

Natural Gas Infrastructure Update

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March 25, 2025

A Complete Natural Gas Solution



Production

- Technology
- Markets
- Forecasting



Gathering

- Capacity
- Connections
- Compression



Processing

- Capacity
- Location
- Configuration

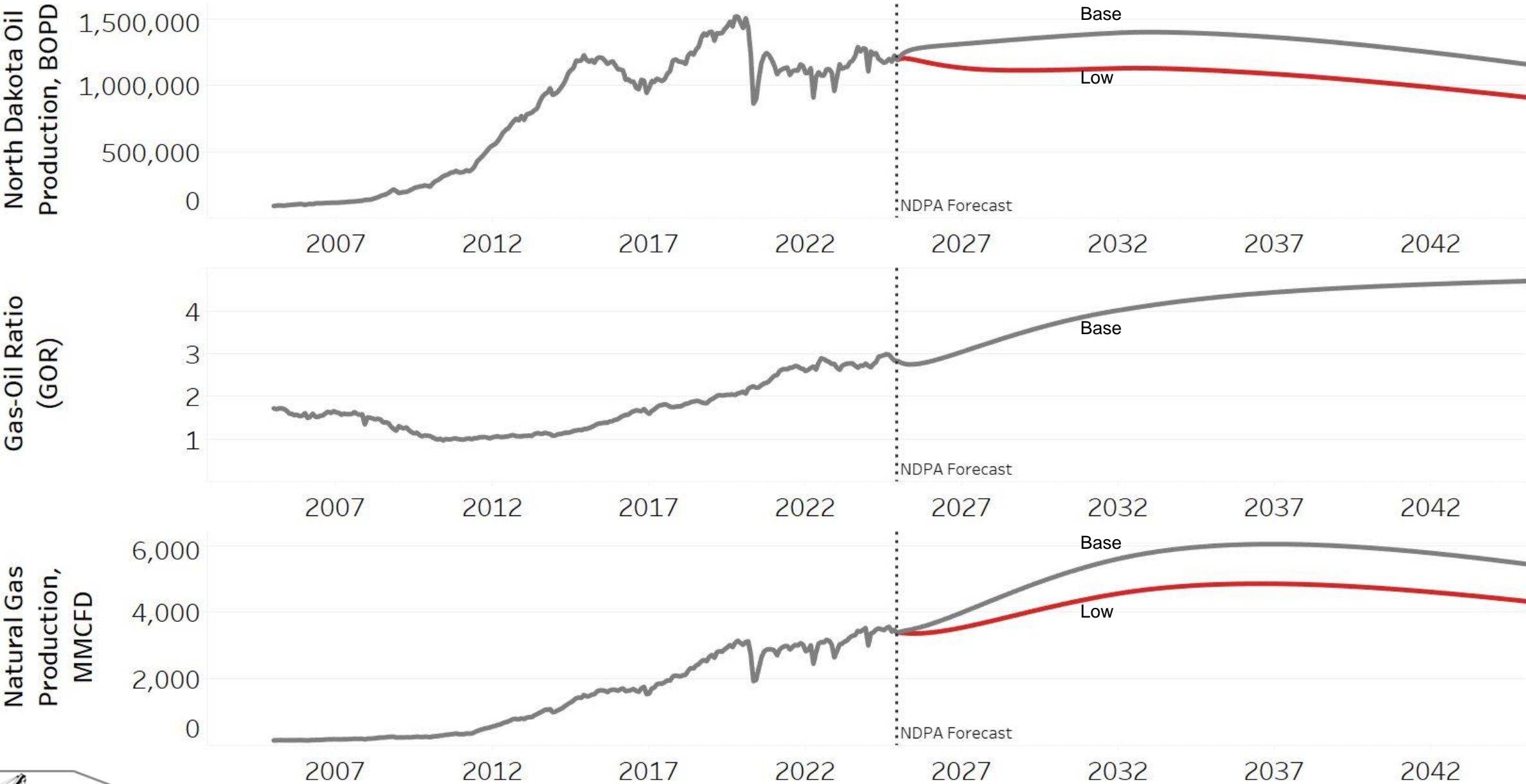


Transmission

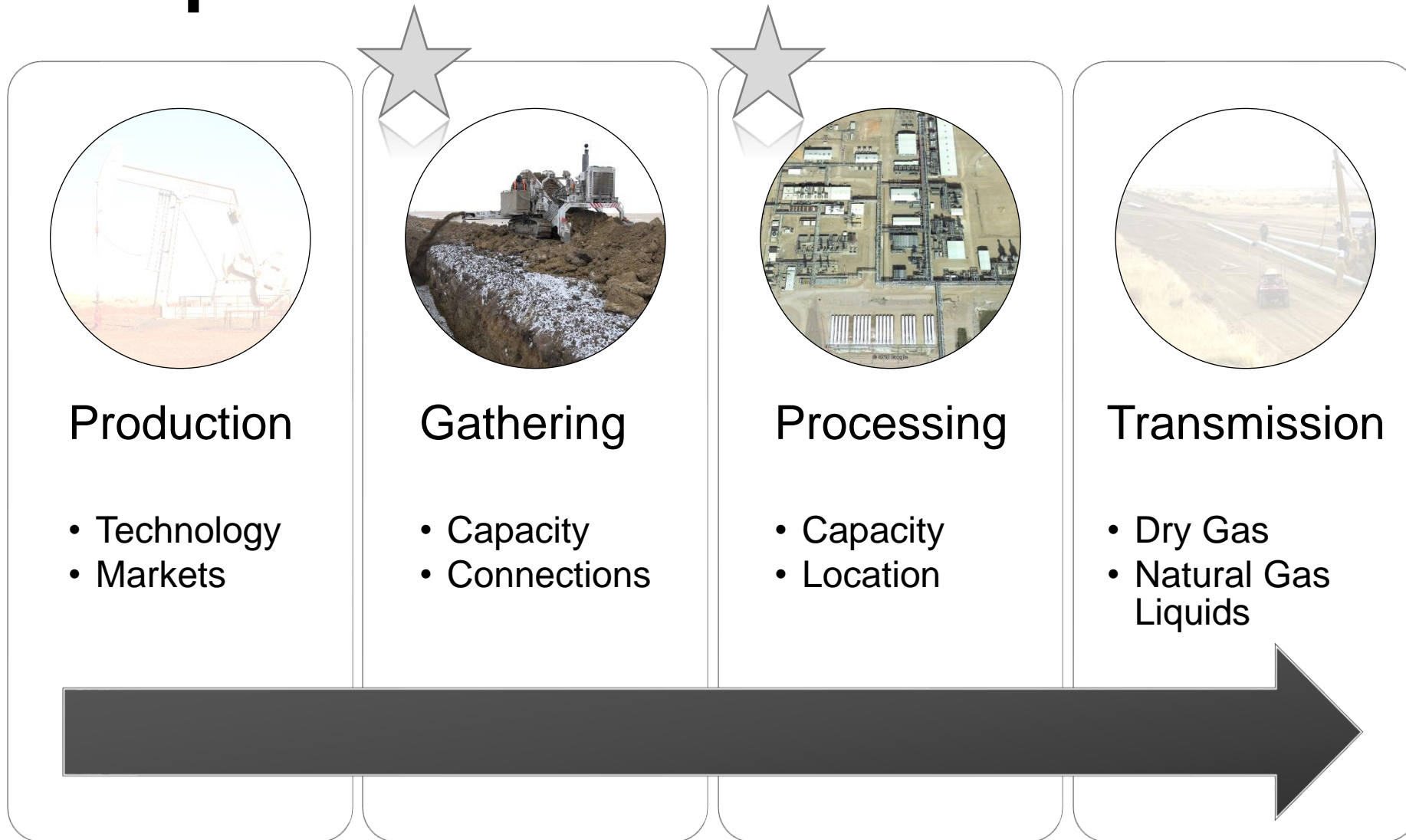
- Dry Gas
- Natural Gas Liquids
- Storage



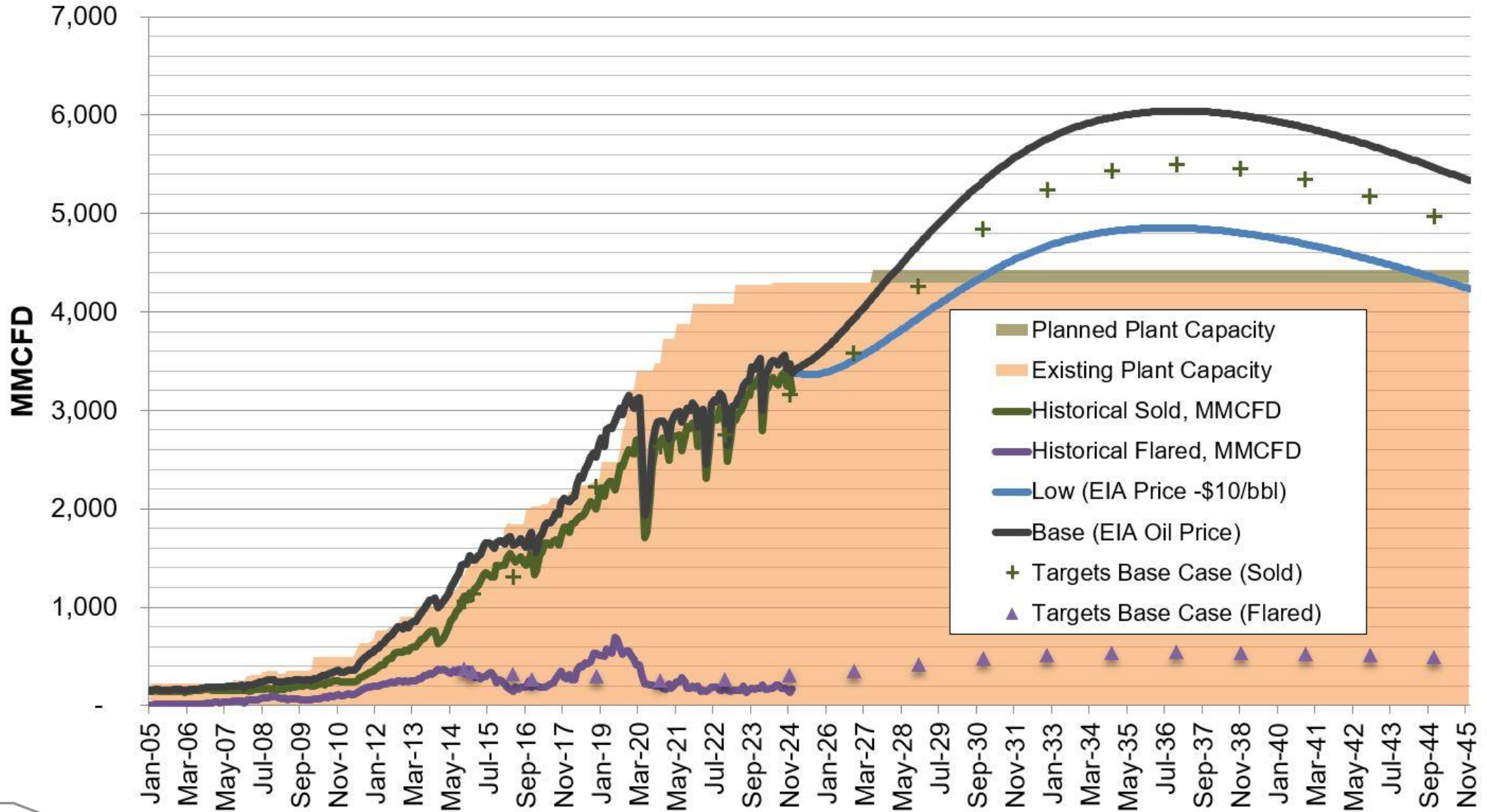
ND Production Forecast: EIA Price Deck



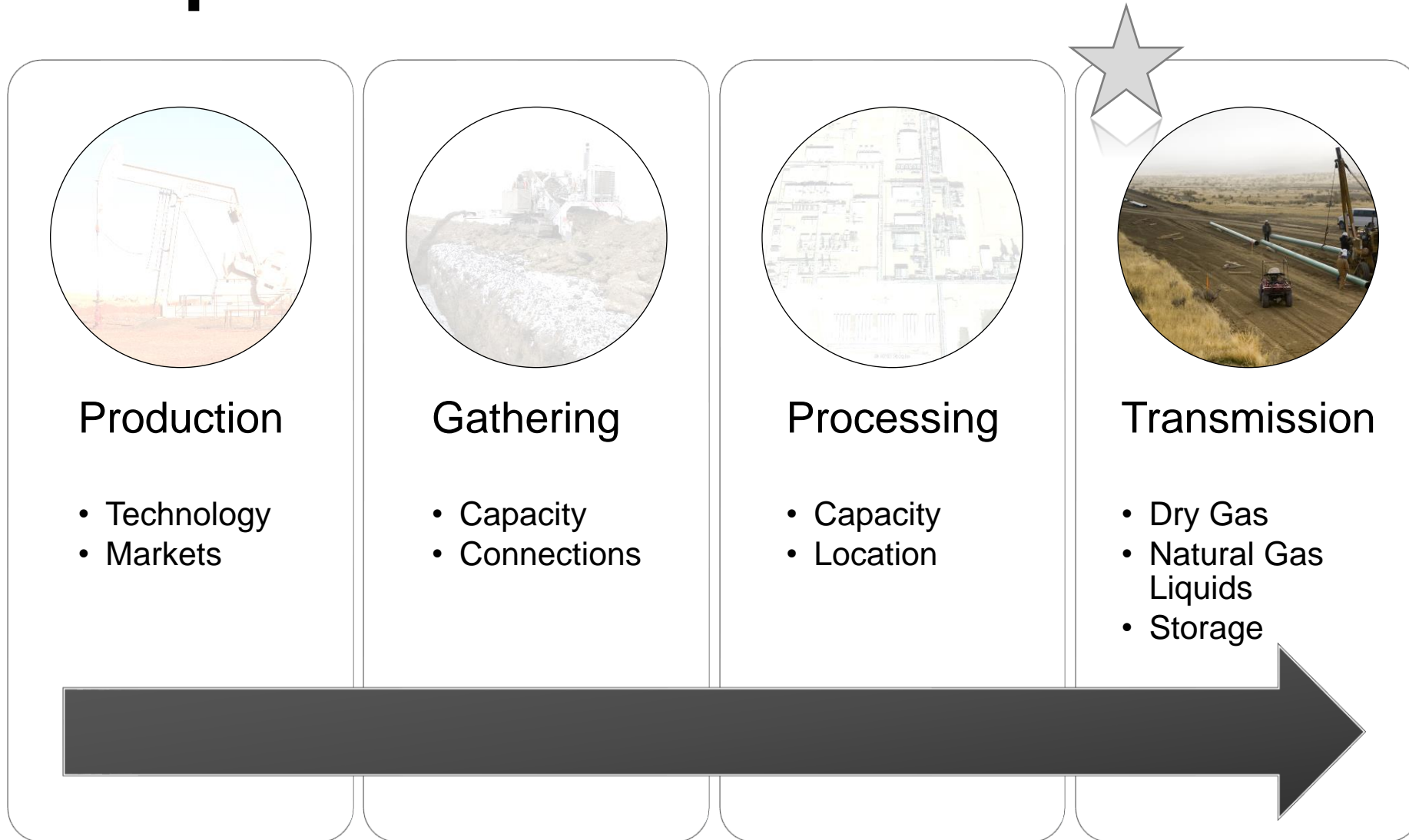
A Complete Natural Gas Solution



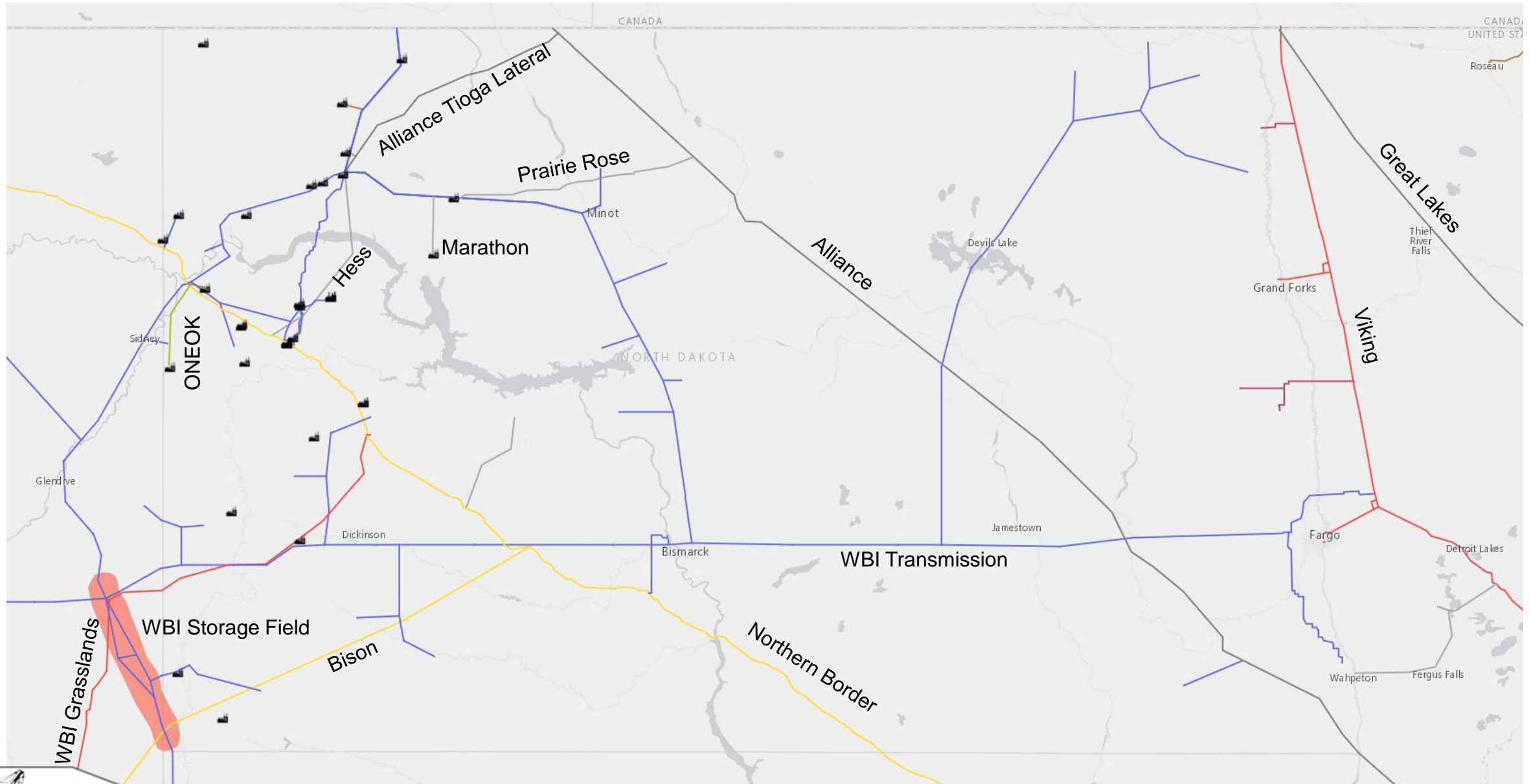
North Dakota Gas Processing Outlook



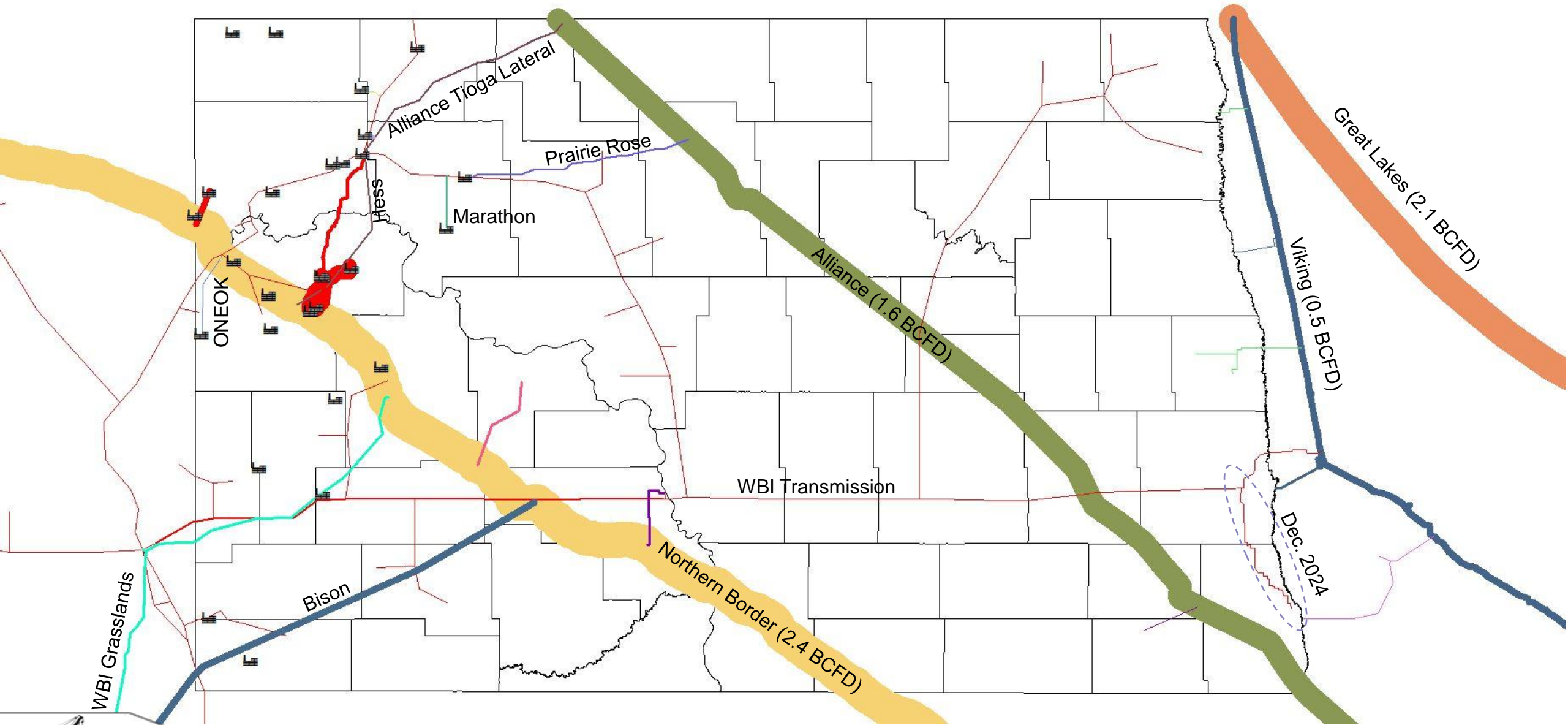
A Complete Natural Gas Solution



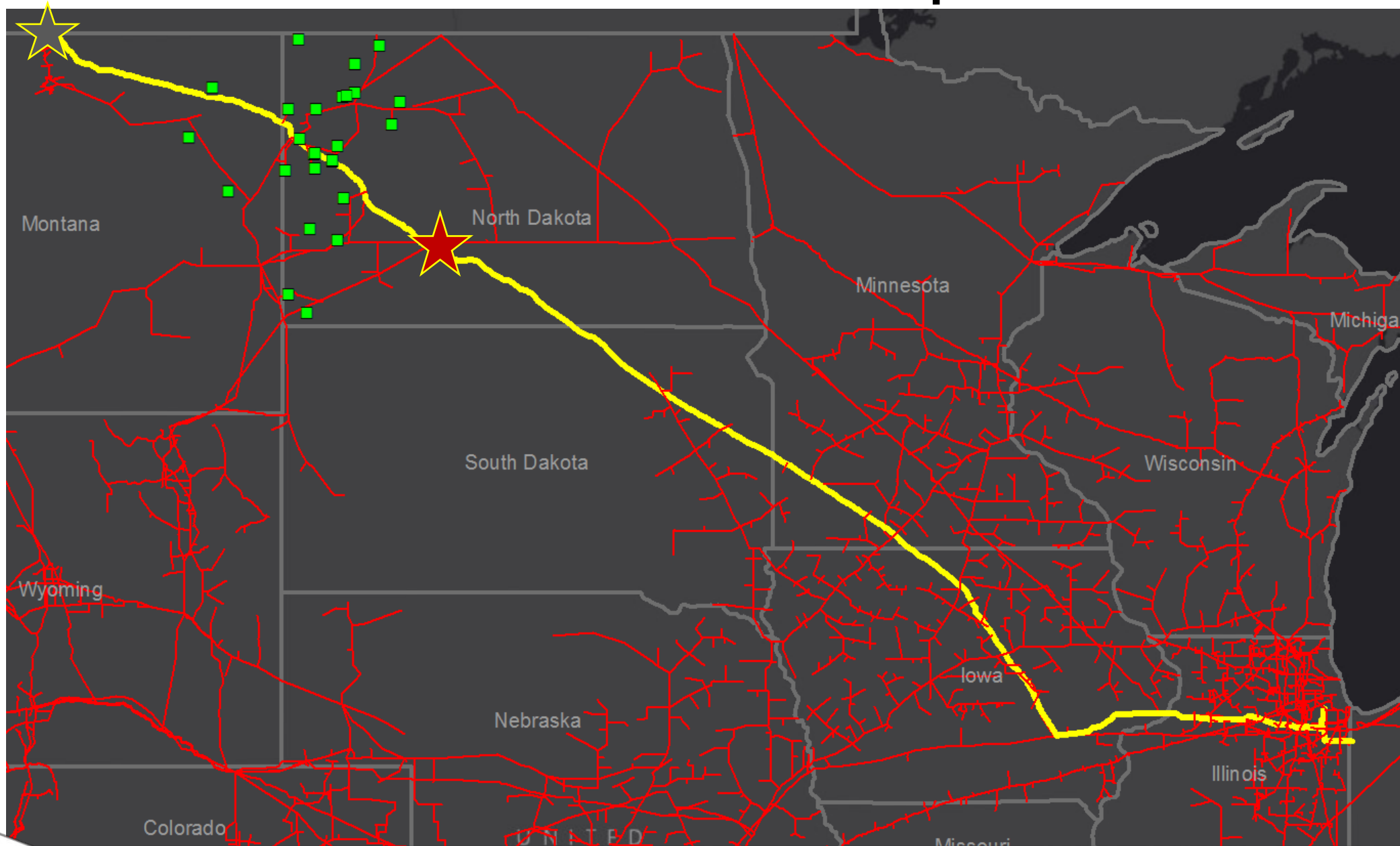
Major Residue Gas Pipeline Infrastructure



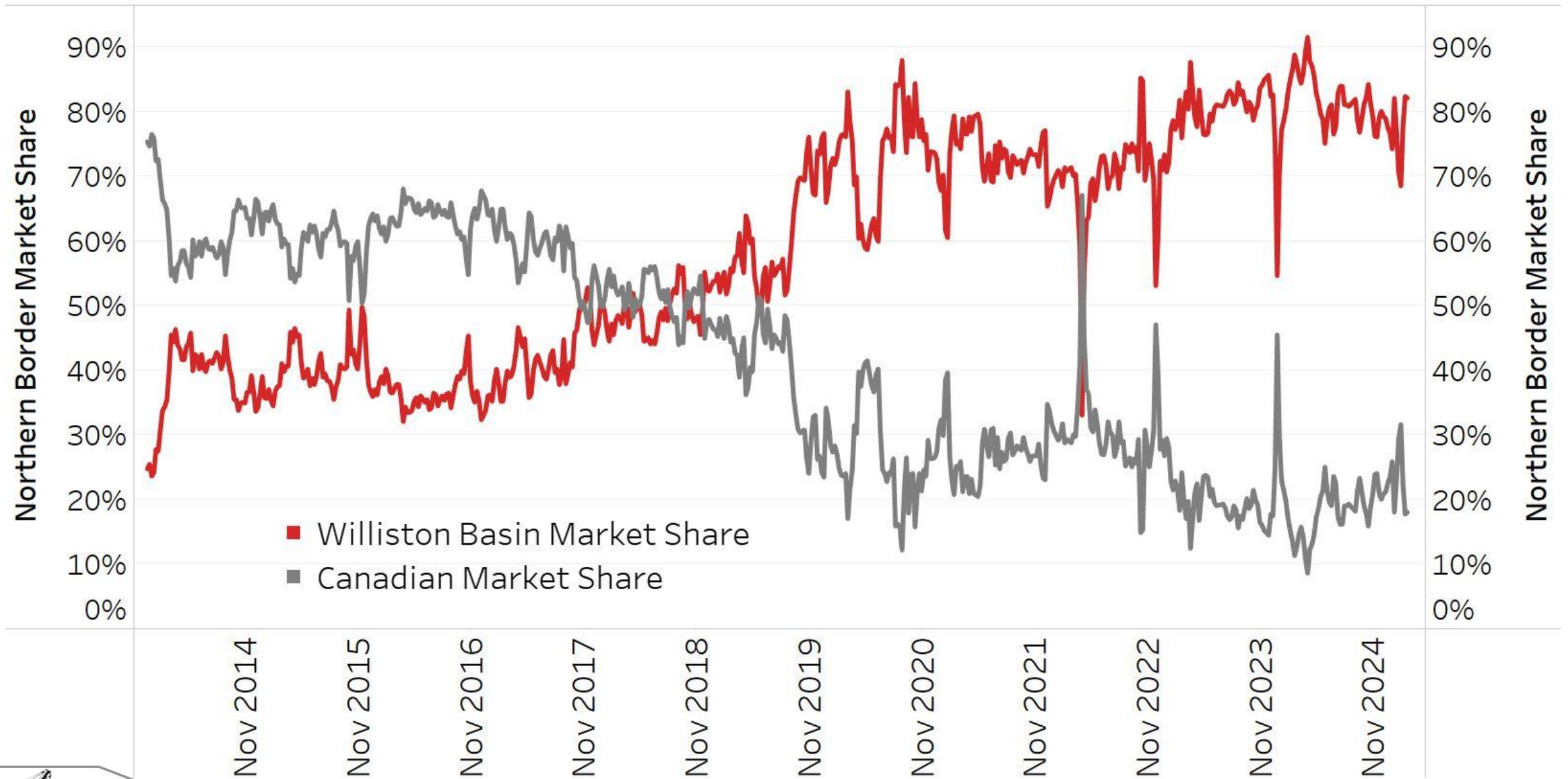
Residue Gas Pipeline Capacity Visualization



Northern Border Pipeline



Northern Border Pipeline Market Share



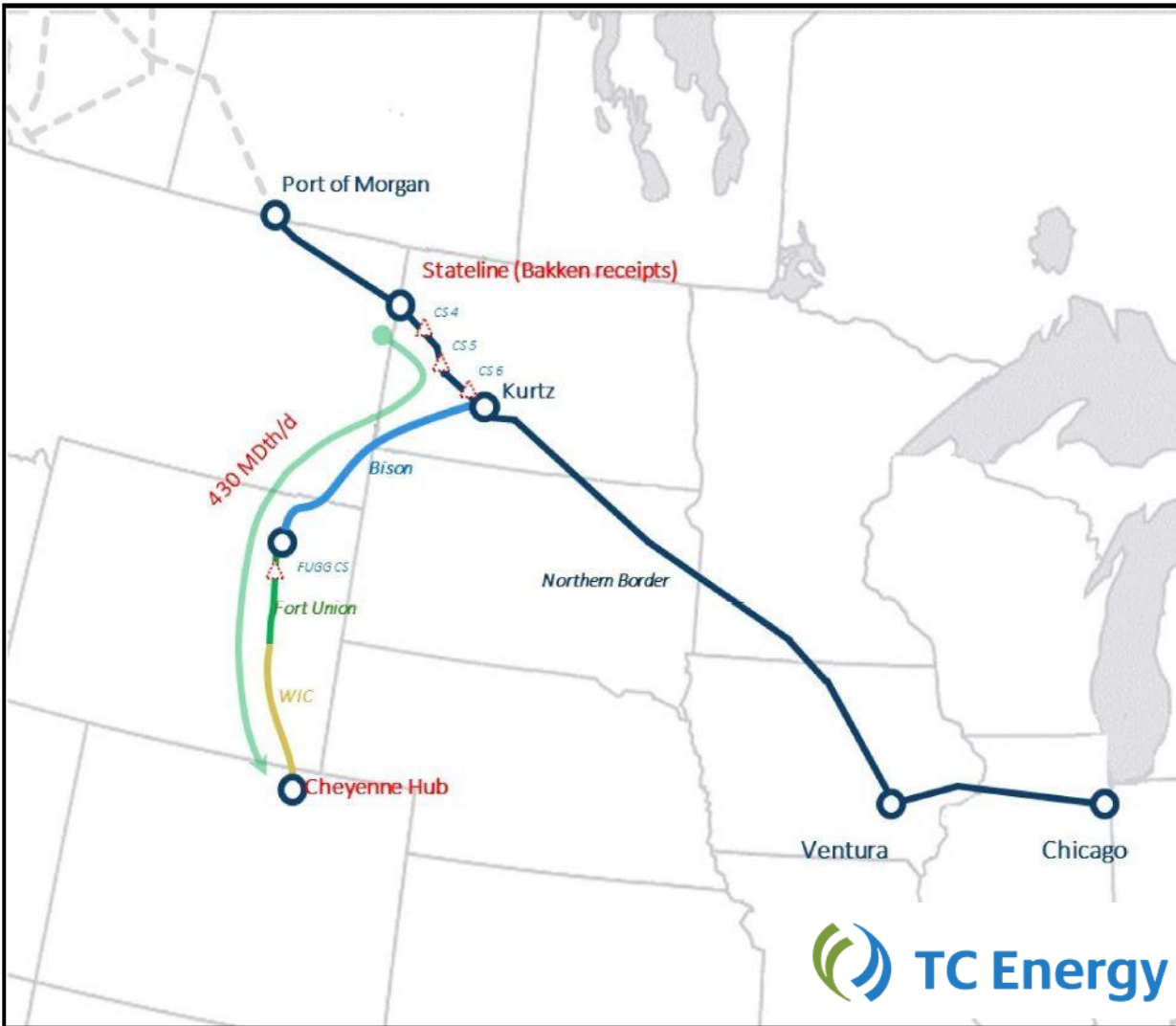
TC Energy / Kinder Morgan: Bakken xPress Project

Project Highlights

- Non-binding open season April 4 - May 6, 2022
- Binding Open Season: June 1-30, 2023
- Three compressor upgrades in North Dakota
- Reverse the idle Bison Pipeline (30" – 302 Mile)
- Capacity 300,000 Dth/Day (430,000 Offered)
- March 2026 targeted in-service date
- Fort Union Gas Gathering and Wyoming Interstate Company provide further transport to Cheyenne hub.
- Seeking commitments 10yrs or Longer
- \$555 million: \$347 Replacement/\$208 Expansion

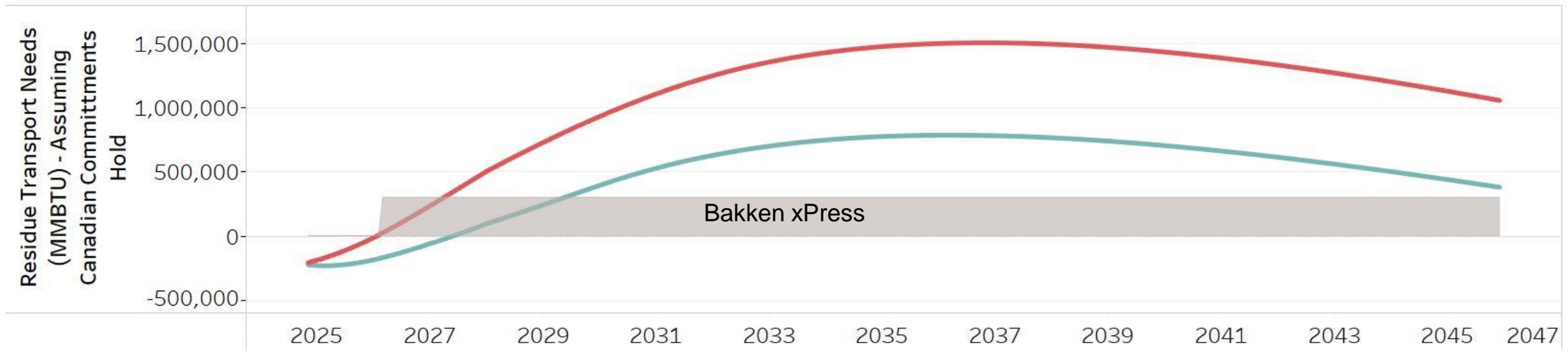
Proposed Rates

- NBPL/Bison \$0.45/Dth + Fuel/Elec to WIC/FUG Interconnect
- WIC/FUG to Cheyenne \$0.30/Dth + Fuel/Elec
- Anchor Shipper Minimum: 50,000 Dth/Day

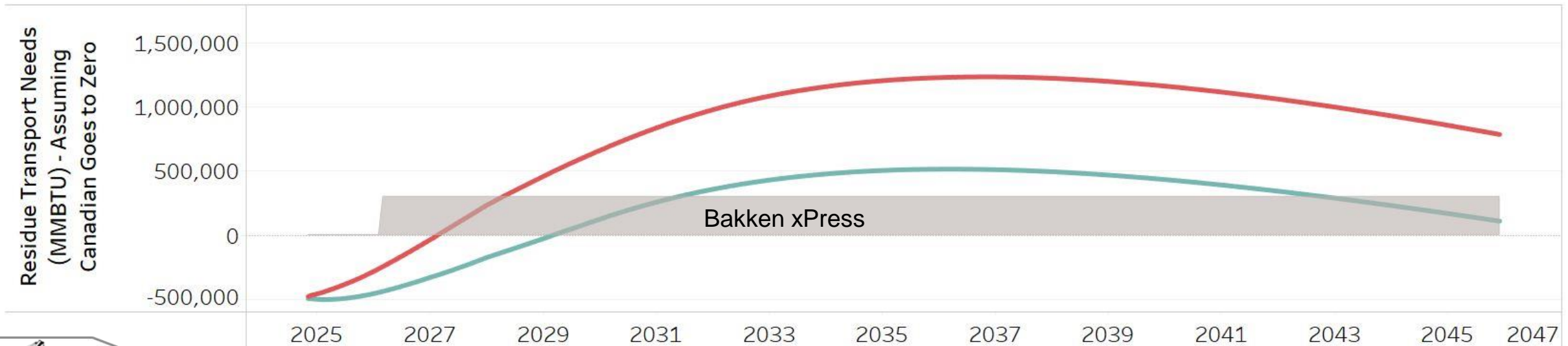


Residue Capacity Needs : Glen Ullin 1,100 BTU

Residue Capacity Need: Port of Morgan at Contract Level: Glen Ullin BTU 1,100



Residue Capacity Need: Port of Morgan Goes to Zero: Glen Ullin BTU 1,100



Options Beyond 2027: The 5 “C’s”

Construction (Interstate)

- Long-haul Pipe to New or Expanded Markets

Compete

- Price Canadian Volumes to Flow Elsewhere

Compression

- Increase Capacity on Existing Interstate Systems

Consumption

- Intra Region Gas Demand Expansion

Contraction

- Reduce E&P Activity to Meet Limited Gas Options



WBI Energy: Proposed Bakken East Project



Natural Gas Pipeline Project Highlights

- Non-binding open season Dec 16 – Jan 31, 2025
- 375 Miles: 30" & 24" Pipe
- Proposed Capacity 760,000 Dth/Day
- Phase 1 (West) : Nov 2028 targeted in-service
- Phase 2 (East) : Nov 2029 targeted in-service
- Seeking commitments 20yrs or Longer

Estimated Rates

- \$0.85 to \$0.90/Dth + Fuel/Electric/Commodity
- Anchor Shipper Minimum: 100,000 Dth/Day
- Foundation Shipper Minimum: 250,000 Dth/Day

Intensity Infrastructure Partners Proposed Pipeline



Natural Gas Pipeline Project Highlights

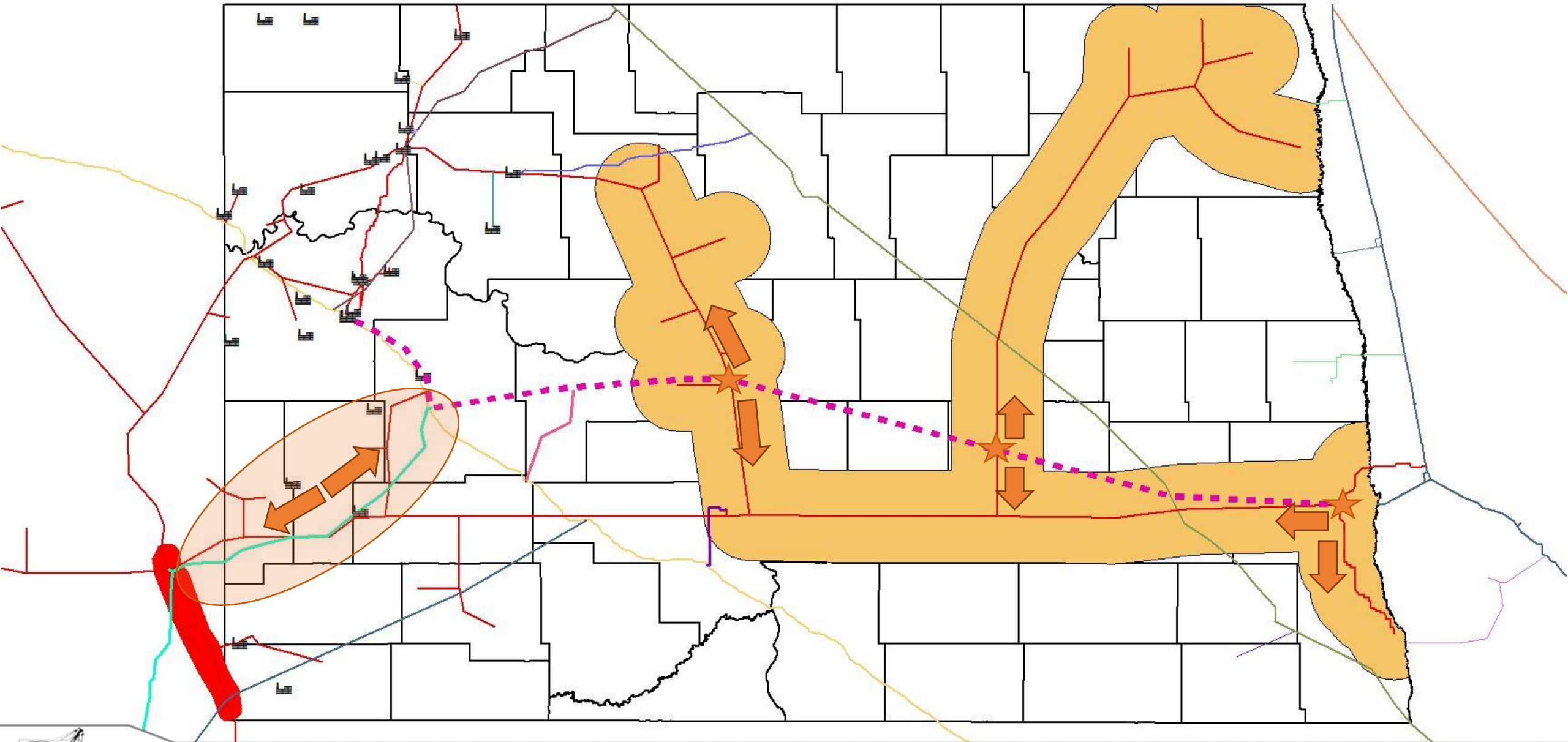
- Non-binding open season Feb 3 – Mar 7, 2025
- 136 Miles: 42" Pipe
- Proposed Capacity 1,500,000 Dth/Day
- January 2028 targeted in-service
- Seeking commitments 20yrs or Longer

Estimated Rates

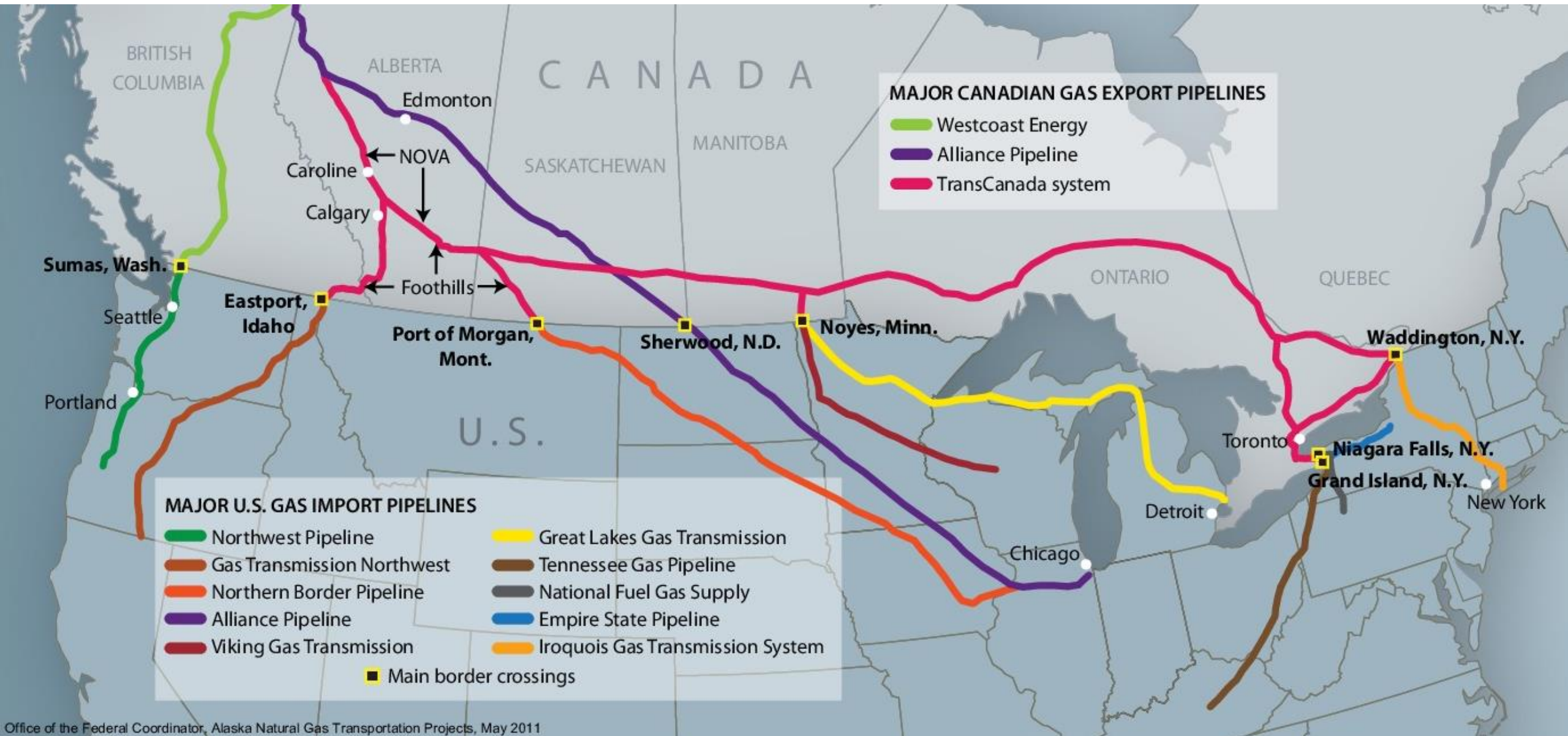
- \$0.50/Dth + Fuel/Electric/Commodity
- Anchor Shipper Minimum: 100,000 Dth/Day
- Foundation Shipper Minimum: 250,000 Dth/Day



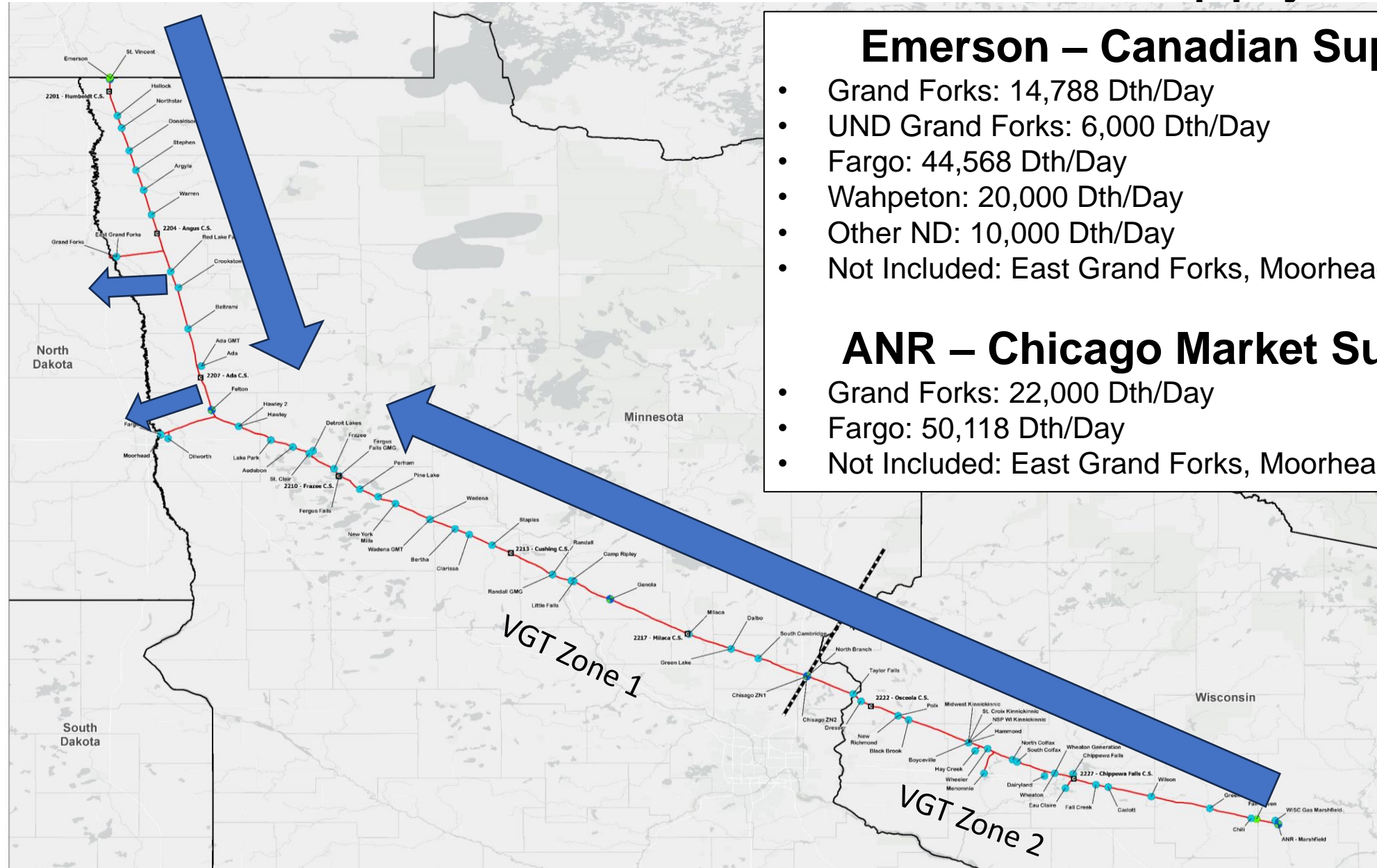
Going East: Benefits Could Extend Beyond Route(s)



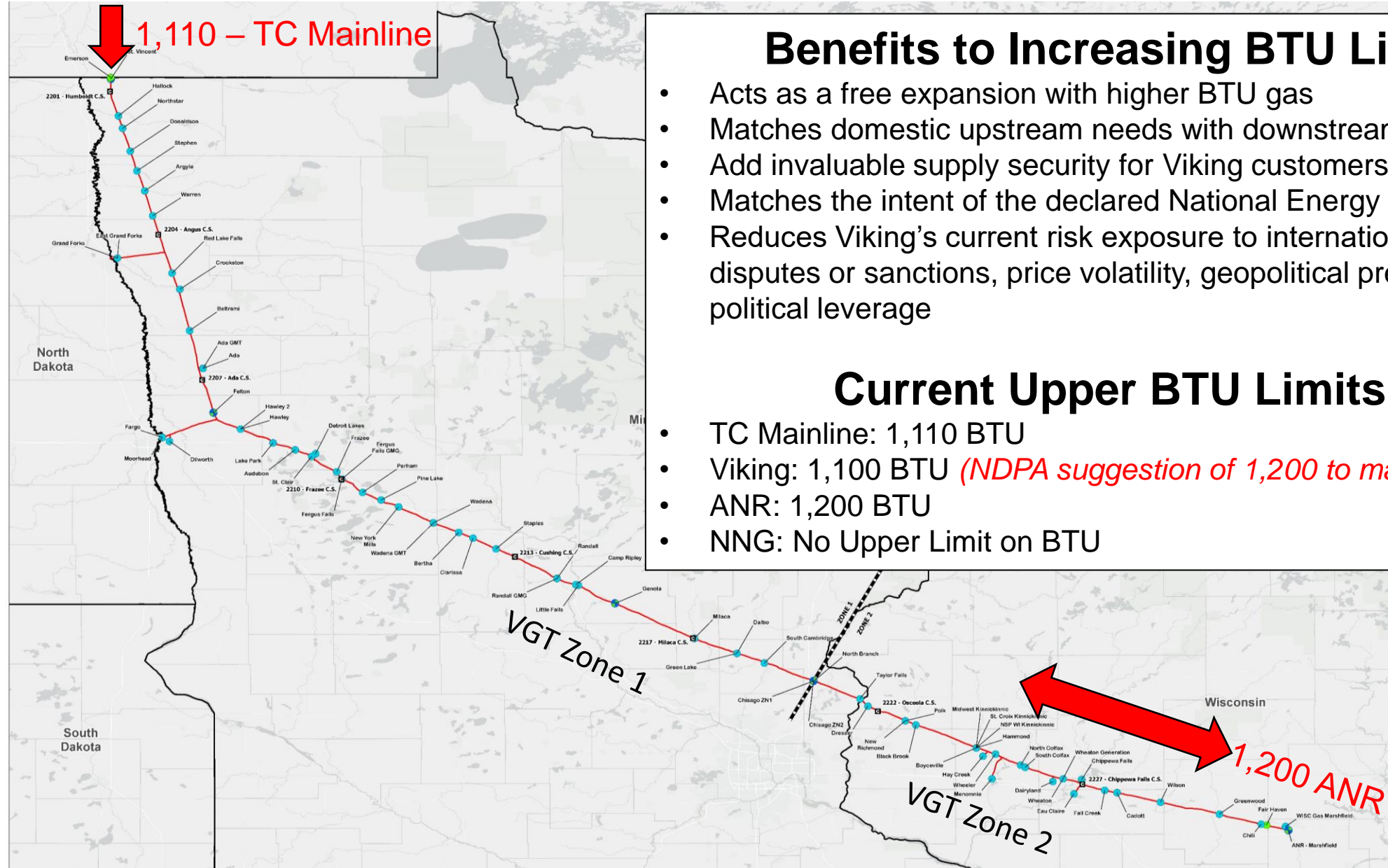
Canadian Gas Pipeline Connectivity



Current Eastern North Dakota Gas Supply



The Need to Modernize Viking's BTU Limit



Benefits to Increasing BTU Limit

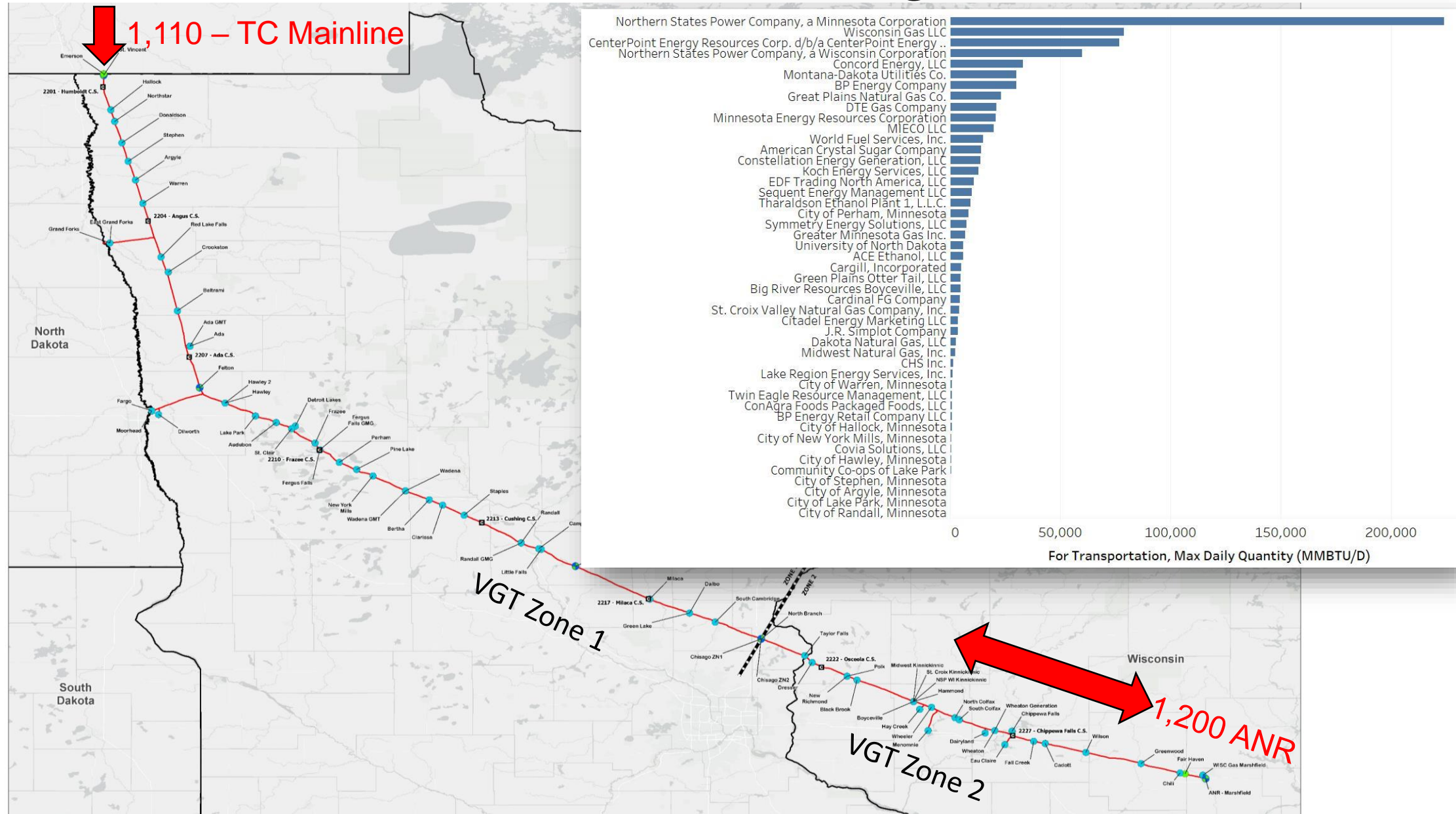
- Acts as a free expansion with higher BTU gas
- Matches domestic upstream needs with downstream BTU limits
- Add invaluable supply security for Viking customers
- Matches the intent of the declared National Energy Emergency
- Reduces Viking's current risk exposure to international trade disputes or sanctions, price volatility, geopolitical pressure and political leverage

Current Upper BTU Limits

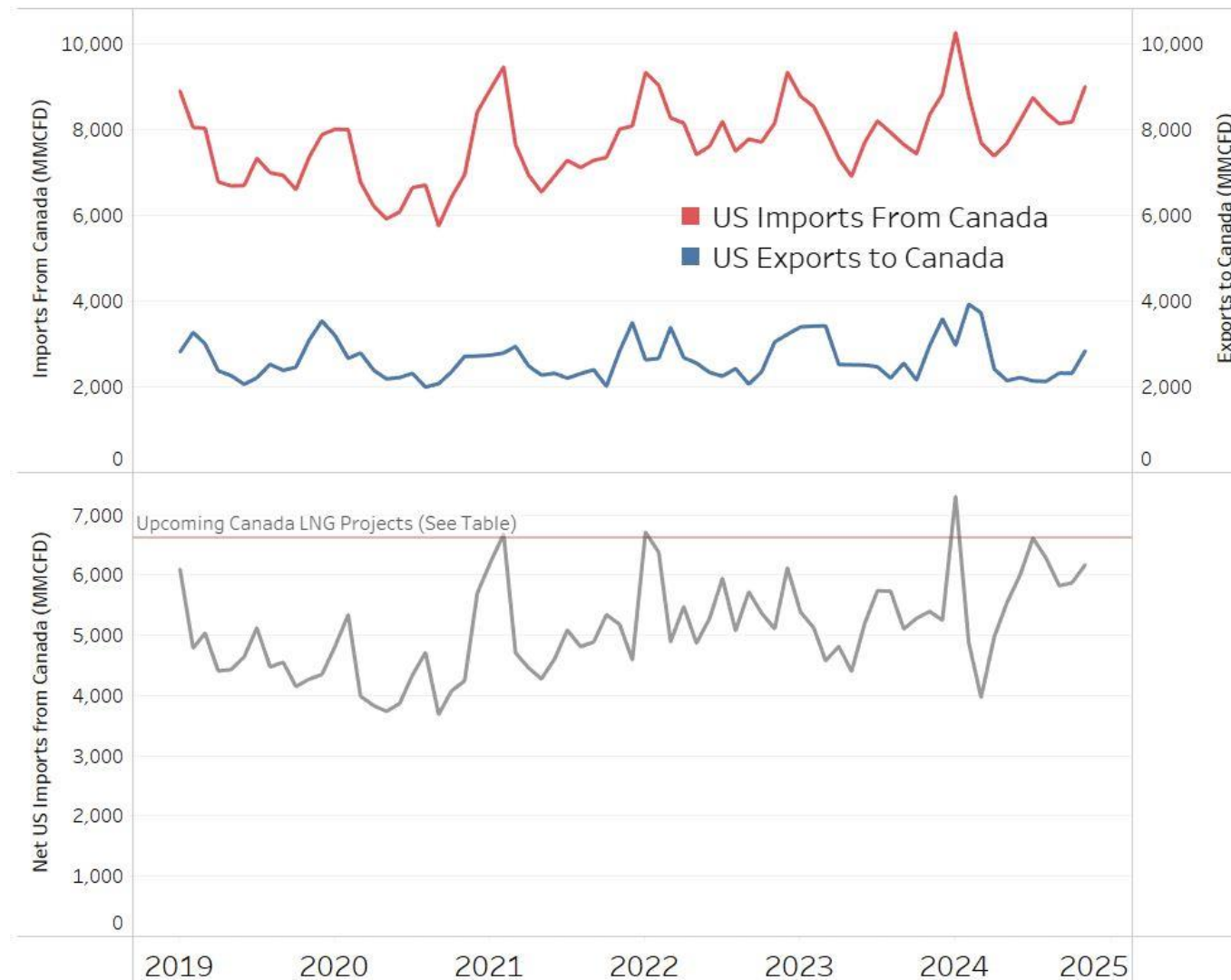
- TC Mainline: 1,110 BTU
- Viking: 1,100 BTU (*NDPA suggestion of 1,200 to match peers*)
- ANR: 1,200 BTU
- NNG: No Upper Limit on BTU



The Need to Modernize Viking's BTU Limit



United States Canada Gas Movements & LNG



Projects proposed and under construction

Project	LNG Export Volumes, Million Tonnes per Annum (MTPA)	LNG Export Volumes, Billion Cubic Feet per Day (Bcf/d)
Export Licence - 40 years		
LNG Canada Phase 1 Kitimat, BC	14	1.84
LNG Canada Phase 2 Kitimat, BC	14	1.84
Woodfibre LNG Squamish, BC	2.1	0.28
Ksi Lisims LNG Gingolx, BC	12	1.58
Export Licence - 25 years		
Tilbury LNG Phase 2 Delta, B.C.	2.5	0.33
Cedar LNG Kitimat, BC	3	0.39
Yet to apply for an Export Licence		
Summit Lake PG LNG Prince George, BC	2.7	0.36
Export Licence Not applicable (n/a)		
Tilbury Marine Jetty Delta, BC	n/a	n/a
Total	50.3	6.62



Driving Forces for New Gas Pipelines



Supply Push



Demand Pull



System
Reliability/Security



Who Signs Up For Project Capacity?

Shippers



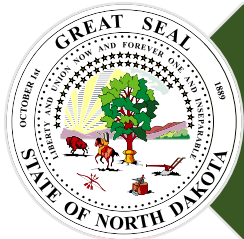
Producers/Midstream



Marketing Firms



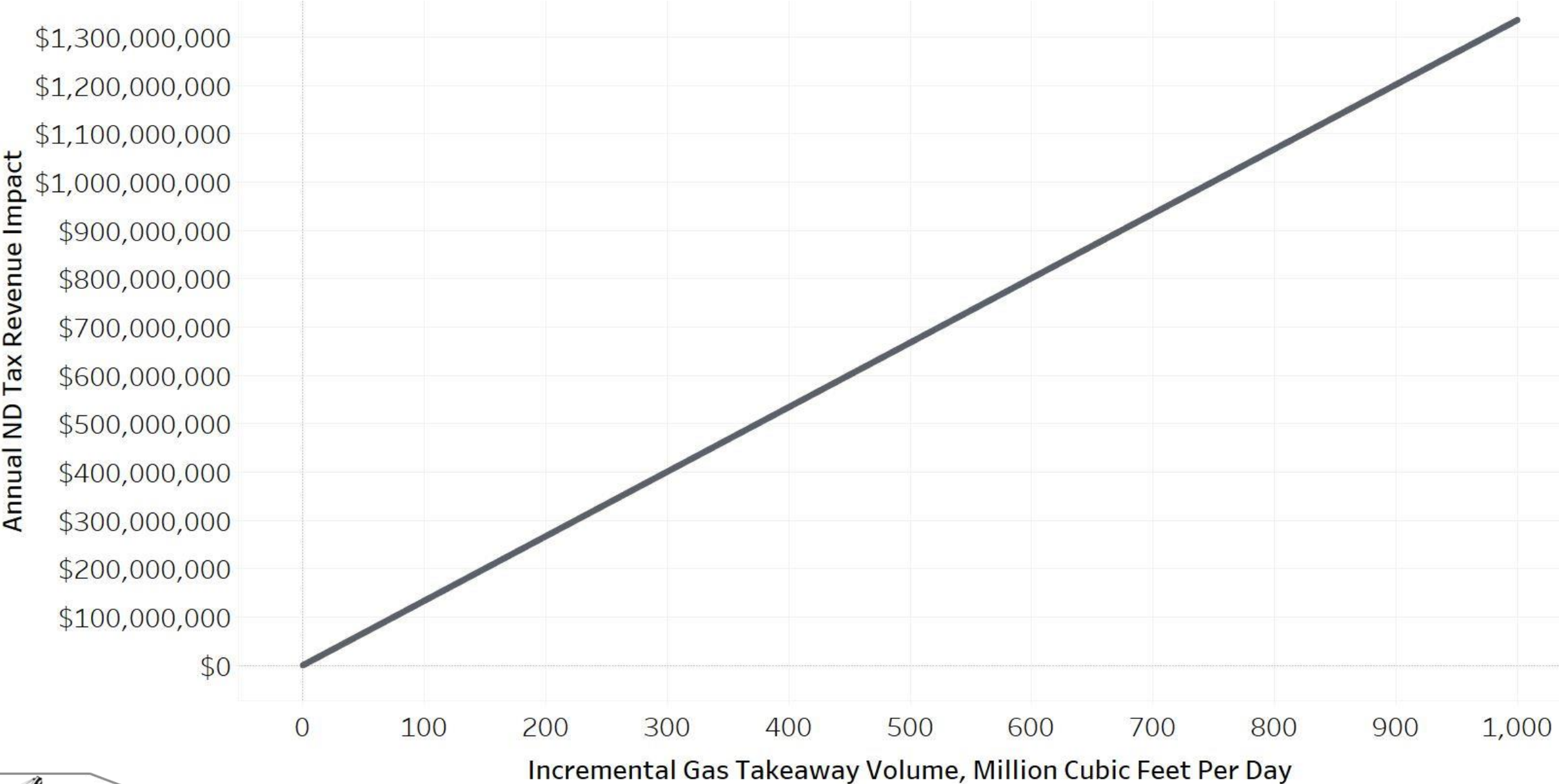
Industrial Consumers/LDC



State of North Dakota (PA/IC)

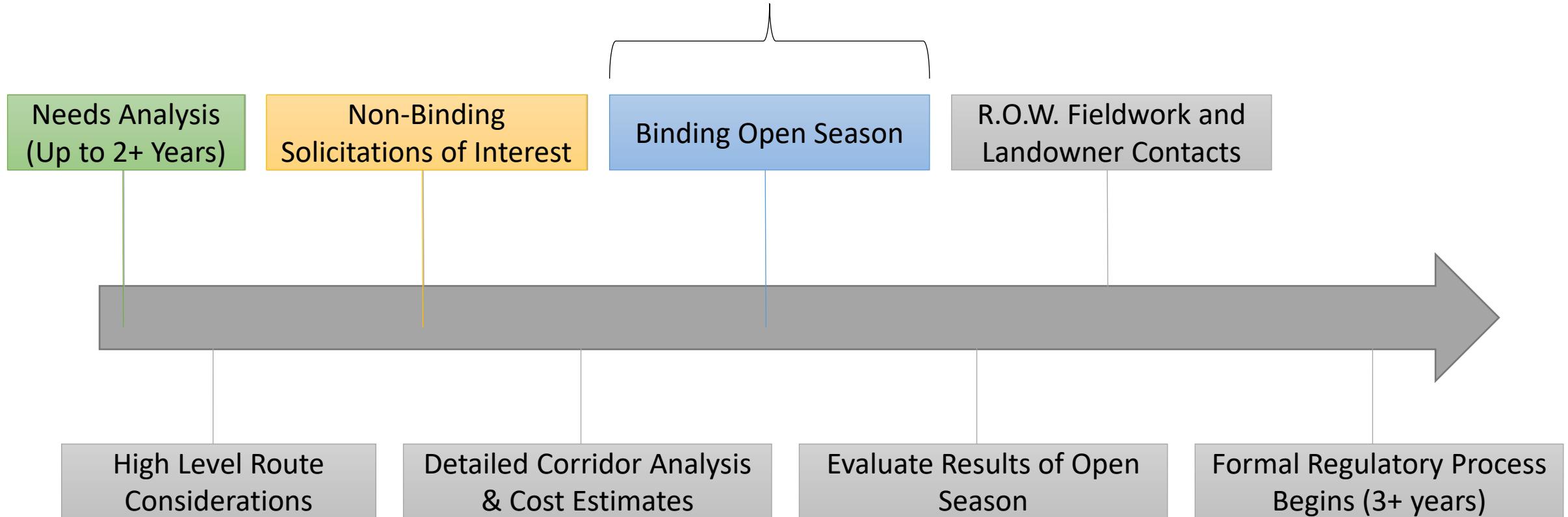


ND Tax Impact of Incremental Gas Capacity



Early Stages of Pipeline Development

Opportunity for NDPA/NDIC Participation

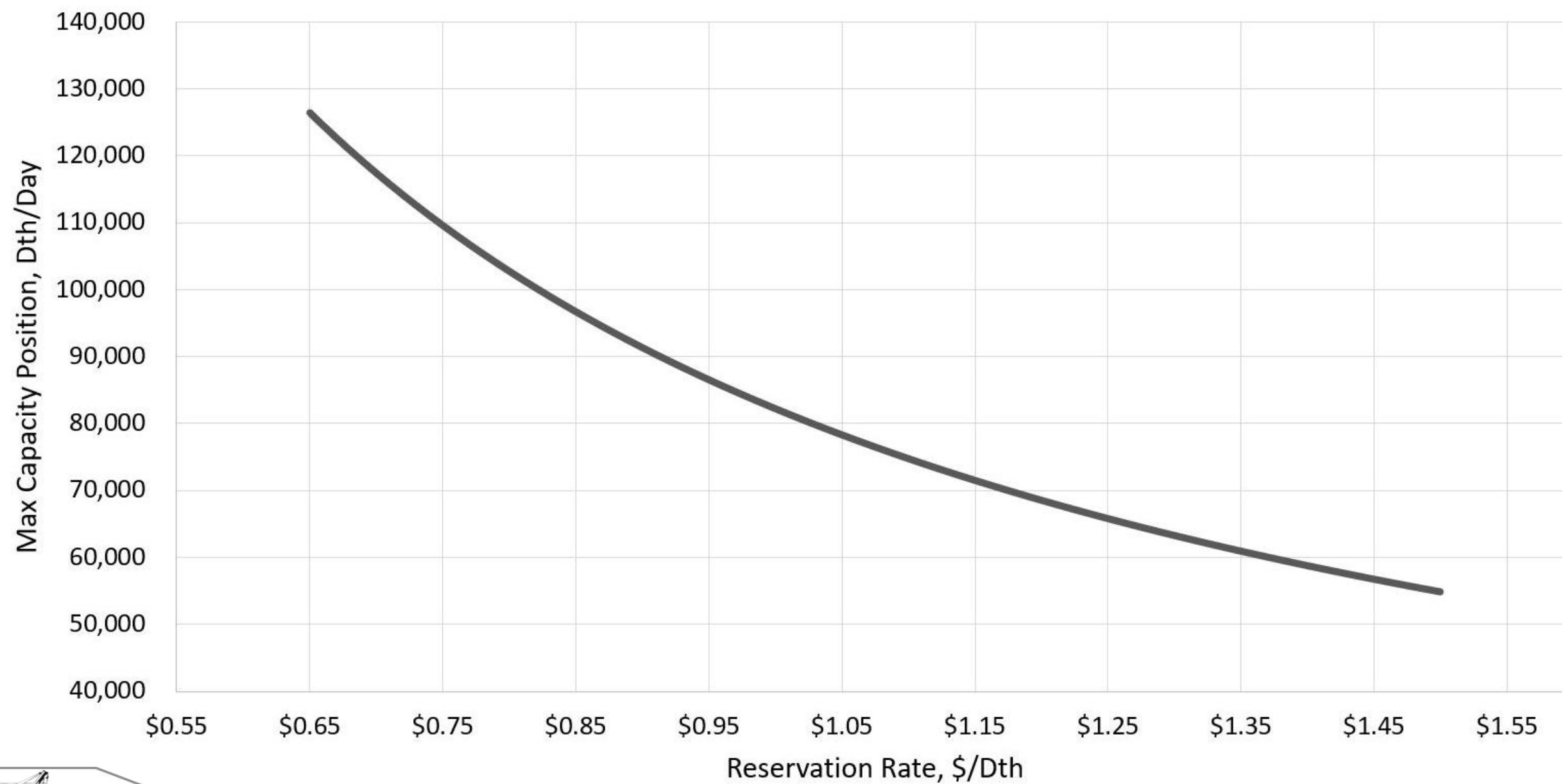


Pipeline Authority Century Code– 54-17.7-04.

3. Acquire, purchase, hold, use, lease, license, sell, transfer, and dispose of an undivided or other interest in or the right to capacity in any pipeline system or systems, including interconnection of pipeline systems, within or without the state of North Dakota in order to facilitate the production, transportation, distribution, or delivery of energy-related commodities produced in North Dakota. If the authority acquires, purchases, holds, uses, or leases capacity positions, the authority shall sell, transfer, release, or dispose of the capacity positions at intervals that are no more frequent than monthly and in an amount that is equal to or greater than the market rate, but only if the sale, transfer, release, or disposal of the capacity positions is sufficient to cover the expenses and obligations incurred. The authority's contract obligations for the capacity positions are limited to the capacity rates, charges, and terms.



Capacity and Reservation Rate at \$30M/Yr




How Will NDPA Manage Contracted Capacity?




Most
Desirable


Release capacity to replacement shipper(s)
in increments greater than one year at
FERC required rate structure



Release capacity to replacement shipper(s)
in increments less than one year at bid
rates (*Limited by 54-17.7-04 Subsection 3*)



Release of capacity to an asset manager for
an appropriate term length



Pay obligated precedent agreement rates
until a release or asset management
agreement is established



Least
Desirable



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Compression

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Consumption

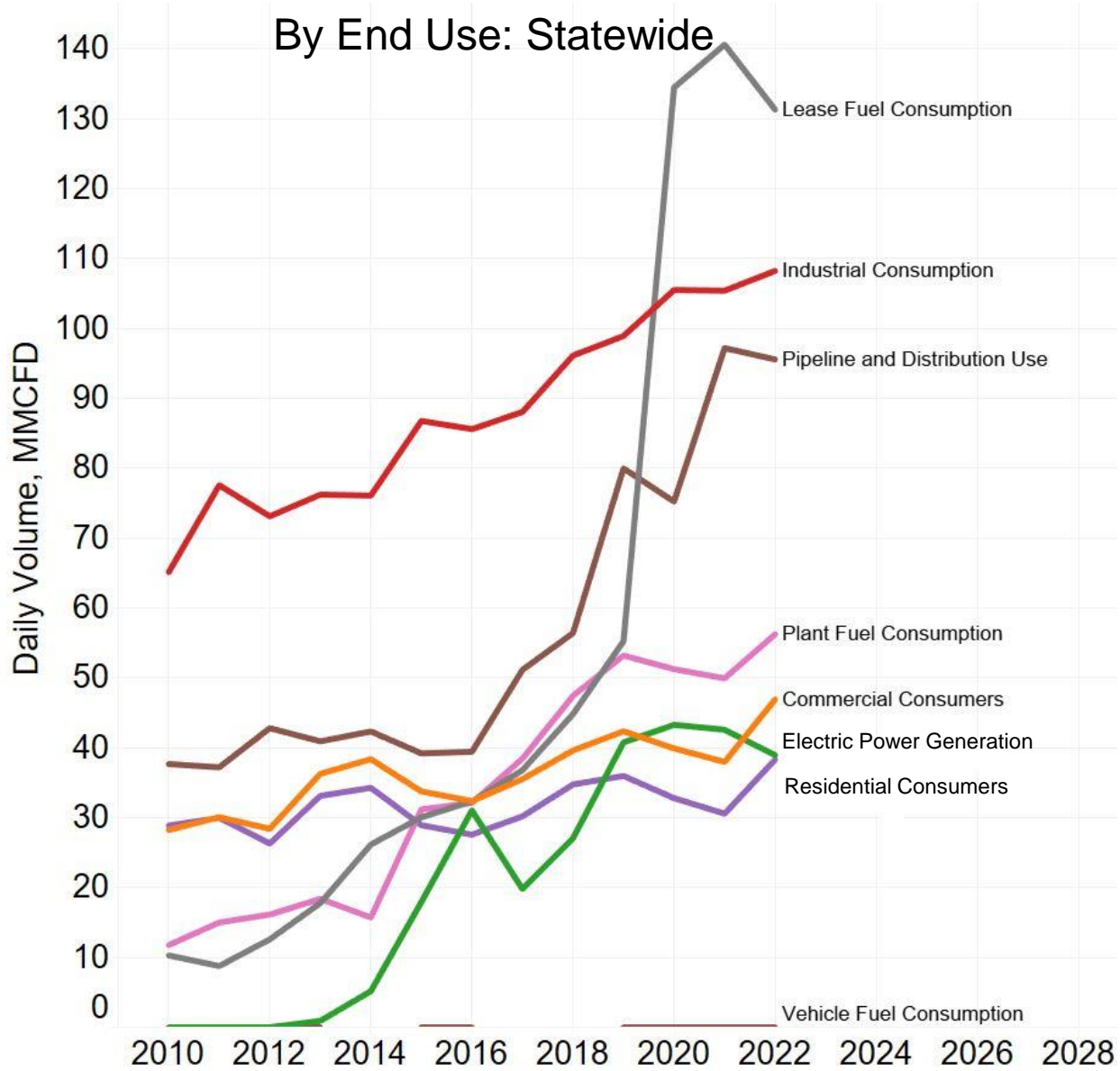
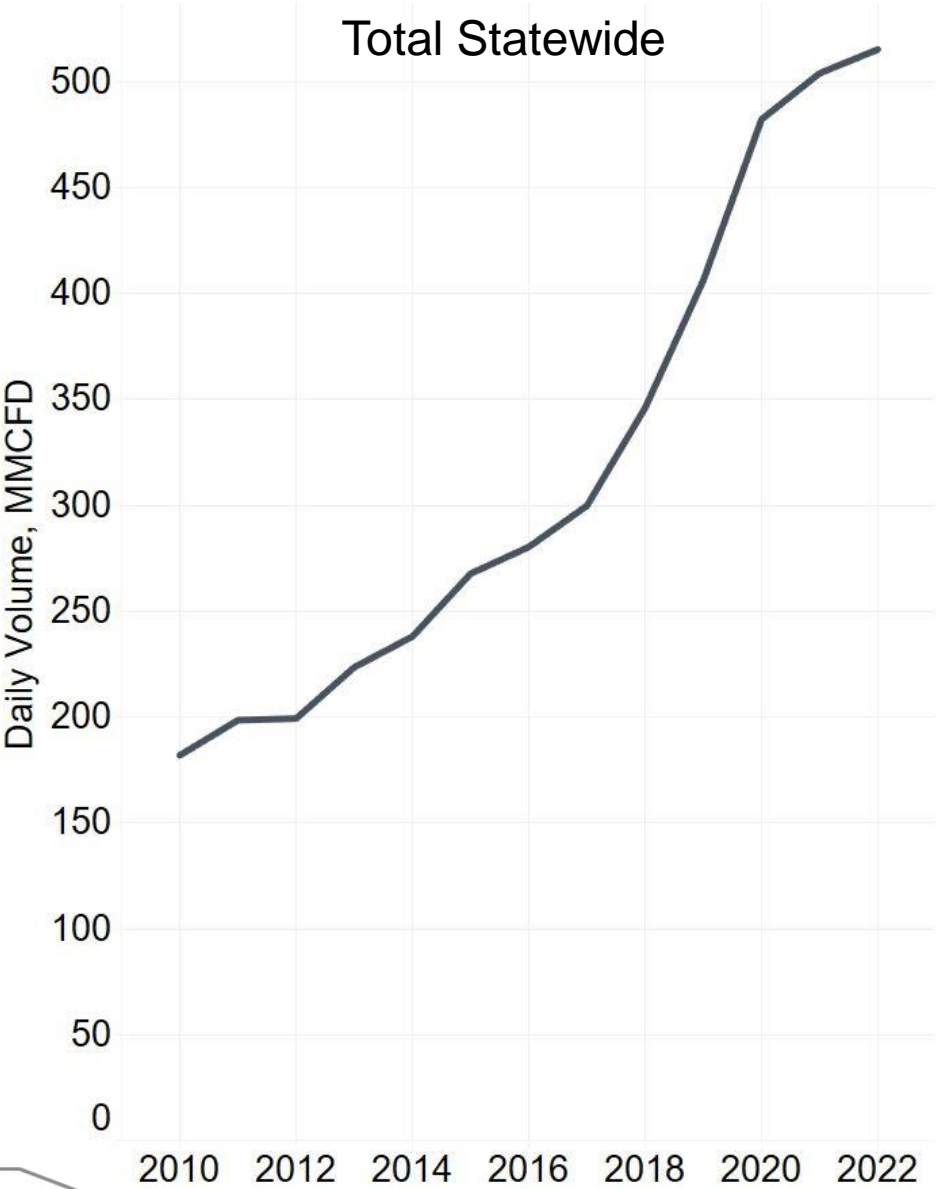
- Intra Region Gas Demand Expansion

Contraction

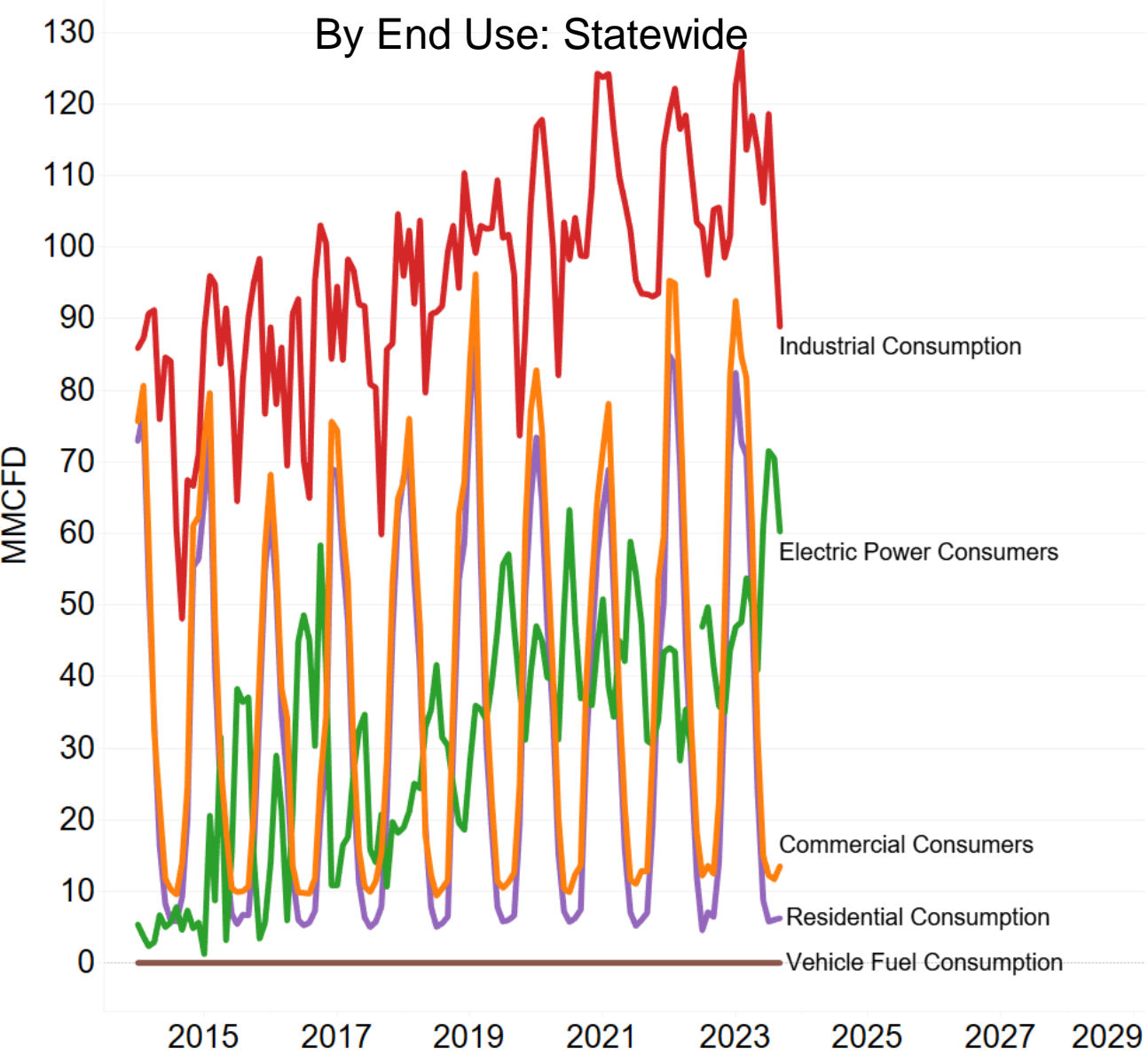
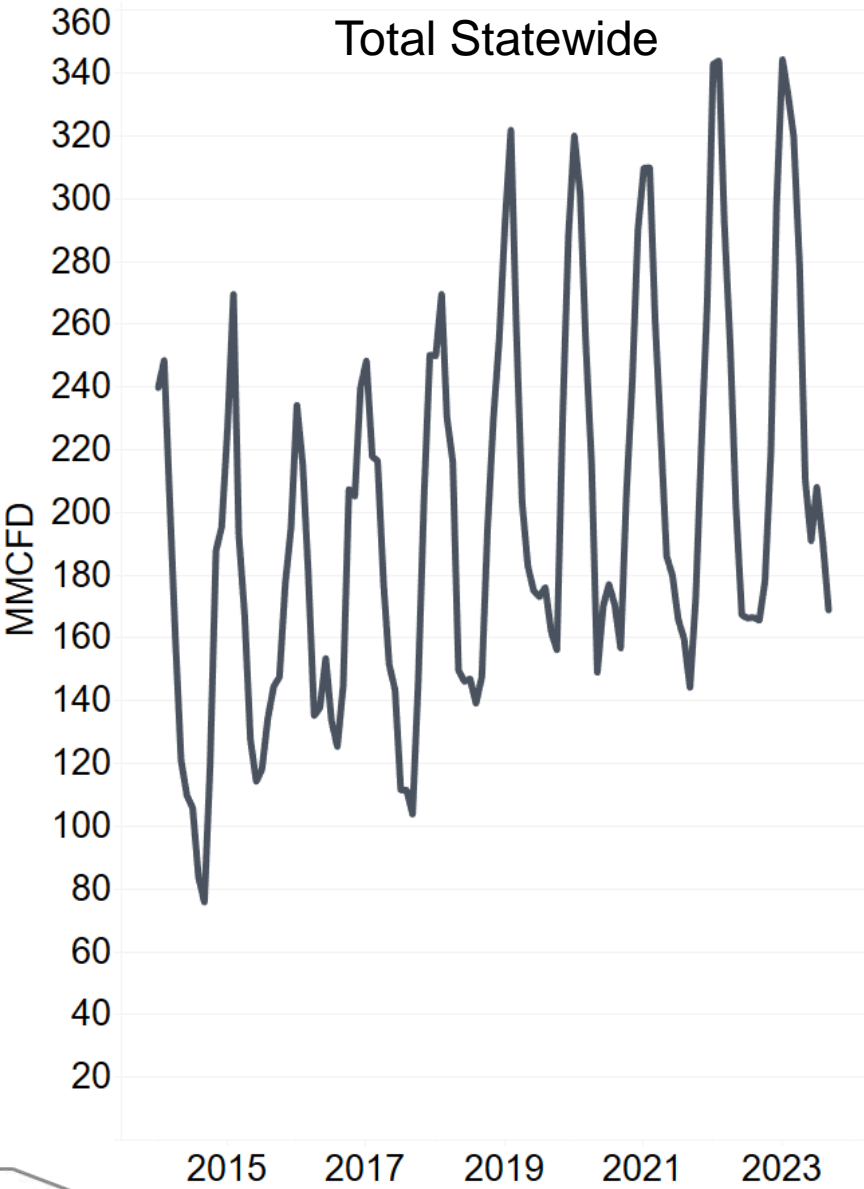
- Reduce E&P Activity to Meet Limited Gas Options



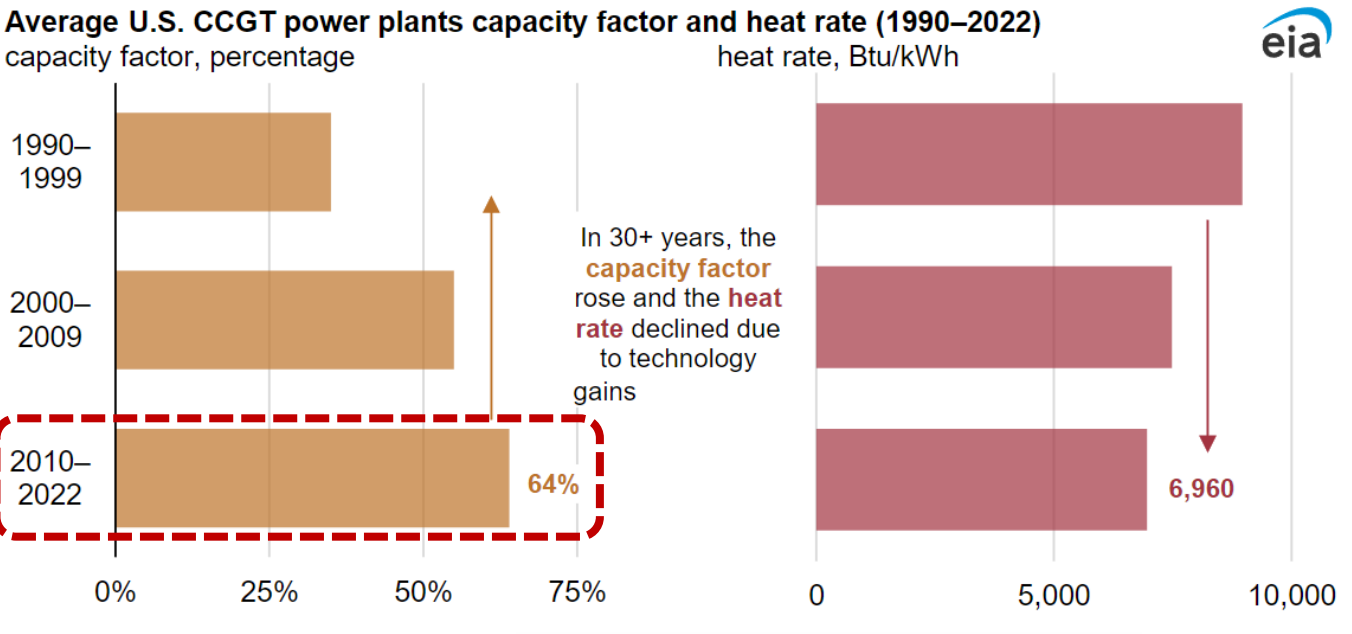
North Dakota Gas Consumption (Annual)



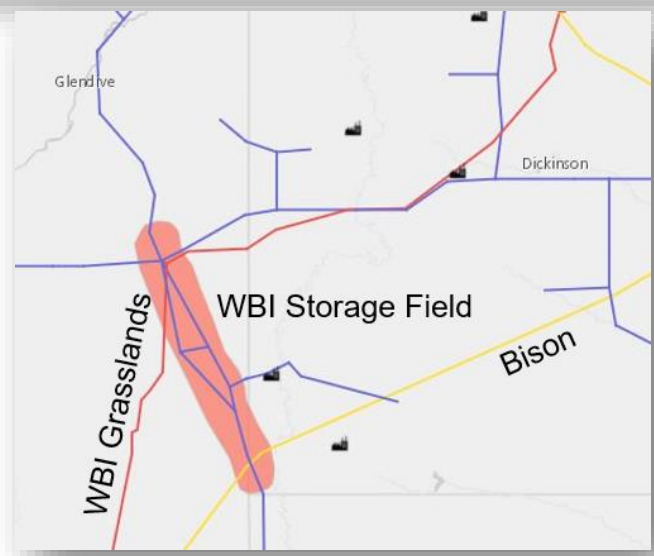
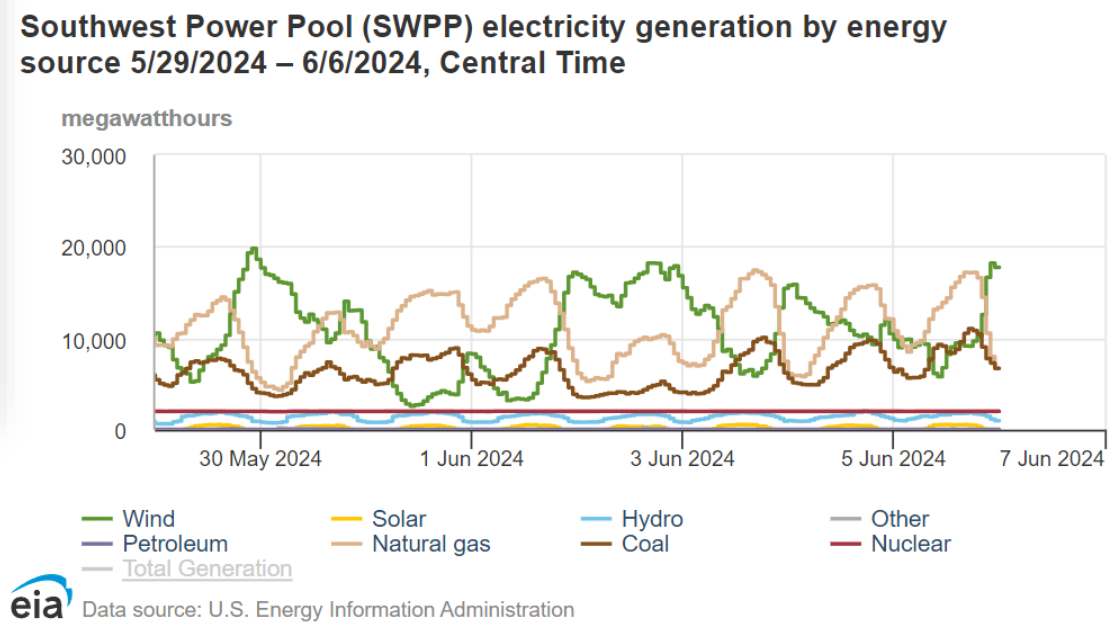
Non-Midstream Consumption (Monthly)



Intermittent Gas-Fired Generation Challenging to Match Oilfield Output



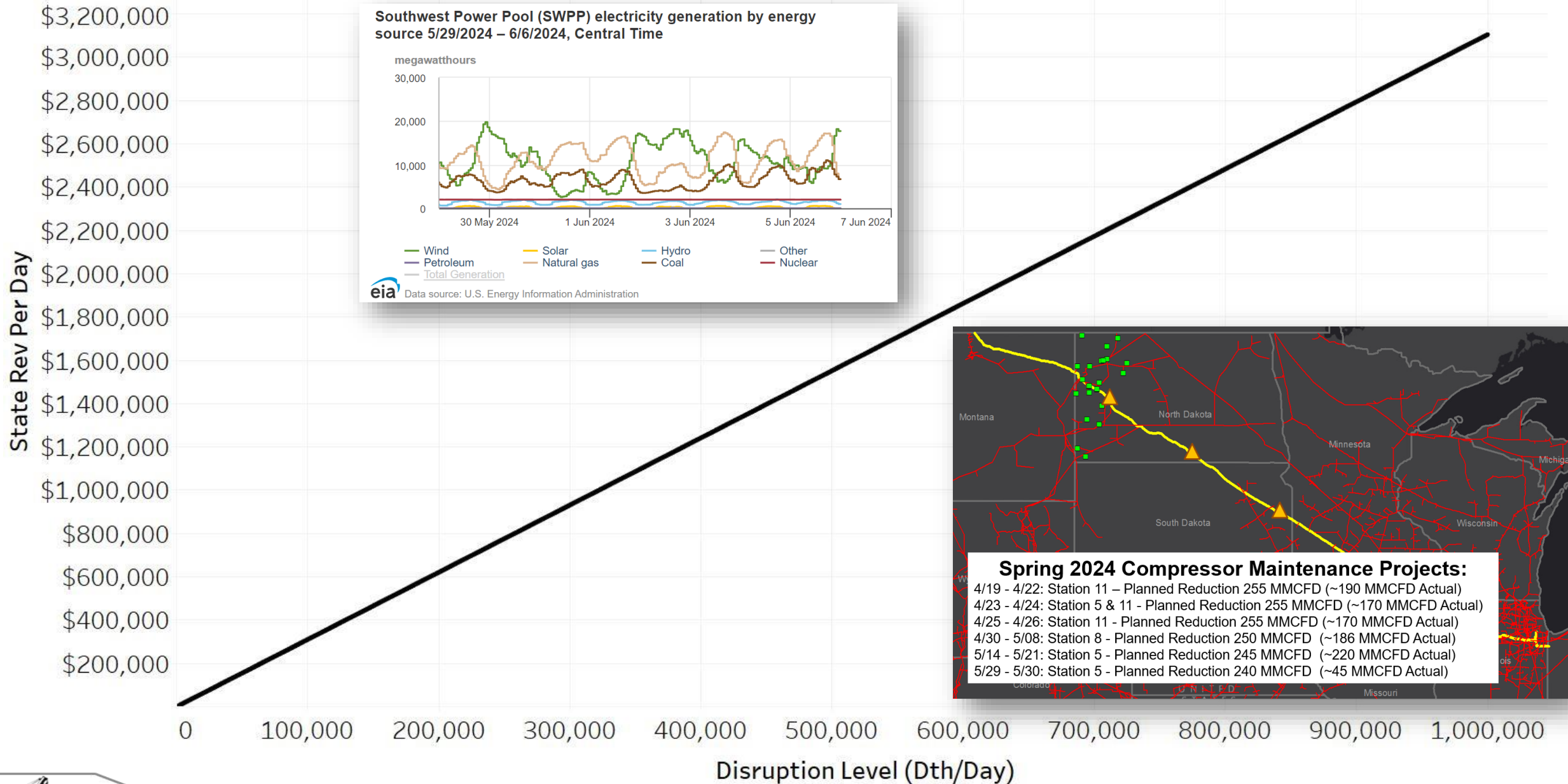
Gas-fired demand can fluctuate hourly, daily, and weekly, depending on system load, weather, etc.



Regional gas storage could provide a balancing solution for intermittent generation, but who pays for the required expansion?



Gas Disruptions Could Be Costly Without Alternatives



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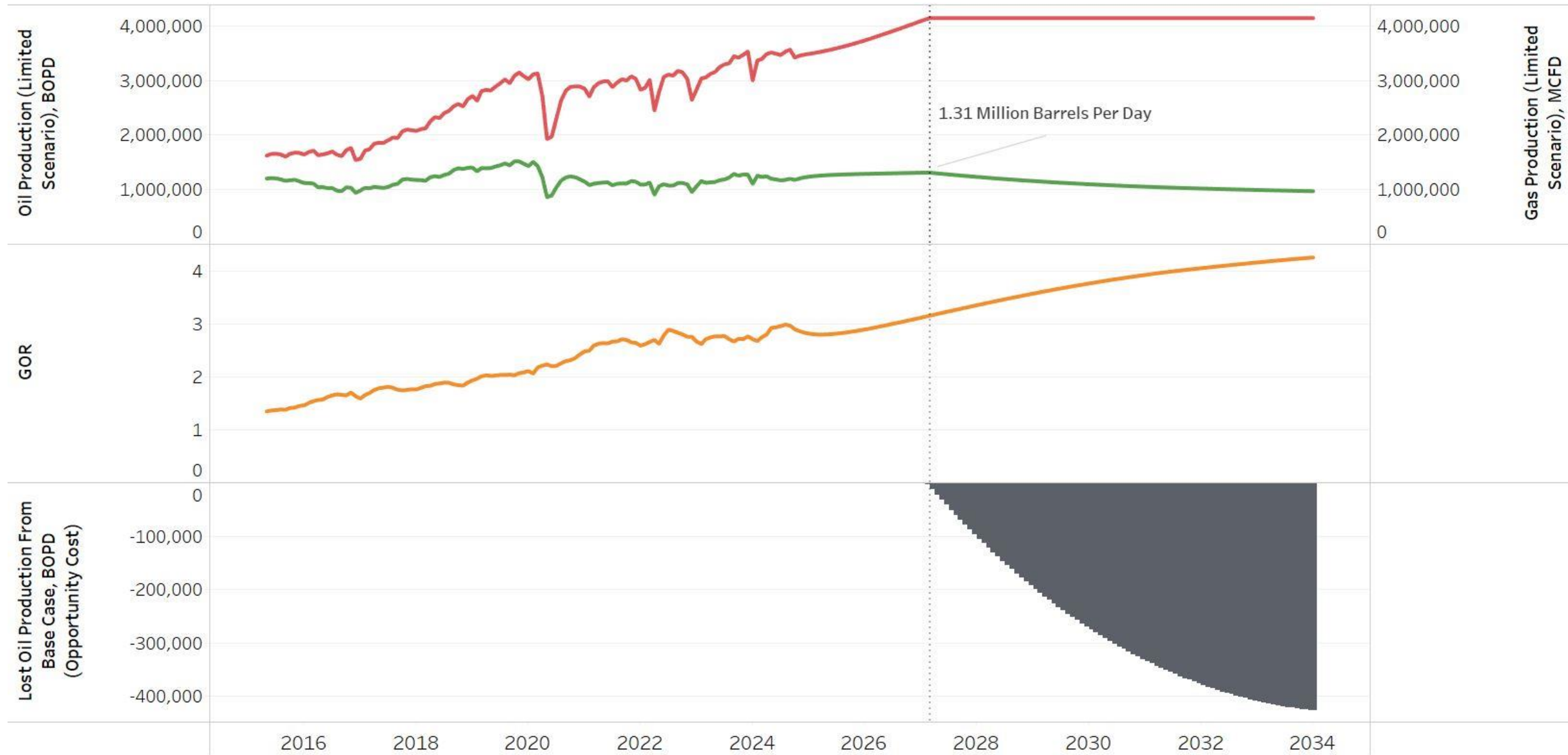
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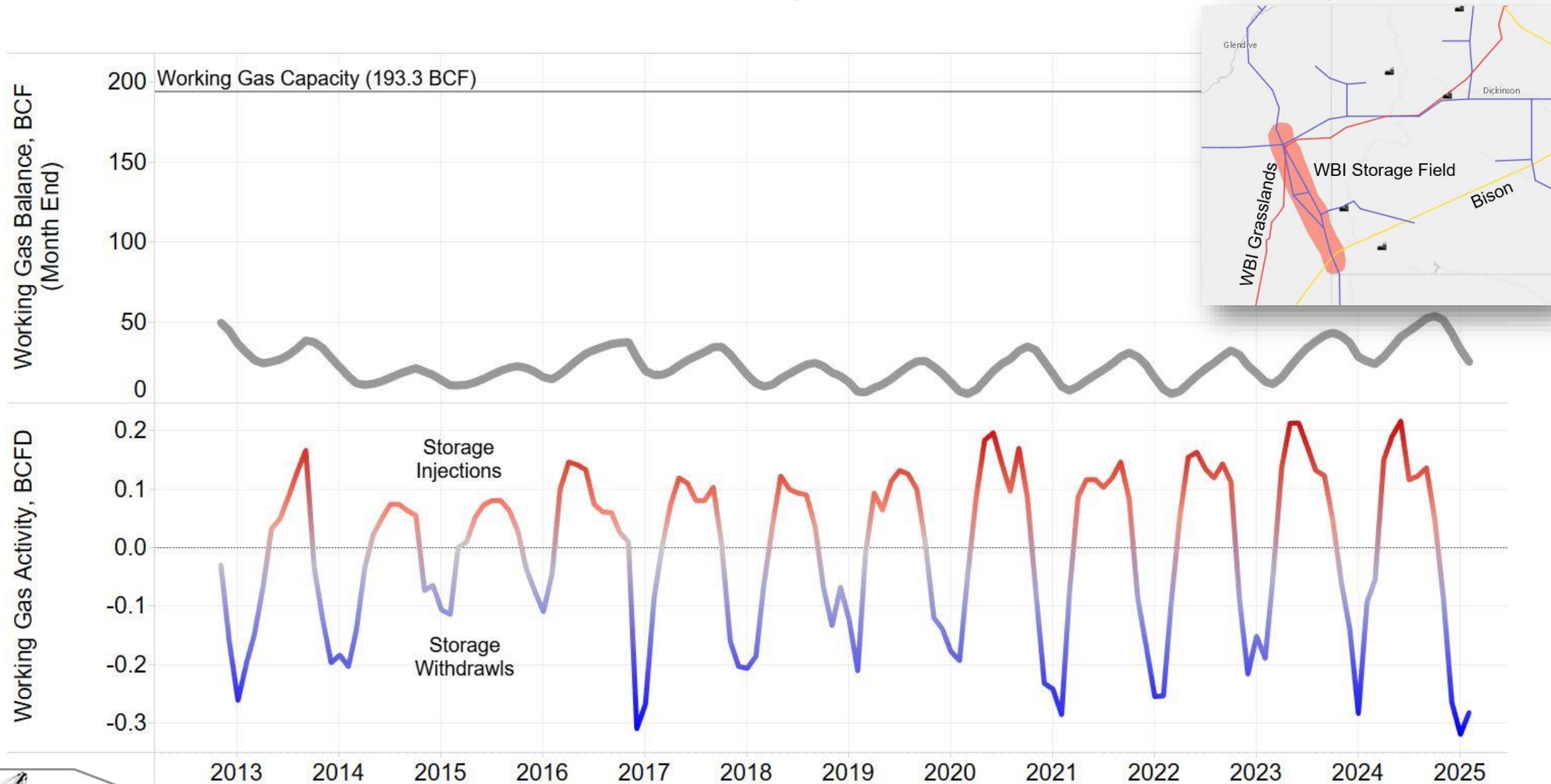
Gas Limitations Could Force Oil Production Down As GOR Rises



Regional Natural Gas Storage



Residue Gas Storage – WBI Energy*



Contact Information

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