



The Blake Group is Home to Connecticut's First "Net Zero" Commercial Building

Partnerships, high performance engineering and renewable energy earns national recognition

EAST WINDSOR, Conn. (August 29, 2019) –The Blake Group's distribution, manufacturing, product testing, corporate training, and warehouse operations building at 6 New Park Road in East Windsor has earned Net Zero Verification from the New Buildings Institute (NBI), a nonprofit organization that maintains a [registry of commercial Zero Energy Buildings](#) in the U.S. and Canada. This is Connecticut's first NBI-verified net zero commercial energy building.

"We've monitored and determined we are now generating at least 150% of the energy we were using in the entire building, including all the equipment from our distribution center to our office machines and lights," said Fred Cuda, President of The Blake Group. "This building enables us to test and learn how to get the most out of the technology and share what we learn with our customers and industry leaders. We've welcomed many of them to our facility to see what we're doing here. We hope others will feel empowered to build their own net zero commercial energy buildings."

A "net zero" structure is one that utilizes energy-efficient building technology and balances energy used with energy produced through on-site renewable sources. As of this year, there are approximately 100 NBI-verified Zero Energy commercial buildings across the United States and Canada, which encompasses 45 million square feet of commercial building space.



In late 2014, Cuda set out to design the new home for his company's growing distribution, manufacturing, pump repair shop, corporate training, and warehouse operations. The Blake Group is a manufacturers' representative and distributor of water and thermal energy products including geothermal, steam, hot water, water and wastewater, ground water, water systems and water treatment solutions. "The project was an opportune time to live our commitment to sustainable energy through our own building," said Fred

"Working together with the Blake Group was a unique opportunity to identify best practices and implement sustainable solutions that provide real energy and cost savings," said Eversource Energy Efficiency Spokesperson Enoch Lenge. "Now they can look forward to using the money saved to reinvest in their business and expand its success."

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Cuda. “We embraced the opportunity to commit to zero energy and install, test and compare several systems side-by-side.”

Cuda gathered a team of experts including Eversource from the early days to support the design, development and financing of the project. The 17,000 square-foot pre-fabricated metal building is now a showcase and teaching tool, in addition to serving as distribution, manufacturing and office space for the company.

Major aspects that enabled The Blake Group to achieve net zero success include:

- A rooftop photo-voltaic system that generates 92,000 kilowatt hours of electricity, approximately 150% of the building’s annual energy usage
- Savings of about \$6,000 in annual energy costs over a conventionally constructed steel building of the same size
- Energy-efficient interior and exterior lighting and an LED lighting system and controls that harvest daylight, and utilize 25% less energy
- 450 square feet of triple glaze windows strategically placed on the south wall of the building to maximize natural lighting and passive solar
- Twice the standard 2.5” of high R-value insulation, which will provide payback over the building’s lifecycle
- Thermally enhanced radiant tubing throughout the warehouse floor in place of traditional tubing. This unique application reduces circulator water pumping while maximizing efficiency and reducing demand of heat pump heating by about 20 percent
- A fresh air energy recovery ventilator exhausting unit that recovers both heating and cooling energy, reducing building loads

The building began full operations in August 2017 and since then the sustainable energy produced (geothermal, solar thermal, and photovoltaic) have offset 35 tons of carbon, the equivalent to taking 8 cars off the road for a year.

The Blake Group continues to learn from the equipment installed and tested, enhancing the services they provide.

“The collaboration between The Blake Group, Eversource and the Connecticut Green Bank is a strong example of the growing commitment to deploy advanced sustainability solutions in commercial buildings and projects including zero, emerging and ultra-low energy,” said NBI Project Manager Kevin Carbonnier. “By showcasing the innovative technologies in a real-world environment, we hope this project will fuel innovation and encourage designers, building owners and experts to think of net zero as the new achievable standard.”
