

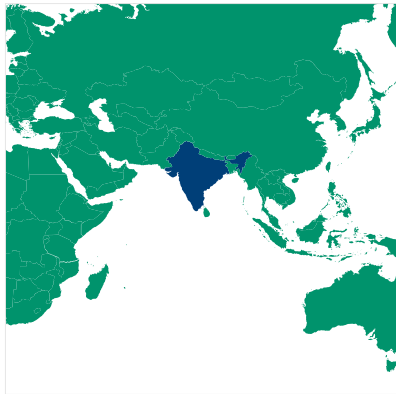


# NAMAKKAL: WASTE TO ENERGY PROJECT

India - Renewable energy

## PROJECT ENVIRONMENT

With its rapidly growing economy and population most of India is in need of a secure and sustainable energy supply to sustain economic development and reduce alarming levels of pollution.



About 70% of India's electricity generation capacity derives from fossil fuels.

60% - 70% of Tamil Nadu's total chicken and egg supply is produced in Namakkal district.

The traditional open storage of chicken litter results in severe environmental and hygienic problems as well as the release of methane emissions.

## ABOUT THE PROJECT

As the first of its kind in India, this waste to energy project converts up to 120,000 tons/year of chicken litter and other organic residues from starch and sugar industries into renewable electricity, which is being fed into the southern electricity grid. By generating renewable power exclusively from biomass waste, competition with food production is avoided. Solid organic fertilizer is being produced as a by-product from the biogas generation, supporting local and regional smallholders in implementing sustainable agriculture.

## PROJECT OBJECTIVES

- Annual power generation of 20,000 MWh
- Production of up to 10,000 tons of high quality organic solid fertilizer every year
- Biogas waste plant in Namakkal generating concrete employment opportunities for both, local rural population and skilled engineers (21 direct and 17 indirect jobs)

## PROJECT TYPE



## PROJECT STANDARD

**Gold Standard**  
Climate Security & Sustainable Development

## SDG



## PROJECT FACTS

Project type	Waste to energy
Location	India
Carbon standard	CDM, Gold Standard
CDM project ID	8288
GS project ID	3607
Registration date	29/12/2012
Installed capacity	2.4 MW
Annual CO <sub>2-eq</sub> reduction	20,000 tons



## CONTRIBUTION TO UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS



High quality organic fertilizer, produced from residues of biogas production, improves farm yields and soil quality, thus increasing income to ensure sustainable rural livelihoods for the local population.



Emission reduction of 54.56 tons SO<sub>2</sub> and 15.14 tons NO. Studies prove a significant correlation between high concentrations of SO<sub>2</sub> or NO and cardiovascular and respiratory diseases.



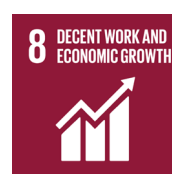
To this day, more than 100 workshops about sustainable soil management and proper application of organic fertilizer have been provided.



Replacement of open manure storage at local farms with digestion in closed septic tanks prevents potential contaminations of nearby water resources. No wastewater discharges from plant site.



Production of 20,000 MWh electricity per year increases the total share of renewable energy within the national energy mix and secures local energy supply.



The project partner is currently hiring 21 employees and enforcing international and domestic work safety standards. Additionally, 17 women and men are working at the biogas plant as unskilled workers on daily wages.



Annual reduction of 20,000 tons CO<sub>2-eq</sub>. The reduction is in line with India's ratification of the second commitment period of the Kyoto protocol and NDCs, submitted in accordance with the Paris Agreement.



41% of the total land area of the state of Tamil Nadu is degraded. The amount of organic fertilizer sold in 2016 has improved the soil quality of 1,950 hectare of agricultural area.



Joint venture supports transfer of revenue share and environmentally sound technology development to India.



## CONTACT

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