



Queen's University Cogeneration Plant

Location: Kingston, Ontario, Canada

Client: Solar Turbines

Gryphon Contact: Paul Durkin

Associate Firm Solar Turbines / ES Fox

Project Summary Installation and integration of a new cogeneration plant inside an existing central heating plant for supplying power and steam to the university campus and a nearby hospital.

The cogeneration plant consists of two dual fuel Solar Turbines Taurus 70 gas turbine generators, two HRSGs with supplemental firing, deaerator, steam dump condenser, emergency diesel generators, 4.16 kV electrical system interconnecting with the university/hospital substation, automatic load shed panel, 44 kV system inter-tie protection/communications, and other plant auxiliaries.

The plant is capable of islanding with the campus/hospital loads and black-start during utility grid failures.

Project Services Acting as the engineer of an EPC team, Gryphon provided all preliminary engineering and detailed engineering for the implementation of the cogeneration project. Detailed engineering included mechanical systems design, electrical systems design, relay co-ordination studies, equipment specifications, instrumentation specifications, control systems integration, civil/structural design, and existing building structural modifications design.

Gryphon's other duties include providing technical assistance for the co-ordination with the local utility, and providing technical assistance for the application of environmental permit.



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