

# Overview of Report

This study focused on understanding and supporting the full use of North Dakota's natural gas resources across the state, including the potential natural gas demand and pipeline infrastructure viability for natural gas delivery in northeastern North Dakota. The document consists of two primary sections:

1. A natural gas primer summarizing North Dakota's natural gas production, transportation, and use, as well as a detailed description of the natural gas participants and their roles in the value chain.
2. Northeastern North Dakota case study describing current and future natural gas demand and highlighting the role natural gas infrastructure plays in regional economic development.

# Natural Gas Participants

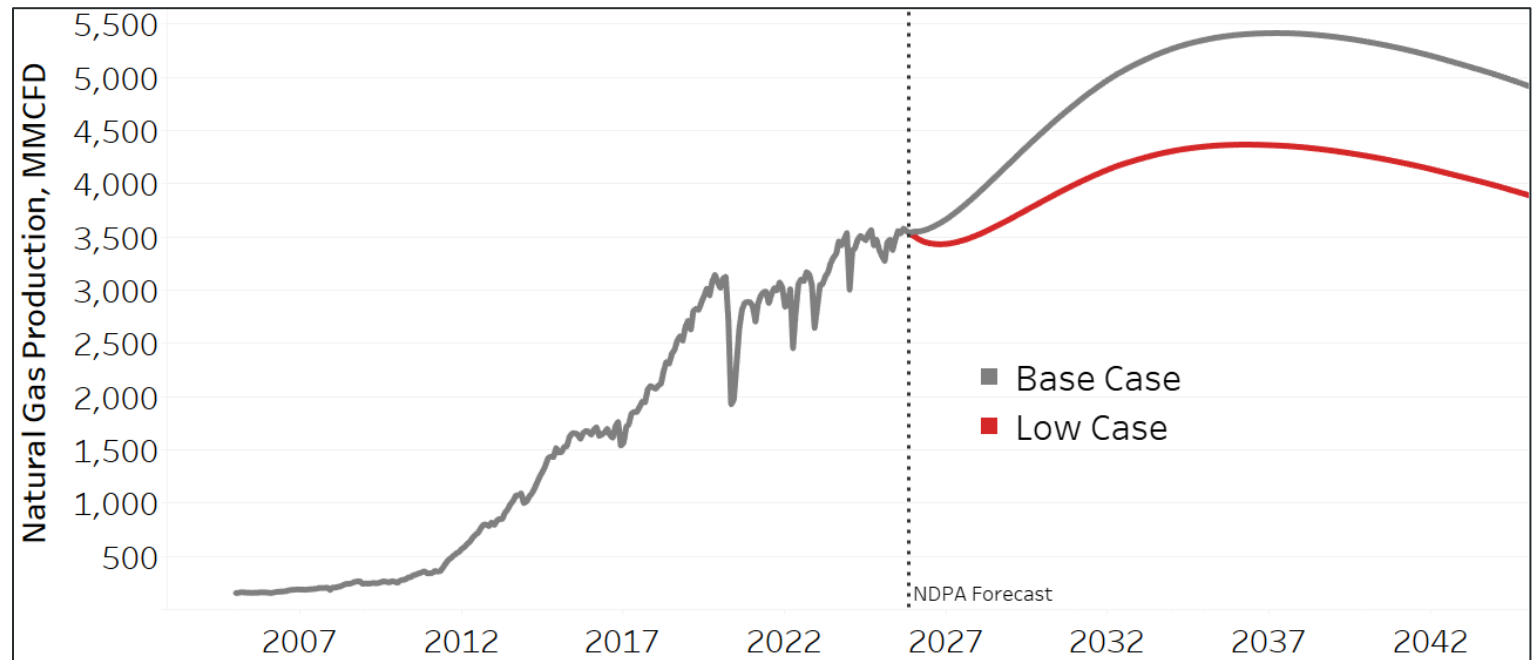
- **Producers:** collect natural gas as part of crude oil production.
  - e.g., Chord Energy, Continental Resources, Chevron
- **Midstream Companies:** operate gathering pipeline networks and gas processing plants.
  - e.g., ONEOK, Hess Midstream, Kinder Morgan
- **Transmission Pipeline Companies:** operate higher-pressure, large-diameter systems that move natural gas from the tailgate of processing plants to downstream markets.
  - e.g., WBI Energy, Alliance Pipeline
- **Local Distribution Companies:** deliver natural gas to residential, commercial, and smaller industrial customers and serve as the final link between transmission infrastructure and end users.
  - e.g., Montana-Dakota Utilities, Xcel Energy, Dakota Natural Gas
- **Marketers and Shippers:** manage contractual access to pipeline capacity and supply portfolios. They hold firm or interruptible transportation rights on one or more transmission pipelines and allocate natural gas volumes across markets in accordance with commercial agreements and tariff provisions.
  - e.g., typically, either independent marketers or LDCs and other large end users are often shippers
- **End Users:** the final point of natural gas consumption and ultimately drive long-term infrastructure development.
  - e.g., residential, commercial, industrial users, and power generation

# Natural Gas Regulators

- North Dakota Department of Mineral Resources (ND DMR)
  - State jurisdiction – gathering pipeline facilities
- North Dakota Public Service Commission (ND PSC)
  - State jurisdiction – intrastate pipeline facilities
- Federal Energy Regulatory Commission (FERC)
  - Federal jurisdiction – interstate pipeline facilities
- Pipeline and Hazardous Materials Safety Administration (PHMSA)
  - Federal jurisdiction – pipeline safety

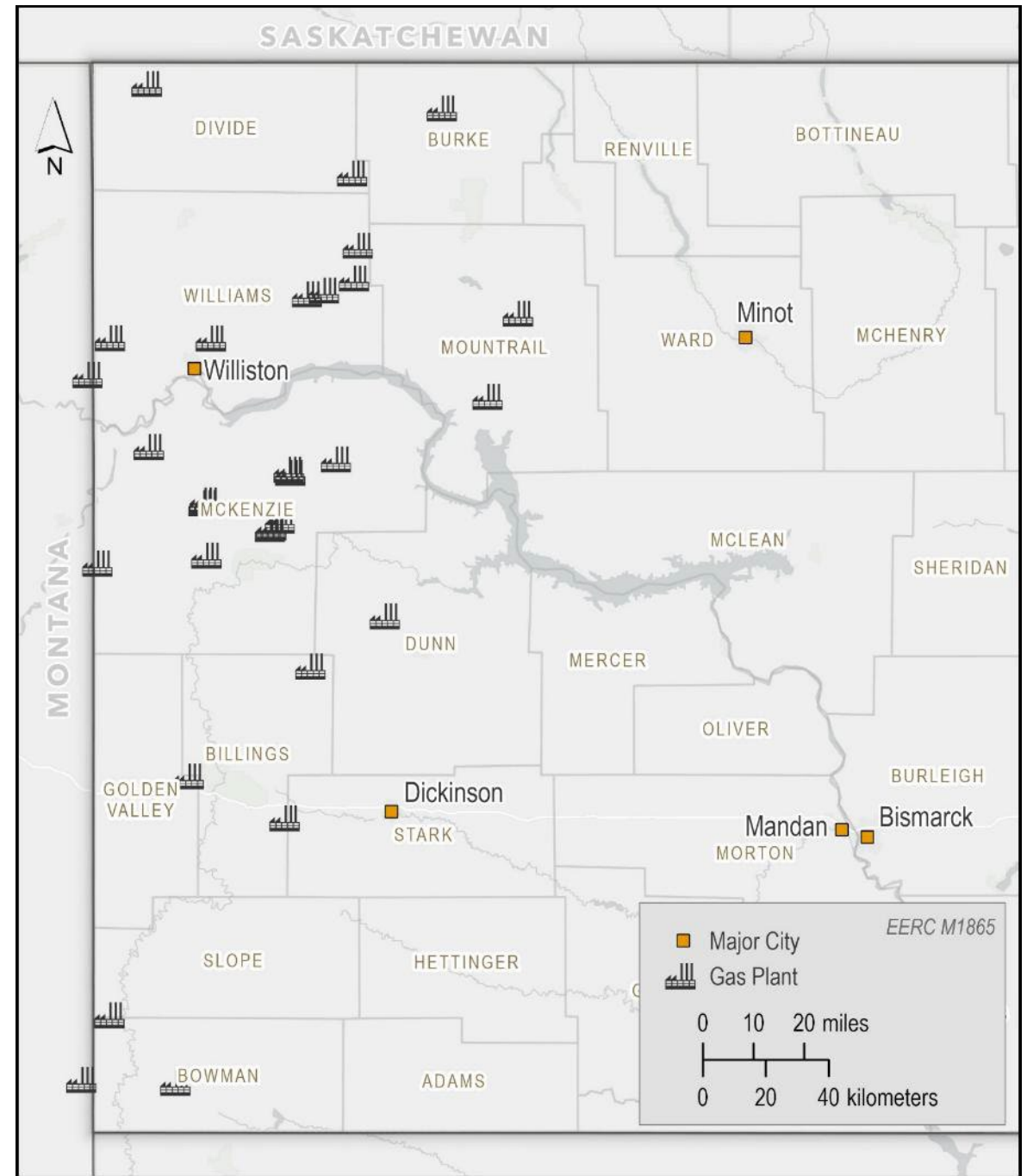
# Natural Gas Production

- Natural gas production in North Dakota results from crude oil development in the Williston Basin from the Bakken and Three Forks formations.
- Natural gas production in 2025 was approximately 3.5 billion cubic feet per day (Bcfd) and is forecast to reach a peak of 4.5 to 5.5 Bcfd by the mid-2030s.



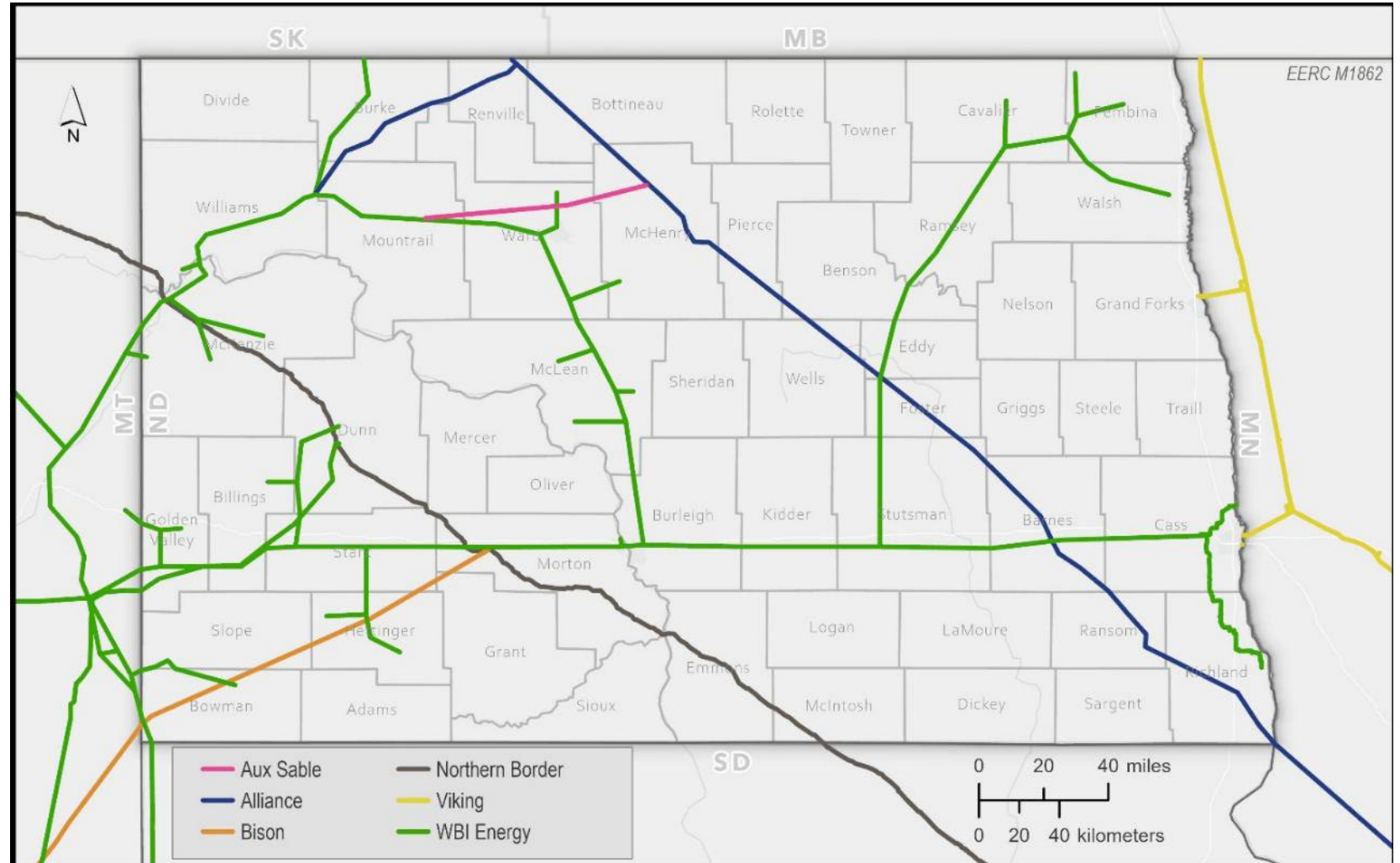
# Natural Gas Processing

Natural gas at the wellhead, also known as rich gas or associated gas, is transported via gathering pipeline network to gas plants for fractionation into natural gas liquids and residue or dry gas.



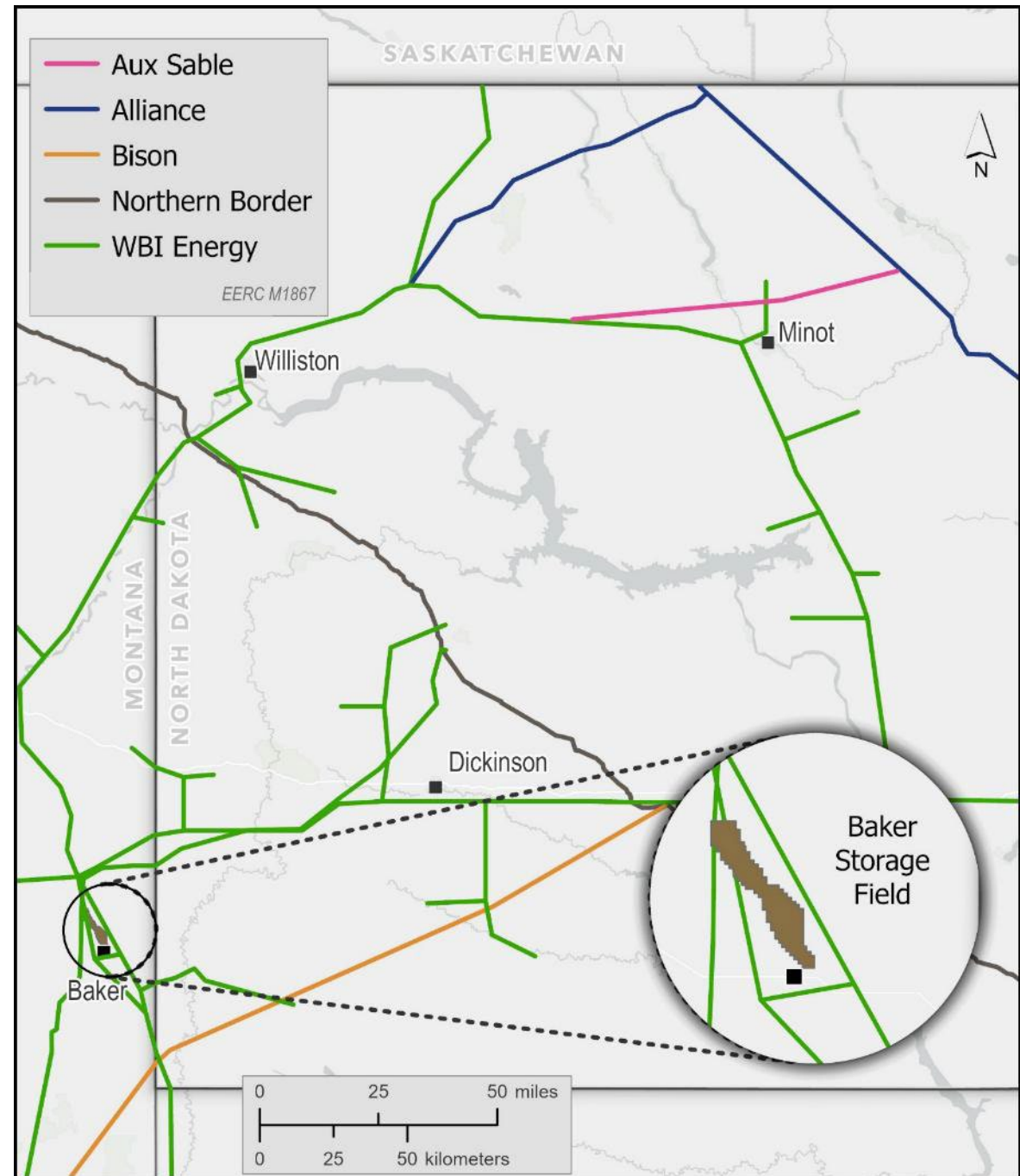
# Natural Gas Transmission

Natural gas liquids and residue natural gas are transported intrastate and interstate through a network of pipeline.



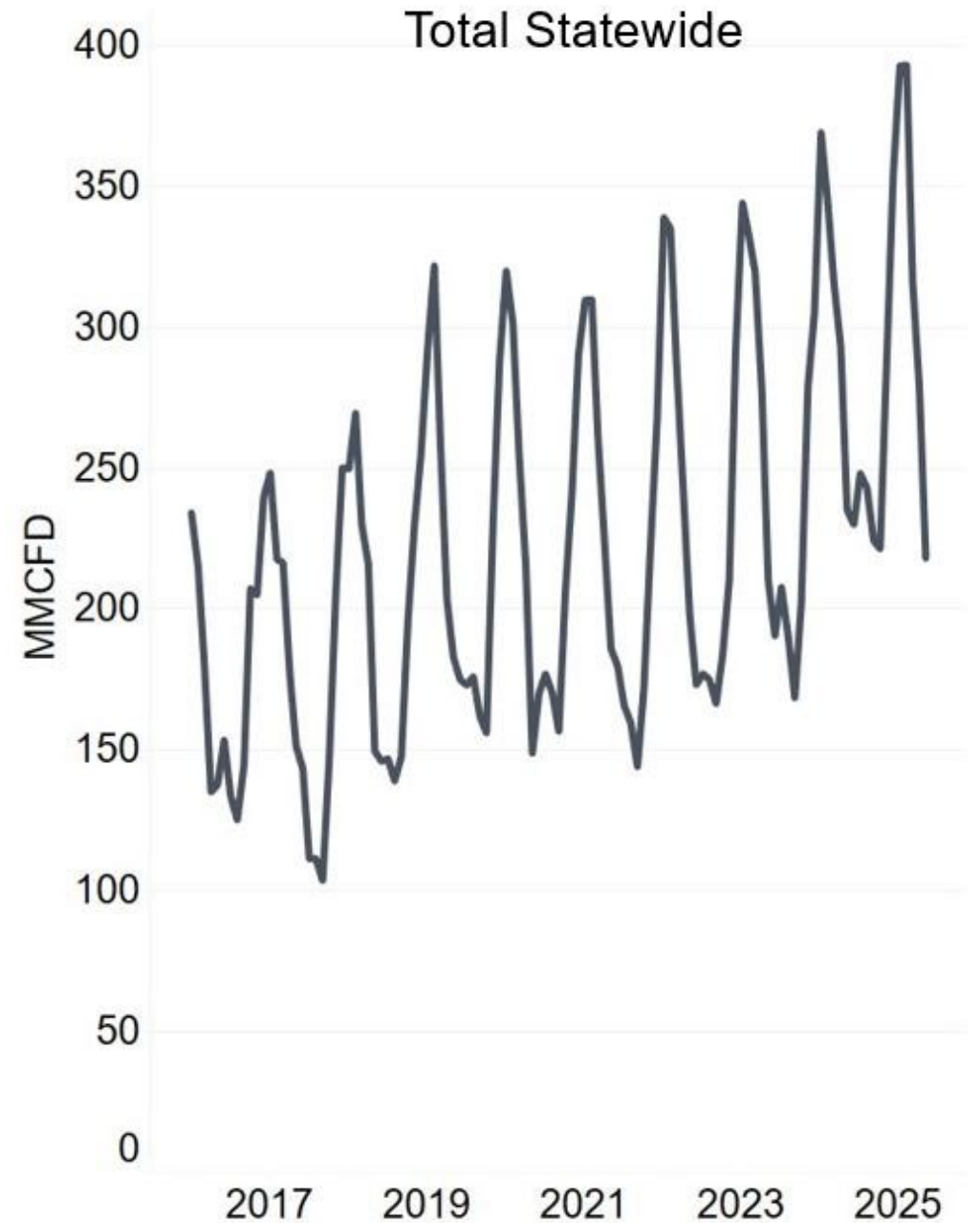
# Natural Gas Storage

- The natural gas transmission system is complimented by WBI Energy's Baker Storage Field in eastern Montana.
- The storage is critical in performing seasonal and operational balancing.



# Natural Gas Demand

In-state natural gas demand is growing and is seasonally cyclical.



# Northeastern North Dakota Case Study

- The natural gas case study focused on the general vicinity of Grand Forks in northeastern North Dakota with strong economic development.
- The northeast part of North Dakota represents a significant population within the greater Grand Forks region at an estimated population of 104,000 people.

# Current Natural Gas Demand

- Current natural gas demand under firm contract into the Grand Forks/East Grand Forks markets is approximately 57,000 Dekatherms per day (Dth/d).
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- Grand Forks region is served by two 6-inch natural gas transmission pipelines connected to the Viking Pipeline.
- Roughly 1.6% of ND current production.



# Current Natural Gas Demand (Table 1)

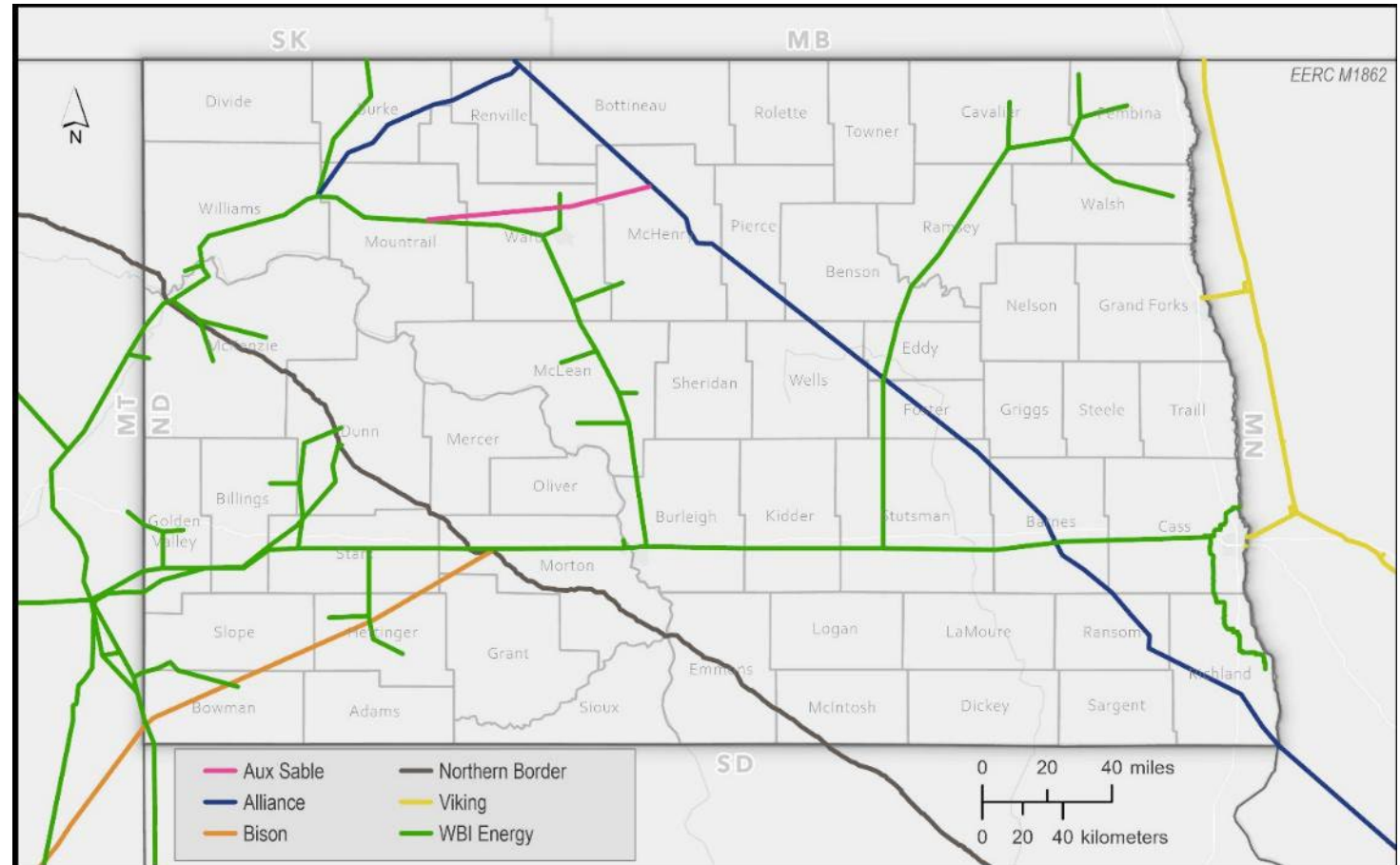
Category 1: Existing Natural Gas Consumers	
Description	Natural Gas Usage, Dth/d
NSP – Grand Forks	36,788
NSP – East Grand Forks	5,670
University of North Dakota – Grand Forks	6,000
American Crystal Sugar – East Grand Forks	4,680
JR Simplot – Grand Forks	3,500
Dakota Natural Gas – Grand Forks, Emerado, and Arvilla	500
<b>Total</b>	<b>57,138</b>

# Future Natural Gas Demand

Future natural gas demand from known project either under construction or planned could add an additional 78,000 Dth/d by the end of this decade.

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Increase of roughly 2.2% of ND production.



# Known Future Natural Gas Demand (Table 2)

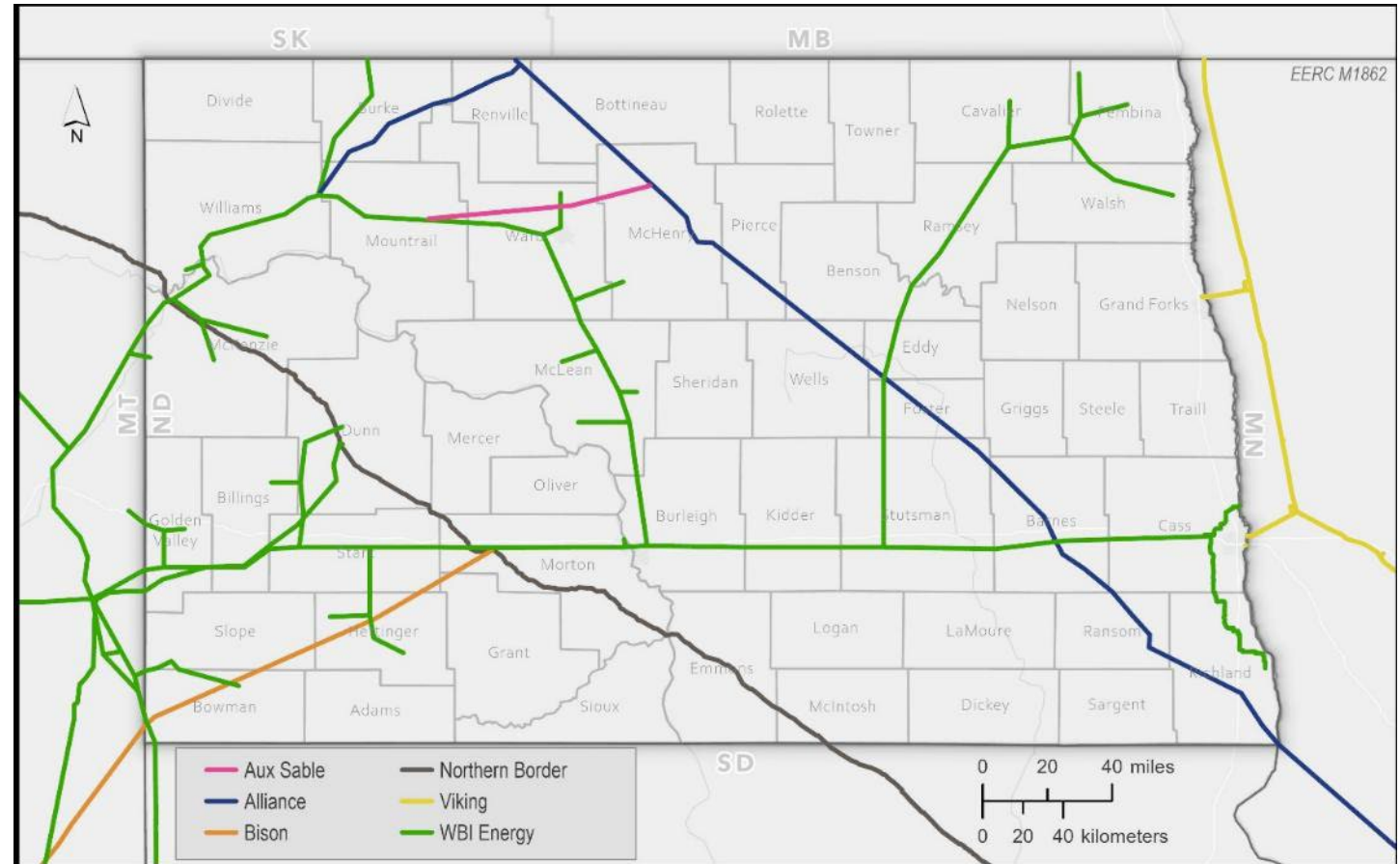
<b>Category 2: Known Future Natural Gas Consumers</b>	
<b>Description</b>	<b>Natural Gas Usage, Dth/d</b>
Agristo	15,000
Northern Plains Nitrogen	60,000
Epitome Energy	3,200
<b>Total (estimated)</b>	<b>&gt;78,000</b>

# Future Natural Gas Demand

Additional natural gas demand could be realized from any of several users identified in the case study, resulting in as much as an additional 690,000 Dth/d.

**These are categorized as hypothetical demand in the case study.**

**Not all new demand, a fuel shift would be required. Not without consequence.**



# Hypothetical Natural Gas Demand (Table 3)

<b>Category 3: Hypothetical Natural Gas Consumers</b>	
<b>Description</b>	<b>Natural Gas Usage, Dth/d</b>
Crystal Sugar – East Grand Forks	520
Crystal Sugar – Crookston	450
Crystal Sugar – Hillsboro	750
Crystal Sugar – Drayton	370
Core Scientific Data Center	28,500
Prospective Large-Loads	660,000
<b>Total (estimated)</b>	<b>&gt;690,000</b>

# Natural Gas Pipeline Expansion Options

- North Dakota Pipeline Authority (NDPA) identified several options for pipeline expansion into the case study area to meet growing demand.
- Table shows each option with the estimated minimum natural gas demand volume to justify the project.
- Details for each option are included in the case study.
- Total of 960,000 Dth/d

Option	Natural Gas Demand, Dth/d
Bakken East Pipeline Extension (Mapleton to Grand Forks)	150,000–175,000
Viking Pipeline Backhaul	70,000
Emerson Expansion	70,000
Minot Industrial Pipeline Extension	400,000
Viking Grand Forks Loop/Pipeline Expansion	up to 70,000
Alliance Pipeline Lateral	200,000

# Key Points from the Joint Report for Northeastern ND

- North Dakota produces significant volumes of natural gas and has extensive gathering, processing, and transmission infrastructure.
- Access to that gas is constrained by pipeline connectivity, system capacity, and geographic considerations.
- Parties interested in securing incremental natural gas deliveries should work directly with NDPA and regional pipeline operators to fully understand available expansion options.
- Grand Forks and the broader Red River Valley are well positioned, with multiple viable pathways to expand natural gas availability.
- Viking-based solutions provide near-term, incremental capacity, while Bakken East represents a strategic long-term pivot that fundamentally changes supply optionality for eastern North Dakota.
- ***A coordinated commercial strategy—centered on anchor shipper engagement and long-term pricing competitiveness—will determine the most effective path forward.***