



AN ECONOMIC IMPACT ANALYSIS OF NWE
OPERATIONS IN MONTANA, SOUTH
DAKOTA, AND NEBRASKA
BASED ON 2023 DATA



CIRCLE ANALYTICS

THINKING OUTSIDE THE CIRCLE

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GENERAL DESCRIPTION NORTHWESTERN ENERGY

This analysis seeks to measure the economic impact of NorthWestern Energy's many divisions located in Montana, South Dakota, and Nebraska. The input data was provided by the Company.

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

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

NWE own and operate a diverse generation fleet of wind, water, natural gas and coal-fired resources and the high-voltage electric transmission system and distribution system. It owns and operate natural gas production, transmission, and distribution systems.

DEFINITIONS AND METHODS

The Economic Impact Analysis Report is based on data sets that are specific to the Montana, South Dakota, and Nebraska markets. 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 are 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 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. 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 State 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 State project area. The Gross State Product, is the amount of benefit that is retained in the State. Typically, the remaining reports; Total Labor Income, Capital Income and Indirect Business Taxes are subsets of the Gross State Product. The Total Employment report restates Total Labor Income as the number of jobs, however; it is not a numerical subset of the Gross State 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 State 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 State 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, taxes were provided directly by the Company and are not a subset of the Gross State Product. Typically, taxes and fees not based on the businesses' income. It may represent sales taxes (if any) levied by the state and also property taxes levied against businesses as well as federal, state and local fees.

EXECUTIVE SUMMARY

MONTANA BENEFITS - SUMMARIZED

Gross Economic Output: This report shows the Gross Economic Impact of NWE's Montana Divisions totals \$2.69 billion. The total output includes \$1.9 billion of Direct impacts which were increased by \$784.5 million in indirect and induced impacts.

Gross State Product: The gross State product seeks to measure the local economic impacts. The study shows that an estimated \$1.1 billion of the \$2.69 billion in total benefits are retained by the local markets.

Labor & Total Employment: NWE Divisions produced a total \$553.6 million in labor income supporting 16,338 jobs.

Capital Income: Capital Income benefits (non-labor benefits) total \$570.7 million.

Taxes: For the year 2021, NWE reported \$148.2 million in Montana tax payments. See Rollup report for tax benefits.

SOUTH DAKOTA BENEFITS - SUMMARIZED

Gross Economic Output: This report shows the Gross Economic Impact of NWE's South Dakota operations totals \$268.8 million. The total output includes \$238.6 million of Direct impacts and \$30.1 million of indirect and induced impacts.

Gross State Product: The gross State product seeks to measure the local economic impacts. The study shows that an estimated \$133.4 million of the total \$268.8 million of the benefit are retained by the local markets.

Labor & Total Employment: NWE Divisions produced a total \$56.2 million in labor income supporting 1,135 jobs.

Capital Income: Capital Income benefits (non-labor benefits) totaled \$74.4 million.

Taxes: For the year 2021, the report estimates \$2.6 million tax payments for the South Dakota operations. See Rollup report for tax benefits.

NEBRASKA BENEFITS - SUMMARIZED

Gross Economic Output: This report shows the Gross Economic Impact of NWE's Nebraska operations totals \$53.3 million. The total output includes \$47.3 million of Direct impacts and \$5.9 million of indirect and induced impacts.

Gross State Product: The gross State product seeks to measure the local economic impacts. The study shows that an estimated \$26.4 million of the total \$53.3 million of the benefit are retained by the local markets.

Labor & Total Employment: NWE Divisions produced a total \$11.1 million in labor income supporting 225 jobs.

Capital Income: Capital Income benefits (non-labor benefits) totaled \$14.7 million.

Taxes: For the year 2021, the report estimates \$529,770 in tax payments for the Nebraska operations. See Rollup report for tax benefits.

COMBINED MONTANA, SOUTH DAKOTA AND NEBRASKA BENEFITS - SUMMARIZED

Gross Economic Output: This report shows the Gross Economic Impact of NWE's Montana, South Dakota and Nebraska Divisions totals \$3.01 billion. The total output includes \$2.19 billion of Direct impacts and \$820.7 million of indirect and induced impacts.

Gross State Product: The gross State product seeks to measure the local economic impacts. The study shows that an estimated \$1.33 billion of the benefit are retained by the local markets.

Labor & Total Employment: NWE Divisions produced a total \$621.0 million in labor income supporting 17,698 jobs.

Capital Income: Capital Income benefits (non-labor benefits) totaled \$659.9 million.

Taxes: For the year 2023, NWE activities are estimated to produce \$151.4 million in tax payments for the combined Montana, South Dakota and Nebraska markets. See Rollup report for tax benefits.

NORTHWESTERN ENERGY 2023 ECONOMIC IMPACT REPORT

NWE Annual Report: Montana Divisions, South Dakota and Nebraska

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.

Sector / Industry	Frequency	Direct Impact	Indirect and Induced Impact	Total Impact
Montana Divisions				
Butte Division	On Going	\$775,892,940	\$318,612,609	\$1,094,505,549
Great Falls Division	On Going	\$181,588,597	\$74,567,526	\$256,156,123
Billings Division	On Going	\$265,815,531	\$109,154,466	\$374,969,997
Bozeman Division	On Going	\$277,474,365	\$113,942,049	\$391,416,414
Helena Division	On Going	\$143,723,110	\$59,018,445	\$202,741,555
Missoula Division	On Going	\$227,319,608	\$93,346,504	\$320,666,112
Kalispell Division	On Going	\$38,702,725	\$15,892,884	\$54,595,609
Totals:		\$1,910,516,876	\$784,534,483	\$2,695,051,359
South Dakota	On Going	\$238,614,905	\$30,195,819	\$268,810,724
Nebraska	On Going	\$47,327,238	\$5,989,084	\$53,316,322
Total		\$2,196,459,019	\$820,719,386	\$3,017,178,405

GROSS STATE 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).

Sector / Industry	Frequency	Initial Purchase	Total Impact
Montana Divisions			
Butte Division	On Going	\$775,892,940	\$475,993,071
Great Falls Division	On Going	\$181,588,597	\$111,400,568
Billings Division	On Going	\$265,815,531	\$163,071,919
Bozeman Division	On Going	\$277,474,365	\$170,224,355
Helena Division	On Going	\$143,723,110	\$88,170,933
Missoula Division	On Going	\$227,319,608	\$139,455,526
Kalispell Division	On Going	\$38,702,725	\$23,743,261
Totals:		\$1,910,516,876	\$1,172,059,634
South Dakota	On Going	\$238,614,905	\$133,437,719
Nebraska	On Going	\$47,327,238	26,466,237
Total		\$2,196,459,019	\$1,331,963,590

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.

Sector / Industry	Frequency	Initial Purchase	Total Impact
Montana Divisions			
Butte Division	On Going	\$775,892,940	\$224,831,994
Great Falls Division	On Going	\$181,588,597	\$52,619,278
Billings Division	On Going	\$265,815,531	\$77,025,879
Bozeman Division	On Going	\$277,474,365	\$80,404,282
Helena Division	On Going	\$143,723,110	\$41,646,923
Missoula Division	On Going	\$227,319,608	\$65,870,841
Kalispell Division	On Going	\$38,702,725	\$11,214,963
Totals:		\$1,910,516,876	\$553,614,160
South Dakota	On Going	\$238,614,905	56,280,823
Nebraska	On Going	\$47,327,238	11,162,823
Total		\$2,196,459,019	\$621,057,806

TOTAL EMPLOYMENT

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

Sector / Industry	Frequency	Initial Purchase	Total Impact
Montana Divisions			
Butte Division	On Going	\$775,892,940	6,635
Great Falls Division	On Going	\$181,588,597	1,553
Billings Division	On Going	\$265,815,531	2,273
Bozeman Division	On Going	\$277,474,365	2,373
Helena Division	On Going	\$143,723,110	1,229
Missoula Division	On Going	\$227,319,608	1,944
Kalispell Division	On Going	\$38,702,725	331
Totals:		\$1,910,516,876	16,338
South Dakota	On Going	\$238,614,905	1,135
Nebraska	On Going	\$47,327,238	225
Total		\$2,196,459,019	17,698

CAPITAL INCOME

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

Sector / Industry	Frequency	Initial Purchase	Total Impact
Montana Divisions			
Butte Division	On Going	\$775,892,940	\$231,777,316
Great Falls Division	On Going	\$181,588,597	\$54,244,749
Billings Division	On Going	\$265,815,531	\$79,405,298
Bozeman Division	On Going	\$277,474,365	\$82,888,064
Helena Division	On Going	\$143,723,110	\$42,933,445
Missoula Division	On Going	\$227,319,608	\$67,905,668
Kalispell Division	On Going	\$38,702,725	\$11,561,407
Totals:		\$1,910,516,876	\$570,715,945
South Dakota	On Going	\$238,614,905	\$74,485,898
Nebraska	On Going	\$47,327,238	\$14,773,645
Totals		\$2,196,459,019	\$659,975,488

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.

Sector / Industry	Frequency	Initial Purchase	Total Impact
Montana Divisions			
Butte Division	On Going	\$775,892,940	\$60,222,831
Great Falls Division	On Going	\$181,588,597	\$14,094,443
Billings Division	On Going	\$265,815,531	\$20,631,923
Bozeman Division	On Going	\$277,474,365	\$21,536,852
Helena Division	On Going	\$143,723,110	\$11,155,421
Missoula Division	On Going	\$227,319,608	\$17,643,968
Kalispell Division	On Going	\$38,702,725	\$3,004,006
Totals:		\$1,910,516,876	\$148,289,444
South Dakota	On Going	\$238,614,905	\$2,670,998
Nebraska	On Going	\$47,327,238	\$529,770
Totals:		\$2,196,459,019	\$151,490,212

ABOUT CIRCLE ANALYTICS, INC.

Robert (Rob) Gilmore, is the founder of Circle Analytics, Inc. Since 2003, Rob has 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/or its unique industry sectors.

For more than twenty years Rob's companies have been analyzing the economic impacts of development and purchasing decisions. Circle Analytics Inc is a pioneer in analyzing and monetizing social impacts. In 2022, Circle Analytics rolled out an innovative solution to value the economic impacts of international operations. This solution is particularly beneficial for measuring impacts in foreign markets that lack classic modeling tools.

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 America's largest small-business trade matching systems with linkage to more than 650,000 supplier companies and a dozen international markets.

Rob helped design innovative tools for major procurement clients to help them better value and compare purchasing options. He 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 suppliers in Europe, Southeast Asia, the Caribbean and South American markets. These solutions linked foreign buyers with U.S. supplier companies.

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.