

# Solid Waste Management in India – Issues and Possibilities

By- **Rajat Seksaria** is the President & Business Head for Renewables Business at India Power Corporation Ltd (IPCL)

That solid waste management is a big issue in India and does not require any validation of data. Visual experience from visits to most public places, railway tracks, water bodies provide ample heuristic evidences. The squalid state, particularly of Indian urban landscape should be an embarrassment for Government & citizenry of an aspiring country, not to mention the financial and social cost it imposes in terms of health hazard and brand equity loss for the country. Data on solid waste generation, is not very reliable but most estimates put the total waste generated at about 65 million tonnes per day and less than 25 per cent of this getting collected and treated adequately. The situation is only likely to further aggravate as the country grows economically and urbanizes at a fast pace. While, efforts to reduce intensity of waste generations and public awareness campaigns for behaviour change are welcome, the only sustainable solution to this grave civic menace is to scientifically treat waste and make waste management sector commercially viable and vibrant.

Global experience suggests that the only technologically and commercially viable solution for treatment of large quantum of municipal solid waste is to convert waste to energy (W2E) which results in more than 80 per cent volumetric reduction of waste. In India it is estimated that municipal solid waste has an investment requirement of between \$ 15 to \$ 20 bn and potential to generate about 2.5 GW of power in the next decade. However, the sector suffers on several counts. Firstly, the sector is dependent on Urban Local Bodies (ULBs) who lack the compe-

tency in dealing with these PPP type projects. Secondly, projects are structured poorly with low quality of bid/project documents. Thirdly, energy content of municipal waste in India tends to be very low leading to technical challenges. These factors have resulted in many projects either not getting financial closures or being implemented sub optimally.

But, recent developments do provide reasons to be more optimistic going forward. The regulatory changes

have recognized the fact that power generated from W2E is merely a by-product of treating waste and cannot commercially compete with other sources of power and hence, made it mandatory for local DISCOMs to buy power from any W2E plant which while raising the cost of power to the end consumer between 2 to 5 paisa, is making the sector commercially viable. The PPAs from W2E plants being proactively approved by state regulator adds further sanctity to the whole process. The Sector is getting further impetus from fund flows from central Government's Swachh Bharat Mission.

These positive developments apart, waste management sector is unable to taking off in a big way in the absence of a competent and empowered centralized nodal body to drive the sector like NHAI in Roads or SECI for National Solar Mission. A centralized authority will not only lend credence to the sector but, also bring about standardization of process, concession documents and fund flows and hence make it more attractive for better developers, technology and capital to flow in to the sector. ■

