



## Cornell Combined Heat and Power Plant

**Location:** Ithaca, New York

**Client:** Cornell University

**Gryphon Contact:** Peter Veldhuizen

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**Project Summary** Construction of a combined heat and power generation plant based on two dual fuel Solar Turbines Titan 130 15 MW gas turbine generators and two Rentech heat recovery steam generators (HRSGs) with supplementary firing. The combined heat and power plant supplies the Cornell University campus with electricity and heating steam.

**Project Services** Gryphon provided the following services:

- Conceptual design and project definition engineering including project cost estimate.
- Specification, selection, and technical coordination for all major equipment including the gas turbine generators and HRSGs.
- Civil/structural, mechanical, electrical, building services, instrumentation and control systems design and engineering for the complete combined heat and power plant.
- Civil, structural, and architectural design for the 160 ft by 90 ft and 66 ft high plant building.
- Specification and technical coordination for a new enclosed coal conveyor system to replace an existing open conveyor located above the new plant building.
- Design of the control system architecture and automatic control scheme for the complete facility and technical coordination with the control system integrator for the implementation of the new control system.
- Civil and mechanical design and engineering of a 3 mile 8-inch 950 psig buried natural gas supply line for feeding the combined heat and power plant.
- Electrical and civil/structural design and engineering of a electrical substation consisting of three main 115/13.2 kV power transformers and capable of supplying the Cornell power system with a combined capacity of 75 MVA.
- Civil/structural, mechanical, electrical, instrumentation and control systems design and engineering for a water treatment system for supplying reverse osmosis water to the existing heating plant.



**Gryphon International Engineering Services Inc.**

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