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Submission to CERC on draft regulations proposed for Renewable energy tariff with respect to Waste to Energy

CNIM MARTIN Pvt. Ltd., an ISO 9001:2015 certified Company, a Joint venture entity of PAPREC Engineering & MARTIN GmbH has been incorporated in Chennai, India to provide PAPREC Engineering and MARTIN WTE solutions within India and South East Asian market. CMPL can rely on the two partners' expertise and know-how to deliver state of the art solutions to public authorities and private customers.



PAPREC Engineering (Previously known as CNIM founded in 1856) is a leading European specialist in Waste to Energy (WtE) Projects and also one of the leading companies in Waste handling & treatment projects. PAPREC Engineering has designed and delivered 173 turnkey waste-to-energy plants (including 290 lines) handling waste generated by more than 100 million people globally.



MARTIN GmbH is a German company founded in 1925, pioneer and world leader in Waste combustion. More than 472 WtE plants are equipped by Martin GmbH systems in 34 countries worldwide.



CNIM MARTIN is also the exclusive representative of the **LAB**, France (a MARTIN GmbH subsidiary company founded in the 70's) for its state-of-the-art Flue Gas Treatment (FGT) technology and solutions for Waste to Energy applications. More than 450 FGT Lines built across the world by LAB.



Currently, CNIM MARTIN is executing the following projects:

1. 2 x 350 TPD, Songkhla WtE plant, Songkhla, Thailand: 100% EQUIPMENT DELIVERED

- a. Supply of EnviroPower™ Grate
- b. Supply of dry type SecoLAB Flue gas treatment
- c. Basic engineering services of boiler
- d. Supervision of Erection & Commissioning of Grate & FGT



2. 1 x 360 TPD, Deonar WtE plant, Mumbai, India: Under Manufacturing

- a. Supply of EnviroPower™ Grate
- b. Supply of Semi-dry type SecoLAB Flue gas treatment
- c. Basic engineering services of boiler
- d. Supervision of Erection & Commissioning of Grate & FGT



The following may be considered by CERC in connection with the captioned subject matter.

Plant type: Mass Incineration & Refuse Derived Fuel

The mass incineration type of plants is very common in countries like USA, Europe, Japan and China. However, a handful of specific custom-built plants for Refuse Derived Fuel also exist.

However, it is to be borne in mind that India is an economy in transition. The sheer quantity of MSW may be increasing given the population in India and its growing economy. But the quality of waste is not comparable to the countries mentioned above. The waste in India is still high on organic content, prone to have debris because of large construction activity in cities as also the absence of effective mechanism to divert such demolition waste and also adulteration with drain silt etc.

Considering these factors, the proposal to devise two types of plant namely mass incineration and RDF may be revisited by CERC examining the due legal aspects of the SWM Rules 2016 gazetted by Ministry of Environment & Forests, Govt of India. The following table is given for consideration of CERC with regard to main impacting parameters for determination of tariff.

Table

Description of the Normative Proposed Parameter	Our Suggestion
Plant Cost	About Rs 25 Cr/MW with dry flue gas treatment system
Auxiliary Consumption	Up to 15%
O&M Cost	As proposed by CERC, 8.5% of Capital cost towards O&M of WTE plants is reasonable and justified
Plant Life period	Up to 25 years. Retrofit may be considered for 10 years over and above 25 years However, period retrofit costs to be factored over & above the regular O&M costs



Description of the Normative Proposed Parameter	Our Suggestion
PLF	<p>Plant can operate between 7500 hours to 8000 hours in a year, though 8000 hours of operation is considered as an exceptional bench mark in Europe. Hence, considering 7500 hours of operation may be considered as applicable to WTE parlance. However, the same does not translate to PLF in terms of electricity because of variation of waste in terms of calorific value seasonally, even if segregated and changes in composition</p> <p>Hence 75 % of PLF is reasonable.</p>

Waste to Energy being capital intensive, requires special consideration for financing. These may include grants which can be excluded from capital cost. However, tipping fee/gate fee is not revenue out of power generation and should not be taken into consideration for either sharing or pass through or reimbursement etc.

For effective growth of capacity in this sector in India, a simple process of tendering should be followed by ULBs on gate fee/tipping fee model for comprehensive treatment & disposal of MSW with segregation, composting or biogas, RDF – waste to Energy, leachate treatment and sanitary landfill etc.

CERC may consider to fix a tariff of say Rs 7.50/kwh on an All India applicability basis for a fixed tenure of 10 years from date of COD of WTE plants. If this fixed tariff on all India basis comes into force, it will be easier for ULBs to announce for tenders based on gate fee/tipping fee and achieve compliance with MSW management in line with SWM rules 2016.

Yours's truly,



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