

Promising Practices



Real Estate Developers

Towcon Holdings may double its investment with solar project

Real estate developer, Towcon Holdings, partnered with Aecon (Canada's largest public construction and infrastructure company), and Canadian Solar to build Ontario's first 250 kilowatt (kW) rooftop solar photovoltaic (PV) system. Canadian Solar Inc. is, "a leading, vertically integrated provider of solar cells, solar module custom-designed solar application products, and turnkey solutions for the residential, commercial and solar farm markets."¹

Based on the success of a pilot, 230 panel project, Dave Walden (President of Towcon Holdings and owner of the PV system) ordered the construction of the \$1.7 million project.²

The PV system consists of 1,326 Canadian Solar panels, covers about 75,000 square feet, and has a total rated capacity of 305 kW. The project was completed on February 10, 2010 and started feeding electricity into the grid on August 9, 2010. This progressive renewable energy project is located at 1139 Industrial Rd. in Cambridge, Ontario, off Hespeler Rd. between Langs Dr. and Bishop St. North.³

After the system was built, Walden signed a 20-year contract with the Ontario Power Authority (OPA). The system is estimated to be able to generate between \$180,000 and \$220,000 in revenue for Walden each year. If he receives \$180,000 each year for 20 years, Walden can expect to earn a return worth more than double his initial investment.

Challenges were raised during the installation due to the commercial building being mixed-use. Since a portion of the building operates as a Greyhound Bus Terminal, access and public safety were a concern. The PV system was installed on two different roof types—ballasted EPDM membrane and Build Up Roof (BUR). Plywood and Styrofoam pads provided protection for the roof. Cable feeds from the inverter to the main switchgear required penetration through the roof.⁴



Canadian Solar president Milfred Hammerbacher describes the technology.

Major hardware required for this project included: ballasted and self-ballasted Steel Tree Structures racking system; Canadian Solar CS6P photovoltaic panels; Eaton combiner boxes; and a Satcon Inverter. The panels were roof-mounted on a structural steel sub-frame.

The partnership between Towcon Holdings, Canadian Solar and Aecon increased the amount of solar power produced within Ontario.

Walden now plans to put a 100 kW system on another building he owns in Guelph, Ontario. On May 26, 2011, he was offered a contract by the OPA to do so. After verifying that the local utility company has the infrastructure and available capacity on the grid to connect the project, Walden will proceed with his second major solar installation.

Since 2002, Canadian Solar has designed, manufactured, and delivered solar products and systems for both on-grid and off-grid customers in over 30 countries, including: Germany, Spain, Italy, France, Japan, Korea, the Czech Republic, the United States and Canada.

This Promising Practice was brought to you by Ecology Ottawa on behalf of the **Community Energy Network of Eastern Ontario** *Encouraging the uptake of renewable energy and energy efficiency initiatives*

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References:

¹ Canadian Solar Inc. "Canadian Solar Completes Its First 250 kW PV Rooftop System in Ontario with Towcon Holdings and Aecon." Press release. 10 February 2010. <http://phx.corporate-ir.net/phoenix.zhtml?c=196781&p=irol-newsArticle&ID=1385997>. Accessed March 2011.

² Aecon. "TOWCON HOLDINGS INC. – 250 kW ROOFTOP PHOTOVOLTAIC SYSTEM." www.aecon.com/files/PDF/Buildings/Towcon_Holdings.pdf. Accessed March 25, 2011.

³ Ibid.

⁴ Ibid.

