

**ODISHA ELECTRICITY REGULATORY COMMISSION
BUDYUT NIYAMAK BHAWAN
PLOT NO.-4, CHUNOKOLI, SHAILASHREE VIHAR
BHUBANESWAR - 751021**

**Present: Shri U. N. Behera, Chairperson
 Shri S. K. Parhi, Member
 Shri G. Mohapatra, Member**

Case No. 14/2021

M/s. Jindal Stainless Ltd.	Petitioner
Vrs.		
OREDA & Another	Respondents

In the matter of: **An application under Regulations 12.5 & 12.6 of the OERC (Procurement of Energy from Renewable Energy Sources and its Compliance Regulations, 2015 and Notification dated 31.12.2019 of OERC seeking clarification/ permission in order to use Biomass as co-firing in conventional captive generating plant and import of Renewable Energy from other sources through Open access which shall be treated as total consumption and its statutory RPO Compliance.**

For Petitioner: Shri Rajendra Prasad Panigrahi, M/s. Jindal Stainless Limited

For Respondent: Ms. Sujata Dash, OREDA and Shri B. B. Meheta, CLD, SLDC.

ORDER

Date of Hearing: 13.07.2021

Date of Order: 27.09.2021

M/s. Jindal Stainless Ltd. (JSL) has filed the present petition under Regulations 12.5 and 12.6 of the OERC (Procurement of Energy from Renewable Energy Sources and its Compliance) Regulations, 2015 and Notification dated 31.12.2019 of OERC, seeking clarification/ permission in order to use Biomass as co-firing in its conventional captive generating plant and also for consideration of the entire scheduled renewable energy, which is to be imported by it through open access, for meeting its RPO.

2. The petitioner has submitted that it is an Obligated Entity under Regulation 3.1 (b) of OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2015 and in order to comply its non-solar renewable purchase obligation, it intends to use biomass as a fuel to the extent possible in its CGP. It has further submitted that the nodal agency OREDA is of the view that although CEA has issued

an advisory for utilising Biomass in coal based thermal power plants and CERC has determined a methodology for estimation of electricity generated from Biomass in Biomass co-fired thermal power plants, the same has not yet been notified by OERC for adoption in Odisha. Therefore, the petitioner has sought clarification regarding the procedure for use of Biomass as Co-Firing in Conventional Captive Generating Plant.

3. The petitioner has further submitted that OERC vide Notification No. OERC/RA/RE-5/2013 / 2012 dated 31.12.2019, while revising the RPO targets for CGPs, had directed that while meeting the RPO, if a CGP has surplus power than its consumption requirement, then such CGP may sell its surplus power to DISCOMs / GRIDCO under the prevailing arrangements or to any other consumer. During hearing, the petitioner has stated that in a particular time block, the present meter can only read either the net export or the net import data of the captive generating plant. In case the plant is importing a certain quantum of renewable power and simultaneously exporting the conventional power that is being generated by its CGP, the total renewable power is not accounted by the SLDC as the meter which is being used only shows net import or net export. Therefore, the petitioner has prayed the Commission for consideration of total import of Renewable Energy through open access after accounting of losses and charges applicable at JSL bus bar as Consumption of JSL for the purpose of fulfillment of RPO.
4. The respondent OREDA has submitted that the Commission may consider approving the methodology prescribed by CERC for estimation of electricity generated from Biomass in Biomass co-fired thermal power plants. OREDA has further stated that the prayer of the petitioner to issue direction to the effect that import of renewable energy as scheduled from other sources through open access to be treated as its consumption may be considered. However, in this matter the computation of RPO will be subject to receipt of necessary information from SLDC. The Respondent- SLDC has not submitted any views in the instant case.
5. Heard the parties. The Commission observed that MNRE vide its Notification dated 26.09.2019 has clarified that power generated from co-firing of biomass in the thermal power plants is renewable energy and is eligible for meeting non-solar RPO. In this notification it is further indicated that 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. The Commission further observed that CERC vide its Order dated 18.02.2020 passed in Suo Motu Petition No-12/SM-2019 at Annexure-1 have provided the methodology for estimation of electricity generated from biomass in a biomass co-fired coal based thermal power plants including captive and co-generation power plants co-firing bio-mass. The same is quoted hereunder:

“ Step-1:

- The electricity generated from biomass shall be estimated at Generator Terminal on monthly basis in accordance with the following formulae:

$$Eb(G) = [(Q_b \times G_b) / ((Q_c \times G_c) + (Q_b \times G_b))] \times E(GT)$$

Where,

$Eb(G)$ = Electrical energy generated by bio-mass at Generator terminal during the month (kWh);

Q_b = Quantity of bio-mass consumed during the month (kg)

G_b = Weighted average Gross Calorific Value (GCV) of bio-mass consumed during month (kCal/kg)

$E(GT)$ = Gross electrical energy generated at Generator Terminal during the month (kWh)

Q_c = Quantity of coal burnt during the month (kg)

G_c = Weighted average GCV of coal burnt during the month (kCal/kg)

- The product $(Q_b \times G_b)$ represent heat (in Kcal) input through bio-mass during the month and shall be estimated on monthly basis by applying following formulae:

$$\begin{aligned} Q_b \times G_b \text{ (kCal)} &= \{ \text{opening balance of bio-mass (kg)} \times \text{weighted average GCV of opening balance of bio-mass (kCal/kg)} \} \\ &+ \{ \text{quantity of bio-mass received during the month (kg)} \times \text{weighted average GCV of bio-mass received during the month (kCal/kg)} \} \end{aligned}$$

-{closing stock of bio-mass (kg) x weighted average GCV of the closing balance of bio-mass (kCal/kg)}

- The product (Qc x Gc) represents heat (in Kcal) input through coal during the month (Kcal) and shall be estimated on monthly basis by applying the following formulae:

$$\begin{aligned}
 Q_c \times G_c \text{ (kCal)} &= \{ \text{opening balance of coal (kg) x weighted average GCV of opening balance of coal (kCal/kg)} \\
 &+ \{ \text{quantity of coal received during the month (kg) x weighted average GCV of coal received during the month (kCal/kg)} \} \\
 &- \{ \text{closing stock of coal (kg) x weighted average GCV of the closing balance of coal (kCal/kg)} \}
 \end{aligned}$$

Step-2:

- The ex-bus electrical energy generated by using bio-mass shall be estimated on monthly basis by applying following formulae:

$$E_b \text{ (ex-bus)} = E_b(G) \{ 1 - [(E(GT) - ESO) / E(GT)] \}$$

Where,

E_b (ex-bus) = Electrical energy generated by bio-mass ex-bus during the month (kWh);

E_b(G) = Electrical energy generated by bio-mass at Generator terminal during the month arrived at Step-1 (kWh)

E(GT) = Total electrical energy generated at generator terminal during the month (kWh);

ESO = Total Energy Sent Out (ex-bus) during the month (kWh);”

6. Meanwhile, the Commission is in the process of finalizing the draft OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2021 wherein, the Commission has mentioned that the guideline/ methodology prescribed by CERC from time to time shall be followed for estimation of electricity generated from biomass in biomass co-fired coal based thermal power plants.
7. The Commission further observed that the Central Electricity Authority (CEA) in its advisory dated 24.11.2017 has indicated that NTPC has successfully demonstrated the co-firing of 7% blend of biomass pellets with coal in its Dadri power plant and this can be replicated in other coal fired power plants having bowl mills/vertical roller mills/beater mills. In this advisory CEA has referred to the letter dated 17.11.2017 of Ministry of Power, Government of India on the “Policy for Biomass Utilization for Power Generation through Co-firing in Pulverized Coal Fired Boilers”. As per the said policy of MoP, GoI *“In order to promote use of the Biomass pellets, all fluidized bed and pulverized coal units (coal based thermal power plants) except those having ball and tube mill, of power generating utilities, public or private, located in India, shall endeavor to use 5-10% blend of Biomass pellets made, primarily, of agro residue along with coal after assessing the technical feasibility, viz. safety aspects etc.”*
8. In view of the above, the Commission decides that the guideline/ methodology prescribed by CERC should be followed for estimation of electricity generated from biomass in biomass co-fired coal based thermal power plants, including captive and co-generation power plants co-firing bio-mass. The Commission directed that blending of biomass in the biomass coal fired thermal power plants including CGP co-generation should be between 5-10% as per the above mentioned Policy guidelines of MoP, GoI which has been referred in the advisory dated 24.11.2017 of CEA. However, the relevant data/ information required by OREDA for verification of biomass energy generated for the purpose of RPO shall be furnished by CGPs as and when desired by OREDA.
9. The Commission further observed that as per the submission of M/s. JSL, in a particular time block the present meter can record either the net export or the net import data of the captive generating plant at JSL bus. If the plant exports conventional power and simultaneously imports a certain quantum of renewable power, it is not possible to record the import quantum of renewable power. Therefore,

the renewable power imported by the captive generating plant is not accounted for by the SLDC. In this issue the Commission is of the view that import of scheduled renewable power through open access is to be treated as the consumption of the Petitioner's plant for the purpose of RPO compliance only. Accordingly, SLDC is directed to consider the total scheduled import of renewable energy through open access by the Petitioner's plant in a particular time block and furnish the same data to OREDA. This is only for the purpose of accounting of RPO compliance. Further, OREDA may cross-verify the import of renewable power by the Petitioner's plant from the energy bills received by the Petitioner from the Renewable Energy generating plant/ trader/ exchange.

10. The case is accordingly disposed off.

Sd/-
(G. Mohapatra)
Member

Sd/-
(S. K. Parhi)
Member

Sd/-
(U. N. Behera)
Chairperson