

Waste-to-Energy Plant for Municipal Solid Waste Management

The mountains of waste, which can now be seen in nearly all cities, have become a serious threat to public health. Recently the NITI Aayog has suggested setting up an authority which will take up the installation of 'Waste to Energy' plants in Public Private Partnership (PPP) mode to clean up municipal solid waste. Such an authority can be called 'Waste to Energy Corporation of India (WECI) to be placed under the housing and urban affairs ministry. Just as the National Highway Authority of India (NHAI) has been instrumental in developing high-quality national highways through PPP across the country, the WECI may set up world class waste to energy plants through PPP mode across the country. The authority can play a "key role in fast-tracking coverage" of waste to energy plants across 100 smart cities by 2019.

Urban local bodies spend about Rs. 500 to Rs. 1,500 per ton on solid waste management. Out of this, about 60-70% is spent on the collection of waste and 20-30% on transportation but almost nothing on its treatment and disposal.

Case of Mumbai's Waste

The solid waste management (SWM) department of the Brihanmumbai Municipal Corporation (BMC) is taking up other initiatives to further reduce the amount of waste generated on a daily basis. Apart from focusing on decentralized processing of wet waste, the SWM department, in a first, has decided to float tenders for collection and disposal of dry waste as well.

Currently, dry waste is collected by BMC's garbage trucks and taken to segregation centers. Members of NGOs like Stree Mukti Sangathna, Shree Aastha Mahila Bachat Gath and other segregators then select the material that can be recycled while the remaining waste, which comprises material like thermocol, wood and plastic bags, is taken to the dumping ground. However, currently, the garbage trucks are not collecting dry waste from many residential societies in the city. So they are in the process of floating tenders for agencies who will be responsible for collecting dry garbage from the housing societies as well as for recycling and disposal.

A plan to prepare a scientific waste to energy plant was proposed by a team of Tata Consultancy Services. The survey conducted by the team estimated that around 25-30 megawatts of energy can be created by processing 3,000 metric tons of waste. BMC aims to process 3,000 metric tons of waste at Deonar through the waste to energy plant, which will be functional for 25 years. The BMC is likely to take another three years to set up a waste-to-energy plant at the Deonar dumping ground even as a Bombay high court (HC) deadline of not dumping waste in Deonar and Mulund from June, 2017 looms over it.

Of the 9,500 metric tons of waste that the city generates, Deonar receives 23.50% of it, according to BMC's recent environment status report. Deonar and Mulund dumping grounds have to be shut as they have already reached their saturation point. With a September deadline, the BMC wants to reduce waste generated in the city daily by around 2,000 metric tons. On an average, the BMC collected 8,722 metric tons of wet waste a day in January and it expects to reduce this to 6,798

metric tons by September'17. By October'17, the BMC plans to bring down the figure to 6,241 metric tons. And for that, they are identifying bulk generators in every ward and trying that 30-50 metric tons in each ward on an average be processed at source.

In order to reduce the waste from reaching Mumbai's saturated dumping grounds, BMC has identified 3,084 bulk generators who will be expected to process wet waste in their own premises. Starting October 2, the civic body will stop collecting wet waste from these bulk generators. The bulk generators include those establishments and housing societies that have an area of more than 20,000 square meters or those producing more than 100kg wet waste daily. The bulk generators have already been served a notice to install a waste processing unit in their premises.

According to the NITI Aayog, 'Waste to Energy' is the best option to tackle the problem of municipal solid waste in India. And hence the move!



Image Source: <http://www.dailyclimate.org>

Sources:

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