

## Kruger Energy, Chatham Wind Project Merlin, Ontario



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### ***Project Description:***

The Ontario Power Authority (OPA) selected Kruger Energy's Chatham Wind Project. The Chatham Wind Project includes 44 wind turbines of 2.3 MW each, all of which are erected in the Municipality of Chatham-Kent.

The planned facilities are located in a Study Area next to the Port Alma Wind Farm (KEPA) that has been developed since 2005. This area has the necessary wind potential and the nearby electrical grid to integrate the electricity that is being generated by the 44 wind turbines. Existing secondary roads, regional roads and some newly build access roads provide access to the wind turbines.

The Kruger Energy Chatham Wind Project generates enough electricity to power approximately 30,000 homes.

### ***Scope and Project Management***

The AMEC Black & McDonald Joint Venture provided complete turnkey services for this wind project, the second one for their Kruger Energy client.

#### ***Current Status:***

*Construction Completed*

#### ***Project Type:***

*Engineer, Procure, Construct (EPC)*

#### ***AMEC Black & McDonald Role:***

*Joint Venture for EPC*

#### ***Project Capital Cost :***

*\$32,000,000.*

#### ***Project Schedule:***

*Jan 2010 start, completed on Schedule*

Services included: engineering, procurement and construction (EPC) of the 101MW Wind Farm. Services included project management, design, supply, construction, and commissioning of the complete balance of plant (BOP) works. Scope of work included:

- Installation of drainage culverts for turbine entrance roads and road radius improvements
- Construction of access roads & radii into turbine sites
- Construction of crane pads for turbine erection
- 44 Turbine foundation excavation and construction of concrete foundations
- Underground electrical collector system
- Overhead electrical collector system
- Installation of Owner procured pad mounted transformers
- Installation of Owner procured main transformer in substation
- Construction of new substation
- 230kV overhead tie in to existing 230kV distribution line

Trades included civil and electrical.

### ***Key Challenges and Solutions Implemented:***



The key challenges were

In order to meet the aggressive schedule for the BOP construction, the Joint Venture identified various activities that could be done differently and more efficiently. One major variation that was implemented on this project was the use of a sub-base stabilization technique for the 30 kilometers of access road construction, which helped to reduce the overall construction period by over two months.

### ***Relevance to Future Projects***

The Kruger Energy Chatham Wind Project demonstrates once again, Black & McDonald's abilities to provide large multi-trade teams for highly complex projects in remote locations while maintaining close coordination between our resources at the site, the fabrication shop, and suppliers, with successful results.

#### ***Client References:***

***Kruger Energy***  
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*Project Manager*