

Renerzyme

Sustainable Waste Management

WASTE is a non-usable source of energy. Municipal Solid Waste (MSW) is one of the most unutilized potential source of energy. Considering the limited life of crude oil wells & coal mines, MSW is going to be one of the most sought after fuel in time to come.

Some serious issues responsible for non-utilization of MSW are ...

- Composition varies from ward-to-ward
- Foul odour with fly & insects
- Leachate, a major threat to ground water quality
- Variable moisture contents
- Increasing share of non bio-degradable
- Segregation of non bio-degradable is unhygienic & non-viable

Composting Yields are low, so projects become commercially un-viable

Renerzyme Advantages :



Waste
↓
Energy

Renerzyme Application : 'Bio-Drying'

Flexible End-Product Options

Compost



Bio-feed Stock for Biogas



RDF



Renerzyme

Sustainable Waste

Science behind **Renerzyme** application.....

Management

COMPOST & RDF :

Renerzyme is a Mixed Microbial Culture of GRAS (Generally Recognized As Safe) species. It employs a unique '**Bio-Drying**' technique, which controls MSW pH, foul odour & fly in 24 hours. It generates temperature up to 800 centigrade by biological activity. Controlled pH & temperature in presence of moisture digest biomass. Moisture can be brought to less than 20% in 8-12 days.

Non-sticky biomass with low moisture is segregated for removal of metal, glass etc. Segregated biomass is passed through Double-Acting shredder for size reduction. Shredded biomass is conveyed through pneumatic conveyor for gravity separation for dust removal & size separation. Cleaned biomass is fed to Briquette Press for forming Biomass Briquette.

If MSW is treated for 3-4 weeks under controlled conditions, it can produce FCO specified 'Compost'.

BIOGAS GENERATION:

Biogas is generally produced from food waste & animal dung. RENERZYME treated Cleaned biomass can be also used for generating 'Biogas'. By adopting this process, one can omit 'acidogenesis' step & can directly start the process from 'methanogenesis' step. **Renerzyme** can reduce batch time up to 50%.

Along with **Renerzyme**, IEC provides products to manage pH of slurry & to enhance methanogen population to enhance gas production.

UNIQUE FORMULATION:

Based on knowledge of advanced microbiology, **Renerzyme** is a consortium of highly active, and functionally competent microbes -anaerobes, aerobes and facultative anaerobes -which are judiciously chosen and co-cultured using a proprietary media and process.

MANUFACTURED BY :

INNOVATIVE ECO-CARE PVT LTD.

A-103, SAGUN PLAZA, VASTRAPUR, AHMEDABAD - 380 015

Ph : +91-79-40038576 | Mobile: +91-9898098576

E-mail : vipul@npbiologics.com, innoecocare@gmail.com