

DOKIE: WIND FARM - POWER PROJECT

- ✔ **Fully operational**
 - 48 Vestas V90 wind turbines
 - Switchyard
 - 7 km 230 kV transmission lines
- ✔ **Project ownership**
 - 51 % - Alterra Power Corp
 - 49 % - GE Energy Financial Services
- ✔ **Alterra Power net capacity 73.4 MW**
- ✔ **25 year Energy Purchase Agreement (EPA)**
- ✔ **10 year ecoENERGY program grant - \$10 / MWh**



Dokie Wind powered electricity is EcoLogo™-Certified to Electricity-Renewable Low-Impact, CCD-003

In 2004, a survey by BC Hydro identified Dokie Ridge, site of the Dokie Wind Project, as the best inland wind generation site in the province.

Located approximately 1100 km northeast of Vancouver and about an hours drive northwest of Chetwynd, BC, the Dokie Wind Project is the largest commercial wind farm operation in British Columbia.

The Dokie Wind Project is comprised of 48 Vestas V90 wind turbines, a switchyard, seven kilometres of 230 kV transmission lines and was built over 13 months at a total project cost of \$228 million.

The project is now fully operational, capable of providing 320,000 – 340,000 MWh per year of clean energy to BC Hydro under a 25 year Electricity Purchase Agreement.

What is Wind Power?

Wind Power is actually a form of solar power. Solar radiation heats the earth's surface, but factors in the surface – such as terrain and surface material and vegetation – reflect and release absorbed heat at different rates. As a result the air above the earth's surface warms and cools at different rates. Heated air rises, reducing the atmospheric pressure near the earth's surface, which draws in cooler air to replace it. That movement of air is called wind.

When air moves, causing wind, it has a kinetic energy – the energy that is created whenever mass is in motion. With technology such as windmills and wind turbines, the wind's kinetic energy can be captured and converted to other forms of energy, such as mechanical or electrical energy.

