

PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SITE NO. 3, BLOCK B, SECTOR 18-A, MADHYA MARG, CHANDIGARH

Petition No. 23 of 2021
Date of Order: 24.09.2021

Petition under regulation 7, 9 & 10 of PSERC (RPO and its compliance) Regulations 2011, for consideration of proportion of power generated at Captive Power Plant of ACL Ropar Unit by co-firing of biomass in boilers as Non-Solar renewable power and exemption from RPO under the PSERC (RPO and its compliance) Regulations, 2011 and CERC (Suo-Motu) Petition No. 12/SM/2019, Order dated 18.02.2020.

AND

In the matter of: Ambuja Cements Limited, Village: Daburjee, PO: Lodhimajra, Distt. Rupnagar 140113

...Petitioner

Vs

1. Punjab State Power Corporation Ltd., The Mall, Patiala.
2. Punjab Energy Development Agency, Plot No. 01 & 02 Sector 33-D, Chandigarh

...Respondents

Present: Mr. Viswajeet Khanna, Chairperson
Ms. Anjuli Chandra, Member
Mr. Paramjeet Singh, Member

ORDER:

1. Ambuja Cements Ltd. Rupnagar (ACL) has filed the present petition with the prayer that:

- a) Necessary Regulations be issued for considering power generated from co-firing of bio-mass in the Captive Power

Plant (CPP) as renewable energy and is eligible for meeting non-solar Renewable Purchase Obligation (RPO).

- b) Methodology specified in the CERC Order dated 18.02.2020 be made applicable for CPP.

2. The submissions made by the petitioner in brief are as under:

- a) ACL is operating its CPP with capacity of 30 MW since 2005. It is co-firing biomass along with coal for generation of electricity, averaging about 50% by heat basis.

- b) CERC vide Order dated 18.02.2020 in suo-motu petition 12/SM/2019, has prescribed methodology for estimation of electricity generated from biomass in biomass co-fired thermal power plants. In the said Order, it has been held as under:

“10. We have perused the references of MNRE dated 26.9.2019. The MNRE has clarified that the power generated from co-firing of biomass in coal based thermal power plants is renewable energy and is eligible for meeting non-solar Renewable Purchase Obligations (RPOs).

11. We observe that biomass can also be used in thermal captive power plants similar to thermal generation station. We, therefore, are of the view that the methodology shall also be applicable to the captive power plant using co-firing of biomass. The methodology specified in this order will therefore, be applicable to the captive power plant also that co-fires biomass.”

- c) As advised by the Commission, ACL approached the nodal agency PEDDA and submitted all relevant documents like project report, biomass usage details and electricity

generated using biomass fuels as per the CERC methodology. PEDDA vide its e-mail dated 25.02.2021, has intimated that CERC order dated 18.02.2020 has not been yet notified by PSERC.

3. The petition was fixed for hearing on admission on 12.05.2021 and notice was also issued to Punjab State Power Corporation Limited (PSPCL) and Punjab Energy Development Agency (PEDDA). PEDDA vide its reply dated 11.05.2021 to the petition submitted as under:

- a) Prevailing PSERC RPO Regulations do not contain any provision with regard to rendering benefit of RPO on account of co-firing of biomass. In case, the Commission decides to amend the RPO Regulations with regard to co-firing of biomass fuel, then the issue of quantum of biomass shall require deliberation.
- b) CERC Order dated 18.02.2020 and MNRE Notification dated 26.09.2019 have not yet been adopted by the Commission. The relief sought by ACL is the prerogative of the Commission. The Commission has the power to amend/alter the Regulations, as deemed fit.

4. After hearing the learned counsel for the petitioner, the petition was admitted vide Commission's Order dated 17.05.2021 with observation that, PEDDA has already filed its reply dated 10.05.2021. PSPCL may file its reply to the petition and the petitioner to file its rejoinder, if any.

5. PSPCL submitted reply to the petition vide its submissions dated 27.05.2021 stating that:

- a) The power project of the petitioner and its status as co-firing of biomass project may be verified by PEDDA and the Commission.
- b) The 'renewable energy sources' has been defined in PSERC (Renewable Purchase Obligation and its compliance) Regulations, 2011 as hereunder:

“2(1) (l) ‘renewable energy sources’ means renewable sources such as small hydro, wind, solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban or municipal waste and such other sources as recognized or approved by MNRE;”

- c) On 26.09.2019, MNRE issued a notification clarifying that power generated from co-firing of biomass in the thermal power plants is renewable energy and is eligible for meeting Non-Solar RPO.
- d) Pursuant to the MNRE notification dated 26.09.2019, CERC vide order dated 18.02.2020 in Suo-motu petition 12/SM/2019 issued the 'methodology for estimation of electricity generated from biomass in biomass co-fired Thermal Power Plants, including captive and co-generation plants co-firing biomass.'
- e) The Commission has not passed any order regarding the methodology for quantification of energy produced from biomass in biomass co-fired coal based thermal power plants yet. Therefore, unless the Commission adopts the methodology, it may not be possible to consider the generation towards RPO. On the other hand, the petitioner

has submitted data from April 2019, which is even prior to MNRE Notification dated 26.09.2019 and CERC Order dated 18.02.2020.

- f) Since the methodology, issued by CERC, requires provision of information of co-firing and inspection, it would not be possible to apply the same retrospectively.
 - g) As per the CERC's methodology, the generating company is to maintain separate fuel accounts, publish the same and make it available to beneficiaries and RLDC/SLDC. Further, they are required to inform of co-firing of biomass so that it could be inspected. In CPPs there is no independent beneficiary, thus the Commission may designate an agency in the State for examination of the accounts or conducting any inspection etc., to ensure that co-firing of biomass is as specified by MNRE/CERC.
- 6.** The Commission after hearing the parties on 09.06.2021, vide interim Order dated 15.06.2021 directed PEDA, the State Agency entrusted with the responsibility of monitoring of RPO compliance by the obligated entities in the State, to develop in association with PSPCL, the system for obtaining and verifying the data and estimating the electricity generated from bio-mass in the captive power plants based on the fuel account of the beneficiaries. The Joint Committee of PEDA and PSPCL shall also submit the timelines for the system to be put in place and the charges, if any, to be levied on the beneficiaries.
- 7.** In compliance thereof, PEDA vide its letter dated 10.08.2021 submitted the report of the Joint Committee of PEDA and PSPCL. It was submitted that the Committee visited petitioner's

facility on 19.07.2021 and observed as under:

- a) ACL is a large supply industrial consumer of PSPCL having sanctioned contract demand of 5 MVA and is engaged in the business of cement production.
- b) ACL is operating 2 Steam Turbine Generator sets of 15 MW capacities and using mix of different biomass/agro wastes along with coal as fuel.
- c) The records/entries with regard to the opening balance of fuel-stock, receipt, consumption, closing balance of fuel-stock and GCV were inspected. ACL was asked to produce the certificates of sampling /analysis of coal and/or biomass/agro wastes indicating the test results including GCV, which was provided by ACL which were from NABL certified laboratory.
- d) The Joint Committee proposes to adopt the CERC methodology for estimation of electricity generated from biomass in biomass co-fired coal based thermal plants, including captive and co-generation power plants co-firing biomass. Based on the CERC methodology, the Committee has also prepared the formats for consumption of fuel and monitoring/estimation of energy generated from biomass in biomass co-firing.
- e) The Committee also proposed the time lines to be followed by Obligated Entities as under:
 - i) The information is required to be submitted to PSPCL & PEDDA on quarterly basis by the obligated entity having CPP not later than 20th day of start of succeeding

quarter of respective year.

ii) The back-up data sheets for the data submitted to PEDA/PSPCL for any year will be preserved for at least next 2 years for cross-verification by PEDA/PSPCL or any auditing agency appointed by PEDA/PSPCL/PSERC.

iii) Obligated Entity shall also supply the unabridged annual financial statements of the company for each preceding year as approved by the Board of Directors within 15 days of submission to SEBI/adoption by the firm.

f) Regarding levy of charges on the obligated entities, PEDA and PSPCL are already monitoring their RPO compliance and no charges are being levied. The Committee proposes that they will keep on monitoring the RPO compliance in future also as per the practice in vogue.

8. Findings and Decision of the Commission

After hearing the parties on 08.09.2021, Order was reserved. The Commission has carefully gone through the petition, replies of PEDA and PSPCL, arguments made by the parties and the proposal of the State Nodal Agency (PEDA) in association with PSPCL. The findings and decision of the Commission are as under:

8.1 Issuance of necessary Regulations for considering power generated from co-firing of bio-mass as renewable energy and is eligible for meeting non-solar Renewable Purchase Obligation (RPO):

The petitioner prayed that necessary Regulations be issued for considering power generated from co-firing of bio-mass in the Captive Power Plant (CPP) as renewable energy and is eligible for meeting non-solar Renewable Purchase Obligation (RPO). However, PSPCL submitted that the 'renewable energy sources' has been defined in PSERC (Renewable Purchase Obligation and its compliance) Regulations, 2011 as under:

“2(1) (l) ‘renewable energy sources’ means renewable sources such as small hydro, wind, solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban or municipal waste and such other sources as recognized or approved by MNRE;”

And, on 26.09.2019, MNRE issued a notification clarifying that power generated from co-firing of biomass in the thermal power plants is renewable energy and is eligible for meeting Non-Solar RPO.

The Commission observes that the definition of ‘renewable energy sources’ specified in the existing PSERC Regulations read with MNRE notification dated 26.09.2019, permits the consideration of power generated from co-firing of biomass as a ‘renewable energy’. Accordingly, the same is eligible for meeting non-solar RPO. As such, the prayer of the petitioner for issuance of necessary regulations for considering power generated from co-firing of bio-mass is renewable energy already stands addressed.

8.2 Methodology specified in the CERC Order dated 18.02.2020 be made applicable for CPP.

The petitioner is pleading that, methodology specified in the

CERC Order dated 18.02.2020 be made applicable for CPPs. In compliance of the Commission's directions PEDDA and PSPCL constituted a Joint Committee to examine the issue, which, after deliberating the matter, has proposed to adopt the same. However, PSPCL has submitted that, since the methodology requires provision of information of co-firing and inspection, it would not be possible to apply the same retrospectively.

The Commission has examined the issue and decides as under:

- a) Ministry of Power vide notification dated 17.11.2017, notified the 'Policy for Biomass utilization for Power Generation through co-firing in Pulverised Coal Fired Boilers' and an advisory has been also issued by CEA on 24.11.2017 for utilizing biomass in coal based thermal power plants.
- b) Thereafter, MNRE vide notification dated 26.09.2019 issued a clarification that power generated from co-firing of biomass in thermal plants is renewable energy and is eligible for meeting non-solar RPO. MNRE also requested CERC as under:

"2. The Central Electricity Regulatory Commission (CERC) has been requested to formulate and notify a procedure/methodology for quantifying the energy produced from biomass in biomass co-fired thermal power plants in a reliable and accurate manner. It has further been suggested that the procedure/methodology so determined may have built-in transparency and accountability, including putting an obligation on

thermal power generators to publish the quantum of biomass used and energy generated from biomass co-firing in the public domain. Further, procedure/methodology notified by CERC would form the basis for respective State Electricity Regulatory Commissions (SERCs) and other relevant agencies for computing the energy produced from biomass in biomass co-fired thermal power plants, and also for determination of tariff, wherever applicable.”

- c) CERC vide its Order dated 18.02.2020 in Petition no. 12/SM/2019 (Suo-Motu), after following the due process of putting the draft methodology in public domain and considering the comments/suggestions of various stakeholders received thereon, specified the methodology for estimation of electricity generated from biomass in biomass co-fired power plants with observations as under:

“9. The Commission had proposed to restrict the application of the methodology only to thermal plants under section 62 or section 63 of the Electricity Act, 2003 since the Commission regulates tariff of centrally owned generating stations and the generating stations having composite scheme for sale or purchase of electricity in more than one state under Section 79(1)(a) and 79(1)(b) of the Act. The methodology was not proposed to cover captive or cogeneration plants. The Captive Power Producers Association has submitted that since captive power plants and co-generation power plants are also eligible under MNRE letter dated 26.9.2019 for the purpose of renewable purchase obligation, the methodology should cover captive

power plants and cogeneration power plants.

10. We have perused the references of MNRE dated 26.9.2019. The MNRE has clarified that the power generated from co-firing of biomass in coal based thermal power plants is renewable energy and is eligible for meeting non-solar Renewable Purchase Obligations (RPOs).

11. We observe that biomass can also be used in thermal captive power plants similar to thermal generation station. We, therefore, are of the view that the methodology shall also be applicable to the captive power plant using co-firing of biomass. The methodology specified in this order will therefore, be applicable to the captive power plant also that co-fires biomass.

12. While in case of captive power plant, the entire heat generated from coal and biomass is used to generate power, in case of co-generation plant, only part of the heat is used to generate power. But, the underlying principle remains applicable i.e. the proportion of heat input from biomass to total heat input for power generation. Accordingly, the methodology specified in this order shall also be applicable for cogeneration power plant.”

- d) The PEDA and PSPCL have also proposed to adopt the methodology specified by the CERC for estimation of electricity generated from biomass in biomass co-fired coal based thermal, captive and co-generation power plants.

In view of the above and in order to minimize/prevent burning of agro-residue in the fields by creating economic value for the same through its use as a fuel in co-firing mode,

the Commission decides to adopt the methodology specified by CERC for estimation of the electricity generated from biomass in biomass co-fired thermal captive power plants.

The Commission also notes that PEDDA in association with PSPCL has already prepared the formats for monitoring/estimation of energy generated from biomass in biomass co-fired Captive Power plants and the timelines to be followed by them. PEDDA, being the Nodal agency, is directed to upload the same on its website within a week of issue of this order. PEDDA shall also incorporate the same in the RPO manual for the Obligated Entities.

The Commission further notes that the data for quantifying the energy produced from biomass in biomass co-firing would need verification/inspection by PEDDA & PSPCL. Accordingly, the Commission is inclined to agree with the PSPCL's contention that benefit for consideration of the same towards fulfilment of Non-Solar RPO shall be made available prospectively.

The petition is allowed in terms of the above.

Sd/-

(Paramjeet Singh)
Member

Sd/-

(Anjuli Chandra)
Member

Sd/-

(Viswajeet Khanna)
Chairperson

Chandigarh
Dated:24.09.2021