

TOWN OF LEVERETT STREETLIGHT PROJECT NARRATIVE

Town of Leverett Municipal Energy Consumption

Leverett's total energy consumption for FY19 was 4,953 MMBtu, including buildings, vehicles, and streetlights.

Total Energy Use for Streetlights

Leverett's total streetlight energy consumption in FY19 was 11,259 kWh.

Specification Sheets for Equipment to be Installed

Sample specification sheets are included in the Attachments. Final specifications will be determined during the design phase of the project.

Project Scope

The Town of Leverett proposes to purchase its 33 utility-owned streetlights and convert them to LED fixtures. The purpose of the project is to reduce municipal energy use and costs. Benefits include reduced GHG emissions, reduced electrical costs to the town, and reduced maintenance. The Town proposes to purchase and complete the LED retrofit by June 2021.

Leverett may use utilize the Franklin Regional Council of Governments (FRCOG), the regional planning agency for Franklin County, to conduct procurement for the project on behalf of the Town. Procurement will be done as a traditional public works construction project, and will follow M.G.L. c30 Section 39M for procurement of an installer.

This project will support Leverett's continued efforts to reduce municipal energy use by 20% from its baseline year of FY09. If the proposed project is implemented to convert the streetlights to LED, a 78% energy savings in streetlight energy use is estimated. This would result in an energy reduction of 8,786 kWh annually, or 30 MMBtu (see Attachments for energy savings estimate). The project will result in an estimated annual energy cost savings of \$1,222. Overall the project would reduce Leverett's annual municipal energy use by 0.6%.

Green Communities grant funds are needed because the Town of Leverett is unable to complete this project without assistance.

The project will require an electrical permit. A permit will be applied for through the Franklin County Cooperative Inspection Program. The chosen installation contractor will be responsible for applying for and obtaining the necessary permit and inspections.

The Town has a valid price from Eversource to purchase its streetlights (see Attachments).

If awarded funding, the Town will add summary information about the project to the “Town News” section of the Town’s website at <https://leverett.ma.us/>. Full project documents will be made available on the Energy Committee webpage at <https://leverett.ma.us/g/45/Energy-Committee>.

Proposed Budget

The budget for this project is broken into two pieces – the cost to purchase the streetlights from Eversource, and the cost to convert the streetlights to LED.

- *Purchase price:* The purchase price for the streetlights provided by Eversource (see Attachments) is \$6,565.68, as of March 2020.
- *LED conversion price:* The cost to convert the streetlights to LED is estimated to be \$9,462, according to the Streetlight Savings Calculator for Western MA (see Attachments).
- *Utility Incentives and other funding:* A utility incentive is estimated at \$2,197.
- *Green Communities funding request:* The Town requests Green Communities funds to cover the cost to purchase the lights plus the cost to convert the lights to LED after the utility incentives are applied. This amount is estimated to be \$13,831.

Applicant and Project Team

The Leverett Town Administrator will prepare quarterly reports and provide general project coordination and oversight. FRCOG may administer procurement for the project on behalf of the Town. Design and installation services will be procured to develop final specifications for LED conversion and to complete installation of the lights. The Town Administrator will coordinate project work with the chosen contractor and the Highway Department.

Additional Materials

- Number and wattage of existing streetlights:

The 33 units represent 31 standard cobra-style streetlights along public ways and 2 flood lights at the elementary school. Wattage is as follows (source: Eversource):

Existing Streetlight Inventory		
Type	Nominal Wattage	Quantity*
Roadway/Cobrahead		
HPS Rdw	70	27
HPS Rdw	100	3
HPS Rdw	150	1
Flood		
HPS Fld	250	2
		33

- Total streetlight electric consumption for FY19: 11,259 kWh
- Ownership and metering status: The Town has a valid price to purchase its streetlights from Eversource (see Attachments).
- Wattage, cost and technology of proposed replacement lights:

The lights will be replaced with LED technology. The cost for LED conversion is estimated to be \$9,462, before utility incentives, and includes materials, labor, and design costs. The new wattage of the proposed replacement lights is shown below (source: Eversource Western MA Streetlight Calculator):

Existing Type	Nominal Wattage	Quantity	Replacement LED Wattage
Roadway			
HPS Rdw	70	27	25
HPS Rdw	100	3	42
HPS Rdw	150	1	53
Flood			
HPS Fld	250	2	101

- LED streetlights are to be controls-ready (seven-pin). Additional information:
 - Product specifications for controls will be determined during the design phase of the project.

- There are savings associated with both steps of this project. When the Town purchases the streetlights, the savings are maintenance related because the Town will be on a different tariff and can get competitively bid maintenance services, instead of having Eversource include their own maintenance cost in the rate. This is estimated to save the town \$700 annually. Converting the streetlights will result in energy savings due to using efficient LEDs. There are also some small maintenance savings because the LEDs will need less maintenance. Converting to LED is estimated to save the town \$198 annually in maintenance costs.
- An email from Eversource is included in the Attachments.

Attachments

- Leverett_Eversource Email.pdf
- Leverett_Eversource_Streetlight Savings Calculator.xls
- Leverett_Sample Product Specification Sheets.pdf