

eCards

Research Topic Wolfe Island – Green Realities

Wolfe Island – Green Realities

Environmental activists and other concerned citizens cheer for cleaner energy solutions. Politicians promise many benefits, and large and small businesses pursue the economic possibilities. In practice, however, the transition to green energy solutions can be complex. What steps are taken to make the dream of green energy a reality? How are different stakeholders involved? What about average citizens?

This Green Realities case study presents the story of the establishment of a large wind farm on Wolfe Island, Ontario in 2009. Wolfe Island, which is the largest of the Thousand Islands, is about 125 km². At the eastern end of Lake Ontario, just offshore of Kingston, Wolfe Island is connected to the mainland with a short ferry service.

The island population of 1400 is made up mostly of farmers and people escaping the hustle and bustle of city life. In the summer, the population triples with cottagers and tourists. The island offers golf courses and cycling routes, birdwatching and fishing, Big Sandy Bay and an annual corn maze. Wolfe Island is an important bird migratory area, and Big Sandy Bay has been identified as an environmentally sensitive area.

In the last few years, the island also became home to a substantial wind farm installation. The Wolfe Island project is one of the largest in Canada, in terms of

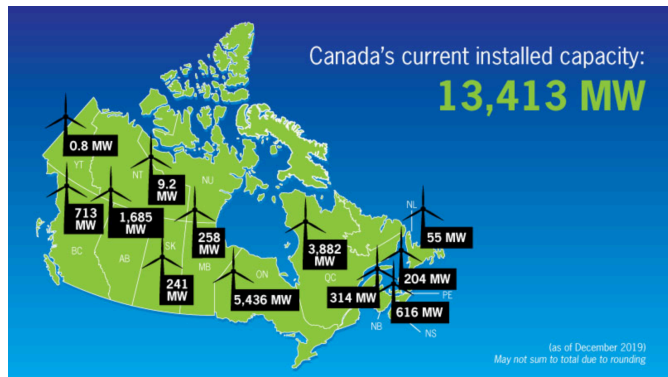
power generated, with 86 towers each measuring 80 metres in height. The Wolfe Island project represented a large step forward in renewable energy solutions. It is also the story of one community's transformation by more than 80 giant structures.

Going Green

During your lifetime, the world has begun to experience a major shift in its use of energy. Although we still live in the age of fossil fuels, we are witnessing a transition to renewable energy. For many years, renewable energy meant small-scale installations, often in places where other sources of power were not available. Wind power meant an individual turbine powering an individual home or farm. Today, however, many countries are building large-scale green energy projects. Huge wind farms of more than fifty tall turbines now power entire towns. In 2019, Canada had 13,413 MW of installed wind energy capacity.

Active environmental citizenship has propelled much of the shift to green power. Some active citizens are modern-day pioneers who live off the grid in renewable energy houses. Others remain on the grid, but make a difference wherever they can by making green choices in their day-to-day lives. Active citizens also make up the organizations that push governments to say no to coal and nuclear power and to offer incentives to individuals and businesses that use green energy.

Many conditions support the current cultural shift toward renewable energy. Renewable energy solutions, such as wind power, are much healthier for people and the environment. Green energy also makes good economic sense because it generates jobs for Canadians and profits for investors.



Source: Canadian Wind Energy Association (CanWEA), December 2019.

Planning Wolfe Island

Wind farms get built much like other big construction projects. A company that wants to build a wind farm must meet a series of pre-conditions to get the project off the ground. A complex approval process follows, then a construction period which is usually disruptive for residents, and finally, an adjustment period as communities get used to the change.

Most wind farms, like the one on Wolfe Island, are built by energy companies that want to add wind power to their other electricity-generating capacities, such as coal or hydroelectric power plants.

Companies add wind to the mix for a number of reasons:

- to make money from a renewable resource
- to appeal to the public and strengthen the company's corporate image by taking advantage of the trend toward cleaner energy and sustainable development
- to take advantage of incentives from the federal government and from provincial governments that encourage companies to build energy capacity that pollutes less

The parent company that built the Wolfe Island wind

farm is TransAlta, a large energy company, based in Calgary, that operates 70 power plants in Canada and around the world. TransAlta is Canada's largest producer of wind energy with sites in Alberta, Ontario, Quebec, and New Brunswick. Across Canada, the company also generates power from coal, natural gas, and hydro:

- coal = 3,311 MW
- natural gas = 1,122 MW
- hydro = 936 MW
- wind = 1,419 MW

To begin, TransAlta searched for a site that was sufficiently windy. It conducted specific studies to ensure that the topography and the wind conditions were right for a large number of turbines. Wolfe Island proved to be a good location because it is relatively flat and because the westerly winds blow strong across the open waters of Lake Ontario and into the St. Lawrence River.

Seeking Approval

After identifying Wolfe Island, TransAlta applied to the government for permission to build. The approval process involved all three levels of government. A project of this size requires more than 25 approval applications, including environmental assessments at the federal and provincial levels. The project needed the same municipal building permits required for any construction job. It also needed permission from the Ministry of the Environment to run transmission lines that would carry electricity away from the turbines.

A proposed wind farm can also require an archaeological survey from the Ministry of Culture or approval from Transport Canada of lighting plans that protect birds and aircraft. Because wind generation is so environmentally clean, the only by-product approval that TransAlta needed was permission for the maximum noise levels of the turbines.

Another key requirement during the approval process was a consultation with the local community — the residents of Wolfe Island. TransAlta began holding community meetings in the spring of 2008. It

set up a Liaison Group that met regularly during construction. TransAlta also sent out monthly newsletters with community updates. A number of residents felt that TransAlta did not consult with them enough. Some questioned whether the meetings actually made any difference, or whether TransAlta had already decided how it would proceed regardless of what the community had to say.

Impacting Communities

Large-scale wind farms have a large-scale impact on communities. What made the Wolfe Island project such a hot topic was the large number of turbines to be installed on one small island. Such projects bring a number of advantages and disadvantages:

Advantages:

- People want to support clean energy.
- People like the shift to renewable energy sources.
- Companies pay landowners well to have turbines located on their property.
- The community gains new tax revenues.
- Wind power is much better for local ecosystems than some of the alternatives.
- Wind farms generate large amounts of clean power.
- Municipalities often receive an initial subsidy and royalties for having the project located in their area.
- Companies make profits from a natural resource (wind) with a fairly small environmental footprint instead of from a non-renewable source with a much larger footprint.

Disadvantages:

- Although we all want energy to power our lives, very few people want to see that energy produced in their backyard.
- Communities are not always consulted as much as they would like before such projects begin.
- Companies do not have to act on what residents want. Projects are disruptive during the construction phase.
- Wind farms change the landscape of a region and are ugly to some people. Turbines can be disruptive to birds and bats if not carefully

situated.

- Some people fear negative side effects such as noise as well as environmental and health effects.

In the case of Wolfe Island, active citizenship made companies and governments respond to concerns. It shifted the balance to include fewer negatives and more positives for local residents.

Taking a Stand

As you might expect from such a large-scale project, the wind installation provoked a lot of reactions, both on and off the island. Within months, a farming area with relatively few buildings — none higher than about three stories — had more than 80 giant towers!

To get a sense of some residents' reactions at the time, consider this excerpt from an article in a Kingston newspaper in 2009:

Brian and Janice Scovill's comfortable two-storey home sits in the heart of the farmland where one of Canada's largest wind-power plants is under construction.

Most of the project's 86 turbines are located within three kilometres of their property. One turbine is about 450 metres away from their back door, which is closer than it is to the house of the farmer on whose land the turbine is located. Unlike the farmer, however, the Scovills receive no compensation... They support the wind project and they see the economic benefits for the island and the environment, but they wish they'd been involved in the process in a more meaningful way. "If you're going to build it in my backyard, come and talk to me in a frank, open way," Brian Scovill said. "I talked to [officials] at public meetings, but never did anyone from the company come and knock on my door."

The many reactions to the proposed wind project on Wolfe Island can be divided into three general positions:

1. Support for the project and the installation
2. Support for the project with reservations about the installation
3. Opposition to the project.

Each of these positions was expressed by individuals as well as organizations. The individuals ranged from a woman who actively helped the construction crews by delivering them food and drinks, to a man who filed a lawsuit against TransAlta for alleged health effects. The organizations ranged from small groups made up of a few neighbours to people who joined provincial, national, or international associations that support or oppose wind power. The wind farm on Wolfe Island is an excellent example of how active citizenship works on a local level.

1. Support for the project and the installation

Some residents strongly supported wind power in general and the installation of the turbines on Wolfe Island in particular. They felt that the economic and environmental benefits that they would gain from the project far outweighed the disruption during the construction process. These supporters included individual landowners who were offered a generous annual fee to have the turbines located on their property as well as local businesses that profited from the construction. This position was also held by people who see the need for cleaner energy in Ontario and consider wind power better than the alternatives. They prefer wind power to coal-fired plants staying open longer than initially promised, for example and prefer wind power to the expansion of nuclear power in Ontario.

2. Support for the project, reservations about the installation

Others, like the Scovill family in the excerpt above, supported wind power overall but had real reservations about how the project was implemented. Some residents wanted TransAlta to be more accountable for the side effects of construction. They worried that they were getting too much of a sales pitch for wind power without a

thorough discussion of any health or environmental impact. Some wanted a moratorium (a halt) on the construction until a full study of the health effects could be carried out. Others objected to the size of the installation and wanted to see the project reduced by 15 turbines, especially in the northwest section of the island.

Sarah Harmer, a well-known Canadian musician, was one of a number of environmentalists who expressed support but with reservations. Like others, she wanted to see the project downsized:

“Government experts and additional experts have said the density is too high in the northwest section... It’s really putting provincially significant wetlands...at risk... We want to expose this great opportunity here to do wind [energy] right and to show what looks like a hypocrisy of what the standards are and what’s being pushed along by the province... There’s been a real injury to public process here... We don’t want to negate all the positive aspects of wind energy by nuking provincially significant wetlands.”

Nature Canada, a prominent environmental group, generally supported the wind turbines but worried about the effects of the Wolfe Island location on birds and bats. A scientific study conducted between July and December of 2009 found that 602 birds and 1,270 bats were killed by the turbines. As reported in the Globe and Mail:

“The monitoring reveals shockingly high numbers of fatalities of both birds and bats,” said Ted Cheskey, manager of bird conservation programs at Nature Canada. He said the figures underline what his organization has been arguing all along, that “there should not be wind turbines put in important bird areas or migratory corridors.” Mr. Cheskey said Wolfe Island is an internationally recognized “important bird area,” or IBA, for raptors — birds of prey such as owls and hawks that hunt for small mammals to eat. The numbers of those birds killed is worrying, he said, as is the mortality of swallows, which are in decline across Ontario.

3. Opposition to the project

Residents who opposed the project felt that the benefits of wind power were being oversold and that its impact was being minimized. They saw wind power as much less effective and much more dangerous than what they were being told. Some felt that the real winner in such situations is not communities or the environment, but the corporation, in this case, TransAlta.

Citizens spoke out about the noise of the turbines and expressed concerns about the health effects of living so close to the machines. These concerns were dismissed by the companies involved. They have also been refuted by scientists who have studied the issue. The opposition pointed out that although day-time noise from the turbines may be similar to noise levels in other areas, some jurisdictions in Europe have set lower permitted noise levels for nighttime and for areas (not unlike Wolfe Island) that are very quiet.

Residents were supported by international organizations such as National Wind Watch that oppose large-scale wind projects. Two organizations were prominent in the fight against the Wolfe Island project. Wind Concerns Ontario describes itself as a coalition of 57 citizen groups from across the province “promoting awareness of the true impacts of industrial wind power facilities across Ontario.” Their website includes sample newspaper advertisements and posters and offers general tips for organizing a lobbying effort against wind power.

The other organization, Wolfe Island Residents for the Environment (WIRE), was more moderate in its approach. With members from a wide range of backgrounds, they set out their goals as follows:

- to protect the beautiful Island communities of Simcoe and Wolfe Islands;
- to ensure that all environmental assessments of the cumulative effects of the Wolfe Island wind turbine project are conducted and published;
- to continue to publish relevant information regarding governmental and non-governmental actions, regulations and policy changes;
- to inform the public regarding opportunities for

involvement;

- to lobby all levels of government regarding issues, concerns and impacts of the proposed turbines on Wolfe Island residents and their environment.

The key issue among opponents was clear: the size and number of turbines. The impact of so many large wind turbines on a small rural island is difficult to measure. For some residents who had grown to love the landscape as it was, the addition of 86 turbines was a most unwelcome sight.

Active Citizenship in Action

What residents with very different positions on the wind farm shared was a commitment to participate as active citizens. They used the strategies of active citizenship to get their points across and to attempt to make what they considered to be a positive change. This is really what democracy in Canada is all about, regular people using their voices as individuals and in groups to stand up and speak out on the issues that matter to them.

Strategy	Examples from Wolfe Island
Speaking out	<ul style="list-style-type: none"> • voicing your opinion to your neighbours and others • attending public meetings organized by TransAlta and stating your point of view • writing letters to the editor in local newspapers
Lobbying	<ul style="list-style-type: none"> • trying to convince local politicians to support your point of view • trying to push the provincial government to change some of the regulations for wind farms • organizing and signing petitions to support your point of view
Outreach	<ul style="list-style-type: none"> • publishing newsletters • putting up lawn signs • campaigning door-to-door
Using new media	<ul style="list-style-type: none"> • writing blog posts • creating websites
Involvement in elections	<ul style="list-style-type: none"> • trying to make wind farm an election issue • working for a candidate who shares your views • becoming a candidate in local municipal elections
Using the legal system	<ul style="list-style-type: none"> • trying to get injunctions against the company to stop or alter the construction • launching a personal lawsuit for alleged damages

Beyond Wolfe Island

The wind farm on Wolfe Island is part of a much bigger picture in terms of provincial policy. Other wind farm projects are being planned for Ontario, and a whole series of other green energy projects are also gaining momentum across the province, such as solar panels on school roofs, investment in green energy companies located in Ontario, and feed-in tariffs for households that invest in green energy.

The Ontario Green Energy Act of May 2009 brought about a series of changes, some of which would have influenced the Wolfe Island wind project if it had been introduced earlier. Some say the Green Energy Act was long overdue when compared to policy in Europe and even the United States.

Active citizens in places like Wolfe Island had a hand in shaping the legislation in the Green Energy Act. A number of the changes it calls for directly affect the installation of wind farms. For example:

- The Act regulates how and when communities are consulted.
- The Act introduces a Renewable Energy Approval for a faster, more streamlined process.
- The Act states that developers must identify potential problems and how they will deal with them.
- The Act specifies that all wind turbines must be set back at least 550 metres from a dwelling to ensure that sound levels are low. This distance increases when there is more than one turbine.
- The Act requires that developers monitor and address any low-frequency noise.

The wind farm on Wolfe Island is an excellent example of active citizenship. The islanders benefited from the experience and efforts of the many green energy pioneers who came before them. Through their efforts and their experience, they also paved the way for future generations. The Wolfe Island project is an excellent case study of the value and complexity of Canadian democracy.