

HAGERMAN ENERGY

General Contractors | Construction Managers | Design-Builders | Green Builders



Taylor University Renewable Energy Projects

As a part of the Nussbaum Science Building Addition Project (The Hagerman Group - CM at-risk), student developed renewable energy projects harnessing both wind and solar (PV) power were coordinated by Hagerman under the science building contract. Our base contract for the science building included the installation of a geothermal heating and cooling system for the new addition. These three renewable energy systems, and The Hagerman Group's role on each, are discussed in more detail below.

WIND | Completed: September 2011

The Hagerman Group was responsible for coordinating all work between our subcontractors and ECI (Fairmount, IN), the wind turbine generator installer. The Hagerman Group *also* performed selected site work and electrical rough-in from the science building to the tower electrical panel. The project entailed the installation of two 50 kW Endurance E-3120 wind turbines, both feeding the main electrical panel in the science building.

SOLAR | Completed: November 2011

The Hagerman Group was responsible for coordinating all work between our subcontractors and EC1, the solar array installer. The Hagerman Group provided the structural support system for the solar array as well as electrical power from the building grid system to the inverter. The project includes 42 solar panels mounted on the existing science building roof. Total electrical power generated by the solar PV array is 10 kW. The client selected Onyx ONX-245B as the panel of choice for this installation. A separate photovoltaic panel manufactured by BP will be set on the roof to deliver DC power into a lab in the building for students to utilize during class.

GEOTHERMAL | Completed: March 2012

The Hagerman Group was responsible for coordinating and scheduling the geothermal system with all trades on the project. The geothermal system consists of seven (7) wells at an average depth of 130 feet. These seven wells at maximum flow will produce a total of 600 gallons per minute to the science building. The well water pumps are variable frequency drive controlled so only the required amount of water will be pumped to the heat exchanger to transfer the heat / cooling properties of the well water to the building system side. Following the transfer process, the water is discharged from the building to an open air stream that leads to the University Lake.



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