

NEWSLETTER no.3

July 2015

A Primer on Wind Energy

Why Wind Energy?

- Wind is a **clean** fuel
 - Wind power generation doesn't involve the consumption of fossil fuels, which is one of the leading causes of air pollution, and it also produces greenhouse gases that contribute to climate change.
 - Operation of a 2.0 MW turbine over 1 year will avoid greenhouse gas emissions equivalent to taking 260 cars off the road.
- Wind resource is **free**
 - There is no cost associated with waste disposal, security or public health care.
 - Air and water quality are maintained and no other natural resources are exploited.
- Wind is an **infinite** resource
 - Costs of energy from finite fuel sources, such as coal, natural gas and uranium, are expected to increase with time.
- Wind energy projects bring benefits to local communities



- The construction and operation of wind farms create jobs: Approximately 14 person-year-employment per MW of nameplate capacity.

- Wind farms contribute to municipal tax base, which supports the development and maintenance of civil infrastructure, such as roads, hospitals, libraries, and schools.

Photos: Ravenswood Wind Farm (Forest, Ontario) – 9.9 MW

Harnessing Wind Energy

- During the last decade, global wind energy capacity has **doubled every 3 years**, equivalent to an annual increase of 30%. In 2014, the annual global installed wind capacity increased by 44%!
- Wind power could potentially supply **16.7% to 18.8% of global electricity by 2030**, and help save 3 billion tons of CO₂ emission annually, according to the Global Wind Energy Council.
- **Wind in Canada**

- Canada has 10,204 MW of installed wind energy, ranking 5th in the world, and can potentially increase this capacity to 55,000 MW by 2025.
- Wind energy supplies approximately 4% of Canada's electricity demand with enough power to meet the needs of over 2 million Canadian homes.



- **Wind in British Columbia**

- BC's first wind farm started commercial operations in November 2009. Today, the province has **489 MW** of installed wind energy capacity in **five wind farms**, ranking fourth in Canada and is able to supply **2%** of the province's domestic electricity demand.

- **Wind in Merritt area**

- MKI is developing three potential projects in the area immediately north of Merritt: Mt. Mabel, Mt. Guichon, and Mamette Lake, for up to 100 MW of potential capacity.

For more information please contact:

Martin Ince, P. Eng.
President and Founder

 **MKI** M. K. Ince and Associates Ltd.

612 Lefevere Ave., Kelowna BC, Canada V1W 5G7

(778) 998-3684

martin@mkince.ca

www.mkince.ca