



**Town of Arlington
Office of the Town Manager**

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To: Town Meeting Members

From: Adam Chapdelaine, Town Manager

RE: Update on Energy Efficiency Initiatives

Date: May 12, 2014

During the 2012 Special Town Meeting, \$200,000 was appropriated to be expended on energy efficiency projects for town-owned buildings. At the time of the appropriation, I committed to providing updates to Town Meeting in regard to expenditures from the fund. I am providing this memorandum to provide such updates, as well as related updates regarding the Town's energy efficiency efforts. All of these efforts are a result of the hard work of the Energy Working Group and the Town's Regional Energy Manager.

Town Energy Efficiency Funds (\$200,000 from 2012 STM)

This past year, these funds were used to install two (2) new condensing boilers at the Robbins Library in place of the existing boiler and also to install new controls for these boilers. Expenditures from this fund also included interior lighting upgrades at the Robbins Library. The table below provides information on project cost, utility incentives, and the project payback.

Project	Cost	Incentive	Net Cost	Yrly. Savings	Payback
Lighting Upgrades	\$ 15,833.19	\$ (4,493.33)	\$ 11,339.86	\$ 2,336.53	4.9
Boiler Replacement	\$ 56,610.00	\$ (8,000.00)	\$ 48,610.00	\$ 6,240.86	7.8
VFDs/Controls	\$ 66,493.00	\$ (26,615.00)	\$ 39,878.00	\$ 11,108.57	3.6
Total	\$ 138,936.19	\$ (39,108.33)	\$ 99,827.86	\$ 19,685.96	5.1

DPW Green Repair Funds

Annually, in the DPW operating budget, there has been a \$20,000 line item for green repairs and upgrades. This year, the DPW upgraded the interior lighting at the Grove Street facility including the two (2) administration buildings and two (2) garage buildings, as well as exterior lighting. The table below provides information on project cost, utility incentives, and the project payback.

Project	Cost	Incentive	Net Cost	Yrly. Savings	Payback
DPW Lighting	\$ 34,410.06	\$ (10,962.75)	\$ 23,447.31	\$ 5,700.66	4.1

LED Lights

In two (2) phases, the Town has replaced 100% of Town streetlights with LED lights. The table below provides information on project cost, utility incentives, and the project payback. Yearly savings includes energy and maintenance savings.

Cost	Incentive	Grant Funding	Net Cost	Yrly. Savings	Payback
\$1,040,000	\$165,000	\$160,000	\$715,000	\$145,000	4.9

Green Communities 2013

- The Town received its second Green Communities grant in 2012 and completed projects by mid-2013. Projects included installing variable frequency drives and controls on pumps in the Robbins Library and the following schools- Bishop, Peirce, Brackett, Hardy and Ottoson.
- Removal of individual air conditioning units and installation of a 6th floor efficient air conditioning system and variable frequency drives in the high school.

Green Communities 2014

- The Town applied for a 2014 Green Communities Grant funding in April 2014. The application includes requests for funding the following projects at the Ottoson Middle School.
 - o Installing 2 new condensing boilers in Ottoson School along with a new energy management system
 - o Installing internet managed controls for 6 rooftop units that are currently only controlled from the unit itself on the roof
 - o Installing demand controlled ventilation in the cafeteria to automatically control air flow based on occupant load
 - o Installing efficient freezer controls in walk-in freezer
 - o Replacing older motors in classroom unit ventilators with energy efficient motors
 - o Installing a high efficiency/ high performance exhaust system in kitchen
- The Town is also requesting funding for the following project at Arlington High School.
 - o Energy management system at the high school

In the fall of 2013, the Town of Arlington was awarded **The Leading By Example** award from the Massachusetts Department of Energy and Resources. This award is given to municipalities who have demonstrated commitment and success in lowering energy consumption and have implemented policies and programs that have led to significant and measurable environmental and energy benefits.

<http://www.mass.gov/eea/docs/eea/lbe/2013-lbe-award-winners.pdf>

Solar Panel Grant

In late 2013, Arlington was granted funds from the MA Department of Energy Resources to contract with a consultant to assist the Town in selecting a solar developer. The solar developer will install solar panels on appropriately sited buildings in the Town and the Town will benefit from a long term Power Purchase Agreement. The developer will install and own the panels and the Town will have a fixed price for the energy created from the panels. The term for working with the consultant is for calendar year 2014.

Efficient Vehicle Incentive Program

In 2013, Arlington won an award to receive subsidies to purchase an electric and/or hybrid vehicle, as well as to install an electric vehicle charging station. Currently the Town is researching the different options available from the program.