

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

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

Petition No.112/2004

In the matter of

Approval of transmission charges for the transmission system associated with Gandhar Gas Power Station I in Western 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. Madhya Pradesh State Electricity Board, Jabalpur
 2. Maharashtra State Electricity Board, Mumbai
 3. Gujarat Electricity Board, Baroda
 4. Electricity Deptt., Government of Goa, Panaji
 5. Electricity Deptt., Administration of Daman & Diu, Daman
 6. Electricity Deptt., Administration of Dadra Nagar Haveli, Silvassa
 7. Chhattisgarh State Electricity Board, Raipur
- Respondents**

The following were present:

1. Shri U.K. Tyagi, PGCIL
2. Shri C. Kannan, PGCIL
3. Shri P.C. Pankaj, PGCIL
4. Shri Prasant Sharma, CM, PGCIL
5. Shri M.M. Mondal, CM (Fin), PGCIL
6. Shri D.D.Khandelwal, MPSEB
7. Shri Deepak Srivastava, MPSEB
8. Shri P.M.Mathey, MSEB
9. Shri Kamlesh Kumar Jangia, GUVNL
10. Shri S.B.Khailya, GUVNL

**ORDER
(DATE OF HEARING: 7.9. 2005)**

The petition has been filed for approval of transmission charges for the transmission system associated with Gandhar Gas Power Station I (the transmission system) in Western 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. The petitioner in its affidavit dated 26 September 2005 has prayed to approve the reimbursement of expenditure from the beneficiaries towards publishing of notices in newspapers and filing fees.

2. The investment approval for the transmission system was accorded by the Ministry of Power at an estimated cost of Rs. 20381.00 lakh. The administrative approval for the transmission system was revised by Ministry of Power under its letter dated 4.1.2000 for a total cost of Rs. 24414.00 lakh. The annual transmission charges from 1.4.2001 to 31.3.2004 were decided by the Commission in its order dated 30.4.2004 in Petition No.74/2002 at a total cost of Rs. 23734.14 lakh. The scope of work included in the transmission system and the date of commercial operation of the respective transmission line are as stated below:

S. No.	Name of the transmission line	Date of commercial operation	Line length in Ckt-km (for O & M)
(i)	400 kV Gandhar-Padghe S/C transmission line with associated bays	1.3.1998	298
(ii)	400 kV Gandhar-Gandhar S/C transmission line	1.6.1998	13
(iii)	220 kV Gandhar-Bharuch D/C transmission line with associated bays	1.8.1994	26
(iv)	400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam	1.6.1995	314
	Total		651

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

	(Rs.in lakh)														
	400 kV Gandhar-Padghe S/C transmission line with associated bays					400 kV Gandhar-Gandhar S/C transmission line					220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	302.58	302.58	302.58	302.58	302.58	14.70	14.70	14.70	14.70	14.70	341.01	341.01	341.01	341.01	341.01
Interest on Loan	102.07	90.06	78.05	66.05	54.04	7.07	6.24	5.41	4.57	3.74	62.93	49.80	36.67	23.55	10.42
Return on Equity	643.23	643.23	643.23	643.23	643.23	31.92	31.92	31.92	31.92	31.92	770.46	770.46	770.46	770.46	770.46
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	37.71	38.62	39.60	40.64	41.76	1.82	1.86	1.90	1.95	1.99	48.08	49.37	50.75	52.20	53.77
O & M Expenses	95.77	99.58	103.73	107.62	112.17	2.95	3.07	3.20	3.32	3.46	274.02	284.99	296.58	308.11	320.74
Total	1181.36	1174.07	1167.19	1160.11	1153.78	58.46	57.79	57.12	56.45	55.81	1496.50	1495.63	1495.47	1495.33	1496.41

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

(Rs.in lakh)

	400 kV Gandhar-Padghe S/C transmission line with associated bays					400 kV Gandhar-Gandhar S/C transmission line					220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	163.00	172.78	183.14	194.13	205.78	7.81	8.28	8.78	9.30	9.86	196.80	208.61	221.12	234.39	248.45
O & M expenses	7.98	8.30	8.64	8.97	9.35	0.25	0.26	0.27	0.28	0.29	22.84	23.75	24.72	25.68	26.73
Receivables	196.89	195.68	194.53	193.35	192.30	9.74	9.63	9.52	9.41	9.30	249.42	249.27	249.25	249.22	249.40
Total	367.87	376.76	386.32	396.45	407.42	17.80	18.17	18.56	18.99	19.45	469.05	481.63	495.08	509.29	524.58
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	37.71	38.62	39.60	40.64	41.76	1.82	1.86	1.90	1.95	1.99	48.08	49.37	50.75	52.20	53.77

5. The replies to the petition have been filed by Madhya Pradesh State Electricity Board and Maharashtra State Electricity Board. In response to the public notice published by the petitioner, no comments have been received from the general public.

CAPITAL COST

6. 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.

7. The petitioner has considered the capital expenditure admitted by the Commission in the order dated 30.4.2004 *ibid*. The petitioner has not claimed additional capitalisation on works. The petitioner has also not considered additional capitalisation on account of FERV as there are no foreign loans. Accordingly, the capital expenditure of Rs. 23734.14 lakh considered by the petitioner for tariff purpose as per details given hereunder has been allowed:

(Rs.in lakh)	
Name of the Element	Capital cost
400 kV Gandhar-Padghe S/C transmission line with associated bays	11433.51
400 kV Gandhar-Gandhar S/C transmission line	555.97
220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam	11744.66
Total	23734.14

DEBT- EQUITY RATIO

8. 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.”

9. The petitioner has claimed tariff based on debt-equity ratio as considered by the Commission in its order dated 30.4.2004 *ibid*. Based on this, the debt-equity

considered by the petitioner for different assets for the purpose of determination of tariff in the present petition is indicated below:

Name of the Element	Debt-equity ratio
400 kV Gandhar-Padghe S/C transmission line with associated bays	59.82:40.18
400 kV Gandhar-Gandhar S/C transmission line	59:41
220 kV Gandhar-Bharuch D/C transmission line with associated bays	50:50 of net fixed asset as on 1.4. 1997
400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam	

10. As there is no additional capital expenditure on works and FERV during 2001-04, the actual loan and equity have been considered for tariff calculations in case of 400 kV Gandhar-Pedghe transmission line and 400 kV Gandhar-Gandhar transmission line. In case of 220 kV Gandhar-Bharuch D/C transmission line and 400 kV Gandhar-Dehgam D/C transmission line, the petitioner has claimed tariff based on debt-equity of 50:50 on the net fixed asset as on 1.4.1997, which was considered by the Commission in its order dated 30.4.2004 *ibid*. The petitioner's claim in this regard is in accordance with the 2004 regulations. Therefore, debt-equity ratio and the equity considered for the purpose of tariff in each case are as under:

Name of the Element	Debt-equity ratio considered	Equity (Rs. in lakh)
400 kV Gandhar-Padghe S/C transmission line with associated bays	59.82:40.18	4594.51
400 kV Gandhar-Gandhar S/C transmission line	59:41	227.97
220 kV Gandhar-Bharuch D/C transmission line with associated bays	50:50 of net fixed asset as on 1.4.1997	5503.32
400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam		

RETURN ON EQUITY

11. 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.

12. The petitioner has claimed return on the basis of order dated 30.4.2004 *ibid*, which has been found to be admissible. Thus, the return on equity each year during the tariff period is given hereunder:

Name of the Element	(Rs. in lakh)	
	Equity	Return on Equity
400 kV Gandhar-Padghe S/C transmission line with associated bays	4594.51	643.23
400 kV Gandhar-Gandhar S/C transmission line	227.97	31.92
220 kV Gandhar-Bharuch D/C transmission line with associated bays	5503.32	770.46
400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam		

INTEREST ON LOAN

13. 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.

14. 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 the order dated 30.4.2004 have been taken as the Opening Balance as on 1.4.2004.
 - (ii) The petitioner has adjusted the loan figures on account of replacement of GOI loan with LIC Tranche IV on 17.10.2003 wherever required.
 - (iii) 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.
 - (iv) Gross loans as admitted by the Commission in the order dated 30.4.2004 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.
15. 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) Gross loan and cumulative repayment up to 31.3.2004 has been taken from the order dated 30.4.2004 which has been adjusted in respect of GOI loan and LIC Tranche IV refinancing.
 - (iii) 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:

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

- (iv) 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.
- (v) 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.

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

(Rs. in lakh)

Details of loan	400 kV Gandhar-Padghe S/C transmission line with associated bays						400 kV Gandhar-Gandhar S/C transmission line						220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam					
	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	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	6839.00						328.00						5503.32					
Addition due to Additional Capitalisation	0.00						0.00						0.00					
Addition due to FERV	0.00						0.00						0.00					
Gross Normative Loan	6839.00	6839.00	6839.00	6839.00	6839.00	6839.00	328.00	328.00	328.00	328.00	328.00	328.00	5503.32	5503.32	5503.32	5503.32	5503.32	5503.32
Cumulative Repayment up to Previous Year		5123.51	5426.09	5728.67	6031.24	6333.82		209.20	223.91	238.61	253.32	268.03		4400.27	4741.28	5082.28	5423.29	5503.32
Net Loan-Opening		1715.49	1412.91	1110.33	807.76	505.18		118.80	104.09	89.39	74.68	59.97		1103.05	762.04	421.03	80.03	0.00
Repayment during the year		302.58	302.58	302.58	302.58	302.58		14.71	14.71	14.71	14.71	14.71		341.01	341.01	341.01	80.03	0.00
Net Loan-Closing		1412.91	1110.33	807.76	505.18	202.60		104.09	89.39	74.68	59.97	45.26		762.04	421.03	80.03	0.00	0.00
Average Loan		1564.20	1261.62	959.05	656.47	353.89		111.45	96.74	82.03	67.32	52.62		932.54	591.54	250.53	40.01	0.00
Weighted Average Rate of Interest on Loan		6.3000%	6.3000%	6.3000%	6.3000%	6.3000%		6.3000%	6.3000%	6.3000%	6.3000%	6.3000%		6.3000%	6.3000%	6.3000%	6.3000%	6.3000%
Interest		98.54	79.48	60.42	41.36	22.30		7.02	6.09	5.17	4.24	3.31		58.75	37.27	15.78	2.52	0.00

17. It has been noticed that GOI loan was re-financed by LIC Tranche IV loan on 17.10.2003. However, the repayment schedule of GOI loan and LIC Tranche IV loan are not similar, thereby affecting closing balance, Advance Against Deprecation, cumulative repayment and cumulative depreciation for the period 1.4.2001 to 31.3.2004. Therefore, the impact of refinancing of loan made by the petitioner during the period 2001-04 has been notionally re-calculated for the purpose of computation of tariff during the current tariff period. The benefits accruing to the petitioner due to refinancing of GOI loan during 2001-04 shall be passed on to the consumers.

DEPRECIATION

18. 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.

19. As the entire loan for the 220 kV Gandhar-Bharuch D/C transmission line with associated bays and 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam gets repaid during 2007-08, depreciation for 2008-09 has been worked out by spreading the balance depreciable value (Rs. 10475.96 lakh as on 1.4.2008) over the remaining useful life of the transmission line. The weighted average life of these transmission assets works out to 32 years, against the actual life of 13 years up to 31.3.2008. Accordingly, balance useful life has been taken as 19 years as on 1.4.2008. In this manner, depreciation comes to Rs. 230.30 lakh for the year 2008-09. Otherwise, deprecation in all cases has been calculated in accordance with sub-para (iii) of para 18 above.

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

(Rs. in lakh)

	400 kV Gandhar-Padghe S/C transmission line with associated bays						4400 kV Gandhar-Gandhar S/C transmission line						220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam								
		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		Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
As per order dated 6.8.2003		11433.51						555.97							11744.66						
Addition during 2001-04 due to Additional Capitalization		0.00						0.00							0.00						
Addition during 2001-04 due to FERV		0.00						0.00							0.00						
Gross Block as on 31.3.2004		11433.51	11433.51	11433.51	11433.51	11433.51	11433.51	555.97	555.97	555.97	555.97	555.97	555.97		11744.66	11744.66	11744.66	11744.66	11744.66	11744.66	11744.66
Rate of Depreciation	2.6464%							2.6453%							2.9035%						
Depreciable value	90%		10290.16	10290.16	10290.16	10290.16	10290.16	90%		500.37	500.37	500.37	500.37	500.37		10475.96	10475.96	10475.96	10475.96	10475.96	10475.96
Balance useful life of the asset		-	-	-	-	-	-			-	-	-	-	-	23	23	22	21	20	19	
Remaining Depreciable value			7242.27	6939.69	6637.12	6334.54	6031.96			383.16	368.45	353.75	339.04	324.33		5739.64	5398.64	5057.63	4716.62	4375.62	
Depreciation			302.58	302.58	302.58	302.58	302.58			14.71	14.71	14.71	14.71	14.71		341.01	341.01	341.01	341.01	341.01	230.30

ADVANCE AGAINST DEPRECIATION

21. 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

22. 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.

23. The petitioner has not claimed Advance Against Depreciation. Accordingly, its entitlement is considered as `nil`.

OPERATION & MAINTENANCE EXPENSES

24. 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

25. The petitioner has claimed O & M expenses for 651 (298+13+26+314) ckt- km of line length and 8 bays (5 at Dehgam, 2 at Bharuch and 1 at Padghe 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)

	400 kV Gandhar-Padghe S/C transmission line with associated bays					400 kV Gandhar-Gandhar S/C transmission line					220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam				
	2004-05	2005-06	2006-07	2007-08	2008-09	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	67.65	70.33	73.31	75.99	79.27	2.95	3.07	3.20	3.32	3.46	77.18	80.24	83.64	86.70	90.44
O&M expenses for bays	28.12	29.25	30.42	31.63	32.90	-	-	-	-	-	196.84	204.75	212.94	221.41	230.30
TOTAL	95.77	99.58	103.73	107.62	112.17	2.95	3.07	3.20	3.32	3.46	274.02	284.99	295.58	308.11	320.74

26. 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

27. The components of the working capital and the interest thereon are discussed hereunder:

(i) Maintenance spares

Regulation 56(v) (1) (b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. In the present case, element wise capital expenditure on the date of commercial operation which has been considered as the historical cost for the purpose of the present petition and maintenance spares have been worked out accordingly by escalating 1% of the historical cost @ 6% per annum. The necessary details are given hereunder:

Name of the Element	Date of Commercial Operation	Capital Expenditure (Rs. in lakh) on the date of commercial operation	Escalated spares Cost (Rs. in lakh)
400 kV Gandhar-Padghe S/C transmission line with associated bays	1.3.1998	11399.93	162.52
400 kV Gandhar-Gandhar S/C transmission line	1.6.1998	555.97	7.81
220 kV Gandhar-Bharuch D/C transmission line with associated bays	1.8.1994	11543.43	185.775
400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam	1.6.1995		

(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.

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

(Rs.in lakh)

	400 kV Gandhar-Padghe S/C transmission line with associated bays					400 kV Gandhar-Gandhar S/C transmission line					220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	162.52	172.27	182.61	193.56	205.18	7.81	8.28	8.78	9.30	9.86	185.77	196.92	208.73	221.26	234.53
O & M expenses	7.98	8.30	8.64	8.97	9.35	0.25	0.26	0.27	0.28	0.29	22.84	23.75	24.72	25.68	26.73
Receivables	196.29	193.88	191.53	189.16	186.90	9.74	9.61	9.48	9.35	9.23	248.65	247.09	245.64	245.59	228.79
Total	366.79	374.44	382.78	391.69	401.43	17.79	18.14	18.53	18.94	19.38	465.04	476.00	487.83	501.79	499.88
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	37.60	38.38	39.24	40.15	41.15	1.82	1.86	1.90	1.94	1.99	47.67	48.79	50.00	51.43	51.24

TRANSMISSION CHARGES

29. 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)

	400 kV Gandhar-Padghe S/C transmission line with associated bays					400 kV Gandhar-Gandhar S/C transmission line					220 kV Gandhar-Bharuch D/C transmission line with associated bays 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	302.58	302.58	302.58	302.58	302.58	14.71	14.71	14.71	14.71	14.71	341.01	341.01	341.01	341.01	230.30
Interest on Loan	98.54	79.48	60.42	41.36	22.30	7.02	6.09	5.17	4.24	3.31	58.75	37.27	15.78	2.52	0.00
Return on Equity	643.23	643.23	643.23	643.23	643.23	31.92	31.92	31.92	31.92	31.92	770.46	770.46	770.46	770.46	770.46
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	37.60	38.38	39.24	40.15	41.15	1.82	1.86	1.90	1.94	1.99	47.67	48.79	50.00	51.43	51.24
O & M Expenses	95.77	99.58	103.73	107.62	112.17	2.95	3.07	3.20	3.32	3.46	274.02	284.99	296.58	308.11	320.74
Total	1177.72	1163.25	1149.19	1134.93	1121.42	58.42	57.65	56.89	56.13	55.38	1491.91	1482.52	1473.84	1473.53	1372.74

30. 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 Western Region and shall be shared by the regional beneficiaries in accordance with the 2004 regulations.

31. The petitioner has sought approval for the reimbursement of expenditure of Rs. 1, 21.134/- 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. The view taken shall apply in the present case as regards reimbursement of filing fee.

32. 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.

33. This order disposes of Petition No.112/2004.

Sd-/
(BHANU BHUSHAN)
MEMBER

sd-/
(K.N.SINHA)
MEMBER

sd-/
(ASHOK BASU)
CHAIRPERSON

New Delhi dated the 14th February 2006

SUMMARY SHEET

Name of the Element:		400 kV Gandhar-Padghe S/C transmission line with associated bays			400 kV Gandhar-Gandhar S/C transmission line			220 kV Gandhar-Bharuch D/C transmission line with associated bays		
Actual DOCO:		1.3.1998			1.6.1998			1.8.1994 & 1.6.1995		
Tariff setting Period:		2004-09			2004-09			2004-09		
		(Rs. in lakh)						(Rs. in lakh)		
1	Capital Cost of the Project			24414.00@			24414.00@			24414.00@
2	Cumulative depreciation recovered as on 31. 3.97			0.00			0.00			738.03
3	Net Fixed Assets as on 1.4.1997						555.97			11006.63
4	Admitted Capital Cost as on 1. 4.2004 for Calculation of Debt and Equity			11433.51			555.97			1174.14
5	Additional Capitalisation(works)			0.00			0.00			0.00
	2001-02			0.00			0.00			0.00
	2002-03			0.00			0.00			0.00
	2003-04			0.00			0.00			0.00
	Total			0.00			0.00			0.00
6	Additional Capitalisation(FERV)			0.00			0.00			0.00
	2001-02			0.00			0.00			0.00
	2002-03			0.00			0.00			0.00
	2003-04			0.00			0.00			0.00
	Total			0.00			0.00			0.00
7	Total Capital Cost as on 1. 4.2004(2+3+4)			11433.51			555.97			11006.63
8	Means of Finance :									
	Debt		59.82%	6839.00		59.002%	328.00		50.00%	5503.32
	Equity		40.18%	4594.51		41.00%	227.97		50.00%	5503.32
	Total		100.00%	11433.51		100.00%	555.97		100.00%	11006.63
9	Gross Loan as on 1. 4.2004			6839.00			328.00			5503.32
	Cumulative Repayment up to 31.3.2009 :			6636.40			282.74			5503.32
	Repaid up to 31. 3.2004			5123.51			209.20			4400.27
	1. 4.2001 to 31. 3.2004 (ACE & FERV)			0.00			0.00			0.00
	1. 4.2004 to 31. 3.2009			1512.89			73.54			1103.05
	Total	3732.7226		6636.40			282.74			5503.32
10	Balance Loan to be repaid beyond 31. 3.2009 :			202.60			45.26			0.00
11	Depreciation recovered up to 31. 3.2009 :			4560.78			190.75			6330.63
		Dep	AAD	Total	Dep	AAD	Total	Dep	AAD	Total
	Recovered up to 31. 3.2004	2780.55	313.19	3047.89	104.58	12.63	117.21	4618.71	117.60	4736.31
	From 1. 4.2001 to 31. 3.2004 (ACE & FERV)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	From 1. 4.2004 to 31. 3.2009	1512.89	0.00	1512.89	73.54	0.00	73.54	1594.32	0.00	1594.32
	Total			4560.78			190.75			6330.63
12	Balance Depreciation to be recovered beyond 31. 3.2009 :			5729.38			309.628			4145.32
	Capital cost for the purpose of Depreciation			11433.51			555.97			11744.66
	ACE + FERV			0.00			0.00			0.00
	Capital cost as 1. 4.2004			11433.51			555.97			11744.66
	Less: Land Cost			0.00			0.00			104.71
				11433.51			555.97			11639.95
	90% of Capital Cost as above			10290.16			500.37			10475.96
	Cum. Depreciation to be recovered upto 31. 3.09			4560.78			190.75			6330.63
	Balance			5729.38			309.62			4145.32

*: Debt and Equity are notional and not actual as per division of debt & equity taken on 50:50 accepted by the Commission as per policy of GOI for the assets having DOCO prior to 01.04.1997. The prior period tariff (2001-04) set by the Commission in petition 74/2002 as per above GOI policy was on NFA basis and the Gross Block as on 01.04.1997 was Rs. 11744.66 lakh for both the assets. Cumulative depreciation recovered up to 31.03.1997 amounting to Rs.738.03 lakh was deducted to arrive at NFA as on 31.03.1997 amounting to Rs.11006.63 lakh. The same was divided into notional loan and notional equity in the ratio of 50:50.

@ For all the assets