

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

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

Petition No.19/2004

In the matter of

Approval of generation tariff of Indira Sagar Project Ltd.

And in the matter of

Narmada Hydroelectric Development Corporation Ltd**Petitioner**

Vs

1. Narmada Valley Development Department, Bhopal
2. Madhya Pradesh State Electricity Board, Jabalpur **Respondents**

The following were present:

1. Shri A.K. Roy, Chief Engineer, NHDC
2. Shri S.K. Gupta, AO (F&A), NHDC
3. Shri T.J.S. Brar, E (M), NHDC
4. Shri S.K. Agarwal, NHPC
5. Shri Vinay Tripathi, NHDC
6. Shri Harish Aggarwal, NHDC
7. Shri Prashant Kaul, NHPC
8. Shri A.K. Srivastava, NHPC
9. Shri Ansuman Ray, NHPC
10. Shri N.K. Chadha, NHPC
11. Shri D. Khandelwalwal, MPSEB
12. Shri Prakash Soni , MPSEB

**ORDER
(DATE OF HEARING: 20.4.2004)**

The petitioner seeks approval for provisional tariff consequent to commissioning of Machine III and IV of Indira Sagar Project (the project).

2. The project, a multi-purpose project, being constructed by the petitioner, a joint venture between NHPC and the State Govt. of Madhya Pradesh comprises of three units. Unit I consists of Dam and appurtenant works, Unit II consists of irrigation system of canals and distributaries and Unit III includes power house and water conductor system along with allied works in power generation. Thus,

Unit I and III are essentially for power generation, named as power component and Unit II is for irrigation system, named as irrigation component. The project being the mother project for downstream projects also contributes to Sardar Sarovar Project by its regulated water releases. The State of Madhya Pradesh is the only beneficiary of the project.

3. The project is scheduled to be completed by May 2005. However, power is being generated during the construction period. Machine I and Machine II were declared under commercial operation on 14.1.2004 and 18.1.2004 respectively and the provisional tariff for these machines from the date of commercial operation of each of them up to 31.3.2004 was allowed by the Commission by its order dated 1.3.2004 in Petition No. 86/2003 as under:

Annual Fixed Charges from 14.1.2004 to 31.3.2004 for Machine I = Rs.1028.45 lakh

Annual Fixed Charges from 18.1.2004 to 31.3.2004 for Machine II= Rs.975.71 lakh

Primary Energy Rate = 41.03 paise/kWh

4. In the present petition, the petitioner has claimed provisional fixed charges of Rs.9.60 crore for the period up to 31.3.2004 for Machine III and Machine IV together declared under commercial operation w.e.f 6.3.2004 and 29.3.2004 respectively. Primary energy rate has been claimed @ 41.03 paise/kWh.

5. Based on the audited balance sheet for the period ending 31.3.2004, the apportioned expenditure pertaining to Machine I, II & III is estimated to be Rs.96491 lakh and for Machine I, II, III & IV it is estimated to be Rs.135669 lakh respectively.

6. Shri D. Khandelwal, SE, MPSEB submitted that Machine III & IV could not be said to have been under commercial operation, since according to him, it will not provide any additional electricity and peak power. He further submitted that the petitioner was not able to run even two machines put under commercial operation during January 2004 on simultaneous basis during peak hours. He stated that only 180 MW power could be supplied during peak hours which was equal to the output from two machines only.

7. We have considered the matter very carefully.

8. It is observed that when Machine III and IV were commissioned, the dam was not constructed to its complete height. Since MPSEB is entitled to peak power equivalent to number of machines commissioned, tariff awarded should be commensurate with the maximum peak power in MW to be made available from the generating station when the dam is constructed to its full height vis-a-vis peaking power in MW that would be available with present height of partially complete dam. If P is the peak power available from the generating station on completion of the dam and P₁ is the actual peaking power provided by the generating station with reduced height of dam, the proportionate Annual Fixed Charges "T" will be computed in accordance with the following formula:

$$T = \text{AFC} \times P_1/P, \text{ where AFC are the Annual Fixed Charges payable}$$

9. On commissioning of Machine III w.e.f. 6.3.2004 the values of P and P₁ would be 375 MW and 248.4 MW respectively. Therefore, proportionate Annual Fixed Charges for Machine I, II, and III will be:

$$\text{Rs.}13774 \times 248.4 / 375 \text{ lakh} = \text{Rs.}9123.90 \text{ lakh}$$

Where Rs.13774 lakh represents the Annual Fixed Charge calculated provisionally for Machine I, II and III.

10. Consequent to commissioning of machine IV on 29.3.2004, the values of P and P1, shall be 500 MW and 331.2 MW respectively. Therefore, proportionate Annual Fixed Charges for machines I, II, III and IV shall be

$$\text{Rs.}19366 \times 331.2 / 500 \text{ lakh} = \text{Rs.}12828.04 \text{ lakh.}$$

Where Rs.19366 lakh represents the Annual Fixed Charge for Machine I, II, III and IV.

11. Annual Fixed Charges to be allowed on provisional basis are 85% of the proportionate Annual Fixed Charges calculated above.

12. The two-part tariff in respect of Machine I, II & III and Machine I, II, III, & IV of the station from the date of commercial operation of Machine III & IV up to 31.3.2004 would be as follows:

Annual Fixed Charges from 6.3.2004 to 28.3.2004	
for Machine I, II & III	= Rs. 7755.31 lakh
Annual Fixed Charges from 29.3.2004 to 31.3.2004	
for Machine I, II, III & IV	= Rs.10903.83 lakh

13. The fixed charges allowed earlier for Machine I & II vide order dated 1.3.2004 stand merged in the fixed charges now approved. Primary energy rate for the above period shall be considered @ 41.03 paise/kWh, as claimed.

14. The calculations incorporated in this order based on the data available on record and the assumptions made are for computation of provisional tariff and are subject to review at the time of finalisation of tariff.

15. We direct the petitioner to file fresh petition for the determination of the final tariff after completion of the dam and other works.

16. With the above directions, this petition stands disposed of.

Sd/-
(BHANU BHUSHAN)
MEMBER

Sd/-
(K.N. SINHA)
MEMBER

Sd/-
(ASHOK BASU)
CHAIRMAN

New Delhi dated the 6th December, 2004