

## Media Backgrounder

- Wind energy is broadly accepted as one of the safest and most environmentally friendly sources of electricity generation available today.
- The balance of human experience and scientific evidence agrees that properly sited wind turbines are not harmful to human health.
- Community Liaison Committees and CanWEA Best Practices in Community Engagement and Public Consultation facilitate dialogue, engagement and mutually beneficial outcomes for communities, residents, local businesses and wind energy developers.
- Wind energy complements energy conservation and provides Ontario's electricity grid with much-needed flexibility to align electricity supply with changing economic and environmental priorities.

### The Canadian Wind Energy Association (CanWEA)

CanWEA is the voice of Canada's wind energy industry, actively promoting the responsible and sustainable growth of wind energy. A national non-profit association, CanWEA serves as Canada's leading source of credible information on wind energy and its social, economic and environmental benefits. Join us on [Facebook](#), follow us on [Twitter](#) and join the conversation at [windfacts.ca](#).

### Human Health and Wind Turbines

Wind energy is recognized as one of the safest, most environmentally friendly forms of electricity generation anywhere in the world. The Canadian wind industry works with independent experts in energy, engineering, acoustics, medicine and occupational health to monitor ongoing research on wind turbines and human health.

The balance of human experience and scientific evidence – and the conclusion of [20 extensive international reviews](#) – agree that properly sited wind turbines are not harmful to human health. People have been living, working and enjoying productive lives near wind farms for more than 30 years. Worldwide, there are now over 318 gigawatts of installed wind energy capacity in over 80 countries, and a record level of new wind energy is expected to be developed this year in Canada and globally.

Ontario's Chief Medical Officer of Health, the National Public Health Institute in Quebec, and a growing body of peer-reviewed scientific and medical information agree there is no link between wind turbines and adverse effects on human health. These findings have been reaffirmed by governments and health research centres including the states of Massachusetts and Oregon, the National Health and Medical Research Council and Department of Health (Australia), and VTT Technical Research Centre (Finland).

CanWEA and the wind energy industry work closely with communities and individuals, as well as with regulatory agencies, to ensure wind energy developments are constructed and operated in a responsible and sustainable manner, respecting both the community and the local environment.

*Continued.../2*

Wind turbines do not emit air pollutants or greenhouse gases, do not produce nuclear waste, and use virtually no fresh water to produce electricity: sustaining a healthier environment for people and wildlife.

Wind energy contributes other positive health impacts. In combination with other sources, wind energy has made it possible for Ontario to reduce carbon emissions and entirely eliminate coal-fired generation.

### **Safe, Regulated Turbine Setback Distances**

The development and production of wind energy is highly regulated, and the wind energy industry is required to meet or exceed regulatory requirements.

Turbine setback rules are designed to safeguard public health and safety, minimize environmental effects, ensure acceptable sound levels for surrounding dwellings and promote good land use planning practices; while balancing the economics and viability of the wind energy project.

### **Best Practices in Community Engagement and Public Consultation**

Effective and meaningful community engagement is fundamental to the success of a wind energy project. We recognize and value the right of every individual to have a meaningful role in discussions about developments that affect their community.

CanWEA's [Best Practices in Community Engagement and Public Consultation](#) support the work of wind energy developers by providing them with tools and information to continuously improve their relationships with local communities while ensuring they meet or exceed provincial requirements for public consultation.

Local Community Liaison Committees (CLCs) facilitate opportunities for meaningful and open dialogue between the project developer and the host community. CLCs are resourced by wind energy developers. Some examples in Ontario where CLCs are in place are the [Summerhaven](#), [Port Dover](#), [Grand Renewable Energy Park](#), and [South Kent Wind Farm](#) wind energy developments.

### **Extensive Benefits for Local Communities**

Wind energy developments are delivering local benefits, and helping to diversify local economies across Canada. Local landowners are receiving a new and stable source of income, and host communities are realizing new tax revenues that help provide essential services.

Multiple studies in Ontario and elsewhere have consistently found no evidence that wind energy projects negatively impacting property values. A 2014 study by Ontario's Municipal Property Assessment Corporation (MPAC) found no statistically significant impact on sale prices of residential properties resulting from proximity to wind turbines. The same conclusion was reached in a 2010 Chatham-Kent, Ontario residential property study and research undertaken by the US Department of Energy's Lawrence Berkeley National Laboratory.

Wind energy companies have spent over \$5 billion since 2009 to develop Ontario's wind energy industry. Every megawatt of new wind energy represents an investment of approximately \$2 million; a significant portion of which is spent in the local community. Wind energy supports new manufacturing facilities and new jobs for graduates – and now meets over 3 percent of the province's electricity demand, doubling over the past four years to 5.2 terawatt hours, about what 550,000 average homes use each year.

Wind energy developers also contribute to the long-term sustainability of host communities by supporting community benefits programs and vibrancy funds.

*Continued.../3*

## **Safe, Cost-Competitive and Reliable Energy to Support and Stabilize Our Electricity System**

Cleaner electricity generation from renewable sources like wind energy is reducing the costs we bear from the impacts of conventional electricity generation on human health and wildlife. Fossil fuel-fired electricity generation has price volatility – wind energy has long-term cost-certainty and a stabilizing effect on electricity rates: important protection for consumers.

Wind energy is playing a key role in helping Ontario build a modern electricity grid that is more decentralized, nimble and flexible than traditional forms of generation. The scalability of wind energy supply allows electricity system planners to better match future electricity supply and demand.

The production of wind energy is not subsidized by the Ontario government. Wind energy, like most power produced by independent power producers, is provided under long-term contracts that contribute to price certainty and to keeping electricity rates stable and competitive. Wind energy developers absorb almost all of the upfront costs in developing their projects, which means no front-end, long-term risks to taxpayers and ratepayers.

Renewables like wind energy are not key drivers of rising electricity bills. [Power Advisory LLC](#) confirms that wind energy accounted for only 5 percent of the increase in electricity bills between 2009 and 2012, with the bulk of rising rates due to upgrades of older power plants and transmission systems. Wind energy is cheaper than new nuclear power, cost-competitive with new hydroelectric development and immune to commodity and carbon price risks facing natural gas generation.

The cost of developing wind energy projects continues to fall sharply as new turbine technology boosts output and economies of scale reduce production and supply costs. Wind is a flexible form of generation that responds quickly to dispatch from the grid operator.

Wind energy complements energy conservation programs, and provides Ontario's electricity grid with much-needed flexibility to align electricity supply with changing economic and environmental priorities.