



TOWNSHIP OF NORTH HURON

REPORT

Item No.

REPORT TO: Reeve Vincent and Members of Council
PREPARED BY: Jeff Molenhuis
DATE: 03/04/2017
SUBJECT: LED Streetlight Conversion Program - LAS/RealTerm Energy Proposal
ATTACHMENTS: Binding Letter of Engagement

RECOMMENDATION:

THAT the Council of the Township of North Huron hereby receive the report LED Streetlight Conversion Program – LAS/RealTerm Energy Proposal for information;

AND THAT Council approve the execution of a Letter of Engagement with LAS and their service partner RealTerm Energy for the audit, design, upgrade, and energy performance of LED streetlights as detailed in their proposal;

AND THAT Council approve the project funding from the Water and Sewer reserves for approximately \$530,000, with savings from the reduced energy costs of streetlights being allocated back to the Water and Sewer reserves for the full amount of borrowing;

AND THAT Council direct staff, following completion of the borrowing term, to continue streetlight revenues on trend with current rates and redirect the surplus into a Roads reserve.

EXECUTIVE SUMMARY

At the March 27th Budget meeting, Public Works presented the streetlight conversion project for consideration in 2017. In late 2015/early 2016, Staff directed LAS/RealTerm to reserve our place for eligibility in IESO incentive program for LED streetlight replacements. LAS is “Local Authority Services”, which is a wholly owned subsidiary company of the Association of Municipalities of Ontario. They partnered with RealTerm to provide a turn-key LED conversion solution for municipalities.

LAS/RealTerm provided the Township with a proposal for the turn-key solution, taking into consideration a two phased approach, including a detailed audit of our current streetlight inventory and a turn-key replacement plan for streetlights. Typically, the proposal requires a Letter of Intent to be signed by the Township with LAS/RealTerm in order for the IESO incentive to be applied for. In early 2016, LAS/RealTerm worked with Township staff to be make the application and reserve Township eligibility in the incentive program at that time, which was confirmed to be approximately \$70,000 in the proposal provided to the Township in March 2016.

The funding strategy for the proposal takes into consideration the funding opportunities proposed by RealTerm. It is recommended at this stage to proceed with our own funding sources.

DISCUSSION

In 2016, the Township received a proposal for a turn-key LED conversion solution for streetlights. The proposal included an invest grade audit (Phase 1) and a conversion plan (Phase 2). The proposal included administration to switch over information with the LDC's (Hydro One and Westario) for billing purposes. The estimate, at the time of the proposal, was approximately \$590,000, which does not include the IESO incentive estimated at \$70,000 in early 2016.

Staff worked with LAS/Realterm in 2015 and 2016 to ensure that the Township could still be eligible for the incentive program based on LAS/RealTerm's application.

The objective of this project is to realize energy savings through the use of LED lighting, which has reduced consumption. The Township's current consumption costs for the major centres (Wingham and Blyth) are around \$140,000 (570,000 kWh). The conversion program estimates a reduced consumption of approximately 65% (201,000 kWh), where the proposal estimates a conservative annual savings of \$70,000. This number would be further refined after the Phase 1 audit. The program would also reduce maintenance costs, with the current being around \$15,000 for the Township. These are estimated at 80% savings, or \$13,000. In total, annual savings are estimated at \$83,000. With a project cost of \$530,000, the payback period is approximately 6.5 years.

One of the risk elements inherit with a proposal like this, is that it is dependent on our asset inventory. We are currently working towards populating our inventory database for all major asset groups. Streetlights are in need of inventory work. There may be additional cost once the audit is complete as we may find the current estimate of fixture assets, which was provided to LAS/RealTerm by Township staff, is incorrect. As well, Phase 2 of the proposal includes a threshold percentage of re-wiring that may vary from fixture to fixture depending on the detailed inventory and audit.

To mitigate this risk, the proposal allows for Phase 1 to be a break-off point should the Township decide not to proceed with the conversion. The Township would owe a fee (~\$15,000) to the proposal provider for the inventory and audit work performed. Regardless of choosing to proceed or not, the information collected in Phase 1 would be very useful to build into our inventory database and include in our Asset Management practices.

Attached to this report is a binding Letter of Engagement that RealTerm requires in order to provide the investment grade audit of the Township streetlight inventory (Phase 1). The audit will include establishing the height and physical co-ordinates of each streetlight and details such as davit arm type, fixture type and wattage. This will enable RealTerm to create a photometric plan for the entire streetlight system. The photometric plan will dictate what LED fixture to use to replace each existing fixture to provide equal or improved lighting levels.

When Phase 1 is complete, a second contract will be required to detail the conversion plan to include the results of the photometric plan, including lighting design and unit selection.

With respect to the Procurement Policy, staff are recommending proceeding with the remainder of this proposal without RFP or RFT because the Township has already engaged LAS/RealTerm to complete the IESO incentive application. The process was started by LAS/RealTerm, and should we

engage another firm to complete the remaining work through the procurement process, we would need to re-apply for the incentive based on a newly proposed work plan. LAS/RealTerm confirmed that the IESO incentive/rebate has dropped since the application was submitted in early 2016.

Additionally, LAS/RealTerm have already undertaken a procurement process with CREE lighting for selection of the fixtures that will make up the replacement units. This was a competitive process that secured bulk access for LAS/RealTerm to low cost replacement units, which in turn gives the municipality access through this process.

FINANCIAL IMPACT

The financial aspects to this project are as follows:

- 1) Phase 1 – Audit (estimated \$15,000)
- 2) Phase 2 – Replacement (estimated \$585,000)
- 3) IESO Incentive (estimated \$70,000)
- 4) Total Capital Cost = \$530,000

Reduced energy consumption from the project is estimated to reduce costs of consumption by 65%, while maintenance from warranty and new units is estimated at 80%, equating to approximately \$83,000 annually. The payback period equates to 6.5 years.

It is recommended to use internal funding sources to allow procurement to proceed. Borrowing from a strong internal reserve is recommended considering the short term payback period, with repayment to that reserve (including interest). The water or wastewater reserve may be most appropriate to consider with totals of both reserves being \$5.335 million. The total borrowing would be around 10% of the reserve and would be paid back relatively quickly.

Following the payback and completion of the borrowing term, Council should consider continuing the pre-project cost-allocation to ratepayers, and reallocating the equivalent savings from reduced energy consumption into an annual Roads reserve to help build the reserve fund for Roads.

FUTURE CONSIDERATIONS

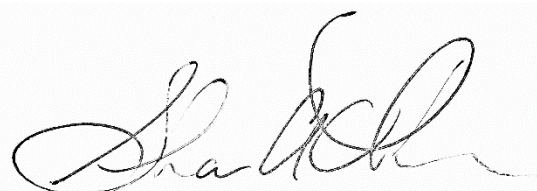
As noted, following the payback and completion of the borrowing term, Council should consider continuing the pre-project cost-allocation to ratepayers, and reallocating the equivalent savings from reduced energy consumption into an annual Roads reserve to help build a reserve fund.

RELATIONSHIP TO STRATEGIC PLAN

Goal 3 the Township is healthy and safe. Goal 4 the administration is fiscally responsible and strives for operational excellence.



Jeff Molenhuis, Director of Public Works



Sharon Chambers, CAO