Request for Recommendation

Finance and Administration Committee

Greater | Grand Sudbury
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Type of Decision									
Meeting Date	February 2, 2016				Report Date	January 25, 2016			
Decision Requested		Yes	X	No	Priority	X	High		Low
	Direction Only				Type of Meeting	X	Open		Closed

Report Title

Streetlight replacement and Conversion to LED

Budget Impact/Policy Implication

X This report has been reviewed by the Finance Division and the funding source has been identified.

Recommendation

FOR INFORMATION ONLY

	Background Attached		Recommendation Continued

Recommended by the Department	Recommended by the C.A.O.
Tony Cecutti General Manager of Infrastructure Services	Kevin Fowke Interim Chief Administrative Officer

Report Prepared By	Division Review
Shawn Turner Manager of Financial and Support Services	David Shelsted Director of Roads and Transportation Services

Background

A report on streetlights, including types, associated costs and lifespan was requested at the January 19th Finance and Administration Committee meeting.

The City of Greater Sudbury (City) owns all streetlights within the City and electricity is provided through Greater Sudbury Utilities (GSU) or Hydro One Networks Inc. (HONI), depending on the area serviced. GSU also provides technical support, advice, and is contracted to maintain the system including the streetlight inventory database, and the repairs and maintenance of the streetlights.

There are approximately 14,700 streetlights within the City of Greater Sudbury. Approximately 60% are in the GSU service area and the remaining 40% are in the HONI service area. Of the current inventory, approximately 20% are LED.

In 2012, Council approved a streetlight retrofit project that resulted in the conversion of 1,315 streetlights from high pressure sodium (HPS) to light emitting diode (LED). Advantages of the project were lower replacement costs, a reduction in green house gas emission, reduced light pollution and energy savings. In 2014, the conversion of the remaining HPS lamps was tendered, but not awarded.

Costs of Streetlight

Table 1 below provides costs regarding some of the LED replacements that City has undertaken and/or has received pricing on.

TABLE 1
Streetlight LED Replacement Costs

	Gross Cost	# of Lights	Gross Per Light	Incentive	Net Cost per Light
2012 Replacement Program	1,050,006	1,319	796	(245)	551
2014 RFP (1)	6,000,000	11,127	526	(167) (2)	359
LED replacement under maintenance contract	N/A	N/A	1,100	N/A	800 (3)

(1) Represents the cost of replacement only received on ISD 15-22(not awarded).

(2) Average incentive (varies based on wattage).

(3) The net cost is the difference between an HPS replacement and an LED replacement under the City's maintenance contract.

Replacement of HPS lamps are performed under the City's maintenance contract with GSU and these HPS lamp replacements are included in the cost of the maintenance contract. This is a fixed price contract that includes maintaining the streetlight inventory database, repairs and maintenance of the streetlights in addition to lamp replacement. For 2016, this contract has a budget of approximately $500,000.

Current Replacement Methodology

The City currently replaces HPS streetlights with LED under the following circumstances:

- A rebuild of a street is taking place under the City's Capital Budget and requires poles to be moved and/or replaced.
- A section of the streetlight network is deemed to be unsafe or requires substantial upgrades.
- When additional lighting is required and a new streetlight is added to the network.

Due to the higher cost of converting HPS lamps to LED on an individual basis, HPS streetlights that burn out are replaced with HPS lamps. Manufactures suggest that an HPS lamp will last 5 years on average. An LED is expected to last 15-20 years.