

Municipal Energy-Efficiency Upgrades that Pay for Themselves

The City of Pawtucket was able to save energy and money without any outof-pocket expenses by working with National Grid, the Rhode Island Office of Energy Resources and the Rhode Island Infrastructure Bank.

It all started with an energy audit. When the City of Pawtucket decided to embark on a path to lower energy use, they turned to National Grid for a no-cost energy audit of all of their various facilities, including the city hall, public libraries, Leon A. Mathieu Senior Center and more.

The audit identified many significant energy-efficiency improvements, ranging from streetlight LED conversions and LED lighting upgrades at every facility to weatherization, air sealing, a building management system at four facilities, and HVAC system replacements, including boilers and centralized control systems.

Implementing all of the recommended energy-efficiency measures would cost \$4.4 million. National Grid and the Rhode Island Office of Energy Resources calculated the savings that could be achieved by each upgrade. Converting streetlights to LEDs was expected to deliver the largest cost savings.

Officials from the City of Pawtucket decided to utilize the shorter payback period of the streetlight LED retrofits to support upgrades such as new energy-efficient boilers.

This comprehensive approach not only decreases energy use but also increases indoor air quality and comfort. Plus, it helps more than the city—lower carbon emissions help preserve the planet for future generations.

"This project saves the City of Pawtucket close to \$1 million a year in energy costs."

 Jeff Diehl, executive director and CEO at the Rhode Island Infrastructure Bank



Pawtucket's town hall was one of the city's facilities that had a National Grid no-cost energy audit.

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The City of Pawtucket's investment in building management systems helped to significantly reduce energy costs.

"These projects create a lot of local jobs, and engaging the local vendor networks to provide services is something we're very proud of," said Nathan Cleveland, programming services officer at the Rhode Island Office of Energy Resources.

Upgrades That Pay for Themselves

The key challenge for the City of Pawtucket was how to pay for these large infrastructure projects, but National Grid and the Rhode Island Infrastructure Bank were able to offer a solution.

The City of Pawtucket received \$500,000 in incentives from National Grid to reduce the cost of upgrades as well as a verylow-interest loan from Rhode Island Infrastructure Bank that reduced the borrowing cost compared with a municipal bond.

This resulted in a smaller loan payment that could easily be covered by the savings achieved through the energyefficiency improvements. So, the city didn't have to spend any money to receive all of the benefits.

"This project saves the City of Pawtucket close to \$1 million a year in energy costs," said Jeff Diehl, executive director and CEO at the Rhode Island Infrastructure Bank. "It also significantly reduces their impact on the environment and



improves the lighting, air quality and heating in their buildings. We were glad to help provide an Efficient Buildings Fund Ioan package that allowed the city to make deeper investments."

\$6.3M in Savings Over the First 13 Years

This project was a huge success for the community, with savings exceeding costs immediately upon completion. And, once the loan is fully paid in 13 years, the city will reap even more rewards.

The City of Pawtucket was also recognized by Rhode Island's governor with the "Lead by Example Clean Energy Award" for setting the example in adopting and implementing clean energy measures that help the state transition to a cleaner, low-carbon energy economy.

"This is one of the first comprehensive energy-efficiency projects in Rhode Island, and we are proud of the results that it has achieved for the community," said Jerry Drummond, lead energy-efficiency representative for state and municipal agencies at National Grid. "The energy-efficiency measures not only generated a positive cash flow for the city and improved building comfort, but also helped the environment through lower emissions. So everyone benefits."



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"Partnering with National Grid was so easy," said Joseph Morais, project leader, Engineering Division, Department of Public Works for the City of Pawtucket. "From the energy audit all the way to implementation, they were right beside us making recommendations and finding incentives. Working together with the Rhode Island Office of Energy Resources and Rhode Island Infrastructure Bank, we were able to improve the efficiency, comfort and health of our buildings while reducing operating expenses."

"We've got nothing but positive feedback and I will tell you that National Grid has been a great partner and continues to be very supportive," said Don Grebien, mayor of Pawtucket.

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