

Case Study: YMCA

Tecogen[®]

Advanced Modular CHP Systems



CM-75 Cogeneration Module



The Greenknoll Branch of the Regional YMCA of Western Connecticut provides its clientele with state-of-the-art fitness options that include basketball courts, cardiovascular rooms, indoor and outdoor pools, and strength training rooms. The building is also outfitted with a CM-75 combined heat and power (CHP) system from Tecogen, assuring that the space providing an outlet for healthy living is also running lean and green.

The system supplies 75 kW of electricity to the facility, while simultaneously

providing space heat, domestic hot water and pool heating at a far lower cost than the conventional alternative of utility purchased electricity – generating an estimated \$65,000 in annual energy savings.

“Installing the Tecogen system ...will also lower our energy costs, allowing us to dedicate more of our resources to Youth Development and Healthy Living programming.” Marie Miszewski, President and CEO, Regional YMCA of Western CT

The YMCA is a not-for-profit community service organization dedicated to building strong kids, strong families and strong communities by providing a wide variety of programs and

services.

The YMCA also wants to be a community leader in social responsibility and

stands firm in its commitment to make their community a better place in all that they do. To that end, the Y became a member of the Connecticut Assessed Clean Energy (C-PACE) program. C-PACE allowed the Y to finance significant smart energy upgrades at the Greenknoll Regional YMCA Branch and pay for the improvements through savings on the YMCS's fuel and utility bills.



One key upgrade is the addition of Combined Heat and Power (CHP), also known as cogeneration. CHP is an efficient, clean, and reliable technology which simultaneously generates electricity and thermal energy from a single fuel source. By installing a CHP system designed to meet the thermal and electrical base loads of a facility, CHP can greatly increase the facility's operational efficiency while decreasing energy costs and carbon footprint.

For athletic clubs and fitness facilities like the YMCA, CHP can often be a perfect fit.

"A clean environment is just as important to good health as exercise and diet," said Marie Miszewski, President and CEO, Regional YMCA of Western Connecticut. "Installing the Tecogen system in our Greenknoll branch will substantially reduce our carbon emissions and impact on the environment. It will also lower our energy costs, allowing us to dedicate more of our resources to Youth Development and Healthy Living programming."

Athletic clubs tend to fit the general criteria for successful CHP installations as defined by the EPA. These types of facilities will operate more than 5,000 hours per year and carry continuous

thermal demand including steam, hot water, chilled water, or hot air.

"Health facilities such as YMCAs are a natural fit for Tecogen CHP systems," said Robert Panora, Tecogen's President and COO. "The typical YMCA has large electric and gas bills due to the demand for hot water and power year round. By installing a Tecogen CHP system, the amount of electricity needed from the grid is reduced, and the thermal output of the system lowers the demand for existing boilers to heat both the building and the pools."

For a free site assessment to see if your facility could save money with CHP please visit: <http://www.tecogen.com/products-request-a-free-economic-analysis.htm>.



For more information about Tecogen's **CM-60 and CM-75 Cogeneration Modules** or our other Natural Gas Engine-Driven Products please visit www.tecogen.com

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