Cleanfield keeps it green for home, school and businesses

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Cleaner, greener energy could be coming to a school, business or home near you.

Ancaster's Cleanfield Energy Corporation is installing at least seven new wind turbines at Hamilton area school sites this year, with the potential for many more. The company unveiled its newest model last week, the Cleanfield V 3.5 modular vertical-axis wind turbine.

Cleanfield CEO Tony Verrelli during the company unveiling.

Through a pilot project, the Hamilton Wentworth District School Board will install one of the new turbines at Lawfield School on the east mountain this fall.

Ward 4 trustee Ray Mullholland said the board will study the turbine's role in reducing the school's overall energy consumption.

"Once we do that I'm quite positive that we will expand," Mr. Mullholland said.

While he acknowledged
the new turbine will only
generate a small portion of the school's energy needs, Mr. Mullholland noted the Hamilton board is the first in Ontario to embrace wind turbine technology.

Mohawk College will host an additional six wind turbines at its mountain and Stoney Creek campuses.

"Mohawk College is excited to be working with Cleanfield Energy to install two turbines at our Stoney Creek Skilled Trades and Apprenticeship Research, Resources and Training Institute, and in the future, additional turbines at our Fennell Campus," said Cheryl Jensen, vice president technology, apprenticeship and corporate training.

Ms. Jensen said the college is also planning a certification program to train qualified wind turbine installers.

Modified from the original 2.5 Kw model, the 3.5 Kw turbine was developed through five years of research and development between the Mechanical Engineering Department at McMaster University, Ontario Centres of Excellence and Cleanfield Energy.

Cleanfield CEO Tony Verrelli said the collaboration resulted in a quieter, more efficient technology.

"The testing and evaluation conducted by McMaster University led to improvements that resulted in the commercialized 3.5Kw unit," Mr. Verrelli said.

Dr. Samir Ziada, professor and chair of mechanical engineering at McMaster, said the collaboration was a win-win scenario for all parties. Cleanfield provided about $600,000 for the research and development project.

Optimistic expectations

"The results and benefits have exceeded my most optimistic expectations," he said.

McMaster is home to two Cleanfield wind turbines, the second of which was installed at the McMaster Innovation Centre in May.

A wind turbine also provides power at Cleanfield's Cormorant Road head office. The city operates a Cleanfield turbine at The Hamilton Incubator of Technology in Clappison's Corners.

Hamilton Mayor Fred Eisenberger said wind energy is a perfect example of clean, renewable energy.

"This is an emerging technology that is finally getting to the point of economic viability," Mr. Eisenberger said.

The Cleanfield V 3.5 has a 30-year lifespan and costs about $15,000. The company claims the turbine can supply 74 per cent of the annual energy needs for an average North American home.

Consumers are eligible for tax incentives, including a provincial sales tax rebate, when they buy the unit. The company says the turbine typically pays for itself after seven years.

Cleanfield is donating one per cent of sales to the Catholic Youth Organization, Diocese of Hamilton and the Athsma Society of Canada.