

# **Wind Turbine Project**

# **Frequently Asked Questions**

The Unifor wind turbine project at the Family Education Centre (FEC) in Port Elgin, Ontario is an important milestone in our union's efforts to build a more sustainable future. After eight years of planning, the turbine became fully operational in 2012.

Wind power generation is part of an important mix of green energy technologies that will enable Ontarians to reduce its reliance on fossil fuels (like coal), and other non-renewable energy sources. Unifor's commitment to advocate for alternative energy development is a key pillar in a national environmental strategy. The FEC wind turbine began as an initiative of environmentally-conscious activists in our union and is one concrete example of how our union puts its political priorities into practice.

Despite the growth of wind power generation in Canada, misconceptions about its impact on individuals and communities still exist. This FAQ aims to address the most common and pressing concerns over Unifor's wind turbine project. For any additional questions, please contact cleanwindenergy@unifor.org

# WHAT ARE THE BENEFITS OF WIND POWER GENERATION?

Wind power is a safe, pollution-free form of renewable energy. Wind energy is growing exponentially across the province of Ontario and throughout the world. More and more communities are doing their part to reduce greenhouse gas emissions, improve overall air quality and protect the natural environment through the adoption of green energy technologies. Wind power is an important part of that effort.

Wind power is emissions-free and produces no unhealthy energy by-products.

## WHY DID UNIFOR BUILD A WIND TURBINE?

Unifor's commitment to environmental sustainability is enshrined in our union's Statement of Principles. Our union fully accepts the serious global challenges of tackling climate change, preserving the natural environment and advocating for clean, renewable power generation to help us meet our current and future energy needs.

Unifor's wind turbine will not only help generate new, clean energy to the Ontario power grid, it will serve as an important education and awareness-raising tool for our members and the general public.

## WHAT ARE THE ECONOMIC BENEFITS OF UNIFOR'S WIND TURBINE?

The turbine was built by local construction firms and involved Ontario-based consulting firms. Construction materials were locally-sourced, as is ongoing service and maintenance contracts. The steel for the tower was produced in Sault Ste. Marie. Numerous other components were sourced in Ontario.

# IS UNIFOR EXPECTING TO TURN A PROFIT ON WIND POWER GENERATION?

By generating clean wind energy and putting it into the Ontario power grid, Unifor qualified for the Ontario government's Feed-In-Tariff (FIT) program. The FIT pays a premium rate for energy generated by various renewable sources, including wind.

The cost of erecting a wind turbine is substantial, and the FIT program helped offset the overall costs. The pay-back period for Unifor's wind turbine is projected at between 15–18 years.

## ARE THERE NEGATIVE HEALTH EFFECTS FROM WIND TURBINES?

There is no scientific evidence that proves wind power projects lead to health impacts, despite repeated studies world-wide.

Wind turbines do emit some noise. Unifor has gone to great lengths to ensure that our turbine meets noise control regulations as set by the province of Ontario.

#### WILL THE UNIFOR WIND TURBINE AFFECT MY PROPERTY VALUE?

Numerous studies have been conducted throughout North America on the impact wind turbine development has on property values, and the evidence is inconclusive. A study<sup>1</sup> of homes in Chatham-Kent, Ontario, performed by real estate appraisers and consultants, did not find a correlation between land values and the presence of nearby turbines.

The authors summarized their findings like this: "In the study area, where wind farms were clearly visible, there was no empirical evidence to indicate that rural residential properties realized lower sale prices than similar residential properties within the same area that were outside of the view shed of a wind turbine."

## DID UNIFOR ENGAGE IN COMMUNITY CONSULTATION?

The Unifor wind turbine project officially started in 2003. Over the course of eight years, Unifor distributed over 3,000 information brochures to local residents and union members. Community presentations were made and Unifor hosted an open house to discuss the project with area residents. Additionally, through each stage of the municipal approvals process (a public forum) and including the Ontario Municipal Board hearing, the public was invited to participate and be heard. As part of the application for Certificate of Approval for Noise, there were postings to the Ontario Environmental Registry, where there was further opportunity for public comments.

The union has also responded to numerous media requests from local television, radio and newsprint journalists and held meetings with local politicians.

Today, Unifor is working to establish an open line of communication to deal with concerns regarding the operation of the turbine. The union has developed safe operating policies and procedures that will are strictly adhered to and made available for public review.

# DOES THE LOCATION OF UNIFOR WIND TURBINE MEET CURRENT REGULATIONS?

Yes. Current regulations, as laid out under Ontario's Green Energy Act, do not require a "setback" for a turbine that operates at below 102 decibels (dB) at its source. Any wind turbine that operates at or above 102 dB requires a 550 metre setback.

The Certificate of Approval for Noise was obtained using a conservative sound power level of 103.5 dB. However, during the approvals process, the union made a conscious decision to constrain the power output of its turbine. As a result of this constraint, the source-point noise levels fall below the 102 db threshold. Therefore, the 550 metre setback is no longer applicable.

Unifor engaged in an extensive site-selection process at the onset of the wind turbine project. The site-selection was done in conjunction with acoustic experts and engineering consultants and followed strict noise modeling procedures and guidelines. In fact, the final location was chosen after the results of the site modeling were conducted (not vice versa). The current location for the turbine was picked because it minimized the impact of noise output and was far enough away from residential property. Site-selection also took into account the union's effort to minimize the impact on the natural and stunning beauty of the beach and shoreline.

Footnote 1: Canning Consultants Inc. and John Simmons Realty Services Ltd. Wind Energy Study – Effect on Real Estate Values in the Municipality of Chatham-Kent, Ontario