Easton Energy Task Force

Update to Board of Selectmen

October 6, 2016

Task Force Members

- Cathy Alfandre
- Heidi Armster
- Carroll Brooke
- Katie Callahan
- Regina McNamara
- Grace Smith, JBHS Liaison

Quick Background

- Task Force formed in 2006 to promote municipal and residential adoption of renewable energy (with support and guidance from state Clean Energy Communities program)

  - Earned free 5 kw solar array on SSES

  - Earned $40K+ federal grant (lighting installed in Library and SSES)

- Clean Energy Communities program was revised in 2012 to focus on **both** renewable energy and energy efficiency; Easton signed a pledge with two goals:

  - Achieve 20% municipal energy from renewable sources by 2018

  - Reduce municipal energy consumption by 20% by 2018

Renewable Energy "Track"—Achievements

▶ "Solarize" program with Redding and Trumbull in 2013—65 households with new solar installations (15 in Easton)

▶ Electric Vehicle Charging Station (fully funded by state grant)

▶ $5,000 grant from CT Green Bank

▶ Installation of solar array at Samuel Staples Elementary School (300 kw)—designed to generate enough power to cover half of school's usage (no upfront cost to town)

Solar Array Data (Jan – Aug 2016)

Solar has generated 53% of total electricity

Solar	288,000 kWh
UI	255,000 kwh
	543,000 kWh

…and resulted in more than $32,000 savings

Solar cost	$26,801	9.3 cents/kWh
UI cost	$52,175	20.5 cents/kWh
	$78,978	Saving 11.2 cents/kWh

11.2 cents x 288,000 kWh = $32,256 thru Aug.
(expecting more than $43,000 for full year)

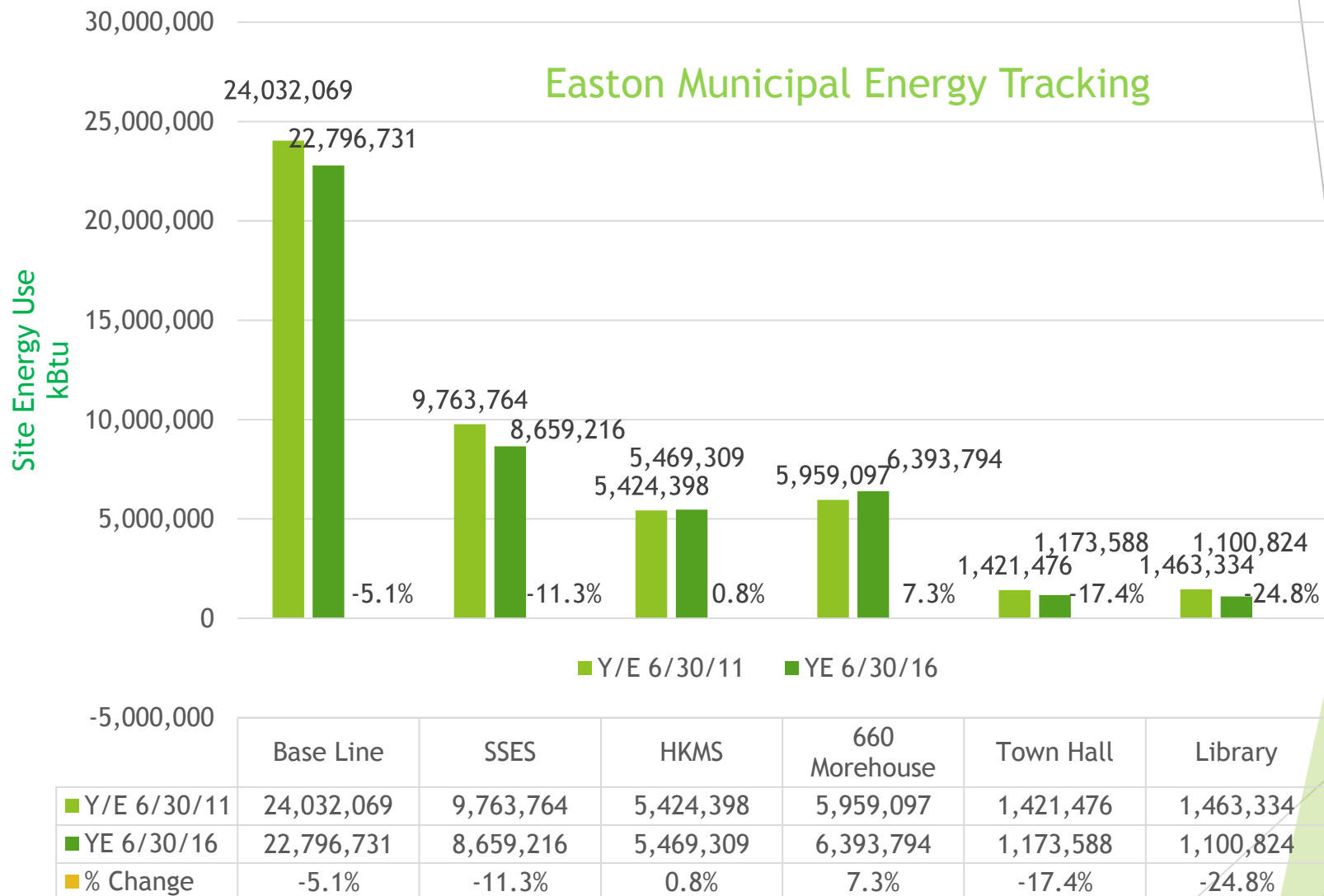**With this array, Easton will reach 17% of its municipal energy from a renewable source**

Renewable Energy Track—Next Steps

- Focus on phase 2 of SSES solar array
  - Have met with P&Z Commission to discuss plans
  - Target date for project completion: December 2017
  - When complete, solar installation would cover 100+% of SSES electricity consumption

- Preliminary discussions have been held with Region 9 BOE about solar at Joel Barlow High School

Energy Efficiency Track—Achievements

- Energy data for all town buildings being tracked in EPA's Portfolio Manager system and compared to 2011 benchmark (kudos to Janet Haller and Carolyn Reed!)
  - Allows town to see building data and trends
- In-depth energy audit of Helen Keller Middle School with 3 major energy-saving recommendations (lighting recommendations completed, other two on hold)
- Initial walk-through audit of 660 Morehouse
- Three $5000 grants earned from United Illuminating
  - Funds applied to Town Hall boiler conversion and HKMS audit
- Monthly analysis of SSES energy demand
- SSES Energy Star Certification

Building Energy Data (Selected)

Easton Municipal Energy Tracking

	Base Line	SSES	HKMS	660 Morehouse	Town Hall	Library
■ Y/E 6/30/11	24,032,069	9,763,764	5,424,398	5,959,097	1,421,476	1,463,334
■ YE 6/30/16	22,796,731	8,659,216	5,469,309	6,393,794	1,173,588	1,100,824
■ % Change	-5.1%	-11.3%	0.8%	7.3%	-17.4%	-24.8%

Easton has reached 5% energy reduction since 2011

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Energy Efficiency Track—Next Steps

- Buildings with largest energy use present opportunities for most significant progress:
  - Implement recommendations from HKMS audit (on hold due to long range planning deliberations about the fate of the school)
  - Pursue audit of 660 Morehouse to identify actions that can be financed with minimal or no town investment
    - Latest $5000 grant can be used to fund the audit
  - Continue to identify ways to reduce peak energy demand at SSES and fully employ energy management software
  - Assure LED lighting in all town buildings

Summary

▶ Renewable Energy: Easton will exceed goal of 20% municipal energy from renewable sources with phase 2 of solar array

▶ Energy Efficiency: Easton has work to do to reduce municipal energy consumption (20% goal not likely attained by 2018)

▶ Board of Selectmen support needed for:

    ▶ Budget for TF initiatives (e.g., building audits)

    ▶ Proactive approach to energy management

    ▶ Exploration of solar feasibility for Town Hall and/or Library