

Chester Energy Team: Progress Report

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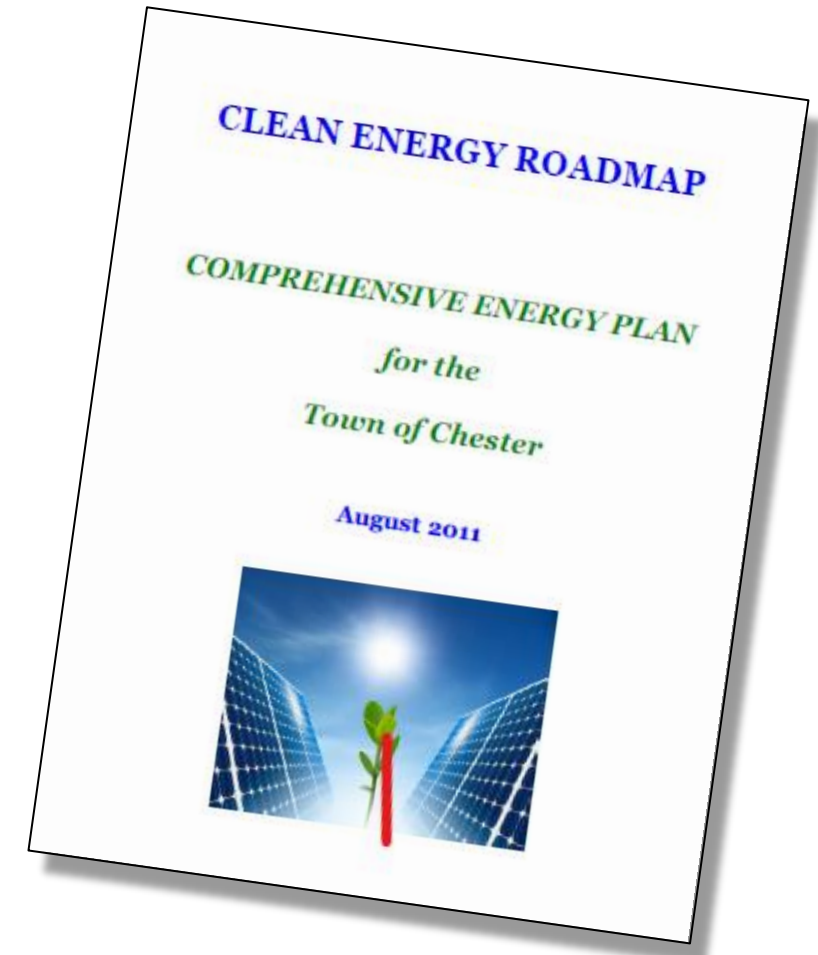
Board of Selectmen

March 26, 2024



History of the E-Team

- First Selectman Tom Marsh asked the Conservation Commission to apply for a \$5,000 Community Energy grant to promote energy efficiency and conservation
- The Conservation Commission rec'd the grant and began a series of programs to promote renewable energy, to inform residents of energy savings opportunities, and to reduce energy use in municipal buildings
- The Conservation Commission established a subcommittee to write a comprehensive energy plan for the town which was accepted by the BOS in 2011 and the E-Team was appointed
- The E-Team, which is a volunteer group with no official standing within town government, has accomplished many projects that have produced significant savings for the town





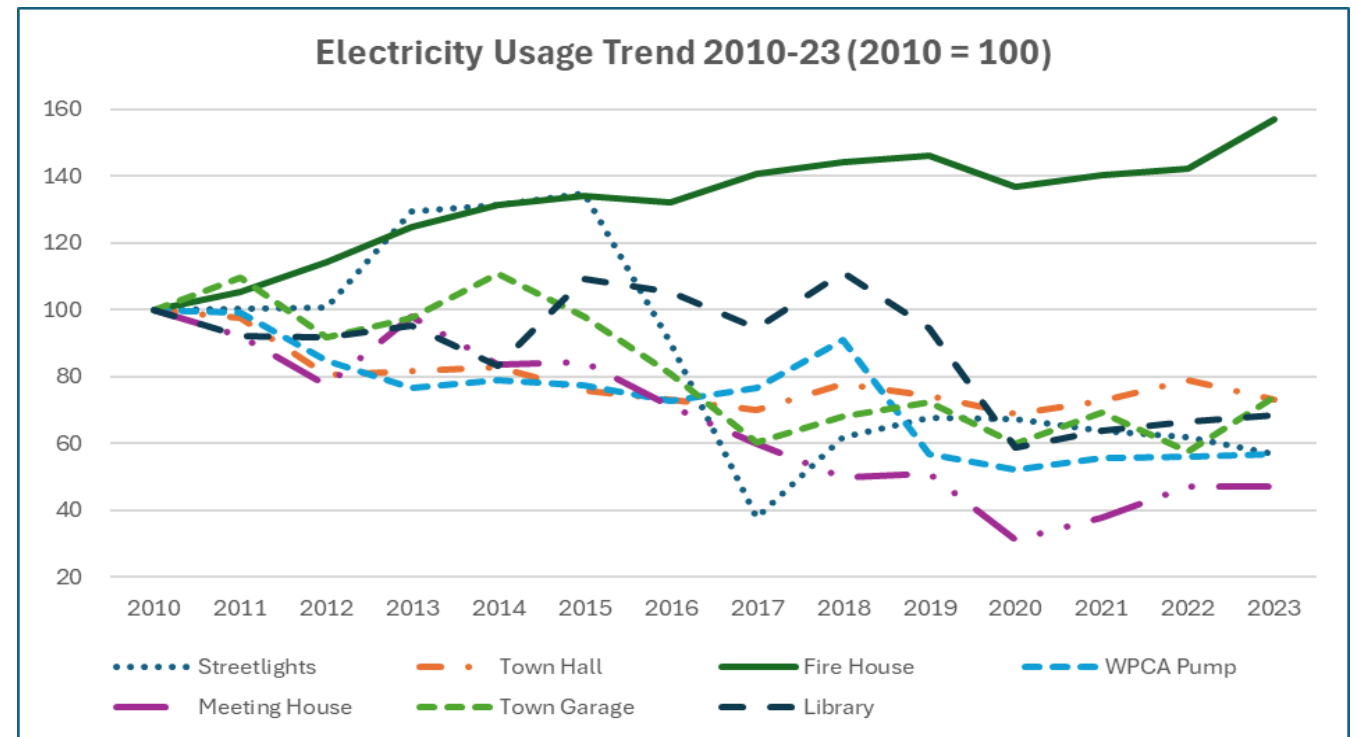
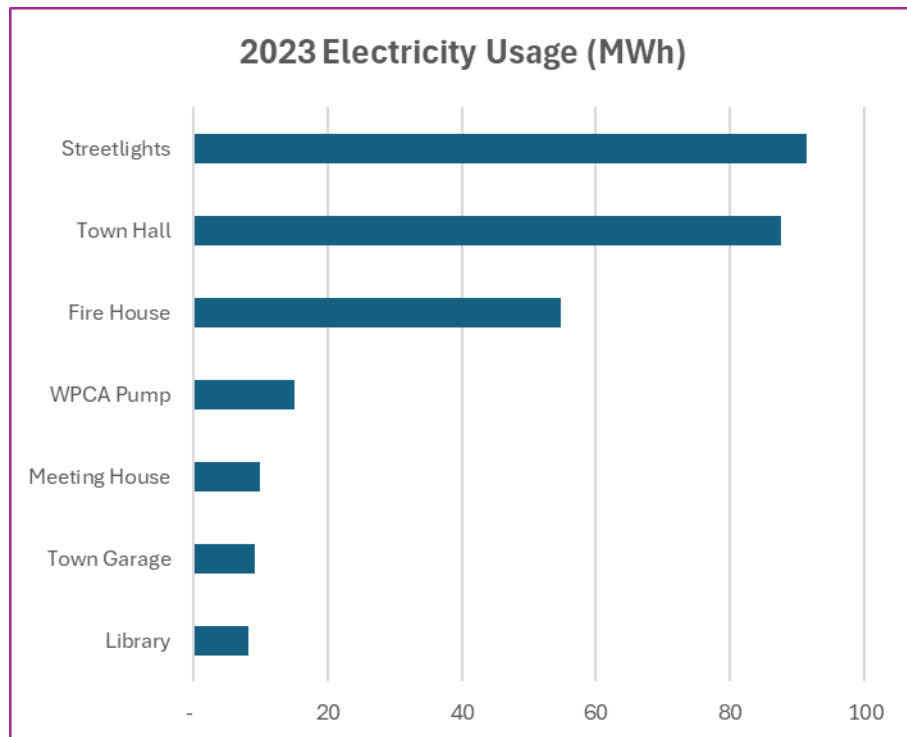
E-Team - Major Accomplishments

- Initiated and oversaw the contract to purchase our street lights from Eversource and convert them to LEDs
- Conducted 2 *Solarize Chester* programs that offered residents discounted PV systems and earned free PV systems on Town Hall and CES
- Oversaw, at no cost to the town, the replacement of the small CES PV system with a large roof-wide system and Chester entered into a PPA to purchase electricity from the system at \$0.065/kWh (about ¼ the cost of retail kWh)
- Spearheaded many Town Hall upgrades to lighting, air sealing, and insulation along with other improvements that collectively have reduced electricity use 27% from 2010 to 2023
- Began a program to track monthly energy use (electricity, oil and water) in all municipal buildings to monitor energy use over time



Electricity Usage at Town of Chester Properties

- Streetlights, Town Hall & the Fire House account for 75% of town electricity usage
- Fire House usage has increased 57% since 2010 while all other properties have achieved reductions of 26-53%





Solar PV Potential to Offset Town Electricity Costs

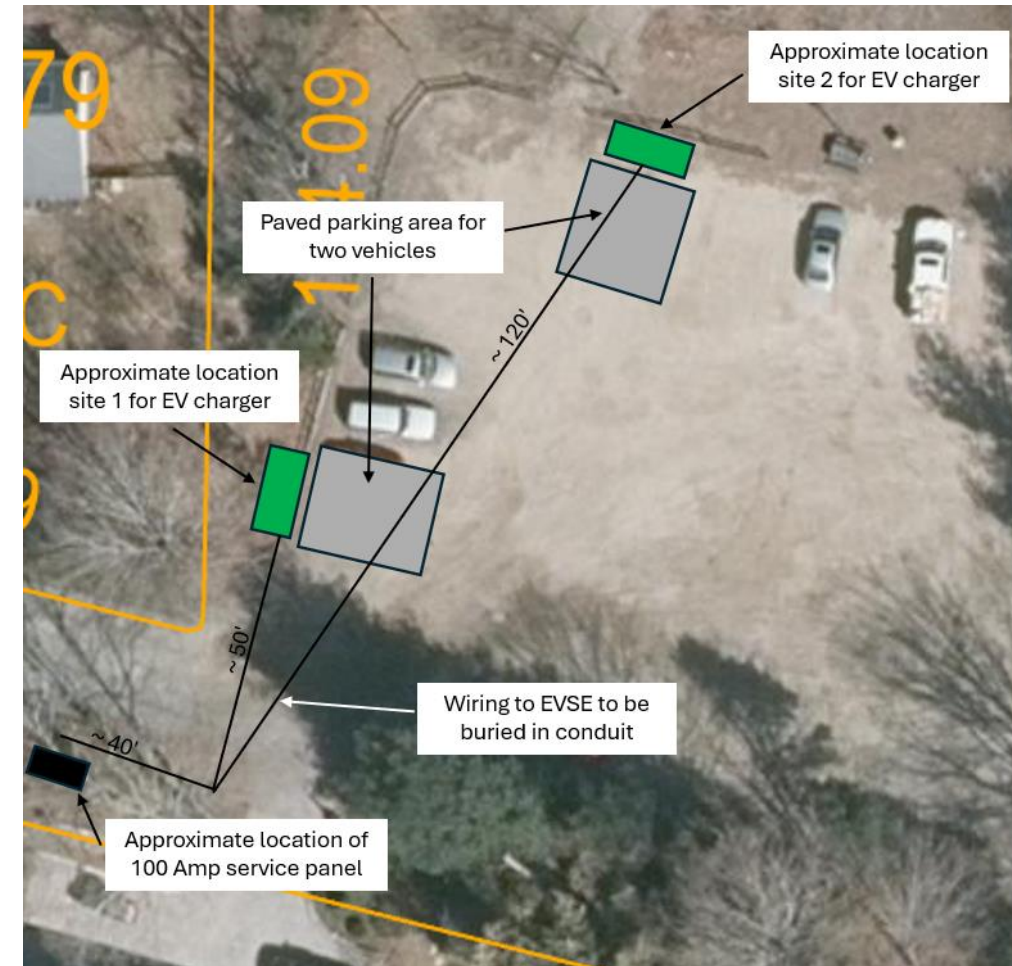
- 2 major recent gamechangers
 - Monetization of solar tax credits
 - Virtual Net Metering for municipal buildings
- Potential to offset 65-90% of town electricity usage with solar

Facility	2023 Electricity Usage (MWh)	Rooftop Solar PV Potential (MWh/year)
Town Hall	88	69
Fire House	55	45-50
WPCA Pump	15	
Meeting House	10	
Town Garage	9	25-50
Library	8	
TOTAL	185	119-169



Proposed EV Charging Stations

- Three town center locations considered
- 20 Water Street selected for DEEP EVSE grant application
 - \$33,590 awarded 6/26/2023
 - Project status
- Maple street parking lot
 - Optional location
 - Preliminary site plan & preliminary costs





Next Steps

- Install EV Charging station at Maple Street parking lot
 - Issue RFP
- Evaluate energy use at Firehouse
- Evaluate solar PV projects
 - Town Hall
 - Town Garage
 - Firehouse