

BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION UCKNOW

Petition No. 630/09

IN THE MATTER OF: Approval of Renovation and Modernization (R&M) schemes for 2x100 MW unit no. 7 and 8 of Obra 'A' Thermal Power Station.

AND

Petitioner:

UP Rajya Vidyut Utpadan Nigam Limited, 14th Floor, Shakti Bhawan Ext.,
14, Ashok Marg, Lucknow

Respondents:

1. The Managing Director, U.P. Power Corporation Ltd., 7th Floor, Shakti Bhawan, 14, Ashok Marg, Lucknow
2. The Managing Director, Purvanchal Vidyut Vitran Nigam Ltd., 132KV Substation, Bhikari Vidyut Nagar, Varanasi.
3. The Managing Director, Pachimanchal Vidyut Vitran Nigam Ltd., Victoria Park Meerut.
4. The Managing Director, Madhyanchal Vidyut Vitran Nigam Ltd., Prag Narain Road, Lucknow.
5. The Managing Director, Dakchinanchal Vidyut Vitran Nigam Ltd., Gailana Road, Agra.
6. The Managing Director, KESCO, Kesa House, Kanpur
7. The CEO, Noida Power Company Limited, H Block, Alpha II, Greater Noida.

The following were present:

- (1) Sri. R.K.Johar, Chief Engineer, UPPCL
- (2) Sri. Jayant Verma, Executive Engineer, UPPCL
- (3) Sri. A.N.Ghosh, Consultant, UPPCL
- (4) Sri P.Choudhary, S.E., UPRVUNL
- (5) Sri. Gayadin, E.E., UPRVUNL
- (6) Sri. V.Mandokot, E.E., UPRVUNL

ORDER

(Date of hearing 25.11.09)

The petition has been filed for approval of Renovation and Modernization (R&M) schemes for 2x100 MW unit no. 7 and 8 of Obra 'A' Thermal Power Station. The unit no. 7 was commissioned on 14.12.1974 and unit no. 8 was commissioned on 1.1.1976. The units have completed about 35 and 33 years of service respectively. The Petitioner has formulated a scheme for R&M of the units via negotiated route with the OEM i.e. M/S BHEL. As per the scheme, the cost of R&M would be Rs. 135.25 crores (without taxes,

duties and IDC). The total cost, including the estimates of taxes, duties and IDC would be Rs. 178 crores. The Petitioner has submitted the Detailed Project Report (DPR) of the scheme.

As per DPR, the units have Checkoslovakian boilers with turbulence firing and balanced draft system. Since commissioning, there was problem of furnace pressurization due to uncontrolled positive draft causing frequent failures of boilers and improper functioning of Electro Static Precipitators (ESP). The increase in dust level in the disposal system results in reduced generation. The Central Electricity Authority vide letter dt. 11.1.1990 derated the units to 94 MW each.

The scheme has been prepared to obtain generation for next 5-6 years till the generation from new units become available keeping in view the demand supply gap in the State. The average PLF for these units from year 2004-05 to 2008-09 was 37.27% which is proposed to be increased to the level of 60% after R&M. Other parameters like unit heat rate, specific oil consumption, auxiliary power consumption and unit availability shall also improve.

The work of uprating shall be completed in 25 months which includes shut down period of 7 months. 80% of the cost of the project will be financed by PFC and the balance 20% by U.P. Govt/internal resources.

The break up of cost on the R&M scheme given in the DPR is as follows:

1. BTG & BOP (supply and services)	: Rs. 130 Crores
2. Basic price of consumables, jointing sheets, steel etc.	: Rs. 5.25 Crores
3. Taxes & Duties, Freight Charge & Insurance etc.	: Rs. 20.70 Crores
4. IDC @ 12%	: Rs. 22.05 Crores
5. TOTAL COST OF PACKAGE	: Rs. 178 Crores

The Techno Economic viability of the schemes is as below:

1. Net additional revenue generated annually	: Rs. 29.73 crores
2. Saving due to improvement in specific oil consumption	: Rs. 19.08 crores
3. Total revenue Generated per year	: Rs. 48.81 Crores
4. Pay back period	: 3.64 years say 3 yrs. 8 months.

Vide letter dt. 11.11.09, UPPCL had raised certain technical and other issues related to proposed R & M work. The reply has been submitted by the Petitioner on 23.11.09.

During the hearing, Sri. A.N.Ghosh, Consultant, UPPCL raised the issues like the amount of contingency, rate of interest on loan, indemnity and clearance of proposal by Board of Directors and Energy Task Force. He also submitted that for carrying out R & M works additional shutdowns should be avoided.

Sri P.Choudhary, S.E., UPRVUNL submitted that the proposal had already been cleared by Board of Directors and Energy Task Force. The Commission directed him to submit a copy of the clearances on the next day. UPRVUNL has submitted the documents on 26.11.09.

Regarding contingency, Sri P.Choudhary, S.E., UPRVUNL stated that the DPR has been prepared with the help of M/s BHEL, a government agency and the OEM, as per the guidelines. The clauses for liquidated damages have been provided for indemnity and the rate of interest has been taken as per the prevailing rates offered by PFC who will be providing 80% of the cost of the package as loan. Moreover, the rate of interest on PFC loan is floating in nature.

The Commission enquired about the status of financial arrangements and whether the proposal has been approved by PFC. Sri P. Choudhary informed that due to exhausted financial limit at present, PFC has not accorded written clearance till date, although, in principle they have agreed to provide the loan. The Commission reiterated that Residual Life Assessment (RLA) study should be carried out during the shutdown to ensure proper utilization of running equipments. Scheduled maintenance planning and check up should be ensured for efficient operation and up keep of the plant. The Commission also brought it to the knowledge of the Petitioner that leading Thermal Generating Company in public sector i.e. NTPC has got a very good modus operandi for scheduled maintenance and regular condition assessment/check up that could be followed by UPRVUNL for achieving better performance. The Commission further showed concern over non-sequential supply of material. Many a times it has been observed that this has delayed the completion of work. Therefore, it should be ensured that the materials are procured sequentially. The Commission also advised the Petitioner to deploy a team of dedicated persons to ensure quality work and timely completion.

Therefore, it is directed to take following into consideration, during execution of R & M activities and afterwards:

1. UPERC's model document for R & M of thermal power stations should be followed for examining the prudence of investment.
2. All the core activities of one particular unit should be planned together and implemented during plant shut down.
3. It should be planned in such a way, as far as possible, that the R & M works, particularly requiring shut down of unit, be executed during annual or planned maintenance shut downs.
4. Major R & M works should be planned in such a way that shut down is minimized.
5. As far as possible the work should be carried out on turn key basis.
6. The contractual obligation of the supplier/equipment manufacturer/qualified bidder should be ensured for timely completion of the R & M work.
7. As per GOI guidelines, RLA study should be done simultaneously.
8. A dedicated team shall be constituted to ensure that the R & M work is completed within due time.
9. An expert supervisory team would be constituted to ensure the quality of work. The team may comprise experts from NTPC and CEA after due discussions with them.
10. A quarterly report on progress of R & M work would be submitted to the Commission by UPRVUNL.

With above observations and directions, The Commission approves the proposed scheme for R&M of 2x100 MW unit no. 7 and 8 of Obra 'A' Thermal Power Station with the specific note that all efforts should be made to complete the work as per the schedule. On completion of the proposed R&M works UPRVUNL shall submit a completion report and file a petition for revision of operating parameters for the plant.

The petition is disposed of.

(Rajesh Awasthi)
Chairman

Lucknow; Dated: 8th December, 2009