

Duke Energy Indiana Alternative Energy Activity

100 MW Benton County Wind Project - August 2006 Duke Energy Indiana filed a petition with the IURC for approval of a purchased power agreement for approximately 100 MW of capacity generated by wind turbines. The proposed project is a wind farm to be located in Benton County, Indiana. Duke Energy Indiana will enter a 20-year power purchase agreement (“PPA”) with Benton County Wind Farm, LLC (“Benton County Wind”, a subsidiary of Orion Energy) to purchase all of the energy produced by wind turbines with a capacity of approximately 100 MW.

Coal Mine Methane - Vigo County, Indiana in March, 2006 the IURC approved Duke Energy Indiana entering into a purchased power agreement with BGT Green Valley Energy Project, LLC to purchase approximately 4 MW, with a potential to increase to approximately 10 MW, of power generated from methane gas from an abandoned coal mine near Terre Haute, Indiana. The agreement is at a fixed price for 15 years. Methane gas is a greenhouse gas whose potential global warming effect on the atmosphere is 21 times more deleterious than carbon dioxide.

Purdue Biomass Co-Firing Study - July 2006 Duke Energy support for a feasibility study through the Purdue University’s Energy Center in Discovery Park to use switchgrass as a biomass fuel in co-firing with the circulating fluidized bed coal facility at Purdue’s Wade facility. Switchgrass is a hardy, perennial grass common throughout central North America and can grow to be as tall as 12 feet. Due to its rapid growth and high yield, it is often considered a good candidate for biomass and has been touted in the production of ethanol.

Wind Assessment Study - 2006 Duke Energy in cooperation with Purdue University installed a 50 meter meteorological tower at the Purdue Agricultural Research Center to further increase the wind resource research in Indiana.

State of Indiana Wind Power Resource Assessment - December 2005 Cinergy Services commissioned a study to evaluate the potential for wind development based on available public wind resource data. The study was completed by a National Science Foundation IGERT Fellow & PhD Candidate from the Wind Science and Engineering Research Center of Texas Tech University, Lubbock Texas. The findings and explanations of wind resources assisted Duke Energy in its evaluation of wind as a supply resource for the Duke Energy Indiana operations.

Biomass Co-firing Feasibility Study - February 2004 Burns & McDonnell performed a biomass co-firing feasibility study commissioned by Cinergy with the primary purpose to assess the feasibility of co-firing biomass fuels at existing coal-fired power plants in the State of Indiana. The study reviewed the technical and economic viability of biomass co-firing.

Renewable Energy Demonstrations

Green Tariff Demonstrations - 2004 through the voluntary customer donations in the Green Tariff and support of Cinergy, two renewable demonstrations have been installed. A 10 kW wind generator at the INDOT Interstate 65 rest area near Wolcott, Indiana and a 7.5 kW Solar installation at the Duke Energy Indiana customer Service Center in Bloomington, Indiana. In 2006 a third demonstration at the Duke Energy Indiana customer service center in Kokomo Indiana is planned and will feature a Solar tracking installation.

Duke Energy Indiana - DSM programs have installed solar panel demonstrations at a variety of locations throughout Indiana to raise the awareness of renewable energy

- **Schools** - 8 installations (2002-2005 prior to Order approval) with 2 schools currently being installed in 2006.
- **Residential** - 6 installations (2003-2004 prior to Order approval) - with 6 homes currently being installed in 2006 at Evergreen Village (description below).
- **Evergreen Village** - an affordable home ownership program in Bloomington Indiana built high energy efficiency standards with six homes provide with 2 kilowatts of solar power.

Biogas Recovery and Electrical Cogeneration

Cinergy commissioned two studies to evaluate the feasibility of power production from manure. The objective was to study the economic potential for power production while addressing environmental waste management issues for livestock operations.

- October 2003 a study was completed to explore the engineering and financial feasibility of installing an anaerobic digester system at a farrow-to-finish swine facility east of Indianapolis. The study focused on collection and use of manure from the finishing barns.
- July 2002 a study was completed to explore the engineering and financial feasibility of installing an anaerobic digester system at Purdue University farm at the Purdue Animal Sciences Research & education Center. The study focused on the 186 cow dairy herd facility.
- Both studies revealed the “economic hurdles” in developing biogas projects on Indiana farms.

