

Partners for Climate Protection

Greenhouse Gas Reduction Initiative of the Month

Annapolis Royal LED streetlight project



Municipal Profile

Population: 583

PCP Member since: 2003

Background

The Town of Annapolis Royal's first experience with LED (light emitting diode) lighting was in 2005 when it took part in Nova Scotia Power's (NSP) LED Christmas light exchange program. The town then entered into a cost-sharing project with the provincial government to convert its traffic lights to LEDs in 2006.

Implementation and Approach

Building on the success of its previous lighting projects, Annapolis Royal was interested in replacing its high-pressure sodium and mercury vapour streetlights (*pictured at right*) with LEDs. Jackie Longmire, now with the Annapolis Royal Police Department, had been involved with the two earlier LED projects as the town's executive assistant, and was asked to investigate possible funding sources.

"I had kept in touch with my contact for the LED traffic light conversion and he would send me information on new types of LED lighting being used in other countries. We considered many units and the funding available but nothing seemed to work out," she recalls.

In 2008, LED Roadway Lighting, a Nova Scotia LED manufacturer, invited Ms. Longmire to inspect two LED streetlights that had been installed outside their manufacturing plant in Amherst.

Less than a year later, Annapolis Royal switched all 139 of its high-pressure sodium and mercury vapour streetlights to LEDs as part of a larger project to install LED lighting in 11 other Nova Scotia municipalities. LED Roadway Lighting applied for and received slightly less than half the \$1.9 million in project costs through a grant by the Environmental Technology Program (ETP) of ecoNovaScotia (the portion attributed to this project was about \$200,000 in equipment and consulting costs). Conserve Nova Scotia, NSP and LED Roadway Lighting covered the remaining funding. The entire 11-municipality initiative was considered a pilot project so the cost of equipment and installation was covered by the funding and required no financial investment from Annapolis Royal.

Once LED Roadway secured the funding from the ETP, NSP completed the installation of all 139 LED streetlights (*pictured at left*) in approximately five weeks.



Photos courtesy of the Town of Annapolis Royal

Results

The town expects to save between \$13,000 and \$14,000 per year on the electricity costs associated with street lighting, a decrease of more than 60 per cent of what they had been paying, and cut GHG emissions by 47 tonnes.

The lights and housing are mercury free and have been designed to comply with provincial recycling programs. They are certified by the International Dark-Sky Association to eliminate light pollution and have a 20-year life span. "There is no need for annual maintenance or replacement as there is with the high-pressure sodium and mercury vapour lights," says Ms. Longmire.

Lessons Learned

Ms. Longmire says that the town likely would have switched to LED lighting earlier had funding been available. "The town has limited funds for this type of project," she says. But persistence paid off and 100 per cent of the funding was covered through the ETP. "I never gave up on the idea," she says, adding that if one waits long enough for something, "the technology will be developed that makes it possible."

She advises other municipalities to do the same. "Follow up on every lead and always make your interests known to those who control such projects and the funding," she says. "We started small with an interest in LED Christmas lighting and now all of our traffic lights and street lights have been switched over."

Future Direction

The town has developed an energy conservation plan with the Clean Annapolis River Project and hopes that it will become a model other towns and villages within the Annapolis watershed will adopt.

"The town prides itself on taking advantage of any energy-conservation initiatives, and the lighting project is just another example," says Ms. Longmire. "It has been my experience that each energy-efficient project leads to another that is bigger and better than the last."

Further Information

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Download a copy of the Annapolis Royal Energy Conservation Pilot Project's most recent update at:
www.annapolisriver.ca/downloads/Annapolis_Royal_Energy_Conservation_Pilot_Project_2008.pdf.

The Partners for Climate Protection (PCP) program is a network of Canadian municipal governments that have committed to reducing greenhouse gases and acting on climate change. PCP is the Canadian component of ICLEI's Cities for Climate Protection (CCP) network, which involves more than 900 communities worldwide. PCP is a partnership between the Federation of Canadian Municipalities (FCM) and ICLEI – Local Governments for Sustainability. PCP receives financial support from FCM's Green Municipal Fund.