

Wayland Comprehensive Energy Savings and Capital Upgrade Program 2014

Town of Wayland Capital and Energy/ Water Savings Projects	Project Cost by Building	Lighting System Improvements	Water Conservation Improvements	Weatherstripping and Air Sealing	Variable Frequency Drives for Pumps	Improve Ventilation for Indoor Air Quality	Boiler Improvements	Energy Efficient Motors	Replace Transformers	Oil to Gas Conversion	Lighting Controls	Kitchen Refrigerator/Freezer Fan Controls	New Digital Energy Controls & Management Systems	Boiler Replacement	Rooftop Heating/Cooling Unit Replacement
Facility															
Middle School	\$ 446,620														
Claypit Hill Elementary	\$ 356,665														
Happy Hollow Elementary	\$ 700,979														
Loker Elementary	\$ 134,579														
Town Building	\$ 880,640														
Public Safety Building	\$ 41,301														
Library	\$ 119,055														
Fire Station #2	\$ 15,278														
Contingency and Audit Fee	\$ 118,804														

-  * Energy and water savings projects with average paybacks under 12 years; represents 33% of program cost.
-  * Energy savings projects with average paybacks between 12 and 20 years; represents 1% of program cost.
-  * Projects undertaken to address capital needs and use energy more efficiently; represents 61% of program cost.
- * Contingency and audit fee represent 5% of total program cost.

WAYLAND ENERGY SAVINGS AND CAPITAL UPGRADE PROGRAM 2014

FREQUENTLY ASKED QUESTIONS

Question: What is a guaranteed energy savings and capital improvement performance contract program?

Response: It is a contract where the Town receives comprehensive energy savings and capital improvements, as identified by an Investment Grade Energy Audit, and implemented as a collection of capital upgrades.

The selected contractor, known as an Energy Services Company (“ESCO”), is required by contract and State law to guarantee the annual energy and operational savings benefits to the Town for the life of the contract.

Question: Why is the Town pursuing a guaranteed energy savings and capital improvement performance contract instead of implementing capital projects under the traditional method?

Response: This type of program allows the Town to implement 49 energy savings/capital projects over a compressed 18-24 month period. The Town engages the ESCO as the general contractor. The ESCO is required to provide full engineering, procurement, construction management, performance testing and training support in addition to the annual guarantee of the energy and operational savings benefits.

Traditional capital projects are implemented individually and require the Town to first engage an Architect/Engineer and an Owner’s Project Manager prior to bidding out each individual project for construction. Implementing the specified program under this method would likely take the Town 5 years and require multiple borrowings.

Question: Why does the Town need to implement such a comprehensive program now?

Response: Under tight budget management and constraint, the Town historically has been able to repair aging equipment and avoid catastrophic failures. This program allows the Town to retire equipment past its useful life before it fails and creates crisis situations for the School Department and Town Buildings.

This program also allows the Town to use energy more efficiently, systems more effectively and improves operating conditions for students, educators, administrators and Town staff.

Question: What is the benefit to the Town from the program?

Response: The program will result in the following:

- \$2.814 million of essential capital investments in town and school buildings including boilers in 3 buildings, digital control systems in 2 buildings, major and minor HVAC upgrades, among others.

- The Town will receive upwards of \$143,000 in utility rebates. The total program costs to be financed is approximately \$2.67 million.
- 20% annual energy and water savings of more than \$151,000.
- The annual savings are used to pay the borrowing obligation. Over the 20-year term more than \$71,000 of savings is realized in excess of the borrowing obligation.
- After the borrowing obligation is satisfied, the energy savings will either be realized in the operating budget or dedicated to other expenditures.

Question: How are the energy savings measured and guaranteed?

Response: On an annual basis the ESCO will conduct a technical analysis, based on guidelines and protocols established by the United States Department of Energy and adopted by the Commonwealth, to demonstrate to the Town that the guaranteed reduction of energy use is achieved. If a shortfall exists in any year, the ESCO is obligated by contract and State law to reimburse the Town for any shortfall.

Question: Do other municipalities do these kinds of programs?

Response: Energy savings performance contracting programs have been implemented in MA since the mid 1980's. Many municipalities, large and small, have engaged in these types of programs. The Legislature enacted a special law making this type of energy program available to municipalities and school districts. Key to the law is the provision of the guarantee.

Question: Why was Ameresco selected and what is their track record?

Response: Ameresco, headquartered in Framingham, MA is a nationally-recognized ESCO providing performance contracting and renewable energy services to municipalities, school districts, state governments and the federal government. Ameresco was selected by the Metropolitan Area Planning Council ("MAPC") as part of a comprehensive public bidding process on behalf of a group of municipalities, including Wayland. A selection committee comprised of representatives from various municipalities conducted a thorough evaluation of the qualifications submitted by various ESCOs. Ameresco was ranked as providing the most advantageous proposal offering to all municipalities. Ameresco is certified by the Commonwealth as a qualified firm to provide these specific services.

Question: How were the specific projects selected?

Response: Ameresco conducted a comprehensive detailed investment grade energy audit on all of the municipal buildings and identified energy savings and capital projects for the Town's consideration. Working with Ameresco, the Town selected projects that met the following criteria:

- Replace equipment identified on the capital plan that is at the end of its useful life

- Replace equipment to achieve improved operational efficiency and performance
- Upgrade infrastructure to provide long-term sustainable energy savings
- Upgrade infrastructure to improve indoor environmental conditions and comfort particularly in school buildings

Question: What are the projects included in the program?

Response: Projects include: high efficiency boilers, comprehensive energy management and control systems, HVAC upgrades, interior lighting and lighting control upgrades, water conservation measures, weatherization and air sealing, and mechanical system controls, among others.

Question: What firm constructs the projects?

Response: Ameresco is the general contractor. They subcontract to qualified firms, selected through a competitive bidding process they implement, which seeks specific qualifications and proven experience. All trade labor is subject to prevailing wage law. Ameresco posts payment and performance bonds covering their construction.

Question: How does this program impact the Town's Green Communities requirement?

Response: As a condition of the Town' designation as a Green Community, the Town is required to reduce energy consumption by no less than 20% within 5 years of its designation. Implementing a comprehensive program as proposed, allows the Town to effectively meet its requirement, and positions the Town to receive grants and incentives ONLY available to Green Communities.

Question: How does the Town pay for the program?

Response: The Town borrows the amount necessary to construct the project and pays back the borrowing obligation using (guaranteed) energy savings from utility budgets, utility grants and incentives and State grants.

The Town pays Ameresco for actual work completed during the course of the construction. The contract would be for a specific scope of work with a maximum price. Any potential cost overruns for contracted scope is the risk of Ameresco.

Question: What are the risks of this program?

Response: The Town has mitigated risks by working with an ESCO selected under a regional procurement by the MAPC, engaging a consultant to evaluate the program costs and savings, and will negotiate a contract that balances risk with cost.



New light fixtures, such as the direct/indirect lighting proposed for the Library will dramatically improve light distribution while providing substantial energy savings.



The existing oil-fired boiler serving the hot water system at the Town Library will be converted to natural gas.



Occupancy-based demand-controlled ventilation is proposed at a number of high density spaces like the Middle School cafeteria.



Existing toilets with flow rates of 3.5 gallon per flush or greater will be replaced with high-efficiency toilets.



Existing space heating pumps will receive new motors and Variable Speed Drives.



Time clock with no start/stop pins at Town Building will be replaced with Direct Digital Controls (DDC).