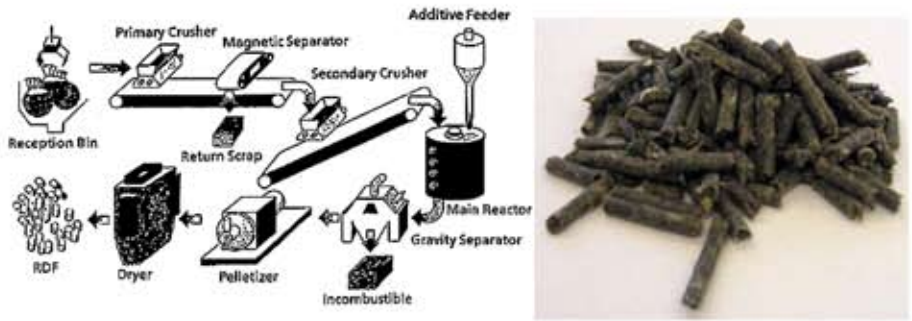


Conceptual design of RDF/gasification plant

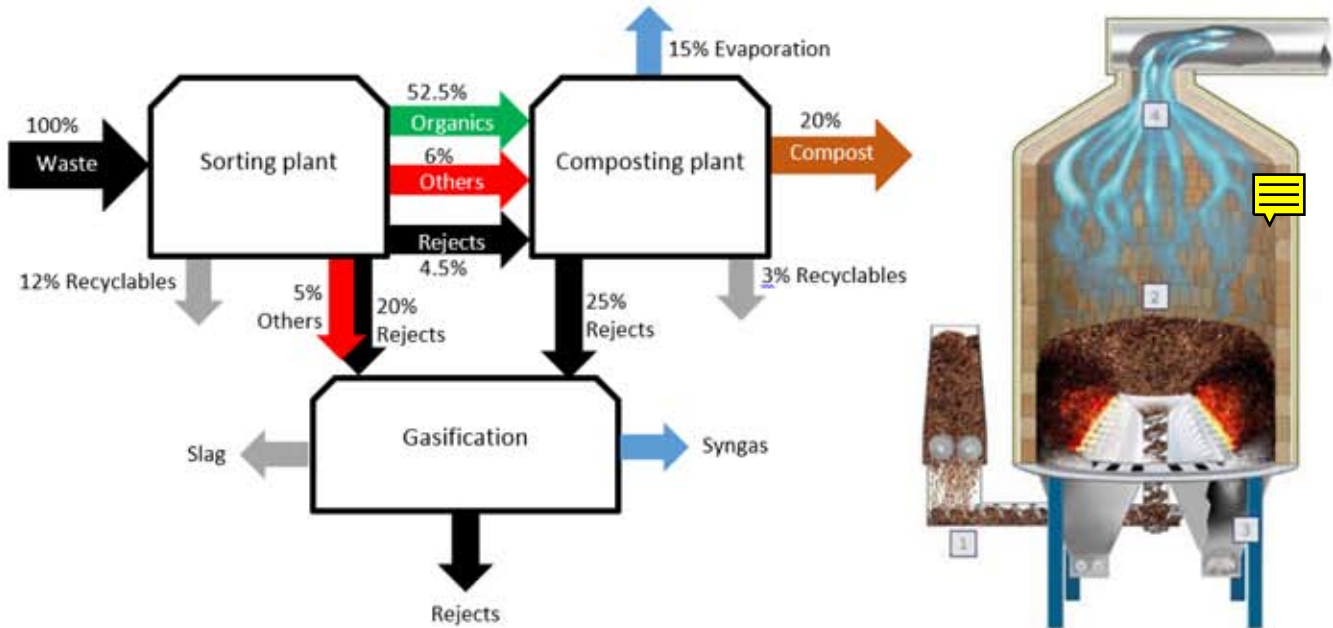
EDESSA was commissioned by MAN Enterprise to prepare the conceptual design of a Refused Deriver Fuel (RDF)/gasification plant for rejects of municipal solid waste. Waste will first undergo sorting to separate the recyclables, the organic waste and the rejects and composting of the organic fraction. The gasification plant was designed for a 50 Tons per day capacity. Both RDF and gasification were evaluated with the ultimate recommendation to adopt gasification.

Gasification does not involve the actual incineration of the waste, but its thermal transformation under limited amounts of air (oxygen) that results in the production of a combustible synthesis gas as a final product. The temperatures in a gasifier for MSW typically range from 600 to 980 degrees Celcius. Syngas has a heating value of 200 to 500 Btu/ft³.



Gasification works best on sorted waste with high calorific value. Because of the relatively higher cost of this technology, it is best to increase the sorting efficiency of recyclable waste and only consider this technology for the non-recyclable high calorific value waste stream.

Residues from the gasification are not hazardous ashes as in the case of some incineration technologies but molten residues that can be quench-cooled to form a glassy non-leachable slag with tightly-bound molecular structure.



CLIENT:

