

**BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION
GANDHINAGAR**

Draft Order, 2020 for Determination of Tariff for Procurement of Power by the Distribution Licensees and Others from Biomass based Power Projects and Bagasse based Co-generation Projects for Control Period from FY 2020-21 to FY 2022-23.

- Objector No. 1 : Gujarat Urja Vikas Nigam Limited
- Represented By : Mr. S.K. Nair and Mr. Hetal Patel
- Objector No. 2 : Gujarat Biomass Energy Developers Association
- Represented By : Nobody was present.
- Objector No. 3 : Shree Khedut Sahakari Khand Udyog Mandli Limited
- Represented By : Mr. C.B. Sonawan.
- Objector No. 4 : Shree Kedareshwar Khandsari Udyog
- Represented By : Mr. Ankur Kanala
- Objector No. 5 : Co-Generation Association of India
- Represented By : Nobody was present.
- Objector No. 6 : Amreli Power Projects Limited
- Represented By : Ld. Sr. Advocate Mihir Thakore and Advocates Mr. Saunak Rajguru, Mr. Tabish Samdani, Mr. Tarak Damani, Mr. Nanissha Narsinghani alongwith Mr. Ashish Mehta, Mr. Anup Pillai, and Mr. Krutarth Oza
- Objector No. 7 : Junagadh Power Projects Limited
- Represented By : Ld. Sr. Advocate Mihir Thakore and Advocates Mr. Saunak Rajguru, Mr. Tabish Samdani, Mr. Tarak Damani, Mr. Nanissha Narsinghani alongwith Mr. Ashish Mehta, Mr. Anup Pillai, and Mr. Krutarth Oza
- Objector No. 8 : Bhavnagar Power Projects Pvt. Limited
- Represented By : Ld. Sr. Advocate Mihir Thakore and Advocates Mr. Saunak Rajguru, Mr. Tabish Samdani, Mr. Tarak Damani, Mr. Nanissha Narsinghani alongwith Mr. Ashish Mehta, Mr. Anup Pillai, and Mr. Krutarth Oza

Objector No. 9 : State Load Despatch Centre - Gujarat
Represented By : MR. Parag Parmar

CORAM:

Mehul M. Gandhi, Member
S. R. Pandey, Member

Date: 21/12/2021.

Daily Order

1. The present matter was kept for hearing on 07.12.2021 in terms of the directions of the Hon'ble APTEL and compliance to judgement (Oral) dated 15.11.2021 in Appeal No. 277 of 2021 & IA No. 1832 of 2020. The Commission has issued hearing notice to Objectors No. 1 to 5, who have submitted their comments/suggestions to Draft Order dated 11.03.2020 in response to the Public Notice issued in Gujarati and English Newspapers by office of the Commission. The Commission has also uploaded 'Important Notice' dated 25.11.2021 on its website.
2. Mr. S.K. Nair, appearing on behalf of Objector No. 1 GUVNL submitted that GUVNL has already made their submission and nothing more to add further in the said submission. It is also submitted that the documents filed today by Objectors No. 6, 7 & 8 has not seen by him. It is requested that the Commission may direct them to provide the same and also grant some time to GUVNL for checking the said document and for filing the reply thereto, if any.
3. Mr. Parag Parmar, appearing on behalf of SLDC submitted that the SLDC has also not having copy of the submissions filed today by Objectors No. 6, 7 & 8 and requested the Commission to direct them to make available a copy of submission to SLDC also.
4. Mr. C. B. Sonawan appearing on behalf of Shree Khedut Sahakari Khand Udyog Mandli Limited submitted that the State having 19 operational cooperative sugar factories having potential of 500 MW installed capacity out of which 300 MW are exportable surplus to GUVNL by installation of high efficiency bagasse-based

generation Power Plant. It is also submitted that no sugar factory has been able to implement this project till date. It is also requested to provide the period of 36 months for commercial operation date of the project after signing of the PPA. It is also submitted that GUVNL is ready for signing of the PPA which are commissioned during the said control period.

5. Mr. Ankur Kanala on behalf of Shree Khandeshwar Khandsari Udyog Gujarat submitted that they have desires to set up bagasse-based Power Project and interested to sign the PPA with GUVNL. It is also submitted that since last more than one year they have approaching GUVNL for signing of the PPA for supply of power from their proposed bagasse-based power project. It is submitted that GUVNL has shown its inability to sign the PPA due to non-availability of Tariff Order after 31st March 2020. It is requested to provide Regulatory support by issuing new tariff order for Bagasse based Power Project to enabling them to sign the PPA with GUVNL as per the tariff order of the Hon'ble Commission.
6. Ld. Sr. Adv. Mr. Mihir Thakore appearing on behalf of Objectors No. 6, 7 & 8 submitted that the present proceedings are in nature of remand proceeding by the Hon'ble APTEL as per the judgment dated 15.11.2021 in Appeal No. 277 of 2021.
- 7.1. He submitted that the Commission has to consider the actual cost of supply of electricity for realistic tariff determination with consideration of Gross Calorific Value (GCV) of fuel in view of the operational realities of the biomass fuel management. TERI who had prepared a biomass fuel related report based on Non-Scientific methodology. Methodology of samplings done by TERI is not correct. It is also submitted that TERI has not consulted the Biomass power producers who are primary stakeholders. The Commission has in its Tariff Order 2018 had mechanically adopted the TERI Report, which was unrealistic and unreasonable and cannot be continued. The GCV of biomass considered quite higher than GCV of domestic coal by the Commission. Further the Commission has not compared the GCV of Biomass figure adopted by the other State Commissions and CERC. It is also in contravention of the decision regarding GCV of Biomass fuel as settled by the Hon'ble APTEL. It is further submitted that the Commission need to consider the actual cost of supply of electricity for realistic tariff determination as directed by Hon'ble APTEL in the various Judgment.

- 7.2. The TERI report had dealt with the fuel of biomass GCV and Biomass price in the six districts of Gujarat whereas the biomass-based power plant has been setup by the power developers in Amreli, Junagadh and Bhavnagar. The Commission has passed the Order on 09.02.2018 based on Report of the TERI wherein the Commission has considered the GCV of Biomass fuel upto 4423 KCAL/Kg as stated in Report and accordingly determined tariff. It is also submitted that the TERI report contributes to GCV figure unrealistically high and Commission has over looked the entire sampling methodology of Biomass adopted by the TERI unscientific and non-representation of the biomass used as a fuel by the biomass power producers.
- 7.3. The TERI has collected samples of Biomass at the farm level which do not represent the realities of the fuel management cycle i.e. collection of samples from the farm level to the point where the fuel is fired in the boiler of the power plants. It is also submitted that CERC report highlighted a significant loss in GCV of Biomass fuel during the storage, handling and transportation phases. The GCV of fuel for whole State is based on only one sample collected by TERI and such sample size collected for each type of biomass fuel is only 16-40 gm. The samples were kept in paper envelope and it was bound to absorb moisture from the sample.
- 7.4. There are many lacuna/ defects in the collection of sample, selected sample size for the study, handling of samples and testing etc. of it. Moisture of Biomass fuel at the farm level is also not capture and it might be possible that the improper sampling and handling of the Biomass samples lead to unrealistically high GCV figures.
- 7.5. It is also submitted that the sample were collected or the course of the short field visit and failed to take into account the seasonal variation in the moisture level of Biomass fuel. The date of receipt of various crops sample shown on the lab test report state that the samples were presented to the labs for testing in the month of April and May, which is the pre-monsoon period while Biomass is available throughout the year when the climate is characteristic by the High temperatures and low humidity. The moisture level of fuel changes considerably with changing of season and that Biomass absorb moisture during the monsoon month whereas the Moisture is set during the dry season. It is also submitted that the Biomass fuel has moisture content which has direct impact on GCV fuel, is not factored correctly.

- 7.6. It is submitted that the TERI report based on which GCV of the Biomass fuel considered for Tariff Order 2018 has not adequately considered moisture content of the Biomass fuel. The TERI report consists of error to the extent of GCV figure of biomass derived in the Report instead of determining the actual GCV of Biomass fuel utilized by Biomass based power producer in the State of Gujarat. Accordingly, the draft Tariff Order 2020 ought not to continue to the extent of determination of GCV as 4423 KCAL/Kg relying on TERI Report. He has referred the judgment dated 04.05.2016 in Appeal No. 211/2015 in case of MP Biomass Energy Developer Association and Others V/s. MPERC and Others and submitted that the Hon'ble APTEL held that the GCV of the Biomass fuel be determined based on the multiple sources and not in single source.
- 7.7. It is submitted that SHR is an important factor to assess the efficiency of a biomass-based power station. Efficiency is inversely proportional to SHR. If SHR reduces, efficiency increases, resulting in fuel saving. It is submitted that the SHR of a biomass-based power plant is dependent on a number of variable and operational factors and cannot be determined based on the design parameters of the plant alone. If these variable factors are not duly considered, the SHR of the power plant will be unrealistic and unachievable. Moreover, any tariff determined on such erroneous and unrealistic operational parameters will not be cost reflective and will hamper the recovery of the price of electricity by the generators.
- 7.8. It is submitted that the CERC in its Report stated that there are operational variables that affect the SHR of a biomass-based power plant and must be taken into consideration for a realistic determination of the SHR. It is also stated that biomass-based power plants need to be provided with a reasonable operational margin over and above the design heat rate of the plant and recommended an SHR of 4200 KCal/KWh, for Biomass based plant.
- 7.9. The SHR of a biomass-based power plant must be determined giving due consideration to the operational factors that affect the efficiency of a plant and cannot be based on the design heat rate alone.

- 7.10. It is also submitted that the SHR value considered for the biomass-based power projects in the State of Gujarat is much lower than the analogous figures considered for the biomass-based power projects in other States which puts the biomass-based power projects in the State of Gujarat in a disadvantageous position as compared to biomass-based power plants set up in other States. The lower SHR of Biomass Power Plant considered without any reasons or justification for adoption of such a low figure and also no effort was made to distinguish the efficiency of the biomass-based power plants in the State of Gujarat from those located in the other States.
- 7.11. It is submitted that the SHR adopted at 3950 kCal/kWh for air cooled biomass-based power plants without considering the operational realities of the biomass-based power plants which have a significant impact on the actual SHR.
- 7.12. It is submitted that the SHR value considered on the presumption that any deviation from the design heat rate of the plant is due to inefficiencies on part of the biomass-based power producers.
- 7.13. Reference has been given to the BPPA v/s TNERC case wherein the Hon'ble APTEL set aside the SHR of 3840 kcal/kWh adopted by the Tamil Nadu State Commission (TNERC) on the ground that TNERC has failed to adequately consider the uncontrollable factors that affect the SHR of biomass-based power plants and that it had simply followed the SHR adopted in its earlier orders.
- 8.0. We note that the Commission has issued Draft Order, 2020 dated 11.03.2020 proposing to continue with the same 'Levelised Fixed Component of Tariff for 20 years' as determined in last Tariff Order dated 15.03.2018 for the power projects to be commissioned during next three years of control period for FY 2020-21 to FY 2022-23 i.e., upto 31.03.2023. It is also propose to allow escalation in variable charges at 3% per annum for FY 2020-21 to FY 2022-23 in earlier order to protect the interest of consumers. It was also proposed in Draft Order, 2020 that other terms and conditions as decided by the Commission in Tariff Order dated 15.03.2018 shall be continued for new control period for FY 2020-21 to FY 2022-23 i.e., further up to 31.03.2023.
- 8.1. We have considered the submissions made by the parties. We note that Learned Senior Advocate Shri Mihir Thakore made submission for the Respondent No. 6, 7 and 8. We also note that the representatives from Respondent No. 1 GUVNL and SLDC requested to provide

copy of the submission made by the Respondents No. 6, 7 and 8 and sometime to grant for making their submission. On which the representative of Respondent No. 6, 7 and 8 agreed to provide copy to other Objectors. Accordingly, we decides to grant period of 10 days to file any submissions by the parties in the subject matter.

8.2. We also note that the Objectors No. 6, 7 & 8 had filed the Appeal No. 277 of 2021 before the Hon'ble APTEL challenging the Tariff Order No. 1 of 2018 dated 15.03.2018. The Hon'ble APTEL vide its Judgement (Oral) dated 15.11.2021 while disposing the aforesaid appeal directed the Commission to take a final decision, after hearing all interested parties on all issues in accordance with law on the Draft Order dated 11.03.2020 expeditiously, preferably within two months from the date of the judgment. and the Commission to pass a clear express order for the control period beginning 01.04.2020.

8.3. All the Parties are directed to file their written submissions, if any, within 10 days from the date of this Order. The matter is reserved for Order.

9. We order accordingly.

Sd/-
[S. R. Pandey]
Member

Sd/-
[Mehul M. Gandhi]
Member

Place: Gandhinagar
Date: 21/12/2021.