



Energy Efficiency Case Study

Brought to you by Unitil

Saving Energy with Municipalities

Helping to Power a More Efficient Local Government

Since 2011, Unitil has completed 25 separate municipal energy efficiency projects, from lighting to heating, for all four of the communities Unitil serves with electricity: Fitchburg, Lunenburg, Townsend and Ashby. Gardner, which receives natural gas service from Unitil, also saw benefits from these ongoing partnerships, netting a total savings of over \$1 million a year for local municipalities.

Project Summary

The various energy-efficiency improvements for the cities and towns included new boilers for Fitchburg High School, the Helen Mae Sauter School in Gardner, plus Reingold Elementary and Memorial Middle School in Fitchburg. In addition to the new boilers, new lighting fixtures were installed in the Ashby Historical Society, Ashby Town Hall, Fitchburg Library, Fitchburg Department of Public Works, Lunenburg Department of Public Works and many of the other schools: Ashby Elementary School, North Middlesex Regional Schools in Townsend, Lunenburg's Passios School and four other schools in Fitchburg.

According to John DiNapoli, municipal and community manager for Unitil, the projects will save municipalities, collectively, over \$15 million in energy over the life of the new equipment—anticipated to be about 13 years. The cost of the 25 projects was about \$1.6 million, but Unitil provided \$882,291 in rebates through its Mass Save programs, reducing the payback period on the new equipment.

“It has been a great partnership working with the cities and the towns,” DiNapoli said. “These projects help improve the comfort for the people who use and work in the facilities and also help bring down the cost of heating and lighting.”

How One of These Projects Is Making Learning More Enjoyable

Even though Fitchburg High School was only 10 years old, the school department knew its boilers were inefficient and weren't keeping the students and faculty comfortable.

According to the maintenance department, the boilers were working overtime. The boilers would constantly run at 100 percent, regardless of whether it was 50 degrees outside or well below freezing.

Need

As in many old New England cities and towns, the municipal buildings in Fitchburg, Gardner, Ashby, Lunenburg and Townsend had old and inefficient heating and lighting equipment. In many cases, boilers were 30 to 40 years old—well beyond their serviceable life.

Solution

Unitil worked closely with the municipalities to secure energy efficiency incentives through its Mass Save Programs. In addition to providing these rebates/incentives, Unitil offered expert advice on the type of equipment that would qualify.

Total Cost

\$1.6 million

Mass Save Sponsor Incentives

\$882,291

Estimated Total Annual Savings

\$1.15 million



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In addition, two other schools in the system had old and worn out heating equipment that hadn't been replaced in years. The school department knew it had to do something not only to address costs, but also to improve a less than-ideal learning environment, with parts of the buildings too hot or too cold.

Bill Barletta, director of school building maintenance for Fitchburg Public Schools, contacted Unitil for expert advice on the best way to proceed with possible rebates and gas service needs on these complex projects.

Working closely with DiNapoli, the pair got to work prioritizing the various energy efficiency programs available through Unitil's Mass Save programs.

Both older oil and gas-fired boilers at the Reingold Elementary School and Memorial Middle School were replaced with new 97 percent efficient natural gas boilers, as were the high school's boilers.

A year after the installation, projected savings are on track. According to DiNapoli, the high school alone reduced usage by 49 percent in the first 12 months, going from 213,762 therms of natural gas in 2011 versus 121,892 in 2012.

“These projects help improve the comfort for the people who use and work in the facilities and also help bring down the cost of heating and lighting,”

Unitil's John DiNapoli

Mass Save as a Strategic Partner

Whether you are building a new manufacturing facility, upgrading old, inefficient equipment or manage a property in need of energy improvements, the Sponsors of Mass Save will help you identify cost-effective energy efficiency improvements, provide technical assistance, and offer financial incentives in addition to interest-free loans to help kick-start your company's next big project. To learn about these and other commercial and industrial energy efficiency programs available, visit MassSave.com/Business.



Unitil's John DiNapoli (left) presents a rebate check to Bill Barletta, director of school building maintenance for Fitchburg Public Schools, for new energy efficient boilers recently installed at Fitchburg High School, Reingold Elementary School and Memorial Middle School.

About Unitil

Unitil provides energy for life by safely and reliably delivering natural gas and electricity to areas of Maine, Massachusetts, and New Hampshire.

Visit us online at www.unitil.com.

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.

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