



## Town of Coventry

Improved work and learning environment through energy efficiency



**No easy feat for a small town facilities team, Coventry embarked on a \$5 million energy upgrade project.**

The combination of aging infrastructure of the municipal buildings and schools, deferred maintenance and rising energy costs prompted the town of Coventry, R.I. (population 35,000), to jumpstart essential energy upgrades.

In 2012, a \$5 million energy upgrade bond was passed. Roughly \$3.2 million was earmarked for town facility upgrades while \$1.8 million was allocated for school buildings. Coventry facilities staff partnered with National Grid to make this extensive upgrade possible.

### **Making change happen**

National Grid initiated energy audits and cost-benefit analysis by bringing in Energy Conservation, Inc. (ECI) for municipal projects and RISE Engineering for the school projects. There were no architects or builders involved. The energy audits (scoping studies) led to a list of recommendations. The upgrade involved eight municipal buildings (town hall and annex, garages, library, parks, police department and senior center) totaling close to 200,000 square feet and the school district comprised of five elementary schools, one middle school and a 296,000-square-foot high school.

---

*“Any energy savings we can secure are crucial to school operations. I think this shows our commitment to the community, to the families — about energy efficiency conservation, and that we can put most of our resources toward improving student performance.”*

*— Craig Levis, Superintendent, Public Schools, Coventry, R.I.*

---

# Town of Coventry Case Study continued

## Turning plans into action

After analyzing energy savings projections and payback periods, the town made the following upgrades:



**Installed air sealing in municipal buildings.** This proved to be a core part of the project and supported the overall upgrade of energy end-use equipment.



**Upgraded indoor classroom and common area lighting and outdoor parking lot and stadium lighting.**



**Added Energy Management Systems to five older municipal buildings.** Monitoring energy use (gas and electric) identified other unknown deficiencies (for instance, pumps that needed to be replaced).



**Replaced the boilers in the town hall annex,** which boosted heating efficiency from 75% to over 90%.



**Replaced hot water and one steam boiler in the high school.** The new steam boiler operates at 85% efficiency compared to 60% efficiency in the old unit.



**Recommissioned pneumatic thermostat control in the high school and fixed air leaks and recalibrated sensors.**



**Implemented Variable Speed Drives (VSDs) on HVAC units.**

## A proactive focus

The nearly 20-year ongoing partnership between National Grid and the Coventry community proved invaluable throughout the project. Utilizing a hands-on, proactive approach, the National Grid team worked with key stakeholders to ensure the upgrade process went as smoothly as possible. From securing a contractor to install equipment to monitoring progress, every step of the process involved careful coordination between the National Grid team, town facilities staff and the turnkey energy solutions providers (ECI and RISE Engineering).

In addition to technical advice and project expediting, National Grid was able to offer both prescriptive and custom incentives totaling \$591,000. This funding allowed the town to purchase energy end-use components and controls of higher quality and significantly expand the scope of the energy upgrades. The town also received a subsidy from the Rhode Island Energy Office for scoping studies.







### Leaders in clean energy

In 2018, the Town of Coventry and Coventry Schools received a Lead By Example Energy Award from the Rhode Island Office of Energy Resources. This significant achievement recognizes public sector facilities that have implemented clean energy initiatives.

### Improved learning environments

Non-energy benefits included improved working conditions and learning environment for students/staff (e.g., increased comfort, productivity) as well as reduced maintenance costs.

**Town of Coventry directors Kevin McGee and Jason Martin made the following recommendation to anyone looking at upgrading their facilities, especially in municipalities:**

*“Get all decision makers involved at the outset. Then communicate early and often. No surprises to stakeholders!”*

### Improve the work and learning environment through energy efficiency

National Grid can make your energy efficiency goals a reality. Let our technical experts work with you to identify the right projects.

In addition, our **Strategic Energy Management Plan (SEMP)** can help you fund them. Along with the incentives to reduce capital costs, we offer financial options to help fund the net cost after incentives. This allows you to afford the upgrades you need.

**If you're ready to improve the work or learning environment  
and reduce maintenance costs for your community,  
*we can help make it happen.***

Visit: [ngrid.com/solutions](https://ngrid.com/solutions) Call: **1-855-236-7052**  
Email: [energysavings@nationalgrid.com](mailto:energysavings@nationalgrid.com)  
for more information.

