



## ONTARIO SOIL AND CROP IMPROVEMENT ASSOCIATION

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### Media Release

## Greenbelt farmers realizing significant energy savings, survey shows

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*For immediate release*

*Prepared by Lilian Schaer for the Ontario Soil and Crop Improvement Association*

Guelph ON – A new study shows that energy saving initiatives by farmers in Ontario’s Greenbelt are conserving enough energy to power 1,788 homes annually. And on-farm solar panel installations in the Greenbelt are generating enough electricity for an additional 170 homes, says the report completed by engineering consulting firm Agviro, Inc.

“Our study showed some really positive results related to energy conservation and energy generation on farms in the Greenbelt,” says Katie Gibb, a project manager with Agviro who worked on the report. “Through conservation measures and generation projects, Greenbelt farmers are able to offset enough power sufficient for almost 2,000 Ontario homes every year.”

Study authors analysed 48 on-farm projects in the Greenbelt that received financial support through the Greenbelt Green Energy Program for Agriculture (GGEPA) to calculate energy conservation levels, as well as assess how much energy was being generated from renewable resources.

Technologies installed under approved claims to the program have resulted in a total annual realized savings of 135,912 cubic metres in natural gas and 1,402,873 kilowatt hours in electricity. A total of 136,389 kWh per year are being generated by 13 on-farm solar photovoltaic systems.

On some farms, additional technologies have been recommended as a result of energy audits, but have not yet been installed. Once implemented, an additional 2,269 cu. m in natural gas and 38,189 kWh in electricity are expected to be saved.

In terms of dollar values, Agviro estimates these projects have resulted in over \$40,000 of natural gas cost savings to farmers, based on an average cost of \$0.30 per cubic metre. Most farms in the Greenbelt have better access to natural gas as an energy source than farms outside of this region, says Gibb, which is why energy savings were reported for natural gas.

Gibb further estimates that Greenbelt farmers are realizing just over \$105,000 in annual electricity savings, based on the Ontario Energy Board’s Regulated Price Plan (RPP) second tier rate of \$0.075 per kilowatt hour.

Although all implemented technologies resulted in energy savings or generation, nine projects that focused on free cooling in vegetable storages in the Holland Marsh were particularly successful. These systems bring cool, outside air into the storage to offset or replace the artificially cooled air that is produced by refrigeration units. Maintaining a consistently cool temperature inside these facilities helps keep produce fresh and extend its shelf life.

“These nine projects collectively saved about one million kilowatt hours simply by adopting free cooling systems, which was a surprise to us. Those savings are quite significant,” Gibb says. “You still use energy to bring the air in from the outside, but you don’t have to cool it as much or at all, which is what results in really good savings.”

Other technologies and practices implemented on-farm through GGEPA included modification of a cooling compressor, use of a geo-thermal system, installation of greenhouse heat-and-shade systems, modification or replacement of a space heater, milk plate coolers, heat-loss reduction through installation of insulation and doors, retrofitting lighting installations, installation of solar hydronic water heating and installation of solar panel energy generation systems, as well as conducting farm facility energy audits.

Gibb advises farmers who are considering energy improvements to their operations to take a conservation-first approach, as it can often present the lowest cost opportunity for savings. “Conservation efforts can often be the low hanging fruit, which many sectors, not just agriculture, often overlook,” says Gibb, explaining that lighting is one such example. “Once an operator is managing how and when they use electricity, then they should look at alternative systems such as biodigesters or solar hydronic heating systems. By reducing the amount of energy that is used, you may also be able to reduce the size and cost of an alternative system.”

GGEPA provided cost-share funding for farmers to implement best management practices that involve energy conservation and green energy generation. The program, delivered by the Ontario Soil and Crop Improvement Association, was funded by the Friends of the Greenbelt Foundation. The Greenbelt was created in 2005 and spans 1.8 million acres across Southern Ontario and encompasses some 7,000 farms.

“This program has helped Greenbelt farmers reduce their energy use and bills,” says Burkhard Mausberg, President of the Friends of the Greenbelt Foundation. “Even more, some Greenbelt farmers have started to generate clean power and are making money doing so under Ontario’s Green Energy Act. This additional income helps farmers stay on the farm.”

GGEPA was available in 2009 and 2010 to farmers in the Greenbelt who had projects that were approved as part of the Canada-Ontario Farm Stewardship Program (COFSP), associated with the Canada-Ontario Environmental Farm Plan (EFP). Both EFP and COFSP are funded through Growing Forward, supported by Agriculture and Agri-Food Canada (AAFC) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) 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 Ontario Soil and Crop Improvement Association.

The Ontario Soil and Crop Improvement Association is a not-for-profit farm organization dedicated to working with farmers to communicate and facilitate responsible, economic management of soil, water, air and crops through development and communication of innovative farming practices. More information on the GGEPA energy generation and conservation verification study is available by contacting the OSCIA at 1-800-265-9751.