

Solar Turbines

A Caterpillar Company

COMBINED-CYCLE PROJECT

Cat York

Developer: Solar Turbines Incorporated

Location: Caterpillar Inc. Manufacturing Plant, York, Pennsylvania, U.S.A.

Installed: March 1989



This installation has six *Mars*[®] 90 gas turbine generator sets ducted to once-through steam generators with auxiliary duct burners, which produce steam for two steam turbine driven generator sets and plant processing requirements.

Each HRSG can make 13 600 kg/h (30,000lb/h) of steam, which also supports the space heating and manufacturing

requirements of the Caterpillar plant. The steam is ducted to the high-pressure section of the two steam turbine generators. Then, from 10 900 to 72 600 kg/h (24,000 to 160,000 lbs/h) of steam is extracted for the manufacturing plant and the remaining steam can be expanded through the low-pressure sections of the steam turbine to generate more power.

The electricity from the gas turbine and steam turbine generators is delivered to two electrical buses that supply from 10 000 to 28 000 kW to the manufacturing plant and from 40 000 to 58 000 kW that can be dispatched, when requested into the local utility grid.

