

Case Study

City of Northampton, Massachusetts

*Massachusetts \$6.5 million Improvement Project Saves Water and
Saved Taxpayers Money in 28 Municipal Buildings*



Northampton City Hall is among the municipal buildings upgraded with American Standard high-efficiency products

Northampton is a picturesque college town seated at the foot of the Berkshire Mountains in western Massachusetts. With a population just under 30,000, the city may appear quaint, but it manages to be both a rural oasis and a sophisticated educational and cultural center.

It's also fast becoming a role model for energy and water conservation in the state. At the end of 2011, construction concluded on a \$6.5

million municipal improvement project that didn't cost Northampton taxpayers a dime.

Water conservation, achieved by high-efficiency American Standard plumbing fixtures, was a focus in many of the facilities involved in the upgrade. All told, the improvements are expected to save the city two million gallons of water annually.

In keeping with its progressive inclination, Northampton opted to use an alternative procurement process to make the needed improvements, negotiating an energy performance contract to undertake 180 individual conservation measures.



With this method, the city will leverage future energy and water consumption savings to finance the costs to upgrade a majority of the city's municipal buildings and schools. The project will effectively cut energy, lower

greenhouse gas emissions and dramatically reduce water usage.

"Northampton is known for really thinking outside the envelope and really pushing sustainable energy and environmental initiatives," says director of Central Services David Pomerantz, who oversees the city's energy plan as well as the performance contract. "For many, many years, Northampton has been on the cutting edge of sustainability and energy efficiency."

The city awarded the contract to an energy services company in 2010, one of 60 businesses certified for this type of work in Massachusetts. "They did an extensive audit on potential energy and water savings and came up with a set of recommendations that would be implemented," Pomerantz says of the company. "Now, we have a 13-year contract with them for what's called measurement and verification, so they ensure we are getting those savings or they have to pay the city. They are really on the hot seat. It's their technology, implementation and models and they have to prove it's going to work or write us a check."

Northampton's performance contract covered 28 buildings, a majority of those that the city maintains. American Standard high-efficiency toilets and other plumbing products were selected for installation in City Hall, Memorial Hall, four elementary schools and three vocational facilities.



"The change out included more than 220 commercial toilets that use 20 percent less water than a standard 1.6 GPF product," says Richard Kealty with American Standard Brands in West Acton, MA. Selected for the project were the American Standard AFWall, Madera and Cadet 3 1.28 GPF high-efficiency toilets. American Standard also furnished

more than 200 heavy-duty commercial toilet seats, among other products.

Water conservation is vital to a municipality like Northampton, but without commensurate performance, the savings is defeated. That's why American Standard offers a range of high-performance, high-efficiency toilets that not only improve water conservation, style and function; they do it without sacrificing performance.

"We use American Standard as one of our proprietary packages of fixtures and equipment," Pomerantz says. "Standardization is a real strong goal on our part. They're available locally and we're dealing with well-built components."

Energy Performance, Guaranteed

An energy performance contract such as that used by Northampton provides a client with comprehensive energy and water efficiency measures that are monitored over a performance period with savings typically guaranteed.

The concept has been around for more than three decades, says Catherine Williams, press secretary for the Massachusetts Executive Office of Energy and Environmental Affairs. "A performance contract is an excellent tool for some communities. Given the right set of circumstances, it can result in big long-term energy savings."

The contracts allow a design-build process that provides the community with continuity from concept through monitoring, Williams explains. Most appealing to a municipality is that needed capital

improvements are paid for with resulting energy savings.

Northampton's energy performance contract provider guarantees a 20% reduction in costs over the 15 years of the contract, according to Pomerantz. The project is expected to return \$7.5 million in energy and water savings to the city over that time period.



The 15-year municipal bond to finance the project is being paid off with nearly \$500,000 per year in guaranteed energy and water savings. \$450,000 in utility rebates and \$150,000 in federal stimulus funds will also be used to pay

the debt. "The city didn't have to spend a dime," Pomerantz says. "It benefits everybody."

Think globally, act locally

Sure, environmental stewardship is good for the entire planet, but this strategy directly benefits the city of Northampton. "When I write a check for National Grid or Columbia Gas for gas and electricity, that money is gone," Pomerantz says. "It leaves the community. These are not local businesses where that money gets recycled through the local economy. With this performance contract, the money I'm saving and not having to spend on the utilities can go toward everything from running my operations to allowing the DPW (Department of Public Works) to spend less on their utilities as well. So it keeps the money in-house, which allows the mayor and city council to invest that money on school programs, etc."

“Northampton is an excellent example of proactive municipal water conservation,” Kealty says, noting that American Standard’s high-efficiency products were used in nearly every school.

American Standard is proud to partner with this progressive municipality and state. Northampton is a designated Green Community under the state’s Department of Energy Resources and in 2011 Massachusetts overtook California as the number-one energy efficient state, according to the American Council for an Energy-Efficient Economy annual scorecard.