



2010 REASONS TO DO BUSINESS IN CANADA



CANADA WINDS IT UP

While the lights shone on athletes from around the world at the Vancouver 2010 Olympic and Paralympic Winter Games, Canada's strong performance in the use of renewable energy was also in the spotlight. Across the country, Canada's wind resources alone are generating enough electricity to power over 860,000 homes and businesses in a clean, reliable and efficient manner. Such a significant investment in wind energy installations demonstrates how economic and environmental benefits associated with wind energy are being harnessed to reach the sustainable energy production finish line in Canada.

An important component in the drive to minimize the carbon footprint of the 2010 Winter Games was the objective of neutralizing up to 300,000 tonnes of carbon dioxide emissions from the Games. To meet this target, the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) partnered with a carbon offset management company to create a unique 2010 carbon offset portfolio that showcased climate change solutions such as wind energy.

The 2010 carbon offset portfolio invested in green technology projects that improved energy efficiency or produced renewable energy from sources such as wind, solar or geothermal. The 2010 carbon offset portfolio is a step on the road to achieving the renewable energy goal of

having 10,000 mega-watts (MW) of installed wind energy capacity by 2015. Canada is on its way to this ambitious target, with over 3,000 MW of electricity online by the end of 2009.



Photo courtesy of Canadian Wind Energy Association

The Canadian wind energy industry is maturing and is the fastest growing renewable energy source in Canada – the average annual growth rate for the Canadian industry has exceeded 40% since 2000. The Government of Canada, along with the provinces and territories, are responding to the vast potential that wind energy has to offer by setting additional targets for installed capacity and by implementing incentive programs to boost investment. The industry and large Canadian energy utilities are consequently part of a dynamic



economic climate that is developing and launching innovative wind energy technologies.

Safe and Reliable

The benefits of wind energy are also being appreciated for more than the economic savings they generate. The Canadian industry, which is closely integrated with the growing wind industry in the United States, is part of a global movement seeking to secure energy from a reliable and environmentally friendly supply. The versatility of this renewable energy means that wind power installations can supply energy to wherever it is needed, whether in neighbourhoods and residential areas, industrial and commercial spaces, and even in remote off-grid locations. The next era of wind generation will deliver even more advanced technologies with the advent of wind-hydrogen hybrid power systems, whereby surplus energy can be more effectively stored. This will also allow energy to be generated during periods when demand cannot be met by wind energy generation alone.

Canadian Successes

Canada's largest wind plant is Le Nordais project, producing 100 MW of electricity at Cap Chat and Matane, in the Gaspé region of the province of Quebec. The largest modern wind turbine in North America (a Vestas V80 1,800 kW turbine) is located next to the Pickering Nuclear plant in the province of Ontario. The first modern wind farm in Canada is the Cowley Ridge development in Cowley, Alberta. This 57-turbine, 21.4 MW project was built by Canadian Hydro Developers in 1993 and 1994.

Canada's capabilities and technologies in wind energy, combined with an abundance of land and weather resources, validate the economic advantages and international potential of this renewable energy. The strengths of the Canadian industry are particularly evident in the numerous wind installations already in service which highlight:

- manufacturing and construction expertise for turbine towers, rotor blades, base frames and inverters (electrical devices that convert DC to AC)
- wind energy solutions for remote communities and cold/harsh climate focused systems expertise
- hybrid power systems such as wind-hydro, wind-diesel or wind-hydrogen fuel cells which also offer significant opportunities for remote communities & off-grid applications
- off-grid applications (water pumping for agriculture) and offshore systems



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www.tradecommissioner.gc.ca

For More Information...

Foreign Affairs and International Trade Canada:

www.dfait-maeci.gc.ca

Industry Canada, Industry Sector:

www.ic.gc.ca

National Research Council Canada, Industrial Research Assistance Program:

www.nrc-cnrc.gc.ca/eng/ibp/irap.html

Natural Resources Canada, CanmetENERGY:

canmetenergy.nrcan.gc.ca

Canadian Wind Energy Association:

www.canwea.ca

Sustainable Technologies Development Canada:

www.sdtc.ca