

**Bill Hoback,
Deputy Chief**

Dept. of Commerce & Economic Opportunity
Office of Coal Development
620 East Adams
Springfield, Illinois 62701-1615
Phone: 217-782-6370
Fax: 217-558-2647
www.illinoiscoal.biz.

**Discover the Power
of Illinois Coal.**



www.illinoiscoal.biz

Illinois Coal Industry at a Glance

Coal mining has a rich and proud tradition in Illinois, and 2010 will mark the 200th year since the first shipment of coal, mined from the bluffs of the Big Muddy River in southern Illinois, was shipped down the Mississippi River to New Orleans.

During those two centuries, coal mining has evolved on all fronts. Once a dangerous, back-breaking occupation — men and boys using pick axes, mules, & wooden coal carts — it is today a well-paying, still physical but highly-mechanized pursuit in which men and women carve tons of coal from the earth with the pull of a lever.

There are seven surface mines and 11 underground mines in Illinois. In 2007, Illinois miners produced 32,015,323 tons of coal from 11 counties.

For the first time, every coal-producing county in Illinois produced more than one-million tons of coal. Saline County maintained its status of the top-producing county with 11.3 million tons.

With 104 billion tons of demonstrated coal reserves, Illinois has the largest bituminous coal resources in the United States. Coal underlies 65 percent of Illinois.

In 2007, Illinois coal producers supplied coal to 48 locations in 12 states for utility and industrial use. The largest markets are utilities in Indiana, Tennessee and Florida.

In 2007, 16.5 million tons of Illinois coal was transported from the mine site by rail or truck to barge terminals on the Mississippi and Ohio Rivers. An additional 10.6 million tons was shipped to utilities and industrial facilities by rail. More than 4.8 million tons was shipped by truck to railroads or by truck directly to customers.



In 2007, Illinois miners produced 32,015,323 tons of coal from 11 counties.

Discover the Power of Illinois Coal



Bill Hoback, Deputy Chief

Dear Governor, Illinois General Assembly and Constituents:

FY2008 continued the groundwork for a comeback in the Illinois coal industry.

In December, the FutureGen Alliance named Mattoon, Illinois in Coles County as the site of the first near-zero emission, coal-fueled power plant with hydrogen production, carbon capture and sequestration. The Alliance has since purchased an option for the 440-acre parcel with hopes of revitalizing the project during the next administration.

Prairie State Generating Company broke ground in Washington County on the first base-load power plant built in 30 years. This plant, scheduled to come on line in 2012, will use 6 million tons of coal from the recently permitted and adjacent Lively Grove Mine.

Rend Lake College finalized plans for a new 20,000 sqft coal miner training facility at its campus near Ina in Franklin County, with the first classes set to begin in 2009.

Three mines closed, but coal production remained steady at 32 million tons as recipients of FY2007 grants for coal mine development ramped up development. Production at these mines will continue to increase.

The first-ever, trade mission to the European Coal Outlook Conference in France resulted in opening new export opportunities for Illinois coal mines.

These efforts and others support the mission of the Illinois Office of Coal Development.

Sincerely,

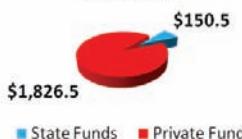
FY2008 Accomplishments

- Coal Competitiveness Program leverages record sum.
- Coal R&D Program funds 31 projects.
- Mattoon, Illinois, chosen as site for FutureGen.
- Coal Education Program reaches 5,018 teachers and students.
- OCD European trade mission results in new coal export opportunities.

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Illinois Coal Competitiveness Program

Infrastructure Investment (in millions)



2008 Investment



FY2008 marks the 12th year of the Illinois Coal Competitiveness Program aimed at making Illinois coal more competitive in domestic and offshore markets. The program encourages coal producers, coal consumers and support industries to reinvest in Illinois.

The program, funded through the Coal Technology Development Assistance Fund, receives 1/64th of the Public Utility Tax revenues collected. Since its inception in 1996, the Coal Competitiveness Program has leveraged \$1.8 billion in private investment with \$150.7 million

in state funds.

The Illinois Power Agency Act signed by Governor Rod Blagojevich on August 28, 2007, requires the Coal Technology Development Assistance Fund to support research on the capture and sequestration of carbon

emissions produced by coal combustion and to improve coal miner safety.

In FY2008 the program expended \$12,054,120 in state funds for 11 projects. The projects will improve air emissions at three coal-fueled power plants, provide a new training

facility for Illinois coal miners, and upgrade coal handling infrastructure at an industrial facility in Massac County.

KinderMorgan CO₂ Company was selected to study CO₂ capture and transportation and to determine options for major pipeline routings in Illinois.

In the area of improving miner safety, OCD provided funding for rescue chambers, electronic tracking systems, mine rescue equipment, self-contained self rescuers, and a mobile mine rescue training gallery.

The Office of Coal Development oversees the largest state-sponsored coal research and development program in the United States.



Collecting coal core samples at CO₂ coal bed sequestration site in Wabash County.

Illinois Coal Research & Development Program

OCD oversees the largest state-sponsored coal research and development program in the United States. In FY2008, OCD, with technical oversight from the Illinois Clean Coal Institute, provided \$4 million for 27 research projects and four development projects at 12 institutions.

Laboratory research projects chosen in FY2008 will initiate

and advance technologies in the areas of coal gasification, carbon management, advanced mining efficiencies, coal preparation and business practices, power generation and plant efficiencies, coal chemistry and flue gas cleaning, mercury emissions and other air toxins.

Development projects selected for funding show promise for advancing clean-coal technolo-

gies from research through the proof-of-concept stage and onto near-commercialization.

One such project is an Illinois State Geological Survey study with the United States Department of Energy that investigates various options for sequestering CO₂ from coal-fueled power plants into geological formations at a site in Wabash County.

Illinois Coal Education & Marketing Program

OCD provided coal education and awareness materials to 5,019 teachers and students.

OCD also provided materials to the Museum of Science and Industry Overnight Program in Chicago, the Illinois mAGic workshop in Sycamore, the Labor & Industry Museum in Smithton, John A. Logan College Closing the Gap Conference near Carterville, and several teacher workshops and classrooms around the state.

OCD supplies University of Illinois' agri-center with coal education materials for their mAGic

boxes. The boxes are annually distributed statewide to schools. Most recently 25 inner city Chicago schools were added to the distribution list.

The Annual Coal Education Conference continues to garner much interest due to the professional nature of the four-day event, mine & power plant tours and presentations by experts in the coal industry.

The 19th Annual Art & Essay Contest received more than 1,500 entries from students in grades 5–8. Winning entries are displayed in the Coal Calen-

dar and distributed statewide.

OCD's coal curriculum, "From the Coal Mines to the Power Lines," addresses a variety of topics and skills in science, social studies, math, language arts and economics. It is available free of charge to Illinois educators.

DCEO staff participated in its first trade mission to the European Coal Conference and to meetings and site visits to two of the United Kingdom's largest power plants. The mission resulted in increased coal opportunities for Illinois mines.



Teachers looking for fossils at a surface mine in southern Illinois.

Major Coal Projects Under Development in Illinois

Construction is underway on Peabody Energy's Prairie State Energy Campus in Washington County. The twin 810-MW electric units will use super-critical pulverized coal technology and state-of-art devices to clean flue gas post-combustion. Six million tons of coal will be supplied annually from the adjacent Lively Grove Coal Mine.

Construction is underway at Springfield City Water, Light & Power's Dallman 4 in Sangamon County. The coal-fueled boiler expansion will include low NOx burners and selective catalytic reduction for nitrogen control, flue gas desulfurization for sulfur dioxide control and a pulse jet fabric filter for particulate capture. The facility will use 2 million tons of coal annually.

Secure Energy is developing a \$500 million gasification plant in Decatur, Illinois. The plant will produce 67,000 mmBtu/day of pipeline quality synthetic natural gas. The facility known as Secure Energy Decatur Gasification Plant will be located adjacent to the Caterpillar Tractor Company plant and will use up to 1.5 million tons of Illinois coal annually.



Construction of CWLP boiler expansion is ahead of schedule and under budget.

Illinois Coal Technology Demonstration Program & Coal Revival Program

The Coal Technology Demonstration Program provides partial funding for the selected demonstration of advanced coal systems for utility and industrial use.

The projects bring a new generation of clean coal techniques to the commercial marketplace and provide near-term benefits to the state and local

communities through increased employment, personal income and tax revenues.

The Coal Revival Program provides financial assistance in the form of grants to assist with the development of new, coal-fueled electric generation capacity, coal gasification and integrated gasification combined cycle facilities in Illinois.

Previous Investment Shows Continued Growth

Headquartered in Des Plaines, Illinois, Gasification Technology Institute (GTI) is a DCEO success story. GTI built a Flex-Fuel Gasification Test Facility with the aid of an FY2003 OCD Coal Competitiveness grant for pilot-scale testing of the gasification of coal and biomass.

Grants in FY2005 and FY2007

added an acid gas treatment pilot plant, high-pressure oxygen system, sulfur capture system and a filter fines system. These systems extend coal research to applications in coal-to-hydrogen, coal to synthetic natural gas, coal-to-liquids and CO₂ capture. State funds invested totaled \$2.9 million.

In FY2008, GTI staff conducting research on coal gasification grew from 10 to 47 as a result of \$43.3 million in private industry and USDOE funding.



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