



**REALTERM**  
ENERGY



Case Study:

## Town of York's LED Streetlight Upgrade

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*Increased Safety & Decreased Carbon Footprint*

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# Case Study: York's LED Streetlight Upgrade

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The Town of York is located at the Southern tip of the State of Maine in York County and is home to approximately 13,000 residents spread over 54 square miles along the Gulf of Maine.

## OVERVIEW

- RealTerm Energy was selected in August 2019 for a full turnkey LED conversion
- Services were provided to evaluate the acquisition costs from Central Maine Power (CMP)
- 778 fixtures were installed
- 67% reduction in energy consumption (kWh)
- 76% savings in operating costs
- Approximately 131 metric tons of greenhouse gas eliminated, equivalent to 28 cars removed from the road
- 20-year estimated project savings of \$2,500,853

## BENEFITS OF AN LED UPGRADE

- 60-80% savings in energy consumption
- Up to 80% maintenance reduction
- Improved visual acuity
- Reduced light pollution
- Reduced greenhouse gas emissions

## OPPORTUNITY

In 2019, the Town of York wanted to significantly reduce its energy consumption, maintenance costs, and the environmental impact associated with its network of streetlights. Once installed, the Town realized that LED streetlights could not only achieve substantial energy and cost savings but also improve its overall lighting quality and roadway safety for both vehicle and pedestrian traffic.

RealTerm Energy was contracted to manage the upgrade of 778 existing streetlights, composed of 769 cobra heads and 9 decorative fixtures.

The new LED fixtures will cut York's streetlight energy consumption by approximately 67%, as LEDs require significantly less electricity than the high-pressure sodium lights that were previously in place. The upgrade will also decrease annual streetlight maintenance costs by up to 80%, due to LED's solid-state technology (with no moving parts) which last up to five times longer than the Town's existing streetlights. The new LED lights also include a 10-year warranty.

By converting its streetlights to LED, the Town not only will reduce its greenhouse gas emissions by approximately 131 metric tons, but will reduce the harmful effects of light pollution, which is the main cause of glare, light trespass, and skyglow. The end result reduces the town of York's carbon footprint and improves the local environment.



## SOLUTION

RealTerm Energy’s design team performed photometric analyses for each cobra head and decorative fixture. The design plans utilized a 3000K color temperature throughout the Town, as it offers pedestrian comfort without compromising the safety and visual acuity required in higher classified roads and areas of high pedestrian activity. 3000K is a solid choice for residential area illumination, and for coastal towns that want to ensure Dark-Sky compliancy.

Additionally, it was determined that Acuity luminaires yielded the best balance of energy savings, cost efficiency, and long-term performance. Preference was given to fixtures that would maximize available incentives to the Town. It was calculated that after the upgrade, the Town’s annual electrical consumption would decrease by 67% and York would see a decrease of 76% in their annual operating costs.



RealTerm Energy’s custom dashboard provided the Town a graphic display of all work performed during the upgrade, as well as future scheduled work, yielding a significant improvement in the Town’s asset management capabilities.

With a proven installation protocol which allows for rapid deployment without any sacrifice in the quality of the installation, the conversion of the streetlights was completed a month ahead of schedule and was completed under budget by 6% thanks to RealTerm Energy’s rigorous and effective methods for managing costs.

## ADDITIONAL BENEFITS

The new streetlights have added a greater level of safety and security for the residents of the Town of York by increasing visual acuity while reducing energy consumption and their carbon footprint. This project is a classic win-win as going forward, the community will save over a hundred thousand dollars annually in reduced energy costs each year while providing environmentally friendly lighting.



York Design Legend

Point	Wattage
	23W
	28W
	41W
	51W
	68W
	81W
	152W



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*"We have been extremely happy with our communication with RealTerm Energy and their progress to date. They started this project in February when we didn't think we would start until mid-March at the earliest. This shows the effectiveness of RealTerm Energy's procurement process and coordination with their Electrical Contractor to get this scheduled".*

*Dean Lessard  
Director of Public Works  
Town of York, ME*

