STONEY CORNERS WIND FARM

Alternative Energy

WILCOX ROLE

Wilcox served as the Prime Design Consultant for this multi-million dollar, multi-phase project featuring some of the first enormous 2.5 Megawatt (MW) wind turbines to be installed in North America.

PROJECT DESCRIPTION

Wilcox was contracted by Heritage Sustainable Energy, LLC (Hertiage) to provide professional surveying, geotechnical engineering, structural engineering and construction oversight and testing services for the development of a 100 Megawatt (MW) wind farm in Missaukee County, Michigan.

This multi-million dollar, multi-phase project features the first Fuhrlander 2.5 MW Wind Turbines to be installed in North America. With turbine hub heights of 100 meters, the project provided a unique challenge for Wilcox geotechnical and structural engineers. Because of the loose sand present in the hilly terrain, deep piling foundations were required to support the massive equipment. Wilcox utilized state-of-the-art down-hole soil pressure meter equipment during design and pile driving analysis (PDA) equipment to monitor final placement of the piles during construction.

The construction phase began with drive approaches and foundations being installed in the fall of 2007. Wilcox provided material testing and construction inspection of the access drives, pilings, and concrete foundation. The new substation for interconnection to the electric grid was completed in early 2008, and the first turbines were erected and placed online in September 2008.

Wilcox is poised to take advantage of Michigan's recently signed Renewable Portfolio Standards legislation which mandates that 10% of Michigan's electricity come from renewable sources such as wind by 2015. In addition to the services provided to Heritage, Wilcox can provide all services to support a wind energy project with a full service engineering approach.

Our team worked closely with representatives from Heritage to provide the following services:

- Determination of Turbine Locations with Heritage and Land Owners
- Boundary and topographic surveys
- Legal and easement descriptions
- Geotechnical Investigations
- Tower Foundation Designs
- Site/Civil Design
- Construction Staking
- Material Testing
- Construction Oversight

Wilcox

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