



TOWN OF ANDOVER, MASSACHUSETTS MUNICIPAL SERVICES DEPARTMENT

TOWN OFFICES
36 Bartlet Street
Andover, MA 01810
Tel: (978) 623-8280
Fax: (978) 247-9600

EDWIN S. ATAIDE
DEPUTY DIRECTOR
PLANT & FACILITIES DIVISION

September 7, 2016

To: Distribution
Subject: FY2016 Year End Energy Report

Attached are the FY16 year end results.

Budget Results

Due to the extremely warm winter, low gasoline prices, and our many energy efficiency measures, Andover energy costs overall ended up 12% below budget, Town and School combined. This winter required 20% less heating and vehicle fuel prices remained very low.

Renewable Energy

The solar field in Palmer, Massachusetts, which is under construction, will supply roughly a third of Andover's electricity. Below is a picture taken just last week. Racking is installed and solar panel installations will begin soon. We may start seeing credits by this winter.



We are also evaluating several Andover locations for possible rooftop and parking lot canopy solar.

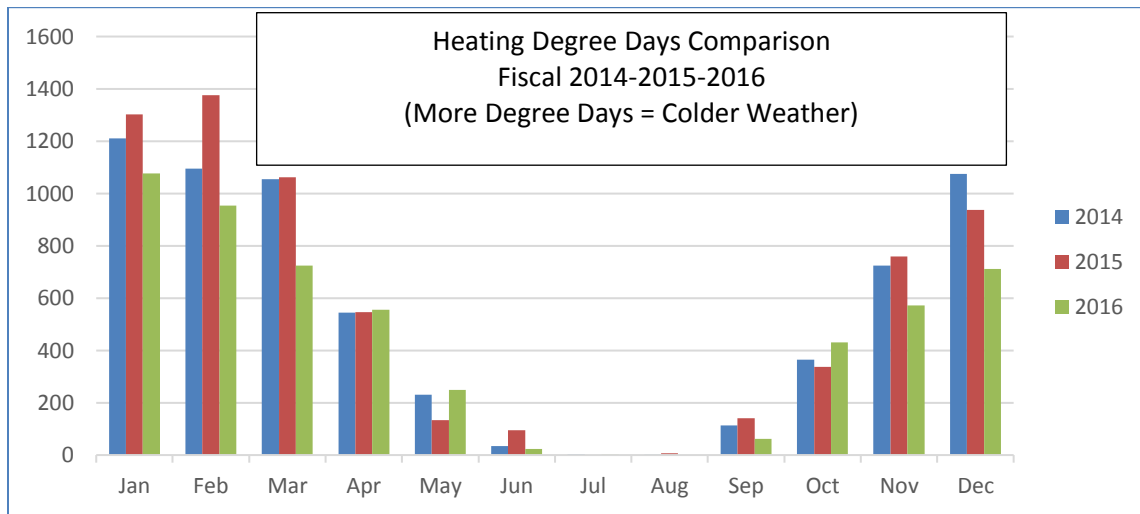
Energy Management

Energy efficiency measures included an LED retrofit of the Shawsheen area antique street lights, new boilers at the Town Offices, new pump assemblies at Fishbrook Pump, VFD pumps at Doherty Middle School, LED retrofit of the Children's Room at Memorial Hall Library, and hundreds of hallway LED fixtures at AHS, West Middle, West Elementary, and South School were completed this year.

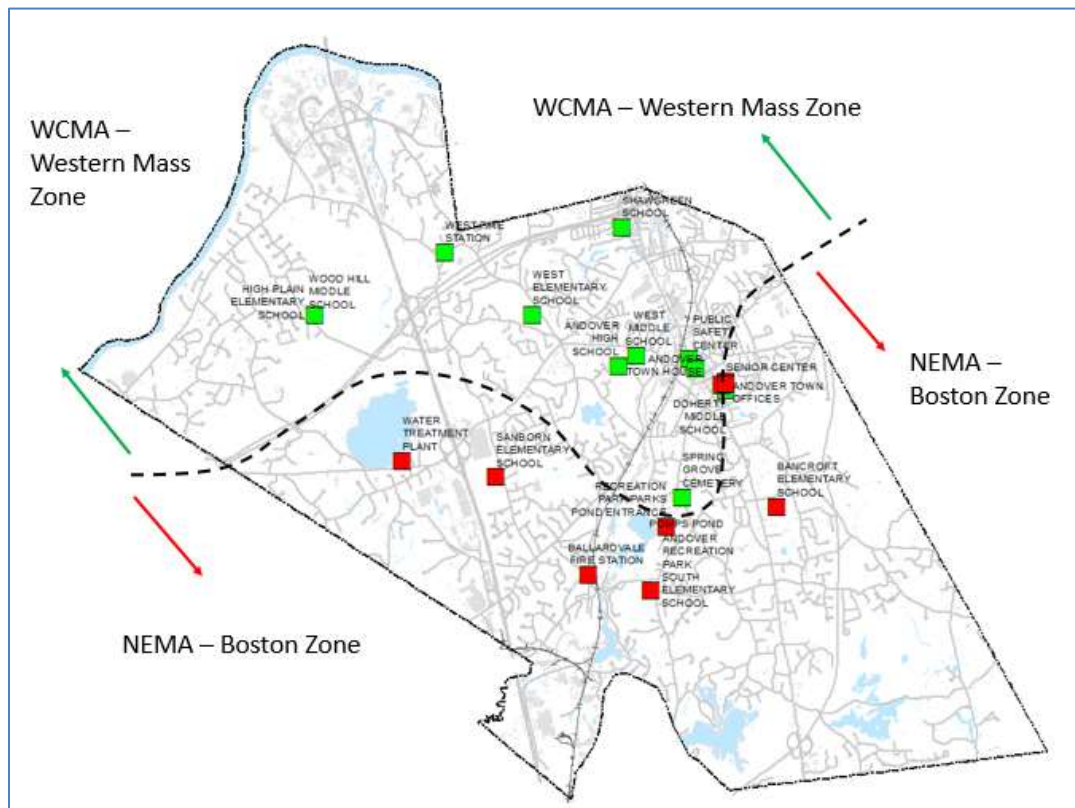
Energy education and investigation were the goals of the 2016 Building Energy Bootcamp. Sponsored by Schneider Electric Foundation, eight students studied Andover High School energy use and created mapping tools to identify electrical panel feeds throughout the school. The Bootcamp produced an impressive database and tools to identify and analyze electricity usage by zones in the school. The group presented their findings at Schneider Electric's World Headquarters in Andover.

Select Graphs and Charts:

2016 Winter: Fiscal 2016 was a much warmer winter than normal, with 20% less heating required than 2015, as measured by Heating Degree Days, which is the daily average difference between outside air temperature and indoor comfortable temperatures of 68 degrees.



Andover Zones: Andover’s electricity is fed from two supply zones, Western Mass (WCMA) zone, and Boston (NEMA) zone. We often reference which buildings are in each zone, because solar credits can only be used within the zone where they are produced. For this reason, our WCMA buildings can benefit from the solar field in Palmer, Massachusetts, but our NEMA buildings cannot. There is simply very little land in the NEMA Boston zone to develop for solar. For the NEMA zone buildings, we are investigating on-roof or parking lot canopy systems. Below is the approximate location of the zone delineation through Andover.



Janet Nicosia, CEM
 Manager of Energy and Utilities