

North Dakota makes 43% more electricity than it consumes. The next round of capital decides how much of that lead it keeps.

A coal fleet the state is fighting to preserve, a wind build-out that already leads the nation per capita, and a \$6 billion HVDC line to sell that power east and west — each force reshuffles the projects on your list. Bakken oil-field and data-center load are stacking on top. Invizion helps electric utilities re-sequence a capital portfolio in a click — and defend every decision to the PSC or the board.

42.6M MWh¹	\$6B²	5M tons/yr³	26.8%⁴
North Dakota's 2024 net generation — about 43% more electricity than the state consumes, making it a major net exporter.	Cost of the North Plains Connector, a 422-mile HVDC line built to move North Dakota power east and west.	CO2 that Project Tundra aims to capture at Milton R. Young Station to keep North Dakota coal running.	Share of North Dakota's electricity that came from wind in 2017 — the highest per-capita wind generation in the nation.

THE NORTH DAKOTA LANDSCAPE

Four forces are moving your project list at once

North Dakota's grid is built to export, split between two RTOs, and anchored on a coal fleet the state is actively preserving. Every one of those facts is now in motion — and none of them waits for your next budget cycle.

DEMAND — LOAD GROWTH

Built to export, now with new load stacking on

North Dakota generated about 42.6 million MWh in 2024 while consuming roughly 29.8 million — some 43% more power than it uses, most of it sold out of state¹

Now Bakken oil-field electrification and data-center interest are adding demand at home, and the \$6 billion North Plains Connector — 422 miles, with more than 240 crossing six North Dakota counties — is being built specifically to move that power to Eastern and Western markets²⁵ Every new customer and every new export path is a capacity commitment competing for the same capital.

RELIABILITY — TWO GRIDS, COLD PEAKS

One state, two RTOs, a firming coal fleet

North Dakota is split between MISO in the east (Otter Tail, Minnkota, Great River Energy) and SPP in the west (Basin Electric, Montana-Dakota Utilities), so resource adequacy is planned in two markets at once.

Winter, not summer, is the state's stress test, and the coal fleet still does the firming: Coal Creek Station's 1,215 MW was slated to close in 2022 until a sale kept it running⁸ With so much generation exported, keeping units and lines available is the reliability question — and it lands on the capital plan¹

GENERATION — COAL VS. WIND

Preserve the coal, build the wind

Coal is still North Dakota's leading electricity source¹ while wind supplied 26.8% of in-state generation in 2017 — the nation's highest per-capita wind output — and kept climbing⁴

Unlike states with clean-energy mandates, North Dakota has pursued coal preservation: Great River Energy's Coal Creek Station was sold to Rainbow Energy rather than retired⁶ and Minnkota's Project Tundra would capture about 5 million tons of CO₂ a year at Milton R. Young — backed by \$205 million in state loans and a final investment decision targeted for 2027⁷³

CAPITAL — TRANSMISSION & HARDENING

The build is transmission-heavy and expensive

The North Plains Connector alone is about \$6 billion, with roughly \$3.2 billion falling on the North Dakota portion, and Montana-Dakota Utilities and Minnkota are among the utilities that would use it.²⁵

On top of that, MDU is raising rates to fund electric infrastructure — a 14.5% request for about \$34.5 million a year — and Project Tundra's capture facility carries a roughly \$1.67 billion price tag⁸⁷ New obligations don't replace the backlog; they stack on top of it.

WHO RUNS NORTH DAKOTA'S GRID

Three investor-owned utilities and a very large cooperative sector

North Dakota's grid is carried by three PSC-regulated investor-owned utilities and an unusually large generation-and-transmission cooperative sector that owns much of the coal fleet. The pressures are shared; the accountability path differs.

Investor-owned utilities

Rates & capital recovery regulated by the ND PSC

Xcel Energy (Northern States Power)	Eastern North Dakota, incl. the Fargo & Grand Forks area
Montana-Dakota Utilities (MDU Resources)	Western & central North Dakota · 2026 rate case underway ⁸
Otter Tail Power	Southeastern ND, plus MN & SD; coal at Big Stone & Coyote ⁹

North Dakota's 2024 average retail electricity price was about 7.93 cents/kWh — well below the national average.¹

Cooperatives & public power

Governed by member boards, not PSC rates

Basin Electric Power Cooperative	Bismarck-based G&T · ~3M consumers across 9 states, 21 Class A members ¹⁰
Minnkota Power Cooperative	Grand Forks G&T serving ND & MN; operates Milton R. Young ¹¹
Great River Energy	G&T that owned Coal Creek Station before its 2022 sale ⁶
Rainbow Energy Center	Merchant owner of the 1,215 MW Coal Creek Stations ⁶

Basin's Dakota Gasification / Great Plains Synfuels plant captures and sequesters nearly half of its CO2 emissions¹⁰

Every capital dollar has to be defensible

Whether you answer to the elected Public Service Commission or a cooperative board, the question is the same: why this project, why now, why at this cost?

North Dakota Public Service Commission (PSC) — an elected three-member commission regulates rates and cost recovery for investor-owned utilities and sites major transmission. Cooperatives such as Basin, Minnkota, and Great River Energy set their own rates through member boards.¹²

MDU's 2026 rate case — the PSC approved a 12.3% interim increase (about \$26.3 million a year) while MDU seeks a full 14.5% increase (~\$34.5 million), filed June 30, 2026, with hearings in 2027. State law requires interim requests to take effect within 60 days⁸

North Plains Connector siting — the PSC is holding route hearings across six North Dakota counties, a reminder that transmission capital is committed years before a kilowatt flows⁵

No renewable mandate — a coal-preservation stance instead.

North Dakota has no renewable portfolio standard; state policy and financing have gone toward keeping coal running, from the Coal Creek sale to carbon capture at Milton R. Young⁶³

The money is moving — can your plan absorb it?

North Dakota's capital picture leans on state financing and federal tax credits as much as ratepayer dollars. The constraint is readiness: which projects qualify, which are shovel-ready, and how the timing lines up.

\$205M in state loans for carbon capture — the North Dakota Industrial Commission, through the Bank of North Dakota, approved \$160 million for Reliant and \$45 million for Minnkota to advance Project Tundra.³

~\$425M/year in 45Q tax credits — Project Tundra's roughly 5 million tons of captured CO₂ would qualify for about \$425 million in federal tax credits annually.³

North Plains Connector: ~\$6B total, ~\$3.2B in North Dakota — a 422-mile, up-to-525 kV HVDC line linking the Eastern and Western Interconnections, with construction targeted for 2028 and service in 2032.²⁵

~\$1.67B Project Tundra capture facility — Minnkota and partner Reliant have a final investment decision targeted for 2027, aiming to cut plant emissions by about 95% and create roughly 350 jobs⁷

~\$34.5M/year in MDU electric rate increases — requested to cover electric infrastructure improvements and rising costs, the utility's first rate filing since 2022.⁸

NORTH DAKOTA'S GRID, IN BRIEF

Questions North Dakota utility leaders are asking

Short, sourced answers — the same facts we dig into with utilities looking at their capital programs.

How much electricity does North Dakota export?

North Dakota generated about 42.6 million MWh in 2024 against roughly 29.8 million MWh of retail sales — some 43% more power than it consumes. New Bakken oil-field and data-center load, plus the North Plains Connector, are now reshaping how that surplus moves.³⁵

What's happening to North Dakota's coal plants?

Coal remains the state's leading electricity source. Coal Creek Station's 1,215 MW was slated to close in 2022 until Great River Energy sold it to Rainbow Energy, and Minnkota's Project Tundra would capture about 5 million tons of CO2 a year at Milton R. Young to keep that plant running.³³

Who regulates North Dakota electric rates?

The elected North Dakota Public Service Commission regulates rates and cost recovery for investor-owned utilities such as Xcel, Montana-Dakota Utilities, and Otter Tail Power, and sites major transmission. Cooperatives and G&Ts like Basin Electric, Minnkota, and Great River Energy set their own rates through member boards.¹²

What is the North Plains Connector?

It's a 422-mile, up-to-525 kV HVDC transmission line — about \$6 billion total, some \$3.2 billion in North Dakota — developed by Grid United and ALLETE to link the Eastern and Western Interconnections, with construction targeted for 2028 and service in 2032.⁵²

How much wind does North Dakota have?

Wind supplied 26.8% of North Dakota's electricity in 2017 — the highest per-capita wind generation in the nation — and installed capacity reached about 3,628 MW by 2019, with the build-out continuing since.⁴

How does Invizion help North Dakota electric utilities plan capital?

Invizion is scenario-based capital portfolio optimization for utilities. It lets you model how a new export line, a carbon-capture financing decision, or a coal-firming requirement reshuffles your whole project list, re-sequence the portfolio automatically, and keep a defensible record of every decision for the PSC or your cooperative board.

REFERENCES

Sources

Every figure in this briefing is tied to a primary or authoritative source.

1. U.S. Energy Information Administration — North Dakota Electricity Profile 2024 (net generation 42,557,243 MWh; retail sales 29,769,698 MWh; net summer capacity 9,684 MW; avg. price 7.93 cents/kWh; coal the leading source), published Nov. 2025. www.eia.gov
2. North Plains Connector — project overview: ~420-mile, up-to-525 kV HVDC line, ~\$6 billion, linking the Eastern and Western Interconnections; operational 2032; Grid United & ALLETE. www.northplainsconnector.com
3. North Dakota Monitor — ND approves \$205M in loans (\$160M Reliant, \$45M Minnkota) for Project Tundra carbon capture; ~5M tons CO₂/yr worth ~\$425M/yr in 45Q credits, Aug. 25, 2026. northdakotamonitor.com
4. Wikipedia — Wind power in North Dakota: 26.8% of state electricity from wind in 2017 (highest per-capita in the U.S.); ~3,628 MW installed by 2019. en.wikipedia.org
5. North Dakota Monitor — North Plains Connector hearings: 422-mile line, 240+ miles across six ND counties, ~\$6B total / ~\$3.2B in ND; Grid United & ALLETE; construction 2028, service 2032; MDU and Minnkota among users, Aug. 25, 2026. northdakotamonitor.com
6. Wikipedia — Coal Creek Station: 1,215.6 MW (two 605 MW units); Great River Energy planned 2022 closure, sold to Rainbow Energy Center (completed May 2022). en.wikipedia.org
7. North Dakota Monitor — Minnkota adds partner Reliant Carbon Capture & Storage to revive Project Tundra at Milton R. Young; ~\$1.67B facility, ~5M tons CO₂/yr, ~95% emissions cut, ~350 jobs, FID targeted 2027, Aug. 19, 2026. northdakotamonitor.com
8. North Dakota Monitor — PSC approves MDU interim electric rate increase of 12.3% (~\$26.3M/yr, ~\$12.90/mo residential); full 14.5% request (~\$34.5M) filed June 30, 2026, hearings in 2027, Aug. 26, 2026. northdakotamonitor.com
9. Wikipedia — Otter Tail Power Company: serves Minnesota, North Dakota, and South Dakota; coal at Big Stone and Coyote Station; Hoot Lake coal plant retired 2021. en.wikipedia.org
10. Wikipedia — Basin Electric Power Cooperative: ~3 million consumers across nine states; 21 Class A member cooperatives; Bismarck, ND HQ; Great Plains Synfuels captures ~50% of its CO₂. en.wikipedia.org
11. Wikipedia — Minnkota Power Cooperative: generation-and-transmission cooperative serving members in North Dakota and Minnesota; operator of the Milton R. Young Station. en.wikipedia.org
12. North Dakota Public Service Commission — elected three-member commission regulating investor-owned utility rates and siting major transmission (cooperatives self-regulate via member boards). psc.nd.gov

ABOUT INVIZION

Capital program optimization for utilities

Invizion is a purpose-built capital lifecycle management platform for utilities. It integrates budgeting, CIP, scenario analysis, and funding-source tracking in one system — so utilities can re-sequence a capital portfolio in a click and demonstrate audit-ready, defensible decisions to regulators, boards, and rating agencies.

See how utilities keep capital plans current and defensible with Invizion.

Explore Invizion →