

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No.66/2000

In the matter of

Approval of Tariff for 220 KV Salal II-Kishenpur D/C Transmission Line along with associated bays in the Northern Region.

And in the matter of

Power Grid Corporation of India Ltd.

.... Petitioner

VS

1. Rajasthan State Electricity Board, Jaipur
2. Himachal Pradesh State Electricity Board, Shimla
3. Punjab State Electricity Board, Patiala
4. Haryana Vidyut Prasaran Nigam Ltd., Panchkula
5. Power Development Deptt., Govt, of J&K, Jammu
6. Uttar Pradesh Power Corporation Ltd., Lucknow
7. Delhi Vidyut Board, New Delhi
8. Chandigarh Administration, Chandigarh
9. Uttaranchal Power Corporation Ltd., Dehradun

.... Respondents

The following were present:

1. Shri S.S. Sharma, A.G.M. (Comml.), PGCIL
2. Shri U.K. Tyagi, Chief Manager, PGCIL
3. C Kannan, Manager (Fin), PGCIL
4. Shri K.K. Mittal, XEN, RRVPNL
5. Shri T.P.S. Bawa, Addl SE, PSEB
6. Shri A.K. Tandon, Sr. A.E., UPPCL
7. Shri DD Chopra, Advocate, UPPCL
8. Shri R.K. Arora, XEN, HVPNL

**ORDER (DATE OF HEARING
30-7-2002)**

The petitioner has filed this petition for approval of tariff for 220 KV Salal II-Kishenpur D/C line with associated bays in Northern Region.

2. Ministry of Power had initially accorded the administrative approval and expenditure sanction for the transmission system associated with Salal Hydroelectric Project State II at an estimated cost of Rs.86.39 crores, excluding IDC vide its letter dated 12.9.1989. Ministry of Power, however, vide its letter dated 10.1.2000, revised its administrative approval for revised cost estimates of Rs.101.75 crores including IDC of Rs.9.30 crores. As per the revised administrative approval, the scope of work included :

- (a) Salal II-Kishenpur 220 KV D/C line.
- (b) Kishenpur-Sarna 220 KV D/C line.
- (c) Salal II-Jammu 220 KV S/C line.
- (d) Stringing of 2nd Ckt of Sarna (PSEB)-Dasuya (PSEB) 220 KV D/C line.
- (e) 220 KV sub-station at Kishenpur and associated bays.

3. In this petition we are concerned with approval of transmission of tariff in respect of Salal II-Kishenpur 220 KV D/C line for the period prior to 1.4.2001 as the tariff for the other assets for that period had been notified by Ministry of Power. The line was actually commissioned on 1-8-1996. However, its tariff was not notified as the revised cost estimates of the transmission system were not finalised. As it has been noticed above, Ministry of Power accorded a fresh approval on 10.1.2000 to the revised cost

estimates of the Salal II Transmission System for Rs.101.75 crores, including an IDC of Rs.9.30 crores. The apportioned approved cost and completion cost in respect of Salal II-Kishenpur 220 KV D/C Transmission Line which is the subject matter of the present petition, as submitted by the petitioner, are Rs.31.64 crores and 16.63 crores respectively.

4. Based on the above completion cost, the petitioner has claimed tariff from 1.8.1996, the date of commercial operation to 31.3.2001 as under:

(Rs. In lakhs)	
Period	Annual Transmission Charges
1996-97 (1.8.1996 to 31.3.1997)	174.39
1997-1998	398.99
1998-1999	386.50
1999-2000	373.84
2000-2001	361.39

5. For the period prior to 1.4.1997, tariff is claimed as per Ministry of Power notification dated 14.6.1996 applicable to Northern Region and for the period thereafter claim for tariff is based on the Ministry's notification dated 16.12.1997.

6. The replies to the petition have been filed on behalf of Uttar Pradesh Power Corporation Ltd., Rajasthan Vidyut Prasaran Nigam Ltd., and Punjab State Electricity Board.

7. We now propose to consider the different elements of tariff separately.

METHODOLOGY FOR TARIFF FOR PERIOD PRIOR TO 1.4.1997

8. The tariff in respect of Salal II-Kishenpur 220 KV D/C line is being considered with effect from 1.8.1996, the date of commercial operation of the assets. Therefore, the tariff for the period from 1.8.1996 to 31.3.1997 has been claimed based on notification dated 14.6.1996, applicable to Northern Region. The tariff as per notification dated 14.6.1996 has been worked out based on average figures instead of year-wise figures. The basis for arriving at average figures is not discernible from the notification dated 14.6.1996. Therefore, for computation of tariff for the period from 1.8.1996 to 31.3.1997, the following methodology has been adopted :

- (a) Average tariff based on average figures from the date of commercial operation has been worked out for the whole period, instead of year-wise tariff,
- (b) Depreciation has not been provided during the first year of commercial operation, and
- (c) Spares have been taken for one year period. Method for working out spares as contained in Ministry of Power notification dated 14.5.1999 has been considered for calculation purposes.

CAPITAL COST

9. In accordance with the completion schedule prescribed by the Central Government in its letter dated 12.9.1989, the entire project was to be completed within 4 years. The transmission line was, however, declared under commercial operation with

effect from 1.8.1996. Prima facie, there is a delay in completion of the project. The petitioner has clarified that the transmission system was originally to be undertaken by NHPC as a part of Salal Hydroelectric Project Stage II. However, with the formation of the petitioner company, the assets were transferred to it. It is further explained that there was change of scope of work. The transmission project was taken up for construction during June 1993 and was completed by 31.7.1998. Ministry of Power while according revised administrative approval on 10.1.2000 has already taken note of the fact that the project was taken up for implementation during June 1993. We are, therefore, satisfied that for the reasons placed on record by the petitioner, there was no delay in execution of the transmission line.

10. As already noted, the transmission system associated with Salal II Hydroelectric Power Project has been approved at a total cost of Rs.101.75 crores. The asset-wise approved cost and also the completion cost as furnished by the petitioner is extracted below :

(Rs. in Crores)			
S.No.	Name of the Element	Apportioned Approved Cost	Completion Cost
1.	Kishenpur-Sarna 220 KV D/C line	42.96	[84.85
2.	Salal II-Jammu 220 KV S/C line	22.09	
3.	Sama-Dasuya 220 KV line	5.06	
4.	Salal II-Kishenpur 220 KV D/C line	31.64	16.63
	Total	101.75	101.48

11. It is noted that against the revised cost estimates of Rs.101.75 crores, the completion cost of the transmission system is Rs.101.48 crores. Thus, the total

expenditure on the project is within the revised cost estimates approved by the Ministry of Power on 10.1.2000. Therefore, it has been decided that the completion cost of Rs. 16.63 crores shall be considered for the purpose of determination of tariff of Salal II-Kishenpur 220 KV D/C line. The completion cost has been divided into debt and equity in the ratio of 50:50 notionally, in accordance with Ministry of Power notification dated 16.12.1997.

INTEREST ON LOAN

12. The average notional loan in 1996-97 from which year the tariff is being ordered was Rs.831.39 lakhs. The details of repayments and rate of interest on loans are available on record and, therefore, interest on loan has been worked out and found to be 15.51% as claimed in the petition. As some of the loans considered in the petition may carry floating rate of interest, the interest on loan may require adjustment between the petitioner and the respondents. Any re-setting of interest rates during the tariff period may be settled mutually between the parties. However, in the event of their failure to settle the matter, either party may approach the Commission for decision.

DEPRECIATION

13. While approving tariff, charges on account of depreciation have been allowed by considering the weighted average depreciation rate of 5.72%, corresponding to the cost of Rs. 16.63 crores for the transmission line. Since this is the first tariff setting for the assets covered by this petition, the depreciation recovery is being allowed prospectively.

The depreciation allowed for the period 1996-97 (from the date of COD) to 2000-2001 amounts to Rs.380.44 lakhs.

O&M EXPENSES

14. The petitioner had claimed O&M expenses @ 1.4% p.a. for the year 1996-97 and @ 2% p.a. for the year 1997-98. O&M escalation has been claimed @ 10% p.a. for the year 1997-98 and for the subsequent years @ 6.7%, 5.86% and 6%. These claims were found to be in order and accepted.

RETURN ON EQUITY (ROE)

15. The Commission has already decided that for the period from 1.4.1997 to 31.3.2001, the transmission tariff is to be determined based on the notification dated 16.12.1997 issued by Ministry of Power. The said notification dated 16.12.1997 provides for charging of ROE @ 16%. We have, therefore, allowed ROE @ 16% for the period from 1.4.1997 to 31.3.2001. For the prior period, ROE has been allowed @ 12% as applicable.

INTEREST ON WORKING CAPITAL

16. According to the notification dated 16.12.1997, interest on working capital shall cover:

- (i) Operation and maintenance expenses (cash) for one month,

- (ii) Maintenance spares at normative rate of 1% of the capital cost. Cost of maintenance spares for each subsequent year shall be revised at the rate applicable for revision of expenditure on O&M of transmission system, and
- (iii) Receivables equivalent to two months' average billing calculated on normative availability level.

Based on the above, the working capital requirements for the different years of the tariff period has been computed as follows:

(Rs. in lakhs)				
1996-97	1997-98	1998-99	1999-2000	2000-2001
60.57	86.93	86.09	85.13	84.39

17. Interest on working capital has been worked out on the basis of annual average PLR of the State Bank of India applicable during the year against the interest of 15.84% per annum claimed by the petitioner. The rate of interest for the year 1996-1997 allowed in tariff is 14.5% per annum. The rate of interest allowed for the years 1997-1998, 1998-1999, 1999-2000 and 2000-2001 is 14%, 13%, 12% and 11.5% respectively.

18. On consideration of entirety of the circumstances, we approve the transmission charges as per the details contained in Table appended herein below.

TABLE Salal

II-Kishenpur 220 KV D/C Line

(Rs. in Lakhs)

	1996-97	1997-98	1998-99	1999-2000	2000-01
Interest on Loan	128.96	121.57	106.82	92.07	77.32
Depreciation	0.00	95.11	95.11	95.11	95.11
Operation & Maintenance Expenses	23.28	35.48	37.86	40.08	42.48
Return on Equity	99.77	133.02	133.02	133.02	133.02
Interest on Working Capital	8.78	12.17	11.19	10.22	9.70
Total	260.78	397.35	384.00	370.50	357.63

19. The above transmission charges are for the full year. For part of the year, transmission charges shall be claimed on pro-rata basis.

20. 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 dated 14.6.1996 and 16.12.1997 issued by Ministry of Power.

21. The transmission tariff approved by us shall be included in the regional transmission tariff and shall be shared by the regional beneficiaries in accordance with Ministry of Power notification dated 14.6.1996 for the period upto 31.3.1997 and thereafter as per para 7 of notification dated 16.12.1997.

22. The Commission in its order dated 22.9.2000 had allowed the petitioner to charge provisional tariff based on the agreement arrived at the NREB forum. The

provisional tariff allowed by the Commission earlier shall be adjusted against the final transmission charges approved by us in this order.

23. 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 four 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 auditor's 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.**

A U D I T O R ' S C E R T I F I C A T E

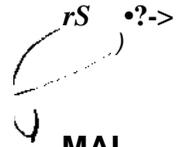
We have verified the books of accounts, records and other documents of Power Grid Corporation of India Ltd and certify that the data used for transmission tariff calculations for _____ [name of the transmission system/line (s)] are in accordance with the audited books of accounts up to _____ (date) of the company. 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 Auditor's seal and date

24. This order disposes of Petition No.
66/2000.
;:-|-

(R.N. SINHA)
MEMBER


MAI
(G.S. RAJAMANI)
MEMBER


(D.P. SUNHA)
MEMBER


(ASHOK BASU)
CHAIRMAN

New Delhi dated the September 2002