

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

1. Shri Ashok Basu, Chairman
2. Shri K.N. Sinha, Member

**Petition No. 7/2003**

**In the matter of**

Approval of provisional generation tariff of Nathpa Jhakri Hydroelectric Project.

**And in the matter of**

Satluj Jal Vidyut Nigam Ltd., Shimla

.... **Petitioner**

**Vs**

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

**Respondents**

**The following were present**

1. Shri V.K. Sharma, GM (C&SO), SJVN
2. Shri R.K. Bansal, DGM (C&SO), SJVN
3. Shri A.K. Singh, Manager (C-F), SJVN
4. Shri S.D. Gautam, SJVN
5. Shri T.P.S. Bawa, SE, PSEB
6. Shri G.M. Agarwal, RRVPNL
7. Shri R.K. Arora, HVPN
8. Shri Mahesh Chandra, DGM (SO), UPCL

**ORDER  
(DATE OF HEARING : 14.11.2003)**

This petition has been filed for fixation of provisional tariff for the power supplied from Nathpa-Jhakri Hydro-electric Project (Nathpa-Jhakri HEP) (6x250 MW) based on the terms

and conditions notified by the Commission in its notification dated 26.3.2001, presently valid up to 31.3.2004.

2. Nathpa Jhakri HEP being executed by the petitioner, is run of river project, with pondage type hydro-electric project, located in the State of Himachal Pradesh, and is a joint venture between Central Government and Government of Himachal Pradesh. On commissioning of all the units, Nathpa Jhakri HEP will generate power to the extent of 6951 Mus per annum, in a 90% dependable year and 1500 MW valuable peak power, for supply to the constituents of Northern Region. The amended petition was filed for approval of provisional tariff of four generating units scheduled to commence commercial operation during the current financial year, as per the following programme:

Unit I	30.9.2003(Actual date of commercial operation being 14.10.2003)
Unit II	30.11.2003
Unit III	15.1.2004
Unit IV	15.3.2004

3. Satluj Jal Vidyut Nigam Ltd had filed the main petition for approval of tariff for power supplied from Nathpa Jhakri HEP, two units of which were earlier expected to be commissioned with effect from 16.4.2003. It is stated by the petitioner that due to poor geological condition, the work of desilting of one of the chambers could not be completed as originally scheduled, there was delay in commissioning of these units.

4. Unit I was actually declared under commercial operation with effect from 14.1.2003. As regards 5<sup>th</sup> and 6<sup>th</sup> units, it has been stated that these will be commissioned during the next financial year. Therefore, the tariff being approved will be applicable from 14.10.2003 to 31.3.2004, for 4 units from the date of commercial operation of the respective unit.

5. The annual fixed charges for the year 2003-2004 claimed by the petitioner are to the extent of Rs.270.02 crore. The petitioner has prayed that it may be allowed primary energy rate on 54.59 paise/Kwh for the year 2003-2004 for incentive purposes based on capacity index and primary energy rate of 59.76 paise/Kwh for calculation of primary energy charges for the financial year 2003-2004.

6. We heard Shri V.K. Sharma, General Manager, appearing for the petitioner and Shri T.P.S. Bawa, SE, on behalf of PSEB, Shri G.M. Agarwal for RRVPNL, Shri Mahesh Chandra, DGM (SO) for Uttaranchal Power Corporation Ltd and Shri R.K. Arora for HVPNL.

7. It was explained by the representative of the petitioner that although State of Uttar Pradesh is one of the beneficiaries of the project, it has not yet signed BPSA with the petitioner and, therefore, its share is presently temporarily allocated to RRVPNL and may ultimately be allocated to PSEB, if UPSEB does not avail of its share. The representative of Uttaranchal Power Corporation Ltd stated that it had not opted to share power from Nathpa Jhakri HEP and, therefore, in a petition filed by Power Grid Corporation of India Ltd it has sought exemption from payment of transmission charges for the transmission system associated with Nathpa Jhakri HEP. In case, Uttaranchal Power Corporation Ltd is directed to pay the transmission charges, it may be allowed to draw power from the project. We are not concerned with these issues at this stage. Uttaranchal Power Corporation Ltd may approach the appropriate authority in this regard.

8. The representative of the petitioner submitted that in 131<sup>st</sup> meeting of Northern Regional Electricity Board held on 21.10.2003, the beneficiaries, the respondents herein, had agreed for payment of provisional tariff at the rate of 218 paise per unit of power supplied based on annual fixed charges of Rs.272.02 crore for the financial year 2003-2004

claimed in the petition. Accordingly, the representative of the petitioner prayed for approval of provisional tariff, as agreed to at NREB Forum. In addition, the petitioner prayed for approval to charge development surcharge, income tax and filing fee from the beneficiaries, in accordance with the terms and conditions of tariff notified by the Commission. The representatives of the respondents, namely, that is of PSEB, HVPN and RRVPNL had expressed their agreement to pay the provisional tariff at the rate 218 paise per Kwh, as already agreed to.

9. ABT is already in force in Northern Region. Therefore, in accordance with Commission's notification dated 26.3.2001, tariff to be approved is to be two-part tariff. Accordingly, we are converting the provisional single part tariff of 218 paise per Kwh, about which there is no dispute, into provisional two-part tariff. Accordingly, the petitioner shall be entitled to provisional two part tariff calculated as under:

(a) Provisional Primary Energy Charge

i) **Primary Energy Rate** of the station for the year 2003-04 has been determined based on 90% of average of 12 months lowest variable charges of the Central Sector thermal stations of Northern Region for the year 2002-03 furnished by the NREB (as appended in the petition). The Primary Energy Rate works out to 59.75 paise / kwh as per details given in the Table below:

**TABLE**

**VARIABLE CHARGES OF THE CENTRAL SECTOR THERMAL POWER STATIONS OF NORTHERN REGION FOR THE YEAR 2002-03**

STATION	(Paise/Kwh)											
	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV	DEC	JAN	FEB	MAR.
SINGRAULI	<b>68.59</b>	71.27	69.59	68.31	71.08	<b>65.22</b>	74.91	69.12	71.39	67.82	67.82	<b>63.48</b>
RIHAND	66.02	<b>64.99</b>	<b>65.72</b>	<b>64.58</b>	<b>69.29</b>	68.63	<b>69.36</b>	<b>66.32</b>	<b>66.19</b>	<b>67.73</b>	<b>67.73</b>	65.97

FGUPTS	111.10	106.48	104.45	101.41	102.68	104.39	105.97	105.08	103.62	103.76	103.76	103.13
NCTPS	160.88	151.07	150.04	152.49	150.99	146.25	145.29	146.08	147.61	148.96	148.96	159.39
ANTA GPS	93.46	93.46	93.66	93.32	93.32	93.32	93.47	93.47	93.47	114.96	114.96	107.60
AURAIYA GPS	96.42	95.72	95.17	95.56	95.62	95.50	95.73	96.24	116.80	135.36	135.36	107.51
DADRI GAS	94.59	94.59	94.59	94.43	94.43	94.43	94.60	95.1	148.58	189.89	189.89	108.24
FGUPTS-II	232.55	227.71	225.91	222.6	223.86	225.56	105.97	105.87	102.79	103.07	103.07	102.47
Average Lowest Rate for the year (P/Kwh)												
=(68.59+64.99+65.72+64.58+69.29+65.22+69.36+66.32+66.19+67.73+67.73+63.48)/12= 66.39												
<b>90% of Average lowest rate for the year 2002-03 = 0.9* 66.39= 59.75 p/kwh</b>												

ii) **Primary Energy Charge** of the station would be worked out as follows:

Primary Energy Charge = Primary Saleable Energy(Ex-bus) \* Primary Energy Rate/0.88

(b) Provisional Capacity Charge

Capacity Charges for four units to be commissioned during 2003-04 would be worked out as follows:

Total fixed charges = Saleable design energy of station \* Single Part Tariff Rate (paise /kwh)

ii) Saleable design energy of the station will be worked out as follows:

a) Design energy (for 4 units) = 1422.06 Gwh

b) (Auxiliary consumption  
+ Transformation Losses) @1.2 % = 17.06 Gwh

c) Energy sent out = 1405.0 Gwh

d) Free power to home state @12% = 168.60 Gwh

e) Saleable design energy = 1236.40 Gwh

iii) Total fixed charges during 2003-04 = (1236.40\*218)/1000  
= Rs. 269.54 crore

**Capacity charge = Total fixed charge – Primary Energy Charge**

10. In addition to the two part provisional tariff approved above, the petitioner shall be entitled to claim income tax from the beneficiaries, in accordance with the Commission's notification dated 26.3.2001.

11. The project was approved by the Central Government during April, 1989 to be executed at a cost of Rs.1678 crore, with scheduled date of commissioning in 1996. The project is, however, likely to be commissioned during the year 2004 at an estimated completion cost of Rs.8,000 crore, though the latest Government of India approved cost of the project is Rs.7666.31 crore, including IDC of Rs.1734.99 crore. The petitioner is directed to place on record the variance analysis of the completion cost vis-à-vis originally approved cost in the form annexed to this order, explaining reasons for variation of cost of the different components of the project, while filing application for approval of final tariff. As we have approved provisional tariff based on agreement between the parties, we have not considered the implications of cost and time over-run.

12. With the above order Petition No.7/2003 stands disposed of.

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

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

New Delhi dated the 10<sup>th</sup> December, 2003