



# Trillium Power Wind Corporation

## FOR IMMEDIATE RELEASE

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### **ONTARIO'S OFFSHORE WIND POTENTIAL A QUARTER OF A TRILLION DOLLAR OPPORTUNITY SAYS TRILLIUM POWER WIND CORPORATION**

*Leading Ontario offshore wind developer Trillium Power Wind Corporation releases high-level report calculating the economic and environmental benefits of developing 20,790 MW of offshore wind in The Great Lakes.*

TORONTO (January 18, 2010) – Trillium Power Wind Corporation, which is planning to build its first large offshore wind power facility in Lake Ontario, one of the first in North America, released a comprehensive, high-level report today detailing the substantial initial offshore wind potential in Ontario's portion of The Great Lakes and the tremendous economic and environmental benefits that would flow from its development.

Entitled, *Round 1: Turbocharging Ontario's Economy Through the Development of Its Unique Offshore Wind Resources*, Trillium Power's report comes at a time when the increasingly consolidated European offshore wind market is experiencing explosive growth, particularly in the United Kingdom and Germany, which have both committed to unprecedented deployment in the North and Baltic Seas over the next decade.

Although the first offshore wind project has not yet been built in North America, momentum to install tens of thousands of megawatts in The Great Lakes, on both sides of the border, is building rapidly. This is primarily due to exceptional wind resources, favourable building environment, new permitting rules and incentives and proximity to load. Moreover, the large scale of commercial offshore wind projects is vital to attracting global turbine manufacturers capable of revitalizing the struggling manufacturing sector in Ontario, and throughout The Great Lakes region.

The report demonstrates that the recently reserved contiguous offshore areas - 'Round 1' - under the Ontario Ministry of Natural Resources' Site Release Program would generate a total of 20,790 MW of offshore wind power. The Site Release Program is just one component of a strong policy foundation to accelerate the deployment of renewable energy in Ontario, which has recently culminated in the adoption of the *Green Energy and Green Economy Act* and the implementation of a world-class system of Feed-In Tariffs (FITs), including a C19¢/kWh tariff for offshore wind projects of any size.

According to Trillium Power's calculations, developing Ontario's Reserved Offshore Potential would generate a total of C\$253.6 billion (bn) in gross economic activity assuming an average development cost of C\$4,000,000/MW. With a domestic content requirement of 50% (the minimum requirement to receive FITs in Ontario) this would mean at least C\$126.8bn in gross economic activity over 15 years - or C\$16.9bn per year. To put one year of gross economic activity into perspective, it would be equivalent to roughly 3% of Ontario's, and 1% of Canada's, entire Gross Domestic Product. It would also add C\$7.6bn in tax revenues per year, C\$114.1 bn over 15 years, to the provincial treasury.

Vital to maximizing Ontario's economic benefit from offshore wind is the development of an 'Innovation Chain' emphasizing deployment capacity in terms of building turbines and components in the province and Great Lakes region. This will require cooperation and reciprocity between all Great Lakes jurisdictions and will be particularly important to creating as many manufacturing and related job opportunities as possible. Based on a number of independent global studies, Trillium Power estimates that full deployment of Ontario's potential would create between 66,000 and 100,000 jobs.

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In its report, Trillium Power outlines the extensive environmental benefits of developing Ontario's Reserved Offshore Potential. Not only would it erase the province's potential Greenhouse Gas (GHG) emissions deficit of 23%, it would position it to *surpass* its GHG reduction targets by 56.3%. Furthermore, the sale of emission credits generated from offshore wind alone would add C\$3.6bn to Ontario's treasury each year, C\$53.8 bn over 15 years. Trillium Power also calculated that the replacement of current fossil fuel and nuclear power capacity would save 148.5bn litres of fresh water per year - enough to fill the largest building in the World (Burj Khalifa) 106 times each year.

Trillium Power has identified several important policy issues that need to be addressed if offshore wind development is to move forward in an efficient and timely manner. Some of the major issues include: 'carving out' transmission costs; reducing planning, approvals and regulatory costs; extending offshore wind development leases from 20 to 50 years; developing local content requirements specific to offshore wind and improving the timeliness of the development process.

While offshore and onshore wind power relies on the same input – wind – their performance capabilities, and requirements, are very different. The use of higher capacity turbines in offshore wind farms, combined with stronger and more consistent winds over water, results in significantly higher capacity factors, thus more abundant and reliable energy production to meet Ontario's peaking and baseload demand.

Although all existing offshore wind projects have been built in the ocean thus far, the advantages of deployment in freshwater are expected to be significant in terms of avoiding the corrosive effects of saltwater exposure, tidal effects and many of the costs associated with complex foundation requirements and delays stemming from high seas and/or severe wave conditions common in the North and Baltic seas.

Trillium Power's report emphasizes that offshore wind projects are extremely site specific in terms of energy output, overall costs, environmental impacts and public reception, which vary widely depending on a project's distance from shore, proximity to transmission and avoidance of migratory bird routes among other factors. Consequently, any negative impacts are also almost entirely preventable, and strong performance assured, if a project is conscientiously sited.

One such project is Trillium Power Wind 1, which will produce 710 MW of wind power 28 km offshore from Prince Edward County. The facility will have the capacity to power at least 300,000 typical Ontario homes. Key attributes of the TPW1 site include: a gross capacity factor greater than 45%; close proximity to major U.S. and Canadian grid interconnection points; favourable bathymetry and low average wave heights. Trillium Power also recently announced it would be developing three additional projects: Trillium Power Wind 2, The Great Lakes Array and The Superior Array, with power outputs of approximately 740 MW, 1,600 MW and 650 MW respectively.

Trillium Power Wind Corporation is a privately owned company headquartered in Toronto, Ontario focused on the development of unique renewable energy sites that meet a comprehensive set of environmental, social and financial criteria.

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