

WASTE TO NOTHING OR WASTE TO ENERGY

Given the conditions and challenges, the proposed solution is for the MCGM project in Mumbai based on open technologies which could be Pyrolysis, Gasification, Incineration (with or without pre-processing) for the entire waste.

TCE as a consultant is working with MCGM on the WTE project in the Deonar facility and the task involves Detailed Project Report (DPR), PREPARING BID documents and bid process management to ensure the project is executed within the given technological parameters and pollution control norms.

With 3000 tonnes being managed per day at the Deonar facility, this is the largest project in the country with this capacity in a single facility. The scale of this equals the facilities in leading developed nations in WTE.

The proposed plant is expected to produce 25-30 MW power while treating 3000 MT MSW per day.

WTE plants are aimed at addressing the catastrophes related to non-scientific dumping. The economic viability hinges more on using the revenue streams from the project to reduce the cost of scientific waste management. The revenue streams from WTE projects arise mostly from sale of electricity/fuel generated from the waste management process. In essence, this is a waste management process with power as a by-product. Added to this is the possibilities of benefits from the recycling/re-use ecosystem. In the Indian scenario rag pickers make a living out of the recyclable waste. However, in other developed nations, the recycling component is a revenue generating component.

There is also a cost element in overhaul and maintenance of the plant with a life span of 20 years.

WTE success factors

WTE projects can be truly successful and sustainable— both environmentally and economically, provided the right technology is adapted. Every city has its own socio-cultural lifestyles and the waste generated reflects the city's psyche. Rural waste is different from the urban waste. The availability of land and the density of the population in a given site matters too. The type of waste and the waste management technique used go hand in hand. For instance, if the waste is well segregated, the waste that can be incinerated may be kept within city

WTE Benefits MCGM Project



CDM
Benefits

25 - 30 MW
Energy from 3000
mt MSW per day



₹80 crore
Potential alternative
revenue streams

Reduced
Emissions



Clean Air
For the population

limits without adverse pollution effects while the non-combustible waste, electronic waste, etc; can be processed further away with the appropriate solution. This can have a bearing on the logistics of waste collection and hence a cost implication. In India and other developing countries, the awareness and consciousness on waste disposal and segregation is almost nil. Hence, the most efficient technique of waste management has to be selected by expert consultants as it requires expertise to evaluate the engineering technology and assess the economic viability of the technology. For instance, pyrolysis is a technique that is less polluting, more expensive and