

Report to Bethel Residents: Municipal Successes to Date in Reducing Energy Consumption and Costs

In early 2014 the Town of Bethel joined the New York State Climate Smart Community (CSC) program. In pledging to be a CSC, Bethel aims to increase energy efficiency, save taxpayer money, and reduce the greenhouse gas emissions for the Bethel Town Government and for the community. To that end, the Town began capturing municipal energy usage data and costs beginning with calendar year 2013. In December 2016 the Town Board adopted a resolution adopting energy benchmarking policies for its municipal buildings, requiring the capture and posting of certain data and satisfying a recommended action of the CSC and Clean Energy Communities programs of New York State.

The Town of Bethel is posting this data to its website to help keep citizens informed of our progress.

But even before becoming part of the CSC program, the Town of Bethel undertook initiatives beginning in 2009 to help save costs and reduce energy consumption. Initial steps to increase energy efficiency included improving window insulation, installing more energy efficient lighting in Town Hall, placing thermostats and lighting on timers, and encouraging town personnel to be more energy conscious in daily work practices. The Town also joined the Municipal Energy and Gas Alliance (MEGA) to purchase electricity at the lowest possible price.

Some of the cost benefits accruing since 2009 include:

- 43.6% reduction in Highway Barn energy costs
- 56.3% reduction in Senior Center energy costs
- 30% reduction in Town Hall energy costs
- 16% reduction in Sewer Plant energy costs

Our 2016 Benchmarking Resolution requires the Town to maintain the certain data, and it is attached. This data compares Bethel's 2013 baseline data to 2016 data.

Energy Improvement Projects

The Town of Bethel through its Green Committee has identified the following major projects to further improve efficiency and reduce costs. By taking part in the New York State CSC and the Clean Energy Communities programs, Bethel hopes to obtain State grant funding for some of these projects.

- Replacing the aging UV system at the Wastewater Treatment Plant.
Source EUI (see definition below) has increased 25.10% since 2013 due

- to the aging and inefficient system. The wastewater treatment plant is the Town's single highest energy cost. Costs have risen 14.6% since 2013.
- Converting the Town's 174 streetlights to LED lighting should save energy usage and costs by 50-60%. Bethel is a member of the Mid-Hudson Streetlighting Consortium.
 - Replacing the aging furnace in Town Hall with a high efficiency heat pump system.

Bethel has identified other projects through its energy audit of municipal buildings and, as needs arise and funding is identified, these projects will be undertaken as well.

Glossary of Terms

Site Energy

Site Energy is the annual amount of all the energy your property consumes onsite, as reported on your utility bills. Use Site Energy to understand how the energy use for an individual property has changed over time.

Site EUI (Energy Use Intensity)– The Site Energy Use divided by the property square foot.

Source Energy

Source Energy Use is the total amount of raw fuel that is required to operate the specific property. In addition to what the property consumes on-site, source energy includes losses that take place during generation, transmission, and distribution of the energy, thereby enabling a complete assessment of energy consumption resulting from building operations. For this reason, Source EUI is the best way to quantify the energy performance of commercial buildings.

Source EUI – The Source Energy Use divided by the property square foot.

Weather Normalized Site Energy –The energy use your property would have consumed during 30-year average weather conditions. For example, if 2012 was a very hot year, then your *Weather Normalized Site Energy* may be lower than your *Site Energy Use*, because you would have used less energy if it had not been so hot. It can helpful to use this weather normalized value to understand changes in energy when accounting for changes in weather. *Weather Normalized EUI is Weather Normalized Site Energy* divided by property size or by flow through a water/wastewater treatment plant.

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normalized value to understand changes in energy when accounting for changes in weather. *Weather Normalized Source EUI* is *Weather Normalized Source Energy* divided by property size or by flow through a water/wastewater treatment plant).