VECTREN
Live Smart

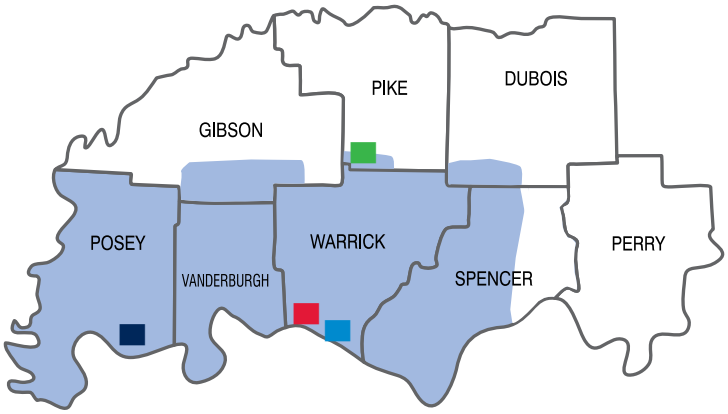
who we are

Electric Generation and Environmental Stewardship

Power Supply *Vectren's Electric Generation*

By taking advantage of abundant southwestern Indiana coal reserves, Vectren Power Supply generates electricity primarily with coal-fired units and then supplements that generation with natural gas-fired peaking units and a renewable energy. Our generation facilities include: F. B. Culley Generating Station; A.B. Brown Generating Station; Warrick Unit 4 whose operation and ownership is shared with Alcoa; Northeast Gas Turbines, Broadway Avenue Generating Station Gas Turbines and the Blackfoot Clean Energy Facility. Jointly, Vectren's electric generation fleet has the capacity to generate nearly 1,300 megawatts (MW) to serve 141,000 customers in a 7-county area including Dubois, Gibson, Pike, Posey, Spencer, Vanderburgh and Warrick counties.

Vectren's Electric Service Territory



Generation Fleet *Coal-Fired Generation*

F.B. CULLEY POWER PLANT Newburgh, Ind., Warrick County

- Unit 2 - 90 MW, Coal-fired generation unit, established 1966
- Unit 3 - 270 MW, Coal-fired generation unit, established 1973

A.B. BROWN POWER PLANT Mt. Vernon, Ind., Posey County

- Unit 1 - 245 MW, Coal-fired generation unit, established 1979
- Unit 2 - 245 MW, Coal-fired generation unit, established 1986
- Unit 3 - 80 MW, Natural gas generation unit, established 1991
- Unit 4 - 80 MW, Natural gas generation unit, established 2002

WARRICK UNIT 4 Newburgh, Ind., Warrick County

- Unit 4 - 150 MW, Coal-fired generation unit, established 1970

NATURAL GAS PEAKING UNITS Evansville, Ind., Vanderburgh County

- Northeast 1 & 2 - 10 MWs each, established 1964 and 1963
- Bags 1 & 2 - 50 and 65 MW, established 1971 and 1981

RENEWABLE ENERGY

- Wind power 80 MW - purchased under two 20-year contracts through two Benton County, Ind., wind farms
- Blackfoot Clean Energy Facility - 3.2 MW, Landfill-gas-to-electricity project at Veolia's landfill in Winslow, Ind.; established 2009

Multi-Emissions Control *Vectren's Environmental Impact*

Through the investment of millions of dollars in emissions control equipment, Vectren's power system is one of the cleanest and best-controlled in the Midwest.

- *SO_2 emissions are down 90% since 1970.*
- *NOx emissions are down 80% since 1970.*
- *All units in the Vectren system are equipped with an electrostatic precipitator or a fabric filter that can remove PM at an average of 99% efficiency.*

Quick Facts *Vectren's Progress*

- Vectren's generation fleet is already one of the cleanest in the Midwest.
- Vectren's entire electric generation fleet is 100% scrubbed for for SO_2, 90% controlled for NOx and reduces mercury emissions to meet reduction requirements.
- Only 35% of Indiana's total electric generation is expected to meet all proposed air pollutant limits that will be finalized in 2011 without further significant capital investments; Vectren's fleet is included in that 35%.
- Vectren recycles its fly ash, a by-product of coal-fired generation, through a unique sustainability partnership with Geocycle US, a wholly-owned subsidiary of Holcim (US), Inc. The $20 million project, which included the construction of storage, conveyor and loading equipment to transport the fly ash by river barges to Geocycle US's facility in Missouri where it is used to make cement, became operational in late 2009. This effort reduces the impact on the environment, in that fly ash, which was historically stored in a landfill or ash pond, is now used in cement manufacturing.

Emissions Control Timeline

- *1979* Brown Unit 1 was constructed with a dual-alkali scrubber, which helps reduce SO_2 emissions.
- *1986* Brown Unit 2 was constructed with a dual-alkali scrubber.
- *1994* Installed a flue gas desulfurization system (scrubber) shared by Culley Units 2 and 3.
- *2001-2005* Installed four selective catalytic reduction (SCR) devices on the baseload generation fleet. The project has successfully cut NOx emissions by 80%.
- *2004* Replaced an existing electrostatic precipitator at Brown Unit 1 with a state-of-the-art fabric filter. The investment increased the PM removal efficiency to 99% at this unit.
- *2006* Installed a fabric filter at Culley Unit 3. The project further reduces PM emissions.
- *2009* Completed construction of a flue gas desulfurization system (scrubber) at Warrick Unit 4.

You Should Know

Emissions Tutorial

Nitrogen Oxide (NOx)

When fossil fuels burn at sufficiently high temperatures, nitrogen oxides are formed. Although there are many sources of NOx - for example, gasoline-powered automobiles are major sources of NOx - coal-fired power plants account for approximately 25% of the emissions of NOx in the U.S.

Sulfur Dioxide (SO2)

SO2 belongs to the family of sulfur oxide gases (SOx). Sulfur is prevalent in all raw materials, including crude oil, coal and ore that contain common metals like aluminum, lead, and iron. The sulfur present in nearly all fossil fuels combines with oxygen when coal is burned and is released into the atmosphere as SO2 gas.

Particulate Matter (PM}

PM describes a mixture of tiny solid particles such as dirt, soil, dust, and ashes, as well as liquid droplets that are suspended in the atmosphere. They come from a variety of sources such as cars, factories, construction sites, tilled fields, stone crushing, and burning of wood. PM is indirectly formed when gases from burning fossil fuels react with sunlight and water vapor.

Mercury

Mercury is a naturally occurring element that is found in air, water and soil. Mercury is also found in many geological sources, including coal. When coal is burned, small amounts of mercury are released into the atmosphere and can be carried long distances, for up to a year, before falling back to earth.