

**Sargent & Lundy Services:**

- ❑ Substation Engineering & Design
- ❑ Material and Equipment Procurement Support
- ❑ Construction Field Services

Goldwind USA  
Chicago, IL

Sargent & Lundy performed engineering for Goldwind's Shady Oaks 109.5 MW Wind Farm Project, which includes 68 1.5-MW and 3 2.5-MW Goldwind permanent magnet direct drive (PMDD) turbines. The project is located in Lee County in north central Illinois.

S&L's scope of work for this project included engineering and design of:

- 138 kV Interconnection Switchyard
- 138/34.5 kV Project Substation

The substation scope of work included electrical and structural engineering, grading design, development of material, equipment and construction specifications, along with full support for procurement of material and equipment and selection of a construction contractor.

S&L and the Goldwind team coordinated with ComEd and PJM for interconnection of the wind farm to the 138 kV transmission system and to ensure that the switchyard complied with ComEd standards and practices.

Goldwind acquired the Shady Oaks Project from developer Mainstream Renewable Power (Dublin, Ireland) at the end of 2010. S&L was supporting Mainstream as Owner's Engineer during development of the project in 2010.

Detailed engineering and procurement support was initiated for Goldwind in March 2011. Engineering drawings were issued for construction in July 2011.

S&L is providing on-site quality control surveillance for the substation construction, as

well as commissioning services. The project is scheduled to be in service by the end of 2011.

Energy from the project will be sold under a 20 year renewable energy offtake agreement with ComEd through the Illinois Power Agency's long term procurement plan.

Goldwind USA was established in early 2010 and is a wholly owned subsidiary of Xinjiang Goldwind Science & Technology Co., Ltd. Goldwind USA leverages a global network of facilities and partnerships to offer a variety of wind power solutions including sales, manufacturing, operations and other services to customers throughout the Americas. Goldwind is the fourth largest manufacturer of wind turbines, with over 6,000 MW of turbines operating globally. Shady Oaks is their first utility-scale project in the U.S.



Goldwind 1.5 MW PMDD Wind Turbine