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Item. No. 3

**Halifax Regional Council
September 18, 2007**

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: 
Mike Labrecque, P.Eng., Director, Transportation and Public Works

DATE: August 17, 2007

SUBJECT: Street Light Maintenance

INFORMATION REPORT

ORIGIN

Item 11.1.1 from the May 29, 2007 meeting of Halifax Regional Council.

BACKGROUND

Tender 07-030 (Item 11.1.1) was approved at the Council meeting of May 29, 2007. Subsequently, there were a number of questions raised by Councillors and this report will address those questions.

DISCUSSION

1. Councillor Hendsbee - Why is there a different maintenance standard for the lights inside and outside the core area?

All the street lights in the former City of Halifax, as well as lights found on aluminum poles and on decorative poles in Bedford, and Dartmouth are maintained by HRM. Other lights are maintained either by NSPI. Currently, HRM does not maintain any lights outside the core area. For calls received by HRM, for our own lights, repairs are carried out within three business days. HRM also relamps all lights every five years.

NSPI maintains all light fixtures outside the former City of Halifax. They have no maintenance program, or relamping program for these fixtures. However, NSPI carries out maintenance functions on each fixture they are called out to repair. This would include cleaning of the reflector and globe and check the photocell. NSPI states they target a seven day turn around for making repairs to their reported complaints. In addition, NSPI indicated that they run an HRM weekly report and HRM is notified if any requests will not meet the target. They indicate that to date this year, they have met the target 89.9% of the time.

2. Councillor Streach - Many of the lights being installed by Nova Scotia Power are burning out soon after installation. Is HRM receiving second quality products? Why is money being spent when there are people on staff who deal with this matter?

NSPI indicated that the problem was with a supply of photocells on the light fixtures that were defective, not the bulbs. While it looked like the bulbs were burning out, in fact, the photocells were improperly turning them off. The photocells are being replaced as they are being reported. NSPI has switched supplier and is investigating the cause of the defective photocells.

Because these light fixtures belong to NSPI, they are maintained by NSPI. Payment for the service is reflected in the rates paid by HRM (unmetered rate). For NSPI owned fixtures, HRM pays a flat rate which includes a power/energy component, a maintenance component and a capital replacement component. Each light type and size has a different rate. But, HRM does not get billed additionally for street lighting maintenance, regardless of the number of times they are required to return to a specific fixture. For HRM owned fixtures, HRM is billed only for power/energy consumption, but again at a flat monthly rate.

3. How many lights are owned by HRM and how many belong to Nova Scotia Power?

In the Halifax Regional Municipality, there are approximately 39,500 lights. HRM owns approximately 13,200 of these lights which are in the former city of Halifax, ornamentals in Bedford and downtown Dartmouth and other scattered aluminum poles throughout the core area of HRM. The other approximate 26,300 lights are owned and maintained by Nova Scotia Power.

4. Councillor McCluskey - How much work had to be done by the contractor and how many lights did they have to replace?

The scope of work for the contractors consists of the maintenance of all street lighting devices under the jurisdiction of HRM as well as any new devices installed over the term of the contract. The work includes but is not necessarily limited to the following:

- a) Maintenance of street lighting systems for Halifax Regional Municipality including routine maintenance work.
- b) Installation and repair of pole bases, enclosure bases, enclosure pads, hand holes, pull boxes, ducts, raceways, and electrical services.
- c) Removal and/or replacement of poles, light fixtures, davits, arms, wire, photo cells, shorting caps, and lamp replacement.
- d) Emergency maintenance work.
- e) other work as required.

Over the 2006/2007 budget year, a total of \$444,591.00 was spent for work contracted out.

Other than the regular replacing of bulbs when burned out, all lights maintained by HRM are on a relamping program which replaces each bulb every five years. For 2006 there were 2000 bulbs relamped and an additional 715 repaired.

The manufacturer's burn rate on our bulbs is approximately 24,000 hours or approximately five to six years.

5. Councillor Younger - request for information respecting maintenance costs for the decorative lights.

Typically, decorative lighting is more expensive than standard lighting found on aluminum poles or on wooden poles. An aluminum pole including the light fixture is approximately \$1,000 per location plus labour. A decorative pole costs approximately \$2,000 per location plus labour. Decorative poles must be spaced closer together (50 foot spacing) to maintain proper light levels, compared to standard lighting which are 90 to 120 foot spacing. Decorative fixtures are more expensive to maintain and tend to be more subject to vandalism than normal aluminum poles.

UPDATE - NSPI/HRM DISCUSSIONS

There have been numerous issues identified over the years with respect to street lighting in general. A series of mediated meetings were set up with NSPI to move forward on the areas of concern.

At the conclusion of mediated discussions between NSPI and HRM, which concluded December 16, 2005, five issues were identified as opportunities/issues where HRM and NS Power could work cooperatively. The following summarizes progress made to date on each of the issues.

1. **Unmetered Rate(Updating the Cost of Service study and creation of an enabling mechanism/rate to promote energy conservation and efficiency for street lights)**

A new unmetered rate structure has been developed and approved. It includes updated prices for lighting fixtures, as well as a new rate for LED signal lights.

The LED signal light conversion results in 86% annual electrical savings per intersection . The average annual electrical charges for a typical intersection would be reduced from \$1,100 to approximately \$150 per location.

2. **Inventory/GIS Mapping of Street Lights in HRM.**

This item is of interest to both NSP and HRM, but had not been expedited by either side due to other priorities and limited funds. Discussions have started and options are being considered to move this project forward.

3. **Maintenance Practices (Identify best practices and service level expectations).**

The Union of Nova Scotia Municipalities (UNSM) is collaborating with HRM Conserve NS, and Nova Scotia Power on a study that will focus on street lighting standards in use across Nova Scotia, efficient street lighting best practices, industry standards and technologies in other jurisdictions, and identification of key issues that may justify, or impede the adoption of efficient street lighting best practices in Nova Scotia. This study has been awarded and is scheduled to be completed by November 15, 2007.

4. **Street lighting rationalization and Standards (standards for new developments and rationalization of existing street lights).**

These issues will be addressed through the UNSM Street Lighting Study identified above.

5. **Energy Efficiency Pilot Project**

It is hoped that a pilot project may flow from the recommendations of the UNSM Street Lighting Study identified above.

BUDGET IMPLICATIONS

There are no budget implications.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

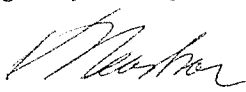
This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ALTERNATIVES

There are no recommended alternatives.

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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