Energy Office Report: FY 2018

In FY2018, the Town's Energy Office conducted professional and technical tasks related to municipal and island-wide energy policies, practices, and projects that deliver significant taxpayer savings through reduced energy costs, while contributing to overall community sustainability and economic development. These efforts were led by the Town's Energy Coordinator, Lauren Sinatra.

Among the achievements and initiatives of the Energy Office in FY2018, were the following:

Nantucket PowerChoice: Municipal Electric Aggregation
Negotiated a new 24-month electric supply contract with Direct Energy, which decreased the program rate from 9.13 cents to 9.05 cents per kilowatt-hour (kWh), effective May 2018 through May 2020. The Town's program rate is 34% lower than National Grid's current basic service rate for residential customers (13.718¢/kWh), saving an average resident nearly $40 per month on electricity.

By the end of the 2018 Fiscal Year, enrollment in Nantucket PowerChoice grew by 10% (1002 new participants), delivering over **$2.6 Million** in cumulative savings to local participants and generating over **$100,000** to support the Town's *Local Solar Rebate* program.

$200,000 Mass DEP Gap II Grant for Solar
Secured a $200,000 grant award through MassDEP's *Clean Energy Results Program* (CERP), to support a 75kW Solar Photovoltaic (PV) system at the Surfside Wastewater Treatment Plant. The proposed solar project is projected to save the Town approximately 91,200 kWh, or $22,000 in avoided electricity costs, per year.

HeatSmart Nantucket (HeatSmartNantucket.org)
Submitted a winning application to the Massachusetts Clean Energy Center (MassCEC), which selected Nantucket as one of four communities to participate in the selective HeatSmart Mass initiative.

The HeatSmart Nantucket program encourages local residents to transition from conventional electric, oil and propane-based systems to high-efficiency, lower-carbon heating and cooling alternatives. Under HeatSmart Nantucket, islanders can more easily access solar hot water and air-source (minisplit) heat pump systems, take advantage of thousands of dollars in state and utility incentives, secure 0% financing, and work with qualified installers offering special, limited-time pricing.

$1.25 Million Tesla Energy Storage Award
Collaborated with Tesla on a $1.25 Million winning grant application to launch a peak demand reduction program using Tesla's Powerwall battery. The project, slated to launch by the summer of 2019, aims to install 500 batteries in local homes, which

together will serve as a “virtual power plant” to increase island resiliency and reduce electric demand by 2.5Megawatts (MWs), or approximately two year’s worth of local demand growth. The grant was awarded as part of the Baker-Polito Administration’s Energy Storage Initiative (ESI) Advancing Commonwealth Energy Storage (ACES) program, funded by the Department of Energy Resources (DOER).

Installation of Energy Storage AC Unit at PLUS Department
Coordinated the installation of an innovative new “Ice Bear” energy storage system at the PLUS Department, made possible through the Massachusetts Department of Energy Resources (DOER) $1.5 Million “Nantucket Peak Demand Management” Grant. This ultra-efficient air-conditioning unit replaced the facility’s 20-year old, inefficient compressor at no cost, and uses ice storage technology to reduce summer peak cooling by 95%.

Community Events and Energy Code Workshops
Worked closely with community partners such as the Chamber of Commerce, Fairwinds, and the Nantucket Builders Association to organize and host numerous energy-related community events, including: an electric vehicle (EV) “Test Ride & Drive Event” at the 2018 Daffodil Festival, an AC unit Recycling Event at Bartlett’s Farm, and several energy code trainings and workshops to increase local contractor education and code compliance.

Stimulating Local Solar PV Adoption
Served as the main project advisor to four undergraduate engineering students from Worcester Polytechnic Institute on a project focusing on deliverables to stimulate the local adoption of solar-PV generating systems. Educational resources were developed, including an Interactive Solar Map located on the Town’s website, which depicts every residential and commercial solar installation on Nantucket (56) along with key project specifications, such as size, cost, and system installer, as well as in-depth case study profiles on three solar-PV owners.