



# Energy Efficiency Case Study

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## Energy Efficiency helps Bentley University earn LEED Platinum certification

### About Bentley University

Founded in 1917 and located in Waltham, MA, Bentley University is an innovative, nationally-recognized business university. Throughout the 163-acre campus, students and administrators have made energy efficiency a top priority and are on a mission to inspire and prepare ethical and socially responsible leaders. This mission also includes the university-wide commitment to achieving carbon neutrality by 2030, two undergraduate majors combining sustainability and business disciplines, a minor and concentration in sustainable investing for students studying finance and a Student Sustainability Leadership Program which cultivates professional skills and provides students with the opportunity to work hand-in-hand with Office of Sustainability staff on the most pressing sustainability challenges facing the university today.

### Project Summary

Bentley University partnered with Eversource and others to design and build its new 76,000 square-foot state-of-the-art multipurpose arena with energy efficiency and solar-readiness in mind. The Bentley Arena hosts the university's NCAA Division I hockey team and prominent university events such as career fairs, high-profile speakers, alumni events and concerts. The energy efficiency measures deliver more than \$49,000 in annual energy cost savings.

### Solution

From high-efficiency LED lighting and boilers, to the cutting-edge waste heat recovery systems and evaporation equipment, the arena is a national model for energy-efficient construction.

Standout features of the arena include: innovative technology that captures heat generated from the rink's ice-making equipment to heat water throughout the building; abundant windows to increase daylighting throughout the building; high-efficiency LED lighting with smart daylight sensors that measure the amount of daylighting inside of the building and dim the overhead lights accordingly; and the highest-efficiency plumbing fixtures on the market, including waterless urinals, dual-flush toilets, and low-flow faucets and showers to reduce the demand for water.

The project also included a 504 kilowatt rooftop solar array that generates 40 percent of the building's annual electricity needs.

In 2018, Bentley Arena added its first trophy to the arena's trophy case when it was named the first standalone ice arena in the country to earn the LEED platinum certification, the highest possible rating, from the U.S. Green Building Council. This project and award illustrate Bentley University's commitment to changing the world with a transformative business education, integrated with arts and sciences, that inspires and prepares ethical leaders.

"Thanks to the combination of the rooftop solar technology and energy-efficient mechanical design, the overall grid energy required to power the arena will be less than half of what it would take to power a building of a similar size," said Amanda King, Director of Sustainability at Bentley. "These technologies also cut the building's carbon footprint in half."

Visit [MassSave.com/Business](http://MassSave.com/Business) for more information on this project.

**Named the most environmentally sustainable standalone ice rink in the nation by the U.S. Green Building Council**

**Approximate Annual Cost Savings**

\$49,000

**Eversource Incentive**

\$72,549

### About Mass Save:

Together, we make good happen for Massachusetts: Berkshire Gas, Cape Light Compact, Eversource, Liberty Utilities, National Grid and Unitil. As one, we form Mass Save®, with the common goal of helping residents and businesses across Massachusetts save money and energy, leading our state to a clean and energy efficient future.

WE ARE MASS SAVE®:

