
University in Connecticut Adopts Co-Gen

Source: Carrier

Like many higher education institutions, Fairfield University in Fairfield, Connecticut, is under pressure to deliver a state-of-the-art learning environment for its 5,000 students, while controlling escalating energy costs.

As part of its mission to create a premier learning environment, Fairfield embarked on a program to expand its campus footprint by 25%, while overhauling half of its facilities. As part of the initiative, Fairfield decided to investigate building its own cogeneration plant to control its energy costs. The university invited three energy service firms to present proposals, beginning in November 2004.

In February 2005, Fairfield reviewed a proposal delivered by the Strategic Partnerships group in

Carrier Commercial Service's Middletown, Connecticut operation. Carrier analyzed Fairfield's energy consumption trends, rates and demand charges. Then Carrier looked for places on campus to employ the heat load from a generator. In the end, Carrier's plan entailed installation of a 4.5 megawatt gas turbine with integral waste heat economizer. The cogeneration plant will deliver 95% of the university's power needs, while the heat generated will supply 67% of its high temperature hot water needs. Carrier also developed a fixed term fuel supply plan to control operating costs.

In October of 2005, Fairfield invited competing service providers to defend their proposals. The \$9.5 million project was awarded to Carrier on the quality

of the design, and Fairfield's comfort with Carrier's project management capabilities. Carrier had previously completed a design-build central chilled water and boiler project.

Ward Strosser, strategic partnerships group manager at Carrier's Middletown, office, said one of the most challenging issues when engineering a cogeneration plant is what to do with the waste heat from the cogeneration plant. "The solution we provided ensured that almost all of the waste heat would be productively used in either the campus high temperature hot water heating loop or to drive a new absorption chiller."

For more information, visit www.commercialhvacs-service.carrier.com.

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