

**Implementation of LED Street Light Task Force
November 23, 2011.
Canada Room**

<u>Attendance:</u> Regional Councillor Gord Landon Councillor. Howard Shore Councillor Alex Chiu <u>Regrets:</u> None	<u>Staff</u> Gary Adamkowski, Director, Asset Management Brenda Librecz, Commissioner of Community & Fire Services Alan Laver, Manager, Utilities and Contracts Kumar Prathapan, Acting Senior Manager of Capital ROW & Environmental Assets Rachel Prudhomme, Manager of Special Projects Raj Raman, Senior Manager of Financial Reporting & Purchasing Graham Seaman, Manager of Climate Change & Energy Jonathon Tate, Senior Business Analyst, Community & Fire Services
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The second meeting of LED Street Lighting Task Force convened at 2:07 p.m. with Regional Councillor Gord Landon in the Chair.

1. PRESENTATION ON LED STREET LIGHTING TASKFORCE PHASE 1 WORKS

Mr. Gary Adamkowski, Director of Asset Management, introduced Mr. Bill Smelser, the Consultant retained by the Taskforce from Laurilliam Lighting Technologies Ltd.

Mr. Smelser provided a summary presentation on the Phase 1 Works completed to date. The presentation included a review of the current state of LED Technology; the current pilot programs; the development of performance standards for LED; the survey of the market for compliant products; the performance life-cycle analysis & development of business case; and the overall findings and next steps.

DISCUSSION

A Member questioned the size of solar energy panels required for a solar energy alternative. The Consultant explained that a two panel solar collector would be required. The solar panels are approximately two by three feet, use a converter to store energy to batteries attached to the pole. It was noted that the batteries contain lead and need to be replaced approximately every 5 years. The Town would have to investigate a disposal strategy for these batteries if it were to implement a solar energy alternative. Staff advised that solar panels may be more logical for new developments where infrastructure does not already exist as opposed to retrofitting where existing electrical connection and wiring is already in place.

There was a question regarding the effectiveness of the LED screw in type bulbs for streetlights. The Consultant advised that most screw in type LED bulbs would not create enough light for a residential street, whereas it could create enough light for a light at the end of a driveway.

It was reported that to date the suppliers of decorative type streetlight luminaires have not been able to provide photometric files for evaluation of options to replace existing HPS decorative streetlights. It is anticipated that this data will be available in the next six to twelve months. Further analysis and a business case on LED decorative streetlights could be done when information is available.

There was a question regarding how LED streetlights would be spaced in new developments. The Consultant suggested that streetlights in new developments may be spaced further apart dependant on the photometrics of the LED fixture proposed. The information submitted for cobrahead LED fixtures was evaluated using existing standard pole spacings.

There was a discussion on dimming options. The Consultant advised that the dimming option does the following: shuts the lights off in the day; dims the light for a specified timeframe (e.g. from midnight to 5:00 a.m. in the morning); and allows for streetlights to be monitored remotely, enabling staff to know when and where a fixture has failed. The dimming option costs approximately \$120 to \$400 additional cost per light fixture. Staff advised that residential streetlights are already minimum level standards and can't be dimmed per existing codes. There may be an opportunity to dim medium/high density areas during off peak hours to the minimum residential levels.

A member questioned if there are systems that can control house lights. The Consultant advised there are systems that can control house lights, but these systems operate very differently than a system monitoring streetlights.

Staff advised that Bill Smelser, Consultant, Laurilliam Lighting Technologies Ltd, contract is complete and that the Town would need to extend his contract to continue his work in Phase 2. It was noted that there are funds available to extend the contract. The Taskforce was asked whether it would like staff to extend the contract with Laurilliam Lighting Technologies Ltd. The Taskforce confirmed that the contract should be extended for Phase 2 works.

Staff advised that financing options for LED streetlights will be explored with Finance. It was noted that Powerstream did not appear to have any issues with applying reduced loads available from LED luminaires to their fixed rate billing subject to confirmation of new loads from the Consultant/suppliers.

It was requested that representatives from PowerStream and the Region of York be invited to the next meeting to explore opportunities for possible partnerships.

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The next steps included; investigating funding options, finalizing a technical standards, preparing a request for proposal, field testing the supplier's proposals for LED streetlights; and obtaining Council's approval to implement.

Additional works should include further technical and cost analysis for a dimming option to include with implementation recommendations.

Moved by Councillor Alex Chiu

Seconded by Regional Councillor Gord Landon

That the Task Force receive the Phase 1 presentation; and,

That the Task Force approve proceedings to Phase II as follows:

- Develop financing/ partnership/funding options
- Finalize technical requirements
- Develop RFPQ and RFP documents for Cobra-head conversion

That that a report be brought forward to the General Committee to recommend financing options and recommendations for implementation.

CARRIED.

ADJOURNMENT

The Implementation of LED Street Light Task Force adjourned at 3:01 p.m.