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## CLEAN BREEZE WIND PARK GRAFTON Update

OTTAWA, ONTARIO January 9, 2013

### **Project History and Ownership**

The “Clean Breeze” project is a 5 wind turbine, 10 MW wind power project. Initially developed by Energy Farming Ontario inc., the project is now owned by Clean Breeze Wind Park Grafton LP, a subsidiary of Zero Emission People LLC, which in turn is a subsidiary of Wind Works Power Corp. The project was awarded a Feed-in tariff (FIT) contract from the Ontario Power Authority in April 2010.

Wind Works Power Corp. is headquartered in Ottawa, Ontario, and is a publicly listed company. We are planning to develop, construct and operate the project with substantial local investment.

The wind farm was initially sited north of the Grafton exit of HWY 401 near Telecom Road. Its location has since been moved further west to The Scotts line. It is located on sparsely populated rural farm and ranch land.

### **Sound studies**

MK Ince & Associates (MKI) was engaged to evaluate the potential impacts of the project sound on nearby residences. The study was conducted according to Ministry of Environment’s (MOE) “*Noise Guidelines for Wind farms*” (October 2008). The findings indicate that sounds levels at all non-participating residences are expected to be below the MOE sound limits of 40 decibels (dBA). For context, 40 dBA is equivalent to the background sound level of a library.

As a condition of the Renewable Energy Approval (REA), the project owner is required to perform a post-construction acoustic audit. The audit must follow international standards and the results must be reported directly to the MOE. In the unlikely event that sound levels at non-participating residences are greater than 40 dBA, the project owner has an obligation to reduce sound emissions from the project to acceptable levels.

### **Birds and Bats**

Pre-construction bird and bat habitat studies were conducted at the project and have been reviewed by the Ontario Ministry of Natural Resources (MNR). While there are diverse bird and bat populations in the area, the project area was not deemed to be a sensitive area for either birds or bats. In addition to this rigorous pre-construction screening, the MNR requires three years of post-

construction monitoring of bird and bat mortality. Should mortality levels at the project exceed MNR mandated thresholds then operational mitigation is required by the project owner.

### **Water bodies and the Oak Ridges Moraine**

The Oak Ridges Moraine stretches for 160 km - from the Niagara escarpment to Rice Lake. The area serves as an important headwater source for aquifers and rivers in the region and, as such, has strict regulations in place for all types of development within its boundaries. Following extensive environmental investigations, reviews and project design considerations, it is expected that the Clean Breeze project will have no significant impact on the water quality, flows or valuable ecosystems within the region.

### **Property Values**

We appreciate people's concerns about the potential impacts of wind farms on local property values. The fact is, however, that the broadest and most scientifically rigorous studies conducted thus far have all concluded that there are no discernible long-term negative impacts on the property values of homes from wind turbines (1). Furthermore, the current Ontario regulations that dictate minimum setbacks (i.e., no non-participating residence can be closer than 550m to a turbine) are of greater distance than historical setbacks for older wind farms – as well as being conservative on a global basis.

The RE/MAX Market Trends Report – Farm Edition 2012, released September 2012, found that agricultural property value has either stayed constant or increased in all regions of Ontario, including those areas with significant operational and planned wind farms, such as Bruce/Huron County.

### **Future expansion constraints**

A second "Clean Breeze" sister-project with 5 wind turbines is also being developed in the area. It is located approximately 3km further north of Clean Breeze Wind Park Grafton, to the north of Baptiste Road.

Given local power grid constraints, the project developers have no plans for a future wind power expansion in this area.

### **Environmental Benefits**

Coal fired electricity in Ontario emits pollution and is estimated to cost \$3 billion in health care costs and \$370 million in environmental damages annually (2). Factoring in the external costs of operating coal plants (incremental health care and environmental degradation) is equivalent to an extra 12.7 cents per kWh on top of the regular price of coal-fire generated electricity (3). This makes coal actually more expensive than wind.

Wind generated electrical energy is one of the many technologies being pursued in order to allow Ontario to phase out the existing coal plants with cleaner electricity. A typical wind turbine will produce enough power for 500 homes annually, and over the life of the turbine will reduce the need to emit 80,000 tons of CO<sub>2</sub>, 150,000 kg of SO<sub>2</sub>, 115,000 kg of NO and over 10,000 kg of radioactive

waste (4). Wind power is a non-polluting, renewable, reliable and safe form of energy –modern wind farms are typically operated at over 97% availability.

### **Economics of Wind Power – the big picture**

The price of electricity increased in Ontario by 67% between 2000 and 2010. However, these cost increases were related to new gas generation costs, nuclear refurbishment costs, debt retirement charges, and increases in transmission and distribution charges. According to Donald Dewees, an economist with the University of Toronto, “the contribution of renewable power and the Green Energy Act to cost increases has – despite media reports – been minor up to now”(5).

The Government of Ontario has forecasted that more than 15,000 MW of generation will need to be rebuilt, replaced or added in the next twenty years. All of Ontario’s coal plants are scheduled to be retired by 2014. The entire fleet of nuclear plants will require major and costly refurbishments estimated to be \$35 billion or these plants will also be retired.

Wind at 13.5 cents per kilowatt hour (“kWh”) is less costly than solar (44-80 cents per kWh) or nuclear (which is currently estimated at 15-34 cents per kWh)(6). Wind energy is comparable with hydro, and is currently slightly more expensive than natural gas. Natural gas is cleaner than coal but still emits greenhouse gases and other air pollutants. The current pricing for gas is benefitting from the recent development of hydraulic fracturing that has unlocked substantial supplies but consumes tremendous amounts of fresh water with unknown damage to the water tables.

### **Local Benefits and Community Initiatives**

The Clean Breeze Wind Park Project will contribute over \$4 million to the local economy over the life of the project. This total is comprised of contributions towards local initiatives (i.e., charities, youth activities, community enhancement projects), property tax revenue to the Township of Alnwick/Haldimand, and local expenditures on construction and operations. Farming operations continue adjacent to and under the turbines resulting in a negligible impact on the usable agriculture area for the existing landowners.

Prior to construction of the project our plan is to form a Community Wind Committee (“CWC”). The CWC is created by residents in order to form a structured, transparent, and ongoing body for communication between the Clean Breeze Wind Park and the community. The CWC will be comprised of individuals within the community who want to be actively informed during construction and operations. We will also look to the CWC to provide recommendations on the best uses of community enhancement funding from the projects.

The CWC will also look into community ownership of the Clean Breeze Wind Park Project.

We strongly believe that a wind power project can be highly beneficial to the local community, especially when sited within a sparsely populated, vast rural landscape, and, can have a positive contribution toward our efforts to fight climate change and reduce pollution for all.

Please do not hesitate to contact us, at [Clean\\_Breeze\\_Grafton@zeroemissionpeople.com](mailto:Clean_Breeze_Grafton@zeroemissionpeople.com) if you have any question or comments on the Clean Breeze Wind Park project. We look forward to seeing you at the upcoming open houses.

Your Clean Breeze Wind Park Team

## References

1. Three of the most widespread studies include: Canning Consultants (Feb 2010). Wind Energy Study – Effect on Real Estate Values in the Municipality of Chatham-Kent; Ernest Orlando Lawrence Berkeley National Laboratory (Dec 2009). The Impact of Wind Power.
2. DSS Management Consultants Inc. and RWDI Air Inc. Cost Benefit Analysis: Replacing Ontario’s Coal-Fired Electricity Generation (2005).
3. Sustainable Prosperity, Ontario’s Feed-in-Tariff for Renewable Energy: Lessons from Europe (2010).
4. Ontario Emission Calculator – 2012 – Bullfrog Power. Sources include Stat Can, National Energy Board, OPG, Ontario Energy Board, US Environmental Protection Agency.
5. Donald Dewees, Department of Economics, University of Toronto, March 2012. What is Happening to Ontario Electricity Prices?
6. Mark Cooper, The Economics of Nuclear Reactors: Renaissance or Relapse, 2009; California Electric Commission. 2010 Comparative Costs of California Central Station Electricity Generation (2010).

## Websites

[www.zeroemissionpeople.com](http://www.zeroemissionpeople.com) (also contains the project website and materials)  
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