



10 MWe COMBINED HEAT AND POWER PLANT Landfill Gas Power 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*[™] 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 COMBINED HEAT AND POWER PLANT



PLANT DATA

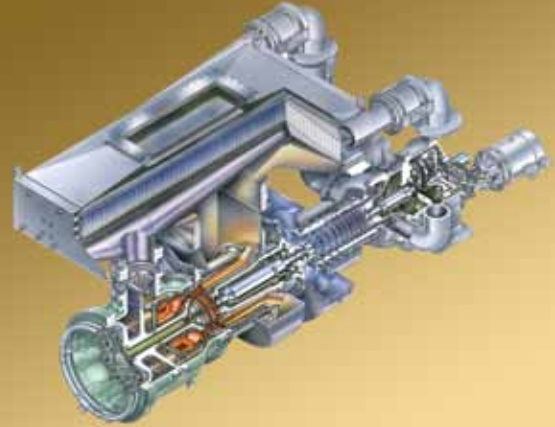
Two 4.6 MW Mercury 50 Recuperated Gas Turbines

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

Two pipelines from separate landfills totaling 32 miles in length deliver 12,000 cfm of gas to the site. The total electricity generated by landfill gas offsets 133,000 tons of CO₂ 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 EPA's 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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