

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. : 607/MP/2020

Subject : Petition under Section 79(1) of the Electricity Act, 2003 read with Article 13 of the Power Purchase Agreement dated 22.4.2007 executed between the Petitioner with the Procurers across five States, namely Maharashtra, Gujarat, Rajasthan, Haryana and Punjab, Clause 4.7 of the Competitive Bidding Guidelines and this Hon'ble Commission's Order dated 17.9.2018 in Petition No. 77/MP/2016

Date of Hearing : 20.10.2022

Coram : Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri P. K. Singh, Member

Petitioner : Coastal Gujarat Power Limited (CGPL)/ Tata Power Company Ltd.

Respondents : Gujarat Urja Vikas Nigam Ltd. (GUVNL) & Ors.

Parties present : Shri Sajan Poovayya, Senior Advocate, CGPL
Shri Anand Shrivastav, Advocate, CGPL
Shri Shivam Sinha, Advocate, CGPL
Shri Aluia Ahmed, Advocate, CGPL
Shri Buddy Ranganathan, Advocate, MSEDCL
Shri Udit Gupta, Advocate, MSEDCL
Shri Vyom Chaturvedi, Advocate, MSEDCL
Shri Anup Jain, Advocate, MSEDCL
Shri Ashabair Thakur, Advocate, MSEDCL
Ms. Swapna Seshadri, Advocate, GUVL
Ms. Poorva Saigal, Advocate, Rajasthan Discoms & Haryana Discoms
Shri. Shubham Arya, Advocate, Rajasthan Discoms & Haryana Discoms
Shri Ravi Nair, Advocate, Rajasthan Discoms and Haryana Discoms
Ms. Shikha Sood, Advocate, Rajasthan Discoms & Haryana Discoms
Ms. Reeha Singh, Advocate Rajasthan Discoms & Haryana Discoms

Record of Proceedings

Learned senior counsel for the Petitioner made the following submissions during the hearing:

a. Initially the Petitioner had sought approval of the cost of meeting the NOx emission norm of 450 mg/Nm³ and norm of 300 mg/Nm³ in the petition as



discussions regarding the revision of NO_x emission were going on. MOEFCC, *vide* notification dated 19.10.2020, has revised the NO_x emission norms from 300 mg/Nm³ to 450 mg/Nm³, and therefore, prayer with respect to meeting the norm of 300 mg/Nm³ has now become infructuous. Accordingly, the Petitioner is seeking relief with respect to NO_x emission norm of only 450 mg/Nm³.

b. Referring to the Commission's observations regarding the variation in design value of the NO_x system, as given by the OEM, furnished by the Petitioner in Petition No.77/MP/2016 and in the instant petition and the direction to submit the correct design value as guaranteed by the OEM, the Petitioner in its affidavit dated 31.6.2021 has submitted that the design guarantee of NO_x emission is 365 ppm equivalent to 748.25 mg/Nm³ at Design Coal specifications. Both 'ppm' and 'mg/Nm³' are units to reflect NO_x emissions.

c. The specification of Windbox provided by the manufacturer of OEM boiler guarantees NO_x emission at 365 ppm. Since the Amendment Rules provides for compliance in 'mg/Nm³', the pleadings made under the instant petition provides NO_x emissions in 'mg/Nm³'. The 365 ppm can be converted to mg/Nm³ by applying the formula of "*mg/Nm³ = concentration (ppm) X 2.05*". Accordingly, the guarantee for the OEM Boiler is 748.25 mg/Nm³.

d. The Petitioner has submitted the summary of the data to CPCB during the last three years, i.e. from 2018-21 which reflects the total number of times and the percentage NO_x value exceeded 450 mg/Nm³ on 15 minutes average data.

e. Referred to BHEL NO_x and SO_x measurement Report, which provided for the conversion methodology from ppm to mg/Nm³ by applying the formula of "*mg/Nm³ = concentration (ppm) X 2.05*".

f. The estimated total capital cost of Rs.119.89 crore for meeting the NO_x norm of 450 mg/Nm³ may be approved.

2. Learned counsel appearing on behalf of GUVNL made the following submissions:

a. In Petition No. 77/MP/2016, the maximum NO_x emissions reported by the Petitioner is 330 to 459 mg/NM³ at 4% of O₂. In the rejoinder filed on 17.4.2018 also, the actual emissions were stated to be in range of 330 to 459 mg/Nm³ at 4% of O₂ (approximately 283 to 393 mg/Nm³ at 6% of O₂).

b. The Commission in its order dated 17.9.2018 in Petition No. 77/MP/2016 also recorded the actual emissions of NO_x to be 476 mg/NM³ at 4% of O₂ which is 425 mg/NM³ at 6% of O₂. This is contrary to the earlier pleadings and feasibility report submitted by the Petitioner. However, even as per this, the emissions at 6% of O₂ is well within the emission limits.

c. In the Tata Consultancy Engineers Limited Report dated 23.6.2016, submitted by the Petitioner in the Petition No. 77/MP/2016, it was noted that the actual emission of NO_x is 459 mg/NM³ at 4% of O₂ which is 393 mg/NM³ at 6% of



O₂. Now, in the instant petition, the Petitioner is claiming higher actual emissions and the same is contrary to the earlier pleadings and feasibility report submitted by the Petitioner in Petition No. 77/MP/2016.

- d. The Petitioner in its affidavit dated 21.6.2021 has claimed that the actual NOx emission is more than 900 mg/NM³ which is clearly more than the guaranteed 600 mg/NM³ stated in Petition No. 77/MP/2016 or even 748.25 mg/Nm³ in the instant petition. It is also higher than the 750 mg/NM³ which the Petitioner is seeking to comply with in its rejoinder in Petition No. 77/MP/2016.
- e. The Petitioner already has Low NOx burner and Over Fire Air technology. Therefore, there is no need for any further installation of any equipment. Any measures related to existing equipment of Low NOx burner cannot be considered as '*Change in Law*'.
- f. In Central Pollution Control Board's letter dated 11.12.2017, the Petitioner was given direction with regard to NOx emission only for Low NOx burners with Over Fire Air. There was no direction for installation of any other equipment. Since Petitioner already has the Low NOx burners with Closed Over Fire Air, this cannot be a '*Change in Law*'.
- g. The Respondents were not consulted with respect to technology and there is no basis for the cost claimed by the Petitioner. Further, it is not clarified whether the costs are based on design guarantee of 748.25 mg/NM³. The costs claimed towards IDC, Contingency, Engineering and Project Management costs, O&M Expenses and opportunity cost is on a higher side and is also not correct.

3. Learned counsel appearing for Rajasthan Discoms made the following submissions referring to the Note of Arguments:

- a) Placing reliance on Commission's order dated 7.9.2021 in Petition No. 377/MP/2019 in the case of D.B Power Ltd. Vs. TANGEDCO and order dated 24.11.2021 in Petition No. 598/MP/2020 (D.B Power Vs. TANGEDCO), submitted that examination of the actual emission profile and the design parameters of the Petitioner is necessary as the Commission has disallowed the capital expenditure in respect of generators where the NOx emission are within the range of 450 mg/Nm³.
- b) The Petitioner has taken contradictory stand in respect of the actual emissions as well as the design guarantee parameter as per Boiler OEM design.
- c) The data furnished by the Petitioner in compliance to the directions of the Commission is also not credible. The veracity of the data/reports furnished by the Petitioner needs to be checked and the Petitioner is under obligation to provide all the data to the Respondents.
- d) Sought liberty to file the written submissions in the matter.



4. Learned counsel appearing for MSEDCL submitted that it is adopting the submissions made by GUVNL.

5. In response to the contentions of the Respondents, the learned counsel for the Petitioner submitted that the NO_x emission guarantee by OEM at design coal is 748.25 mg/Nm³ and the Petitioner is required to comply the environmental norms of keeping the NO_x emission to less than 450 mg/Nm³. He submitted that the existing technology under Low NO_x Burner and Over Fire Air is not sufficient to meet the revised the norms of 450 mg/Nm³. There is a need for augmentation of the existing equipment to comply with the revised norm of 450 mg/Nm³ and to that extent the Petitioner is entitled for the expenditure towards cost of installation of the equipment. As regards the data furnished by the Petitioner, the learned counsel for the Petitioner submitted that the data submitted to CPCB via the server comprises of voluminous automated data running into thousands of pages. Accordingly, the Petitioner for the sake of convenience has submitted summary of the data submitted to CPCB for the period 2018-21. The Petitioner has already clarified vide the additional affidavit dated 2.8.2021 that the variation in the design guarantee value in Petition No. 77/MP/2016 with the one provided in Petition No. 607/MP/2020 was an inadvertent error.

6. After hearing the parties, the Commission directed the Petitioner to furnish the following information on affidavit by 11.11.2022 with a copy to the Respondents:

- a) The emission levels of NO_x during the last five years as submitted to the Pollution Control Board.
- b) Summary of the data furnished by the Petitioner in Petition No.77/MP/2016 and in the instant petition;
- c) The envisaged scope of works under “In Combustion Control Technology” and head-wise envisaged capital cost for each of the solutions proposed under the same. i.e. Low NO_x burner, Closed Coupled Over Fire Air (CCOFA) system, Separated Over Fire Air (SOFA) system, Combustion optimization etc.; and
- d) In view of the MoEF&CC notification dated 5.9.2022, the Petitioner shall furnish the details of the implementation schedule of the subject project for each unit along with a PERT chart i.e. bidding, award, starting date and completion date for each head solution etc,

7. The Commission directed the parties to file to their written submissions/note by 18.11.2022 with a copy to the other parties. The Commission further directed the parties to comply with the above directions within the specified timeline and observed that no extension of time shall be granted.

8. After hearing the parties, the Commission reserved the order in the matter.

By order of the Commission

sd/-
(V. Sreenivas)
Joint Chief (Law)

