

15th May, 2019

Ref: ACEL/CERC/DSM/01

The Secretary

Central Electricity Regulatory Commission

3rd & 4th Floor, Chandralok Building,

36, Janpath, New Delhi 110 001


SUB: Comments/Suggestions/Objections on Draft CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019

Respected Sir,

With reference to the above, kindly find enclosed written submissions by Abellon Clean Energy for kind consideration.

Sincerely,

For, Abellon Clean Energy Ltd.



(Authorized Signatory)

Background:

1. Abellon Clean Energy Ltd. (ACEL) is a renewable energy project developer and has over a decade of experience in the biomass and waste sector. ACEL has undertaken extensive due diligence on waste characterization, waste processing technologies, and has firsthand experience of operational challenges/constraints ailing the sector and the regulatory implications on biomass/waste-to-energy projects.
2. The Central Government and State Governments have put emphasis on promotion and development of waste processing/waste to energy projects to align with various policies and mandates.
3. Development of wind and solar energy projects in India has been enabled due to favorable and supportive regulatory regime.
4. However, growth of waste-to-energy projects has fallen behind and even sustainability of existing waste to energy projects has become increasingly challenging. It is imperative to de-stress such assets in larger national interest as such projects not only generate clean energy but also process and dispose waste to support “Swachh Bharat Mission” Waste to energy projects have also been identified as critical to mitigate open burning issues that have a direct impact on public health.
5. The changes implemented in accordance with CERC Deviation Settlement Mechanism Fourth Amendment has put immense pressure on waste to energy projects and there is an urgent need to provide relief for such projects.
6. Accordingly, ACEL is making its submissions in reference to:
 - a. CERC (Deviation Settlement Mechanism and related matters) (Fourth Amendment) Regulations, 2018
 - b. CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 - Draft

Context for Waste to Energy:

1. Waste to energy plants are small capacity plants – typically up to 15 MW in capacity and are decentralized.
2. Municipal solid waste by nature is heterogeneous and varies on a day-to-day basis, has seasonal variations, and is also linked to lifestyle and socio-economic variances across the city, i.e., waste characteristics and compositions are inherently variable and unpredictable.
3. Due to the heterogeneous nature of waste there are significant variations in generation which are beyond control of the developer.
4. Technically, such plants operate in “fuel follow” mode vs. “turbine follow” mode i.e., turbine follows the steam generated from the boiler instead of demanding steam to match the schedule. The travel time of waste on the grate is typically up to 60 minutes and therefore such boilers are slow responding – it can take up to 2 hours to respond to variations if at all it is possible. Moreover, the developer does not have any control on the incoming waste as the same is delivered by the municipal corporation/urban local bodies.
5. On one hand, the developer has the obligation to process and dispose the waste *regardless* of quality/composition, and on the other there is a liability in case of deviation from schedule.
6. Such plants are also “must run” plants to maximize waste processing and disposal in environmental benefit in addition to electricity generation.
7. The very nature of fuel is unpredictable and when there is no control on waste there will be deviation from schedule. Weather effect and life style effects are going to be dynamic forever thus predictable performance from such plant will be always challenging one in spite of lot of efforts by operating team .All other expense including manpower, auxiliary power consumption etc remain same even at part load. Thus levying extra penalty on account UI mechanism on this sector will further reduce its sustainability and discourage further investment.
8. Waste to energy plants being small capacity plants (10 – 15 MW) should not be burdened with the same level of penalty as large capacity conventional thermal power plants.
9. Waste to energy sector is in very nascent stages and the cumulative installed capacity of municipal waste to energy plants in India is approximately 150 MW only. The deviations on account of waste to energy plants are insignificant however the penal provisions on account of deviations are significantly large for such plants.

Our Request:

Considering the aforementioned background and context, we are making the following submissions for consideration to be included in the amendments:

1. Capping of Basic UI charge for Waste-to-Energy Plants:

- a. The calculation of basic UI rate has been linked to the area clearing prices and basic charges for deviation can be up to Rs. 8.00 /KWh depending on area clearing price and grid frequency. Such a high rate on account of deviation is not sustainable for renewable energy projects and especially waste-to-energy projects whose tariff has been determined by respective SERCs. As mentioned above, such plants not only generate electricity but also have to process and dispose waste and *regardless of quality/variances* in composition in line with environmental mandates.
- b. The CERC has proposed a cap rate of Rs. 3.03/KWh for generating stations regardless of fuel type. However, we believe that the reference for the cap rate is very high and not sustainable for waste to energy plants. We propose that the reference for waste to energy plants to be lower and capped at no more than Rs. 1.00 /KWh for at least an interim period – say 5 years to allow reasonable time and opportunity for the sector to grow.

2. Relief from Additional UI Charges:

- a. In line with the aforementioned submission to provide relief from unpredictable burden on waste to energy plants, we request that such plants be exempted from payment of additional UI charges as well. Considering that such plants operate under environmental mandate to process and dispose waste regardless of quality of waste. Therefore, due to technical limitations the deviations from scheduled energy shall be recurrent for which the plants should not be additionally burdened.

3. Relief from Additional Charges on account of Sign Change Violation:

- a. As noted above, waste to energy plants are slow responding due to the very nature of the fuel. Further, due to corrosive nature of fuel, it is not recommended that the generation be varied frequently as it would lead to deterioration of life of equipment in the plant and increase the O&M cost.
- b. In view of the above, such plants may kindly be kept out of the requirement for sign change and/or any additional charges payable for sign change violation.

- c. This shall be in line with Hon'ble CERC's proposal to exempt renewable energy generators from payment of additional charge for failure to adhere to sign change requirement:

Clause 10 Regulation 7

"Provided also that payment of additional charge for failure to adhere to sign change requirement as specified under clauses (a) & (b) of this regulation shall not be applicable to:

- a. renewable energy generators which are regional entities**
- b. run of river projects without pondage*
- c. any infirm injection of power by a generating station prior to CoD of a unit during testing and commissioning activities, in accordance with the Connectivity Regulations."*

The proposal of CERC is indeed supportive and it may kindly be clarified that the renewable energy generators (including waste to energy) should be exempted from sign change requirement and/or payment of additional charges on account of failure to adhere to sign change.