

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

1. **Shri Bhanu Bhushan, Member**
2. **Shri R.Krishnamoorthy, Member**

Petition No. 63/2007

In the matter of

Determination of provisional transmission tariff for Vindhyachal STPP-Satna 400 kV D/C transmission line (3rd and 4th circuit) and 400/220 kV Satna (Powergrid) sub-station (extension) with 1x315 MVA transformer under Vindhyachal Stage-III transmission system in Western Region for the period up to 31.3.2009.

And in the matter of

Power Grid Corporation of India Limited, Gurgaon

..Petitioner

Vs

1. Madhya Pradesh Power Transmission Company Ltd.
2. Maharashtra State Electricity Distribution Company Ltd., Mumbai
3. Gujarat Urja Vikas Nigam Ltd., Vadodra
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
8. Madhya Pradesh Audyogik Kandra Vikas Nigam (Indore) Ltd, Indore

.Respondents

The following were present:

1. Shri P.C.Pankaj, PGCIL
2. Shri U.K. Tyagi, PGCIL
3. Shri M.M.Mondal, PGCIL
4. Shri Prashant Sharma, PGCIL
5. Shri Rakesh Prasad, PGCIL
6. Shri C.Kannan, PGCIL

**ORDER
(DATE OF HEARING: 28.6.2007)**

The application has been made for approval of provisional transmission charges for Vindhyachal STPP-Satna 400 kV D/C transmission line (3rd and 4th circuit) and 400/220 kV Satna (Powergrid) sub-station (extension) with 1x315 MVA transformer (the transmission assets) under Vindhyachal Stage-III transmission system (the transmission system) in Western Region from the date of commercial operation of the respective element and up to 31.3.2009, based on the Central

Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (the 2004 regulations).

2. The investment approval for the transmission system was accorded by Ministry of Power vide its letter dated 23.7.2004 at an estimated cost of Rs. 59647 lakh, which included IDC of Rs. 5289 lakh.

3. The date of commissioning of the respective asset, their apportioned approved cost and cost as on date of commercial operation, are as given hereunder:

S. No	Name of Asset	Date of commercial operation	Apportioned approved cost (Rs. in lakh)	Actual cost as on date of commercial operation (Rs. in lakh)
1.	Vindhyachal-Satna 400 kV D/C transmission line (3 rd circuit)	1.10.2006	16907.83	18267.88
2.	400/220 kV 315 MVA ICT-II at Satna	1.11.2006	1767.29	1551.82
3.	Vindhyachal-Satna 400 kV D/C transmission line (4 th circuit)	1.12.2006	6220.54	6182.62
	Total		24895.66	26002.32

4. The further details of capital expenditure submitted by the petitioner of the transmission assets are as under:

(Rs.in lakh)

	Vindhyachal-Satna 400 kV D/C transmission line (3 rd circuit)	400/220 kV 315 MVA ICT-II at Satna	Vindhyachal-Satna 400 kV D/C transmission line (4 th circuit)
Expenditure up to 31.3.2006	13445.90	1110.38	4380.82
Expenditure from 1.4.2006 up to the date of commercial operation	4821.98	441.44	1801.80
Balance estimated expenditure	1478.31	184.53	238.97
	19746.19	1736.35	6421.59

5. The petitioner has claimed the following provisional transmission charges based on the capital cost as on the date of commercial operation of the respective asset:

Period	(Rs. in lakh)		
	Vindhyachal-Satna 400 kV D/C transmission line (3 rd circuit)	400/220 kV 315 MVA ICT-II at Satna	Vindhyachal-Satna 400 kV D/C transmission line (4 th circuit)
2006-07 (Pro-rata)	1237.21	142.88	304.59
2007-08	2447.66	344.47	907.69
2008-09	2411.79	344.91	897.55

6. The expenditure up to 31.3.2006 has been verified from audited statement of accounts. For the period from 1.4.2006 to the date of commercial operation, the expenditure indicated is based on books of accounts, which is yet to be audited.

7. The application has been heard after notice to the respondents. M. P. Power Trading Co. Ltd., in its reply has raised certain issues which may be relevant for disposal of the main petition. Since presently we are considering the application for approval of provisional tariff only, the issues raised are not being gone into at this stage. The issues will be examined when the main petition for final tariff is taken up for consideration.

Capital cost

8. The total apportioned approved cost for the transmission assets taken together is Rs. 24895.66 lakh which is less than the sum of the actual cost incurred as on date of commercial operation of the three assets, that is, Rs. 26002.32 lakh. For 400/220 kV 315 MVA ICT-II at Satna and Vindhyachal-Satna 400 kV D/C transmission line (4th circuit), the actual cost as on date of the commercial operation being less the respective apportioned approved cost, the actual cost as on the date has been taken as the capital cost for the provisional tariff calculations. However, for Vindhyachal-Satna 400 kV D/C transmission line (3rd circuit), the capital cost of Rs. 17161.22 lakh

has been considered which has been arrived at in the manner that the total cost of the transmission assets for the purpose of tariff does not exceed their apportioned approved cost. The necessary details in this regard are tabulated below:

Assets	Capital cost for provisional tariff (Rs. in lakh)
400/220 kV 315 MVA ICT-II at Satna	1551.82
Vindhyachal –Satna 400 kV D/C Line (4 th circuit)	6182.62
Total of (2) and (3)	7734.44
Vindhyachal –Satna 400 kV D/C Line (3 rd circuit) (Rs 24895.66 lakh <i>minus</i> Rs 7734.44 lakh)	17161.22

9. Accordingly, the provisional transmission tariff has been computed based on the following capital cost:

S. No.	Assets	Capital cost (Rs. in lakh)
1.	Vindhyachal-Satna 400 kV D/C transmission line (3 rd circuit)	17161.22
2.	400/220 kV 315 MVA ICT-II at Satna	1551.82
3.	Vindhyachal-Satna 400 kV D/C transmission line (4 th circuit)	6182.62

Vindhyachal-Satna 400 kV D/C transmission line (3rd circuit)

10. The petitioner has indicated equity deployment of Rs.5479.88 lakh as on the date of commercial operation, which is 30% of the capital cost of Rs. 18267.88 considered by it. However, we have considered the capital cost of Rs. 17161.22 lakh. Therefore, proportionate equity works out to Rs. 5148.37 lakh. Therefore, return on equity @ 14% would be Rs. 720.77 lakh for the years 2007-08 and 2008-09 and Rs. 360.39 lakh for the year 2006-07 on pro rata basis..

11. The petitioner has claimed depreciation of Rs.479.21 lakh (2.62% of the capital cost of Rs. 18267.88 lakh) per year. However, in our computation depreciation has

been considered based on capital cost of Rs. 17166.22 lakh. Loan repayment has notionally been taken to be equal to the depreciation allowed in tariff, and weighted average interest rate has been taken as claimed by the petitioner, that is, 8.46% for the years 2006-07, 2007-08 and 2008-09 respectively. Interest on loan component on the average loan amounts for the years 2006-07, 2007-08 and 2008-09 works out to Rs.503.63 lakh (pro rata), Rs. 978.69 lakh and Rs. 940.58 lakh respectively. No advance against depreciation has been claimed by the petitioner and allowed by us.

12. O & M expenses have been claimed for 258.31 ckt kms and one (1) bay at the rates specified in the 2004 regulations, and are in order. Interest on working capital has been calculated as per the 2004 regulations.

400/220 kV 315 MVA ICT-II at Satna

13. The capital cost of Rs. 1551.82 lakh as on the date of commercial operation has been considered. The petitioner has indicated equity deployment of Rs. 464.82 lakh as on the date of commercial operation, which is 30% of the capital cost considered (the limit specified in the 2004 regulations). The same has been accepted. Therefore, return on equity @ 14% would be Rs.65.07 lakh for the years 2007-08 and 2008-09 and Rs. 27.11 lakh for the year 2006-07 on pro rata basis.

14. The petitioner has claimed depreciation of Rs. 56.26 lakh (3.63% of the capital cost of Rs. 1551.82 lakh) per year, which is provisionally accepted. Loan repayment has notionally been taken to be equal to the depreciation allowed in tariff, and weighted average interest rate has been taken as claimed by the petitioner, ie, 8.50% for the years 2006-09. Interest on loan component on the average loan amounts for the years 2006-07, 2007-08 and 2008-09 works out to Rs.38.09 lakh, Rs. 88.02 lakh and Rs.83.24 lakh respectively. No advance against depreciation has been claimed by the petitioner and allowed by us.

15. O & M expenses have been claimed for four (4) bays at the rates specified in the 2004 regulations, and are in order. Interest on working capital has been calculated as per the 2004 regulations.

Vindhyachal-Satna 400 kV D/C transmission line (4th circuit)

16. The actual expenditure of Rs. 6182.62 lakh as on the date of commercial operation has been claimed by the petitioner as the base for determination of provisional transmission tariff. As already noted, the actual expenditure is less than the apportioned approved cost. The petitioner has indicated equity deployment of Rs.1854.62 lakh as on the date of commercial operation, which is 30% of the capital cost (the limit specified in the 2004 regulations). The same has been accepted. Therefore, return on equity @ 14% would be Rs 259.67 lakh for years 2007-08 and 2008-09 and Rs.86.56 lakh for the year 2006-07 on pro rata basis.

17. The petitioner has claimed depreciation of Rs. 169.38 lakh (2.74% of the capital cost of Rs. 6182.62 lakh) per year, which is provisionally accepted. Loan repayment has notionally been taken to be equal to the depreciation allowed in tariff, and weighted average interest rate has been taken as claimed by the petitioner, ie, 8.56% for the years 2006-09. Interest on loan component on the average loan amounts for the years 2006-07, 2007-08 and 2008-09 works out to Rs.122.67 lakh, Rs. 358.34 lakh and Rs.343.85 lakh respectively. No advance against depreciation has been claimed by the petitioner and allowed by us.

18. O & M expenses have been claimed for 258.31 ckt kms and one (1) bay at the rates specified in the 2004 regulations, and are in order. Interest on working capital has been calculated as per the 2004 regulations.

19. Based on the above, the provisional annual transmission charges are determined as follows:

(Rs. in lakh)

	Vindhyachal-Satna 400 kV D/C transmission line (3 rd circuit)			400/220 kV 315 MVA ICT-II at Satna			Vindhyachal-Satna 400 kV D/C transmission line (4 th circuit)		
	2006-07 (Pro-rata)	2007-08	2008-09	2006-07 (Pro-rata)	2007-08	2008-09	2006-07 (Pro-rata)	2007-08	2008-09
Return on equity	360.39	720.77	720.77	27.11	65.07	65.07	86.56	259.67	259.67
Depreciation	225.09	450.18	450.18	23.44	56.26	56.26	56.46	169.38	169.38
Advance against depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on loan	503.63	978.69	940.58	38.09	88.02	83.24	122.67	358.34	343.85
O & M expenses	46.98	97.50	101.61	50.70	126.52	131.60	31.32	97.50	101.61
Interest on working capital	29.10	58.34	58.89	3.54	8.60	8.74	7.58	22.80	23.05
Total	1165.19	2305.47	2272.03	142.88	344.46	344.91	304.59	907.70	897.56

20. We allow transmission charges tabulated above for the transmission assets, on provisional basis from the date of commercial operation of the respective asset, subject to adjustment after determination of final tariff.

21. The petitioner shall file a fresh petition for approval of final tariff in accordance with the Commission's regulations on the subject, latest by 31.10.2007.

22. While making the application for approval of final tariff, the petitioner shall file a certificate, duly signed by the Auditors, certifying the loan details, duly reconciled with audited accounts of 2006-07.

Sd/-
(R.KRISHNAMOORTHY)
MEMBER
New Delhi dated the 4th July 2007

sd/-
(BHANU BHUSHAN)
MEMBER