Media Release
Lighting System Upgrade Reduces Energy Costs by Half

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Energy costs—especially for hydro—are on the rise. Farm businesses, often significant users of energy in their care of animals and crops, can be hard hit by the increasing expense. This is leaving many to search for ways to reduce their use and keep energy costs under control.

Christina Rolston of Dunbordin Farms, a horse farm near Queensville in the Newmarket area, knew the 20-year-old lighting system in her barn and riding arena needed replacing. When she first started investigating options, she was considering putting mercury vapour lights into her facility. But some consultations with Steve Lange from Torbram Electric put her onto an energy-efficient alternative and she couldn’t be happier with the outcome.

“Since the lights were installed last fall I’ve definitely noticed a reduction in my electricity costs,” she says. “And I have improved light quality and more light output so I’m very pleased with the upgrade.”

The original lighting system in her arena and barn consisted of T12 high output lights at 250 watts per fixture. These older-style fluorescent bulbs have since been discontinued by government mandate in Canada and in the United States. In Rolston’s arena, they’ve been replaced with high output T5 lights that use 123 watts per fixture. And in her barn, Rolston now has high efficiency T8 fluorescent lights, going from 132 watt to 72 watt fixtures.

“Between the two different high efficiency bulbs we installed in the barn and the arena, the combined energy savings for Dunbordin Farms are approximately 50 per cent,” says Lange. “We’ve essentially been able to chop their energy consumption (for lighting) in half.”

Rolston now also has the ability to use each row of lights individually so she’s no longer forced to turn on all the lights in the entire facility when it’s only really needed in one area, resulting in additional energy savings.

The reason two different types of lights were installed in the arena and the barn is related to warmth. The arena is often open and has no heating in the winter, so the temperature in there can quickly drop below zero. The T5 lights are designed to power up rapidly even in cold weather, whereas the T8s are more ideally suited to heated livestock facilities, like the horse barn at Dunbordin Farms.

To help with the cost of her much-needed lighting retrofit, Rolston was able to turn to the Greenbelt Green Energy Program for Agriculture (GGEPA) program and the Canada-Ontario Farm Stewardship Program (COFSP) for some cost share funding.
GGEPA is a program funded by the Friends of the Greenbelt Foundation and administered by the Ontario Soil and Crop Improvement Association (OSCIA) that provides cost-share funding for farmers to implement best management practices focused on energy conservation and green energy generation. Both EFP and COFSP are funded through Growing Forward, supported by Agriculture and Agri-Food Canada and the Ontario Ministry of Agriculture, Food and Rural Affairs under the Best Practices suite. The programs, administered by the Ontario Federation of Agriculture on behalf of the Ontario Farm Environmental Coalition, are delivered to farmers by the OSCIA.

In order to qualify for GGEPA funding, eligible farm businesses located within the Greenbelt must have a peer-reviewed third edition Canada-Ontario Environmental Farm Plan (EFP), be a legal farm entity with a unique Farm Business Registration Number (FBRN) or equivalent and have selected at least one best management practice (BMP) from the GGEPA list.

Four BMP categories from COFSP that dealt with energy conservation and green energy generation were eligible for cost-share funding under GGEPA. There has been a good response by agricultural producers throughout the Greenbelt to the enhanced cost-share opportunities presented through GGEPA and the entire budget for the one-year program has been allocated to approximately 55 on-farm projects.

“I’m so pleased with this project and the funding from the program was very helpful,” Rolston says, adding that she is now looking into solar panels and other energy efficient improvements as well. “I wish I could convince other horse farm owners to do the same thing as it’s not an expensive fixture and the energy savings are worth it.”

Rolston has owned Dunbordin Farms for more than 20 years, providing riding lessons and boarding in the 15-stall facility. She also breeds her own horses.

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