



New Brunswick's First Net Metered Home

In 2006, Louise Estabrooks of Sackville, New Brunswick started researching wind power to see if she could use it to reduce her power bill. Mrs. Estabrooks already had a solar domestic hot water system and solar space heating installed at her home, which significantly reduced her energy use.

After noticing the high winds at her home Mrs. Estabrooks decided to experiment with a wind turbine. She contacted the same New Brunswick-based renewable energy company who had installed her solar equipment. Over the next few months, Mrs. Estabrooks, her installer and NB Power worked together to set up the first net metered home in New Brunswick.

Deciding to Net Meter

Mrs. Estabrooks explored the option of storing energy in batteries, but after some consultation, she found that this was expensive, maintenance-intensive, and less environmentally friendly than net metering. With net metering, if her turbine produces surplus electricity, it is automatically sent back to NB Power's electrical grid and used to offset her monthly electricity consumption. With net metering, she is always connected to a more reliable energy source if her turbine is not operating or unable to generate enough electricity to meet her needs.



Mrs. Estabrooks consulted with NB Power on the necessary procedure to connect the turbine to the electrical grid. An NB Power representative explained the net metering application process to Mrs. Estabrooks and sent the necessary forms to her installer. After the paperwork was complete and evaluated by NB Power for safety and possible technical issues, the proposed generation unit was approved for net metering.

Installing the Turbine

In most cases, wind speeds are monitored for up to a year to help determine what type of turbine to install, however, Mrs. Estabrook's renewable energy installer agreed that her home was in an ideal location for a wind turbine when he noticed that the trees were flagging (all blown to one side or have branches only on one side) throughout the area. Flagging is a good indicator of consistent wind speeds. Based on these observations they decided to install a 1.8 KW wind turbine with a built in inverter.



Énergie NB Power

In December 2006, the wind turbine was ordered and it arrived in late January 2007. In early February with help from local contractors, they poured the cement foundation. By late March, they had erected a 45-foot tower with the wind turbine installed.

Technology, Safety and Challenges

Prior to the installation of the turbine, the first challenge for her installer was to price the work. This was a difficult task because up to this time, very few wind turbines had been installed in New Brunswick. They knew that they would have to engineer the foundation and tower themselves, which can be costly. Initially, Mrs. Estabrooks was given an estimate of \$12,000. However, at the end of the project, the price was closer to \$14,000.

All electrical equipment must be approved by a certification agency recognized by the New Brunswick Department of Public Safety Technical Inspection Services (TIS). Although the inverter already came with the required certification, the turbine also required certification. This was an extra step in the process but necessary in order to connect to the electrical grid or to net meter. If the equipment is not certified, it could pose a danger to the customer and public. Within a couple of months, Mrs. Estabrooks' wind power system was certified and prepared to be installed.

Unfortunately, following installation, the turbine did not work, but this turned out to be a minor manufacturer defect. After a few phone calls to the manufacturer, the problem was corrected and the turbine was put into operation.

Customer's Experience

Mrs. Estabrooks says that since her wind turbine was installed she has only seen it stop moving two times during the early morning, which is when winds are generally at their lowest. She says that she is pleased with the affect that the equipment has had on her recent power bills.

"Part of the reason I did this is out of curiosity," she said. "I am pleased with the amount of electricity I'm able to generate, but net metering is not for everyone. It is an investment that not everyone can afford and you have to give it some serious consideration before moving forward."

Successful Completion

As thrilled as Mrs. Estabrooks was to see her power bill so low, she knows that it will be a very long time before she sees any payback from her wind turbine because of the initial cost to purchase and install the system. She is still very pleased with the results and hopes to save even more in the future.

Advice and Responsibility

Making your home energy efficient is the first step in reducing monthly power bills and should always be considered before installing renewable energy. It is important to note that Mrs. Estabrooks' home is modern and energy efficient.

For More Information

Contact us at 1-800-663-6272 to learn more about net metering and energy conservation. We are happy to help our customers learn about this renewable energy option and we will provide you with up to date information to help you make the best decisions possible.