

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Date of order: 10<sup>th</sup> July, 2015**

**Coram: Shri Gireesh Pradhan, Chairperson  
Shri A. K. Singhal, Member  
Shri A. S. Bakshi, Member**

**STATEMENT OF REASONS**

**The Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) (Third Amendment) Regulations, 2015**

**1. Introduction**

- 1.1 The Central Commission, at the recommendation of MNRE, notified second amendment to RE Tariff Regulations on 05th January 2015 allowing use of fossil fuel for biomass projects up to 15% in terms of calorific value on annual basis. However, the Commission in its Statement of Reason reiterated that *"the normative Station Heat Rate has been specified considering the usage of 100% biomass, and that the proposal of permitting usage of fossil fuel up to 15% in terms of calorific value on annual basis might have an impact on SHR"*. The Commission also directed the staff to examine this issue and submit a report.
- 1.2 After considering the detailed analysis by staff on SHR and GCB for biomass plants, the Commission published draft Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) (Third Amendment) Regulations, 2015 on 16.04.2015 inviting comments of stakeholders. In response to the same, 3 stakeholders submitted their written comments /suggestions as follows:
- a) Biomass Power Producers Association
  - b) Green Planet Energy Private Limited
  - c) S.Surya Prakasa Rao, Hyderabad
- 1.3 Subsequently, a public hearing was held on 05.05.2015 to hear the views of all the stakeholders. The following stakeholders expressed their views/suggestions/comments in person:
- a) Biomass Power Producers Association
  - b) Green Planet Energy Private Limited

## **2. Consideration of the views of the stakeholders and analysis and findings of the Commission on important issues**

2.1 Following issues were proposed to be addressed through the present amendment:

- i. Determination of normative SHR for Biomass Based Power Projects.
- ii. Determination of normative GCV of fuel combination for Biomass Based Power Projects.

2.2 Analysis of the views/comments/suggestions of the stakeholders and the Commission's decisions thereon are given in succeeding paragraphs.

## **3. Determination of Normative SHR for Biomass Based Power Projects.**

3.1 The Commission proposed the following amendment to Regulation 38 of the Principal Regulations;

*"Regulation 38 of the Principal Regulation shall be substituted as under:*

### **38. Station Heat Rate**

*The Station Heat Rate for biomass power projects shall be as under:*

- a. 4126 kcal/kWh for project using travelling grate boilers;
- b. 4063 kcal/kWh for project using AFBC boilers"

## **3.2 Comments received from stakeholders**

3.2.1 Coal has to be transported to Punjab from mines situated (in other States) which is more than 1500-2000 Kms away. Even Coal based Thermal Power Plants operating in the State are often starved of coal supply. Coal supply for Biomass Plants is not likely to materialize as State has not earmarked any linkage for these Plants.

3.2.2 Poor grade coal available in open market sells at around Rs 10/- kg. High rates of Coal, its scarcity and high cost has forced the State Industry (Brick Kilns) Industrial Boilers etc) to switch over to Rice Husk and other Biomass as fuel.

3.2.3 UNFCCC- Clean Development Mechanism (CDM) does not permit the use of fossil fuel in Biomass based Power Projects. Project Developers in their PODs had not considered coal as support fuel .If fossil fuel is used, it shall entail proportionate reduction in the number CERs earned.

3.2.4 If coal is considered as part of fuel mix for Biomass Plants, high prices of coal in the State shall also push up the State specific fuel prices annually recommended by CERC

while determining the generic Tariff for Biomass Power Plants (Renewable Energy Sources)

- 3.2.5 Our projects ( already installed/ pending to be installed) were given environmental clearance by SEIAA/ Consent to establish & operate by State Pollution Control Board with the condition that industry shall not use any other fuel except Biomass (agro residue) as feed for the Boilers. Use of fossil fuel shall necessitate revalidation of SEIAA/ PCB clearances. Use of Fossil fuel shall dilute the State Govt's emphasis for maximizing the consumption of paddy straw which is burnt in the open fields causing huge environmental pollution
- 3.2.6 In view of aforesaid, use of Coal may be made optional and allowed only in States closer to coal mines. Punjab, being situated thousands of Kms away from Coal mines, may specifically be excluded from this provision considering logistics of arranging coal, its scarce availability & high prices as also for technical reasons explained above. It is thus strongly recommended that Station Heat Rate for Biomass Plants in Punjab may be retained as 4200 Kcal/Kwh for Travelling Grate Boilers without use of any fossil fuel  
**(Biomass Power Producers Association, Green Planet Energy Private Limited)**

### 3.3 Analysis and Decision

The concerns raised are specific to a particular State namely Punjab. State Electricity Regulatory Commissions are mandated to take decisions for their respective State. Therefore, the Commission decides to retain the proposed amendment as follows:

*"Regulation 38 of the Principal Regulation shall be substituted as under:*

#### **38. Station Heat Rate**

*The Station Heat Rate for biomass power projects using fossil fuel up to 15% of calorific value on annual basis shall be as under:*

- a. 4126 kcal/kWh for project using travelling grate boilers;*
- b. 4063 kcal/kWh for project using AFBC boilers"*

### 4. Determination of GCV of Fuel.

The Commission, in the draft amendment proposed as follows:

*"Regulation 43 of the Principal Regulations shall be substituted as under:*

#### **43. Calorific Value**

*The Calorific Value of the biomass fuel used for the purpose of determination of tariff shall be at 3174 kcal/kg."*

## 4.1 Comments received from stakeholders

- 4.1.1 In view of reasoning given as comment with respect to Biomass based projects in Punjab for SHR determination, it is strongly recommended that GCV of biomass mix may be retained as 3100 Kcal/Kg and use of fossil fuel may not be allowed in the State **(Biomass Power Producers Association, Green Planet Energy Private Limited)**

## 4.2 Analysis and Decision

As mentioned, the Concerns raised are specific to a particular State. State Electricity Regulatory Commissions are mandated to take decisions for their respective State. Therefore, the Commission decides to retain the proposed amendment as follows:

" Regulation 43 of the Principal Regulations shall be substituted as under:

### **43. Calorific Value**

*For Biomass based projects using fossil fuel up to 15% of calorific contribution, the Calorific Value of fuel used for the purpose of determination of tariff shall be 3174 kcal/kg."*

## 5. Other Comments:

### 5.1 Comments received

- 5.1.1 Revised technical norms for biomass power projects may also be made applicable to old operating plants for improving the viability of their operations. **(Biomass Power Producers Association, Green Planet Energy Private Limited)**
- 5.1.2 15% Coal usage is meant for improving operational efficiency of Biomass plants which will help the object of promotion of Renewable Energy without much detriment to environment. Such usage will result in higher fuel cost on 15% coal component and deserves higher VC. It is not clear whether the additional fuel cost corresponding to 15% coal component will be factored in VC, while fixing Generic Tariff annually by CERC. If yes, then the proposed amendments are justified. If for any reason, the additional fuel cost on account of 15% coal can not be factored in fixing VC, then the proposed amendments may be dropped. Otherwise they can be viewed as discriminatory, and against the spirit of promotion of Renewable Energy mandated under EA 2003.

**(S.Surya Prakasa Rao, Hyderabad.)**

## **5.2 Analysis and Decision**

The above suggestions received from the stakeholders are outside the scope of the present exercise to amend this Regulation. Hence these suggestions have not been considered by the Commission.

**Sd/-**  
**(A.S. Bakshi)**  
**Member**

**Sd/-**  
**( A. K. Singhal)**  
**Member**

**Sd/-**  
**(Gireesh B. Pradhan)**  
**Chairperson**

New Delhi  
Dated the 10 July, 2015