

# Isle Madame Wind Turbine Project



*Proposed location of turbine, with prevailing winds shown*

## About the Project

Scotian WindFields is working towards installing a wind turbine on Isle Madame. The proposed project would be located just off Highway 206, near the Department of Transportation buildings. Scotian WindFields is in the early stages of this multi-year project and is currently collecting data about the nature of the wind regime using a meteorological tower near the site. This study will help us learn about the characteristics of the wind and properly site the turbine.

The proposed capacity of the turbine we expect to put on site is just under 2 Megawatts, producing enough energy to power 500 to 600 households. The tower for this turbine is projected to be approximately 80 meters high, with each blade measuring about 45 meters in length.

## Why we've contacted you

We understand some people have concerns about wind energy. We are here to listen to your concerns and help you understand the facts. Wind turbines are not a new technology, but they may be new to your area. We are distributing this newsletter to inform you about the proposed project and to dispel some of the myths surrounding wind turbines. But this is just the beginning. This is the first in a series of informational letters and public meetings that will keep you in the loop. This project represents an important opportunity for Isle Madame to transition to renewable energy sources, and we are here to help foster a sense of community pride surrounding it.

## Turbines near Isle Madame

The nearest large wind turbines to Isle Madame are located in Point Tupper. These turbines are about the same height and size as the turbine that Scotian WindFields intends to install on Isle Madame, and has been in operation since 2010.

Visiting a turbine is a great way to get a sense of the sound and scale of today's industrial wind turbines.

## Community Electricity

The provincial government has established clear targets for clean energy: 25% of our electricity is to be renewable by 2015, with a goal of 40% by 2050. The Community Feed-In Tariff (ComFIT) program is designed to help our province meet that goal. The program recognizes that small community-owned projects are an effective way to reach our goals in a way that maximizes benefits for all Nova Scotians while strengthening the electricity grid. This vision will shift ownership from the virtual monopoly currently held by Nova Scotia Power to a decentralized structure that would see many small groups owning our electricity sources.

In order for the project to be eligible for the ComFIT program, at least 25 citizens from the county in which the turbine will be installed must invest in it.

Another benefit of the ComFIT program is that all of the electricity produced by the turbine will be consumed at a truly local level; only the people who are connected to the same electrical substation as the turbine can use its power.

## You're not alone

Wind energy is cited by the International Energy Agency as the world's fastest growing energy resource. Worldwide, the combined capacity of all wind turbines is over 195 GW; the equivalent of 100,000 of the turbines Scotian WindFields proposes installing in your community.

In Nova Scotia, there are already over 100 of these turbines installed throughout the province. Communities across Nova Scotia are taking responsibility for the generation of their energy and enjoying the benefits that come with local electricity production.



[www.scotianwindfields.ca](http://www.scotianwindfields.ca)

# Wind Power In Nova Scotia

## Community Dividend

More than 800 Nova Scotian families share in ownership of Scotian WindFields. As your neighbours, we want to share the dividends with the communities where our projects are located. That is why Scotian WindFields has committed to donate 1% of the revenue from this project to your community for its chosen community activity or cause. This dividend could be as much as \$10,000 annually, and could be used for school programs, local scholarships, community recreation programs or facilities. The use of proceeds will be up to the community to decide.

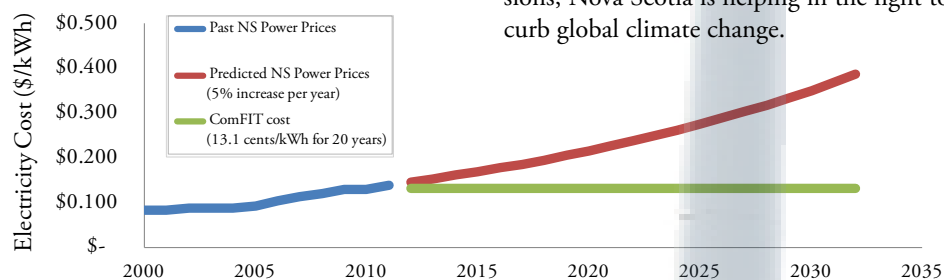
## Better health with wind

According to Statistics Canada, Nova Scotia consistently leads the nation with the highest asthma rates in Canada and is the leader in most forms of cancer. These detrimental and deadly health effects are related to our dependence on coal-fired generation as our chief electricity source and the associated toxic emissions.

Nova Scotia's per capita emissions of carbon monoxide, particulate matter, sulphur oxides, and volatile organic compounds are higher than the averages of any of the industrialized countries. Our per capita emissions of nitrogen oxides are the third-highest in the world.

## Energy Security

Wind is a safe, locally produced source of energy that will lessen our dependence on foreign sources of fuel. Once a wind turbine is installed, it produces electricity at a fixed price for 20 years, as shown in the figure below. With the price of oil and coal expected to keep rising with each passing year, wind power offer Nova Scotians assurance electricity bills won't do the same.



The power from the turbine would be sold at the same price for 20 years while coal and oil costs continue to rise

Isle Madame is one of the most vulnerable areas to sea level rise in Nova Scotia



## Climate Change

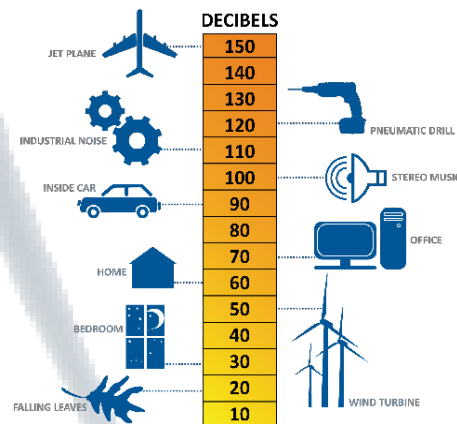
Climate change is happening at an ever increasing rate, and it will seriously affect the lives of people around the world. During the twentieth century the sea level in Nova Scotia rose approximately 30 centimeters; twice as much as the global average. Researchers expect an additional increase from 70 to 140 cm over the next century. Nova Scotia is particularly sensitive to coastal impacts. Combining the relative rise in sea level with more intense storms means that storm surges will be larger. This means more damage to people, property, infrastructure, wildlife, and ecosystems along the province's 13,300 kilometers of coastline.

Isle Madame is especially at risk when it comes to sea level rise, as shown in the above figure from the Coastal Sensitivity to Sea Level Rise map from Natural Resources Canada. Coastal erosion, flooding, storm surge events, and disruptions to the fishing industry are all expected to increase as a result of climate change.

Nova Scotians produce more than our fair share of greenhouse gas emissions. Only Alberta has a more carbon-intensive electricity system than Nova Scotia. Most of our disproportionate impact can be directly attributed to the carbon intensity of our coal and oil power plants. By using wind power to lower our greenhouse gas emissions, Nova Scotia is helping in the fight to curb global climate change.

## Sound

Over the past 30 years, over 60,000 wind turbines have been installed around the world. During that time, new technologies have allowed the sound produced by industrial turbines to decrease year by year. Each turbine must meet strict environmental requirements, including minimum setbacks from nearby homes that limit the possibility of noise pollution. Thousands of people have been living near large wind turbines for decades, with a relatively small number of those people experiencing negative effects. As a result, a large amount of peer-reviewed studies have focused on the impacts of wind turbines on human health. In 2009, after reviewing all the available literature to date, Ontario's Chief Medical Examiner concluded that though some people find the sound of wind turbines "annoying", she could find "no conclusive evidence that turbines have an effect on health." Scotian WindFields is committed to ensuring that none of our projects have a negative impact on the health of those who live nearby. The figure below shows how the sound from a wind turbine compares to various other everyday noises.



The levels of noise intensity associated with various everyday sounds.

## We're listening

We're here to answer your questions. Please do not hesitate to contact us.

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