...12/2024/CRO-CERC Dt. 26-8-24

Abellon

Ref : ACEL/CERC/24/035 Date 19.06.2024

To,

The Secretary

The Central Electricity Regulatory Commission

3rd & 4th Floor, Chanderlok Building,

36, Janpath, New Delhi – 110001

Subject: **Submissions on Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024 ("Draft DSM Regulations 2024") pursuant to attended hearing on 19.06.2024**

Reference:

a) Central Electricity Regulatory Commission, No L-1/260/2021/CERC dated 30.04.2024 with subject "Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024"

Sir,

1. On 30.04.2024, CERC issued Draft DSM Regulations 2024 proposing to repeal the existing CERC (Deviation Settlement Mechanism and related matters) Regulations, 2022. The Draft DSM Regulations 2024 are a welcome move which propose to establish a new deviation settlement mechanism keeping in view the changing power market conditions.

2. We, Abellon CleanEnergy Limited ("***Abellon***") is a sustainable energy solutions developer with a vision to be a national leader in clean energy generation and waste management. Abellon Group has four (04) Agro-residue/ Biomass Waste to energy power plants. Further, Abellon have commissioned Gujarat's first Municipal Solid Waste ("***MSW***") to energy power plants under Public-Private Partnership (PPP) model using Biomass/ Refuse Derived Fuel (RDF)/ MSW Incineration Technology meeting Global Standards at Jamnagar on 15 November, 2021 and three WTE Projects are currently under development at Rajkot, Vadodara and Ahmedabad. Abellon's pioneering effort in green concepts and techniques in WTE sector is recognized in its

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International Green Building Certification (IGBC) Platinum certification for its three MSW to energy power plants at Ahmedabad, Jamnagar and Rajkot, making it the first company to achieve this not only in India but also in Asia.

3. As a pioneering group in renewable energy sector, we are thankful to CERC for recognizing the requirement of giving impetus to generation of power from MSW. MSW based generators thus form a part of 'General Sellers' in the Draft DSM Regulations 2024. We appreciate the new regime which has introduced substantial changes to existing DSM, and following are our comments for CERC's consideration in the table below having serial number 1 to 2 :

S. No.	Proposed CERC Regulation	Abellon's Comments/Remarks
1.	Regulation 8(3) provides for 'Deviation Charges' for a general seller being a generating station based on Municipal Solid Waste , shall be without linkage to grid frequency.	➢ The fuel used in the Municipal Solid Waste("**MSW**") based Waste To Energy Project("WTE") is of heterogeneous nature, making calorific value of the fuel variable and impacting the power generation. As the quality of waste being generated is unforeseeable, when MSW consists of wet waste having high moisture as well as more amount of inert, it decreases the power generation and accordingly, when MSW contains purely dry waste, it results in high power generation. Due to the said nature of the fuel, it becomes difficult to maintain the schedule generation for WTE projects and result in deviation from the schedule generation. ➢ Whenever the generation is down due to low quality of the MSW/RDF, Biomass fuel is used to stabilize the generation, however, due to the use of Biomass in the Boiler there is a spike in temperature which causes unpredictable deviation in generation. There is no technology available to maintain stable generation by co-blend the Biomass and MSW/RDF. As a result, the deviation from schedule generation are beyond the control of the Generator. Globally gas and fossil fuels are used to

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<table>
<tr><th>S. No.</th><th>Proposed CERC Regulation</th><th>Abellon's Comments/Remarks</th></tr>
<tr><td></td><td></td><td>
maintain steady electricity generation, while in our country, there is no such policy allowing the usage of gas and fossil fuels. Extract of the European Commission report on "Best available Techniques (BAT) reference document for Waste Incineration" prepared by European Integrated Pollution Prevention and Control Bureau (EIPPCB) year 2019, stating that fossil fuel are being used in WTE plants are annexed in Exhibit 1.
Our Request:
➢ As the sole reason for these project is scientific disposal of waste and to do so the project need to be financial viable, further, the deviations from schedule of WTE project has limited effect in the grid stability, we humbly request commission to allow the below charges for deviating from schedule for MSW based WTE projects :
<table>
<tr><th colspan="3">Municipal Solid Waste (MSW)/Biomass Generating Station
(No linkage to Grid frequency)</th></tr>
<tr><td rowspan="4">Deviation</td><td>Deviation by way of Over Injection</td><td>Deviation by way of Under injection</td></tr>
<tr><td>Seller will be Paid back (Receivable)</td><td>Seller to pay (Payable)</td></tr>
<tr><td>Abellon</td><td>Abellon</td></tr>
<tr><td>(Rs/unit)</td><td>(Rs/unit)</td></tr>
<tr><td>Up to 20% D_{WTE}</td><td>Receivable by the Seller for Actual injection @Contract rate ("CR")</td><td>Seller to pay @50% of CR on Scheduled Energy</td></tr>
<tr><td>Beyond 20% D_{WTE}</td><td>Receivable by the Seller for Actual injection @CR</td><td>Receivable by the Seller for Actual injection @CR</td></tr>
</table>
➢ The Contract Rate ("CR") to be considered as defined in the Power Purchase Agreement which is inclusive of the
</td></tr>
</table>

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S. No.	Proposed CERC Regulation	Abellon's Comments/Remarks
		Viability Gap Funding and the Tariff component payable by Discoms. Accordingly, the payment on scheduled energy and the actual energy injection to be made to the WTE Project Developer at contract rate, as the case may be.

4. The Purpose of DSM is to maintain balance in the Grid. Ld. CERC has, from time to time adopted procedure to curb variation in grid frequency. Ld. CERC has also provided for incentives by way of exempting categories of generators from payment of deviation charges. Ld. CERC by way of the Draft DSM Regulation 2024, has revamped the mechanism for settlement of deviation and has done away with most of the earlier provisions. We are in support of these draft regulations proposed to be enacted.

5. Ld. CERC has taken note of several difficulties faced by MSW based power generators and carved out an exemption for MSW power plants from payment of deviation charges to the extent of +/- 20% deviation keeping no linkage to Grid Frequency. We are grateful for the consideration accorded to MSW plants and are in support of the Draft DSM Regulations 2024.

6. We are hereby submitting the above said comments for kind consideration of this Ld. Commission.

Yours Sincerely

For Abellon CleanEnergy Limited

ABELLON CLEANENERGY LIMITED

Authorized Signatory

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Exhibit

Exhibit 1.

Relevant para from the European Commission report on "*Best available Techniques (BAT) reference document for Waste Incineration*" prepared by European Integrated Pollution Prevention and Control Bureau (EIPPCB) year 2019

> *"2.4.3.1 **Energy inputs to waste incinerators***
>
> *In addition to the energy in the waste, there are other inputs to the incinerator that need to be recognised when considering the energy efficiency of the plant as a whole.*
> *Electricity inputs*
>
> *Electricity is needed to run the process. The source can be external or circulated.*
> *Steam/heat/hot water inputs*
> *Steam (or hot water or other heat carrier) can be used in the process. The source can be external or circulated.*
> *Non-waste fuels*
> ***Non-waste fuels are used to:***
>
> i. *Preheat the combustion air;*
> ii. ***Increase the temperature in the combustion chamber to the required level during start-up before the plant is fed with waste;***
> iii. ***Ensure that the required combustion chamber temperatures are maintained during plant operation;***
> iv. ***Maintain the temperature in the combustion chamber at the required level during shutdown, while there is still unburned waste in the plant;***
> v. *Heat up the flue-gas for treatment in specific devices, such as selective catalytic reduction SCR or bag filters;*
> vi. *Heat up the flue-gas (e.g. after wet scrubbers) in order to avoid bag filter and stack corrosion, and to suppress plume visibility."*

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