

AN ECONOMIC IMPACT ANALYSIS – A
STUDY OF THE PROPOSED
YELLOWSTONE COUNTY GENERATING
STATION

NorthWestern Energy



CIRCLE ANALYTICS

THINKING OUTSIDE THE CIRCLE

TABLE OF CONTENTS

General Description NorthWestern Energy	2
Definitions and Methods	3
The Reporting Categories	4
Executive Summary	5
Yellowstone County Generating Station, Benefits Summarized	5
Economic Impact Report - Yellowstone County Generating Station	6
Gross Economic Output.....	6
Gross County Product.....	6
Total Labor Income.....	6
Total Employment	7
Capital Income.....	7
Indirect Business Tax.....	7
About Circle Analytics, Inc.	8

GENERAL DESCRIPTION NORTHWESTERN ENERGY

This analysis seeks to measure the economic impact of the proposed Yellowstone County Generating Station. The input data was provided by NorthWestern Energy.

For more than 100 years, NorthWestern Energy has been committed to delivering safe, reliable and innovative energy solutions.

The Company provides natural gas and electricity to customers in the western two-thirds of Montana and eastern South Dakota and gas service in Nebraska. It also provides electricity to Yellowstone National Park.

NWE owns and operates a diverse generation fleet of wind, water, natural gas and coal-fired resources as well as the delivery systems for both electricity and natural gas.

DEFINITIONS AND METHODS

The Economic Impact Analysis Report is based on data sets that are specific to Yellowstone County, Montana. Typically, an impact analysis is either supported by data that is either specifically gathered for the project or it is based on historical datasets that are relative to the project's market and industry sectors. The datasets used in this report are based on information that is representative of the pertinent industry sectors; they are not, however; unique to this project.

Circle Analytics uses an input-output modeling system to report the flow of transactions between local industries, and sales by industries to households and other "final users" of goods or services.

Datasets are specific to target industry sectors and specific to geographic study areas. The report represents a broader view than simply the Project's direct expenditures or employment. For example, the analysis measures the economic "footprint" as project dollars multiply inside and outside of the market area and it includes calculations for both direct and indirect impacts

Multipliers are developed from the purchasing patterns and histories within a given market. Each industry has a unique spending multiplier. Multipliers include indirect effects and induced effects.

- Indirect effects are formed by inter-industry transactions and measure the results from the purchases of local industries.
- Induced effects measure the changes in household income and related to institutional expenditures including households and governments.

Impacts represent the total changes to the original economy as the result of a defined. The following formula is used to predict an impact. Direct effects + Indirect effects + Induced effects = Impacts

Frequency identifies whether the event provides a one-time benefit or if the benefit is annually reoccurring. The frequency of events is reported in this analysis as either 'one-time' or 'on-going'.

For additional information concerning terms and reporting formats, including references to jobs, taxes, gross county product and capital income, please review the 'Reporting Categories' below.

THE REPORTING CATEGORIES

The Gross Economic Output is the company's or the project's total economic benefit including all direct and indirect benefits. The total includes benefits that occur within and without the county project area. The Gross County Product, is the amount of benefit that is retained in the County. Typically, the remaining reports; Total Labor Income, Capital Income and Indirect Business Taxes are subsets of the Gross County Product. The Total Employment report restates Total Labor Income as the number of jobs but is not a numerical subset of the Gross County Product.

1. **Gross Economic Output:** The aggregated market value of goods and services produced by firms and government enterprises within the studied economy. It is essentially equal to the revenue collected from businesses (including indirect taxes).
2. **Gross County Product:** The total value added created by the production of goods and services in the local economy. It is analogous to the concept of Gross Domestic Product at the national level. It represents the sum of labor compensation, capital type income (profits, interests and rents), and indirect business taxes (which are mainly sales taxes but also include property taxes and government mandated fees). Gross County Product is best described as new money added because of the project.
3. **Total Labor Income:** The compensation to employees and self-employed proprietors including both wages and indirect payments such as retirement benefits, health insurance and other similar fringe benefits.
4. **Total Employment:** The number of jobs generated within the impact area including full-time and part-time positions, salaried workers and sole proprietors.
5. **Capital Income:** The sum of income such as business profits, interest and rental income. Capital Income is best described as non-labor benefits.
6. **Indirect Business Tax:** In this report, estimated taxes were provided directly by the Company and are not a subset of the Gross County Product. Typically, taxes and fees not based on the businesses' income. It may represent sales taxes (if any) levied by the state and property taxes levied against businesses as well as federal, state and local fees.

EXECUTIVE SUMMARY

YELLOWSTONE COUNTY GENERATING STATION, BENEFITS SUMMARIZED

Gross Economic Output: This report shows the Gross Economic Impact of the proposed Yellowstone County Generating Station is \$448.3 million. The total output includes \$299.5 million of Direct impacts which were increased by \$148.8 million in indirect and induced impacts.

Gross County Product: The gross county product seeks to measure the local economic impacts. The study shows that an estimated \$210.1 million of the \$448.3 million in total benefits are retained by the local markets.

Labor & Total Employment: The project is expected to produce a total \$151.7 million in labor income supporting 534 jobs, including 369 construction-related jobs and 165 jobs from ongoing operations. Note: job benefits include the direct construction benefits and actual employment related to the facility but also many indirect employees who benefit from the business-to-business transactions and household expenditures.

Capital Income: Capital Income benefits (non-labor benefits) total \$49.2 million.

Taxes: The project is expected to provide a total tax benefit of \$12.9 million, including \$8.7 million in one-time construction benefits and \$4.26 million in annual ongoing local and state tax revenues.

ECONOMIC IMPACT REPORT - YELLOWSTONE COUNTY GENERATING STATION

GROSS ECONOMIC OUTPUT

The aggregated market value of goods and services produced by firms and government enterprises in the County's economy. It is essentially equal to the revenue collected by businesses (including indirect taxes) within the County.

Target Industry	Frequency	Direct Impact	Indirect and Induced Impact	Total Impact
Construction – Yellowstone County Generating Station	One Time	\$275,000,000	\$141,717,804	\$416,717,804
Station Operations – Annual	On Going	\$24,500,000	\$7,152,949	\$31,652,949
Totals:		\$299,500,000	\$148,870,753	\$448,370,753

GROSS COUNTY PRODUCT

The total value added created by the production of goods and services in the local economy. It is analogous to the concept of Gross Domestic Product at the national level. It represents the sum of labor compensation, capital type income (profits, interests and rents), and indirect business taxes (which are mainly sales taxes, but also include property taxes and government mandated fees).

Target Industry	Frequency	Initial Purchase	Total Impact
Construction – Yellowstone County Generating Station	One Time	\$275,000,000	\$194,707,439
Station Operations – Annual	On Going	\$24,500,000	\$15,420,753
Totals:		\$299,500,000	\$210,128,191

TOTAL LABOR INCOME

The compensation to employees and self-employed proprietors including both wages and indirect payments such as retirement benefits, health insurance and other similar fringe benefits.

Target Industry	Frequency	Initial Purchase	Total Impact
Construction – Yellowstone County Generating Station	One Time	\$275,000,000	\$144,567,304
Station Operations – Annual	On Going	\$24,500,000	\$7,179,161
Totals:		\$299,500,000	\$151,746,465

TOTAL EMPLOYMENT

The number of jobs generated within the County, and includes: * full-time and part-time positions
* salary workers *sole proprietors.

Target Industry	Frequency	Initial Purchase	Total Impact
Construction – Yellowstone County Generating Station	One Time	\$275,000,000	369
Station Operations – Annual	On Going	\$24,500,000	165
Totals:		\$299,500,000	534

CAPITAL INCOME

The sum of all property type income (such as business profits, interest income and rental income) generated within the County.

Target Industry	Frequency	Initial Purchase	Total Impact
Construction – Yellowstone County Generating Station	One Time	\$275,000,000	\$41,411,080
Station Operations – Annual	On Going	\$24,500,000	\$7,802,309
Totals:		\$299,500,000	\$49,213,389

INDIRECT BUSINESS TAX

Are taxes and fees that are not based in the businesses' income. For the most part they represent sales taxes levied by the State and the county, but also include property taxes levied against businesses as well as fees imposed by federal, state and local governments.

Target Industry	Frequency	Initial Purchase	Total Impact
Construction – Yellowstone County Generating Station	One Time	\$275,000,000	\$8,729,000
Station Operations – Annual	On Going	\$24,500,000	\$4,260,000
Totals:		\$299,500,000	\$12,989,000

ABOUT CIRCLE ANALYTICS, INC.

Since 2003, the principals of Circle Analytics, Inc. have prepared hundreds of economic impact reports for state agencies, cities, counties, economic development districts and private corporations. Each report is based on datasets specific to the project's location and unique industry sectors.

Robert (Rob) Gilmore, is the founder of Circle Analytics, Inc. Rob has founded three other technology companies including Globe-1, Inc. Globe-1 provided e-commerce solutions to U.S. domestic and international markets. Before its sale the Globe-1 system was one of the largest small-business trade matching system in the US with linkages to more than 650,000 supplier companies and a dozen international markets. Rob designed and operated a U.S. trade matching solution for the U.S. Agency for International Development (USAID) and in this capacity created and operated electronic trading blocks that joined several European markets with U.S. suppliers.

Rob has represented U.S. business interests in many international forums. As an invited speaker at World Bank conferences, he introduced new strategies for trade development in emerging economies. He has extensive international experience and has consulted with senior trade officials in Asia, Europe, Africa, South America and the Caribbean.

Rob is a recipient of the Ford Foundations award for *Innovations in American Government*, and the Council of State Government's *Award for Innovation*. He and his wife Sandra reside in Naples, Florida.