

FISCAL YEAR 2015: ANNUAL ENERGY REPORT

In FY 2015, the Town's Energy Office conducted activities to promote and encourage island-wide energy awareness and reduction measures and to implement and monitor energy efficiency, conservation, and renewable energy projects at municipal facilities that can deliver significant taxpayer savings through lower energy bills, while contributing to overall community sustainability and economic development. These efforts were led by the Town's Energy Coordinator, Lauren Sinatra.

Among the achievements of the Energy Office in FY2015 were the following:

- Put in place a system for monitoring energy consumption by Town facilities on an ongoing basis. In FY2015, Town facilities consumed 11,772,265 kWh of electricity, 174,655 gallons of heating oil, and 34,244 gallons of propane at an overall cost of \$2,571,377. According to energy management software, the Town used 8.4% less electricity in FY2015 than in 2012, when the energy baseline was established. This is despite the effect of colder winter weather on the Town's many electrically heated facilities. However, electricity supply prices remained at record high levels, costing 20% more than in 2012.
- Competitively procured the Town's electric supply with Liberty Power, producing approximately \$524,000 in actual electricity savings against National Grid's standard generation rate.
- Coordinated 338 Mass Save home energy assessments for Nantucket residents, resulting in over a million dollars in annual energy savings.
- Coordinated and managed technical assessments and energy audits of the Town's top energy consuming facilities, including: Town Hall, the Planning and Land Use Services Office, Nantucket Public Schools, and the Surfside Wastewater Treatment Plant. An LED lighting upgrade project at the Nantucket High School helped achieve a 21% reduction in electricity when compared to FY2014. Other recommended lighting and energy efficiency measures are scheduled to be implemented in FY2016.
- Completed energy assessments at all Town-owned staff houses, resulting in thousands of dollars of free instant saving measures (LEDs, smart power strips, programmable thermostats), as well as insulation incentives, free dehumidifiers, and two free "hybrid heat pump water heaters" that have shown savings of 35% in electricity costs.
- Secured 1032 Free LEDs and High Efficiency Florescent Tube lighting for Town facilities valued at nearly \$11,000 and which are estimated to save the Town approximately 70,500kWh and \$10,500 in energy costs per year.
- Worked with National Grid to identify methods for reducing growth in electrical demand during peak periods in order to defer the need for a third underwater electric cable from the mainland.
- Surveyed opportunities for solar PV installations on Town buildings and land. Supported development of solar PV facilities on land adjacent to the Nantucket Airport and at the Surfside Waste Water Treatment Facility.
- Supported efforts to implement energy efficiency measures at Nantucket Airport through procurement of an energy service company under a performance contracting arrangement as part of the Mass DOT and USDOT Carbon Neutral Airport Program.
- Recovered over \$8,000 in late payment charges and sales taxes unduly charged to the Town by National Grid.
- Secured a 2-year Massachusetts Dept. of Energy Resources (DOER) grant to fund the Nantucket Energy office through FY2016.
- Served on the Bureau of Ocean Energy Management (BOEM)'s Massachusetts Intergovernmental Renewable Energy Task Force to provide input on behalf of the Town of Nantucket regarding a Federal off-shore wind power development project.
- Sold 205 Renewable Energy Certificates from the electric output of the wind turbine at the high school to realize revenue of \$11,712 for the Town
- Organized and hosted various community outreach and education events and projects, including:
 - A public electric vehicle test drive and charging demonstration event
 - A 3rd Grade Enrichment Cluster to introduce the concepts of energy sources, renewable sources, and energy conservation to third grade students at Nantucket Elementary School
 - A collaboration with the Nantucket Builders Association which sponsored an "Energy Code" educational workshop series to help raise local contractor compliance levels with the new energy building codes.

- A WPI research project to evaluate the social and economic feasibility of converting Nantucket's decorative streetlamps to LED lights.

Goals for FY2016 include continuation and expansion of all of the programs listed above to further encourage efficient use of energy on Nantucket through new and innovative means. We are grateful to the Town officials, staff and volunteer supporters who have supported our efforts in past years and we look forward to further success in improving the efficiency of our energy use.