

Sub: In the matter of compliance with judgment passed by the Hon'ble Appellate Tribunal for Electricity in Appeal No. 144 of 2013

SMP- 08/2013

ORDER

(Date of order : 13th August, 2015)

The Commission had issued a tariff order for procurement of power from Biomass based power plants on 02.03.2012 for the control period up to 31.03.2014. M/s Harvest Energy Private Ltd. filed an appeal no. 93 of 2012 before the Hon'ble Appellate Tribunal for Electricity (APTEL) against the aforesaid tariff order. By its order dated 18.02.2013, the Hon'ble APTEL allowed the appeal and set aside the impugned tariff order and remanded back the matter to the Commission to decide the norms on capital cost, Gross Calorific Value, Station Heat Rate and price of biomass fuel based on the directions given in its judgment. Regarding ROE, the Hon'ble APTEL directed the Commission to allow not less than that allowed under its tariff Regulations applicable to conventional generating stations. The Hon'ble APTEL also directed the Commission to re-determine the tariff and pass the consequential order.

2. Pursuant to the aforesaid directions of the Hon'ble APTEL, the Commission had reviewed the norms and issued an order on 03.05.2013. The M.P. Biomass Energy Developers Association filed an appeal no. 144 of 2013 against the aforesaid order dated 03.05.2013. By its order dated 29.05.2014, the Hon'ble APTEL allowed the appeal and remanded back the matter to the Commission to re-determine the norms on Gross Calorific Value (GCV) and Station Heat Rate (SHR).

3. A public notice was issued to the appellants, respondents and the Department of New and Renewable Energy, Government of Madhya Pradesh (hereinafter referred as NRED) and the hearing was held on 03.07.2014. The Department of New and Renewable Energy of the Government of Madhya Pradesh was directed to furnish a report on the aforementioned issues. By letter no. 1174 dated 08.09.2014, Dy. Commissioner, NRED, Bhopal submitted the GCV test results of two samples of Rice husk, one sample of Wheat husk and Mulberry each. The Commission found that the sample size taken by the NRED was too small and did not represent the GCV of the biomass fuel in the State as a whole.

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4. By letter no. 2354 dated 23.03.2015, Dy. Commissioner, NRED, Bhopal submitted the values of SHR worked out on the basis of the aforesaid GCVs of various fuels and the normative specific fuel consumption as per CERC (Terms and Conditions for tariff determination from renewable energy sources) (First amendment) Regulations, 2014. The SHR of the plant actually functioning in the State was not furnished. By letter dated 10.04.2015, the NRED was again directed to furnish GCVs of the samples from various districts of Madhya Pradesh to arrive at the representative GCV along with the SHR of the plant actually functioning in the State.

5. The Commission has examined the reports submitted by the NRED as under :

(i) Gross Calorific Value :

By letter dated 10.07.2015, the NRED submitted the test results of GCVs of samples collected from six Districts of Madhya Pradesh as under. However the weighted average GCVs are not submitted.

Sample	Gross Calorific Value (Kcal/Kg.)
Rice Husk	From 2780 to 2934
Wheat Straw	From 3149 to 3368
Soyabean Husk	From 3210 to 3349

The Gross Caloric Value for determination of tariff depends upon the mix of biomass fuel available in any particular State. Due to variation in the quantum of different fuels available in various parts of the State, simple average GCV for the fuel mix throughout the State cannot be considered for determination of tariff applicable for all projects. The Commission is of the view that there is no established ground to determine the weighted average Gross Calorific Value of the fuel for the Madhya Pradesh. In absence of the weighted average GCVs, it would be difficult to arrive at the reasonable GCV for the purpose of determination of tariff for the State. In the impugned order, the Commission had considered GCV @ 3600 Kcal/Kg.

It is noted that various SERCs had considered different GCVs and other than the norms specified by the CERC for the purpose of tariff determination as under:

Norms	CERC	MERC	GERC	TNERC	RERC	MPERC
GCV(Kcal/Kg)	3100	3611	3435*	3200	3400	3600

*calculated @ 85% of biomass and 15% of coal.

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Under the above circumstances, it is decided that the GCV for the period under consideration may be continued at 3600 Kcal/Kg. as fixed in the impugned order till a detailed study is carried out by an independent agency or the Department of New and Renewable Energy, Madhya Pradesh.

(ii) Station Heat Rate :

The Station Heat Rate depends on several factors such as plant capacity, plant design and configuration, technology (type of boiler and pressure level etc.), plant operation and maintenance practices, quality of fuel and operational performance over varying load conditions. The NRED had submitted that:

- a) They have analyzed the operating performance of the biomass power plants of the Madhya Pradesh.
- b) As per SLDC data, one of the better performing biomass power plants viz. M/s Arya biomass project of 10 MW operated at Plant Load Factor (PLF) of 60% for the period from June, 2014 to December, 2014 and other biomass power plants are operating at less than 50% PLF.
- c) The Station Heat Rate (SHR) is a function of Specific Fuel Consumption (SFC) and the Gross Calorific Values (GCVs) of the fuels used. In its order dated 18.03.2014, the CERC accepted the SFC suggested by the Technical Committee at 1.5-1.8 Kg./kWh. Based on the aforesaid benchmark, the SHR for the biomass power plants works out to in the range of 4229 to 4586 Kcal./kWh.

It is noted that various SERCs had considered different SHRs and other than the norms specified by the CERC for the purpose of tariff determination as under:

Norms	CERC	MERC	GERC	TNERC	RERC	MPERC
SHR(Kcal/KWh)	4200	3800	3800*	3840	4200**	3800

*3950 for air cooled condensers.

**4440 for air cooled condensers.

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The Commission is also of the view that majority of biomass power plants may not run on single fuel and a mix of fuels shall be used. The biomass power projects were already allowed to use fossil fuel @ 15%. Thus, the Commission does not find any reason to enhance the Station Heat Rate of 3800 kCal./kwh considered in the impugned order for the purpose of tariff determination till a detailed study is carried out by some independent agency or the Department of New and Renewable Energy, Madhya Pradesh.

6. By order dated 03.05.2013, the Commission had determined the year wise tariff for the projects commissioned up to the FY 2013-14. Due to review of the norms in terms of the judgment dated 29.05.2014 issued by the Hon'ble APTEL, the tariff for the control period beyond FY 2013-14 could not be determined. As per clause 5.1 of the impugned tariff order, in case tariff for the next control period is not determined before commencement of next control period, the tariff as per tariff order dated 02.03.2012 shall continue to be in force until revised tariff is determined. Also, it would not now be appropriate to determine the tariff for the projects commissioned during the FY 2014-15 and 2015-16. Therefore, based on the order dated 03.05.2013, the Commission decides to continue the same tariff for the projects commissioned during FY 2014-15 & 2015-16 as determined for the projects commissioned during the FY 2013-14.

Ordered accordingly.

(Alok Gupta)
Member

(A.B. Bajpai)
Member

(Dr. Dev Raj Birdi)
Chairman