

What We Learned

Update on the LED Streetlight Pilot Project



April 2012

Background

In late 2010, in partnership with the Energy Solutions Centre, Yukon Energy installed six Light Emitting Diode (LED) streetlights in Dawson City. We wanted to find out how they would perform in extreme winter conditions compared to the traditional street lights.

LED streetlights have been used in many cities around the world including Alaska and British Columbia. We were told they required at least 50 percent less energy than regular streetlights and have a longer life span. We wanted to find out for ourselves if that was true.

We gathered several month's worth of data, have analyzed the information, and are now in a position to share with you what we learned, and our next steps.



Key Results

- The annual energy used by the traditional High Pressure Sodium (HPS) streetlights is 416 kilowatt hours per light. The energy used by the LED lights is 150 kilowatt hours per light, a savings of 64 percent.
- The LED streetlights are estimated to last 38 years, compared with four years for the HPS lightbulbs.
- A public opinion survey conducted in Dawson City in February 2011 indicated that of the 76 responses, 87 percent like the LED lights and feel they provide the correct amount of light, and 89 percent support switching to LED streetlights.
- There were concerns by some of those surveyed that LEDs installed in downtown Dawson would need to be in compliance with local heritage management by-laws, plans and guidelines. Yukon Energy will work with the Heritage Advisory Committee on this issue.



In partnership with



What Happens Now

- In principle, Yukon Energy supports moving forward with the use of LED streetlights on a longer-term basis. However before we do that, we need to gather more information. This year, we will do a follow-up pilot to choose the specific brand/type of LED light that is best in terms of price and quality (the Dawson City pilot project tested six of a single type of LED light). The locations for the follow-up pilot are still to be determined.
- Yukon Energy will also continue to research advances and pricing changes in energy efficient street lighting.
- We will seek formal permission from the Heritage Advisory Committee in Dawson prior to any wholesale replacement of HPS lights to ensure that there isn't a conflict with heritage by-laws or guidelines.
- Before any wholesale replacement of functional HPS streetlights, Yukon Energy will look for opportunities to reuse them in a different location. If reuse is not possible, we will explore options for recycling.

Want to Know More?

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You can also find us on Facebook and Twitter.

Copies of the report can be viewed on our website.



(Above) Yukon Energy's Sheldon Sollosy with one of the LED streetlights used during our Dawson City pilot project. (Below) LED streetlight in -40 degree weather. Photos: www.archbould.com

