

TECOCHILL®

CH-200x—STx SERIES CHILLER

Case Study

SITE: HARTFORD YMCA HARTFORD, CONNECTICUT



Originally opened in 1938, the downtown branch of the Greater Hartford YMCA features a pool, a fitness facility, a licensed preschool, a child-care center, a 128-room residence facility and, as of 2001, a 200-ton TECOCHILL® natural gas engine-driven chiller to provide all the air conditioning for the building's first three floors.

Cooling equipment was first installed in 1974 when an eleven-story tower was added to the original building.

After almost thirty years, however, that cooling equipment needed

to be replaced. And, as a nonprofit organization, the budget was an overriding concern. "We need to be cost-effective in everything we do," explains Andre Kennard, executive director of the Downtown Branch.

Ten years earlier, the YMCA had become one of the first facilities in the greater Hartford area to install natural gas-powered cogeneration equipment. The two TECOGEN® CM-60 cogeneration modules had certainly helped reduce the building's energy costs. Tecogen's local representative, Harry Cullinane of the Clover Corporation, contacted the YMCA to suggest Tecogen's natural gas engine-driven chiller as a complementary system.

"We estimated savings of \$14,000 per year . . . and a payback of three years."

"We had a number of successful TECOCHILL installations in the Hartford area," recalls Harry. "We estimated

savings of approximately \$14,000 per year for the YMCA, and a payback of less than three years."

"They were concerned about noise because the [existing] electric chiller was on an upper floor next to a conference

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room,” Harry continues. But after a site visit to a nearby TECOCHILL installation, “they liked what they saw and what they heard – or what they *didn’t* hear,” and Tecogen’s 200-ton chilling capacity system was specified by Quinlan, Giannoni & Livingston, consulting engineers for the project.

Installation was completed in the spring of 2001 with very little disruption to the YMCA’s daily operations, since the TECOCHILL system has the same basic footprint as a comparable electric chiller. The microprocessor-based control system provides fully automatic operation of the chiller and real-time fault monitoring. And Tecogen’s automated remote monitoring capability ensured a smooth and uneventful startup.

Thanks to the TECOCHILL system and a rebate from Connecticut Natural Gas Corporation, the YMCA has been able to significantly reduce energy costs by using natural gas instead of electricity. Natural gas is readily available during the summer months when demand for heating is low, but demand for air

conditioning is high.

The system is clean and non-polluting, and has successfully met the most stringent air-quality standards in the United States. It uses R-134a refrigerant, which is widely accepted throughout the industry and is one of the most environmentally friendly refrigerants available.

Tecogen is the industry leader in natural-gas powered chillers with more units installed and serviced than all other brands combined. These chillers are suitable for a variety of applications, including schools, universities, hospitals, office and apartment buildings, ice rinks, nursing homes, hotels, retailers, industrial facilities, and many others.

These fully packaged systems are available for quick delivery; their standardized design enables faster site engineering — which leads to low-cost installation and start-up, as well as more effective and efficient maintenance.



FOR MORE INFORMATION:

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Natural Gas Engine-Driven Products

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