

COMMUNICATION 130215

Received From: Dave Young, Director of Public Works
Addressed To: Committee of the Whole
Date: November 26, 2019
Topic: Streetlight System Rehabilitation and LED Conversion

SUMMARY

The Town is finally in a position to be able to begin rehabilitating/converting the Town's streetlight system in the older sections of Town to Light Emitting Diode (LED) through a phased approach. The total number of lights that are cobra head lights on a control wire system is approximately 600. Any new streetlights installed in the Town in new subdivisions since the mid 1990's have been constructed with an independent underground wiring system with no need for upgrades but will require LED conversion. It has only been the last several years that LED was adopted as the standard starting with the Jackson Ridge Subdivision. Staff is requesting that Council pass by-laws to authorize entering into contracts with both Hydro One and Ottawa River Power Corporation to complete the streetlight works.

BACKGROUND

The Town of Carleton Place's streetlight system is antiquated in that the lights in the older sections of Town are operated through a control wire system that incorporates relays and switches. Weather conditions can trigger large area outages due to contacts between the control wire and the live wires. In order to improve the Town's streetlight system, we need to move to a system of direct connection to the power for each streetlight.

In January of 2018 the Town entered into an agreement with Realterm Energy to undertake a rehabilitation of the Town's streetlight network and conversion of all municipal streetlights to LED. The terms of the agreement was a turnkey project whereby Realterm would develop a plan to undertake system rehabilitation, interact with Hydro One to develop the logistics of eliminating the existing control system and implement a new system of direct connection to the power grid, create specifications, and source materials, undertake all work and finally ensure Hydro billing is changed to reflect the LED conversion. Several months into the project key a member of the project team left the firm and after several attempts to acquire the technical expertise required, Realterm provided confirmation that they would not be able to proceed with the project due to lack of qualified staff and/or the ability to contract out these services.

COMMENT

After hearing back from Realterm that they could no longer work on the project, the Town sought out other partners to assist. After an extensive search, it was determined that the best approach would be a combination of staff resources, technical expertise and in-field services provided by Ottawa River Power Corporation, and consultant services to undertake a photometric analysis.

Ottawa River Power Corporation (ORPC) is an electrical utility that provides service to the communities of Almonte, Pembroke, Killaloe, and Beachburg. They provide electrical service delivery to an approximate population of 11,000, they employ well-qualified staff in order to provide this service and have undertaken streetlight conversion projects within their existing service delivery area. They responded positively when approached by Carleton Place staff about getting involved in our rehabilitation project, and their services have proven extremely valuable in getting to this point in the streetlight project.

To date, a plan to approach the streetlight conversion has been developed through a combination of support from Town staff, ORPC, and consultations with Hydro One. Staff has developed a database and mapping of existing lights and created submissions to Hydro One. These submissions outline a specific area to be addressed, and this area typically takes into account 13 to 25 lights to be switched over to direct connections. Hydro One reviews the Town's submission and develops a layout that outlines all works required, which party undertakes the work and the Town's costs related to Hydro One's work.

There has been seven (7) packages submitted to Hydro One by Town Staff and the first package has been returned. The package that has been received is for 19 lights and the area covered includes Pattie Dr., Preston St., and Joseph St. It is anticipated that additional packages will be released by Hydro One shortly.

This layout was also forwarded to ORPC for their review and the development of a costing for works not included in Hydro One's scope of work. They have provided a proposal where they would undertake the required fieldwork not covered under Hydro One's responsibilities.

FINANACIAL IMPLICATIONS

The Town had budgeted \$900,000 for the entire streetlight conversion project which will be carried forward into 2020. The costs provided for this first package of work include:

Hydro One	\$15,223.83
Ottawa River Power Corporation	\$21,370.00
Town's Net Share of HST	<u>\$ 644.05</u>
Total	\$37,237.88

With the upgrading to LED fixtures, the Town is projecting to save significantly on its electricity usage with the projected payback period being 6.4 years once all lights have been upgraded/converted.

STAFF RECOMMENDATION

THAT by-laws be passed to authorize entering into contracts with Ottawa River Power Corporation and Hydro One for the various phases of work relating to the rehabilitation of the Town's Streetlight Network and the conversion to LED streetlight fixtures.