

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

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

Petition No.4/2005

In the matter of

Renovation and Modernisation of Auraiya Gas Power Station (663.36 MW)

And in the matter of

National Thermal Power Corporation Limited

.....Petitioner

Vs

1. Uttar Pradesh Power Corporation Limited (UPPCL), Lucknow
2. Delhi Transco Ltd. (DTL), New Delhi
3. Haryana Vidyut Prasaran Nigam Ltd, Panchkula
4. Punjab State Electricity Board, Patiala
5. Himachal Pradesh State Electricity Board, Shimla
6. Power Development Department, Govt. of J&K, Srinagar
7. Electricity Department Union Territory of Chandigarh, Chandigarh
8. Uttaranchal Power Corporation Ltd., Dehradun
9. Jaipur Vidyut Vitran Nigam Ltd., Jaipur
10. Ajmer Vidyut Vitran Nigam Ltd., Ajmer
11. Jodhpur Vidyut Vitran Nigam Ltd., Jodhpur

....Respondents

The following were present:

1. Shri Pranav Kapoor, NTPC
2. Shri V.B.K. Jain, NTPC
3. Shri S. Subramanian, NTPC
4. Shri Navin Chandra, NTPC
5. Shri C.S. Gupta, NTPC
6. Shri D. Nandi, NTPC
7. Shri V. Ramesh, NTPC
8. Shri T.K.Srivastava, UPPCL
9. Shri R.K.Arora, HVPN
10. Shri T.P.S.Bawa, PSEB

**ORDER
(DATE OF HEARING : 23.6.2005)**

The petitioner has filed the present application for "in-principle" approval to the renovation and modernisation scheme indicated in the petition for Auraiya Gas Power Station, tariff application for which would be filed after completion of renovation and modernisation works. It is further prayed that the actual expenditure incurred on renovation and modernisation works, should be considered for determination of tariff for the relevant years by the Commission.

2. The petitioner has submitted that the Auraiya GPS with 4 gas turbines and 2 steam turbines was declared under commercial operation during December 1990. The gas turbines will be completing 15 years of operation, the prescribed useful life for the purpose of depreciation under the regulations notified by the Commission. It is further stated that as per the recommendations of OEM, critical components of the hot gas path such as turbine blades, rotor, vanes, etc need to be renovated after one lakh equivalent operating hours. The petitioner has stated that during inspections of the gas turbines, most of critical equipment of the hot gas path was found to be beyond refurbishment and, therefore, needed to be replaced. Therefore, according to the petitioner, renovation and modernisation of Auraiya GPS has become essential. The petitioner has accordingly filed the present petition for in-principle approval to the renovation and modernisation scheme prepared by it which is likely to extend the life of the station for a further period of 8 to 10 years to enable the petitioner to continue the supply of power at the present performance level.

3. The R&M scheme proposed by the petitioner involves expenditure at an estimated cost of Rs.416.27 Crore as on March 2004 price level, which includes IDC of Rs.36.53 Crore, and contingency of Rs.18.08 Crore. In addition capital spares worth Rs.98.20 Crore are also proposed to be procured. The capital expenditure on

R&M is proposed to be incurred over a period of 5 years starting from 2003-04 and completing in year 2008-09. The petitioner during the hearing on 23.6.2005 has submitted that they are seeking "in principle" approval of the Commission to proceed with the R&M of the station and are not seeking the approval of the cost of R&M expenditure.

4. The Commission found that there is no explicit consent of the beneficiary respondents for undertaking R&M. The Commission also noted that the existing allocation for the supply of gas is sufficient to run the station at around 70% PLF. Further, the R&M scheme involves not only replacement of hot gas path component and gas turbine but also installation of new system like evaporating cooling system and RLA study of steam turbine and WHR Boiler and purchase of capital spares worth Rs.98.20 Crore over and above the R&M scheme of Rs.416.27 Crore.

5. On the issue of consent to the R&M scheme the respondents have submitted that in the absence of net tariff as a result of R&M they are unable to take a view. The reservation of the beneficiaries were on the following two issues:

- i. The investment on the station has been mostly returned through depreciation. The capital expenditure on R&M should not lead to increase in tariff in term of fixed charges.
- ii. Sufficient gas is not available to run the station on full load. In such a situation, a substantial capacity is required to run on liquid fuel. Most of the respondents were not willing to take power on liquid fuel due to its very high cost. Respondent PSEB submitted that petitioner is planning

new gas based stations but is not trying to procure additional gas for the existing gas based stations.

6. We have taken note of the concerns of the respondents with regard to the capital cost to be adopted for the purpose of tariff in a case like this (where the investment on station has been recovered through depreciation). But we would like to deal with this issue at the time of determination of tariff after admitting the capital expenditure on R&M and all relevant facts shall be considered while fixing the tariff afresh.

7. On the issue of supply of gas for the station, petitioner clarified that GAIL (Supplier of Gas) is gradually reducing the supplies of gas to gas based stations of the petitioner and they have no control over such action of GAIL. There is no regulator for gas to deal with this issue. GAIL has reduced the gas supplies under the "Administrative Price Mechanism" by 2.5 mcmd but has given an allocation of 4.0 mcmd of new gas at a higher price. The petitioner is making all efforts to procure the additional quantity of gas. However, it is very difficult for them to give a firm commitment of supply of gas at this stage. At the same time the beneficiaries were not willing to buy electricity based on liquid fuel. Still, the country is short of generating capacity and existing capacity should not be allowed to deteriorate. Under the circumstances, we feel that the beneficiaries will have claim on full capacity of the renovated plant and pay corresponding fixed charges in case the petitioner is able to arrange adequate supply of gas by the time renovation is completed. In case the petitioner is not able to arrange adequate quantum of gas, they would be at liberty to sell the liquid fuel based plant capacity to any person at a price not exceeding the apportioned fixed charges.

8. In view of the above, and the fact that the northern region is facing severe shortages of power, the Commission decided to grant “in principle” clearance to proceed with the R&M with Life Extension of the Auraiya GPS subject to the following conditions:

- I. Firming up of R&M scheme in the most economic manner.
- II. Approval of the Board of Directors of NTPC for the expenditure to be incurred on R&M
- III. Items of the scheme would be admitted subject to prudence.
- IV. Only reasonable amount of spares to be capitalised for tariff.
- V. Furnishing of Extended life along with reference date for the purpose of recovery of depreciation.
- VI. Tariff for the station shall be determined afresh on merit considering depreciation & equity already recovered and other relevant facts.

9. With the above directions, the petition stands disposed of.

Sd/-
(A.H.JUNG)
MEMBER
CHAIRMAN

Sd/-
(BHANU BHUSHAN)
MEMBER

Sd/-
(K.N.SINHA)
MEMBER

Sd/-
(ASHOK BASU)

New Delhi dated the 7th July, 2005