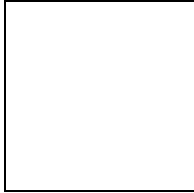


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Laundromat Needs Create Thriving Solar Thermal Business



From modest beginnings, as the owner of a laundromat in Toronto, Alex Winch has turned Mondial Energy Inc. into a business concentrating on solar thermal technology for hot water systems in large buildings.

Winch, a chartered financial analyst who has a degree in engineering physics from Queen's University bought the laundromat in 2002 and turned that 65-year-old business into Mondial after he installed eight solar panels to heat water for washing machines and other energy requirements in the building.

The Beach Solar Laundromat became a business success and a showcase for the kind of solar thermal technology in which Mondial specializes.

"My revenues have grown five-and-a-half fold," Winch told Nickle's Energy Group. "I have people driving across town to use it. It's a commercial business that just happens to use solar energy, rather than being green for the sake of being green."

Schools conduct tours of the laundromat and other groups go there just to look at the solar thermal power in action.

"It has become a tangible tool to educate people about renewable energy," he said.

The solar panels provide about 16,000 kilowatt hours a year of power.

"At first it provided about 30% of my energy, but that's down to 15% because I've made significant investments in energy efficiency, such as buying top-load washing machines," Winch said.

While he still takes a personal interest in the laundromat, Winch took the concept of providing solar thermal to building owners on a long-term contract basis.

"We work on a utility model, offering solar thermal to generate heat to the building's hot water system," he said. "There's no grid tie-in and all the heat that is generated is used by the building."

Winch explained that Mondial uses "flat panel collectors to generate thermal heat for water, rather than using solar photovoltaic (PV) to generate energy for the whole building."

Aside from the simplicity of the model, using solar panels to heat water is inherently more efficient than using solar PV, said Winch.

"Using flat plate collectors is up to 70 to 75% efficient," he said. "Solar PV is between seven to 18% efficient."

Mondial uses an anti-freeze solution which is pumped through the panels. That solution, heated by the solar panels, travels to storage tanks and the heat is transferred through an exchanger.

In 2006, Mondial signed its first contract with the developer and owner of a 25-unit multi-residential senior's housing project in Toronto. It installed 60 panels on that complex.

Mondial works with a company in California that provides an on-line technology that allows it to monitor the efficiency of the panels on an ongoing basis.

That initial contract for Mondial led to another before the company even built the next 56-panel project for the same owner.

In September, WoodGreen Community Services, a social housing developer in Toronto, agreed to install a 108-panel system for a new 179-unit project. That was followed in October by a major contract for a 92-panel rooftop system on the atrium at Toronto's Hospital for Sick Children. The hospital estimates the solar system from Mondial could offset 750,000 pounds of steam previously used for its hot water system.

Mondial's two biggest projects were announced in mid-October.

The City of Toronto signed a 20-year deal to have Mondial provide solar heat to offset fossil fuels at 15 municipal sites, ranging from community centres to shelters and seniors' residences.

Mondial followed that project announcement with another involving Hot Water Products of Milwaukee, Wisconsin, which had been selected as one of two thermal energy providers to supply solar thermal energy services to facilities in the state. The companies will provide the service to the state's 26 prisons.

"It's a perfect place for our technology," Winch said of that Wisconsin contract. "In a prison, the warden can shift hot water use and tell prisoners to only use the laundry on sunny days. You can get some very high solar numbers."

Depending on the climate, it can take up to 25% of a building's energy consumption to heat the water it uses, so reducing energy consumption for that purpose can significantly reduce energy costs over time, Mondial explained.

"We compete with natural gas and we can back what (customers) are paying today going forward for 10 years," said Winch. "We offer a long-term power purchase agreement at a particular price into the future. It's a long-term hedge (against gas prices)."

Added to this are the environmental benefits of the technology.

"The typical greenhouse gas (GHG) reductions are 600 to 700 kilograms of CO₂ (carbon dioxide) per panel, per year," Mondial said.

It's best potential markets are where natural gas prices are high or there is a particular concern about GHG emissions, such as Toronto, he said.

Winch said Mondial will use its new Wisconsin contract as a beachhead to move further into the United States market. It will also expand elsewhere in Canada, especially to British Columbia, where there are government incentives to support solar thermal.

Plans for Mondial also include continuing to expand in Ontario, where the company may turn its attention to the food processing industry.

In explaining that Ontario has the second largest food processing industry in North America, "hot water is essential to that industry, which uses a lot of it," Winch said.

Mondial can also take advantage of the provincial government's Renewable Energy Standard Offer Program (RESOP), which offers subsidies of 42 cents per kilowatt-hour for solar installations. Similar incentives are in place in many U.S. states.

"Right now with natural gas prices where they are (at about 50% of the levels earlier this year) and with power rates where they are in Ontario (some of the lowest rates in North America), we need that support," Winch said.

Mondial's investment in the solar panel systems can be considerable. For instance, it spent over \$200,000 on large projects, such as the Hospital for Sick Children installation and the multi-unit housing projects.

However, the contracts represent potentially millions of dollars in revenue for Mondial going forward, he said. For instance, Winch said Toronto could be spending \$3 million to \$4 million on power it buys from the company.

Winch said Mondial is targeting "multi-site contracts," such as hotel chains or seniors complexes, with hundreds and even thousands of sites.

"We're working now with a lodge owner with 250 sites and with two hotel chains that each have 4,000 sites," Winch said.

Mondial has six full-time employees, including himself. But that staff includes executives with professional engineering backgrounds and senior financial positions with large firms.

Winch said the credit crisis should not harm prospects for Mondial, since its utility model provides "predictable rates of return," that investors are seeking now.

"Our rate of return is predictable, much like an annuity," he said.

The company's initial capital came from 60 investors scattered throughout the world.

Winch said Mondial plans to form a limited partnership, which would attract more capital.

He said the company, which will have six installations in place by the end of this year, should be able to grow that to between 15 and 50 by the end of 2009, with "exponential growth" thereafter.

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