

RENEWABLE ENERGY FROM MUNICIPAL WASTE

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ABSTRACT

Results obtained from laboratory indicate that biogas from pre-selected municipal organic waste (a variety of vegetables) contains 63% methane (CH₄), which organic loading is 0.3 kg/d, HRT 60 days. A biogas plant is designed and constructed at Anghong Municipal in order to compost organic waste at 750 kg/d. Comparison with the experiment from laboratory, biogas is produced 17.5 m³/d that is capable of driving a 10 kW biogas-fired engine to generate and supply electricity to 5 rural residences (3.3 kWh/day) for 6 hours.