Adelaide Wind Farm

tci renewables

Community Newsletter — Summer 2009

Welcome


Open House - April 2009

Welcome to our community newsletter in which we hope to bring you up to date on the progress of our wind farm project in Adelaide-Metcalfe and to answer some of the questions raised since our open house events in February 2008 and April 2009.

A BRIEF HISTORY

Air Energy TCI (AET) has been working on the Adelaide Wind Farm since late 2006 when we completed preliminary site visits after responses to our advertisement looking for suitable sites in the Ontario Famer.

Early in 2007, up-front meetings were held with landowners, planners and county and township representatives. Some agreements were put in place and a presentation was made to the Adelaide-Metcalfe council in October. Two wind measurement masts were erected in November and testing began.

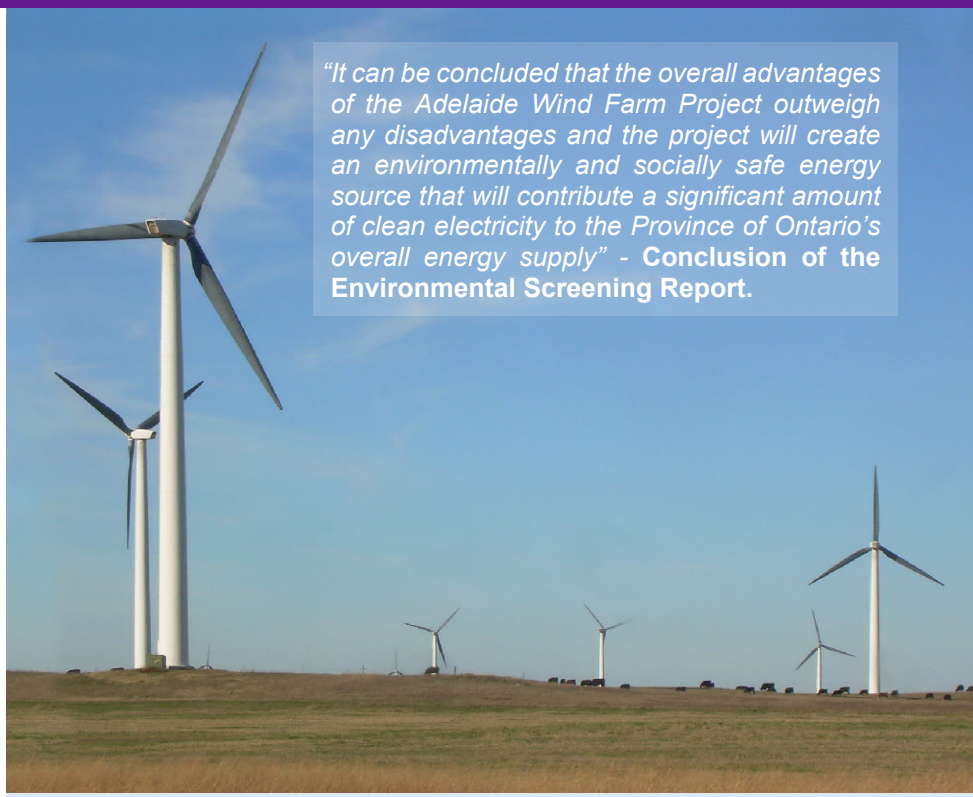
The following year, after successful wind results, option agreements were made with landowners and the comprehensive environmental screening programme was begun.

We have now completed two public zoning meetings and held a second open house meeting in April 2009 (with positive feedback) and in June we submitted a Notice of Completion for the environmental screening report.

Our aim is to provide the Ontario Power Authority with a significant supply of clean, green electricity to help meet renewable energy targets as set out by the Ontario Government.

We hope to have an electricity sales contract in place by the end of 2009 and to begin construction by early 2011.

Mark Gallagher, Development Manager, AET



"It can be concluded that the overall advantages of the Adelaide Wind Farm Project outweigh any disadvantages and the project will create an environmentally and socially safe energy source that will contribute a significant amount of clean electricity to the Province of Ontario's overall energy supply" - **Conclusion of the Environmental Screening Report.**

Fine-tuning

In January 2008, AET commissioned environmental consultants Golder Associates to carry out a series of field studies and assessments. Completed in May 2009, these looked at the potential effects on the physical environment including flora and fauna, watercourses, archaeology and heritage sites and geophysical features. They also investigated the impact on the human environment including noise levels, electromagnetic interference, socio-economic issues and visual amenity.

Based on these studies we have designed a wind turbine layout which delivers the optimum amount of power to the grid with minimum impact on the community and the environment.

A project of this scale will bring significant investment into the local community, creating between 150-200 jobs during construction and up to eight full-time jobs during operation and maintenance of the project.

The project will cost approximately $200 million with the majority cost for the turbines themselves, however around $60 million will be spent on construction and ancillary works, materials and equipment – a significant portion of this is normally sourced locally and will provide an opportunity for local suppliers, merchants and builders.

There is also the knock-on effect for hotels and restaurants in the area during the construction phase. With over 70 parcels of land involved in the project, many families in the area will receive a significant and welcome boost to farm incomes.

The project will also benefit the entire community through taxes and/or payments made directly to the township as part of a development agreement. This is currently estimated to bring over $2 million into the community over the lifetime of the project.

The project is expected to generate 212 million kWh (kilowatt-hours) of electricity per year. With the average household in Ontario using 12,000 kWh per year, this is enough clean, green energy to supply over 17,500 homes every year.

Write to us at: The Adelaide Wind Farm Team, TCI Renewables, Suite 102, 381 Notre-Dame Ouest, Montreal QC. H2Y 1V2

"We see this as a welcome investment for local and area business"
Shannon Churchill, General Manager, Strathroy and District Chamber of Commerce.

Adelaide Wind Farm Q&A

Some of the most commonly asked questions about the Adelaide project

How many turbines are being planned?

AET is seeking permission to build up to 40 wind turbines (72MW). Grid studies carried out by Ontario's Independent Electricity System Operator have shown this to be the maximum generation that can be connected to the local existing 115kV network.

Why Adelaide-Metcalfe Township?

The site was selected because of its open landscape, low environmental sensitivity, good infrastructure (roads and transmission lines) and good wind resource. Middlesex County promotes the development of renewable energy projects and the Adelaide-Metcalfe township itself has implemented a wind energy by-law. Finally, it was clear that the majority of landowners in the target area were keen to be part of a wind project.

What about noise from the turbines?

Modern wind turbines are designed to minimise noise and with appropriate set-backs will not cause a nuisance to nearby residences. Results from the detailed noise study were very positive and by using a set-back of 600 m to non-participating dwellings (50 m in excess of the latest recommended set-back distances for Ontario) the Adelaide wind farm will satisfy the latest noise guidelines for the Province of Ontario laid down by the Ministry of the Environment in October 2008.

What about infrasound?

This is a question that was raised in the UK several years ago after complaints from some residents living near wind farms. After investigation the UK's Department of Trade & Industry concluded:

"Infrasound associated with modern wind turbines is not a source which will result in noise levels which may be injurious to the health of a wind farm neighbour."

(The Measure of Low Frequency Noise at Three UK Wind Farms, Hayes McKenzie Partnership Ltd, 2006)

This area has also been studied at length by Dr. Geoff Leventhall, one of the world's leading authorities on the subject and founding editor at the *Journal of Low Frequency Noise, Vibration and Active Control.* In an article for the *Journal of Canadian Acoustics* he wrote:

"The public has been misled by the media about infrasound, resulting in needless fears and anxieties… and unnecessary costs, such as for re-measuring what was already known to assuage complaint… infrasound from wind turbines is below the audible threshold and of no consequence"

Infrasound From Wind Turbines, Fact, Fiction or Deception: Dr G. Leventhall, Canadian Acoustics, Vol 34 No.2, 2006

What about health issues?

There has been a lot of media attention and claims lately that wind farms cause health problems. In reality, large scale wind farms have been operating successfully in Europe for almost 20 years and there are over 70,000 wind turbines installed across the world with relatively little complaint. In fact, with zero direct CO_2 emissions, wind energy is probably one the most benign forms of electricity generation in the world when one considers the health impacts and polluting side affects of fossil fuel or nuclear generation - a conclusion supported by the World Health Organisation.

www.euro.who.int/document/eehc/ebakdoc08.pdf

After a number of projects were proposed for Chatham-Kent, the municipality's Director of Public Health, Dr. David Colby, reviewed the literature surrounding these claims. He said:

"… as long as the Ministry of Environment Guidelines for location criteria of wind farms are followed, it is my opinion that there will be negligible adverse health impacts on Chatham-Kent citizens. Although opposition to wind farms on aesthetic grounds is a legitimate point of view, opposition to wind farms on the basis of potential adverse health consequences is not justified by the evidence"

The Health Impacts of Wind Turbines: A review of the current white, grey and published literature, Dr D Colby, 2008

Are there any health effects from power lines?

An inter-governmental agency, the Federal-Provincial-Territorial Radiation Protection Committee – Canada (FPTRPCC) was established to examine this very issue. In November 2008 they issued a response statement saying:

"...public concerns appear to arise from periodic media reports and from dubious internet web sites which contain inaccurate, unsubstantiated, controversial or contradictory statements regarding EMF-health issues…it is the opinion of the FPTRPCC that there is insufficient scientific evidence showing exposure to EMF's from power lines can cause adverse health effects"

Response statement to public concerns regarding electric and magnetic fields (EMF's) from electrical power transmission and distribution lines. FPTRPCC, Nov 2008.

What about shadow flicker?

Shadow flicker is readily predicted using standard industry software and the study at Adelaide shows no non-participating dwelling will exceed the internationally recognized standards. Again, this issue is easily avoided by using appropriate siting techniques and set-backs.

What about birds & bats?

It is true that some of the earlier wind farms had negative impacts on local bird and bat populations. Nowadays however, developers undertake detailed studies to assess and mitigate potential impacts. Studies at the Adelaide site concluded that the area was not particularly sensitive. Any areas that did show a higher potential for nesting or roosting were avoided. (The full report is available in the environmental screening report)

Will the project affect property prices?

This is often cited by anti-wind farm groups, however, the wealth of evidence shows that there are no negative effects and in fact property prices can even go up. A recent comprehensive study by the Renewable Energy Policy Project concluded:

"The statistical evidence does not support a contention that property values within the view shed of wind developments suffer or perform poorer than in a comparable region. For the great majority of projects in all three cases studied, the property values in the view shed actually go up faster than values in the comparable region."

Sterzinger, Beck, Kostiuk: May 2003 Analytic Report www.crest.org/wind/index.html

Do wind farms need back-up generation?

All generation needs a source of back up regardless of the fuel source. Modern wind turbine technology has high availability well above 90% and is therefore a very reliable technology. Wind forecasting is becoming more accurate so it is easier to predict how much energy will be available. The wind is almost always blowing somewhere in Ontario, so spreading the wind farm locations across the province means we can make the best out of whatever wind there is.

How much investment will this project bring?

After purchase of the turbines ($140 million) around $60 million is allocated for the balance of plant and construction of roads, foundations and cabling, etc., There is also the added benefit of around 200 temporary jobs as well as the resulting knock-on effects for local business.