



# North Dakota Legislative Council

Prepared for the Energy Development and Transmission Committee

LC# 25.9039.01000

December 2023

## NATURAL GAS ACCESSIBILITY - BACKGROUND MEMORANDUM

### STUDY OVERVIEW

Section 1 of Senate Bill No. 2366 (2023) ([appendix](#)) directs the study of accessibility of natural gas in small communities. The study must include a review of existing programs to assist small communities with gaining access to natural gas and accessibility assistance programs that may need to be extended.

### PRIOR STUDIES RELATED TO NATURAL GAS AND PROPANE

During the 2019-20 interim, the Energy Development and Transmission Committee received information regarding natural gas developments, capture, usage, and services as a part of its study of a comprehensive energy policy for the state and the development of each facet of the energy industry. The committee was informed the North Bakken Expansion Project would provide 200 million cubic feet of natural gas transportation capacity per day. In addition, the project would provide approximately 67 miles of new pipeline construction, compression, and ancillary facilities to transport natural gas from core Bakken production areas in western North Dakota to an interconnection point with Northern Border Pipeline. The project was expected to be completed in 2021, cost \$220 million, be designed using 20-inch diameter pipeline, and provide residue gas service from north of Lake Sakakawea to Northern Border Pipeline in McKenzie County. Natural gas produced from the Bakken and Three Forks Formations is very high in natural gas liquids such as ethane, propane, and butane. It was expected natural gas liquid production would exceed pipeline capacity again in 2021, and until further system expansions take place or a new market option is developed.

The committee also received information regarding the Alliance Pipeline, which has the shortest connection for gas capacity. The pipeline was built to transport unprocessed, liquid-rich natural gas to the Aux Sable processing facility near Chicago, Illinois, to remove those liquids, and provide 1,050 British thermal units (Btus) of natural gas to the existing pipeline market. Because the line was built for the Aux Sable processing plant, any entity that taps the line before the liquids reach the Aux Sable processing facility has to pay an Aux Sable liquids charge. The liquids charge adds to the total cost of natural gas for unserved or underserved communities in North Dakota.

During the 2021-23 interim, the Energy Development and Transmission Committee studied natural gas and propane infrastructure development in the state. The committee received information regarding the cost ranges for various types of natural gas and propane infrastructure. The committee acknowledged several positive steps have been taken to promote and expand natural gas and propane infrastructure development to unserved and underserved communities in the state. Committee members recognized additional funds and tax exemptions might be needed to encourage improvement and expansion of natural gas and propane infrastructure. The committee indicated the state's tax incentive provisions for oil and gas are operating as intended.

The committee was informed the state is the 11<sup>th</sup> largest gas-producing state. Ninety-one communities, comprised of approximately 150,000 customers, have access to natural gas service in North Dakota. Three hundred and sixty-six communities, comprised of approximately 46,000 homes, do not have access to natural gas service. The three driving forces for new gas pipelines are supply push, demand pull, and system reliability. The committee also was informed the proposed Grasslands South project will repurpose the Grasslands Pipeline, provide access to the Baker storage field, and create up to 94,000 equivalent dekatherms per day of new firm natural gas transportation capacity from the NBP-Manning receipt location, or other new or existing receipt locations into WBI Transmission's Line Section 26, to new or existing delivery locations on WBI Transmission's Line Sections 14, 26, and 29. The design of the project includes pipeline facilities and measurement facilities. The targeted in-service date is fall 2023.

The committee was informed the proposed Bison Xpress project would add 430 million cubic feet per day of capacity on the Northern Border Pipeline and use the existing but empty Bison Pipeline to connect Bakken volumes to the Cheyenne hub in the Rockies. The capacity boost on the Northern Border Pipeline would be achieved through horsepower additions to compressor stations 4, 5, and 6 located in North Dakota. The capacity expansions in North Dakota would allow the Northern Border Pipeline to deliver 430 million cubic feet per day into the Bison pipeline,

and with additional facility modifications on Bison, allow the gas to flow into the eastern Rockies. The targeted in-service date is early 2026.

The committee was informed the North Bakken Expansion Project consists of approximately 100 miles of new pipeline and compression and ancillary facilities to transport natural gas out of core Bakken production areas in western North Dakota. The project starts near Tioga and extends to a new connection point with Northern Border Pipeline in McKenzie County. Construction began in July 2021, and the pipeline was placed in service on February 1, 2022. The expansion consists of 62.8 miles of 24-inch diameter natural gas pipeline that provides up to 250 million cubic feet per day of natural gas transportation service and provides residue gas service from north of Lake Sakakawea to Northern Border Pipeline in McKenzie County.

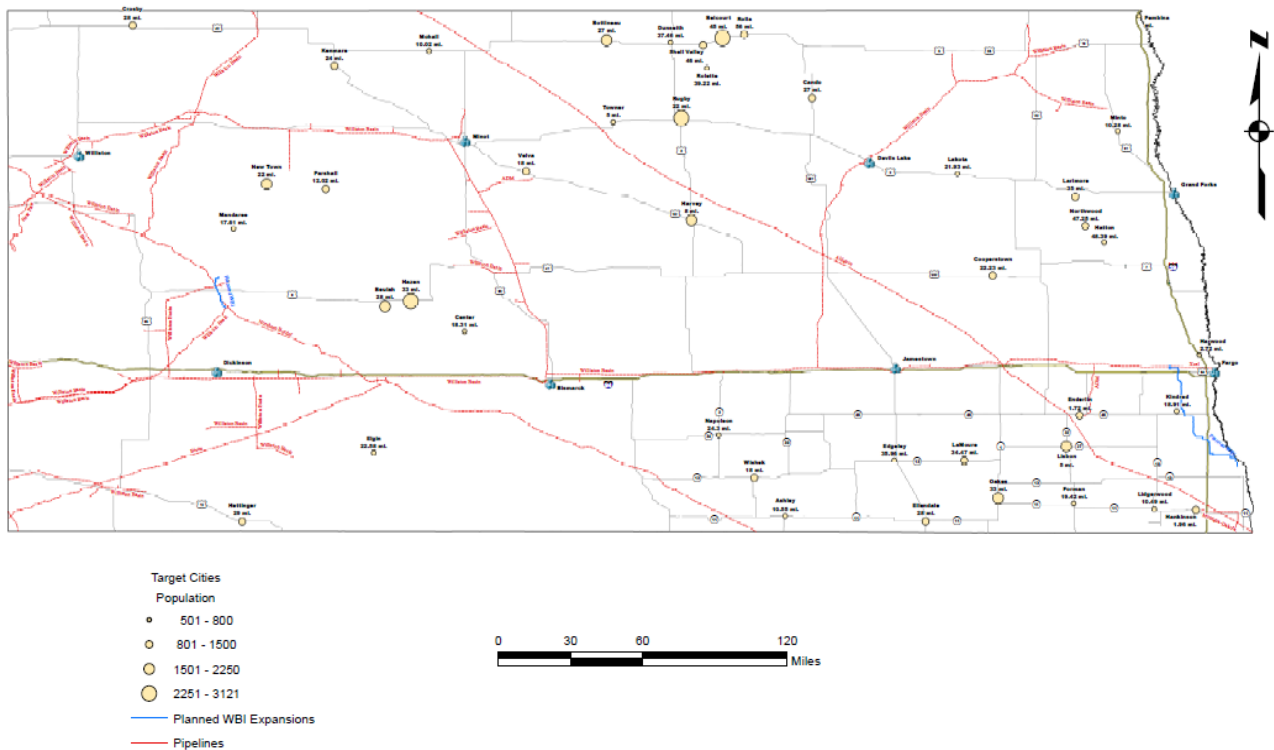
**INFRASTRUCTURE COST RANGES**

Infrastructure	Cost Ranges
HDPE Lateral Pipeline	\$400-\$600k per mile
Steel Lateral Pipeline	\$900-\$1.2 million per mile
Pipeline interconnections	\$900-\$4 million
Town Border Station	\$300-\$600k
Distributions Systems	\$750k-\$2 million

Source: Montana-Dakota Utilities Co.

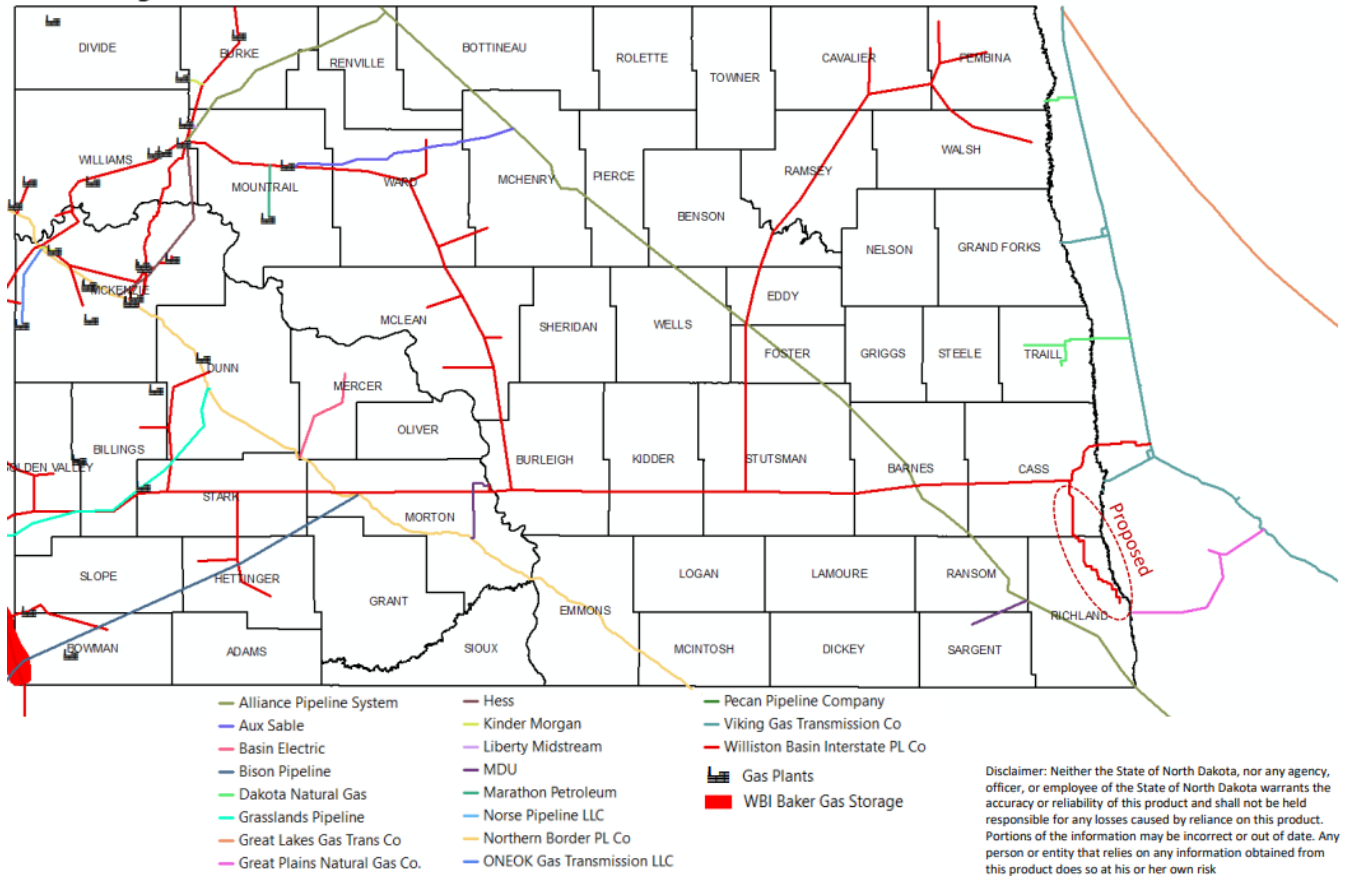
**NORTH DAKOTA NATURAL GAS SERVICES AND INFRASTRUCTURE**

**ND Towns Without Gas Services**



Source: Montana-Dakota Utilities Co.

### NORTH DAKOTA NATURAL GAS PIPELINES



Source: North Dakota Pipeline Authority

### STATE TAX INCENTIVES FOR GAS

Extracted oil and natural gas are subject to the oil and gas gross production tax and the oil extraction tax. Materials used in extraction of the oil and gas may be subject to sales or use taxes. Pipelines and other infrastructure used to transport the oil and gas may be subject to property taxes.

#### Natural Gas Energy Sources

Generators of electricity from sources other than coal or wind, with a generation capacity of 100 kilowatts or more, are subject to payments in lieu of taxes pursuant to North Dakota Century Code Section 57-33.2-04. Payments in lieu of taxes consist of a tax of 50 cents per kilowatt times the rated capacity of the generation unit, plus a tax of one mill per kilowatt-hour of electricity generated by the production unit during the taxable period.

#### Oil and Gas Gross Production Tax

Pursuant to Chapter 57-51, a gross production tax of 5 percent of the gross value at the well is levied upon all oil produced in the state, except a royalty interest in oil produced from an interest held by an organized Indian tribe or produced from a state, federal, or municipal holding. A gross production tax is levied upon all gas produced in the state and is calculated by multiplying taxable production by an annually adjusted flat rate per thousand cubic feet.

Exemptions from the gross production tax include:

- Royalty interest from gas produced from a state, federal, or municipal holding, or from an interest held by an organized Indian tribe.
- Shallow gas produced during the first 24 months of production following the date gas was first sold from a shallow gas well and gas produced from a shallow gas well during testing, but prior to well completion, or during connection to a pipeline pursuant to Section 57-51-02.4.

- Gas burned at the well site to power an electrical generator that consumes at least 75 percent of the gas from the well pursuant to Section 57-51-02.5.
- Gas collected at the well site by a system that intakes at least 75 percent of the gas and natural gas liquids volume from the well for beneficial consumption pursuant to Section 57-51-02.6.

### **Other Oil and Gas Tax Incentives**

Additional state tax incentives pertaining to oil and gas include:

- A sales and use tax exemption for materials used to reduce emissions, increase efficiency, or enhance the reliability of equipment at a new or existing oil refinery or gas processing plant pursuant to Sections 57-39.2-04.2 and 57-40.2-04.2.
- A sales and use tax exemption for gross receipts from sales of carbon dioxide used for enhanced recovery of oil or natural gas pursuant to Sections 57-39.2-04 and 57-40.2-04.
- A sales tax exemption for gross receipts from sales of natural gas or sales of fuels used for heating purposes pursuant to Section 57-39.2-04(53).
- A sales and use tax exemption for materials used to construct or expand a system used to compress, process, gather, collect, or refine gas recovered from an oil or gas well in this state or used to expand or build a gas processing facility in this state pursuant to Sections 57-39.2-04.5 and 57-40.2-03.3.
- A sales and use tax exemption for materials used to construct or expand a processing facility to produce liquefied natural gas pursuant to Sections 57-39.2-04.10 and 57-40.2-03.3.
- A sales tax exemption for materials used to construct or expand a system used to compress, gather, collect, store, transport, or inject carbon dioxide for use in enhanced recovery of oil or natural gas pursuant to Sections 57-39.2-04.14 and 57-40.2-03.3.
- A property tax exemption for equipment, machinery, tools, materials, and property necessary, and being used at the site of a producing well, for the production of oil and gas pursuant to Section 57-51-04. The property tax exemption does not apply expressly to drilling rigs, gasoline extraction or absorption plants, water systems, fuel systems, hospitals, residences, and various other buildings.
- A property tax exemption for any equipment directly used for enhanced recovery of oil or natural gas pursuant to Section 57-60-06. The property tax exemption does not apply to the land on which the equipment is located.
- A property tax exemption for property, exclusive of land, and necessary associated equipment for the transportation or storage of carbon dioxide for use in enhanced recovery of oil or natural gas pursuant to Section 57-06-17.1. The property tax exemption applies for the first 10 full taxable years following the initial operation of the pipeline but does not apply to the land on which the property and associated equipment is located. While Section 57-06-17.1 provides a property tax exemption, Section 57-06-17.2 provides carbon dioxide pipeline property under Section 57-06-17.1 is subject to payments in lieu of property taxes during the time it is exempt from taxation.

### **SUGGESTED STUDY APPROACH**

In conducting the study, the committee may wish to receive testimony from the North Dakota Pipeline Authority, Tax Commissioner, Department of Mineral Resources, North Dakota League of Cities, North Dakota Association of Counties, and utility companies. The committee may wish to focus the testimony on whether:

- There is an unmet need for natural gas in any North Dakota communities;
- The need or demand for natural gas is expected to increase;
- The need for natural gas in unserved or underserved communities is related to a lack of natural gas and propane infrastructure in those communities; and
- There are any state incentives that could encourage the development and expansion of natural gas and propane infrastructure in the state.

ATTACH:1

**SECTION 1. LEGISLATIVE MANAGEMENT STUDY - NATURAL GAS - SMALL COMMUNITIES.**

During the 2023-24 interim, the legislative management shall consider studying the accessibility of natural gas in small communities. The study must include a review of existing programs to assist small communities with gaining access to natural gas and accessibility assistance programs that may need to be extended. The legislative management shall report its findings and recommendations, together with any legislation required to implement the recommendations, to the sixty-ninth legislative assembly.