New Jersey's Clean Energy PROGRAM™

Your Power to Save

Success Stories

Viking Yacht Company

Finds Smooth Sailing with Combined Heat & Power

PROJECT INFORMATION

Organization

- Viking Yacht Company

Location

- New Gretna, NJ

Project Contact

- Jeff Staub, Special Projects Manager

Technologies

- Combined Heat & Power Plant
- Six 65 kW micro-turbines
- Three 30-ton absorption chillers

Total Project Cost

- $2,372,919

NJCEP Incentives

- $877,500

PROJECT SAVINGS

Estimated Annual Savings

- 979,928 kWh generation
- 7,360 MMBtu recovered waste heat
- $111,902 annual cost savings

The project enabled the company to expand production, creating 200 new jobs now and another 175 expected.

Project information, savings and environmental benefits were provided by the project contact.

The Viking Yacht Company began in 1964 and has grown to become a world leader in semi-custom fiberglass yacht production with over 4,000 Vikings delivered.

"We were pleased both with the dollar amount of the incentive received and the information required to move the project forward. I don't think this project would have happened without the incentive from *New Jersey's Clean Energy Program.*"

Jeff Staub
Special Projects Manager

Background

Located on the Bass River in New Gretna, New Jersey, Viking Yacht Company is a leading manufacturer of luxury sport fishing and cruising yachts. The 52-acre plant is home to five buildings with a total of 810,000 square feet in manufacturing space. The company that got its start building humble wooden fishing boats in the mid 1960s now offers high-performance yachts from 42 feet to an incredible new 92 foot vessel. As Viking's product line expanded and improved over the years, so too has the facility's infrastructure.

Challenge

While Viking Yacht Company's remote riverfront location is ideal for building yachts, the facility had no access to natural gas or other economical fuel sources. Forced to rely on electricity and oil for all of their power, heating and cooling needs, the company was vulnerable to volatile cost increases. As the economy lagged and fuel prices continued to rise, Viking was facing monumental utility expenses. Having already completed successful solar and waste water treatment projects, the management team was anxious to find innovative ways to further reduce their energy use and overhead.

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Viking technicians devised this elaborate piping for the absorption chiller, which produces plant cooling for the company's tri-generation system.

Viking president and co-founder Bill Healey demonstrates the custom touch-screen control panel, which flows electricity and hot water throughout the building.

Solution

Viking Yacht Company worked with the region's natural gas provider to extend the pipeline an additional three miles to the plant. Once the natural gas was flowing, Viking hired Wachter Engineering to help analyze and design an ambitious tri-generation power plant using six Capstone 65 kW micro-turbines.

Once given the green light, the project was installed by Viking's in-house plumbers, electricians, engineers and mechanics. The micro-turbines use the natural gas to create heat and electrical energy, known as co-generation. By further incorporating three 30-ton absorption chillers, Viking's project became a tri-generation system, resulting in the production of their own heat, cooling and electrical energy from one, cost-effective power source.

Benefits

Viking Yacht Company's tri-generation plant is expected to produce 979,928 kWh annually and recover 7,360 MMBtu in waste heat – enough to offset 85% of the electrical load and 100% of the heating and cooling loads in the building which houses the corporate offices, manufacturing and research and development functions. The total project cost of $2,372,919 was greatly offset by an $877,500 incentive from *New Jersey's Clean Energy Program™*.

With an annual cost savings of $111,902 plus an expected tax credit and depreciation benefits, the project has a payback period of approximately five years. This enabled Viking to greatly expand production and create 200 new jobs, with expectations of 175 additional jobs in the near future.

"Our tri-generation plant is definitely a showpiece and we give many tours," Staub continued. "We are incredibly proud of the fact that this project was completed by our own in-house employees. The craftsmanship is evident, the savings are real."

viking yachts

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To learn more about New Jersey's Clean Energy Program and to find out why clean energy is smart business, go to NJCleanEnergy.com/BIZ

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