


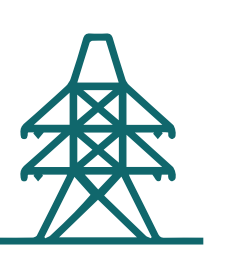







Bio-Methanation Plant and Scaling Up of the Project




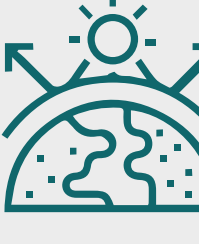


1.5 TPD waste to bio-methanation plant (CapaCITIES Phase 1)

 Project Cost INR 4.7 million	 Waste Feed 1.5 TPD	 Gas Production 165 m ³ Biogas per day (107 m ³ of methane) 60,225 m ³ Biogas per year (39,055 m ³ of methane)	 Electricity Production 7 kWh / day (2,555 kWh/year)	 Avoided Vehicle Trips to Vellore Dump Site 2 trips / day (730 trips/year)
 Fuel consumption avoided 6 liters per day (2,190 liters/year)	 GHG emissions avoided due to reduced vehicle trips 5.96 tCO ₂ e / year	 Quantum of waste prevented from being dumped at Vellore 547 tonnes/year	 GHG emissions avoided due to diversion of biodegradable waste from Vellore to biomethanation plant 1,505 tCO ₂ e / year	

1.5 TPD waste to bio-methanation plant



200 TPD waste to bio-CNG plant (Replication)

	100 TPD plant	200 TPD plant
 Tonnage		
 Gas production per day/annum	10,000 m ³ of biogas & 6,500 m ³ of methane/day	20,000 m ³ of biogas & 13,000 m ³ of methane / day
 Produce BioCNG equivalent	3,900 kg	7,800 kg
 GHG reduction - avoidance of methane	130,000 tCO ₂ e (over 10 years)	260,000 tCO ₂ e (over 10 years)
 Fuel shift - diesel to CNG	Diesel is priced at INR 95 / litre and CNG is priced at INR 77 / kg (approximately)	
 Other benefits	1) Avoided vehicular emissions 2) Clean energy generation 3) Slurry, a by-product, used as organic compost 4) Associated health benefits from improved air and avoidance of methane at landfill site.	

Proposed site for Waste to Bio-CNG plant at Vellore Compost Yard



Implementing Partners

Knowledge Partner

