

# The Economic Impacts of an Coal Mining Facility in Vermillion and Champaign Counties, Illinois



## Construction Impacts Operations Impacts

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The findings and conclusions presented in this report are those of the authors/project team alone and do not necessarily reflect the views, opinions, or policies of the officers and/or trustees of Northern Illinois University.

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## Construction Impacts on the Vermillion and Champaign County Economies

The Regional Development Institute (RDI) at Northern Illinois University completed an analysis of the economic impact of construction of a coal mining facility on the Vermillion County economy. The coal mining facility is based in Vermillion County but is just miles from the Champaign County boarder. Therefore, economic impacts were analyzed for both Counties.

The analysis includes the economic impact of construction of the coal mining facility over the duration of the construction project estimated at 24 months. Annual operational impacts are reported in the second section of this report.

The analysis was completed using the IMPLANPro input/output model developed by Implan group. The model is unique in that the I/O coefficients are based on 2008 county specific patterns and include both industry specific direct and indirect costs.

Direct impacts are those that result from construction such as employee compensation, output, and taxes. Indirect impacts are the secondary effects on the area. For example, as a result of constructing the facility, the Vermillion and Champaign County economies will experience increased economic activity. This will lead to increases in employment, compensation, and output in retail trade, health and social services, and other industry sectors. The analysis does not include any economic impacts on surrounding counties related to this construction project.

To complete the analysis, construction estimates were provided by Sunrise Coal. Total construction is estimated at \$150 million as follows:

• equipment and engineering	\$ 80 million
• land	\$ 10 million
• building and surface improvements	<u>\$ 60 million</u>
Total construction costs	\$150 million

## SUMMARY OF OVERALL ECONOMIC IMPACTS

<b>Coal Mining Facility Vermillion and Champaign Counties, Illinois</b>			
	<b>Direct</b>	<b>Indirect</b>	<b>Total</b>
<b>Construction (duration of project)</b>			
Employment (full time equivalent)	807	433	1240
Employee Compensation	\$38.4 million	\$16.2 million	\$54.6 million
Output	\$150.0 million	\$53.2 million	\$203.2 million
Value Added	\$58.3 million	\$31.3 million	\$89.6 million

## SUMMARY OF EMPLOYMENT IMPACTS

- Construction of the coal mining facility will directly create 807 full- and part-time jobs over the duration of the construction project. Indirect employment of 433 full- and part-time jobs will also be created in the region as a result of the construction project.
- Indirect employment will have the greatest impact in the following industries:
  - 43 in food services and drinking establishments
  - 38 in wholesale trade
  - 31 in architectural, engineering, and related services
  - 18 in real estate establishments
  - 17 in offices of physicians, dentists, and other health practitioners
  - 15 in private hospitals
  - 12 in employment services
  - 12 in retail Stores - food and beverage
  - 12 in retail Stores - general merchandise

## SUMMARY OF OUTPUT IMPACTS

Output represents the value of an industry's business activities including sales and is used as a measure of overall industry productivity.

- Construction of the coal mining facility will generate nearly \$203.2 million in direct and indirect economic activity (sales and output) over the duration of the construction project.

- Construction of the coal mining facility itself will result in \$150.0 million in direct, in addition to \$53.2 million in indirect output.
- Industries with the highest indirect output impacts include:
  - \$6.0 million in wholesale trade
  - \$5.4 million in rental activity for owner-occupied dwellings
  - \$3.9 million in architectural, engineering, and related services
  - \$3.5 million in real estate establishments
  - \$3.0 million in telecommunications
  - \$2.3 million in offices of physicians, dentists, and other health practitioners
  - \$2.2 million in food services and drinking establishments
  - \$1.8 million in commercial and industrial machinery and equipment rental/leasing
  - \$1.7 million in private hospitals

## SUMMARY OF VALUE ADDED (Wealth) AND EMPLOYEE COMPENSATION

Value Added is a measure of wealth created by business in terms of total of employee compensation, rent, interest, taxes, and profit paid or earned, and is an important indicator of the industry's productivity and regional sector strength. Employee compensation includes wages and employee benefits.

- Construction of the coal mining facility will increase the value added (wealth) of the region by \$89.6 million over the duration of the construction project, \$58.3 million will be from construction of the plant directly and \$31.3 million from indirect impacts on other industries.
- Direct and indirect employment from construction of the coal mining facility will result in total employee compensation of \$54.6 million being paid by employers over the duration of the construction project, \$38.4 million directly as a result of construction, and an additional \$16.2 million from indirect impacts on other industries.
- Indirect employee compensation impacts will be greatest in the following industries:
  - \$1.9 million in architectural, engineering, and related services
  - \$2.1 million in wholesale trade
  - \$1.3 million in offices of physicians, dentists, and other health practitioners
  - \$804,000 in private hospitals
  - \$736,000 in food services and drinking establishments
  - \$538,000 in legal services
  - \$451,000 in monetary authorities and depository credit intermediation activities
  - \$404,000 in telecommunications

- For every million dollars of employee compensation paid to construction workers during the construction of the facility, other businesses in the state will pay an additional \$376,000 in employee compensation.

## **OTHER ECONOMIC IMPACTS**

- Construction of the coal mining facility will generate over \$11.9 million in federal taxes and 5.7 million in state and local taxes over the duration of the construction project. Local tax generation includes \$400,000 in sales tax revenue and \$1.6 million in property tax revenue over the duration of the construction project.

## **Operational Impacts on the Vermillion and Champaign County Economies**

The Regional Development Institute (RDI) at Northern Illinois University completed an analysis of the economic impact of annual operations for a coal mining facility on the Vermillion and Champaign County economies. The coal mining facility is based in Vermillion County but is just miles from the Champaign County boarder. Therefore, economic impacts were analyzed for both Counties.

The analysis was completed using the IMPLANPro input/output model developed by Implan group. The model is unique in that the I/O coefficients are based on 2008 county specific patterns and include both industry specific direct and indirect costs.

Direct impacts are those that result from annual operations such as employee compensation, output, and taxes. Indirect impacts are the secondary effects on the area. For example, as a result of facility operations, the Vermillion and Champaign County economies will experience increased economic activity. This will lead to increases in employment, compensation, and output in retail trade, health and social services, and other industry sectors. The analysis does not include any economic impacts on surrounding counties related to the operation of this facility.

The economic impacts in this analysis were developed based on a coal mining facility with total employment of 300 permanent workers. Analysis for the coal mining facility was completed based on the North American Industrial Classification Code 212100 – Coal Mining, which is the lowest level of detail available.

As part of the validation process, the results provided by the model were compared with estimates of the annual payroll and output information provided by Sunrise Coal. The economic impacts for the coal mining facility are based on the following assumptions:

- 300 total employment
- \$30 million in employee compensation including wages and fringe benefits
- \$120 million in annual output



## SUMMARY OF OVERALL ECONOMIC IMPACTS

<b>Coal Mining Facility Champaign and Vermillion County Illinois</b>			
	<b>Direct</b>	<b>Indirect</b>	<b>Total</b>
<b>Operations (annually)</b>			
Employment (full- and part-time)	300	303	603
Employee Compensation	\$30.0 million	\$11.5 million	\$41.5 million
Output	\$120.0 million	\$40.4 million	\$160.4 million
Value Added	\$56.8 million	\$23.3 million	\$80.1 million

## SUMMARY OF EMPLOYMENT IMPACTS

- The coal mining facility will employ 300 employees in Vermillion and Champaign Counties. Indirect employment of 303 full- and part-time jobs will also be created in the counties as a result of coal mining operations.
- Indirect employment will have the greatest impact in the following industries:
  - 284 in food services and drinking establishments
  - 18 in wholesale trade
  - 12 in offices of physicians, dentists, and other health practitioners
  - 11 in management of companies
  - 11 in real estate establishments
  - 11 in private hospitals
  - 10 in architectural, engineering, and related services
  - 10 in monetary authorities and depository credit intermediation activities
  - 9 in transport by truck
- For each 100 employees added to the coal mining facility, 101 additional jobs will be created in the counties.

## SUMMARY OF OUTPUT IMPACTS

Output represents the value of an industry's business activities including sales and is used as a measure of overall industry productivity.

- The presence of the coal mining facility will generate \$160.4 million in direct and indirect economic activity (sales and output) in Vermillion and Champaign Counties annually, \$120.0 million in direct and \$40.4 million in indirect output.

- Industries with the highest indirect output impacts include:
  - \$3.9 million in rental activity for owner-occupied dwellings
  - \$2.9 million in wholesale trade
  - \$2.3 million in commercial and industrial machinery and equipment rental/leasing
  - \$2.1 million in real estate establishments
  - \$2.0 million in transport by rail
  - \$1.7 million in monetary authorities and depository credit intermediation activities
  - \$1.6 million in offices of physicians, dentists, and other health practitioners
  - \$1.5 million in management of companies and enterprises
  - \$1.3 million in electric power generation, transmission, and distribution

## SUMMARY OF VALUE ADDED (Wealth) AND EMPLOYEE COMPENSATION

Value Added is a measure of wealth created by business in terms of total of employee compensation, rent, interest, taxes, and profit paid or earned, and is an important indicator of the industry's productivity and regional sector strength. Employee compensation includes wages and employee benefits.

- The coal mining facility will increase the value added (wealth) of the counties by over \$80.1 million, \$56.8 million from the operations of the mining facility directly and \$23.3 million from indirect impacts on other industries in the region.
- Direct and indirect employment from the presence of the coal mining facility results in annual employee compensation in excess of \$41.5 million being paid by Vermillion and Champaign County employers, \$30.0 million directly by the coal mining facility, and an additional \$11.5 million from indirect impacts on other industries in the region.
- Indirect employee compensation impacts will be greatest in the following industries:
  - \$1.0 million in wholesale trade
  - \$938,000 in offices of physicians, dentists, and other health practitioners
  - \$612,000 in architectural, engineering, and related services
  - \$578,000 in private hospitals
  - \$532,000 in management of companies
  - \$518,000 in transport by rail
  - \$476,000 in food services and drinking establishments
  - \$460,000 in monetary authorities and depository credit intermediation activities
- Average annual employee compensation for the coal mining facility is estimated to be approximately \$101,000 including fringe benefits.

- For every million dollars of employee compensation paid by the coal mining facility, other businesses in the counties will pay an additional \$383,000 in employee compensation.

## **OTHER ECONOMIC IMPACTS**

The economic impacts of facility operations are annual impacts that apply to the initial years of operation (3 – 5). These impacts will grow as output and profits increase over time. Results could vary depending on depreciation of plant and equipment allowed and taken.

- The coal mining facility will generate \$8.3 million in federal taxes and \$10.9 million in state and local taxes annually. Local tax generation includes \$1.1 million in sales tax revenue and \$4.3 million in property tax revenue annually.