

## FRIENDS &amp; NEIGHBOURS

# The turbulence of creating wind power

*A Colborne couples five-year fight to get off the grid through the use of windmills*

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**T**HEY TOWER 80 FEET ABOVE the fields of Robert and Heather Watt's Colborne property sitting 250 feet apart with a wing span of 32 feet.

"This is just something I've always been interested in, just the fact that you can generate electricity using the process of wind power. It's interesting," said Mr. Watt who also runs a heating and air conditioning business. "Hydro bills on this place are fairly large so we are hoping that when I do eventually get them up and running we will be able to cut it down."

The problem is that they sit, unmoving and unproductive of their purpose, something the two windmills that should be generating the property's power have done for the greater part of the last five years. The idea seemed simple but has resulted in years of turbulence with hydro companies leaving the fans still not in operation.

The Watts own Nature's Way Greenhouses and Stained Glass Works, a large warehouse type building on Purdy Road. With electricity bills costing in the neighbourhood of \$700 a month and \$10,000 a winter, the fascination in wind power and the ability to reduce that cost seemed like a smart idea.

"I found the windmills on a website from a wind farm in California. They were taking them down and being paid by the federal government there to dismantle them, refurbish them, sell them off and replace them with bigger ones," said Mr. Watt.

But that was over five years ago.

"The first two years hydro basically spent saying 'no, they are not going to allow me to put it up, period' it was never going to happen," said Mr. Watt. "It was all politics because it was right at the time when Ontario Hydro was switching over to Hydro One and when they decided to do the switch over they cancelled all private generation connections that weren't in place all ready."

Already investing in the windmills, Mr. Watt didn't

plan to give up.

"We paid all that money to truck them up here and get them installed, it was a fair investment. So I just kept on arguing with them until they finally figured I wouldn't go away and then they finally did come out with it," he said.

It was the provincial government and their announcement that they supported green power and alternate energy that proved the difference.

"Basically it came down to it being legislated by the government to allow it," said Mr. Watt. "Since, there are starting to be a few more large wind farms created."

The process then faced another stop in the goal to go off the grid. Set ups to power sources aided small wind systems for connection as well as larger commercial wind farms, but nothing specific to Mr. Watt's equipment which fell somewhere in between.

His windmills being constructed in the 1980s by a company in the United States that is no longer in existence presented a unique design that was only produced by that particular business.

Using single-phase power made the fans too hard to control. The Watts were finding that they would have to start the fans manually and then shut them down each day automatically, but then they were unable to restart them in an automatic fashion.

"It meant you had to be there to start them up all the time and to keep an eye on them because they weren't easy to control the speed of," said Mr. Watt. "If they were running on phase-three power they would do that all automatically."

The end result currently has Mr. Watt installing a phase-three power service, running wiring from the road. Three-phase electric power is a common method of electric power transmission. A system mainly used to power motors and many other devices, the perk of a three-phase system lies in using less conductor material to transmit electric power than equivalent single-phase or two-phase sources.

When working, the two



Robert Watt stands with one of his two windmills he purchased to take his business off the grid. Five years later they are still not operating.

windmills can generate up to 60 kilowatts an hour, the Watt's facilities only needing 25 kilowatts an hour at most. The excess would then be sold back onto the grid at eight cents a kilowatt, turning an expensive bill into monthly profit.

Despite being weeks away from having the twin propellers working, Mr. Watt doesn't believe the technology is affordable for the average person just yet.

"If you're looking in today's market to hook up one windmill in a system

like I have here, it will cost you about \$75,000," said Mr. Watt. "That's with new equipment because there are very few of these old systems left that aren't in use."

Buying his two at \$3,000 including transport prices is something he considers him-

self lucky to have, even after the constant headaches he has endeavored.

Nature's Way Greenhouses and Stained Glass Works is a stop on the Rural Ramble tour, August 18 and 19. The Watts will host windmill energy discussions.