CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Review Petition No. 45/RP/2022
in
Petition 279/GT/2020

Coram:

Shri I.S Jha, Member
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member

Date of Order: **16th October 2023**

In the matter of

Petition for review of order dated 29.8.2022 passed by the Hon'ble Commission in Petition No. 279/GT/2020 for revision of Auxiliary Energy/Power Consumption (AEC/APC) allowed for the Tripura Gas Based Power Plant (101MW) of North Eastern Electric Power Corporation Limited, Shillong for the period 1.4.2019 to 31.3.2024.

And

In the matter of

North Eastern Electric Power Corporation Limited
Corporate Office: Brookland Compound Lower New Colony,
Shillong 793 003, Meghalaya **...Petitioner**

Vs

1. Tripura State Electricity Corporation Limited,
   Bidyut Bhavan, North Banamalipur,
   Agartala -799 001, Tripura.

2. North Eastern Regional Power Committee,
   NERPC Complex, Dong Parmaw
   Lapalang, Shillong-793006, Meghalaya.

3. North Eastern Regional Load Despatch Centre
   Dongtieh, Lower Nongrah, Lapalang,
   Shillong -793006, Meghalaya. …**Respondents**

Parties Present:

Shri Munin Choudhury, Advocate, NEEPCO

Shri Ripunjay Bhuyan, Advocate, NEEPCO
Ms. Elizabeth Pyrbot, Advocate, NEEPCO

ORDER

Petition No. 279/GT/2020 was filed by the Review Petitioner, North Eastern Electric Power Corporation Limited for approval of tariff of Tripura Gas based Power Plant (101 MW) (hereinafter referred to as "the project/generating station') for the 2019-24 tariff period, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 (hereinafter referred to as 'the 2019 Tariff Regulations').

2. The Commission vide order dated 29.8.2022 had disposed of the Petition. Aggrieved by the said order dated 29.8.2022, the Review Petitioner has filed this Review Petition on the ground that there is an error apparent on the face of the record on the issue of Auxiliary Energy Consumption and prayed the Commission to:

> *a) Approve the Auxiliary Energy consumption (AEC) as 3.50 % for combined cycle in respect of the generating station:*

Hearing dated 24.1.2023

3. The Review Petition was heard on 'admission' on 24.1.2023. During the hearing, the representative of Petitioner, made detailed oral submissions in the matter, in support of the prayer for review of the impugned order. No representative of Respondent attended the hearing.

Hearing dated 27.4.2023

4. The Review Petition was heard on 27.4.2023. During the hearing, the representative of Petitioner, made detailed oral submissions in the matter, in support of the prayer for review of the impugned order. No representative of Respondent

attended the hearing. The Commission, after hearing the representative of the Review Petitioner reserved its order in the matter. Based on the submissions of the Review Petitioner, the Respondents and the documents available on record, we proceed to examine the issues raised by the Review Petitioner in the subsequent paragraphs.

A. <u>Approval of the Auxiliary Energy consumption (AEC) as 3.50 % for combined cycle in respect of the generating station':</u>

<u>Submissions of the Review Petitioner, NEEPCO</u>

5. The Review Petitioner has submitted that the Commission vide order dated 4.4.2019 in Petition No. 128/GT/2017 for fixation of the tariff of the generating station from the date of COD to 31.3.2019 had allowed Normative Auxiliary Energy Consumption at 3.50%. The Commission vide order dated 26.6.2021 in Petition No. 271/GT/2019 has considered the same Auxiliary Energy Consumption of 3.50% during truing up for the period 2014-19.

6. However, the Commission in the impugned order dated 29.8.2022 has allowed normative Auxiliary Energy Consumption (AEC) of 3.30% for combined cycle mode for the period 2019-24.

7. The Petitioner has requested to refer to CEA Technical Standards on Operation Norms for CCGT Stations as highlighted hereunder:

"6.2 RECOMMENDATIONS ON AUXILIARY POWER CONSUMPTION
6.2.2 For existing stations

Recommended Auxiliary power consumption	Station	% APC (Auxiliary power consumption)
1	Combined Cycle	3.0
2	Simple Cycle	1.0

3	Combined Cycle with electric-driven gas boosters	**5.5**
4	Simple Cycle with electric driven gas booster	4.0

"

8. The Petitioner, in view of the above, has prayed to the Commission to relax the operating norms for AEC from **3.30 % to 3.50 %** for the control period of 2019-24 as was being allowed since the date of Commercial Operation of the generating station based on actual AEC achieved by invoking powers under Regulation 76 (Power to Relax) and Regulation 77 (Power to Remove Difficulty).

Analysis and Decision

9. The matter has been considered. It is observed that the Auxiliary Energy Consumption (AEC) for Combined Cycle Gas based projects in terms of the 2014 Tariff Regulations is 2.50%. The Commission in its order dated 4.4.2019 in Petition No. 128/GT/2017 had allowed 2% AEC for Open Cycle operation and 3.5% AEC for Combined Cycle operation for the tariff period 2014-19. The relevant portion is extracted hereunder:

"*76. The Petitioner has furnished the actual auxiliary energy consumption for April, 2016 to July, 2018 the average of which works out to 4.91% approx. Considering the fact that the Petitioner has not furnished the actual consumption of electric motor driven GBC (Gas Booster Compressor) separately, the actual difference due to application of electric driven GBC cannot be made out. However, the Commission, vide order dated 30.3.2017 in Petition No. 129/GT/2015 had allowed AEC of 3.5% considering the additional AEC of 1% due to GBC. Accordingly, we allow 2% of AEC for open cycle and 3.5% of AEC for combined cycle and Petitioner is directed to furnish the actual consumption of electric motor driven GBC (Gas Booster Compressor) separately from the COD of the station till date at the time of truing up*."

93. *In response, the Petitioner, in this petition, has submitted that the consumption of Electric Motor Driven GBC from COD of the generating station till 31.3.2019 is 13.9529 MU. The Petitioner has also submitted that the recording of energy consumption of GBC motors separately commenced from 21.5.2019. It has stated*

that the energy consumption of Motor Driven GBC was not recorded separately after COD (31.3.2017), but the same was included in the overall AEC of the generating station. Based on trends for the period from 21.5.2019 to 18.6.2019, the Petitioner has submitted that GBC motor consumption is 1% of gross Combined Cycle generation and 1.43% of GTG generation (Gross OC). The Petitioner has further submitted that this metering does not include AEC of systems installed for GBC such as lubrication system, cooling system, ventilation system and illumination etc. In terms of the above, the Petitioner has prayed for allowing the normative AEC of 5% for the generating station.

94. *The Commission vide ROP of the hearing dated 2.6.2020 directed the Petitioner to clarify as to whether Gas Booster Compressor (GBC) was envisaged in FSA and whether it formed part of the original scope of work of the Project or not. In case GBC was envisaged at a later stage, the Petitioner was directed to (i) clarify as to whether the consent of beneficiaries was obtained for adding a system which would substantially increase the AEC from 3.5% to 5.5% and (ii) submit the year of capitalization of the Gas Booster Compressor.*

95*. In compliance to the above directions, the Petitioner vide affidavit dated 31.8.2020 has submitted that the Gas Booster Compressor for the Project was envisaged in Fuel Supply Agreement (FSA) and formed part of the original scope of work of the Project. It also submitted that as per GSA between M/s ONGC and the Petitioner, M/s ONGC was to deliver gas at a pressure 20±1 kg/cm2, but the requirement of gas pressure for GT was on higher side and there was loss of pressure in gas pipeline also. The Petitioner has, therefore, incorporated GBC facility with motor driven centrifugal compressor within the original scope of work of the Project and included the same in the EPC contract with M/s BHEL for the power plant. The Petitioner has clarified that M/s BHEL had designed the Gas Based Combined Cycle Power Plant with 5.5% of AEC and the year of capitalization of GBC was 2015-16.*

96. *Based on the above submissions of the Petitioner, we infer that: (a) The Gas Booster Compressor is an additional feature of the Project which consumes additional AEC over and above the normative AEC notified in the 2014 Tariff Regulations. The same was envisaged in the FSA and has been incorporated within the original scope of work of the Project and also included in the EPC contract with M/s BHEL for the plant.*
(b) The average additional AEC by GBC, when the generating station is operating on Open cycle mode is 1.43% and it is 1% when operating on Combined cycle mode.

97. *Accordingly, the normative AEC for the generating station is considered and*

allowed as 2.43 % (1.43 % +1%) for Open Cycle mode operation (i.e. 1.43 % over and above the notified normative auxiliary consumption of 1%). For Combined Cycle mode, AEC allowed is 3.5 % (1 %+ 2.5%) (i.e. 1% over and above the notified normative AEC of 2.5%).”

10. Accordingly, the Commission in its order dated 4.4.2019 in Petition No. 128/GT/2017 had allowed 2% of AEC for Open Cycle operation and 3.5% of AEC for Combined Cycle operation for the tariff period 2014-19.

11. Regulation 49(E)(c)(i) of the 2019 Tariff Regulations provides Auxiliary power consumption as follows:

(E) Auxiliary Energy Consumption
(c) For Gas Turbine /Combined Cycle generating stations:
(i) Combined Cycle : 2.75%
(ii) Open Cycle : 1.00%
Provided that where the gas based generating station is using electric motor driven Gas Booster Compressor, the Auxiliary Energy Consumption in case of Combine Cycle mode shall be 3.30% (including impact of air-cooled condensers for Steam Turbine Generators):
Provided further that an additional Auxiliary Energy Consumption of 0.35% shall be allowed for Combine Cycle Generating Stations having direct cooling air cooled condensers with mechanical draft fans:

12. The Gas Booster Compressor is an additional feature which consumes additional AEC over and above the normative AEC as notified in the 2014 Tariff Regulations. During 2014-19 tariff period there was no separate norms of Auxiliary Energy Consumption for gas based generating stations using electric motor driven Gas Booster Compressor. However, the Commission for the period 2019-24, have come up with the specific proviso of the 49(E)(c)(i) of the 2019 Tariff Regulations, which specifically provides for 3.30% of Auxiliary Energy Consumption for the combined cycle generating station using electric motor driven Gas booster Compressor.

13. The Review Petitioner, in the Review Petition, has sought to re-argue the case on merits, which is not permissible. The Review Petition, in our view, cannot be an appeal in disguise. The Review Petitioner has also not demonstrated the error apparent on the face of the impugned order. For these reasons, we find no reason to review the impugned order dated 29.8.2022 on this count. The contention of the review petitioner for Auxiliary Energy consumption (AEC) of 3.50 % for combined cycle in respect of Tripura Gas Based Power Plant is rejected and the normative AEC for the generating station is considered and allowed as 3.30% for the Combined cycle mode.

14. Review Petition No. 45/RP/2022 is disposed of in terms of the above.

Sd/-	***Sd/-***	***Sd/-***
(Pravas Kumar Singh)	**(Arun Goyal)**	**(I. S. Jha)**
Member	**Member**	**Member**