

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

1. **Shri D.P. Sinha, Member**
2. **Shri G.S. Rajamani, Member**
3. **Shri K.N. Sinha, Member**

Petition No. 8/1999

In the matter of

Approval of transmission tariff for 220 kV D/C Unchahar-Kanpur Line-1 with associated bays, 400/220 kV ICT-I at Kanpur substation and

Series capacitors on circuit I & II of 220 kV D/C Kishenpur-Pampore transmission line at Kishenpur substation.

And in the matter of

Power Grid Corporation of India Ltd.

.... **Petitioner**

Vs

1. Rajasthan State Electricity Board
2. Himachal Pradesh State Electricity Board
3. Punjab State Electricity Board
4. Haryana Vidyut Prasaran Nigam Ltd
5. Power Dev. Development, J&K
6. Uttar Pradesh State Electricity Board
7. Delhi Vidyut Board
8. Chandigarh Administration
9. Uttaranchal Power Corporation Ltd

..... **Respondents**

The following were present:

1. Shri S.S. Sharma, AGM, PGCIL
2. Shri U.K. Tyagi, PGCIL
3. Shri C. Kannan, PGCIL
4. Shri K.K.S. Babu, PGCIL
5. Shri Sanjay Mehra, PGCIL
6. Shri S. Gopal, PGCIL
7. Shri A.K. Nagpal, PGCIL
8. Shri S.S. Vindal, PGCIL
9. Shri D. Sen, PGCIL
10. Shri Mahendra Kumar, EE, UPPCL
11. Shri T.P.S. Bawa, PSEB
12. Shri S.C. Mehta, XEN, RRVPNL
13. Shri A.K. Jain, CE (Comm), RRVPNL
14. Shri R.K. Arora, XEN, HVPNL

ORDER
(DATE OF HEARING 19.2.2002)

In this petition, the petitioner, Power Grid Corporation of India Ltd., has sought approval for transmission charges for

- (a) 220 kV D/C Unchahar-Kanpur line I with associated bays and 400/220 kV ICT at Kanpur substation and
- (b) Series capacitors on circuit I and II of 220 kV D/C Kishenpur-Pampore transmission line at Kishenpur substation in Northern Region.

2. The petitioner company is entrusted with the function to undertake transmission of energy. In discharge of its above function, petitioner has set up 220 kV D/C Unchahar-Kanpur line-I with associated bays, 400/220 kV ICT at Kanpur substation, which forms part of the Unchahar transmission system associated with 2x210 MW Feroze Gandhi State-II Unchahar Power Project. In addition, the petitioner has built up and commenced under commercial operation the series capacitors on circuit-I & II of 220 kV D/C Kishenpur-Pampore transmission line at Kishenpur substation. All these assets were declared under commercial operation with effect from 1.6.1999. The petition initially filed during September 1999, was subsequently amended during December 2001. The facts stated in the amended petition shall be adverted to in this order.

220 kV Unchahar-Kanpur Transmission Line-I, Circuit I & II along with associated bays and 400/220 kV ICT –I at Kanpur substation

3. Approval for the Unchahar transmission system was accorded by the Central Government at an estimated cost of Rs.168.31 crores, including IDC of Rs.29.37 crores. However, there was change in scope of work and the Central Government accorded its revised approval to the cost estimate for an amount of Rs.135.15 crores, including IDC of Rs.11.93 crores. The completion cost of the above-noted assets is Rs.5431.52 lakhs against the apportioned approved cost, as intimated by the petitioner, of Rs.5993 lakhs. In the amended petition, the petitioner has claimed tariff for the period from 1.6.1999 to 31.3.2001 as under:

PERIOD	TRANSMISSION CHARGES (RS. IN LAKHS)
1999-2000 w.e.f. 1.6.199 (for 10 months)	766.99
2000-2001	936.29

Series Capacitors on circuit-I&II of 220 kV D/C Kishenpur-Pampore transmission line at Kishenpur substation.

4. The approval for the installation of series capacitors on circuit I &II, 220 kV D/C Kishenpur-Pampore line at Kishenpur sub-station was accorded by the Board of Directors of the petitioner company in its meeting held on 2.2.1998 at an estimated cost of Rs.11.06 crores, including IDC of Rs.65 lakhs. The scheme was to be commissioned within a period of 18 months from the date of investment approval. The transmission charges claimed by the petitioner in the amended petition is as under:

PERIOD	TRANSMISSION CHARGES (RS. IN LAKHS)
1999-2000 w.e.f. 1.6.1999 (for 10 months)	156.72
2000-2002	188.74

5. The petitioner has also claimed other charges like foreign exchange rate variation, income tax, incentive, surcharge and other cess and taxes as per the notification issued by Ministry of Power.

6. Replies to the amended petition have been filed on behalf of HVPNL (Respondent No.4) and RRVPNL (Respondent No.1). HVPNL in its reply has submitted that the completion cost of 220 kV D/C Unchahar Kanpur line I is on the higher side. It has been submitted that as per the estimates received from the petitioner for construction of 220 kV D/C line Palli-Chakarpur, the cost of line per Km for which had been worked out as Rs.24.7 lakhs. On the contrary, the cost of 220 kV D/C Unchahar-Kanpur line I works out as Rs.26.36 lakhs. HVPNL has prayed that the completed cost for transmission line for the purpose of transmission charges may not be taken more than Rs.3564 lakhs i.e. @ Rs.24.7 lakhs per Km. HVPNL has also pointed out that rate of interest on working capital claimed @ 15.84% is on the higher side in view of the considerable reduction in interest rates during the previous 2-3 years and has pleaded the petitioner be allowed interest on working capital @ 11.65%. HVPNL has further submitted that the petitioner has unilaterally changed the debt-equity ratio from the approved package for series capacitors on circuit I&II of 220 kV D/C Kishenpur-Pampore

transmission line at Kishenpur, according to which, equity was to be to the extent of 20%, though in actual construction, 23% of equity has been employed.

7. RRVPNL in its reply has pointed out that the petitioner considered the depreciation of transmission assets in the tariff calculation from the date of commercial operation of the transmission assets. According to RRVPNL, in earlier notifications issued by Ministry of Power, the depreciation used to be charged from the year following the year in which the asset had been put on commercial operation. On that analogy, it has been prayed that depreciation for the present assets should also be charged accordingly.

8. We have considered the submissions made on behalf of the parties. We find that the cost estimates for 220 kV D/C Chakarpur-Palli line referred to by HVPNL in its reply do not include cost of certain items, such as miscellaneous tools, and plants, establishment charges, losses on stock, contingencies, IDC etc. which form part of the cost estimates of the assets presently under construction. This explains the reasons for higher completion cost of construction per Km of 220 kV D/C Unchhar-Kanpur Line I which is the subject matter of the present petition. We, therefore, over rule the objection raised on behalf of HVPNL. On the question of means of financing, there is no dispute as regards 220 kV D/C Unchahar-Kanpur line and other associated assets forming part of Unchahar Transmission System. In regard to series capacitors, it is observed that in approval granted by the Board of Directors of the petitioner company, the means

of financing are not specified. In any case, the differences between the parties are considered to be of trivial nature since the equity is to the extent of 23% of the project cost. We, therefore, direct that the tariff shall be calculated based on actual debt and equity employed by the petitioner.

9. As per Ministry of Power notification dated 16.12.1997, the transmission charges include interest on loan, depreciation, O&M charges, tax on income, and return on equity. As provided in that notification, the transmission charges are recoverable from the date of commercial operation of the assets. Therefore, we do not find any merit in the point raised on behalf of RRVPNL that depreciation should be charged from the following year from the date of commercial operation of the assets.

10. We approve the following tariff in respect of the assets forming subject matter of this petition.

S.No.	Asset	Tariff (Rs. in lakhs)	
		1999-2000	2000-2001
A.	Unchahar-Kanpur line-I with associated bays and ICT-I at Kanpur substation.	760.01	926.52
B.	Series capacitors on Kishenpur-Pampore Line at Kishenpur substation.	155.40	186.94

11. The Commission in its order dated 30.11.1999 had allowed the provisional tariff as under, based on the transmission charges claimed by the petitioner in the petition filed during September 1999.

	1999-2000	2000-2001
a) Unchahar-Kanpur	88%	86%
b) Capacitors for Kishenpur-Pampore Line	91%	87%

12. The transmission charges earlier allowed by the Commission are subject to adjustment in the light of final tariff approved by us in this order.

13. While approving tariff, we have been guided by the following consideration.

- (a) The interest calculations have been made based on the weighted average of the outstanding loan amount. In the case of 220 kV D/C Unchahar line I & other associated assets forming part of Unchahar transmission system, two instalments of ADB loan repaid, one each on 1.6.2000 and 1.12.2000 have been taken into consideration.
- (b) Interest on working capital has been worked out based on PLR of SBI at 12% ad 11.5% for the years 1999-2000 and 2000-01 respectively, instead of rate of interest of 15.84% claimed by the petitioner.
- (c) The weighted average depreciation rate has been worked out on the basis of actual capital expenditure as per CA's certificates annexed to the petition.
- (d) The escalation in O&M expenses and maintenance spares for working capital has been worked out on the basis of WPI and CPI (industrial workers) for the month of April of the respective year.

14. The relevant details calculations in support of the tariff are contained in the tables I & II given below:

T A B L E - I

UNCHAHAR-KANPUR LINE-I WITH ASSOCIATED BAYS AND ICT-I AT KANPUR S/S

(Rs. in lakhs)

Transmission Charges	1999-2000	2000-2001
Interest on loan	378.32	449.23
Depreciation	268.70	326.43
Operation & Maintenance Expenses	67.07	85.49
Return on Equity	24.68	40.24
Interest on Working Capital	21.24	25.13
Total	760.01	926.52

T A B L E - II

SERIES CAPACITORS ON KISHENPUR-PAMPORE LINE

(Rs. in lakhs)

Transmission Charges	1999-2000	2000-2001
Interest on loan	64.71	77.65
Depreciation	52.34	62.81
Operation & Maintenance Expenses	9.94	12.53
Return on Equity	24.41	29.29
Interest on Working Capital	4.00	4.66
Total	155.40	186.94

15. In addition to the transmission charges, the petitioner shall be entitled to other charges like foreign exchange rate variation, income tax, incentive, surcharge and other cess and taxes in accordance with the notifications issued by Ministry of Power from time to time and in force up to 31.3.2001.

16. The transmission charges approved by us shall be included in the regional transmission tariff of Northern Region and shall be shared by the regional beneficiaries in accordance with para 7 of notification dated 16.12.1997.

17. We find that the auditors' certificate furnished along with the petition certifies the transmission tariff calculations but does not disclose whether the capital expenditure, equity, loan, rate of interest, repayment schedule, O&M charges, etc. are as per the audited accounts of the petitioner company. The petitioner is directed to file an affidavit within two weeks of the date of this order that all the tariff calculations and auditors' certificates are based on audited accounts of the petitioner company or in the alternative, the petitioner may file a revised auditors' certificate, in the format given below, failing which the transmission charges approved above shall not take effect and this order will automatically lapse without any further reference to the Commission.

AUDITORS CERTIFICATE

We have verified the books of accounts, records and other documents of Power Grid Corporation of India Ltd and certify that the data used for transmission tariff calculations for _____ [name of the transmission system/line (s)] are in accordance with the audited books of accounts of the company as audited up to _____. We have obtained all information and explanations which to the best of our knowledge and belief were necessary for the purpose of our examination and necessary approvals of the competent authority in respect of capital cost, foreign

exchange, time and cost over-run, etc. as prescribed under law, have been obtained.

Signature with seal and date

18. This order disposes of Petition No.8/1999.

Sd/-
(K.N. SINHA)
MEMBER

Sd/-
(G.S. RAJAMANI)
MEMBER

Sd/-
(D.P. SINHA)
MEMBER

New Delhi dated the 31st May 2002