



# 10 MWe RENEWABLE ENERGY SOLUTION Landfill Gas to Energy Project

OWNER  
**PEI Power Corporation**

PROJECT ENGINEERING  
**Concord Engineering Group**

PRODUCT  
**Two Mercury 50 Gas Turbine Generator Sets**

CUSTOMER VALUE  
**Environmentally Friendly Renewable Energy Source**

When PEI learned that Solar Turbines had recently modified their *Mercury*<sup>™</sup> 50 gas turbine to burn landfill gas, the company contacted Solar Turbines. Intrigued with the turbine's high simple cycle emissions signature, PEI made the decision to purchase two *Mercury* 50 generator sets for their Archbald Cogeneration Plant. The landfill gas for the two turbines is provided from two separate landfills and delivered to the site through 32 miles of piping. At full operation, the plant produces close to 30 MW of electricity from landfill gas for the PJM Interconnection, a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of 14 states.

**Solar Turbines**  
A Caterpillar Company

## 10 MWe Renewable Energy Solution



### PLANT DATA

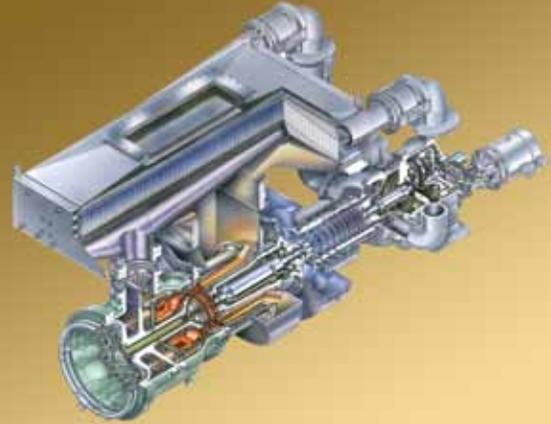
Two 4.6 MW Mercury 50 Recuperated Gas Turbines

Gas Conditioning and Gas Compression Equipment

Plant Controls for Remote Operation

18 Mile Pipeline to Plant

Fuel: Natural Gas and Landfill Gas



### OUR PRODUCTS & SERVICES

Gas Turbine Packages and Auxiliaries

Commissioning

*Turbotronic*™ Turbine Control System

Extended Service Agreement

## CLEANER AIR

## RENEWABLE ENERGY

## ECONOMIC DEVELOPMENT

## IMPROVED PUBLIC WELFARE AND SAFETY

The total electricity generated by landfill gas offsets 133,000 tons of CO<sub>2</sub> annually, or the equivalent of removing approximately 18,000 cars from the road. PEI is able to generate enough electricity from landfill gas to power approximately 30,000 homes, making it one of the largest individual renewable energy facilities in the United States. The project has excellent environmental benefits as well as economic value. PEI partnered with the United States Environmental Protection Agency in their Landfill Methane Outreach Program, a voluntary public/private partnership encouraging cost effective landfill gas use as a way to mitigate global climate change. The use of landfill-produced methane gas creates a reusable source of energy that will lower the cost of producing electricity, which, in the end, lowers the cost of electricity for the consumer.

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# Solar Turbines

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