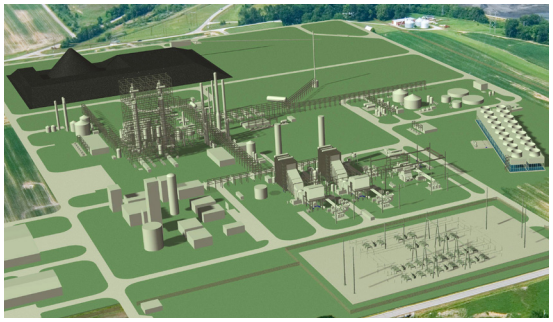
Edwardsport Integrated Gasification Combined Cycle (IGCC) Station

Project Overview



In November 2007, Duke Energy received approval from the Indiana Utility Regulatory Commission to build a cleaner-coal integrated gasification combined cycle (IGCC) plant at Duke Energy's 160-megawatt Edwardsport Station in Knox County, Indiana.

The 618-megawatt IGCC facility will be one of the cleanest and most efficient coal-fired power plants in the world. It will emit less sulfur dioxide, nitrogen oxide and mercury than the plant it replaces – while providing more than 10 times the power of the existing plant.

Coal is one of the most practical alternatives for addressing Duke Energy's additional baseload power needs in Indiana. Building the Edwardsport IGCC plant ensures that Duke Energy customers in Indiana will continue to have fairly priced, reliable energy that will help our economy grow.

The project is expected to begin commercial operation in 2012.

Potential Benefits

- Advanced clean coal technology plant with lower air emissions, less use of water, less solids generated, and generally higher efficiency than a conventional pulverized coal plant with currently required pollution control equipment.
- Retirement of current circa 1940s 160-megawatt Edwardsport power plant.
- Ability to use Indiana and Midwestern coal. The plant will use 1.7 - 1.9 million tons of coal per year, a boost for local and state economies. The coal use each year will support an estimated 170 mining jobs.
- The plant will employ an estimated 110 - 120 people. The majority of the positions will be high-skill/high-paying with an estimated annual payroll of $7 to $9 million.
- Currently about 2,500 construction and other professionals are on site and another 200 will join when construction labor peaks this fall. When completed, the plant will employ 110-120 permanent workers.
- Duke Energy has awarded more than $600 million in contracts to Indiana businesses as part of the construction.
- Increased tax base for local and state economies.
- Potential for carbon dioxide capture and safe storage in the future.

Cost

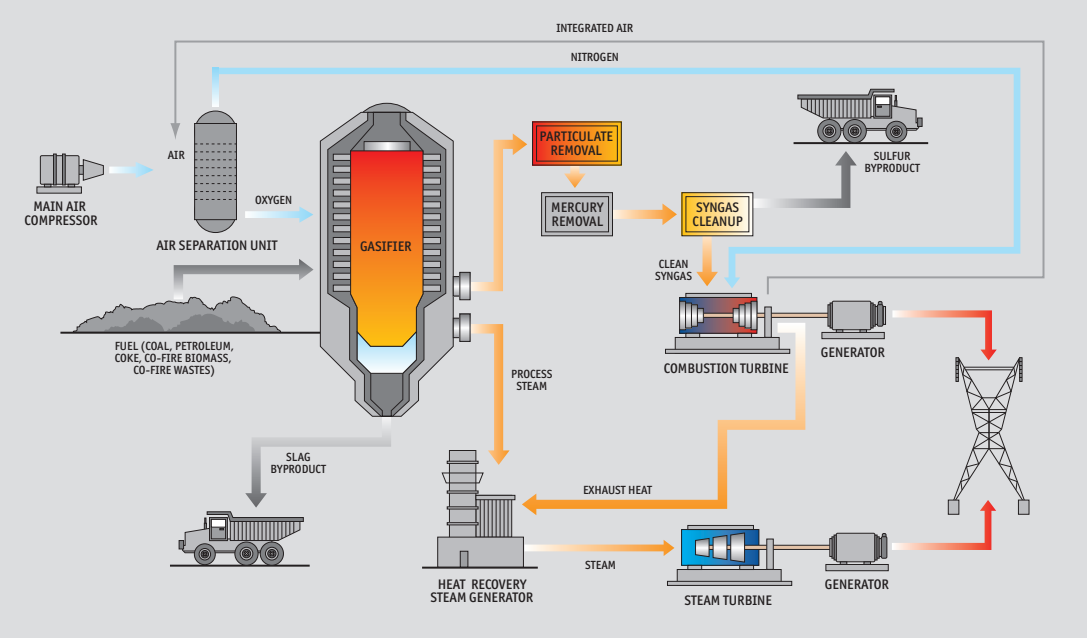
We are currently estimating a 618-megawatt IGCC plant will cost approximately $2.88 billion. The project has been awarded local, state and federal tax incentives totaling more than $460 million.

Duke Energy
Corporate Headquarters
526 South Church Street
Charlotte, NC 28202-1802

www.duke-energy.com

How It Works

IGCC uses a coal gasification system to convert coal into a synthesis gas (syngas) and produce steam. The hot syngas is processed to remove sulfur compounds, mercury and particulate matter before it is used to fuel a combustion turbine generator, which produces electricity. The heat in the exhaust gases from the combustion turbine is recovered to generate additional steam. This steam, along with that from the syngas process, then drives a steam turbine generator to produce additional electricity.



Coal gasification has seen worldwide use in chemical plant applications since the early 1900s. Through U.S. Department of Energy clean coal programs, it was developed for IGCC applications on a larger scale in the 1980s and demonstrated in a commercial setting in the mid-1990s. Currently, there are 16 sites worldwide, four of which use coal/petroleum coke for the sole purpose of generating electricity. In the United States, Duke Energy's predecessor company, PSI Energy, and Tampa Electric have been involved in demonstrating the technology since the mind-1990s.

Environmental Performance

The comparison below is between the New Source Performance Standards environmental emission limits on a coal-fired power plant and the expected emission performance of the new Edwardsport facility.

Description	Units	Current NSPS Limits (converted to lb/mmBtu)	IGCC
Sulfur Dioxide (SO_2)	lb/mmBtu*	0.16	0.014
Nitrogen Oxide (NOx)	lb/mmBtu*	0.12	0.02
Particulate Matter 10	lb/mmBtu*	0.015	0.007
Mercury	lb/mmBtu*	0.0000023	0.00000019

* Pounds per million Btu input

Duke Energy
Corporate Headquarters
526 South Church Street
Charlotte, NC 28202-1802

www.duke-energy.com