

Here comes the **SUN**

By **Kim Carlton**

How installing solar panels on your roof can make economic cents

There's nothing like the shock of receiving your hydro bill every month, watching your energy costs increase and feeling powerless to deal with it. Guess what? There is an alternative, you can save money and help the environment too! You can use your rooftop to make Green energy, which you can sell back into the grid to offset your energy costs.

It is a little-known fact that, in some provinces, homeowners can produce solar electricity using their own rooftops for profit. According to a recent survey sponsored by TD Canada Trust, less than five per cent of Canadians know that solar panels can provide a revenue stream.

"I think it's a bit of a hidden gem. There's an overall lack of information. Not a lot of people are aware they can generate solar power and sell it to the grid for a profit," says Domenic Oppedisano of Pinnacle Environment, a Vaughan, Ont.-based company that offers home efficiency and comfort solutions.

Solar panels for the production of energy have existed for more than 40 years. However, this method of creating energy has not been easy for the consumer to access for very long. The Ontario Government passed the Green Energy Act

(GEA) on May 14, 2009. As part of the GEA initiatives, the Ontario Power Authority (OPA) launched a feed-in-tariff (FIT) program in October 2009. This program is based on a model that originated in Germany, to great success. The Ontario government has a long-term goal of having 100,000 solar energy systems installed on rooftops in the province.

HOW SOLAR PANELS WORK

Micro FIT systems are the type that most homeowners will take advantage of. These systems generate relatively small amounts of renewable electricity of 10 kW or less. In Ontario, the homeowner would enter into a 20-year contract with a guaranteed rate with the OPA in order to get paid for the electricity that their solar panels produce. The energy would be sold back into the grid for the first 20 years, after which it may be possible to simply generate your own energy. Some other provinces are working on similar programs, such as Vancouver.

A set of 42 rooftop panels could produce up to 10 kW, which would sell for 80.2 cents per kW/h. Current electricity charges range from 6.5-9.5 cents per kW/h. So the homeowner would typically be selling more electricity than they are using.

COSTS

So how much does it cost to get started producing solar energy? Oppedisano gives the example of a small system of 12 panels, at 17 sq. ft. a panel, for which you would need 200 sq. ft. on the roof. This would require an investment of \$17,000. This system could create an annual revenue of \$3,372, and over the course of the 20-year contract, a revenue of \$45,845.

Although the upfront cost (which ranges from \$17,000 to \$70,000, according to Pinnacle), of installing a solar panel system may be a deterrent to some consumers, there are financing options from banks including TD Canada Trust.

“The gap between awareness and action is mainly due to concerns about cost,” says Karen Clarke-Whistler, chief environment officer, TD. “But Canadians have shown that those concerns can be overcome. A decade ago, hybrid vehicles were a novelty, but today there are a growing number on our roads. We believe the future for rooftop solar panels is just as bright.”

According to Pinnacle, the average payback period would be six to seven years for most solar panels, with a return investment of 11 per cent. “We call it the Green GIC or Green mutual fund. There are very few investments on the market right now that will give you a 10 to 12 per cent return (over 20 years),” says Oppedisano.

The panels require little maintenance and typically last for more than 25 years. In cases of older homes and flat roofs, Pinnacle works with an engineer to ensure that the panels are suitable for the particular building. They also have a technical support line and a 20-year warranty on the panels, however if there are unrelated problems with the roof, the homeowner may have to pay to reinstall the panels. In addition, there are HST rebates in Ontario and other tax deductions that people can claim on the solar panels.

MORE KEY BENEFITS

Other than the financial rewards that you can reap, what are some of the other benefits of using solar power?

First of all, think about the environmental effect that you are having. You are generating clean electricity, with no greenhouse gas emissions, no nuclear waste and your system is quiet and safe.

And you are helping to support the local economy. Regulation stipulates that solar panels used for the FIT program are created in Ontario, creating local jobs.

“These systems are quite safe,” says Oppedisano, “as there are several inspections to make sure that the panels are installed properly. Your homeowners’ insurance company must be informed of the system, and they may request to inspect it.”

Although the program is more popular in rural areas, it will work in urban ones as well. “You just need a good south-facing roof,” concludes Oppedisano.

A recent survey by TD Canada Trust shows that Canadians are not completely aware that generating electricity using solar panels is possible for the everyday Canadian homeowner, and that they have financing options if they are not able to pay for the renovations up-front.

Less than five per cent of Canadians know that in some provinces, solar panels can provide a new revenue stream.

91 % of Canadians know that solar power is a way to reduce their home’s environmental impact.

One in three homeowners have considered installing solar panels, however 76 per cent of them say expense is what is holding them back.

40 % of homeowners said that they would install solar panels if financing options were available to help with upfront costs.

