19	178.61	(-) 12.28	4550.52

**Extra Rupee Liability during the years 2001-04:**

13. 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.

14. 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.

15. As no objections are raised by the respondent to the petitioner's claim for de-capitalization on account of FERV and also, FERV worked out is matching with calculations submitted by the petitioner, the claim has accordingly been considered for tariff calculations.

16. Based on the above, gross block as claimed by the petitioner has been considered for the purpose of tariff for each of the elements, after allowing additional capitalisation on works and de-capitalisation of FERV as per the petition.

### **DEBT- EQUITY RATIO**

17. 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.”

18. The petitioner has claimed tariff based on debt-equity ratio as considered by the Commission in its order dated 15.10.2003 ibid as indicated below:

<b>Name of the Element</b>	<b>Debt-equity ratio</b>
220 KV D/C Faridabad-Samaypur transmission line with associated bays	36.25:63.75
220 KV D/C Faridabad-Palla transmission line with associated bays	39.34:60.66

19. The additional capitalisation of Rs. 178.61 lakh for 220 KV D/C Faridabad-Palla transmission line has been considered by the petitioner to have been financed through equity and de-capitalisation of Rs. 12.28 lakh on account of FERV has been apportioned between debt and equity in the same ratio as considered in the order dated 15.10.2003 ibid.

20. The petitioner has stated in the petition that the approved debt-equity ratio is 80:20. Therefore, in order bring debt and equity as close to the approved debt-equity ratio as possible, the additional capitalisation of Rs. 178.61 lakh on works is deemed to have been financed through loan and de-capitalization of Rs. 12.28 lakh on account of FERV in case of 220 kV D/C Faridabad-Palla transmission line has been treated as equity. Therefore, debt-equity ratio and notional equity considered for tariff in each case is as under:

<b>Name of the Element</b>	<b>Equity in previous tariff (Rs. In lakh)</b>	<b>Notional equity for additional capitalisation (Rs. in lakh)</b>	<b>Notional equity on account of FERV (Rs. in lakh)</b>	<b>Total equity (Rs. in lakh)</b>	<b>Debt-equity ratio considered</b>
220 KV D/C Faridabad-Samaypur Transmission line with associated bays	1554.33	-	-	1554.33	36.25:63.75
220 KV D/C Faridabad-Palla Transmission line with associated bays	1180.27	-	(-) 12.28	1167.99	44.70:55.30



## **RETURN ON EQUITY**

21. 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.

22. The petitioner has claimed return on the basis of previous tariff setting along with notional equity on additional capitalisation of Rs.178.61 lakh on works and notional proportional reduction in equity of Rs.7.45 lakh on account of FERV. However, we have already held that additional capitalisation of Rs.178.61 lakh is deemed to have been financed through loan and de-capitalisation of Rs.12.28 lakh on account of FERV for Faridabad-Palla transmission line through equity. Thus, the return on equity recoverable each year during the tariff period is given hereunder:

(Rs. in lakh)

<b>Name of the Element</b>	<b>Notional equity claimed</b>	<b>Notional equity allowed</b>	<b>Return on Equity</b>
220 KV D/C Faridabad-Samaypur transmission line with associated bays	1554.33	1554.33	217.61
220 KV D/C Faridabad-Palla transmission line with associated bays	1351.43	1167.99	163.52

## **INTEREST ON LOAN**

23. As per clause (i) of Regulation 56 of the 2004 regulations, interest on loan capital is to be computed loan wise on the loans arrived at in the manner indicated in regulation 54. Further, the loan outstanding as on 1.4.2004 is worked out as the gross loan as per regulation 54 minus cumulative repayment as admitted by the Commission up to

31.3.2004. The repayment for the period 2004-09 needs to be worked out on normative basis.

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

(i) Gross loans, cumulative loan repayment up to previous year as admitted by the Commission in petition No. 20/2002 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 as admitted by the Commission in petition No. 20/2002 have been considered as notional loan and the weighted average rate of interest on loan for the year 2004-05 as per above has been applied to arrive at interest on loan.

(iv) In addition to above, in case of assets (i)& (ii), Notional loan component of FERV up to 31.3.2001 as well as per para 3 as above have been considered separately and actual applicable rate of interest on Foreign Loan have been considered to workout the interest on this component.

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

(i) An amount of Rs.178.61 lakh on account of additional capitalisation for Faridabad-Palla transmission line on works 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 15.10.2003.
- (iv) Repayment of notional loan arising due to additional capitalisation during the years 2001-04 has been worked out in proportion to the repayment of actual loan during these years.
- (v) 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 :

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$

- (vi) 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.
- (vii) 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.

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

(Rs. in lakh)

	220 KV D/C Faridabad-Samaypur transmission line with associated bays						220 KV D/C Faridabad-Palla transmission line with associated bays					
Details of loan	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan												
Gross Loan as on 1.4.2001	884.00						765.59					
Addition due to Additional Capitalisation	0.00						178.61					
Addition due to FERV	0.00						0.00					
Gross Normative Loan	884.00	884.00	884.00	884.00	884.00	884.00	944.20	944.20	944.20	944.20	944.20	944.20
Cumulative Repayment up to Previous Year		147.87	276.03	404.20	532.37	660.53		113.23	225.93	338.62	451.32	564.02
Net Loan-Opening		736.13	607.97	479.80	351.63	223.47		830.97	718.27	605.57	492.87	380.17
Repayment during the year		128.17	128.17	128.17	128.17	113.57		112.70	112.70	112.70	112.70	101.53
Net Loan-Closing		607.97	479.80	351.63	223.47	109.90		718.27	605.57	492.87	380.17	278.64
Average Loan		672.05	543.88	415.72	287.55	166.68		774.62	661.92	549.22	436.52	329.41
Weighted Average Rate of Interest on Loan		10.3439%	10.3697%	10.4113%	10.4901%	10.8246%		7.8381%	7.5867%	7.2321%	6.6945%	5.9158%
<b>Interest</b>		<b>69.52</b>	<b>56.40</b>	<b>43.28</b>	<b>30.16</b>	<b>18.04</b>		<b>60.72</b>	<b>50.22</b>	<b>39.72</b>	<b>29.22</b>	<b>19.49</b>

27. PNB, Corporation Bank and Bank of India Cayman Island 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.

## **DEPRECIATION**

28. 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.

29. The calculations in support of depreciation allowed are appended below:

(Rs.in lakh)

	220 KV D/C Faridabad-Samaypur transmission line with associated bays						220 KV D/C Faridabad-Palla transmission line with associated bays					
	Up to 31.3.2004	2004- 05	2005- 06	2006-07	2007- 08	2008- 09	Up to 31.3.2004	2004- 05	2005- 06	2006- 07	2007- 08	2008- 09
As per order dated 15.10.2003	2438.33						1945.86					
Addition during 2001-04 due to Additional Capitalisation	0.00						178.61					
Addition during 2001-04 due to FERV	0.00						(-)12.28					
Gross Block as on 31.3.2004 (incl cost of land)	2438.33						2112.18					
Rate of Depreciation	2.9729%						2.8939%					
Gross depreciable value	90%	1922.04	1922.04	1922.04	1922.04	1922.04	90%	1628.24	1628.24	1628.24	1628.24	1628.24
Balance useful life	-	-	-	-	-	-	-	-	-	-	-	-
Remaining depreciable value after deduction of cost of land		1434.61	1362.12	1289.63	1217.15	1144.66		1320.07	1258.94	1197.82	1136.70	1064.22
<b>Depreciation</b>		<b>72.49</b>	<b>72.49</b>	<b>72.49</b>	<b>72.49</b>	<b>72.49</b>		<b>61.12</b>	<b>61.12</b>	<b>61.12</b>	<b>61.12</b>	<b>61.12</b>

### **ADVANCE AGAINST DEPRECIATION**

30. 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:

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

31. 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.

32. The petitioner has not claimed Advance Against Depreciation. Due to considering higher notional loan in case of Faridabad-Palla line, loan repayment for the year 2007-08 and 2008-09 has gone up in comparison to the amount proposed in the petition. As depreciation for the aforesaid years are not sufficient to meet the notional loan repayment. AAD needs to be provided. Accordingly, AAD of Rs.11.36 lakh and 33.30 lakh for the year 2007-08 and 2008-09 respectively totalling to Rs.44.66 has been allowed.

### **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 66.76 (35.38 3+31.38) ckt- km of line length and 9 bays (4 at Samaypur sub-station and 5 at Faridabad sub-station), which has been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

		(Rs. in lakh)									
		220 KV D/C Faridabad-Samaypur transmission line with associated bays					220 KV D/C Faridabad-Palla transmission line with associated bays				
		2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses for line length	8.03	8.35	8.70	9.02	9.41	7.12	7.41	7.72	8.00	8.35	
O&M expenses for bays	112.48	117.00	121.68	126.68	131.60	140.60	146.25	152.10	158.15	164.50	
<b>TOTAL</b>	<b>120.51</b>	<b>125.35</b>	<b>130.38</b>	<b>135.54</b>	<b>141.01</b>	<b>147.72</b>	<b>153.66</b>	<b>159.82</b>	<b>166.15</b>	<b>172.85</b>	

35. 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**

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, transmission line wise capital expenditure on the date of commercial operation 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. The necessary details are given hereunder:

<b>Name of the Element</b>	<b>Date of Commercial Operation</b>	<b>Capital Expenditure (Rs. in lakh) on the date of commercial operation</b>	<b>Escalated spares Cost (Rs. in lakh) as on 1.4.2004</b>
220 KV D/C Faridabad-Samaypur Transmission line with associated bays	1.6.1999	1820.51	24.13
220 KV D/C Faridabad-Palla Transmission line with associated bays	1.2.2000	1871.52	23.86



**(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)

	220 KV D/C Faridabad-Samaypur transmission line with associated bays					220 KV D/C Faridabad-Palla transmission line with associated bays				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	24.13	25.58	27.12	28.74	30.47	23.86	25.30	26.81	28.42	30.13
O & M expenses	10.04	10.45	10.87	11.30	11.75	12.31	12.81	13.32	13.85	14.40
Receivables	82.01	80.63	79.30	77.98	76.89	74.06	73.32	72.62	73.88	77.12
Total	116.18	116.66	117.28	118.02	119.11	110.24	111.42	112.75	116.15	121.66
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	11.91	11.96	12.02	12.10	12.21	11.30	11.42	11.56	11.91	12.47

### TRANSMISSION CHARGES

38. 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 transmission system are summarized below.

(Rs.in lakh)

	220 KV D/C Faridabad-Samaypur transmission line with associated bays					220 KV D/C Faridabad-Palla transmission line with associated bays				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	72.49	72.49	72.49	72.49	72.49	61.12	61.12	61.12	61.12	61.12
Interest on Loan	69.52	56.40	43.28	30.16	18.04	60.72	50.22	39.72	29.22	19.49
Return on Equity	217.61	217.61	217.61	217.61	217.61	163.52	163.52	163.52	163.52	163.52
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.36	33.30
Interest on Working Capital	11.91	11.96	12.02	12.10	12.21	11.30	11.42	11.56	11.91	12.47
O & M Expenses	120.51	125.35	130.38	135.54	141.01	147.72	153.66	159.82	166.15	172.85
Total	492.03	483.80	475.78	467.90	461.36	444.38	439.94	435.74	443.28	462.74

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 Northern 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 1<sup>st</sup> April of the financial year following the financial year to which additional capital expenditure relates. As the entire amount of additional capitalization of Rs. 178.61 lakh allowed for Faridabad-Palla transmission line has been considered as loan, the petitioner shall be entitled to recover additional interest on loan from 1.4.2002 to 31.3.2003 of Rs. 7.07 lakh, and from 1.4.2003 to 31.3.2004 of Rs. 16.04 lakh, the total amount being Rs. 23.11 lakh. The petitioner shall recover the amount from the respondents along with the transmission charges for the period 1.4.2004 to 31.3.2009.

41. 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.

42. This order disposes of Petition No.97/2004 as also IA No.24/2005.

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

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

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

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

**New Delhi dated the 27<sup>th</sup> January 2006**

## SUMMARY SHEET

<b>Name of the Company:</b>		PGCIL						
<b>Name of the Element:</b>		220 KV D/C Faridabad-Samaypur transmission line with associated bays in Northern Region			220 KV D/C Faridabad-Palla transmission line with associated bays in Northern Region			
<b>Actual DOCO:</b>		1.6.1999			1.2.2000			
<b>Petition No.:</b>		97/2004						
<b>Tariff setting Period:</b>		2004-09			2004-09			
(Rs.in lakh)								
<b>1</b>	<b>Capital Cost of the Project</b>				<b>4797.00@</b>		<b>4797.00@</b>	
<b>2</b>	<b>Admitted Capital Cost as on 1.4.2004 for Calculation of Debt and Equity</b>				<b>2438.33</b>		<b>1945.86</b>	
<b>3</b>	<b>Additional Capitalisation(works)</b>				<b>0.00</b>		<b>178.61</b>	
	2001-02		0.00			72.58		
	2002-03		0.00			94.92		
	2003-04		0.00			11.11		
	Total		0.00			178.61		
<b>4</b>	<b>Additional Capitalisation(FERV)</b>				<b>0.00</b>		<b>-12.28</b>	
	2001-02		0.00			9.94		
	2002-03		0.00			-5.40		
	2003-04		0.00			-16.83		
	Total		0.00			-12.28		
<b>5</b>	<b>Total Capital Cost as on 1.4.2004(2+3+4)</b>				<b>2438.33</b>		<b>2112.18</b>	
<b>6</b>	<b>Means of Finance :</b>							
	Debt	36.25%	884.00		44.70%	944.20		
	Equity	63.75%	1554.33		55.30%	1167.99		
	Total	100.00%	2438.33		100.00%	2112.18		
<b>7</b>	<b>Gross Loan as on 1.4.2004</b>				<b>884.00</b>		<b>944.20</b>	
<b>8</b>	<b>Cumulative Repayment upto 31.3.2009 :</b>				<b>774.10</b>		<b>665.56</b>	
	Repaid upto 31.3.2004		147.87			91.95		
	1.4.01 to 31.3.2004 (ACE & FERV)		0.00			21.28		
	1.4.2004 to 31.3.2009		626.23			552.33		
	Total		774.10			665.56		
<b>9</b>	<b>Balance Loan to be repaid beyond 31.3.2009 :</b>				<b>109.90</b>		<b>278.64</b>	
<b>10</b>	<b>Depreciation recovered upto 31.3.09 :</b>				<b>849.87</b>		<b>658.44</b>	
		<b>Dep</b>	<b>AAD</b>	<b>Total</b>		<b>Dep</b>	<b>AAD</b>	<b>Total</b>
	Recovered upto 31.3.2004	486.26	1.17	487.43		300.17	7.76	307.93
	1.4.01 to 31.3.2004 (ACE & FERV)	0.00	0.00	0.00		0.24	0.00	0.24
	From 1.4.2004 to 31.3.2009	362.45	0.00	362.45		305.62	44.65	350.27
	Total			849.87				658.44
<b>11</b>	<b>Balance Depreciation to be recovered beyond 31.3.2009 :</b>				<b>1072.17</b>			<b>969.80</b>
	Capital cost for the purpose of Depreciation		2438.33					1945.86
	ACE + FERV		0.00					166.33
	Capital cost as 1.4.2004		2438.33					2112.18
	Less: Land Cost		302.73					303.03
			2135.60					1809.15
	90% of Capital Cost as above		1922.04					1628.24
	Cum. Depreciation to be recovered upto 31.3.09		849.87					658.44
	Balance Depreciation to be recovered beyond 31.3.09		1072.17					969.80

**@ For both lines.**