

Township of Chatsworth

ONTARIO, CANADA



The Township of Chatsworth was formed in 2000 when the former Townships of Holland and Sullivan and the Village of Chatsworth amalgamated. Chatsworth, home to 6,437 residents, is situated in southwestern Ontario, Canada, in the centre of scenic Grey County, a short 2-hour drive from the Greater Toronto Area.



Township of Chatsworth, Population: 6,437

OVERVIEW

- + 220 LED streetlights installed
- + Energy and maintenance savings in excess of \$32,500 per year
- + 70% reduced energy use
- + 68% savings in energy costs
- + Approximately 11 metric tonnes of greenhouse gas eliminated equivalent to the carbon removed by 282 tree seedlings grown for the next ten years



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Benefits of an LED upgrade:

- + Typically achieving between 50%-70% savings in energy consumption
- + Up to 80% maintenance reduction
- + Improved visual acuity
- + Reduced light pollution
- + Reduced greenhouse gas emissions

“By our fifth year, our tax rate could drop by two thirds of a percentage point based on the \$32,500 annual savings.”

Will Moore
CAO - Clerk

OPPORTUNITY

Like many communities, The Township of Chatsworth was searching for energy-efficient infrastructure solutions that provided cost savings and improved its environmental footprint. Chatsworth's aging infrastructure and high maintenance costs were also factors in choosing to upgrade its streetlight system.

SOLUTION

The LED retrofit was a major project for this small township made possible through its membership in Ontario's Local Authority Services (LAS). Chatsworth was already benefitting from a number of LAS' Energy Services, such as the Electricity Procurement Program when it was presented with a new energy-saving opportunity through LAS' streetlight upgrade program.

Chatsworth's town council entrusted partners LAS and RealTerm Energy to assess its existing streetlight network, create an energy efficient and cost-effective street lighting design, and coordinate the purchase of the new LED lights from CREE Canada, one of the world's leading LED manufacturers. Working with LAS, RealTerm Energy and CREE, Chatsworth was able to take advantage of the expertise and buying power of this province-wide partnership to install a cost-effective solution to the problem of rising energy and maintenance costs.

“We have had a very positive experience with the LED street lighting program. In addition to the financial windfall experienced, light pollution has been significantly reduced and maintenance calls are virtually non-existent.”

Grace Naylor
Treasurer



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BENEFITS

Installation of Chatsworth's 220-light system was completed in October 2014 and since then, the Township has enjoyed multiple benefits.

Chatsworth opted to pay for the capital investment out of their reserves and so far has exceeded its projections for payback of the initial investment, enabling them to pay off the capital in less than 5 years with their hydro savings and maintenance cost reduction. "By our fifth year, our tax rate could drop by two thirds of a percentage point based on the \$32,500 annual savings," said Will Moore, CAO-Clerk.

The Township also benefited from a provincial incentive program, which was available to municipalities that completed their LED upgrades by December 2015. RealTerm Energy and LAS facilitated the IESO incentive that helped offset the capital cost.

"We have had a very positive experience with the LED street lighting program. In addition to the financial windfall experienced, light pollution has been significantly reduced and maintenance calls are virtually non-existent," added Grace Naylor, Treasurer.

Furthermore, often communities don't have the time, staffing or expertise to internally conduct this upgrade. The turnkey service offered by LAS, RealTerm Energy and CREE made it possible for Chatsworth to move forward with its LED retrofit.

Annual Hydro savings	\$ 28,000
Annual Maintenance savings	\$ 4,500

"I must commend LAS for the procurement process. A small municipality like ours does not have the staff to perform such a procurement exercise. The selection of Cree and RealTerm Energy was excellent, and offered nothing but professionalism."

Will Moore
CAO - Clerk

Current Status	Before Upgrade	After Upgrade	Savings
Total Number of Fixtures	220	220	---
Demand	51.9	15.5	70.2 %
Annual Electricity Consumption (kWh)	224,230 kWh	66,761 kWh	70.2 %
Annual Energy Cost	\$ 43,245	\$ 13,174	69.5 %
Annual Maintenance Cost	\$ 9,046	\$ 4,546	\$ 4,500
Total Annual Cost	\$ 52,291	\$ 17,720	\$ 34,570

*forecasted



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OUR SERVICES



GIS Data Collection



Investment
Grade Audit



Photometric Design



Incentive Application
& Paperwork



Installation
& Project Management



Recycling



Oversees
Billing Changes



Final Report
& Binder

The partnership between LAS, RealTerm Energy and CREE is leading the LED streetlight upgrades across Ontario communities in over 140 cities and towns including Niagara Falls, Georgina and Barrie.



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Local Authority Services (LAS) is a preferred provider of competitively priced and sustainable co-operative business services for Ontario municipalities and the broader public sector. Part of the AMO family, LAS helps its customers "save money, make money, and build capacity."

RealTerm Energy Corp., a RealTerm Global company, is redefining the municipal street lighting market with intelligent LED lighting systems and services that deliver unmatched energy and maintenance savings. We create and foster long-term partnerships with forward-thinking private, public and government market leaders to deliver innovative and cost-effective lighting solutions.

Cree Canada Corp. provides interior and exterior LED lighting solutions for commercial, industrial, architectural, parking, and street lighting applications. Our products feature technologies that have become revolutionary approaches to lighting and have set the standard for LED illumination. Cree luminaires provide improved illumination performance, consume less energy, and require less maintenance than traditional lighting solutions. A market leader, Cree has thousands of successful LED installations worldwide including tens of thousands of streetlights in Ontario, Canada.