



# BIOGAS POWER PLANT WASTE MANAGEMENT & UTILITY VEOLIA PROPRETE

OWNER  
**Veolia Proprete**

LOCATION  
**France**

PRODUCT  
**Mars® 100 (11 MWe) Gas Turbine**

CUSTOMER VALUE  
**Electricity Generation from Landfill Gas**

Veolia Proprete specializes in the management and recycling of waste.

Veolia Proprete required a sustainable solution to minimize the impact of methane from landfill gas produced by a solid waste management system at a site close to Paris. The project required finding an advanced technique to burn surplus landfill gas at extremely high temperatures in order to protect the environment from harmful greenhouse gases. Turbomach's solution was to provide a combined cycle power plant that has demonstrated excellent emissions performance.

**Solar® Turbines**  
A Caterpillar Company

## Biogas Power Plant - Waste Management & Utility



### PLANT DATA

One Mars 100 (11 MWe) Gas Turbine

Steam Turbine Generator (6 MWe)

Heat Recovery Steam Generator

Two Fuel Gas Compressors

Fuel: 100% Landfill Gas



### OUR PRODUCTS & SERVICES

Gas Turbine Package and Auxiliary Supply

Design

Construction

Installation and Commissioning

Maintenance

**LOW EMISSIONS**

**COST EFFICIENT SOLUTION**

**BIOGAS**

This project has enabled Veolia Proprete to efficiently utilize the low-calorific biogas produced at the landfill site while meeting some of the strictest air pollution limits in the world. Active carbon filters and high gas compression technology provide the right solution to burn landfill gas in a Mars 100 gas turbine with minimal environmental impact. Instead of being wasted by flaring, the gas is used to drive three steam boilers, resulting in steam that drives a steam turbine. The combined cycle power plant produces 17 MW of electricity and achieves over 80% overall efficiency. The excess electricity is transferred by a transformer to the grid and is sufficient to satisfy the energy needs of a city with a population of 96,000.

Turbomach is a fully integrated part of Solar Turbines, a subsidiary of Caterpillar, Inc. and a leading manufacturer of mid-range industrial gas turbines with more than 60 years of experience in the industry.

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