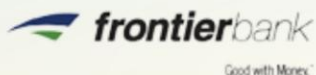


FROM DEMAND TO DELIVERY:

Energy, Infrastructure, and
Powering **Nebraska's** Growth



THANK YOU TO OUR INVESTORS



I. Executive summary

II. Power demand growth

1. US-wide context
2. Nebraska load environment
3. Expected growth
4. SPP market reforms

III. The need for new power generation in Nebraska

1. Existing generation mix in Nebraska
2. Capacity planning and generator interconnection
3. Policy and regulation

IV. Implications for transmission infrastructure

1. Existing transmission and constraints
2. SPP's transmission planning process
3. Planned transmission buildout

V. Gas-Electric Interconnection and Resilience

1. Gas infrastructure overview
2. Deliverability considerations
3. Gas-electric coordination

VI. Nebraska power market policy analysis

VII. Appendix

Executive Summary

1

Economic growth and development is driving increased electricity demand in Nebraska and throughout the country

- Electricity demand is shifting from a period of long-term stability towards a period of increased growth, driven by electrification across key industries as well as load growth from data centers.
- Continued development of manufacturing, agricultural, and data-driven industries are expected to underpin electrical demand growth in Nebraska, requiring ample new capacity buildout and grid investments to support electricity demand.

2

Nebraska is expected to see ample new capacity build, and the state's transmission system and gas infrastructure together support capacity buildout and grid stability

- Nebraska has a multi-faceted mix of electric generation assets, including nuclear, gas, coal, and, increasingly, renewable assets and grid-scale batteries, with significant new capacity buildout needed in the coming years to support economic development.
- Nebraska's transmission system and gas pipeline infrastructure are a key part of system reliability, with transmission investments approved in recent SPP Integrated Transmission Plans needed to improve grid performance and support load growth.

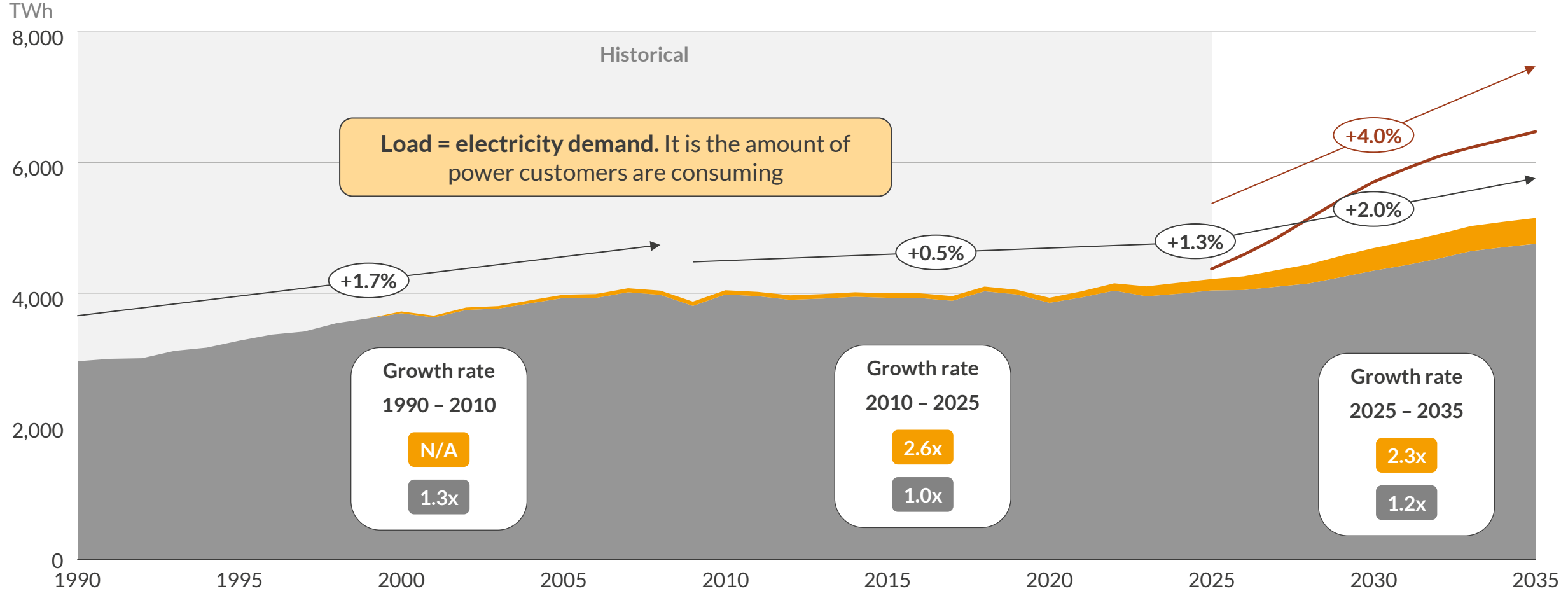
3

Energy stakeholders identified competitive advantages and policy opportunities in Nebraska to enable economic growth through energy infrastructure investment

- Nebraska has a handful of advantages, such as affordable electricity, available land, and utilities aligned with development goals, which can enable economic growth.
- Energy infrastructure development can be catalyzed by statewide leadership, stable and predictable regulatory and tax regimes, and streamlined permitting processes to facilitate the development of the new energy resources necessary to power growth.

A renewed wave of U.S. load growth, partially driven by AI data centers, is reshaping power markets nationwide after over a decade of stagnation

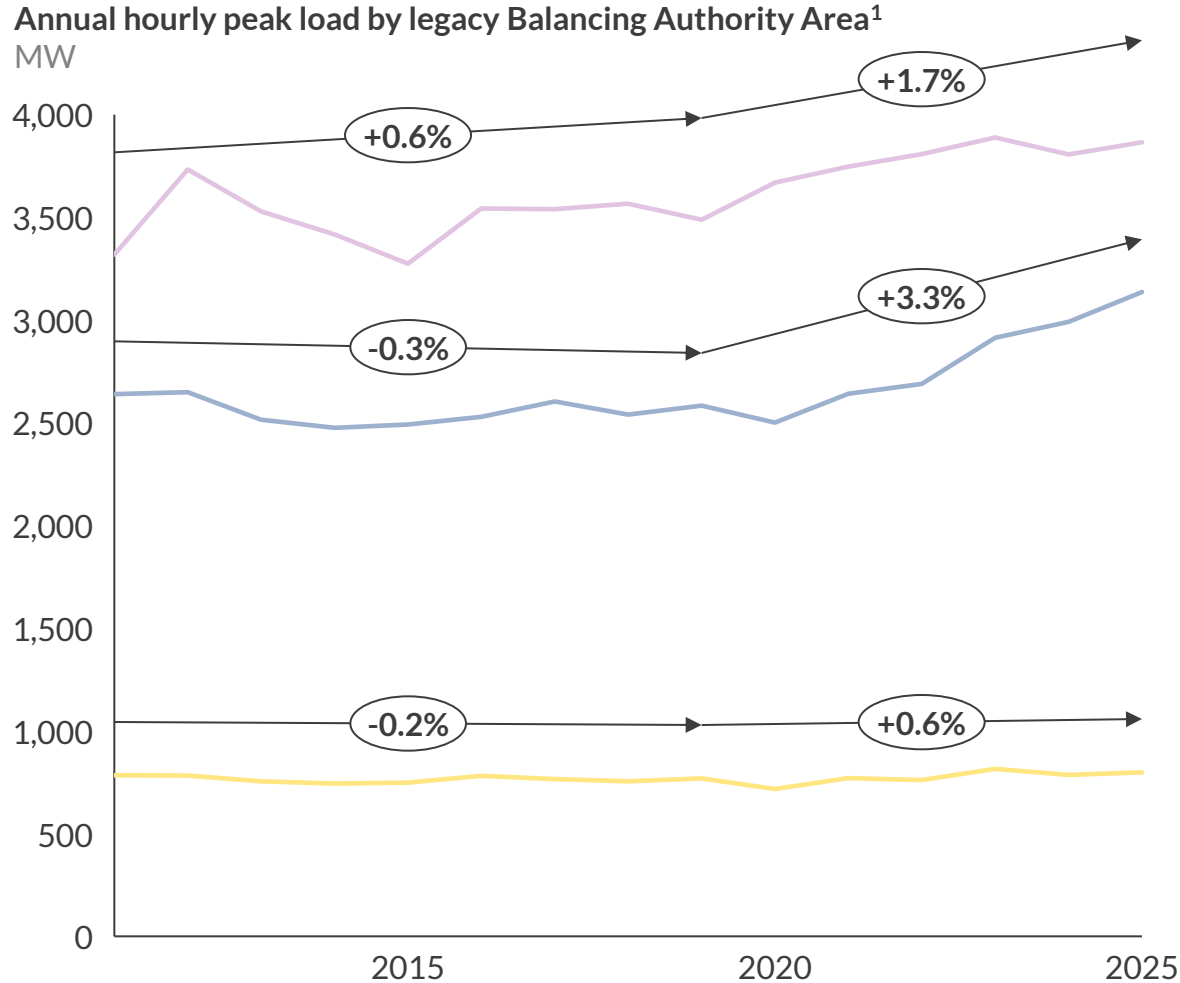
Historical¹ and Aurora forecasted U.S.-wide load



■ Demand without data centers ■ Data-center demand — Aggregated Utility Forecasts² ○ CAGR³

1) Historical data from the October 2024 publication of Form EIA-923 data and EPRI. 2) From Brattle report, reflecting the latest ISO forecasts as of April 2025. 3) Compound annual growth rate.

Nebraska's electricity demand has increased over the last few years, with highest growth rates observed in OPPD and NPPD



— LES — NPPD — OPPD ○ CAGR²

1) The legacy Balancing Authority Area's footprint is an SPP classification that is not identical to the footprint of the actual Load Responsible Entity. 2) Compound Annual Growth Rate.

What has changed?

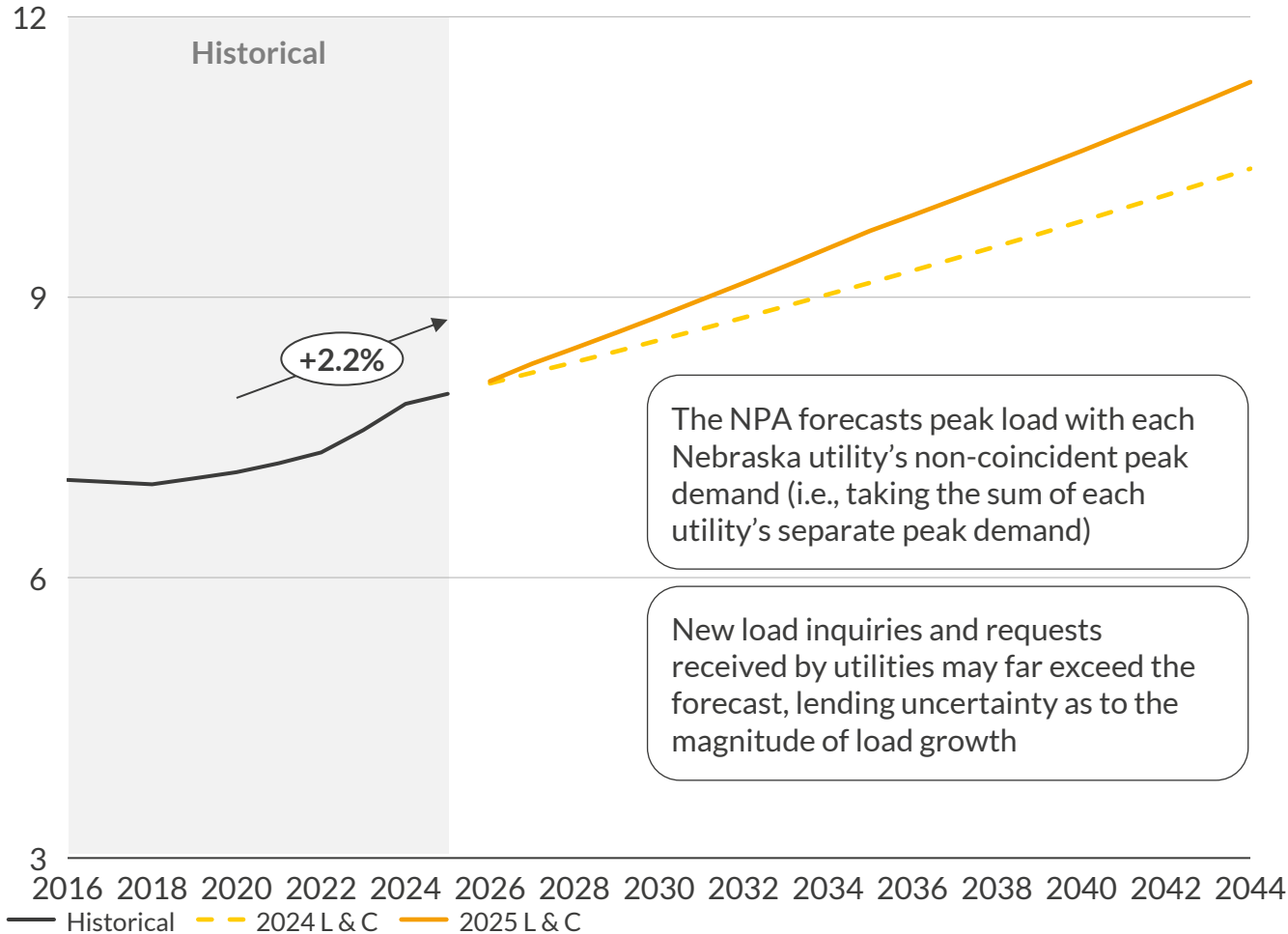
- Peak demand is no longer flat. All three major Nebraska systems show a clear upward shift since 2020.
- Within the last few years, large public power utilities across the state have seen a surge in project requests and inquiries, including more than several gigawatts worth of projects.
- OPPD has had the most pronounced increase in peak demand, driven by large commercial and industrial additions concentrating near one of the state's largest load centers.
- Load growth is also visible across NPPD and LES, indicating that the demand is increasing statewide.

What this means for planning

Peak demand drives system planning. Even if annual energy use grows gradually, higher peaks require LREs and SPP to plan for the few highest-stress hours when reliability is most at risk.

The Nebraska Power Association releases an annual Load and Capability Report that predicts higher peak load growth than previously forecasted

Nebraska peak load¹
GW



The NPA forecasts peak load with each Nebraska utility's non-coincident peak demand (i.e., taking the sum of each utility's separate peak demand)

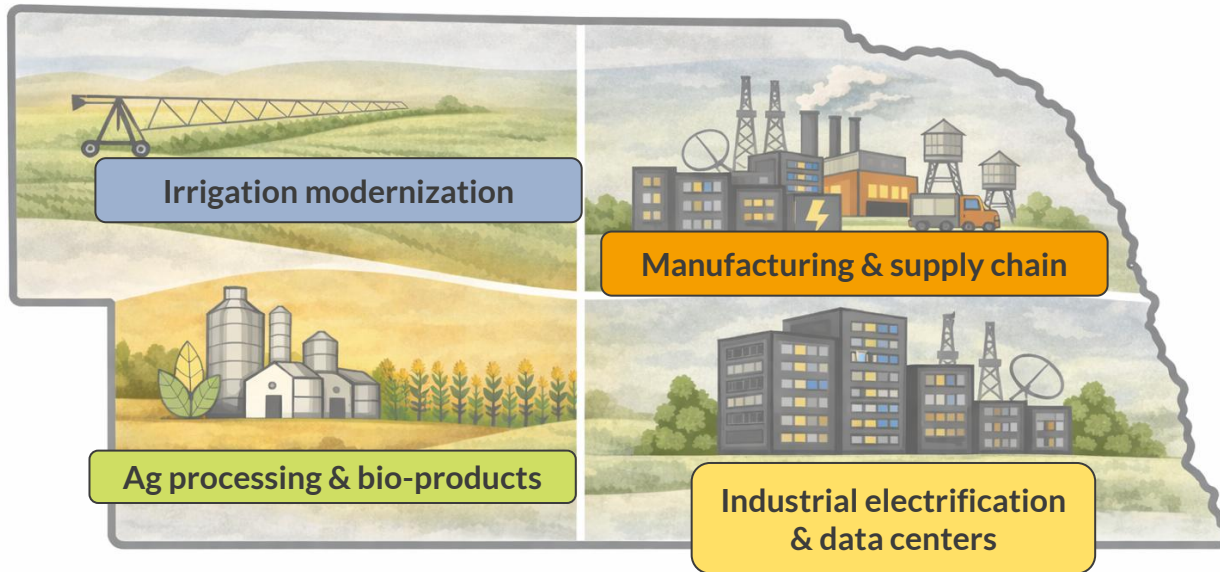
New load inquiries and requests received by utilities may far exceed the forecast, lending uncertainty as to the magnitude of load growth

L&C report overview

- Every year, the Nebraska Power Association's Load and Capability (L&C) Report offers a view on resource planning efforts in the state.
- The L&C report includes an analysis of multiple factors including load growth, existing generation, planned generation and planning reserve margins.
- Some utilities contributing to the L&C report utilize probability-based rankings to determine the traditional customer electrical loads included in the forecast and include large single point loads if there is a sufficiently high degree of confidence that the load will materialize.
- The 2025 L&C Report assumed an expected growth rate for annual peak load of 1.7% year over year from 2025 to 2044, an increase from the 1.4% year-over-year growth rate in the 2024 L&C report.

1) Forecast data using a flat 1.7% annual growth rate.

Continued development of manufacturing, agricultural, and industrial electrification will increase electricity demand across Nebraska¹



1 Why is load growth expected?

- Nebraska is well-positioned for manufacturing and supply chain investment, supported by central geography and freight access.
- Irrigation modernization continues as equipment upgrades and automation expand across agricultural areas.

2 How it shows up on the grid

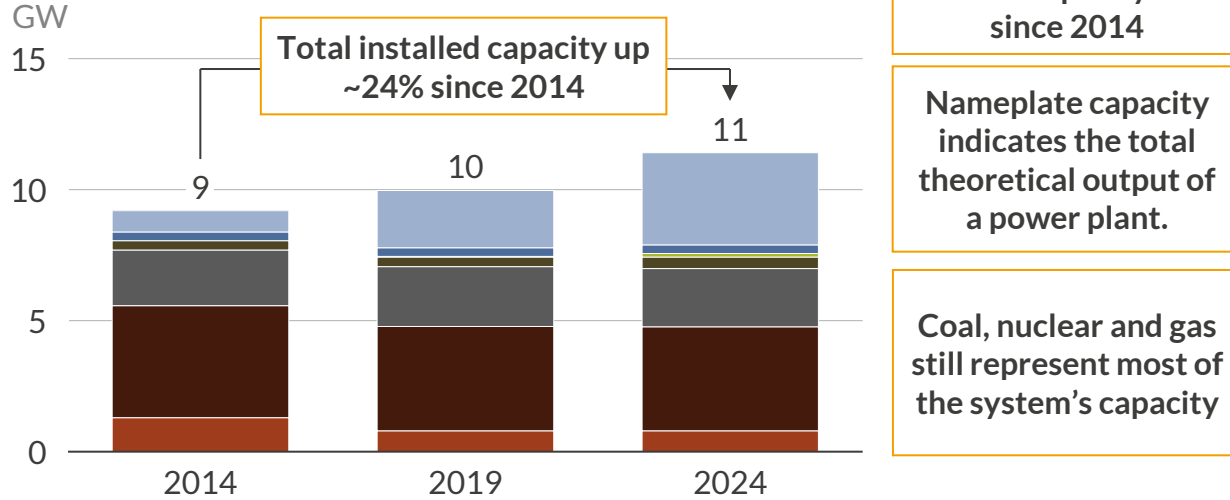
- Many sectors have seasonal patterns, such as the irrigation-driven peak during the summer months in agriculturally dense areas.
- Load growth will increase both annual electricity use and peak demand, contributing to future capacity needs for load responsible entities.
- Growth in different sectors that use energy at varying times can lead to the electricity grid being utilized more efficiently, driving beneficial development that helps balance demands on the grid.

Beneficial economic development supports jobs and investment across Nebraska, driving load growth and strengthening the case for a modern grid that serves many communities and industries

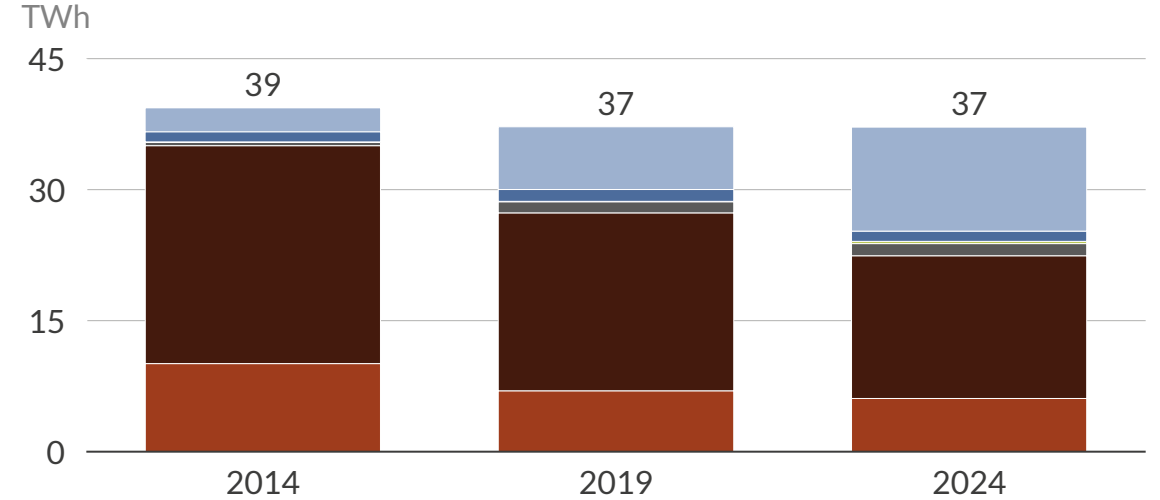
1) Illustrative sectors shown; specific project locations and timelines vary by community and customer decisions.

Nebraska's capacity mix was historically dominated by coal, nuclear and gas; however, wind has grown rapidly over the last decade

Installed nameplate capacity in NE



Annual electricity produced in NE



Changes in Installed Nameplate Capacity

- Total installed capacity in Nebraska has increased ~24% in the last ten years, from approximately 9GW in 2014 to ~11GW in 2024.
- Wind has seen the largest change in capacity, growing from less than 1GW in 2014 to ~4GW of installed nameplate capacity in 2024.

Changes in Generation

- Coal and nuclear units continue to provide the majority of Nebraska's baseload generation, although decreasing proportionally over time.
- Since 2014, wind generation has grown from 8% of annual output to ~32% in 2024, while coal's share has fallen from 64% to 43%.

Implications for Nebraska

- Continued capacity growth trend:** Capacity expected to continue increasing to keep pace with demand.
- Nebraska's energy landscape continually evolves:** Forecasts suggest that renewables will become more prevalent.

■ Nuclear ■ Coal ■ Natural Gas ■ Other thermal ■ Solar ■ Hydro ■ Wind

Rising demand and higher reserve margins mean Nebraska will need substantial new capacity by the early 2030s

Demand pressure and reliability requirements

Nebraska peak demand expected to rise toward ~9 GW by 2035 in Aurora's Economic Build scenario.

Certain aging thermal plants in Nebraska are nearing the end of their expected lifetimes.

SPP is updating capacity accreditation methodology and PRM requirements.

SPP is introducing a winter PRM to improve reliability.

Supply levers to meet expected demand

1

Thermal baseload capacity

Thermal plants (such as gas and coal) help load responsible entities (LREs) meet peak load with steady, predictable generation across all hours.

2

Renewable capacity

Renewable energy resources, such as wind and solar, provide low marginal cost generation and can often be built more quickly than thermal plants, supporting short-term load growth and reducing system energy costs.

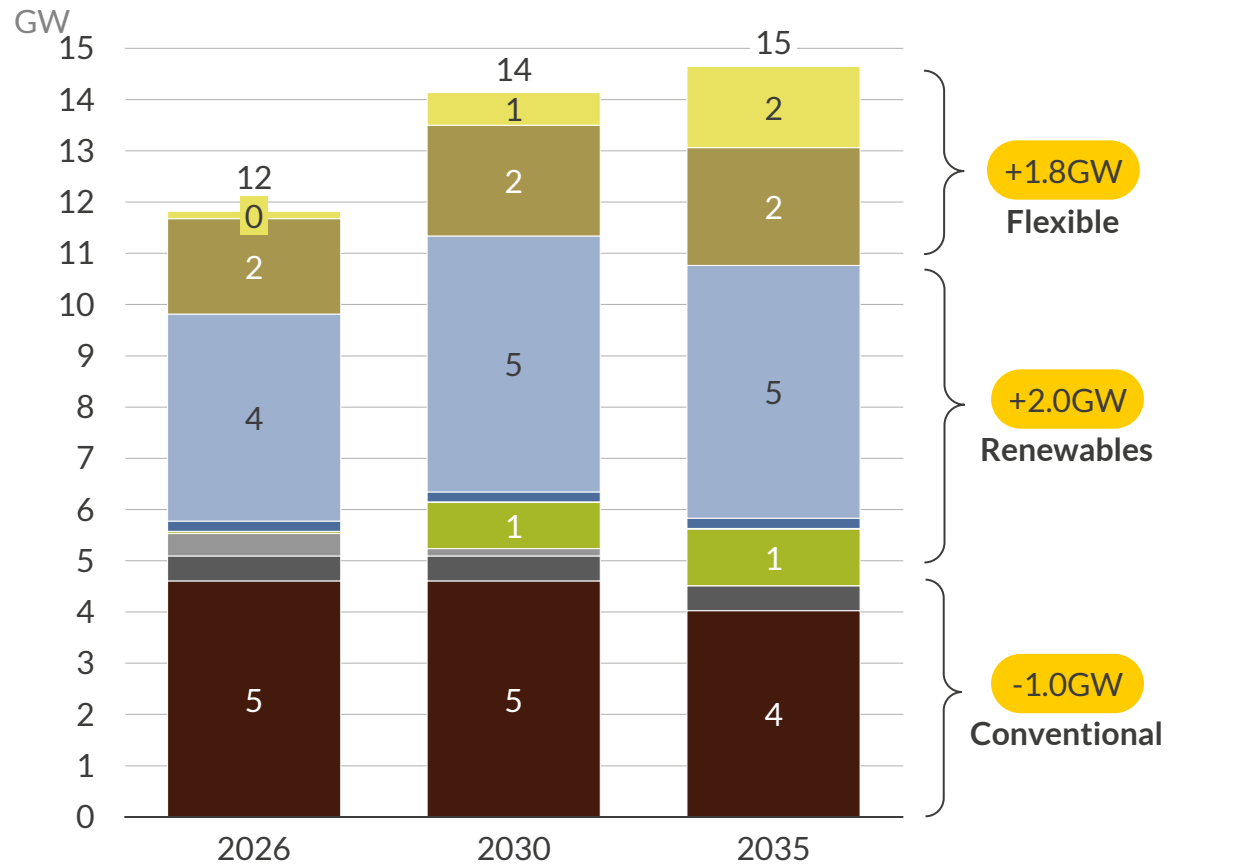
3

Flexible capacity

Flexible resources, such as grid-scale batteries and gas peaking plants, help maintain system-wide stability by helping the grid ramp up and down to meet demand fluctuations.

Aurora forecasts that nearly 4GW of newly built renewables and flexible capacity will be needed by 2035 to meet forecasted demand

Installed nameplate capacity in Nebraska, Aurora's Economic Build scenario



Aurora Economic Build Scenario Overview

- Takes into account Aurora's load growth forecast as presented in section II of this report.
- Short-term (2026-29) capacity buildout based on projects currently in the interconnection queue, based on queue stage and historical success rate.
- Medium-term (2029-35) capacity build-out based on economic buildout of projects that are NPV-positive.¹

Forecasted Capacity Changes: 2025 to 2035

- Solar and wind capacity increases by 1GW each between 2026 and 2035, with capacity additions offsetting the thermal capacity reduction from the phased retirement of the North Omaha plant.
- Battery and gas peaker buildout supplements the growth in renewable capacity, increasing flexible capacity by 2GW.

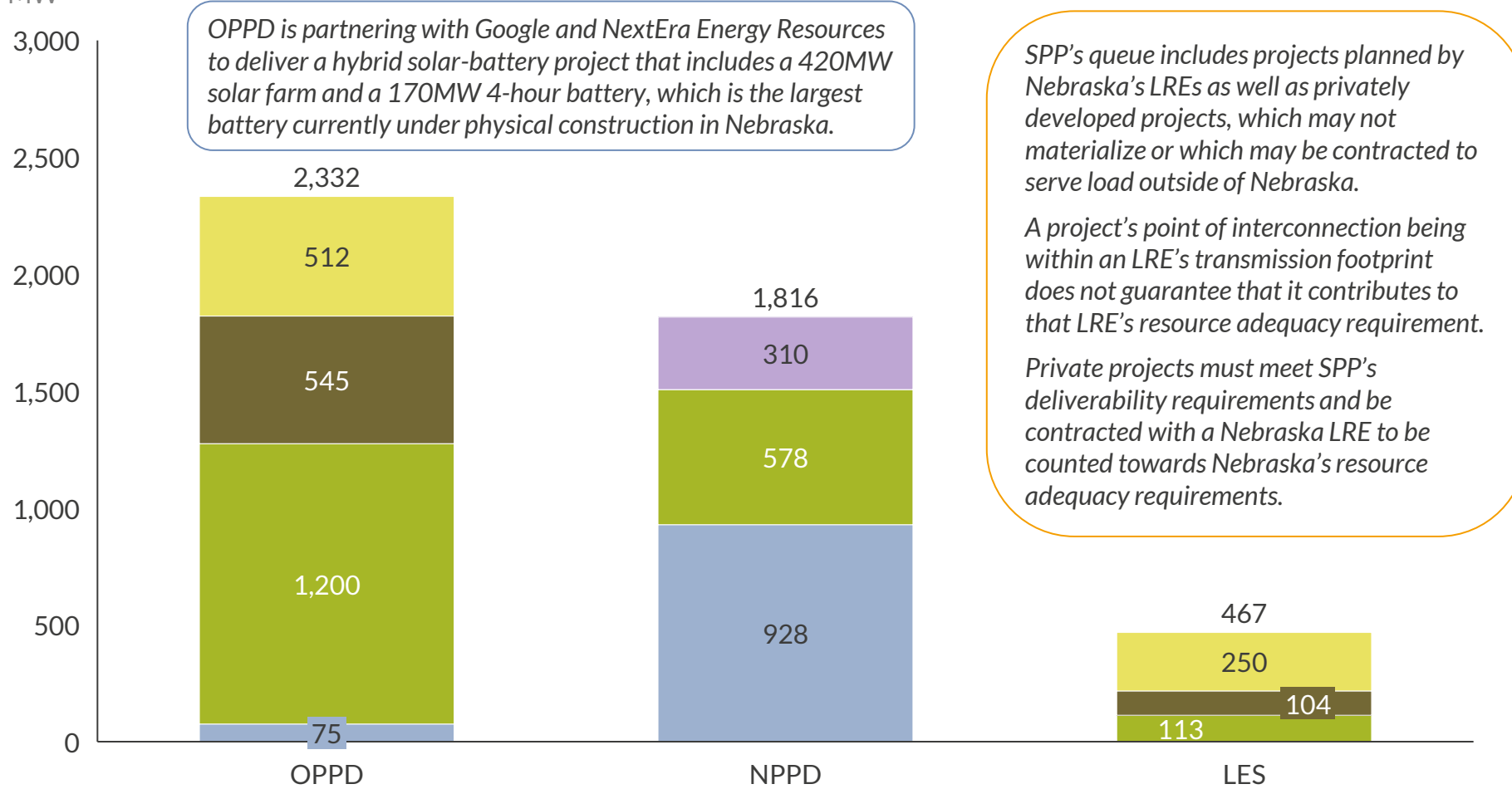
Coal
 Other thermal
 Other renewables¹
 Wind
 Gas / oil peaker²

Gas CCGT
 Solar
 Hydro
 Pumped storage
 Battery storage

1) Net present value at the time of project completion, based on estimated revenues over the asset lifetime.

SPP's queue includes 4.6GW nameplate capacity of renewable and flexible energy projects with IA-signed¹ queue at Nebraska POIs²

Nameplate capacity in the Interconnection Queue with fully executed IA, by technology and transmission owner at POI¹
MW



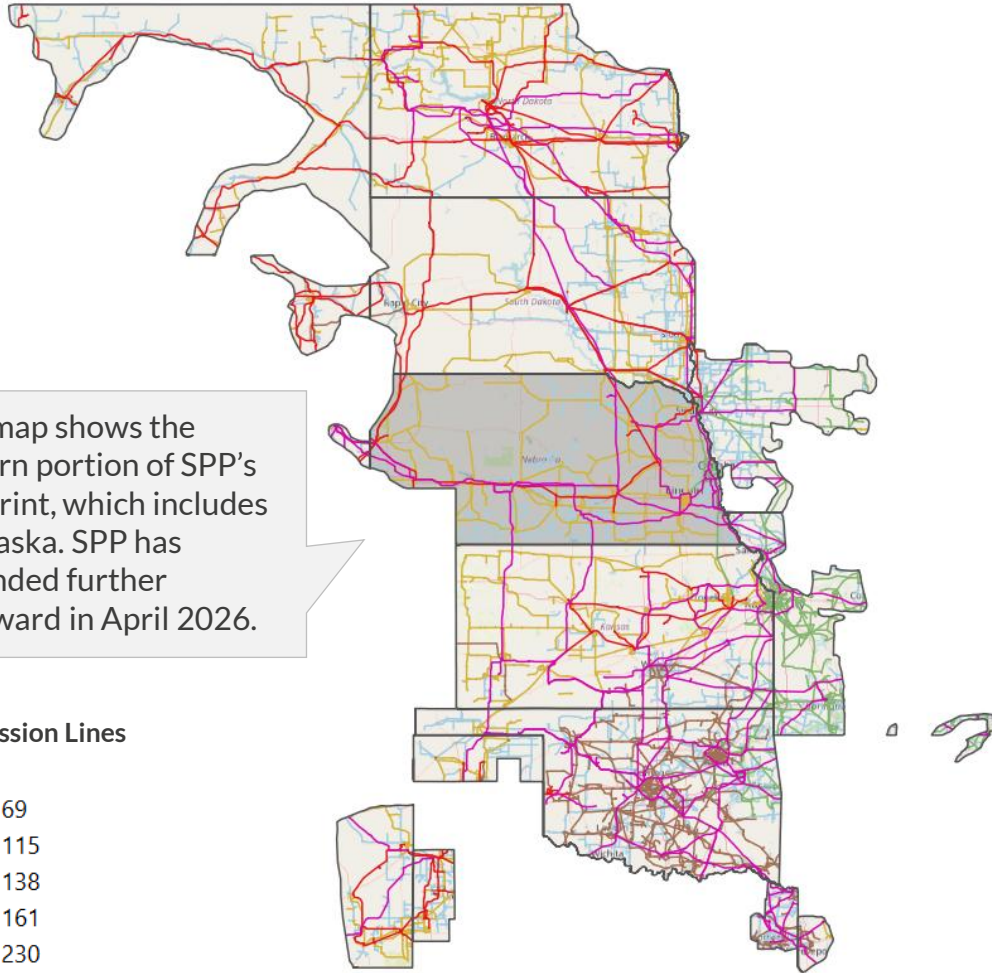
- SPP's interconnection queue includes significant solar, wind and battery capacity with interconnection agreements signed in the transmission footprints of NPPD, OPPD, and LES.
- Over 1.4GW of flexible energy technology projects, including batteries and peakers, have IA-signed within OPPD and LES's footprints, along with 310MW in NPPD's footprint.
- LES has Nebraska's only Expedited Resource Adequacy Study (ERAS) project. The 104MW thermal plant is scheduled to be operational in Lancaster by June 2029.

■ BESS ■ Hybrid ■ Peakers ■ Solar ■ Wind

1) IA = Interconnection Agreement. 2) Point of Interconnection.

Nebraska is part of the broader SPP transmission network, connected to neighboring states in the north, south, east and west

SPP's East's Transmission Network



This map shows the eastern portion of SPP's footprint, which includes Nebraska. SPP has expanded further westward in April 2026.

Transmission Lines

- KV
- 69
- 115
- 138
- 161
- 230
- 345

State of the Grid

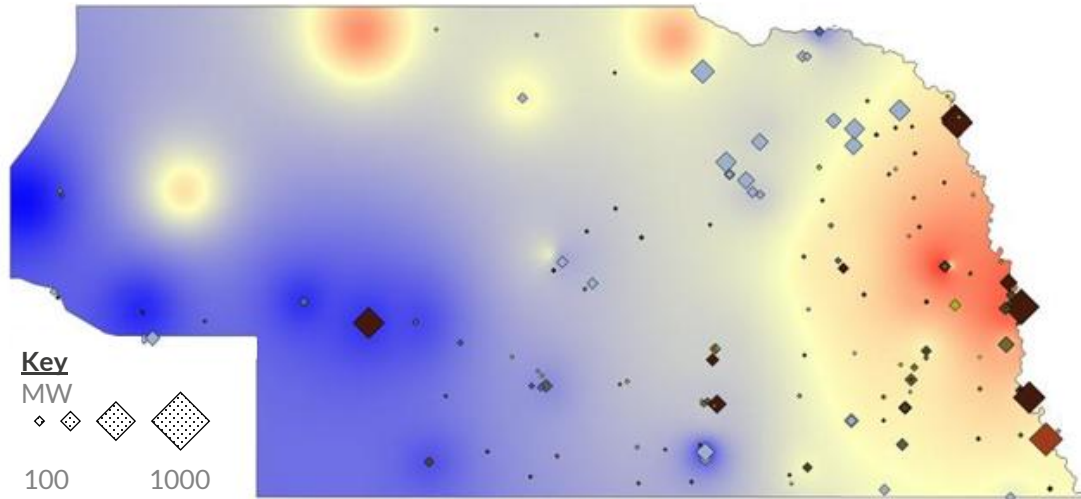
- SPP East has 557,546 square miles of service territory served by 72,820 miles of transmission network.
- SPP East's network expands over 14 states of which Nebraska alone has an extensive network of approximately 7,000 miles of transmission lines.
- Nebraska's three largest load responsible entities (LREs)—Omaha Public Power District (OPPD), Nebraska Public Power District (NPPD), and Lincoln Electric System (LES) own around 1,300, 5,400 and 300 line-miles respectively.
- Additionally, Nebraska's major interstate transmission connections help facilitate transfers of power with its neighbors, particularly to the north, south and east.

Neighboring State	Major Transmission Line	Line Voltage
Missouri	Nebraska City – Maryville – Sibley	345 kV
Kansas	Axtell – Spearville and Axtell – Post Rock	345 kV
South Dakota	Multiple Nebraska–South Dakota tie lines, example Yankton – Southeast NE	161 kV, 345 kV
Iowa	Multiple eastern Nebraska–western Iowa transmission ties (OPPD / MidAmerican interfaces)	161 kV, 345 kV
Wyoming (via DC tie)	Virginia Smith Converter Station (Sidney, NE)	HVDC ¹ back-to-back
Wyoming (via DC tie)	David A. Hamil DC Tie (Stegall, NE)	HVDC back-to-back

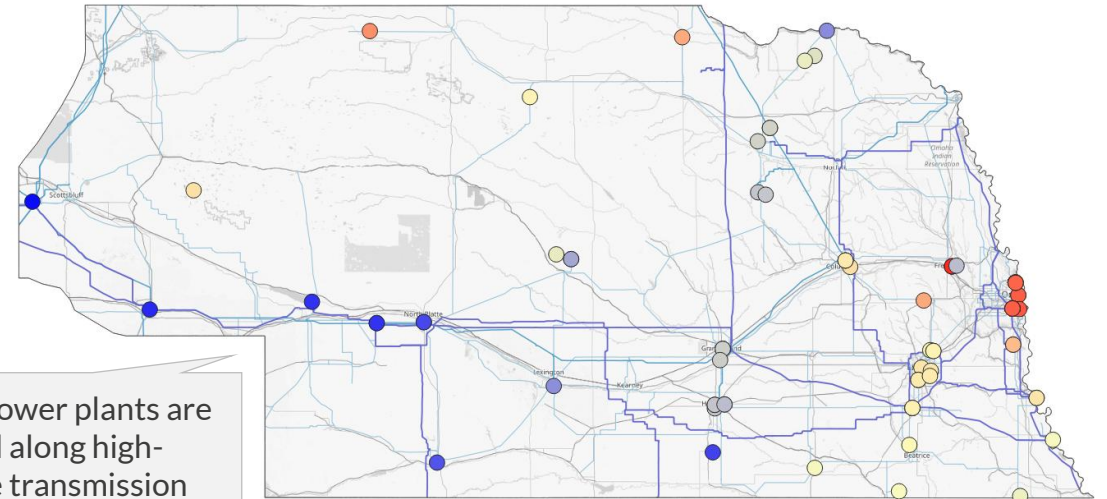
1) High Voltage Direct Current: AC power from one grid is converted to DC and then back to AC for the other grid.

Congestion does exist along Nebraska transmission lines, appearing as price differentiation between metro areas in the east and the rest of the state

Day-Ahead ATC price basis¹ heat map and generators, 2024
Color scale: \$/MWh (nominal); Generator size scaled by capacity in MW



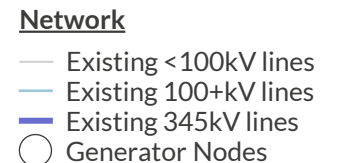
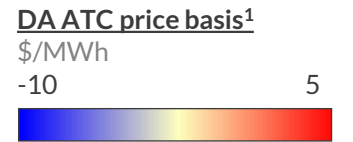
Day-Ahead ATC price basis¹ heat map and transmission, 2024
Color scale: \$/MWh (nominal)



I The hub to node basis is price difference between a node and the hub average. Blue indicates lower-than-average prices in the west and north; the east has higher-than-average prices.

II Persistent negative basis (blue) has been driven by concentrated wind generation and relatively low demand in northern and western Nebraska bringing down energy prices compared to hub average.

III Recurring high basis (red) has been concentrated around high demand metro areas, driven by congestion across lines from north and west, with higher-cost non-renewable generation meeting local demand.



- Technology**
- ◆ Nuclear
 - ◆ Gas CCGT
 - ◆ Coal
 - ◆ Utility solar
 - ◆ Onshore wind
 - ◆ Offshore wind
 - ◆ Hydro
 - ◆ Peaking
 - ◆ Pumped storage
 - ◆ Battery storage

1) With respect to North Hub.

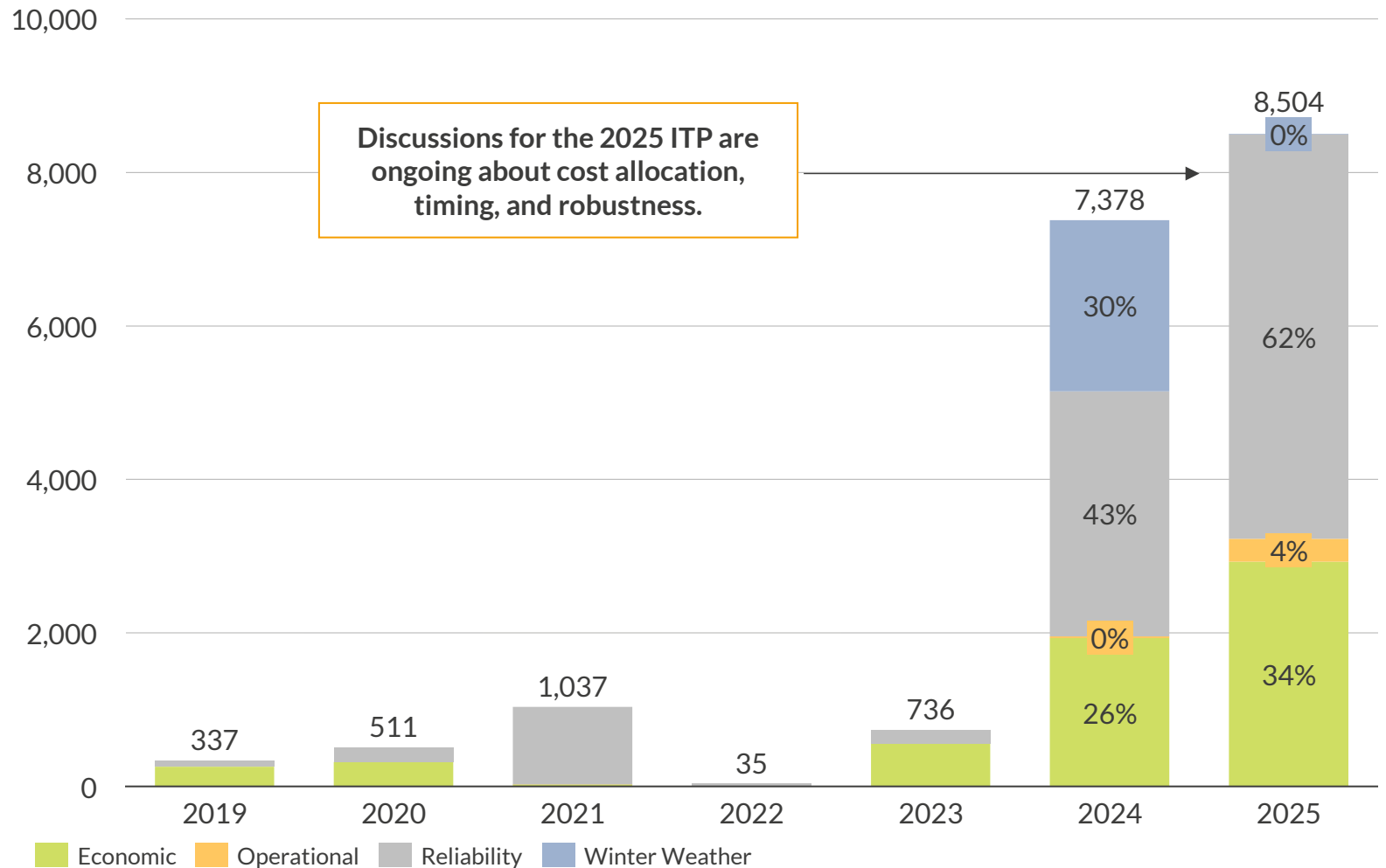
To alleviate existing congestion and in anticipation of high load growth, the size of SPP's transmission investment has increased dramatically in recent years

Future 765 kV Backbone impact on Nebraska

The annual Integrated Transmission Plan (ITP) process has classified transmission upgrades as **reliability, economic, operational and winter weather** projects.

- 1 **Reliability projects**¹ serve to resolve a **system reliability criteria violation**, either due to irresolvable thermal overloads or short circuits under normal/contingency conditions.
- 2 **Economic projects** are projects where upgrades would resolve up to \$50,000/MW of congestion on the line (evaluated at year 2,5, and 10).
- 3 **Operational projects** are projects which require system reconfiguration consistently either to reduce congestion (economic) or ensure reliability.
- 4 **Winter weather projects** are determined by identifying elements that exceed their emergency ratings in the SPP winter weather models, which mimic Winter Storm Uri and Elliot conditions.

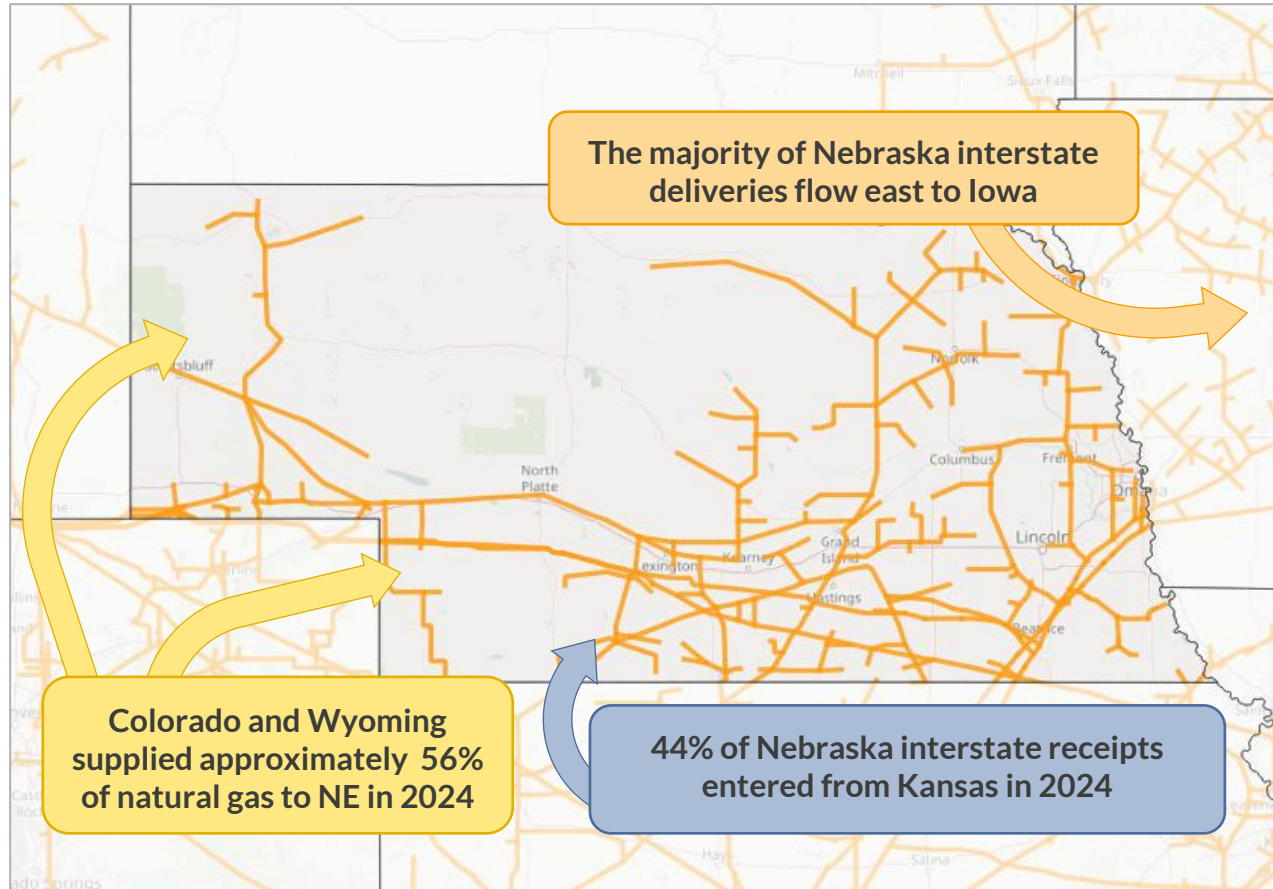
SPP ITP transmission projects budget by release year^{2,3,4}
\$ (millions, nominal)



1) Includes short circuit and general reliability projects. 2) Aggregated from final ITP reports for each year. New ITP process began with 2019 ITP. 3) Projects with dual designations were bucketed with the following hierarchy (with earlier in the list taking priority): Reliability, Winter Weather, Economic, Operational. 4) 2025 total includes all projects that received Notice to Construct as of December 2025. 5) SPS filed a revised cost estimate in June 2025, which SPP Board of Directors approved in September 2025.

Interstate pipelines make Nebraska a transit state for gas and a hub for regional deliveries

Map of Nebraska and surrounding states' natural gas pipelines

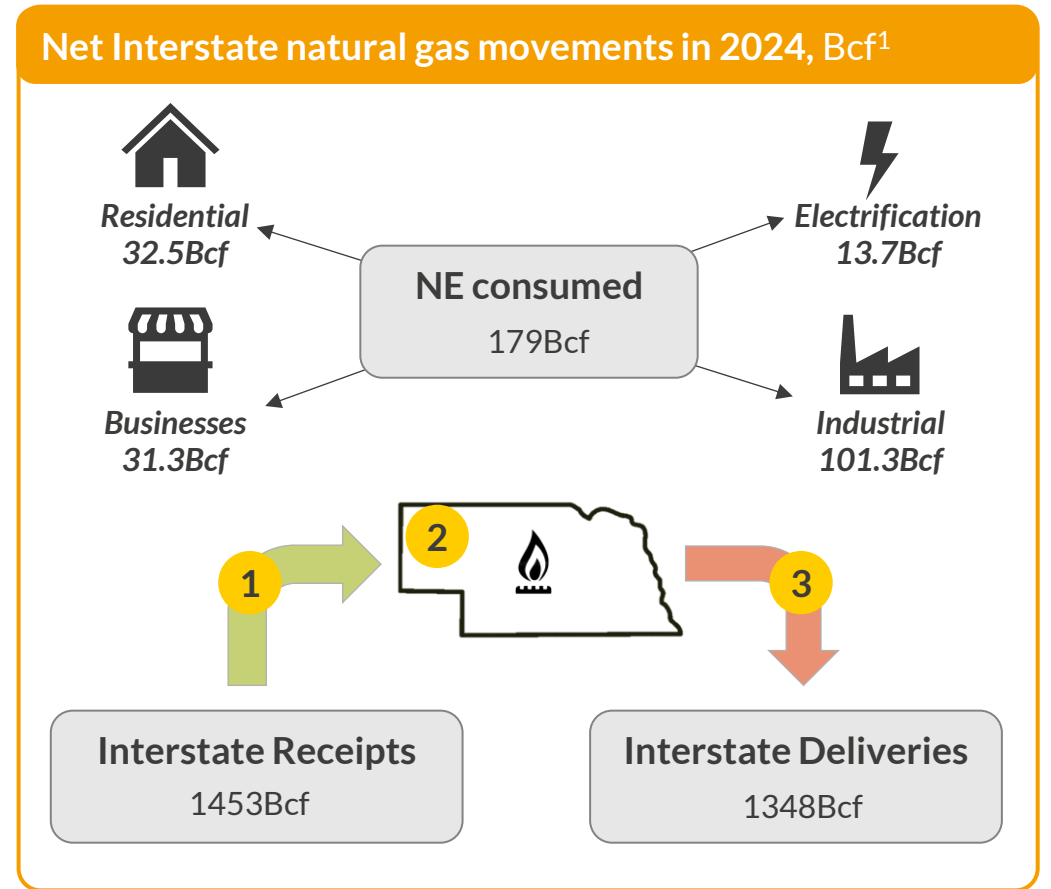


Network key

— Existing natural gas pipeline

1) Bcf = Billion cubic feet

Sources: Aurora Energy Research, EIA Natural Gas Net Interstate Receipts for Nebraska



Gas-powered generators lie at the nexus of the natural gas pipeline and electric grids; two systems with important interdependencies

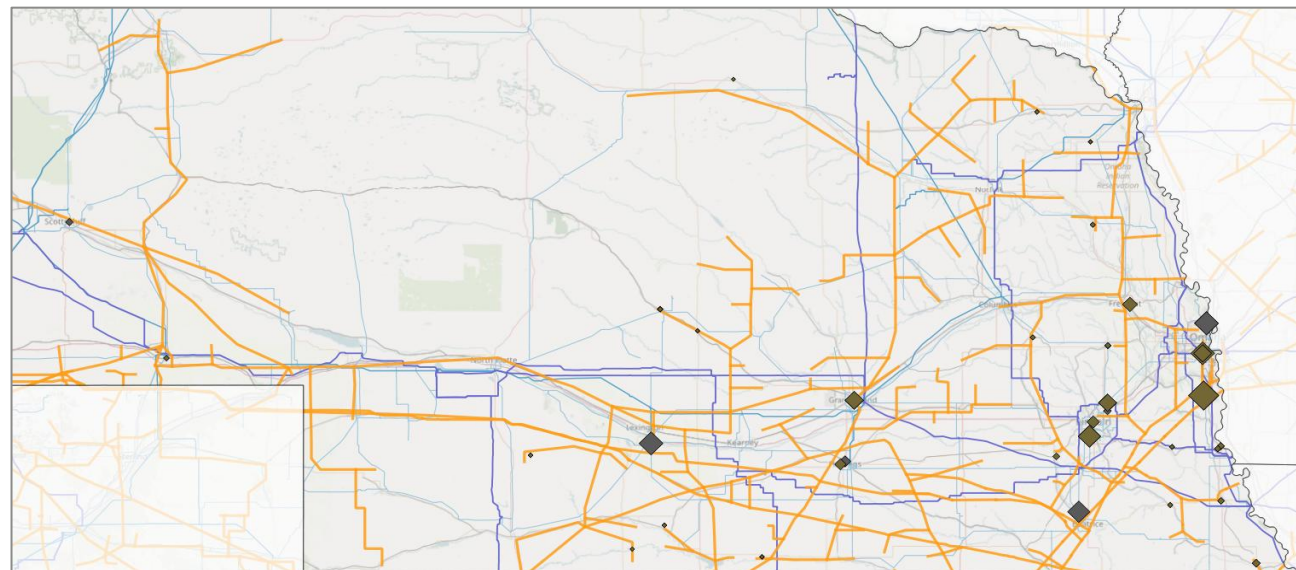
Map of Nebraska's major natural gas transmission pipelines¹ and high-voltage transmission lines overlaid with existing gas-fired power plants

Gas and electric interdependence

- Natural gas power plants need consistent fuel supply and pipeline deliverability to run in the hours they are dispatched
- Power plants are the largest consumer of gas nationally, and electric reliability depends on natural gas infrastructure to maintain fuel deliverability.
- Disruption in gas pipelines or electric transmission can limit power supply when during stress periods when electric demand is highest

Affordability & reliability

- Both electricity (public power cost-of-service) and natural gas (regulated tariffs) models are structured to prioritize reliability and reasonable rates



Nebraska's energy reliability is a factor of both electric and natural gas systems, which intersect at natural gas generators

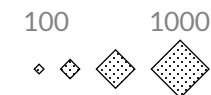
Technology key

◆ Gas CCGT ◆ Peaking

Network key

— Existing natural gas pipeline — Existing 345kV lines — Existing 100+kV lines

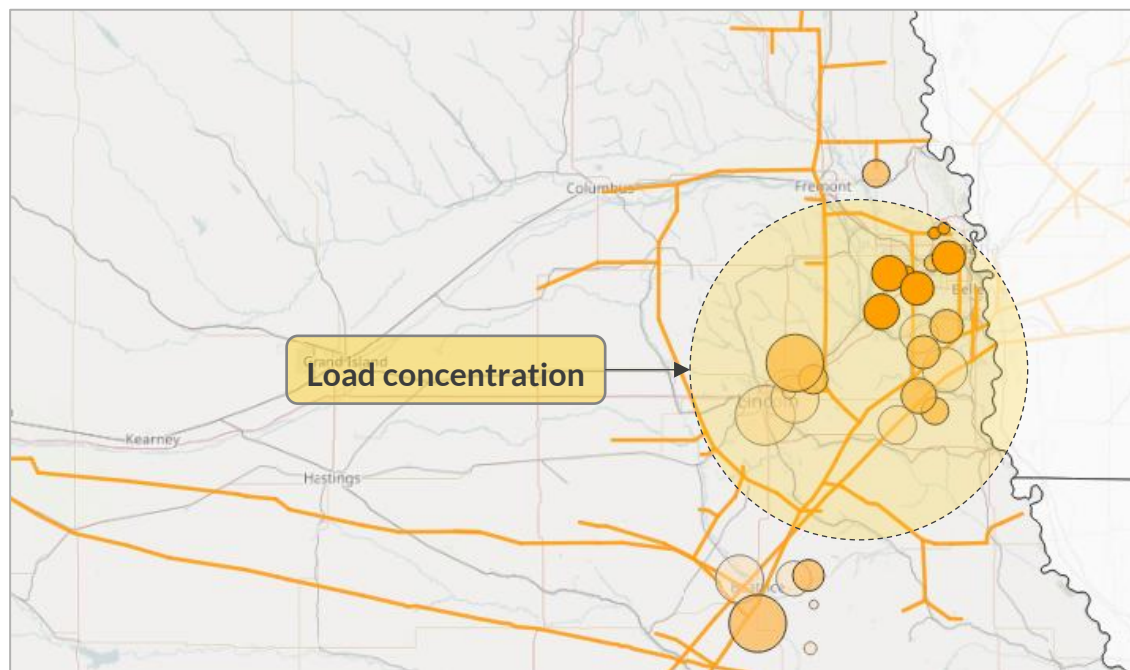
Key MW



1) Only natural gas pipelines owned by operators shown.

Interconnection proposals often follow pipeline access, with deliverability a consideration for plant siting

Proposed¹ gas-fired additions by interconnection stage (IA-signed, Facility Study, DISIS) overlaid on nearby major Nebraska gas pipelines



Queue stage

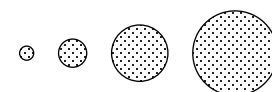
- Gas-powered plant with IA³ signed (most advanced)
- Gas-powered plant in Facility Study Stage (less advanced)
- Gas-powered plant in DISIS⁴ Stage (least advanced)

Network key

- Nearby natural gas pipelines

Bubble size

MW requested



100

1000

Key takeaways

- Queue activity is clustered—a small number of counties account for a disproportionate share of proposed gas capacity
- Proposals tend to track areas with a clearer path to pipelines, reducing siting and upgrade risk
- **Stage matters:** IA-signed projects are more advanced in the interconnection process, while earlier-stage requests have higher likelihood of withdrawal

Deliverability screening

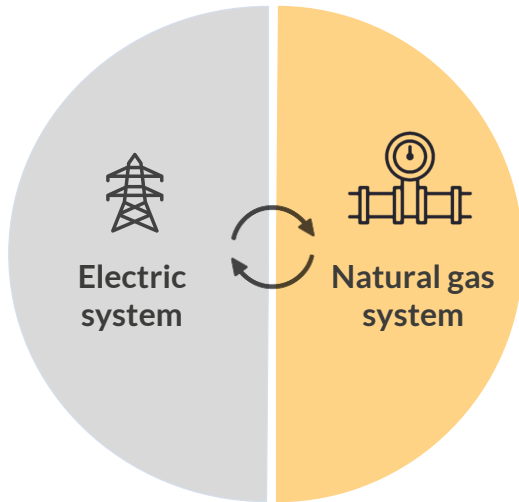
- Plants often prioritize sites near load centers where gas and grid infrastructure are densest and operational coordination is simpler
- Plants can define a contingency fuel strategy, such as dual fuel (where feasible), backup supply, or demand response arrangements

1) Interconnection proposals' timelines and completion rates vary, and mapped locations may change as projects progress. 2) Interconnection Queue as of January 2026. 3) IA = Interconnection Agreement: The executed (signed) contract between the generation project and the transmission provider. 4) DISIS = Definitive Interconnection System Impact Study.

Sources: Aurora Energy Research, SPP

Nebraska can better support new investment and load growth through stronger gas and electricity coordination

What better coordination could achieve



Plan infrastructure for future growth

- Gas and electric planning should be aligned early so infrastructure is designed to support expected industrial growth, new load, and business expansion, not added only after constraints emerge.

Create a stronger coordination framework

- Nebraska can improve coordination across public power entities, natural gas utilities, and other regulators so infrastructure decisions better reflect shared economic development goals and long-term system needs.

Bring gas suppliers into economic development planning

- Aligning gas and electric day ahead nominations, so that Day-Ahead wholesale electricity bids occur after providers know their gas nominations, would elevate market clarity and streamline operations.

Earlier coordination among electric utilities, natural gas utilities, pipeline operators, suppliers, regulators, and economic development stakeholders can help Nebraska plan infrastructure ahead of need. That can better position the state to serve new industrial load, support business expansion, and attract investment with confidence in long-term energy deliverability.

Stakeholder interviews revealed four key themes

Across the stakeholders in Nebraska's power market, the following trends were identified...

1

Statewide leadership is essential

State-level stewardship is vital for Nebraska to attract energy investment to facilitate economic development

2

Local permitting challenges can impede project development

Local permitting presents one of the largest uncertainties and bottlenecks in development, often hindering investment

3

Attractive investment environment

Nebraska has certain competitive advantages that help generate interest in development of energy projects in Nebraska

4

Public power model advantages and opportunities

The public power model represents a strategic advantage for the state and brings distinct opportunities and responsibilities

1 State-level stewardship is vital for Nebraska to attract energy investment to facilitate economic development

Electricity plays a pivotal role in enabling economic development

- Energy is becoming an increasingly primary concern for industry as growth continues to stress the electricity system
- It is important to find a way to enable economic growth while continuing to provide reliable, affordable electricity to Nebraskans
- Continued economic growth will rely upon increased generation to meet the future demand for electricity

Many states are vying for a limited number of new growth opportunities

- An “arms race” is occurring. States are trying to position themselves as the ideal location for economic growth
- An industrial energy consumer expressed that certain elements of Nebraska’s large load tax framework were historically competitive, but recently other states have been offering more attractive tax advantages
- States must balance attracting industry with ensuring that new industry is helping the community and building the tax base

Statewide leadership essential to drive energy investment and economic growth

- Stakeholders expressed a desire for clear, well-defined objectives for Nebraska energy development coming from the highest levels of state leadership
- A state-wide economic development playbook could help communicate the attractiveness of Nebraska to businesses while providing guardrails to ensure that future growth is organized and measured
- If successful, the economic benefits and increased tax revenue can materially help Nebraskans, particularly in rural areas

Takeaways

- Electricity availability and development makes economic development possible

- A favorable and predictable tax and regulatory environment can make Nebraska competitive with other states

- A consistent statewide strategy and policy framework, with clearly defined objectives and buy-in from state-level officials, can facilitate energy investment and unleash economic growth

2 Local permitting processes can present a challenge for development of utility scale power and industrial projects

Municipal and county boards wield significant power in permitting

- Local boards have the power to deny or indefinitely sit on conditional use permits, without a clear playbook, timeline, or criteria for developers to meet
- Developers might not fight an unfavorable ruling because litigation is costly and time-consuming
- Developers feel that the default response of county boards is often “no”, partially where the benefits of development are not clear and the intricacies and unfamiliarity can be daunting

County boards often do not have the time or expertise to analyze large project proposals

- Electricity projects are highly technical and require expertise to review
- Municipal and county boards have multiple priorities to balance and often do not have adequate time or resources to evaluate utility scale power projects
- Without clear objectives or timelines for county review, the uncertainty can stifle projects and discourage economic development

Regional differences make some areas viewed as more favorable for development

- Regional differences, or perceived differences, in friendliness to utility-scale project development can drive investment to specific areas in the state
- Developers express a desire to be a partner with communities, and identifying counties that are receptive to development can streamline the process
- Developers noted the importance of keeping projects on-schedule, highlighting a desire to focus on counties that want to welcome development

Takeaways

- Unpredictability and uncertainty with local permitting processes can deter and hinder economic development

- Counties often do not have the time or expertise to analyze projects, and would benefit from state-level resources to support project review and help address local concerns

- Voluntary programs, where counties can adopt favorable zoning laws in exchange for higher nameplate capacity taxes and state grants, can facilitate investment

3 Nebraska has a handful of key competitive advantages that has led to significant interest in development in the state

Nebraska offers access to cheap, reliable energy and other benefits	Nebraska's tax structures have attracted development interest	Being part of SPP is a boon for Nebraska
<ul style="list-style-type: none"> Energy availability, reliability, and affordability, are important considerations for companies examining potential development sites. Nebraska is viewed as strong in all these categories Nebraska utilities have helped maintain reliable, affordable electricity service, which supports business continuity and economic growth Energy is not the only input to successful economic growth. Nebraska's availability of affordable land attracts developers 	<ul style="list-style-type: none"> Nebraska taxes renewable projects through a nameplate capacity tax with a flat rate based on project size. Developers appreciate the simple structure and the benefit to communities is easily definable Similarly, defined tax advantages for large load developers has garnered interest in Nebraska historically Stability is key for investment decisions, and proposed changes to tax structures have created uncertainty that is viewed as a future investment risk 	<ul style="list-style-type: none"> SPP has among the highest renewable penetration in the country, which makes it a desirable location for development that seeks to limit its carbon footprint Additionally, SPP is well interconnected with other regions, with Nebraska positioned in the center of SPP SPP is pursuing market design changes and improvements to bring more generation online and support large loads

Takeaways

<ul style="list-style-type: none"> Nebraska utilities have helped support economic growth by providing affordable, reliable electricity that is attractive to new investment 	<ul style="list-style-type: none"> Clearly defined, predictable tax structures with long-term stability are beneficial to attracting large economic development projects 	<ul style="list-style-type: none"> Inclusion in SPP helps unlock investment and enables public power utilities to advocate within SPP stakeholder processes
---	---	--

4 The public power model represents a strategic advantage for the state and brings distinct opportunities and responsibilities

Nebraska utilities support growth while maintaining affordable, reliable power

- Stakeholders emphasized that Nebraska utilities support economic development while continuing to prioritize affordability and reliability for customers
- Utilities' focus on rate stability and dependable service helps make Nebraska attractive for business investment and expansion
- Together with Nebraska's diverse energy resource mix, this has helped Nebraska maintain competitive power prices

In some areas, public power and private investment have led to fruitful partnerships

- Some developers expressed positive working relationships with the public power utilities
- Effective partnerships have led to efficient development and operation of various assets that bring new power and added reliability to the state's grid
- An industrial power user indicated a strong partnership with its public power district, including a self-supply option that the utility supported

Certain private developers expressed a desire to play a more meaningful role

- Private developers would like to support the public power model by taking on risk with their own capital in areas where utilities may have a lower risk appetite
- Some renewable and battery developers, indicated room for growth in mutual understanding and alignment with public power utilities
- Some developers expressed the concern that Nebraska could fall behind other states in the adoption of innovative technologies like grid-scale batteries

Takeaways

- Nebraska utilities are supporting economic growth while continuing to focus on affordability and reliability for customers

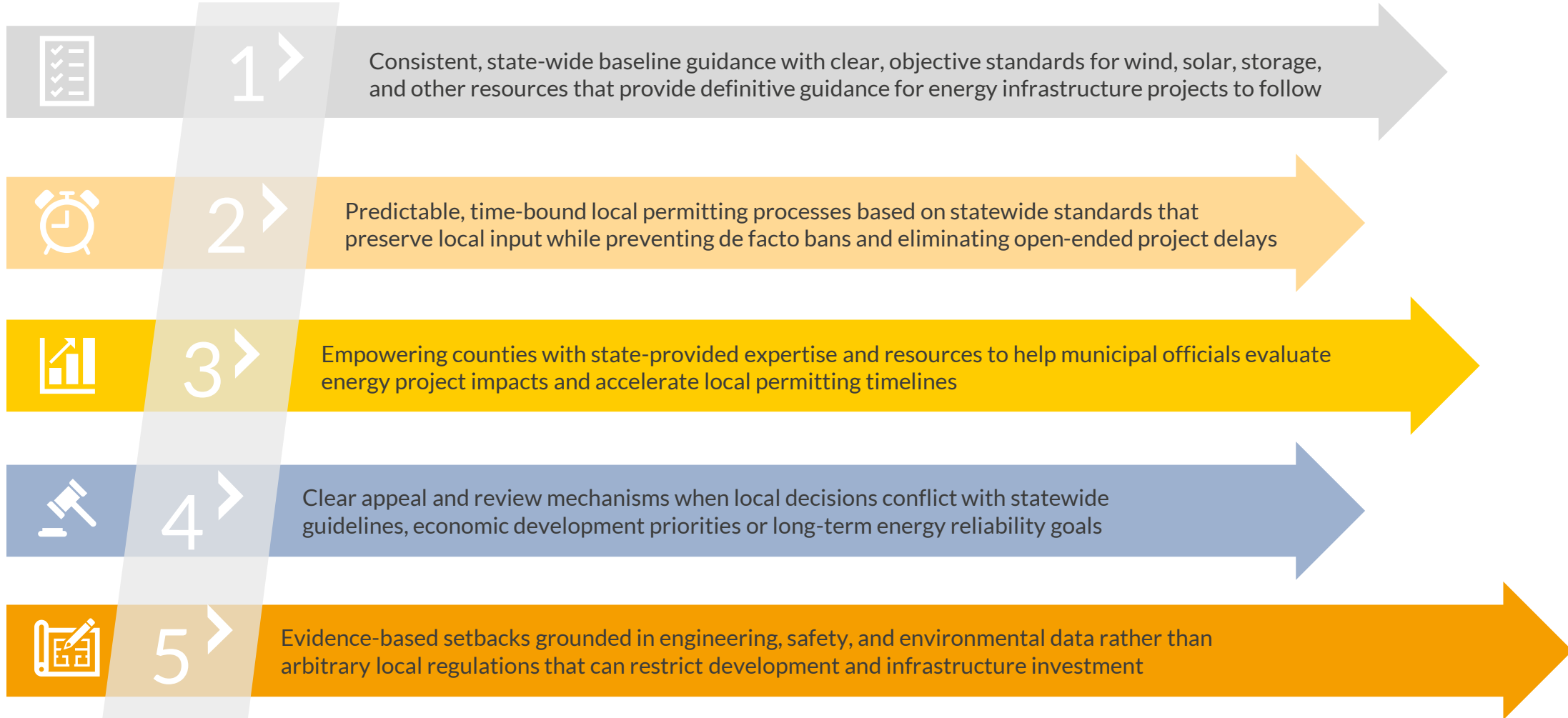
- Public power and private investment can lead to positive partnerships where there are mutually beneficial relationships

- Nebraskans can benefit from incorporating private investment together with public power to bring economic development to the state

Key takeaways from stakeholder interviews

1 State-level leadership	Electricity availability and development makes economic development possible
	A favorable and predictable tax and regulatory environment can make Nebraska competitive with other states
	A consistent statewide strategy and policy framework, with with clearly defined objectives and buy-in from state-level officials, can facilitate energy investment and unleash economic growth
2 Local permitting challenges	Unpredictability and uncertainty with local permitting processes can deter and hinder economic development
	Counties often do not have the time or expertise to analyze projects, and would benefit from state-level resources to support project review and help address local concerns
	Voluntary programs, where counties can adopt favorable zoning laws in exchange for higher nameplate capacity taxes and state grants, can facilitate investment
3 Attractive investment environment	Nebraska utilities' achievements in building an affordable energy system in Nebraska helps to attract investment
	Clearly defined, predictable tax structures with long-term stability are beneficial to attracting large economic development projects
	Inclusion in SPP helps unlock investment and enables public power utilities to advocate within SPP stakeholder processes
4 Public power model opportunities and responsibilities	Nebraska utilities are supporting economic growth while continuing to focus on affordability and reliability for customers
	Public power and private investment can lead to positive partnerships where there are mutually beneficial relationships
	Nebraskans can benefit from incorporating private investment together with public power to bring economic development to the state

Stakeholders provided several suggestions to streamline Nebraska permitting processes and facilitate energy infrastructure investment



I. Executive summary

II. Power demand growth

1. US-wide context
2. Nebraska load environment
3. Expected growth
4. SPP market reforms

III. The need for new power generation in Nebraska

1. Existing generation mix in Nebraska
2. Capacity planning and generator interconnection
3. Policy and regulation

IV. Implications for transmission infrastructure

1. Existing transmission and constraints
2. SPP's transmission planning process
3. Planned transmission buildout

V. Gas-Electric Interconnection and Resilience

1. Gas infrastructure overview
2. Deliverability considerations
3. Gas-electric coordination

VI. Nebraska power market policy analysis

VII. Appendix

The next wave of economic growth hinges upon the availability of electricity to support development

Industrial growth, including agribusiness, manufacturing, and data centers, requires electricity

National demand is accelerating as key industries scale—making affordable, reliable electricity critical for competitiveness.

Economic Growth Now Depends on Electricity, Not Oil

Wall Street Journal, 2025

Electricity Surges As America’s New Economic Lifeblood

The Average Joe, 2025

U.S. data center power demand could reach 106 GW by 2035:

Utility Dive, 2025

America’s Next Industrial Geography: Wherever the Power Is Cheap

The Daily Economy, 2025

ICF sees 25% load growth by 2030, up to 40% price increase

Utility Dive, 2025

Can US infrastructure keep up with the AI economy?

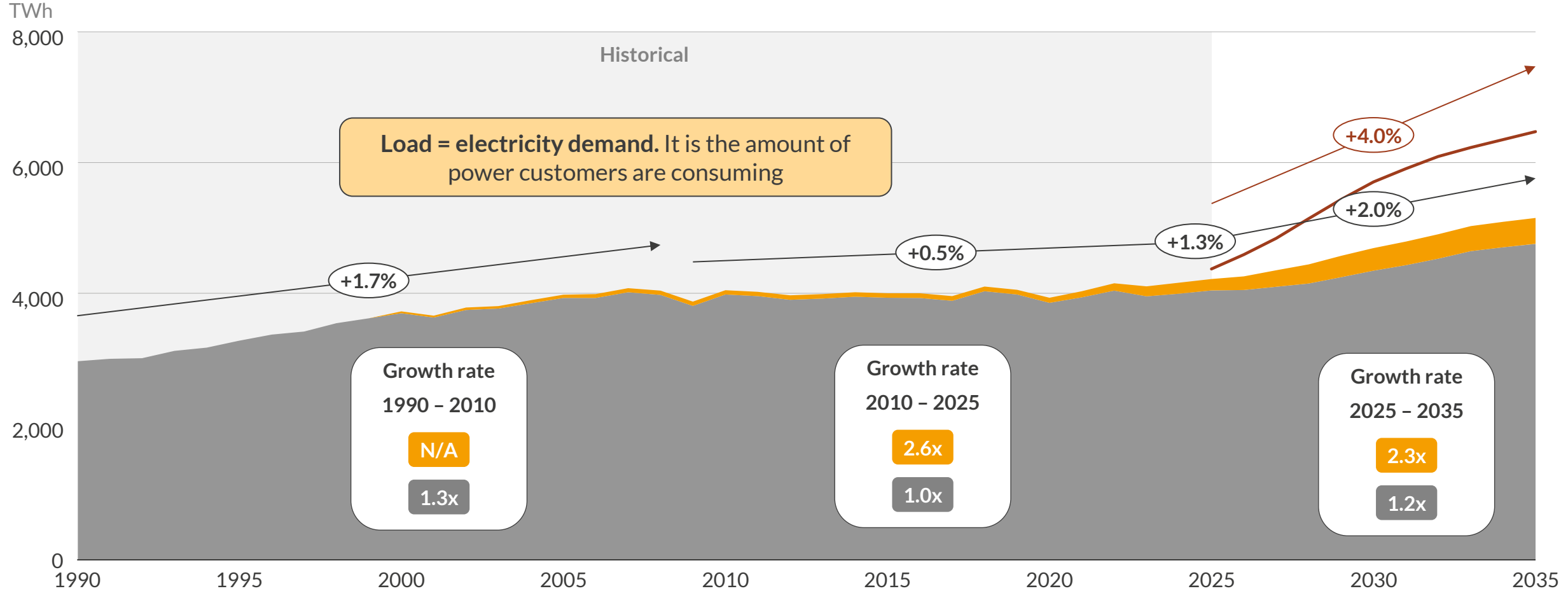
Deloitte Insights, 2025

U.S. manufacturing energy consumption has continued to increase since 2010 low

US Energy Information Administration, 2025

A renewed wave of U.S. load growth, partially driven by AI data centers, is reshaping power markets nationwide after over a decade of stagnation

Historical¹ and Aurora forecasted U.S.-wide load

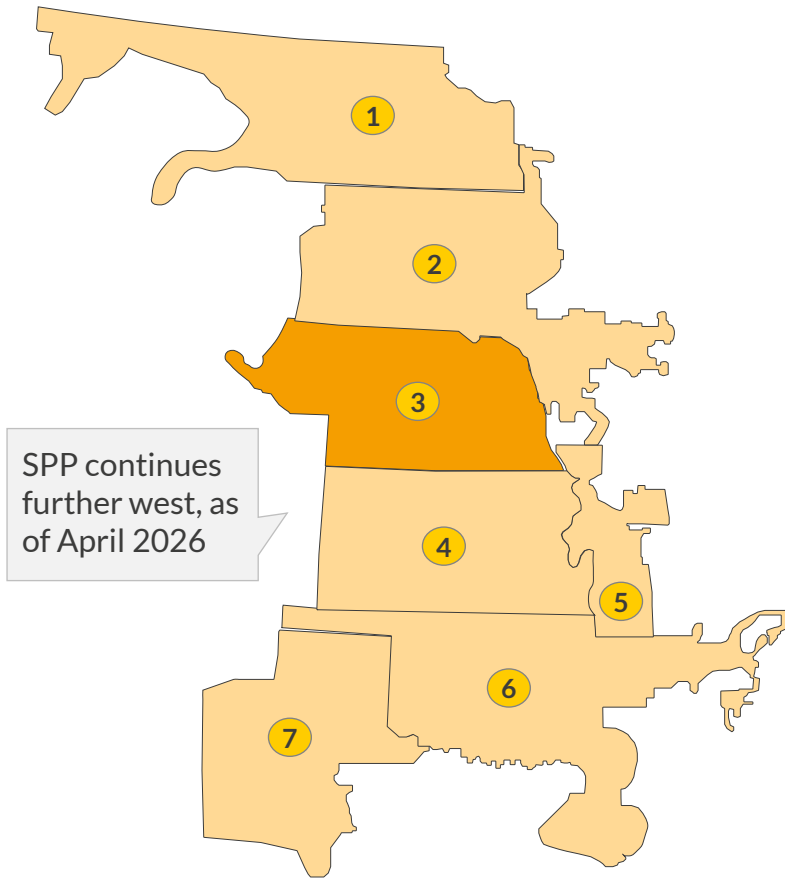


■ Demand without data centers ■ Data-center demand — Aggregated Utility Forecasts² ○ CAGR³

1) Historical data from the October 2024 publication of Form EIA-923 data and EPRI. 2) From Brattle report, reflecting the latest ISO forecasts as of April 2025. 3) Compound annual growth rate.

Nebraska lies within the Southwest Power Pool¹, a regional transmission organization overseeing reliability and affordability for the electricity market

Aurora's SPP East mapped regions²



Aurora Region	States covered	Total Load 2024 TWh
1	ND, MT	24
2	SD, IA, MN	7
3	NE	37
4	KS	38
5	KS, MO	38
6	OK, TX, LA, AR	105
7	TX, NM	37

Total load is the total electricity used across a region over a year

Nebraska in context

Nebraska is one of several states within SPP. Because the grid is interconnected, planning and operations are influenced by where supply and demand are distributed throughout the footprint.

1) Southwest Power Pool = SPP 2) Regions as defined in Aurora market modelling. This map shows the eastern portion of SPP's footprint (SPP East) and does not reflect the westward expansion effective April 2026.

SPP coordinates regional dispatch and planning, while federal and state bodies shape Nebraska's electric system

What is SPP (and what is an RTO)?



Southwest Power Pool (SPP) is the FERC¹-designated Regional Transmission Organization (RTO) and Independent System Operator (ISO) for all or parts of 17 states, including Nebraska



SPP operates the regional high-voltage transmission grid and administers wholesale electricity markets under FERC oversight



Participating utilities and independent asset owners manage their generation and transmission assets, and SPP coordinates the dispatch of electricity generation throughout the system

How does the electric system governance fit together?

- FERC regulates interstate transmission service and wholesale electricity markets, including SPP's tariff and market rules
- SPP committees include Nebraska's load-responsible entities and independent developers, who can help shape SPP's approach on resource adequacy, interconnection, transmission planning, and cost allocation
- The Nebraska Power Review Board approves generation and transmission and certified service areas for utilities
- Nebraska load-responsible entities must maintain enough capacity to meet load and planning reserve obligations. Any new capacity is connected through SPP's generator interconnection process²

How does SPP work?



Market Operations

SPP runs day-ahead and real-time energy markets, along with ancillary services markets, to help match supply and demand across the region



Pricing & settlement

SPP balances the system in real time by procuring energy for immediate delivery as system conditions change and keeping the grid in balance



Reliability & planning

SPP develops regional transmission expansion plans with members, regulators, and stakeholders



Resource adequacy

In the SPP Balancing Authority Area, load-responsible entities are responsible for maintaining enough capacity to meet demand and planning reserve obligations, while the RSC³ has primary responsibility for regional resource adequacy policy

1) FERC = Federal Energy Regulatory Commission. 2) SPP's generator interconnection process will be reviewed in further detail in the following section. 3) RSC = SPP's Regional State Committee.

The state’s three largest public power utilities, OPPD, NPPD, and LES, are tasked with delivering reliable power to load in Nebraska

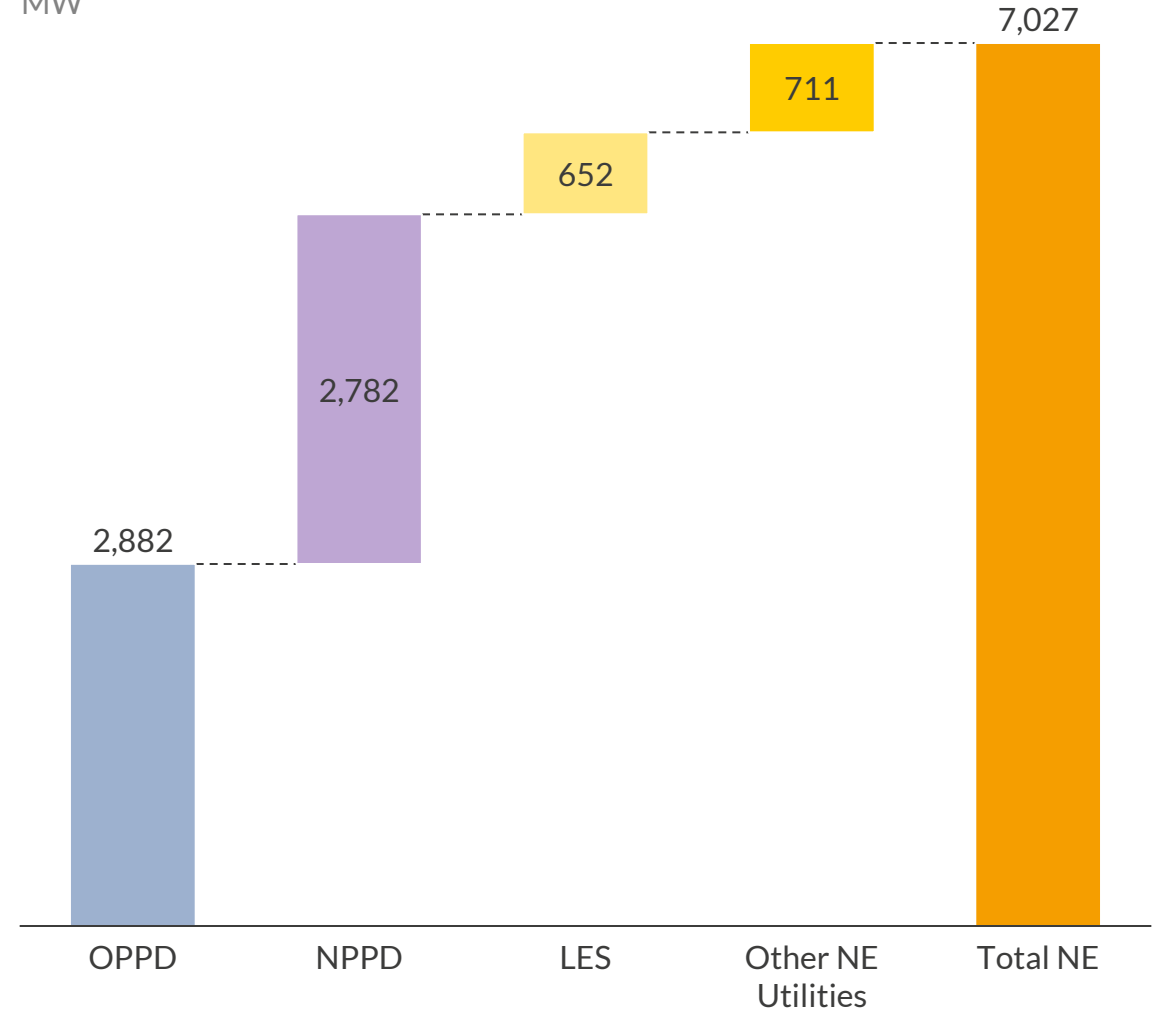
“Net peak demand” is defined by SPP as the highest hourly demand minus controllable load resources and demand response¹; SPP uses this to set each utility’s resource adequacy requirement.

- Peak demand, also known as peak load, is the single highest-use hour; it drives how much firm capacity must be available for reliability and gives an indication of the relative demand served by each utility.
- In total, Nebraska’s combined summer net peak demand is approximately 7.0 GW in SPP’s 2025 resource adequacy filings.
- Omaha Public Power District (OPPD), Nebraska Public Power District (NPPD), and Lincoln Electric System (LES) are the three largest utilities, representing ~6.3GW (90%) of the total demand in Nebraska.

What are ‘Other’ Utilities?

Nebraska has many local municipal utilities and rural public power districts with small footprints. For these utilities, SPP resource adequacy requirements are often met through a combination of owned resources and power purchases from larger utilities.

Estimated summer net peak demand by utility, 2025²
MW



1) Demand response is a system’s ability to lower usage during period of high usage. 2) 2025 SPP Summer Season Resource Adequacy Report.

Nebraska’s three largest public power entities take on the responsibility of planning for peak demand

In SPP resource adequacy filings, the three largest LREs¹ in Nebraska account for ~90% of the state’s summer net peak demand

The reliability obligation

SPP requires designated entities to secure enough supply to meet demand plus an extra reserve margin for reliability



They procure power from various sources



Owned resources Long-term contracts Wholesale energy purchases


The energy supply

Many towns/PPDs/co-ops² buy power. The supplier may also act as the LRE



The retail delivery

Local utilities deliver electricity to homes and businesses, handle billing, and respond to outages

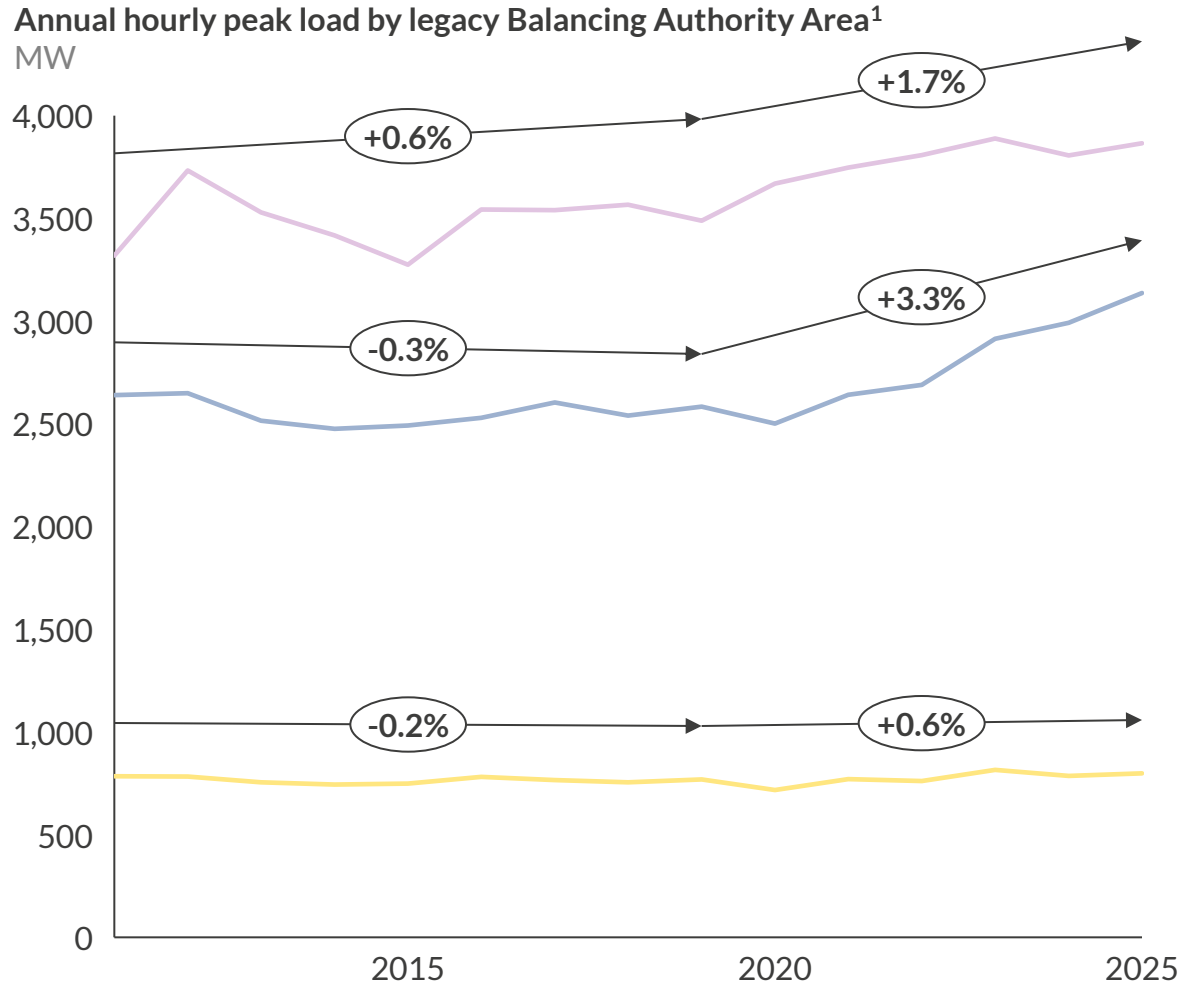


Planning implications

- Peak demand can change quickly and varies by location.
- Most upgrades happen on the local network.
- Who holds the reliability obligation determines who must plan capacity

1) A Load Responsible Entity (LRE) is the SPP-designated party responsible for ensuring enough capacity is available to meet peak demand (plus reserve margin). 2) Not all existing Rural public power districts & cooperatives' logos shown.

Nebraska’s electricity demand has increased over the last few years, with highest growth rates observed in OPPD and NPPD



— LES — NPPD — OPPD ○ CAGR²

1) The legacy Balancing Authority Area’s footprint is an SPP classification that is not identical to the footprint of the actual Load Responsible Entity. 2) Compound Annual Growth Rate.

What has changed?

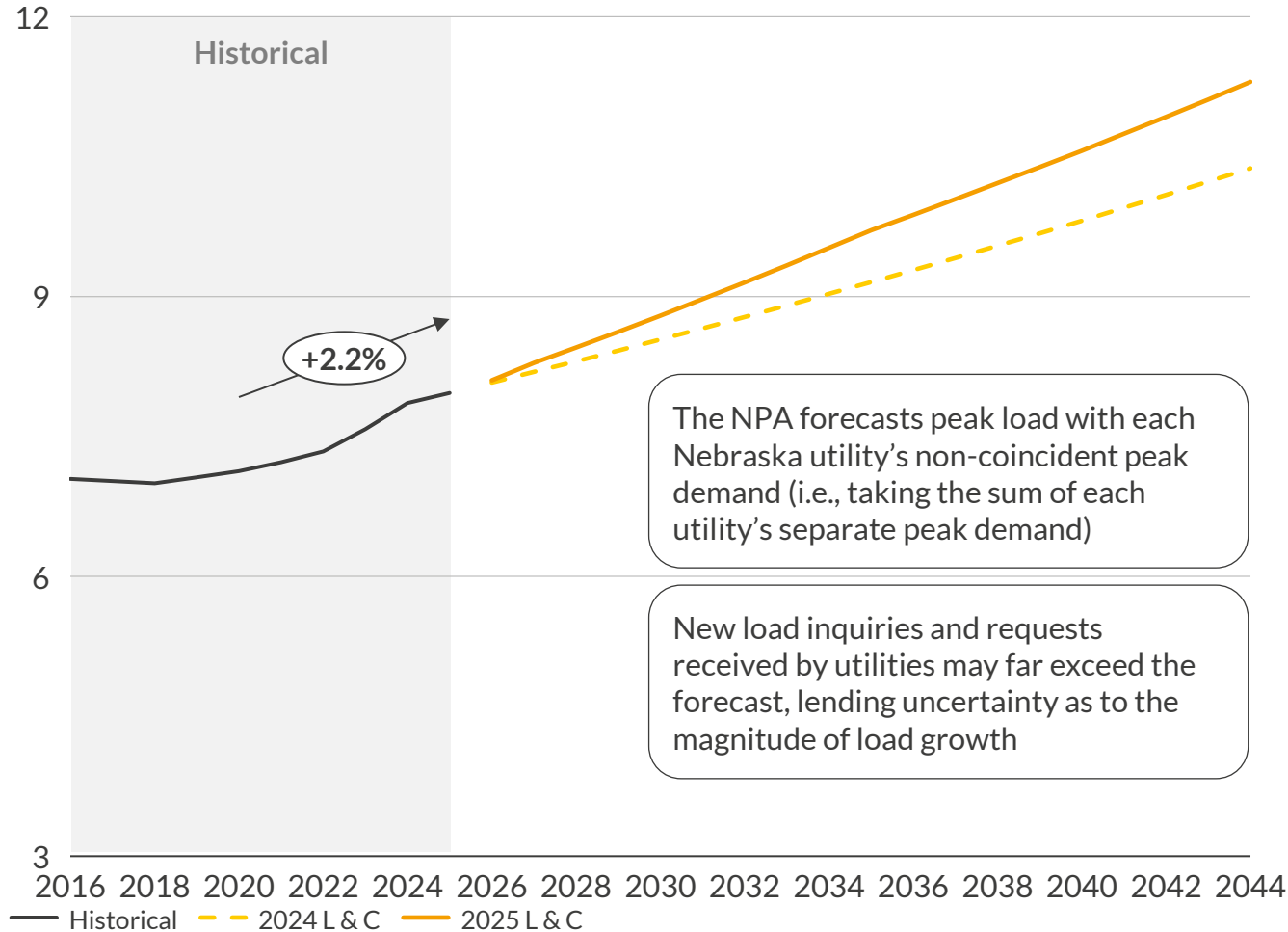
- Peak demand is no longer flat. All three major Nebraska systems show a clear upward shift since 2020.
- Within the last few years, large public power utilities across the state have seen a surge in project requests and inquiries, including more than several gigawatts worth of projects.
- OPPD has had the most pronounced increase in peak demand, driven by large commercial and industrial additions concentrating near one of the state’s largest load centers.
- Load growth is also visible across NPPD and LES, indicating that the demand is increasing statewide.

What this means for planning

Peak demand drives system planning. Even if annual energy use grows gradually, higher peaks require LREs and SPP to plan for the few highest-stress hours when reliability is most at risk.

The Nebraska Power Association releases an annual Load and Capability Report that predicts higher peak load growth than previously forecasted

Nebraska peak load¹
GW



The NPA forecasts peak load with each Nebraska utility’s non-coincident peak demand (i.e., taking the sum of each utility’s separate peak demand)

New load inquiries and requests received by utilities may far exceed the forecast, lending uncertainty as to the magnitude of load growth

L&C report overview

- Every year, the Nebraska Power Association’s Load and Capability (L&C) Report offers a view on resource planning efforts in the state.
- The L&C report includes an analysis of multiple factors including load growth, existing generation, planned generation and planning reserve margins.
- Some utilities contributing to the L&C report utilize probability-based rankings to determine the traditional customer electrical loads included in the forecast and include large single point loads if there is a sufficiently high degree of confidence that the load will materialize.
- The 2025 L&C Report assumed an expected growth rate for annual peak load of 1.7% year over year from 2025 to 2044, an increase from the 1.4% year-over-year growth rate in the 2024 L&C report.

1) Forecast data using a flat 1.7% annual growth rate.

Aurora built three forecasts of power demand in Nebraska by modeling a range of assumptions for potential demand growth

Aurora High Scenario

Faster expansion in investment, technology deployment, and industrial activity.

Aurora Economic Build Scenario

A “most likely” scenario with steady growth in investment and technology adoption.

Aurora Low Scenario

Slower economic activity and more cautious investment.

Key Assumptions

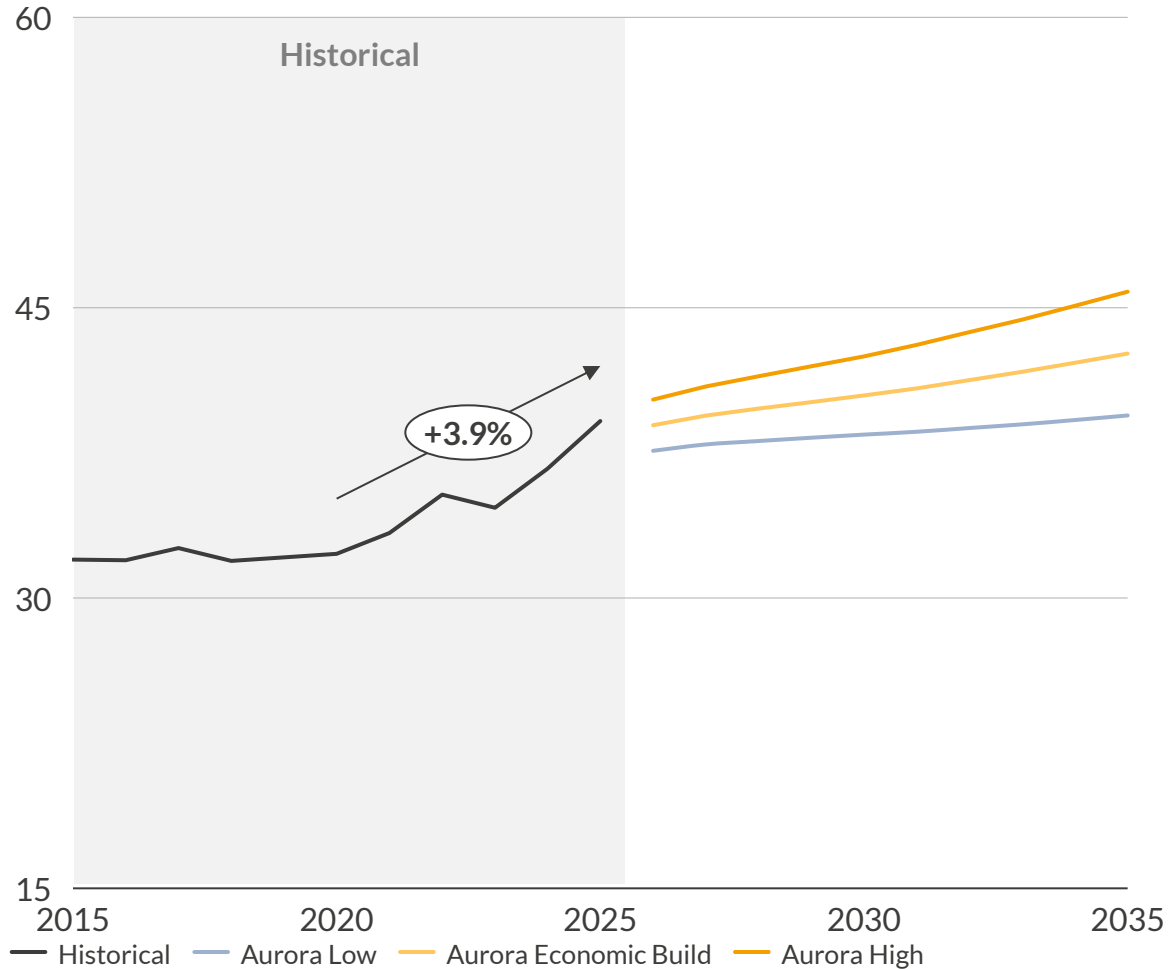
- Higher pace of data center and industrial development.
- Faster electrification heightens load growth through the 2030s.
- More “step changes” from large, discrete projects.

- Reflects current policy and a steady economic expansion.
- Data center buildout continues, alongside industrial growth and gradual electrification.
- Used as the reference case for comparing Low and High.

- Lower growth in new facilities and industrial output.
- Slower electrification uptake; fewer large projects reach operation by the early 2030s.
- Overall demand grows, but at a more moderate pace.

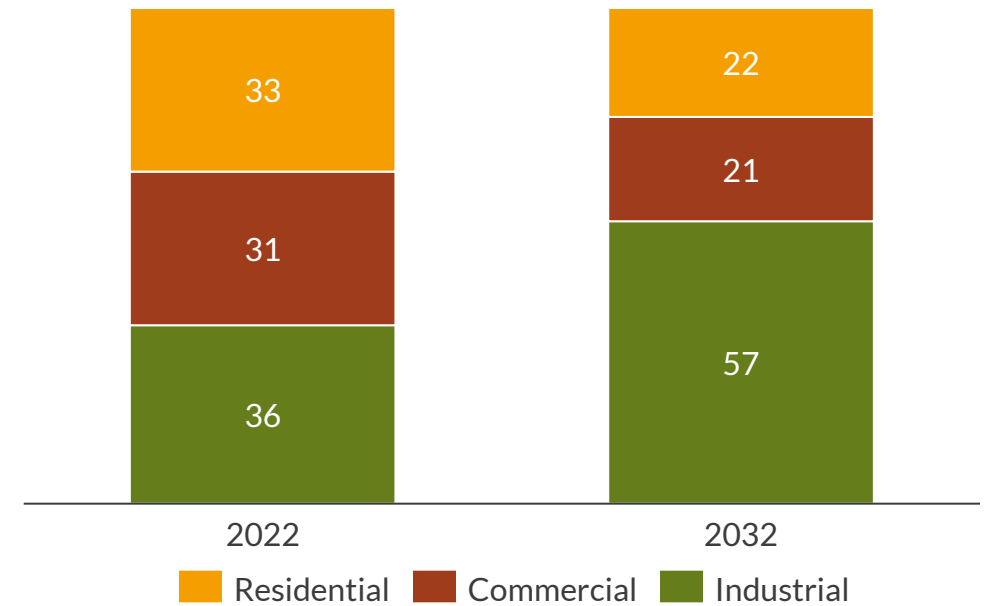
Growth in total load is forecasted to continue as energy-intensive industries expand in Nebraska

Nebraska total load^{1,2}
TWh



Electricity usage by sector is evolving

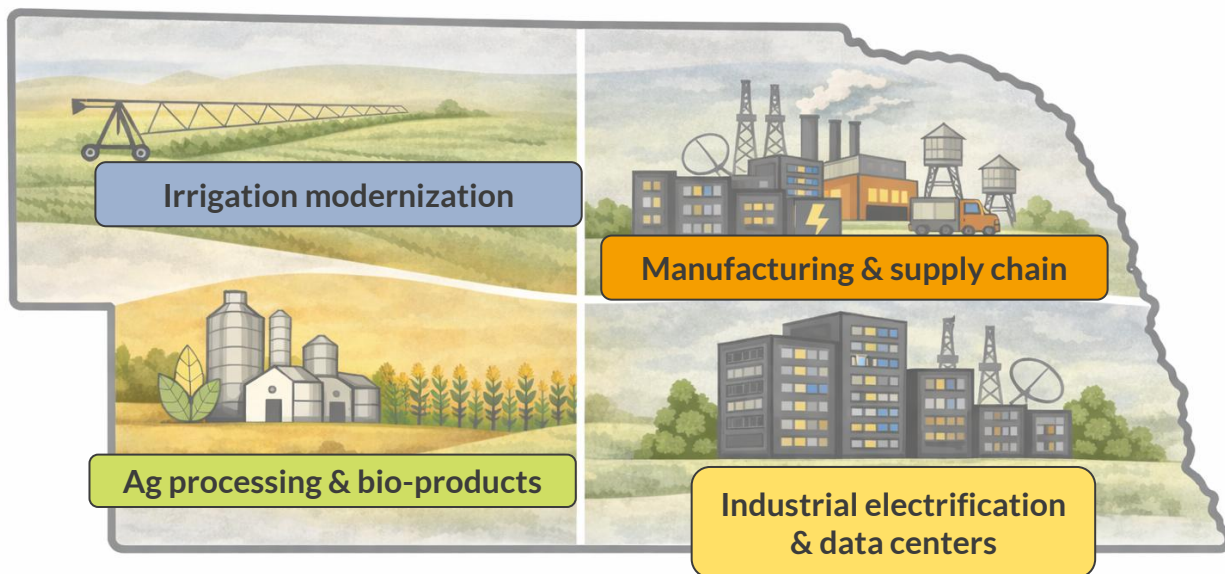
Electricity usage by sector, OPPD³
% of total



Industrial electricity usage is projected to become even more prevalent in Nebraska.

1) This represents all electricity usage in the state each year. 2) Methodologies behind the three forecasts are explained in the previous slide. 3) According to OPPD's 2023 "Near Term Generation Update".

Continued development of manufacturing, agricultural, and industrial electrification will increase electricity demand across Nebraska¹



1 Why is load growth expected?

- Nebraska is well-positioned for manufacturing and supply chain investment, supported by central geography and freight access.
- Irrigation modernization continues as equipment upgrades and automation expand across agricultural areas.

2 How it shows up on the grid

- Many sectors have seasonal patterns, such as the irrigation-driven peak during the summer months in agriculturally dense areas.
- Load growth will increase both annual electricity use and peak demand, contributing to future capacity needs for load responsible entities.
- Growth in different sectors that use energy at varying times can lead to the electricity grid being utilized more efficiently, driving beneficial development that helps balance demands on the grid.

Beneficial economic development supports jobs and investment across Nebraska, driving load growth and strengthening the case for a modern grid that serves many communities and industries

1) Illustrative sectors shown; specific project locations and timelines vary by community and customer decisions.

Growth industries targeted by the state, such as Nebraska’s growing ‘bioeconomy’, require abundant electricity to operate

A growing economic sector

DG FUELS SELECTS NEBRASKA FOR ITS FIRST MIDWEST SUSTAINABLE AVIATION FUEL PLANT

Phelps County Development Corporation, 2024

- Nebraska has aimed to position itself as a hub for the burgeoning “bioeconomy” with the release of the “Nebraska BioEconomy Handbook” in 2025.
- The bioeconomy is the portion of the economy that includes goods and services derived from natural, biological resources, such as sustainable aviation fuel and bioplastics.
- Nebraska’s agriculture background offers the state an advantage in building out a robust bioeconomy.
- Governor Jim Pillen wrote that “Through the Nebraska BioEconomy, we are growing and securing our statewide water and power generation resources to enable the greatest economic revolution the state has ever seen.”

The need for electricity



- Sustainable aviation fuel generation and many other innovations of the bioeconomy are energy intensive processes.
- The Renewable Fuels Association estimates that it take about 0.7kWh of energy to produce a gallon of corn ethanol. It then takes 1.7 gallons of corn ethanol to make 1 gallon of sustainable aviation fuel.
- The planned DG Fuels facility in Phelps County aims to produce 193 million gallons of synthetic fuel per year, and DG Fuels estimates that the facility will support an estimated 640 permanent jobs.
- Providing sufficient reliable and affordable electricity generation to projects such as this one can help to enable economic expansion and facilitate investment in growth industries.

Nebraska's data center growth is concentrated in the Omaha–Lincoln corridor, driving local load increases

Unique opportunities

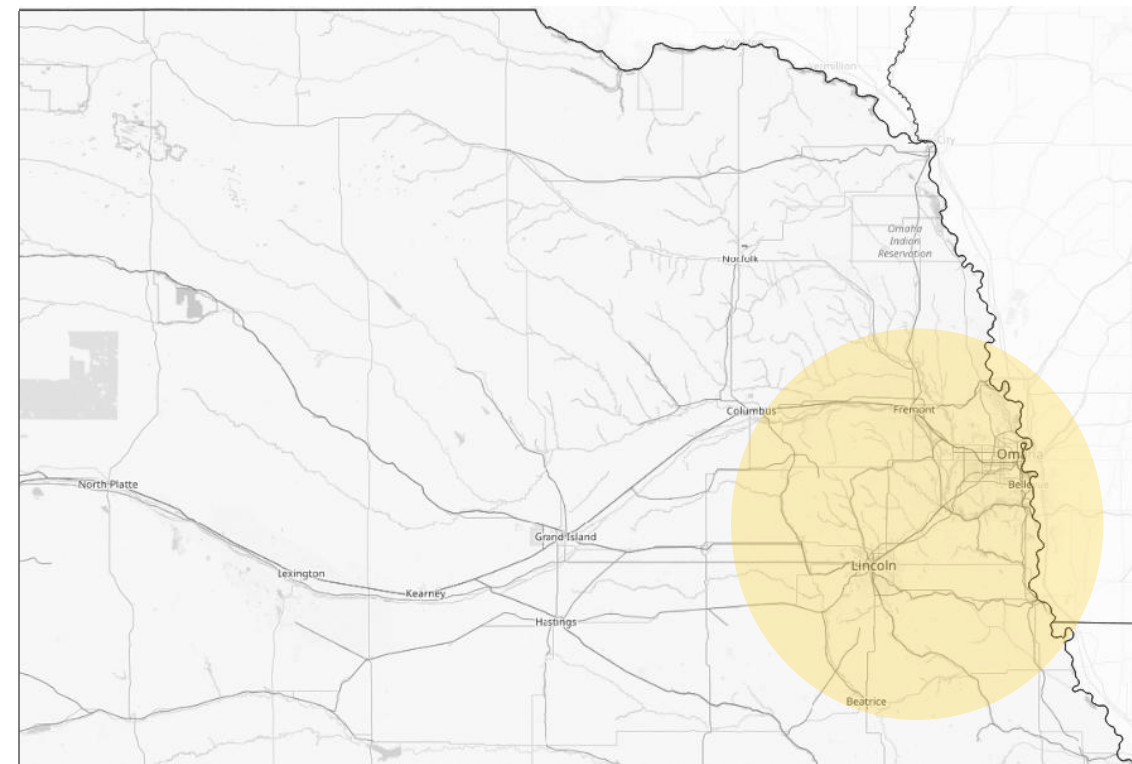
The combination of proximity to urban areas, cost-effective building sites, and attractive tax structures has drawn developers to Nebraska, specifically the Omaha and Lincoln areas.

Projected growth

Aurora expects data centers' electricity consumption to increase from 4.2TWh to 6.6TWh grow by 2035, with over 95% of the new data center load located within the yellow circle in the eastern part of Nebraska, near the Omaha and Lincoln load centers.

Development & pipeline

- NE hosts approximately 700MW of data center load already. (equivalent to approximately 700 thousand homes¹)
- Growth is concentrated around Omaha–Lincoln, led by hyperscalars such as Google and Meta.



The concentration of data centers near Nebraska's major load centers indicates that high energy demand areas are expected to experience increased electricity usage

1) Based on US Energy Information Administration data that the average home uses approximately 10,800 kWh in one year.

To strengthen system reliability amid the expected load growth, SPP is implementing three key market reforms applicable to Nebraska utilities

1

Increases to base planning reserve margins and adding a winter planning reserve margin

- Planning reserve margins (PRMs) play an important role in ensuring that electricity providers have enough power during periods of high demand. The PRM is a buffer of extra capacity above forecasted peak load to ensure system reliability during stress events.
- SPP is increasing summer Base PRM from 15% to 16% in 2026-2028 and 17% in 2029. SPP has also introduced a new Winter season Base PRM, which will be set at 36% from 2026-2028 and then increase to 38% in 2029. Base PRMs may increase further in the future.

2

Introduction of new Accredited Capacity PRM

- SPP has approved a new Accredited Capacity PRM (ACAP PRM) to ensure there is sufficient accredited capacity to meet peak demand reliably during both summer and winter seasons.
- The ACAP PRM is intended to improve PRM accuracy and better align with actual system needs, taking into consideration outages and fuel assurance as well as seasonal variations.

3

Updated capacity accreditation methodology across technologies

- Wind, solar, and battery assets will be accredited based on Effective Load Carry Capability (ELCCs) instead of examining historical performance during peak hours.
- Thermal and hydro assets will be accredited utilizing Performance Based Accreditation (PBA), which examines historic forced outage rates and a fuel outage factor for the winter season, with a focus on outage expectations during peak load hours.

1 SPP is raising Base PRM requirements and introducing a Winter Base PRM to improve readiness for seasonal peak demand events

1 The introduction of a Winter Base PRM

Previously Summer Base Planning Reserve Margin (PRM)

Planning reserve margin:

- Base Planning Reserve Margin in 2025 was 15% for the Summer season
- There was no PRM requirement for the Winter season

Future: June 2026 Increased PRMs and the introduction of Summer and winter PRMs

Planning reserves:

- Increase the Summer PRM to 16% from 2026-2028 and 17% after 2029
- Implement a Winter PRM at 36% from 2026-2028 and 38% after 2029

The prevalence of winter storms that can stress the electric grid highlights the importance of having a buffer of electricity capacity during the winter.

The PRM is functionally a buffer of electric capacity above net peak demand¹ for a particular season. Summer season has historically had higher net peak demand, whereas winter season has historically had lower net peak demand, although winter net peak demand has been increasing in recent years.

2 Increased Base Planning Reserve Margin (Base PRM)

Each electricity provider is expected to have a certain percentage of capacity above its peak load in case of emergency, known as a planning reserve margin.

Higher PRMs aim to make a grid more resilient and less likely to fail during periods of high stress. SPP is increasing both Summer PRM and Winter PRM, which should improve system-wide reliability.

SPP planning reserve margin²

Year	Summer PRM (%)	Winter PRM (%)	Summer NPPD Reserves (%)	Summer OPPD Reserves (%)	Summer LES Reserves (%)
2025	15	0	17	27	30
2026	16	36	17	27	30
2027	16	36	17	27	30
2028	16	36	17	27	30
2029	17	38	17	27	30
2030	17	38	17	27	30

— Summer PRM — Winter PRM — Summer NPPD Reserves — Summer OPPD Reserves — Summer LES Reserves

1) Net peak demand is the peak demand minus demand response. 2) Starting in 2026, LREs will be expected to meet the ACAP PRM rather than the Base PRM.

2 SPP is introducing a new, Accredited Capacity PRM to better account for availability of capacity during system stress events

Introduction of ACAP PRM

- The ACAP PRM is intended to improve PRM accuracy and better align with actual system needs, taking into consideration outages and fuel assurance as well as seasonal variations.
- The ACAP PRM is calculated by taking into account peak demand, Base PRMs, and the impact of performance-based accreditation and fuel assurance impact for thermal assets.

Summer reference ACAP PRM for 2025¹:



Winter reference ACAP PRM for 2025¹:



The performance-based accreditation impact is difference between nameplate and accredited capacity for conventional generation capacity across SPP.

Accounts for fuel supply constraints during high-risk winter peak demand events.

1) From SPP, published date of April 30, 2025. 2) Performance-Based Accreditation.

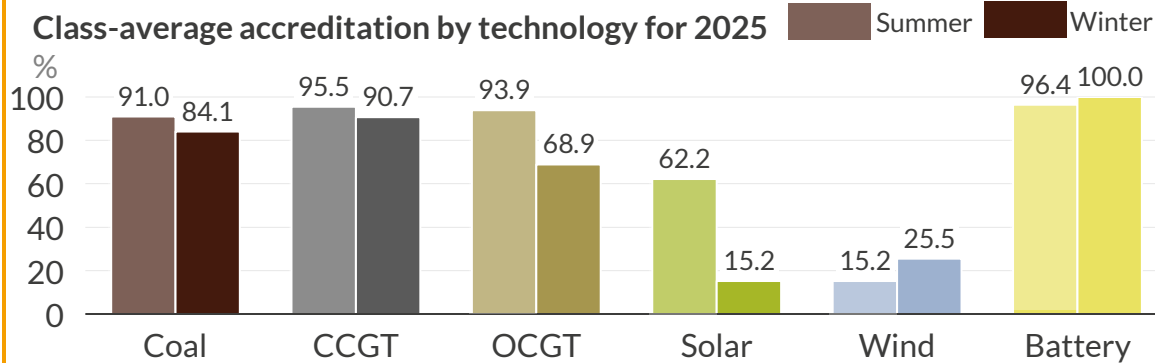
3 Updates to SPP’s capacity accreditation methodology present a key consideration for LREs to meet reliability requirements

SPP changes to capacity accreditation

Capacity accreditation is meant to measure how much reliable power capacity an electricity resource can contribute to grid demand. Only *accredited capacity* counts toward planning reserve margins.

For renewable assets like wind and solar, as well as batteries, SPP is adopting an Effective Load Carrying Capability (ELCC) methodology. This metric represents how much energy a technology can provide in times of peak load.

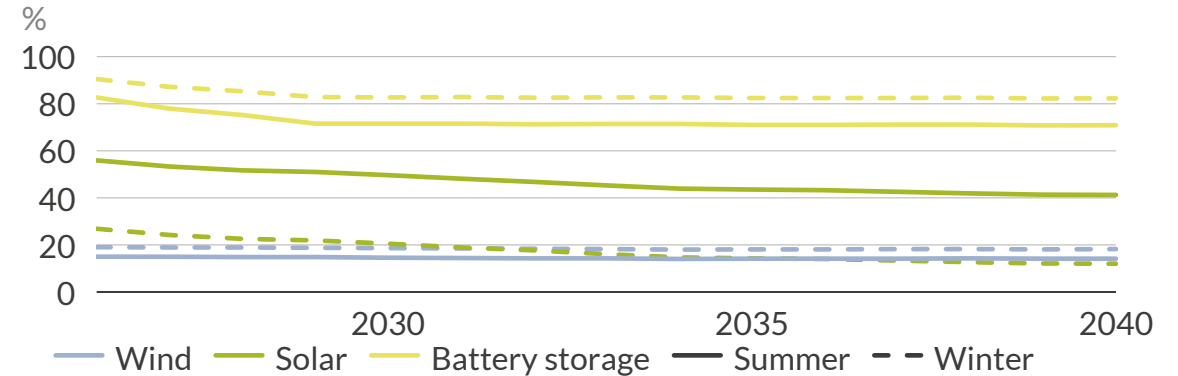
For thermal assets like coal and natural gas, SPP is moving to a Performance Based Accreditation (PBA) system. This accounts for expected forced outage rates and a fuel assurance impact, to better estimate thermal availability.



Expected decline in ELCC accreditation

As more renewables and batteries are added to SPP’s system, ELCC accreditation percentages are expected to decline. This means that a smaller percentage of assets’ nameplate (theoretical) capacity will count as accredited capacity towards utilities’ planning reserve margins.

Aurora assumed renewable ELCC de-rating factors by technology



What does this mean for Nebraska?

LREs need to take capacity accreditation into consideration when building or contracting additional capacity to meet load growth and SPP’s increased reliability requirements.

I. Executive summary

II. Power demand growth

1. US-wide context
2. Nebraska load environment
3. Expected growth
4. SPP market reforms

III. The need for new power generation in Nebraska

1. Existing generation mix in Nebraska
2. Capacity planning and generator interconnection
3. Policy and regulation

IV. Implications for transmission infrastructure

1. Existing transmission and constraints
2. SPP's transmission planning process
3. Planned transmission buildout

V. Gas-Electric Interconnection and Resilience

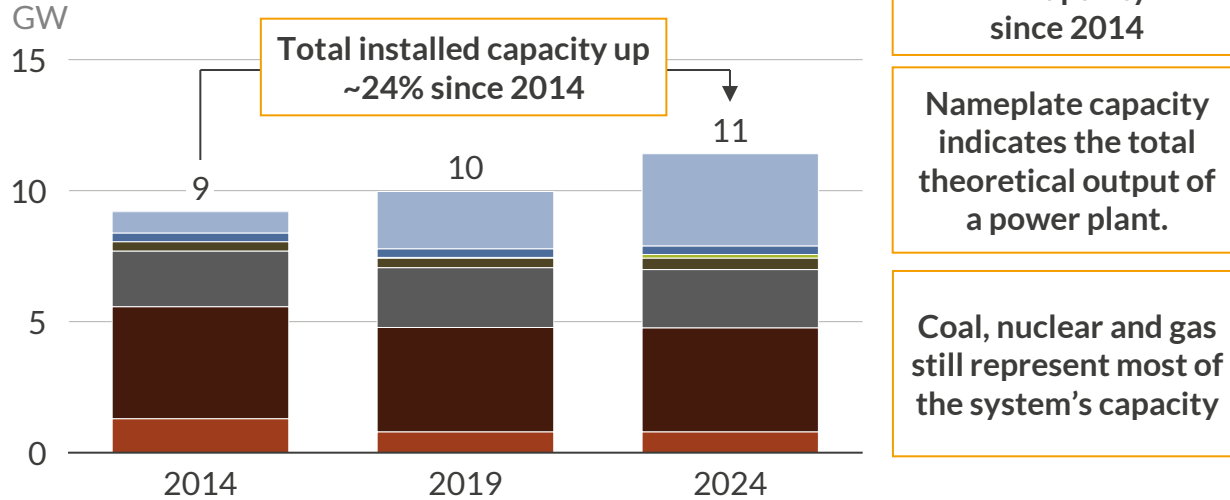
1. Gas infrastructure overview
2. Deliverability considerations
3. Gas-electric coordination

VI. Nebraska power market policy analysis

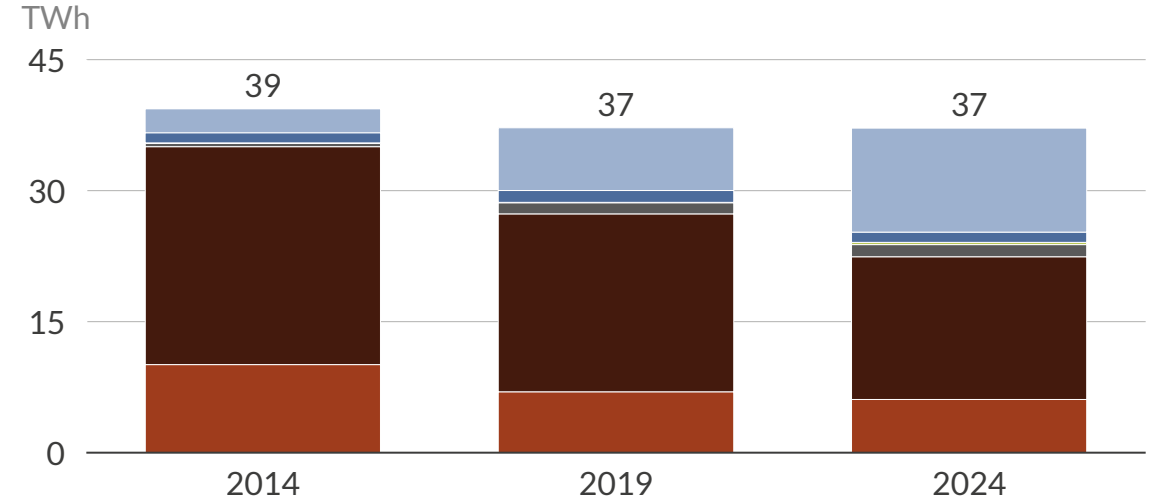
VII. Appendix

Nebraska's capacity mix was historically dominated by coal, nuclear and gas; however, wind has grown rapidly over the last decade

Installed nameplate capacity in NE



Annual electricity produced in NE



Changes in Installed Nameplate Capacity

- Total installed capacity in Nebraska has increased ~24% in the last ten years, from approximately 9GW in 2014 to ~11GW in 2024.
- Wind has seen the largest change in capacity, growing from less than 1GW in 2014 to ~4GW of installed nameplate capacity in 2024.

Changes in Generation

- Coal and nuclear units continue to provide the majority of Nebraska's baseload generation, although decreasing proportionally over time.
- Since 2014, wind generation has grown from 8% of annual output to ~32% in 2024, while coal's share has fallen from 64% to 43%.

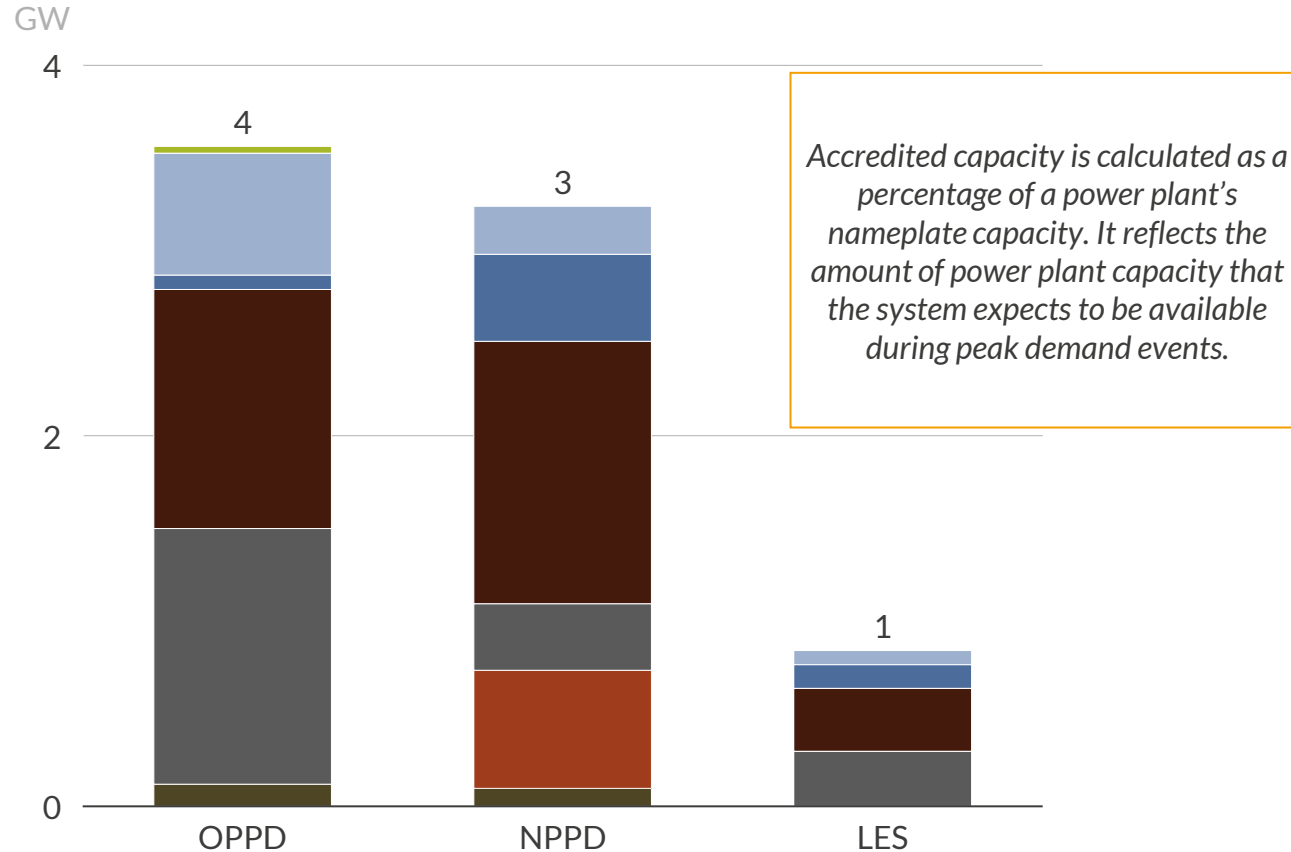
Implications for Nebraska

- Continued capacity growth trend:** Capacity expected to continue increasing to keep pace with demand.
- Nebraska's energy landscape continually evolves:** Forecasts suggest that renewables will become more prevalent.

■ Nuclear
 ■ Coal
 ■ Natural Gas
 ■ Other thermal
 ■ Solar
 ■ Hydro
 ■ Wind

Across Nebraska’s three largest LREs, coal, nuclear and natural gas provide the most capacity, with wind as a growing resource

Accredited capacity¹ breakdown across Nebraska LREs² by utility



Capacity by Nebraska LRE

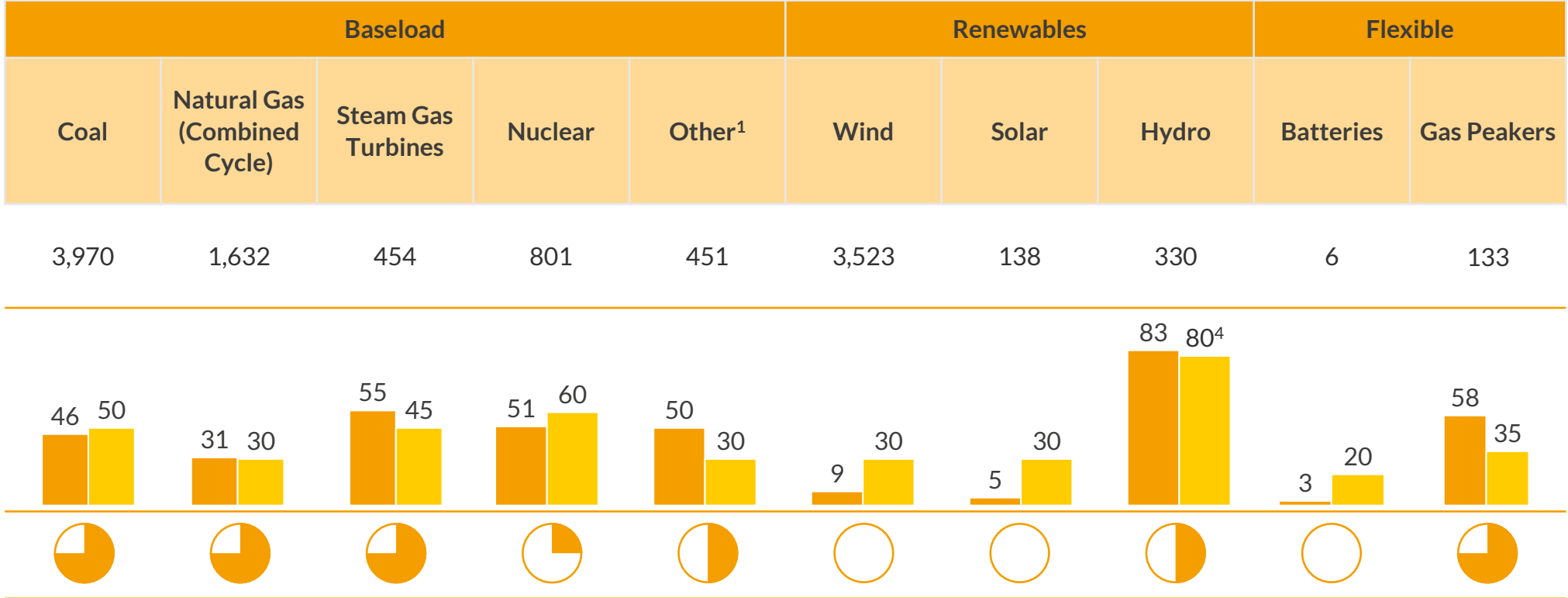
- Across Nebraska’s three largest load responsible entities (LREs), coal and gas still make up most of the installed capacity, providing most of Nebraska’s baseload and mid-merit generation.
- OPPD relies on coal and natural gas for 77% of its accredited capacity, but has the highest proportion of accredited wind capacity, with 18%.
- NPPD has a diversified fleet including coal, gas, hydro, and nuclear for baseload generation, as well as 259MW from wind capacity.
- LES operates a smaller portfolio but with a similar mix, with coal and gas providing the majority of baseload generation, complemented by hydro and wind capacity.
- Solar penetration remains minimal in Nebraska, with 37MW of accredited capacity in OPPD’s portfolio.

■ Solar
 ■ Wind
 ■ Hydro
 ■ Coal
 ■ Gas
 ■ Nuclear
 ■ Other thermal

1) Based on 2025 summer accreditation in 2025 SPP Summer Resource Adequacy Report. Includes owned and contracted capacity. 2) Load responsible entity.

Much of Nebraska’s power is provided by an aging baseload fleet

Refurbishments and upgrades can allow generators to operate beyond traditional time frames

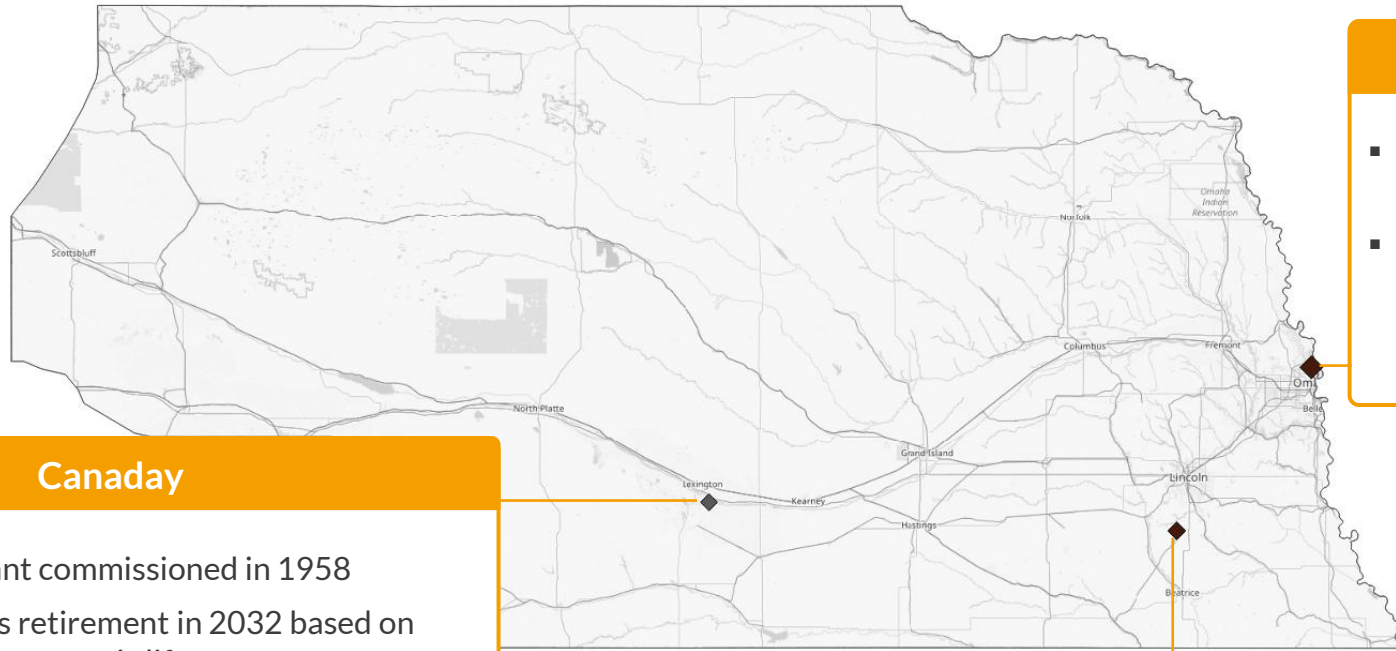


Coal accounts for over 36% of Nebraska’s energy capacity, and many of Nebraska’s coal plants are nearing their expected plant lifetimes, necessitating increased maintenance or new capacity additions in the coming years to sustain or replace aging infrastructure while meeting load growth.

1) Other baseload includes open-cycle turbines and some internal combustion generation. 2) Plant age measured in years. 3) Estimates based on U.S. Energy Information Administration Guidance. 4) Assuming standard maintenance and refurbishments.

Three major coal and gas generator plants are projected to near the end of their expected lifetime within the next decade

Major generators¹ expected to retire or convert in Nebraska in Aurora's forecast by 2035



Canaday

- 100 MW gas plant commissioned in 1958
- Aurora forecasts retirement in 2032 based on expected end of economic life

North Omaha

- Five units, both coal and gas, totaling 645MW and first placed in service in 1954
- OPPD plans to retire 3 steam gas turbine units and convert 2 coal units to gas. Currently, continued operations were authorized for reliability needs in a December 2025 resolution²

Sheldon

- 225 MW coal plant near Hallam built in 1961
- Aurora forecasts retirement by 2035 based on expected end of economic life

■ Coal ■ Steam Gas Turbine

1) Only generators with more than 100MW nameplate capacity are listed. 2) Resolution No. 6744

As power plants age, more frequent outages can result in increased cost and reliability risks

1 **Cost Concerns**

- Higher maintenance and repair costs for aging plants:
 - As plants age, maintenance and repairs become more frequent and costly
 - Older plants are more likely to experience outages that take them offline, including maintenance-based outages, increasing the risk of price spikes during periods of high system-wide demand (such as winter storms)
- As plants age, dispatch becomes decreasingly economic:
 - Fixed costs remain the same for reduced production
 - Operating costs increase for every hour of production

2 **Reliability Concerns**

- Baseload plants are particularly important at times of highest system need, when outages can have a major impact:
 - With more frequent planned and unplanned outages, the average availability of a plant declines with age
 - Extreme weather events stress plant components when electricity demand is highest, creating a risk of outages when this capacity is most critical
- Outages can be challenging to manage for older plants with complex machinery and slower ramp times:
 - If a plant experiences an unplanned outage, it may take hours or days to fix and come back online

Case Study: J. H. Campbell Coal Plant, Michigan

In 2025, the U.S. Dept. of Energy required a 63-year-old coal plant in Michigan to stay open past its scheduled retirement date:

- The plant incurred additional operating costs of \$615,385 per day (~\$80 million over 131 days) passed on to consumers; and
- Continued reliability issues, with 30 days of outages for two plant units and 113 days of outages for one unit in a 131-day period.¹

1) J.H. Campbell Complex 1400MW plant.

Rising demand and higher reserve margins mean Nebraska will need substantial new capacity by the early 2030s

Demand pressure and reliability requirements

Nebraska peak demand expected to rise toward ~9 GW by 2035 in Aurora's Economic Build scenario.

Certain aging thermal plants in Nebraska are nearing the end of their expected lifetimes.

SPP is updating capacity accreditation methodology and PRM requirements.

SPP is introducing a winter PRM to improve reliability.

Supply levers to meet expected demand

1

Thermal baseload capacity

Thermal plants (such as gas and coal) help load responsible entities (LREs) meet peak load with steady, predictable generation across all hours.

2

Renewable capacity













Renewable energy resources, such as wind and solar, provide low marginal cost generation and can often be built more quickly than thermal plants, supporting short-term load growth and reducing system energy costs.

3

Flexible capacity

Flexible resources, such as grid-scale batteries and gas peaking plants, help maintain system-wide stability by helping the grid ramp up and down to meet demand fluctuations.

When considering new capacity additions, different technologies present various advantages and drawbacks

Baseload	Renewables	Flexible
<h3 data-bbox="275 368 642 406">Gas (Combined Cycle)</h3> <ul data-bbox="107 439 792 805" style="list-style-type: none"> <li data-bbox="107 486 792 601">  <ul style="list-style-type: none"> Steady, predictable generation can provide grid stability Can be located near urban centers Lower emissions than coal plants <li data-bbox="107 682 792 805">  <ul style="list-style-type: none"> Electricity prices impacted by fluctuations in the price of natural gas Longer lead times due to supply issues Pipeline supply interruptions possible 	<h3 data-bbox="1225 368 1322 406">Wind</h3> <ul data-bbox="917 439 1628 805" style="list-style-type: none"> <li data-bbox="917 486 1628 601">  <ul style="list-style-type: none"> Minimal marginal production costs to produce electricity Compatible with agricultural land-use Zero emissions electricity production <li data-bbox="917 682 1628 805">  <ul style="list-style-type: none"> Output varies with weather; cannot be dispatched on demand Often located far from load centers, requiring new transmission to reach load 	<h3 data-bbox="2015 368 2163 406">Peakers</h3> <ul data-bbox="1727 439 2438 805" style="list-style-type: none"> <li data-bbox="1727 486 2438 601">  <ul style="list-style-type: none"> Fast start capability for peak and emergency conditions Lower upfront build costs than large baseload units <li data-bbox="1727 682 2438 805">  <ul style="list-style-type: none"> High operating cost per MWh produced; used sparingly at peak demand times Higher emissions intensity and fuel-based reliability risks
<h3 data-bbox="392 872 529 911">Nuclear</h3> <ul data-bbox="107 939 825 1290" style="list-style-type: none"> <li data-bbox="107 986 825 1086">  <ul style="list-style-type: none"> Highly reliable, around-the-clock generation Zero direct CO₂ emissions Low marginal cost of generation <li data-bbox="107 1143 825 1290">  <ul style="list-style-type: none"> Very high capital cost and years-long development horizon Requires stringent safety, fuel and waste management procedures 	<h3 data-bbox="1116 872 1429 911">Solar (Utility Scale)</h3> <ul data-bbox="917 939 1628 1305" style="list-style-type: none"> <li data-bbox="917 986 1628 1100">  <ul style="list-style-type: none"> Minimal marginal production costs with predictable daytime output Can be operationalized quickly Zero emissions electricity production <li data-bbox="917 1143 1628 1305">  <ul style="list-style-type: none"> Output varies with weather; cannot be dispatched on demand Often located far from load centers Limited production at evening peaks 	<h3 data-bbox="1888 872 2277 911">Batteries (Utility Scale)</h3> <ul data-bbox="1727 939 2438 1262" style="list-style-type: none"> <li data-bbox="1727 986 2438 1086">  <ul style="list-style-type: none"> Stores and shifts energy production from low-demand to high-demand hours Supports grid reliability at peak hours, complementing thermal and renewables <li data-bbox="1727 1143 2438 1262">  <ul style="list-style-type: none"> Limited discharge duration; cannot replace baseload generation Performance degrades over time

Nebraska Integrated Resource Plans adopt an all-of-the-above approach, incorporating renewables and dispatchable capacity to meet future growth

Overview of IRPs from Nebraska LREs

- Integrated Resource Plans (IRPs) are 5-year blueprints that Load Responsible Entities (LREs) file with WAPA outlining how they will meet future demand at least cost while maintaining reliability.
- Nebraska’s three largest LREs—OPPD, NPPD, and LES—have formal decarbonization goals and use their IRPs to test resource portfolios against those goals.
- The IRPs combine load forecasts, existing fleet, candidate new resources (renewables, storage, gas, nuclear, demand-side) and policy scenarios to find “directionally correct” least-cost plans, not rigid build schedules.

What LES, OPPD and NPPD emphasize in their IRPs

1

OPPD (Omaha Public Power District)

Targets net-zero carbon production by 2050, with the IRP and Pathways to Decarbonization pointing to substantial new wind and solar backed by new gas capacity and a staged reduction in coal.

2

NPPD (Nebraska Public Power District)

Aims for net-zero carbon by 2050, managing coal retirements carefully (including options such as CCS or gas conversion) and adding incremental wind, solar, storage, efficiency and demand response as system needs evolve.

3

LES (Lincoln Electric System)

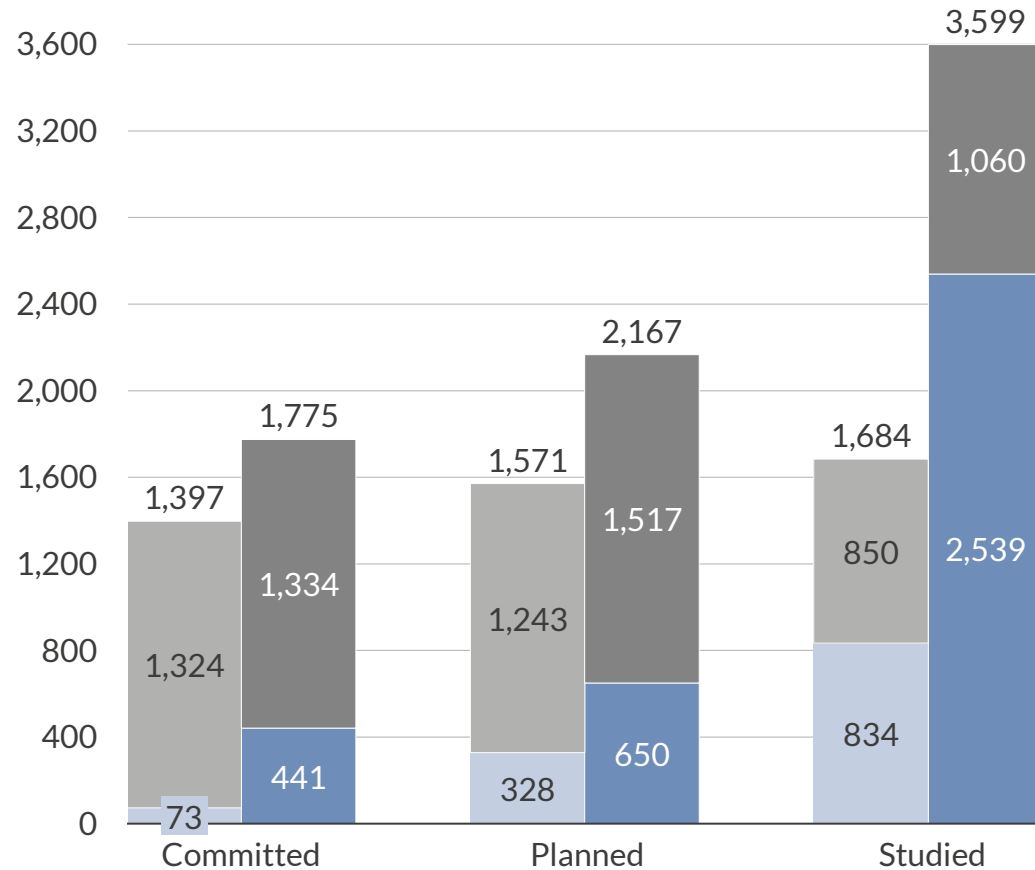
Plans to reach net-zero CO₂ from LES generation by 2040 through a diversified portfolio that gradually increases wind, solar, storage pilots and demand-side programs while maintaining reliability.

OPPD, NPPD, and LES plan to add substantial wind, solar and battery capacity, backed by baseload natural gas units, nuclear and existing hydro, to meet growing demand and move toward net-zero emissions targets.

The Nebraska Power Association Load and Capability Report provides a view of the expected capacity buildout for Nebraska utilities

Committed, planned, and studied summer accredited capacity from Nebraska’s utilities¹

MW



Capacity Buildout Plans

- Committed resources are at a more advanced stage of planning and approval than planned resources. Among committed projects, most of the generation expected to be brought online is coming from conventional thermal sources.
- Future resource requirements that will be needed to meet utility obligations are established in the “studied” subcategory, which includes more renewable generation.

Accreditation Impacts Buildout

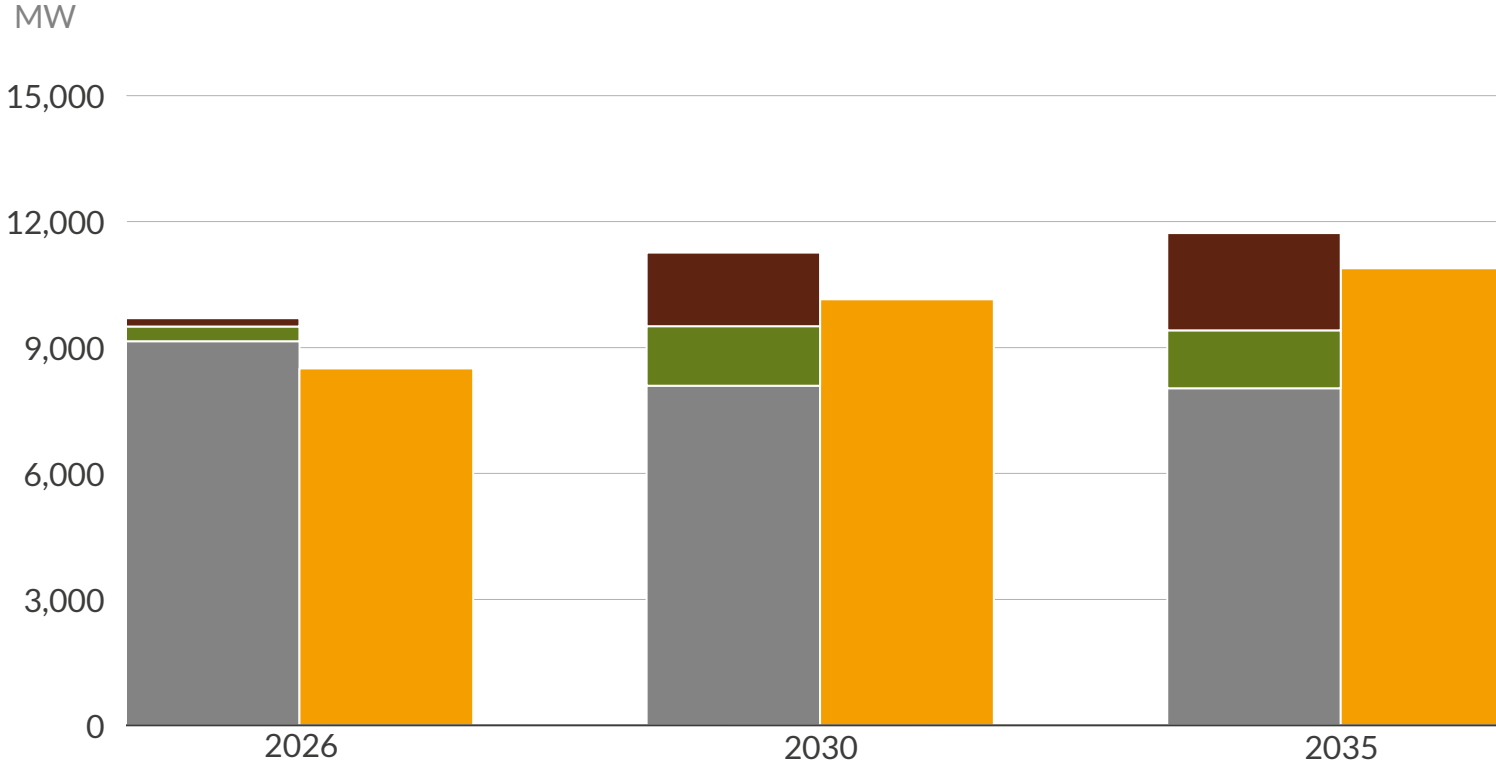
- Technology-level accreditation values determine the amount of capacity that can be counted towards resource adequacy requirements and leads to a reduction in capacity from nameplate to accredited.
- In the “studied” subcategory, renewables make up the majority of nameplate additions (2,539MW vs 1,060MW conventional), but due to lower ELCC values, their accredited capacity falls to 834MW, bringing them roughly in line with 850MW of accredited conventional capacity.

Renewable (Accredited) Renewable (Nameplate) Conventional (Accredited) Conventional (Nameplate)

1) Values from Nebraska Power Association’s 2025 Load and Capability Report

The L&C report indicates that state utilities' existing, committed, and planned generation will cover ACAP PRM through the 2030s

Existing, committed, and planned accredited generators versus ACAP PRM requirement¹



- The 2025 Load and Capability report projects that existing, committed, and planned resources will be sufficient to meet Nebraska's ACAP PRM requirement through 2039, but are forecasted to fall short from 2040-2044.
- Including studied resources, the L&C report indicates that Nebraska would remain comfortably above the ACAP PRM for the entire study period (2026-2044).

Increasing PRM requirements underscore the need for new capacity

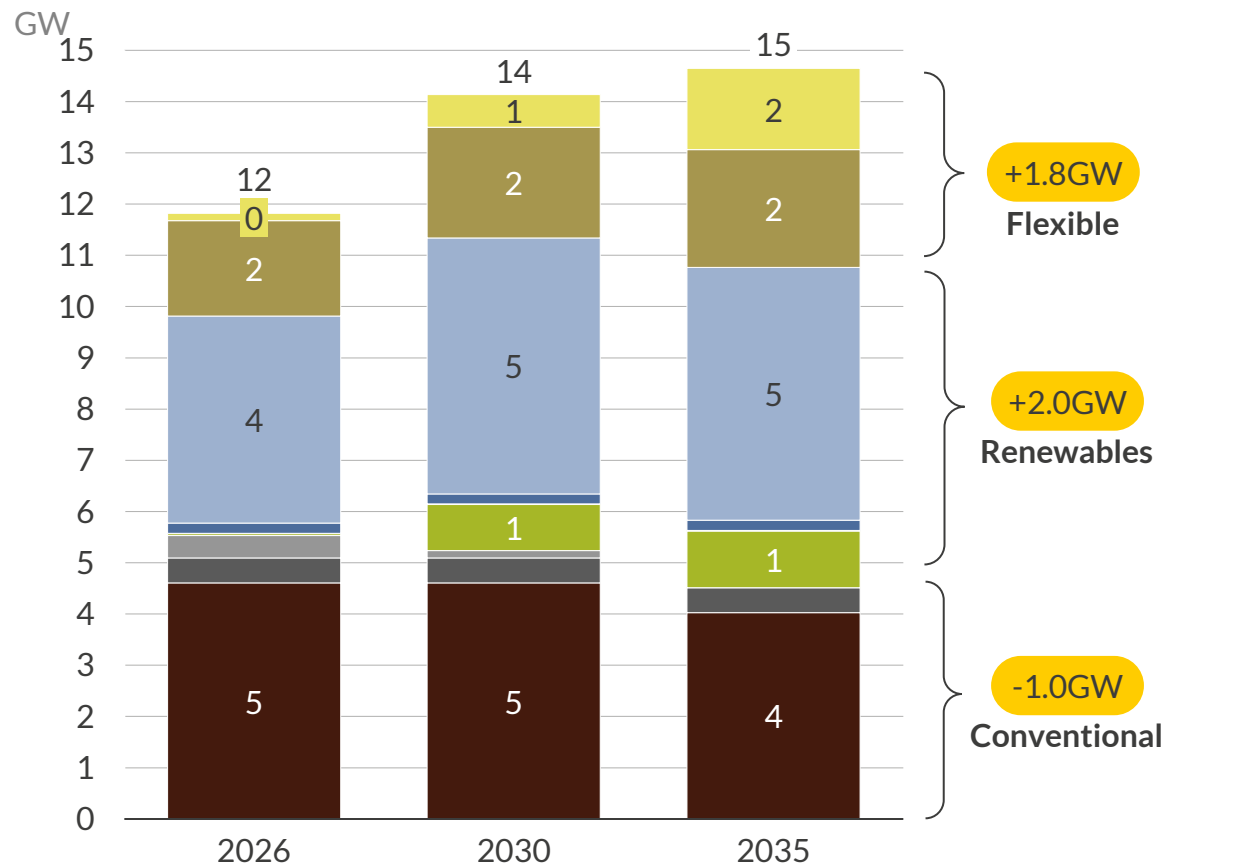
Load growth prompts the need for more generators, and, simultaneously, the potential retirement of aging thermal generators and the accreditation de-rating for renewable generators decreases the number of existing accredited megawatts.

Planned Committed Existing Requirement²

1) Values approximated from Nebraska Power Association's 2025 Load and Capability Report. 2) Assumed long-term ACAP PRM of 7.6%.

Aurora forecasts that nearly 4GW of newly built renewables and flexible capacity will be needed by 2035 to meet forecasted demand

Installed nameplate capacity in Nebraska, Aurora's Economic Build scenario



Coal
 Other thermal
 Other renewables¹
 Wind
 Gas / oil peaker²

Gas CCGT
 Solar
 Hydro
 Pumped storage
 Battery storage

1) Net present value at the time of project completion, based on estimated revenues over the asset lifetime.

Aurora Economic Build Scenario Overview

- Takes into account Aurora's load growth forecast as presented in section II of this report.
- Short-term (2026-29) capacity buildout based on projects currently in the interconnection queue, based on queue stage and historical success rate.
- Medium-term (2029-35) capacity build-out based on economic buildout of projects that are NPV-positive.¹

Forecasted Capacity Changes: 2025 to 2035

- Solar and wind capacity increases by 1GW each between 2026 and 2035, with capacity additions offsetting the thermal capacity reduction from the phased retirement of the North Omaha plant.
- Battery and gas peaker buildout supplements the growth in renewable capacity, increasing flexible capacity by 2GW.

13GW of nameplate capacity in Nebraska is currently in the interconnection queue, but most of those projects will likely not connect to the grid

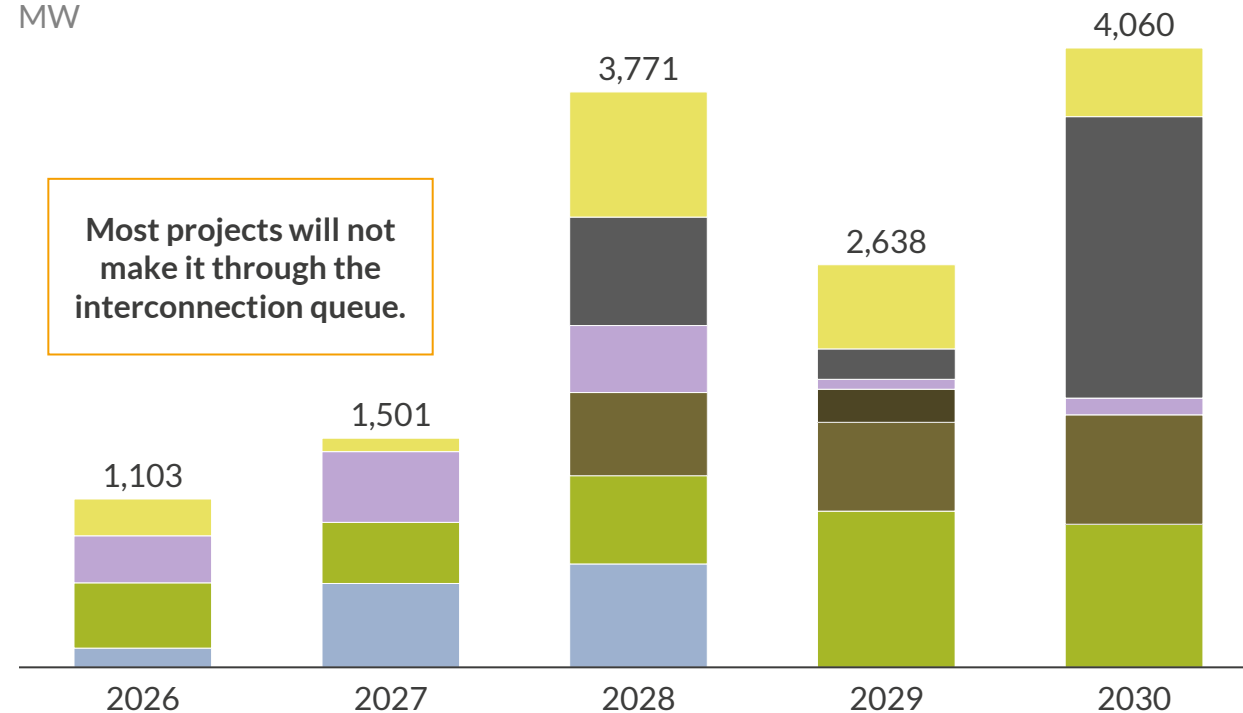
SPP Interconnection Queue Overview

- All new power generation projects must pass through the SPP interconnection queue, which is a pipeline of projects waiting to be studied, approved, and physically interconnected to the electrical grid.
- SPP's interconnection queue comprises all of the proposed power plants and energy storage projects that have requested to connect to SPP's grid.
- The interconnection queue is managed at the SPP-wide level, with projects in Nebraska considered alongside projects in the same cluster throughout SPP.

Understanding the Interconnection Queue

- ~13GW of Nebraska projects with a COD of 2030 or earlier are currently in the queue, which comprises 30% more capacity than the entire size of the Nebraska grid in 2025.
- For a variety of reasons, such as length of the process (4-6 years), changes in project economics, or speculative entries, **many projects ultimately withdraw from the interconnection queue.**
- The projects in the queue are indicative of the direction of grid development, although only a small portion of projects will reach commercial operations.

Current interconnection queue by technology & estimated COD¹
MW



Total capacity
MW



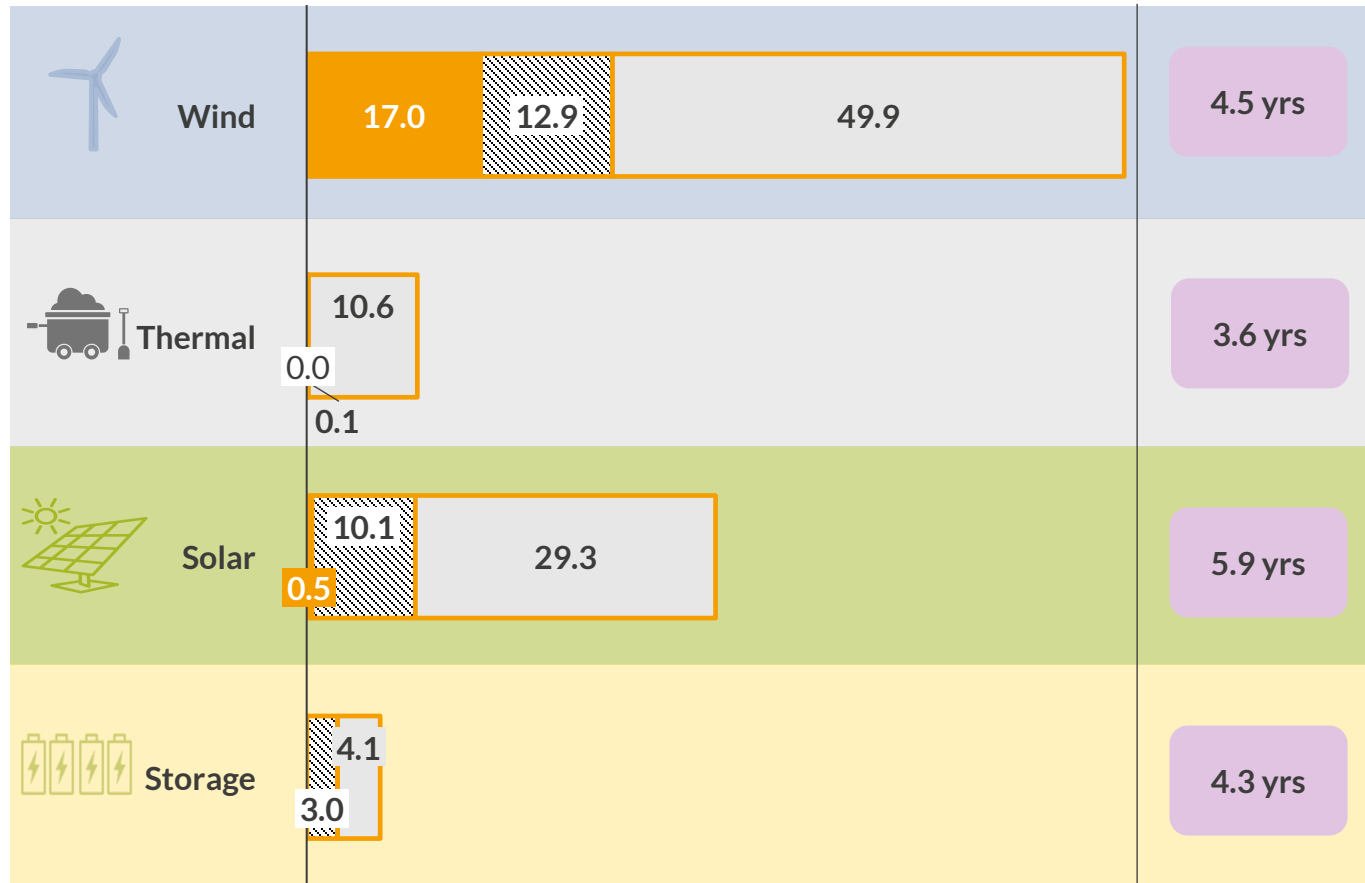
Wind Solar Peakers Other Thermal Hybrid Gas² BESS




1) Commercial Operation Date from the SPP active Interconnection Queue as of 12/15/2025. 2) Combined Cycle Gas Turbine (CCGT).

Only a fraction of interconnection queue projects in SPP are typically built

SPP interconnection queue outcomes by technology, 2014–19 clusters
GW

Average time to COD



 2014-19 total withdrawn/terminated  2014-19 total signed IA  2014-19 total reaching COD

Historical SPP Queue Outcomes

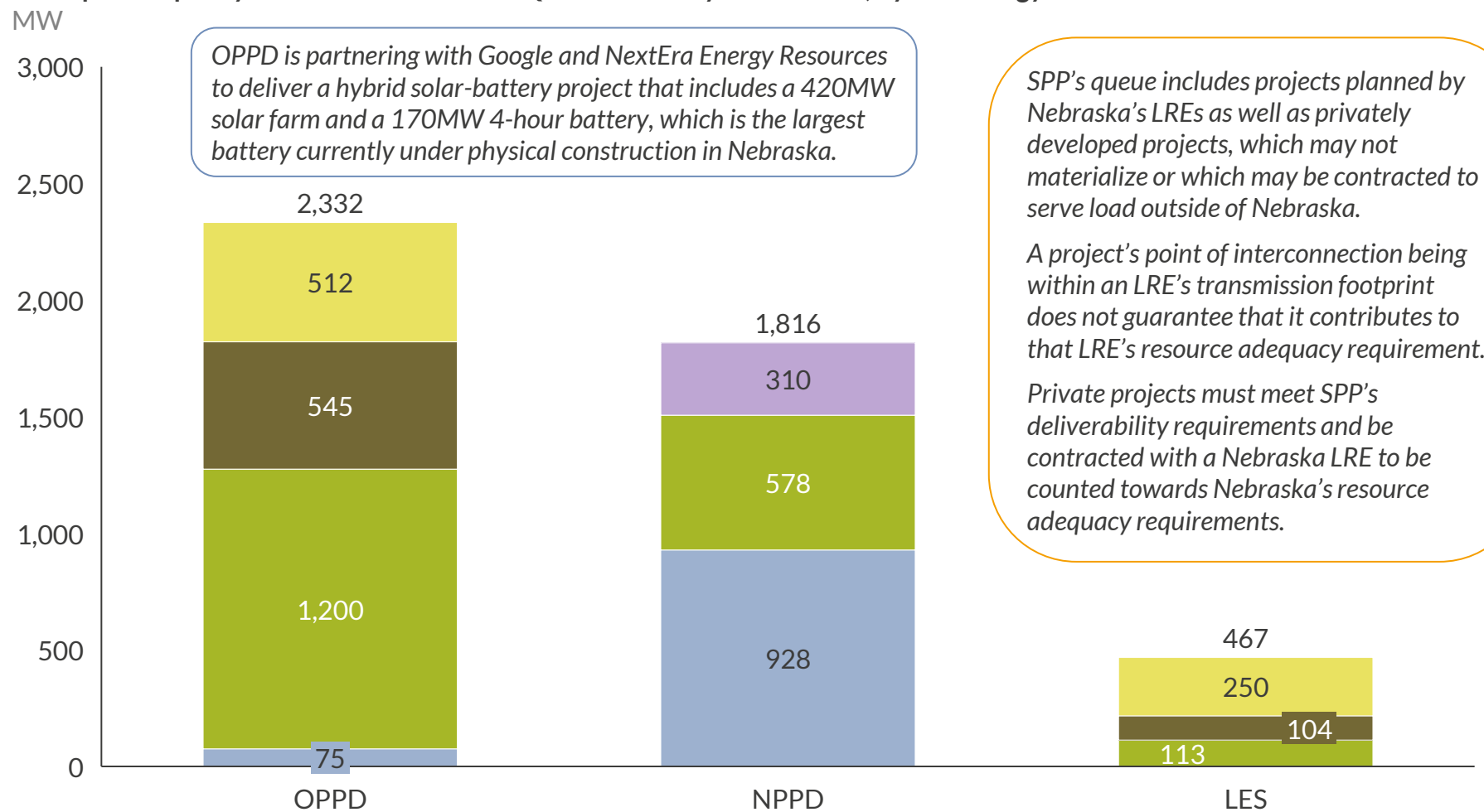
- SPP has completed multiple cluster study cycles since 2014; each cycle sees large volumes of requests but only a relatively small portion of queued projects reach commercial operations.
- In the 2010s, SPP’s interconnection queue processing times typically ranged between ~4–6 years, with variation by project and technology.

SPP Queue Challenges

- High withdrawal rates and the low proportion of projects that reach commercial operations reduce visibility into new capacity for load responsible entities and grid operators.
- Lengthy queue wait times and potential re-studies after project withdrawals make development timelines and costs less predictable for project owners and developers, potentially rendering projects no longer economically viable.

SPP's queue includes 4.6GW nameplate capacity of renewable and flexible energy projects with IA-signed¹ queue at Nebraska POIs²

Nameplate capacity in the Interconnection Queue with fully executed IA, by technology and transmission owner at POI¹



OPPD is partnering with Google and NextEra Energy Resources to deliver a hybrid solar-battery project that includes a 420MW solar farm and a 170MW 4-hour battery, which is the largest battery currently under physical construction in Nebraska.

SPP's queue includes projects planned by Nebraska's LREs as well as privately developed projects, which may not materialize or which may be contracted to serve load outside of Nebraska.

A project's point of interconnection being within an LRE's transmission footprint does not guarantee that it contributes to that LRE's resource adequacy requirement.

Private projects must meet SPP's deliverability requirements and be contracted with a Nebraska LRE to be counted towards Nebraska's resource adequacy requirements.

- SPP's interconnection queue includes significant solar, wind and battery capacity with interconnection agreements signed in the transmission footprints of NPPD, OPPD, and LES.
- Over 1.4GW of flexible energy technology projects, including batteries and peakers, have IA-signed within OPPD and LES's footprints, along with 310MW in NPPD's footprint.
- LES has Nebraska's only Expedited Resource Adequacy Study (ERAS) project. The 104MW thermal plant is scheduled to be operational in Lancaster by June 2029.

1) IA = Interconnection Agreement. 2) Point of Interconnection.

In the short term, SPP has created an Expedited Resource Addition Study¹ to address near-term resource adequacy risks

Context

- SPP’s traditional interconnection process has lengthened due to high project volumes, withdrawals, and restudies.
- Some LREs face near-term capacity gaps that cannot be addressed through the standard queue in time.
- ERAS was introduced as a one-time, expedited process to mitigate short-term reliability risk.

What ERAS does

- Allows eligible Load Responsible Entities (LREs) to request additional near-term capacity.
- Capacity requests are capped by an LRE-specific Ceiling Capacity tied to projected resource adequacy needs.
- Focused on addressing Summer 2030 / Winter 2030-31 reliability requirements.

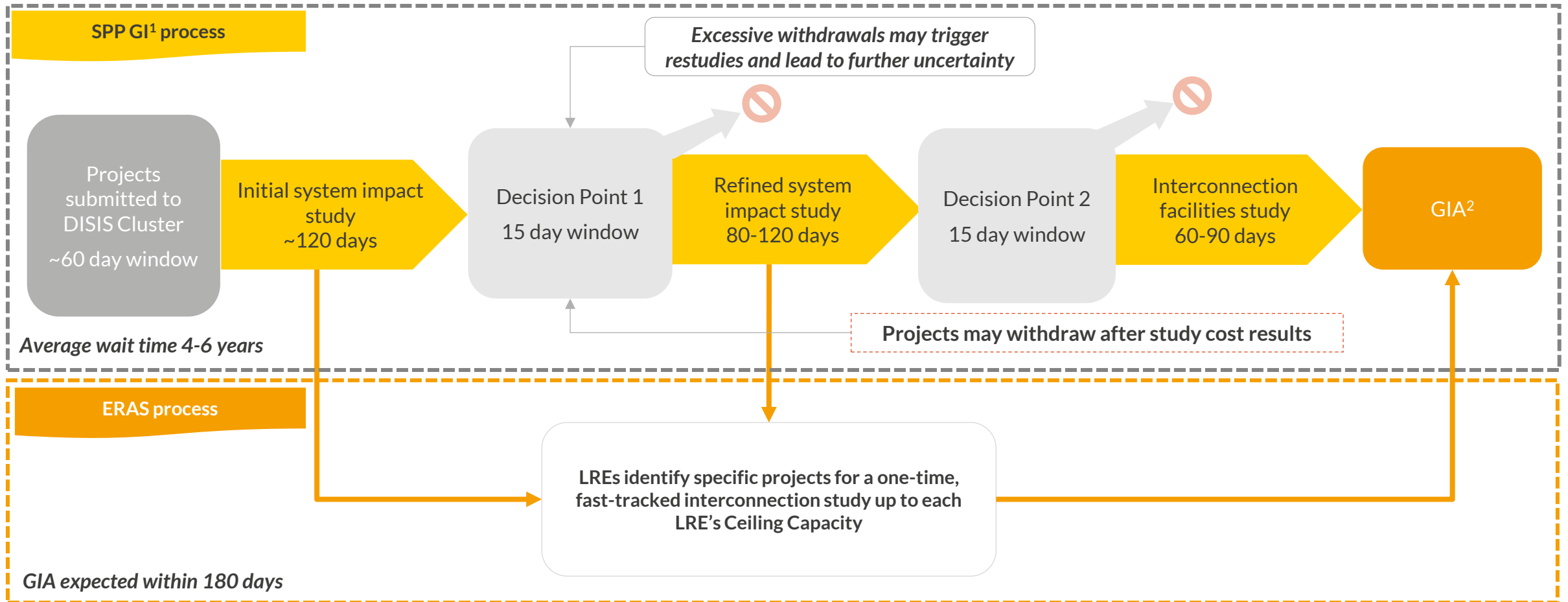
ERAS does not aim to replace the existing SPP interconnection queue process; rather, it is designed as a one-off program to expedite the processing of targeted reliability assets.

ERAS Process Timeline²

May 6, 2025	SPP BoD approves ERAS through RR668 ⁷
Jul 23, 2025	FERC approves ERAS
Aug. 1, 2025	Posting of LRE Ceiling Capacity
Sept. 2, 2025	ERAS submission window opens
Oct. 2, 2025	ERAS submission window closes. LREs can cure any deficiencies in interconnection requests
Oct. 17, 2025	ERAS Study begins
Mar. 20, 2026	Anticipated execution of Generator Interconnection Agreements

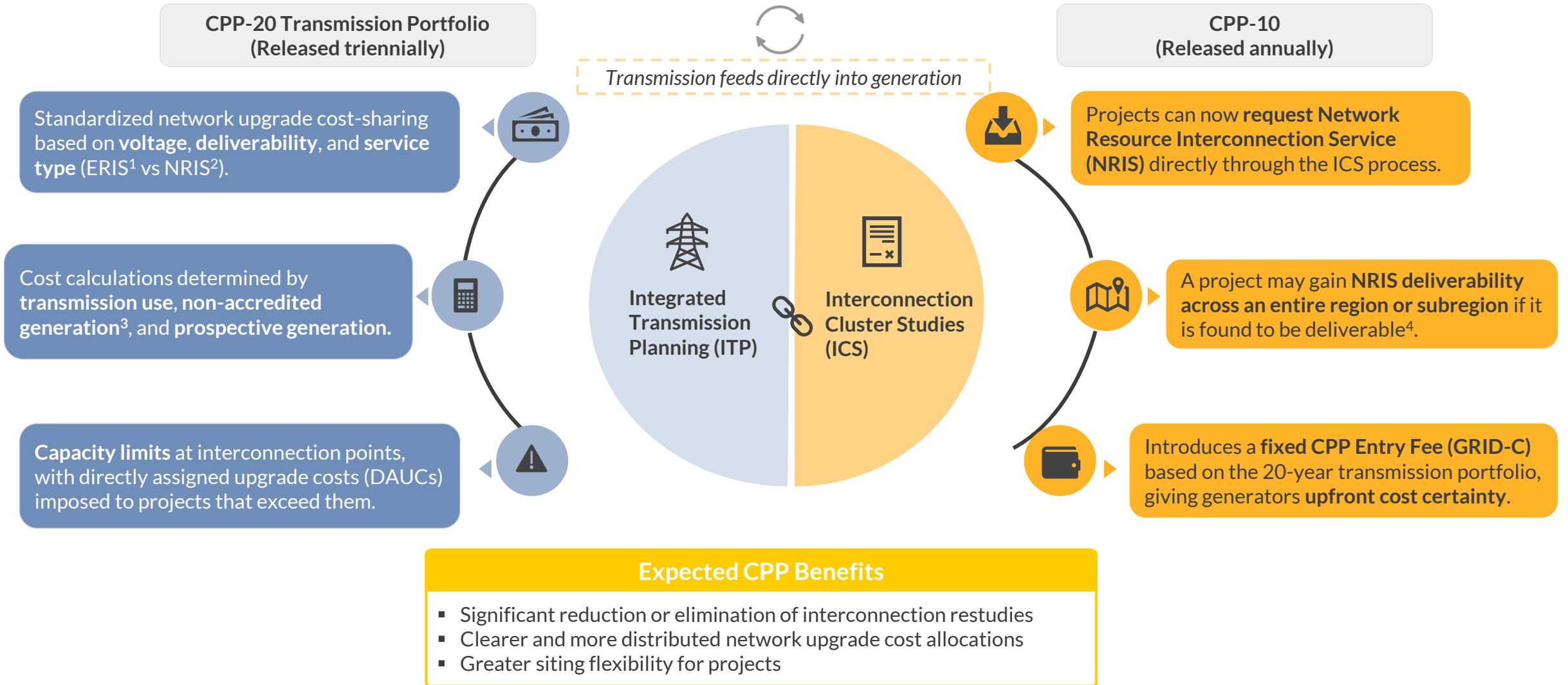
1) ERAS = Expedited Resource Addition Study 2) Per SPP, future events are estimated target dates, subject to study progress and the timely completion of all process steps.

ERAS accelerates interconnection timelines, but capacity volumes and participation are tightly constrained



1) Generator Interconnection. 2) GIA: the final agreement required for a generator to interconnect, following completion of interconnection studies.

To streamline the interconnection process, SPP's new Consolidated Planning Process (CPP) looks to implement long-term improvements



1) Energy Resource Interconnection Service. 2) Network Resource Interconnection Service. 3) Based on a future generation non-accredited factor that considers new generation above reliability needs. These marginal additions are likely to add congestion, not solve it. A higher non-accredited portion of capacity contributes to a higher cost burden. 4) Deliverability is determined via SPP's deliverability assessment.

SPP has recently created a fast-track interconnection study for High Impact Large Loads that bring generation online simultaneously

HILLs and HILLGA¹ Paths



What is a HILL?

A High Impact Large Load (HILL) must meet the following criteria:

- ≥10MW if connected at ≤69kV
- ≥50MW if connected at >69kV



HILLGA Path 1

The first path to qualify for HILLGA is to have the Generating Facility inject into the same bus as the load. Because the net effect on the grid is low, **common bus** is considered a safer alternative to local area.



HILLGA Path 2

The second path to qualify for HILLGA is to have the Generating Facility inject within two substations of the HILL's bus; a Generating Facility connected to 765 kV transmission is limited to one bus distance to be considered **local**.

HILLGA¹ Indicative Timeline

HILL Interconnection Request

The Customer submits a HILL interconnection request. Information that may be required:

- Project description, load details, point of interconnection, project timeline, site control, injection point, and study scope.

1

2

0-50 days⁴

Study Agreements

- The Host Transmission Owner must respond within **10 Business Days** of the request submission to provide an HLCS² Agreement to the Customer.
- The Transmission Provider will perform an HDPS³ study impact assessment and post results and study agreements by the 20th day of each month for all requests from the prior calendar month.
- If the Customer's request includes paired generation, the Transmission Provider will also issue a HILLGA Agreement.

3

0-90 days⁴

HILL Studies

Once agreements have been signed and returned, and the Customer has met with the Transmission Provider and the Host Transmission Owner, the studies will run in parallel and take up to **90 calendar days** – as long as no complications arise.

4

10-90 days⁴

HILL GIA⁵

Following successful study completion:

- The Customer has **45 days** to discuss HILL GIA terms.
- The Customer must show continued site control.
- The Customer must decide to either file the GIA executed or petition the Transmission Provider to file the HILLGIA in unexecuted form.

1) HILL Generation Assessment. 2) HILL Load Connection Study. 3) HILL Delivery Point Study. 4) Estimated Timeline. 5) Generator Interconnection Agreement.

I. Executive summary

II. Power demand growth

1. US-wide context
2. Nebraska load environment
3. Expected growth
4. SPP market reforms

III. The need for new power generation in Nebraska

1. Existing generation mix in Nebraska
2. Capacity planning and generator interconnection
3. Policy and regulation

IV. Implications for transmission infrastructure

1. Existing transmission and constraints
2. SPP's transmission planning process
3. Planned transmission buildout

V. Gas-Electric Interconnection and Resilience

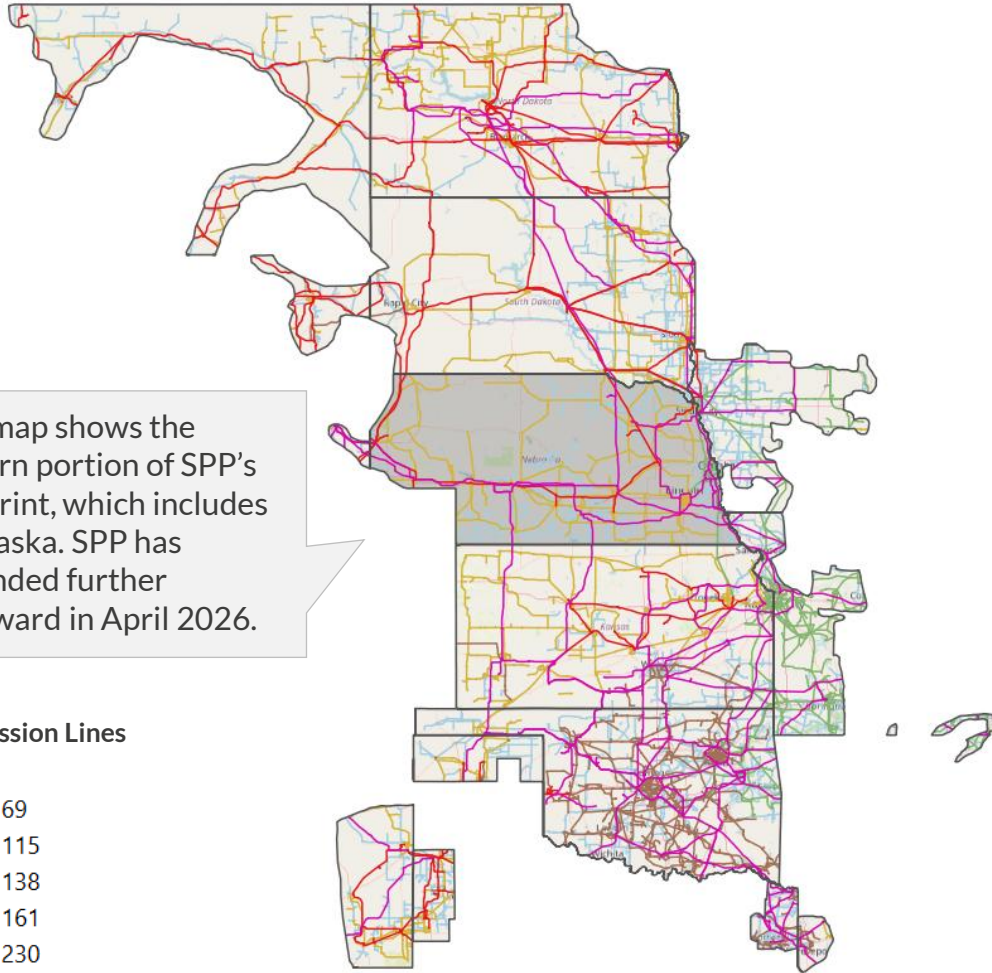
1. Gas infrastructure overview
2. Deliverability considerations
3. Gas-electric coordination

VI. Nebraska power market policy analysis

VII. Appendix

Nebraska is part of the broader SPP transmission network, connected to neighboring states in the north, south, east and west

SPP's East's Transmission Network



This map shows the eastern portion of SPP's footprint, which includes Nebraska. SPP has expanded further westward in April 2026.

Transmission Lines

KV

- 69
- 115
- 138
- 161
- 230
- 345

State of the Grid

- SPP East has 557,546 square miles of service territory served by 72,820 miles of transmission network.
- SPP East's network expands over 14 states of which Nebraska alone has an extensive network of approximately 7,000 miles of transmission lines.
- Nebraska's three largest load responsible entities (LREs)—Omaha Public Power District (OPPD), Nebraska Public Power District (NPPD), and Lincoln Electric System (LES) own around 1,300, 5,400 and 300 line-miles respectively.
- Additionally, Nebraska's major interstate transmission connections help facilitate transfers of power with its neighbors, particularly to the north, south and east.

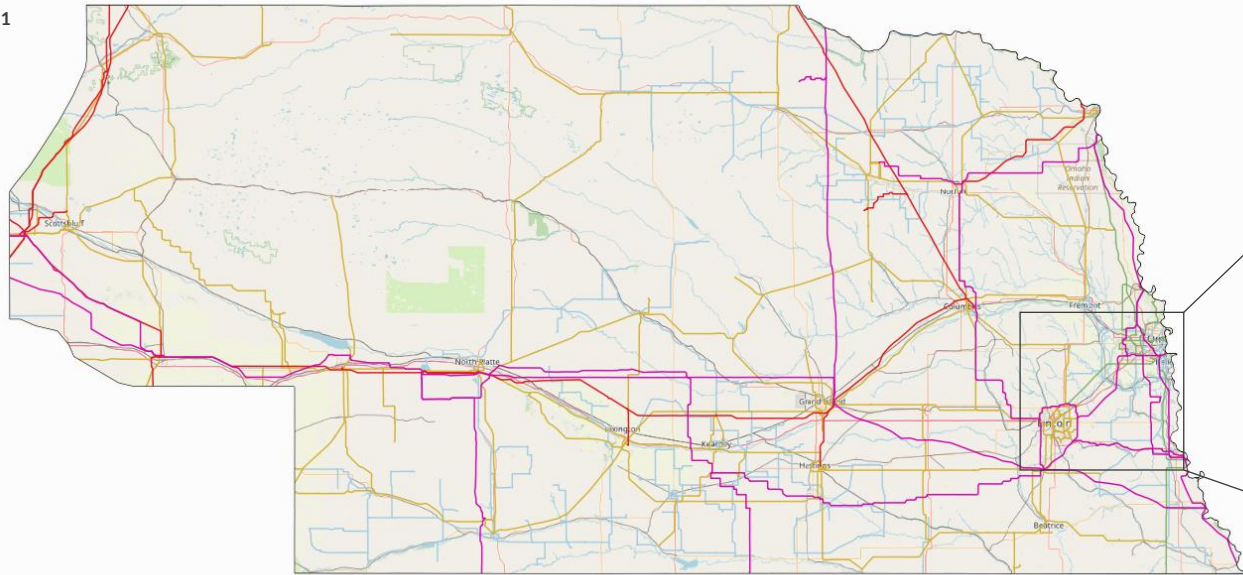
Neighboring State	Major Transmission Line	Line Voltage
Missouri	Nebraska City – Maryville – Sibley	345 kV
Kansas	Axtell – Spearville and Axtell – Post Rock	345 kV
South Dakota	Multiple Nebraska–South Dakota tie lines, example Yankton – Southeast NE	161 kV, 345 kV
Iowa	Multiple eastern Nebraska–western Iowa transmission ties (OPPD / MidAmerican interfaces)	161 kV, 345 kV
Wyoming (via DC tie)	Virginia Smith Converter Station (Sidney, NE)	HVDC ¹ back-to-back
Wyoming (via DC tie)	David A. Hamil DC Tie (Stegall, NE)	HVDC back-to-back

1) High Voltage Direct Current: AC power from one grid is converted to DC and then back to AC for the other grid.

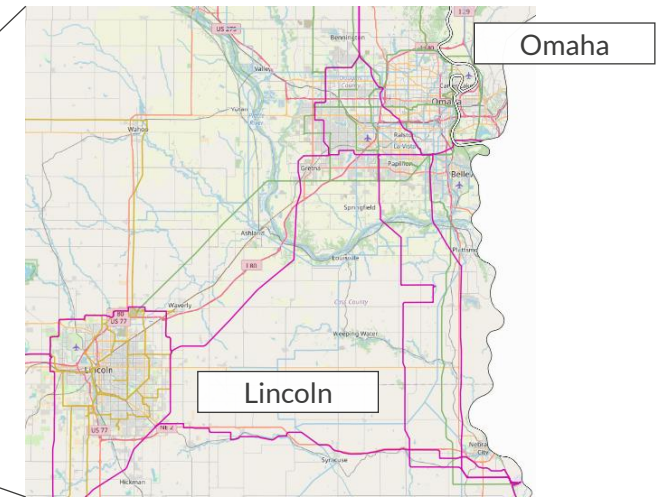
Transmission lines deliver power throughout the state, with the highest infrastructure density in metropolitan areas in the southeast

Transmission Lines¹
KV

- 69
- 115
- 138
- 161
- 230
- 345



Zoomed-in map of Lincoln and Omaha



Majority of energy demand is in the East

Two major load centers in Nebraska are in the eastern region of the state:

- Omaha: Largest metropolitan area and biggest economy in the state.
- Lincoln: State capital and second-largest city.

Connection to generators in the East

Nebraska has extensive transmission network in the east connecting major generators, such as:

- Council Bluffs (1.6GW)
- OPPD Nebraska City powers station (1.4GW)
- Cooper Nuclear Station (800MW)
- North Omaha Power station (600MW)

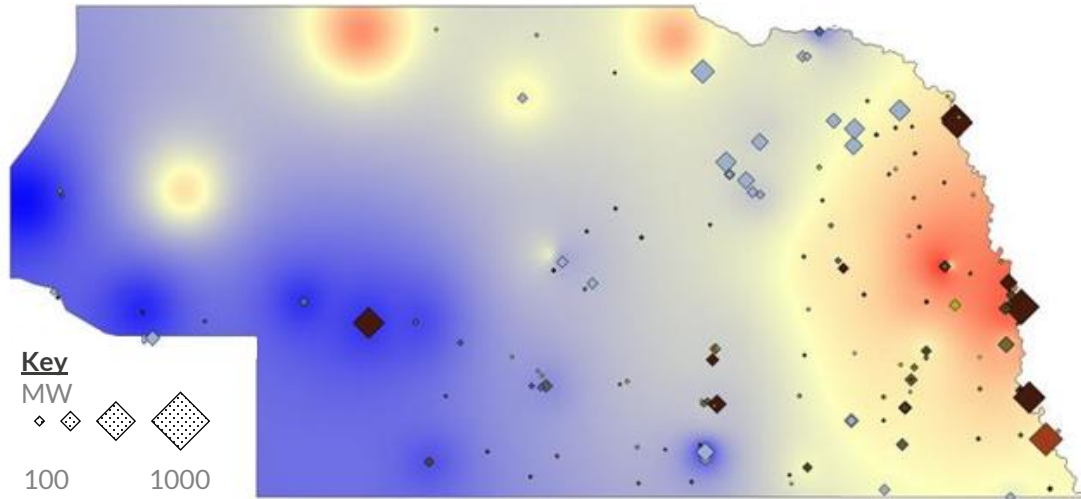
Connection to the North and the West

- The transmission lines in the north connects wind farms, including Grand Prairie (400MW) to serve the greater Omaha region.
- The high voltage lines in the west distribute power from Gerald Gentleman (1.3GW) to utilities across eastern and western Nebraska.

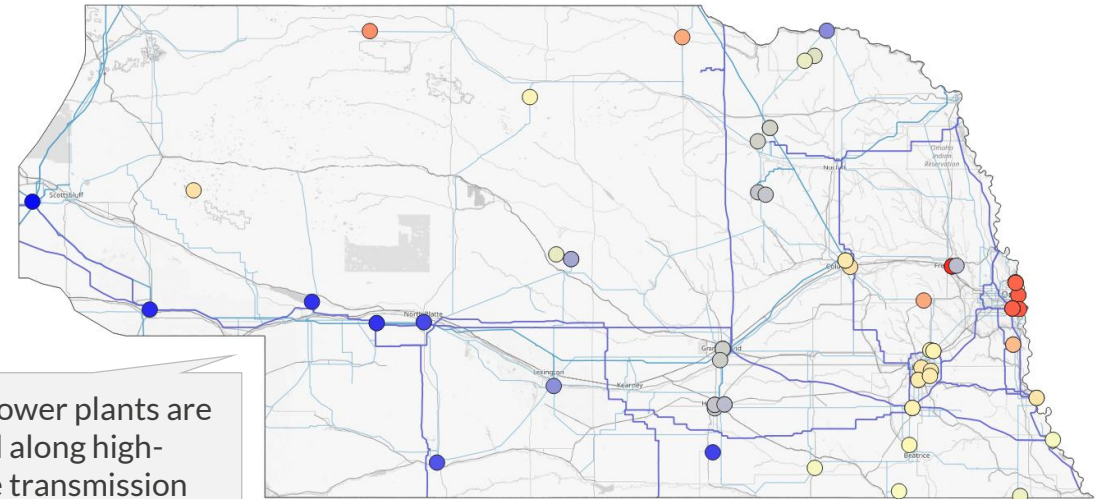
1) The map above only includes the portion of Nebraska within SPP's footprint.

Congestion does exist along Nebraska transmission lines, appearing as price differentiation between metro areas in the east and the rest of the state

Day-Ahead ATC price basis¹ heat map and generators, 2024
Color scale: \$/MWh (nominal); Generator size scaled by capacity in MW



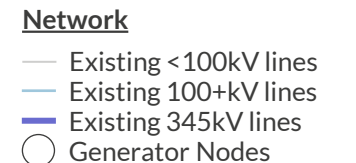
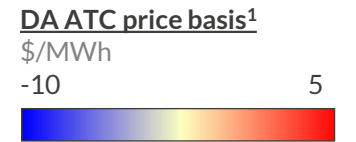
Day-Ahead ATC price basis¹ heat map and transmission, 2024
Color scale: \$/MWh (nominal)



I The hub to node basis is price difference between a node and the hub average. Blue indicates lower-than-average prices in the west and north; the east has higher-than-average prices.

II Persistent negative basis (blue) has been driven by concentrated wind generation and relatively low demand in northern and western Nebraska bringing down energy prices compared to hub average.

III Recurring high basis (red) has been concentrated around high demand metro areas, driven by congestion across lines from north and west, with higher-cost non-renewable generation meeting local demand.

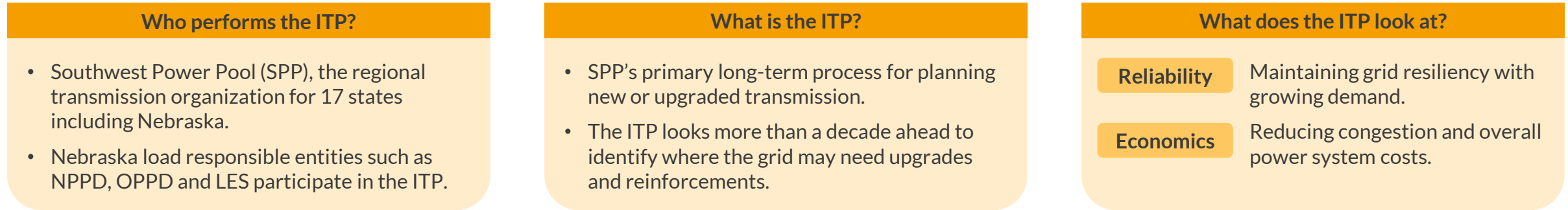


- Technology**
- ◆ Nuclear
 - ◆ Gas CCGT
 - ◆ Coal
 - ◆ Utility solar
 - ◆ Onshore wind
 - ◆ Offshore wind
 - ◆ Hydro
 - ◆ Peaking
 - ◆ Pumped storage
 - ◆ Battery storage

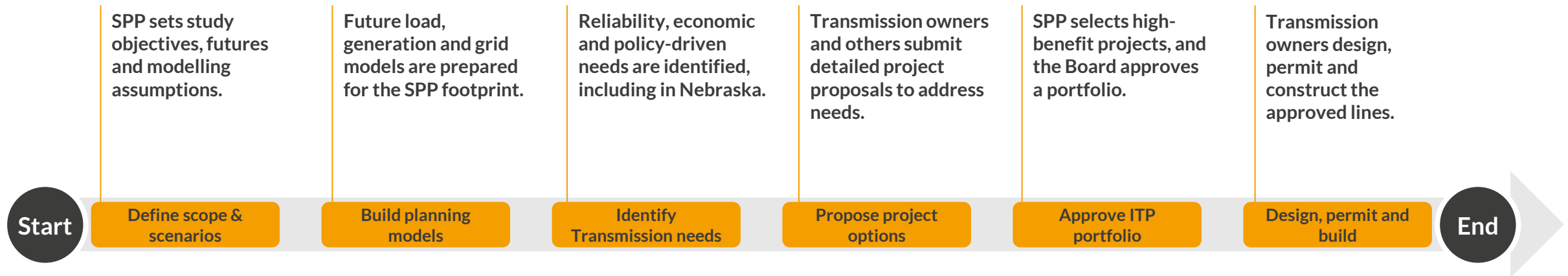
1) With respect to North Hub.

Alleviation of transmission congestion is planned through SPP’s regional Integrated Transmission Planning (ITP) process

High-level overview of the ITP process



Timeline of ITP process



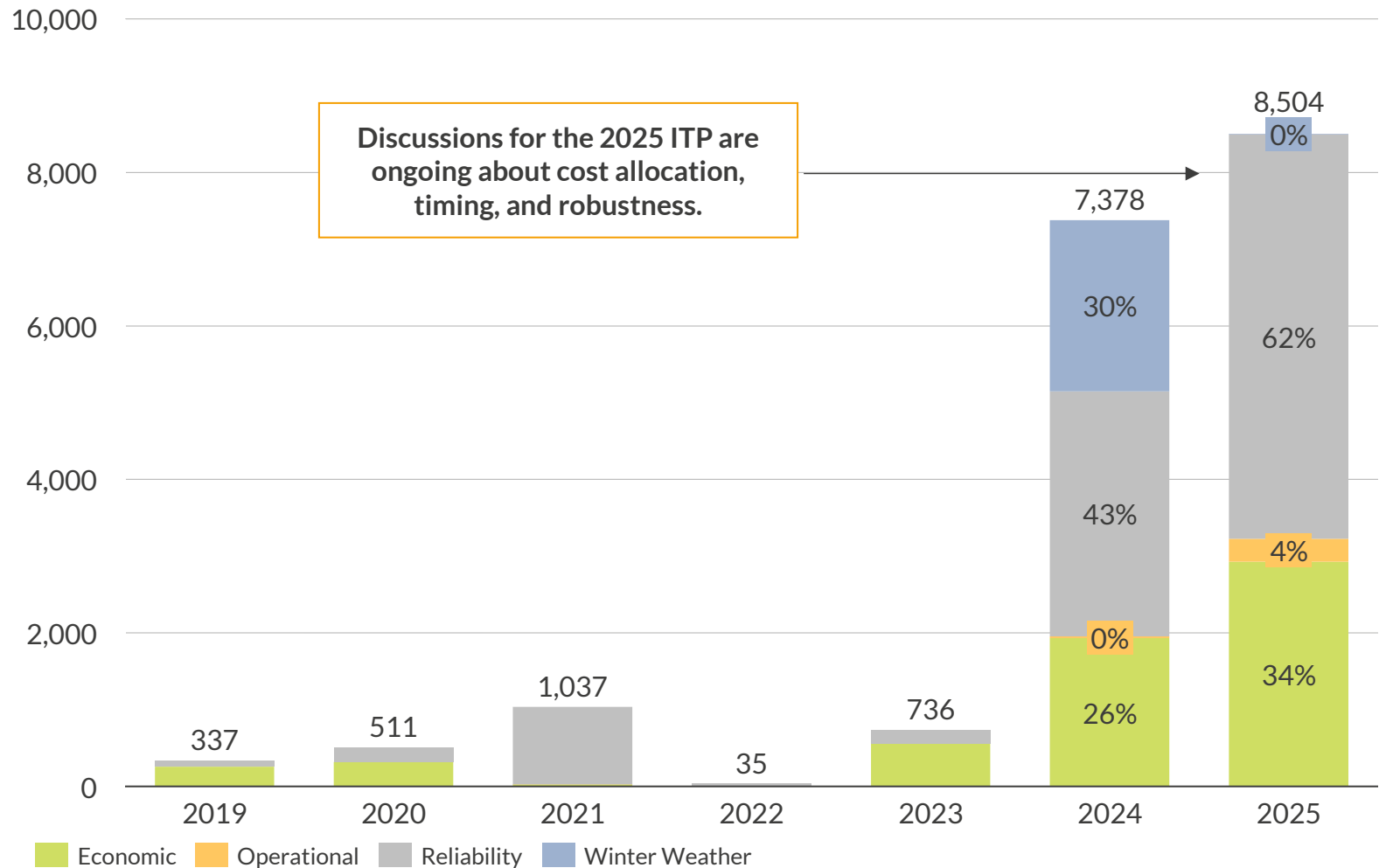
To alleviate existing congestion and in anticipation of high load growth, the size of SPP’s transmission investment has increased dramatically in recent years

Future 765 kV Backbone impact on Nebraska

The annual Integrated Transmission Plan (ITP) process has classified transmission upgrades as **reliability, economic, operational and winter weather** projects.

- 1 **Reliability projects**¹ serve to resolve a **system reliability criteria violation**, either due to irresolvable thermal overloads or short circuits under normal/contingency conditions.
- 2 **Economic projects** are projects where upgrades would resolve up to \$50,000/MW of congestion on the line (evaluated at year 2,5, and 10).
- 3 **Operational projects** are projects which require system reconfiguration consistently either to reduce congestion (economic) or ensure reliability.
- 4 **Winter weather projects** are determined by identifying elements that exceed their emergency ratings in the SPP winter weather models, which mimic Winter Storm Uri and Elliot conditions.

SPP ITP transmission projects budget by release year^{2,3,4}
\$ (millions, nominal)



1) Includes short circuit and general reliability projects. 2) Aggregated from final ITP reports for each year. New ITP process began with 2019 ITP. 3) Projects with dual designations were bucketed with the following hierarchy (with earlier in the list taking priority): Reliability, Winter Weather, Economic, Operational. 4) 2025 total includes all projects that received Notice to Construct as of December 2025. 5) SPS filed a revised cost estimate in June 2025, which SPP Board of Directors approved in September 2025.

Recent ITP cycles are already delivering Nebraska upgrades, with earlier projects now in service

2023 ITP¹: targeted upgrades around Nebraska load centers

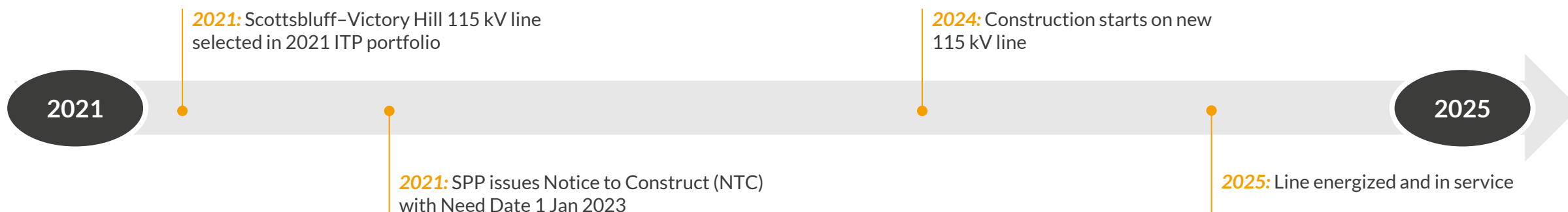
Project	Network owner	Role	Voltage (kV)	Need / ISD ³
Gerald Gentleman – Ogalla	NPPD	Economic	230	2023 / TBD
Fremont transformer	NPPD	Reliability	115/69	2025 / TBD
70th & Bluff – Sub 1214	LES/OPPD	Reliability	161	2025 / TBD

2024 ITP: Major Nebraska upgrades & north-south transfer paths

Project	Network owner	Role	Voltage (kV)	Need / ISD
Elm Creek – Tobias 345 kV new line	NPPD	Reliability	345	2028 / 2030
S3458 – S3740 345 kV Ckt2 new line	OPPD	Economic	345	2025 / TBD
Holt County – Antelope 345 kV new line	NPPD	Economic	345	2025 / TBD

Based on 2021, 2023, 2024 ITP and 2025 STEP Report, Nebraska upgrades move from ITP study and NTC² to in-service over roughly 4 years.

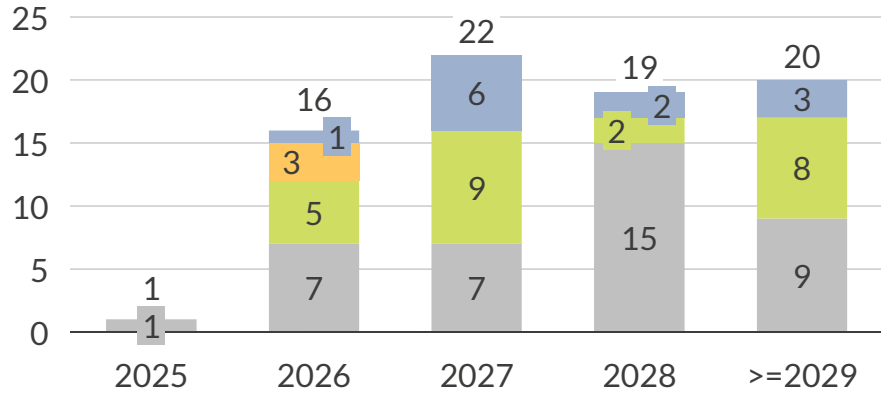
Example of 2021 ITP Line, now energized in 2025



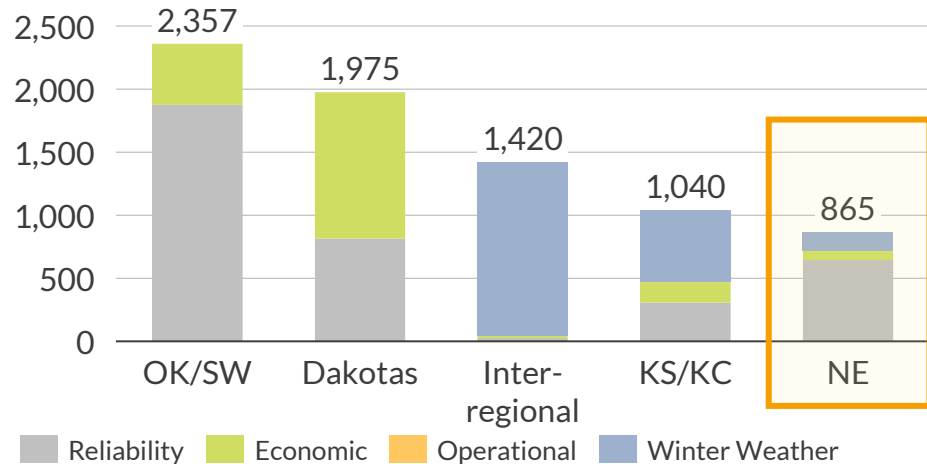
1) Projects shown are the three largest Nebraska-related upgrades in the 2023 ITP consolidated portfolio by engineering and construction cost. 2) NTC – Notice to Construct: a formal directive issued by SPP to the designated transmission owner to design, permit and build an approved transmission project. 3) Need / ISD. Need year is the first year SPP’s planning studies show the project is required to address reliability or economic needs. In-service date (ISD) reflects the year the line is expected to be built. Sources: Aurora Energy Research, SPP 2021 ITP report, SPP 2023 ITP report, SPP 2024 ITP report.

SPP’s 2024 ITP included over \$7bn in transmission upgrades, including \$865mn allocated to Nebraska projects

2024 ITP¹ project types² by projected in-service date
of projects



2024 ITP¹ project types² by footprint regions³
\$ millions (nominal)



SPP East general areas⁴



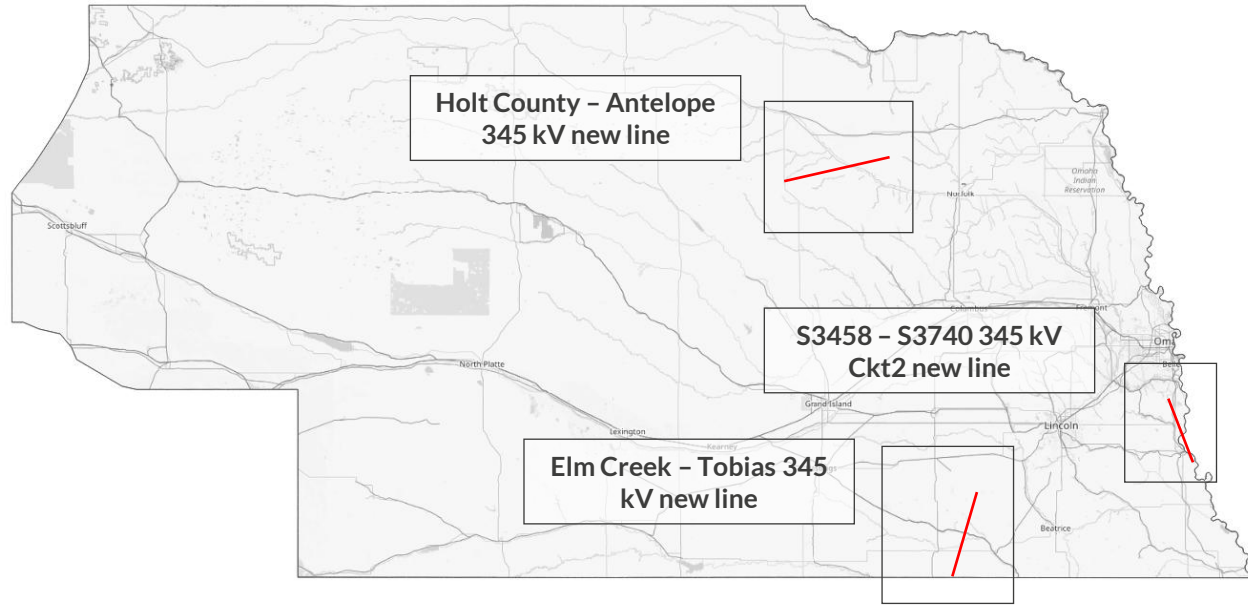
This map shows the eastern portion of SPP’s footprint, which includes Nebraska. SPP has expanded further westward in April 2026.

- The 2024 ITP includes 78 transmission projects totaling \$7.4 billion, with \$865 million allocated to Nebraska.
- Transmission projects are categorized based on reliability, economic, operational, or winter weather considerations. In Nebraska, most projects in the 2024 ITP were identified as reliability projects.
- In addition to Nebraska-based projects, certain projects in Kansas and the Dakotas will benefit Nebraska by increasing connectivity to neighboring regions.

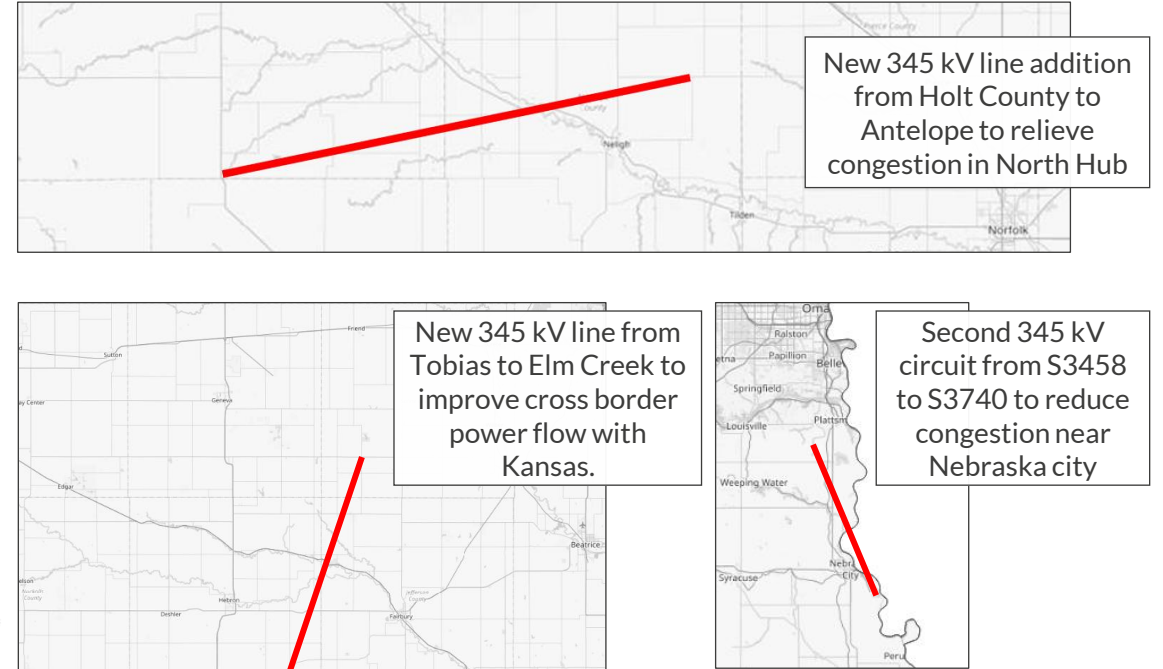
1) Integrated Transmission Plan. 2) Projects with dual designations were bucketed with the following hierarchy (with earlier in the list taking priority over later): Reliability, Winter Weather, Economic, Operational. 3) Project placement estimated based on listed transmission area, with projects that extended through transmission areas in different areas labelled “inter-regional”. Sources: Aurora Energy Research, SPP

2024 ITP prioritizes three projects to relieve congestion and support regional reliability in Nebraska

SPP 2024 Integrated Transmission Planning (ITP) elements map for Nebraska



Zoomed-in map of Nebraska with local transmission



Project	Network owner	Role	Cost (2025\$, million)	Need / ISD
Elm Creek – Tobias 345 kV new line	NPPD	Reliability	148.4	2028 / 2030
S3458 – S3740 345 kV Ckt2 new line	OPPD	Economic	98.6	2025 / TBD
Holt County – Antelope 345 kV new line	NPPD	Economic	67.1	2025 / TBD

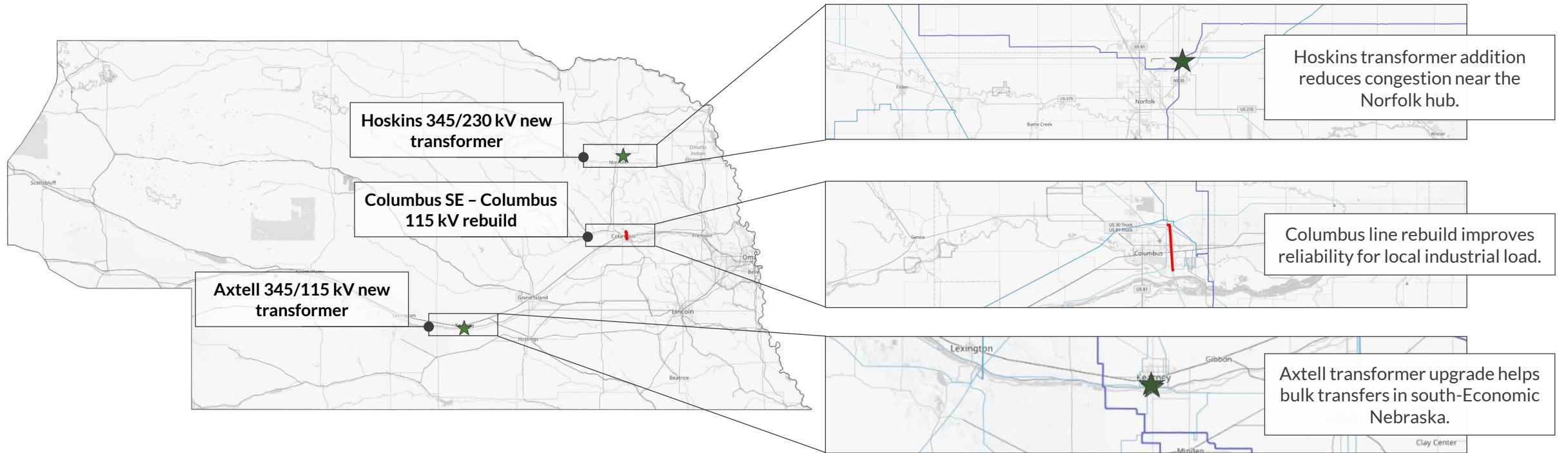
— Line upgrades or additions

1) Need year is the first year the project is required in planning studies to address identified reliability or economic needs. 2) In-service year (ISD) is when the project is expected to be built and available in the real system.

2025 ITP includes three NPPD projects to relieve congestion and support key Nebraska load centers

SPP 2025 Integrated Transmission Planning (ITP) elements map for Nebraska

Zoomed-in map of Nebraska with local transmission



Project	Network owner	Role	Cost (2025\$, million)	Need year ¹ / ISD ²
Columbus SE - Columbus 115 kV rebuild	NPPD	Reliability & economic relief	3.9	2026 / 2028
Axtell 345/115 kV new transformer	NPPD	Economic congestion relief	39.9	2033 / TBD
Hoskins 345/230 kV new transformer ³	NPPD	Economic congestion relief	18.9	2026 / 2030

Key — Existing <100kV lines — Existing 100+kV lines — Existing 345kV lines — New line ★ Upgraded Transformers

1) Need year is the first year the project is required in planning studies to address identified reliability or economic needs. 2) In-service year (ISD) is when the project is expected to be built and available in the real system. 3) The Hoskins project did not receive a notification to construct (NTC) as part of the 2025 ITP, meaning it is a likely candidate for inclusion in the 2026 ITP.

By the early 2030s, Nebraska's grid is expected to be significantly more robust when approved 345kV transmission projects are completed

How transmission upgrades impact Nebraska's grid

- New and upgraded lines remove bottlenecks on the network that limit the flow of electricity
- Improvements in the transmission network enable more low-cost generation (including new projects) to reach demand centers
- As load grows, Nebraska benefits from power moving more flexibly across the state and with neighboring states to meet demand
- Maintaining a robust transmission network is a vital part of grid operation, and line additions are a key aspect of keeping the electrical grid functioning reliably and efficiently

What transmission upgrades mean for prices

- Less congestion means fewer hours when local prices spike above the regional average
- Improving interconnection allows a larger pool of low-cost plants sets the price more often, which can reduce average wholesale prices, as otherwise more costly generators would have to run
- The cost of new infrastructure is ultimately passed onto consumers, but with increased demand, these costs should be spread across a broader base of ratepayers
- Utilities typically have established rates that ensure power users take on their fair share of costs involving new infrastructure, protecting other ratepayers

Taken together, load growth, new capacity and targeted transmission upgrades work to reduce congestion risk and support a more reliable, cost-efficient power system for Nebraska

The state regulatory environment and energy infrastructure funding pathways influence capacity and transmission buildout

1 Siting, permitting, and setback policies shape growth

The process of constructing electricity generation and transmission lines is a years-long process that involves assessing site feasibility, acquiring the necessary land, ensuring zoning and setback requirements are met, and more.

Transmission projects can present construction and permitting challenges due to the distance covered by these projects, adding a layer of complexity to the various federal, state, and local requirements.

Predictable, pro-growth regulatory regimes that include statewide baseline guidance and best-practice standards for new resources, preventing de facto bans while preserving meaningful local input, can address local concerns while enabling beneficial development with evidence-based standards and clear appeal and review mechanisms.

2 Funding pathways can unlock opportunities

Energy projects are massive undertakings and require significant capital investment to reach completion. There are various federal and state-level funding opportunities that can help alleviate some of the costs.

Federal funding can come from a variety of different sources, such as Department of Energy grants, federal-state fund matching, and tax credits for private projects are all avenues to improve a project's financial feasibility.

Taking full advantage of federal and state-level matching funding opportunities, as well as public-private partnerships and innovative financing tools such as state infrastructure banks and revolving funds, can help unlock new projects and alleviate cost pressure.

I. Executive summary

II. Power demand growth

1. US-wide context
2. Nebraska load environment
3. Expected growth
4. SPP market reforms

III. The need for new power generation in Nebraska

1. Existing generation mix in Nebraska
2. Capacity planning and generator interconnection
3. Policy and regulation

IV. Implications for transmission infrastructure

1. Existing transmission and constraints
2. SPP's transmission planning process
3. Planned transmission buildout

V. Gas-Electric Interconnection and Resilience

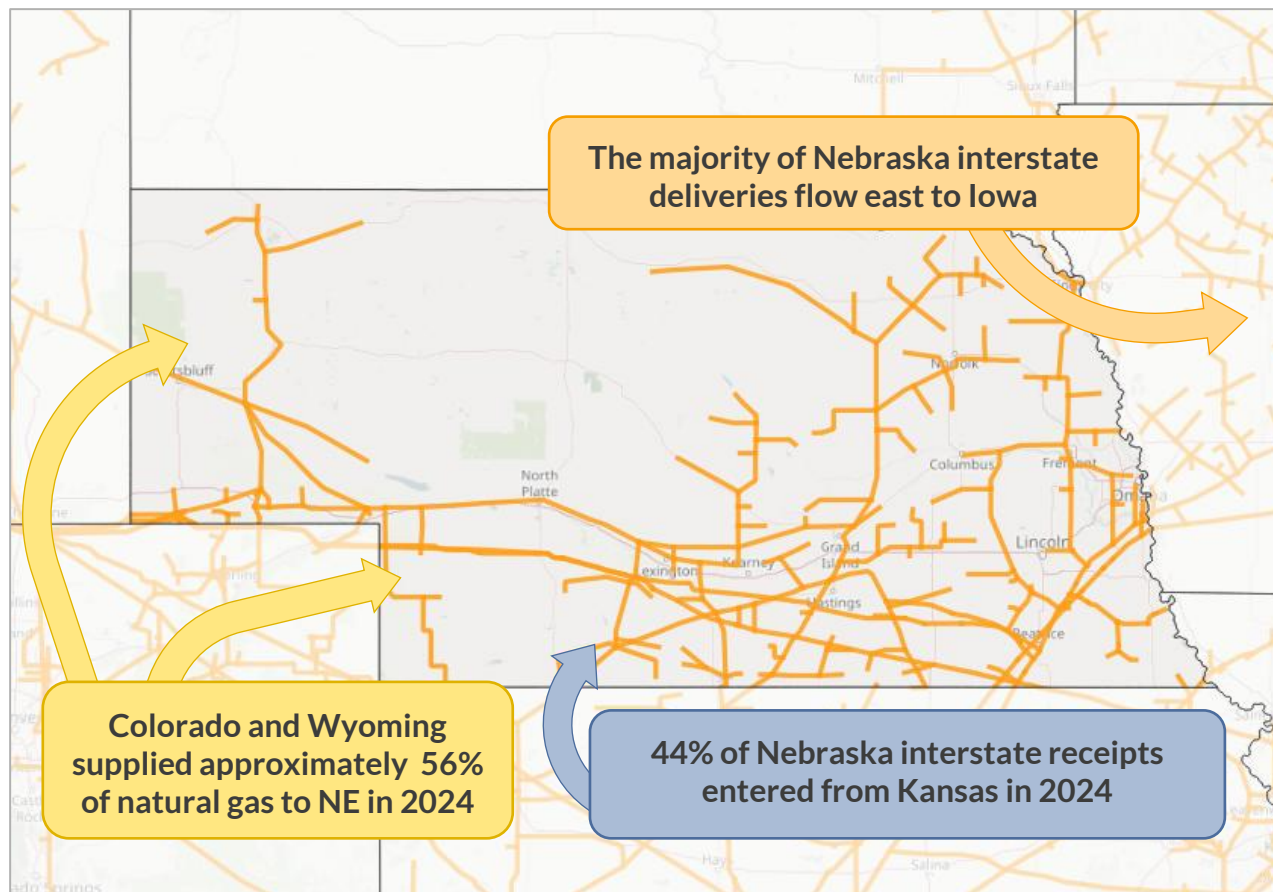
1. Gas infrastructure overview
2. Deliverability considerations
3. Gas-electric coordination

VI. Nebraska power market policy analysis

VII. Appendix

Interstate pipelines make Nebraska a transit state for gas and a hub for regional deliveries

Map of Nebraska and surrounding states' natural gas pipelines

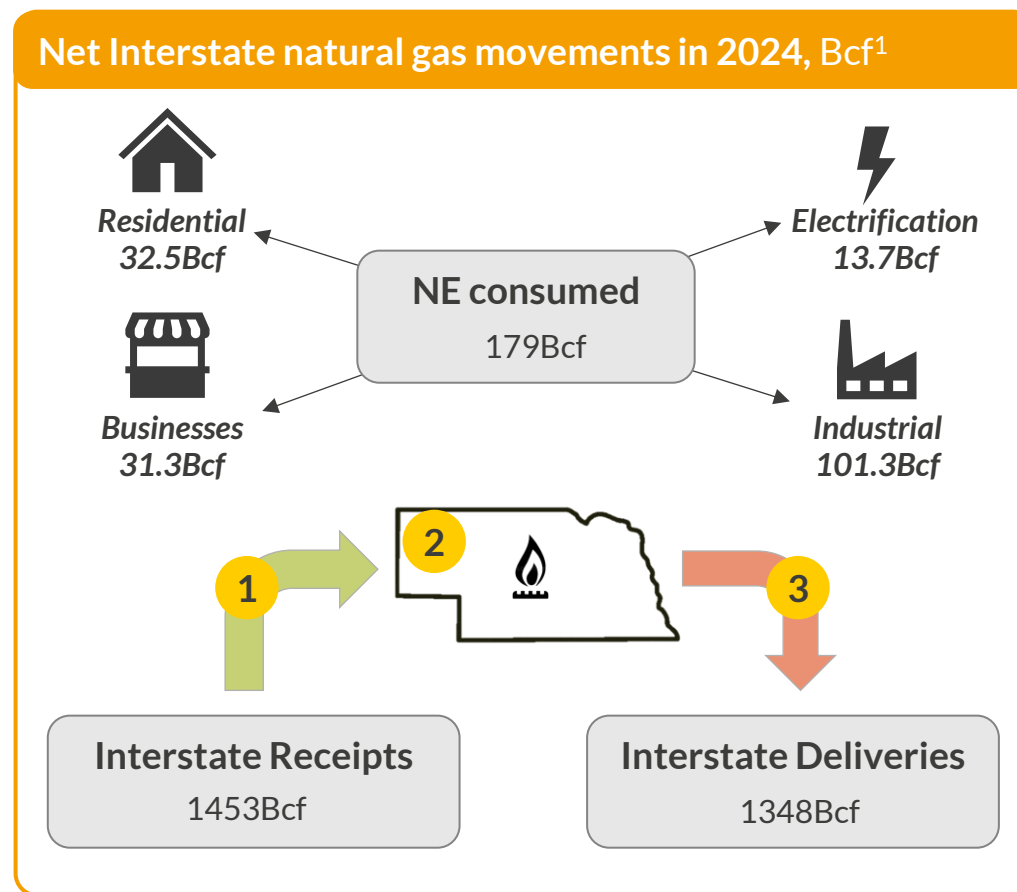


Network key

— Existing natural gas pipeline

1) Bcf = Billion cubic feet

Sources: Aurora Energy Research, EIA Natural Gas Net Interstate Receipts for Nebraska



Gas-powered generators lie at the nexus of the natural gas pipeline and electric grids; two systems with important interdependencies

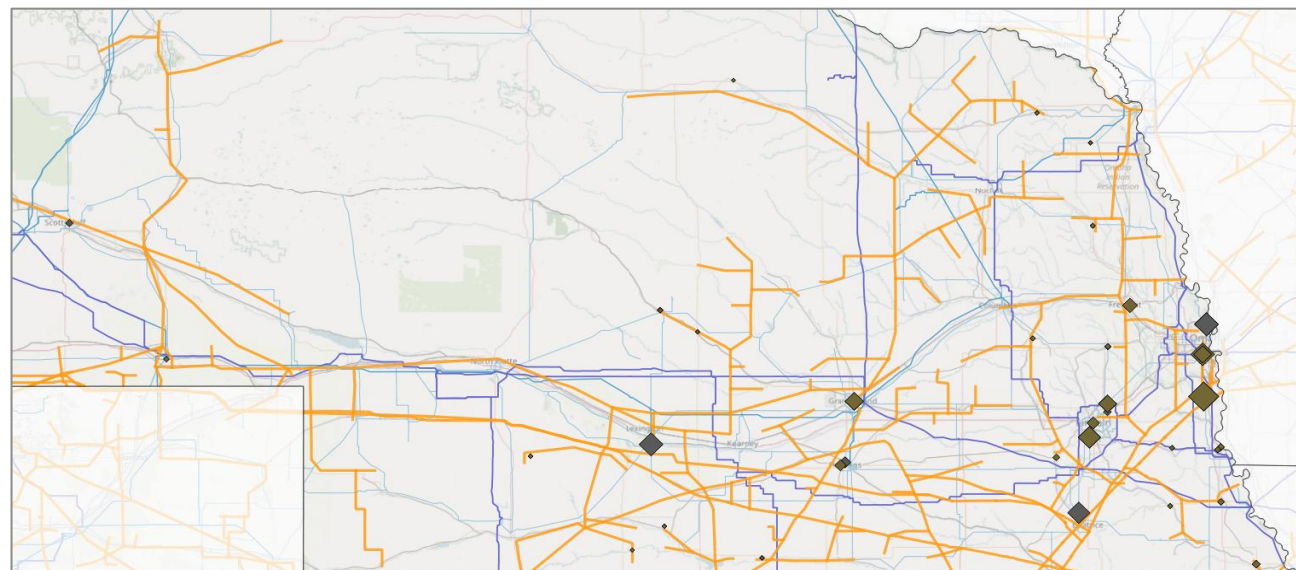
Map of Nebraska's major natural gas transmission pipelines¹ and high-voltage transmission lines overlaid with existing gas-fired power plants

Gas and electric interdependence

- Natural gas power plants need consistent fuel supply and pipeline deliverability to run in the hours they are dispatched
- Power plants are the largest consumer of gas nationally, and electric reliability depends on natural gas infrastructure to maintain fuel deliverability.
- Disruption in gas pipelines or electric transmission can limit power supply when during stress periods when electric demand is highest

Affordability & reliability

- Both electricity (public power cost-of-service) and natural gas (regulated tariffs) models are structured to prioritize reliability and reasonable rates



Nebraska's energy reliability is a factor of both electric and natural gas systems, which intersect at natural gas generators

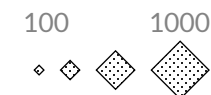
Technology key

◆ Gas CCGT ◆ Peaking

Network key

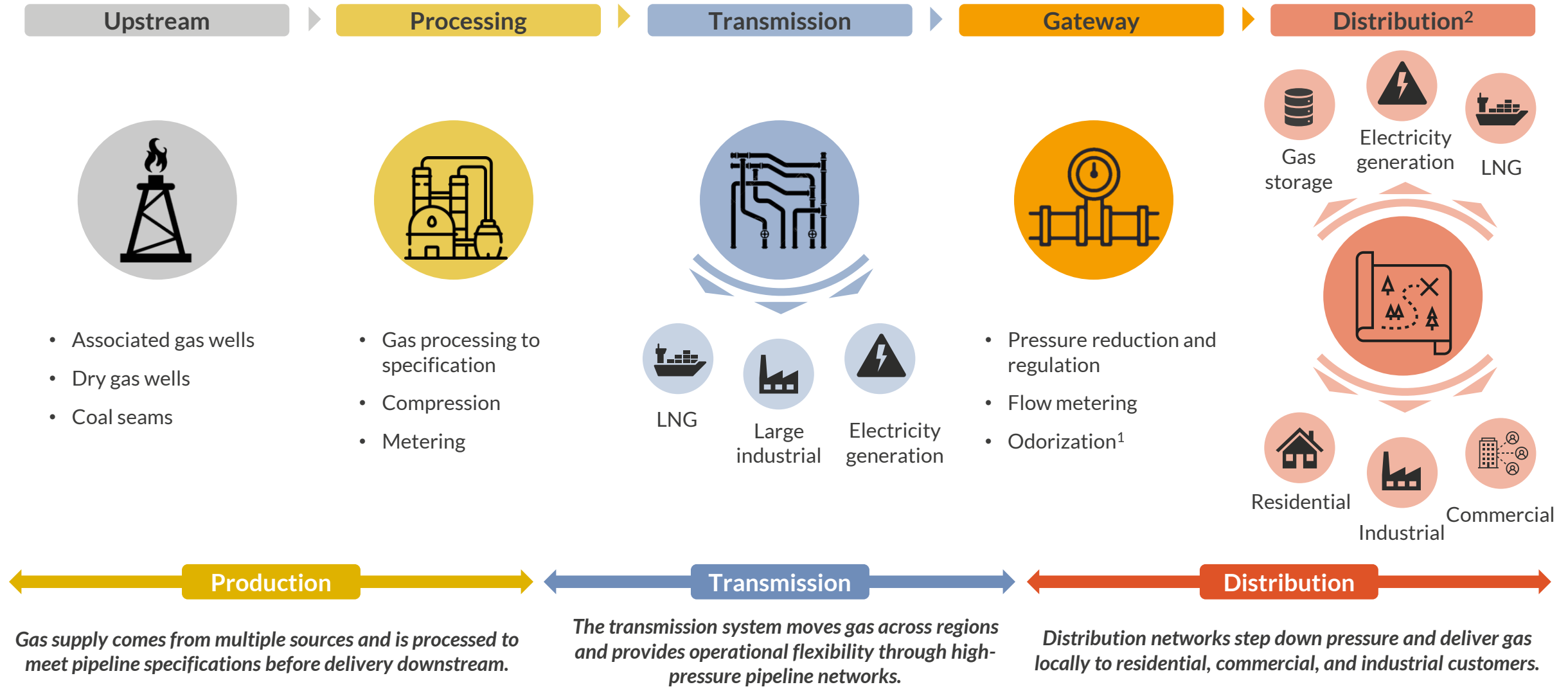
— Existing natural gas pipeline — Existing 345kV lines — Existing 100+kV lines

Key MW



1) Only natural gas pipelines owned by operators shown.

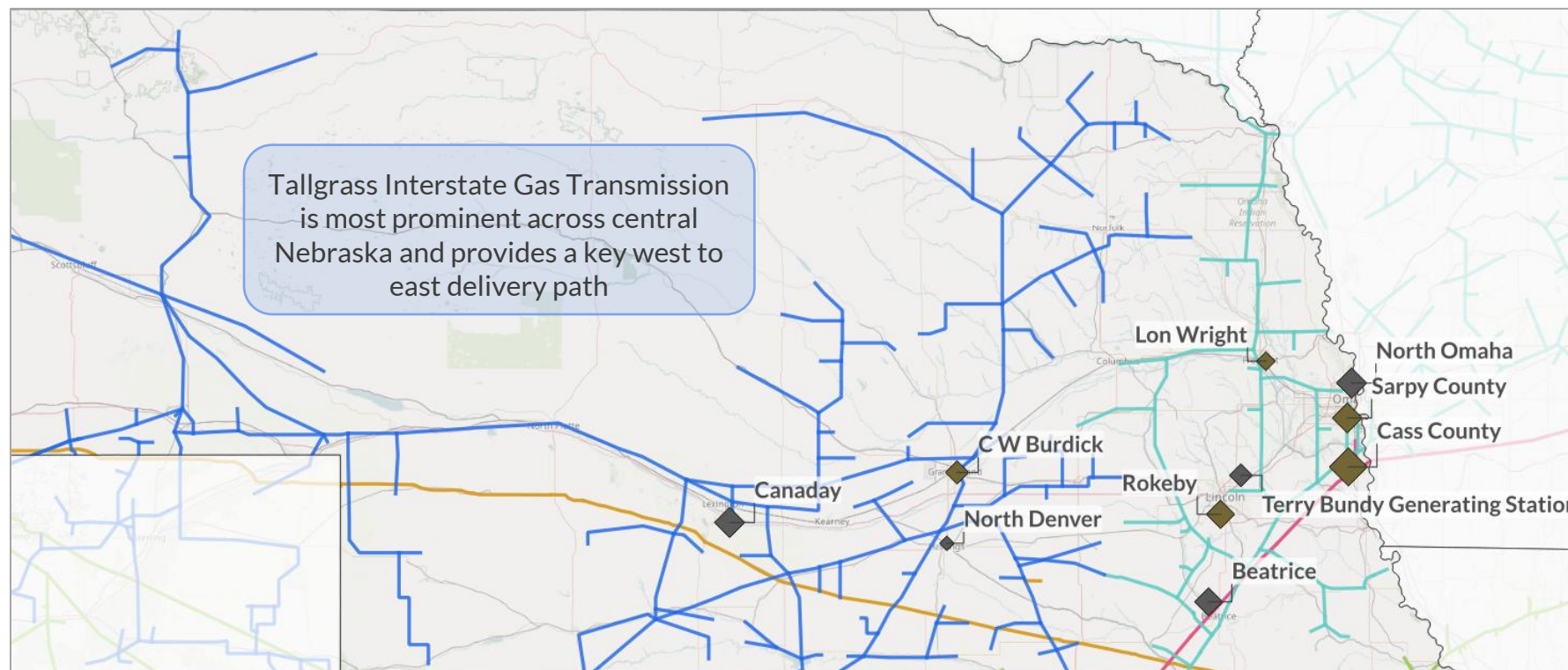
Pipeline flows depend on pressure management, and flexibility is shaped by system conditions



1) Odorization can also occur during distribution phase. 2) Natural gas power plants, industrial and liquified natural gas can receive flow in both transmission and distribution phases.

Nebraska's gas plants are supplied by a handful of major pipeline systems, and each plant's fuel options depend on which networks it can access

Map of Nebraska's largest gas plants¹ and the major interstate pipeline systems



Northern Natural Gas has a strong presence in eastern Nebraska and supports delivery into the Omaha and Lincoln area

Natural Gas Pipeline Company of America forms an important corridor across southern Nebraska and connects into plants in the southeast

Rockies Express Pipeline is mainly seen in southern Nebraska and functions as a through corridor that supports regional movements of gas

Key

MW

◆ 100 ◆ 1000

Gas Pipeline Operator

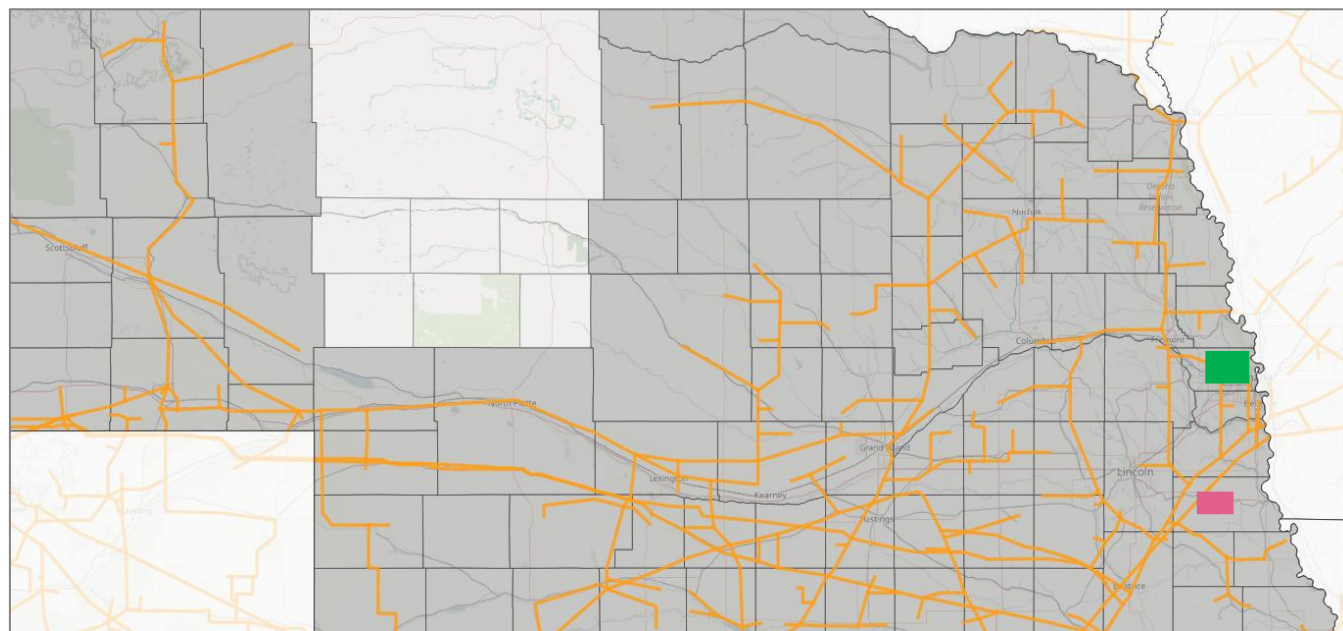
- Tallgrass Interstate Gas Transmission
- Northern Natural Gas Co
- Natural Gas PL Co of America
- Rockies Express Pipeline
- Southern Star Central Gas PL Co

In 2023, pipeline companies delivered 75% of the natural gas used for U.S. power generation, meaning many plants take gas directly from major pipelines rather than local utilities.

1) Only Nebraska's top 10 natural gas fired (sorted by MW nameplate capacity) are shown on the map.

Pipeline operators move gas across regions, while local gas distributors serve homes, businesses, farms, and industry across Nebraska

Map of local gas distributor service areas¹ and major natural gas pipelines in in Nebraska²



Pipeline Operators

- Pipeline operators transport natural gas across states and regions using high pressure transmission pipelines

Local gas distributors

- Local gas distributors deliver natural gas within a defined service area using lower pressure local networks.

Map Legend

- Existing Natural Gas Operator Pipelines
- Black Hills Energy
- Metropolitan Utilities District of Omaha
- Nebraska City Utilities

Natural gas supports a broad range of Nebraska end users



Residential

Supports household heating and essential energy service across Nebraska communities.



Businesses

Supports commercial operations and helps communities serve growing business demand.



Agriculture

Supports irrigation pivots, poultry operations, and other energy-intensive agricultural activity that is important to rural economies.



Industrial³

Supports large users and can help position Nebraska to attract investment, jobs, and long-term economic growth.

1) 3 largest local service providers by service territory size represented in map. 2) Service areas approximated to county region. 3) For energy production, approximately 25% of natural gas for power plants is provided by distributors, most is distributed directly by pipeline operators.

Sources: Aurora Energy Research, Black Hills Energy, Nebraska Public Service Commission

Nebraska's gas network is robust, and gas deliverability to power plants depends on three factors

Nebraska's gas system has performed strongly in recent years. The three factors below highlight how that reliability is maintained and where localized constraints can emerge in rare peak-stress hours.

1 Location and connectivity

- Deliverability depends on where a plant sits relative to major transmission pipelines and interconnect options
- Plants served by single laterals can be more exposed if flow is constrained

2 Priority and contracting

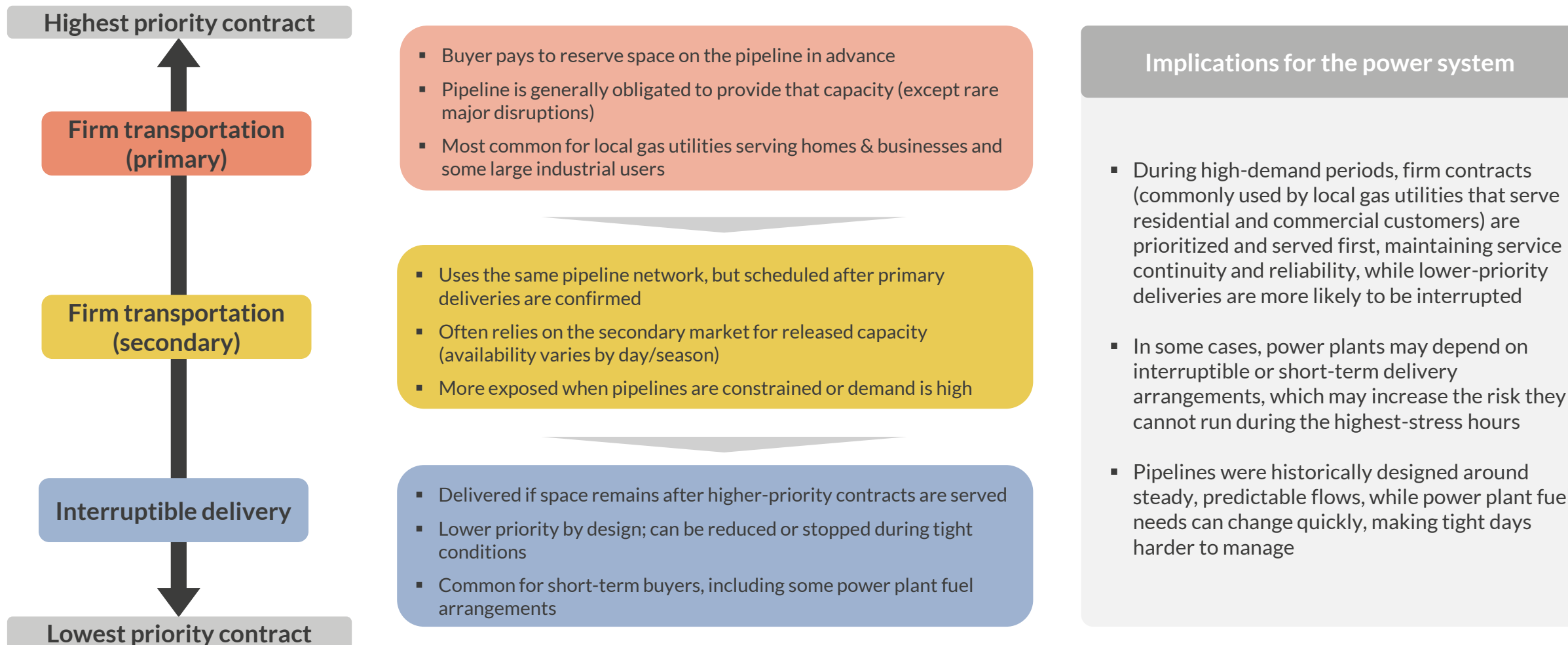
- During peak days, gas flows to customers based on contract terms and operational priority
- Gas utilities tend to utilize firm contracts that are higher-priority; power plants sometimes use interruptible contracts

3 Peak-stress hours

- Extreme cold, outages, or compressor issues can reduce pressure and available flow in a gas pipeline network
- Constraints are typically localized and driven by a small number of high-stress hours

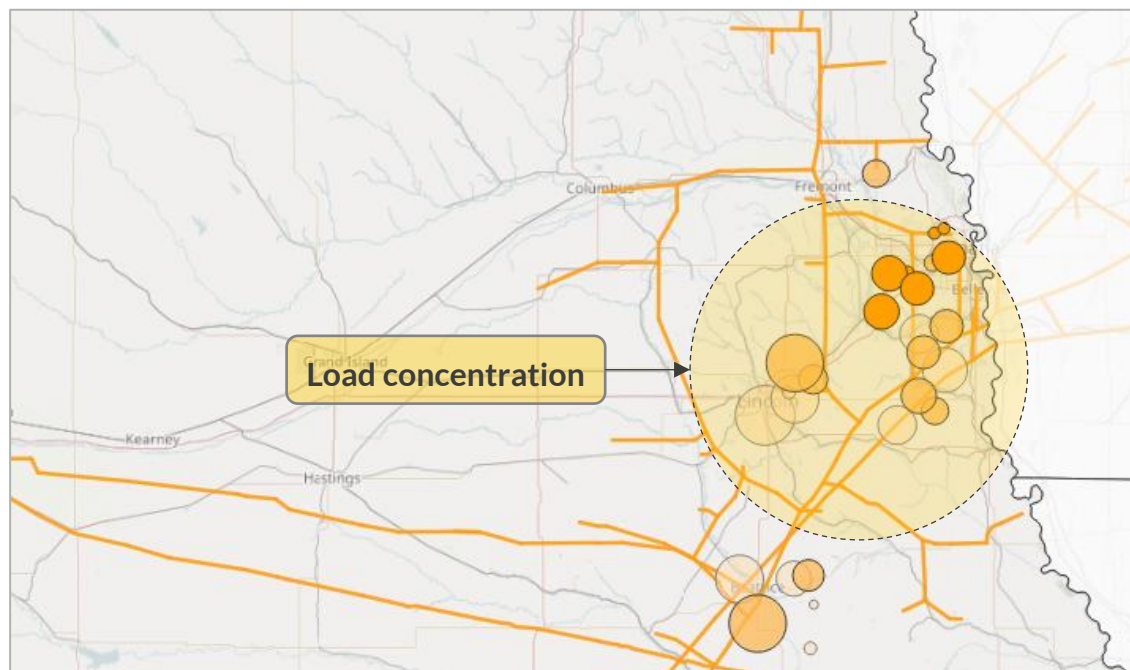
1) Fuel deliverability is the ability to deliver gas to a specific plant at the required volume and pressure in the hour it's needed.

Upstream gas flows are generally allocated based on contracting arrangements and firm contracts tend to be served first



Interconnection proposals often follow pipeline access, with deliverability a consideration for plant siting

Proposed¹ gas-fired additions by interconnection stage (IA-signed, Facility Study, DISIS) overlaid on nearby major Nebraska gas pipelines



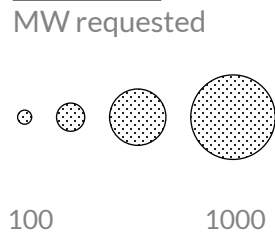
Queue stage

- Gas-powered plant with IA³ signed (most advanced)
- Gas-powered plant in Facility Study Stage (less advanced)
- Gas-powered plant in DISIS⁴ Stage (least advanced)

Network key

- Nearby natural gas pipelines

Bubble size



Key takeaways

- Queue activity is clustered—a small number of counties account for a disproportionate share of proposed gas capacity
- Proposals tend to track areas with a clearer path to pipelines, reducing siting and upgrade risk
- **Stage matters:** IA-signed projects are more advanced in the interconnection process, while earlier-stage requests have higher likelihood of withdrawal

Deliverability screening

- Plants often prioritize sites near load centers where gas and grid infrastructure are densest and operational coordination is simpler
- Plants can define a contingency fuel strategy, such as dual fuel (where feasible), backup supply, or demand response arrangements

1) Interconnection proposals' timelines and completion rates vary, and mapped locations may change as projects progress. 2) Interconnection Queue as of January 2026. 3) IA = Interconnection Agreement: The executed (signed) contract between the generation project and the transmission provider. 4) DISIS = Definitive Interconnection System Impact Study.

Sources: Aurora Energy Research, SPP

Like the electric system, oversight of natural gas in Nebraska is split across federal, state, and local bodies, each governing different parts of the value chain

Federal agencies oversee interstate pipelines, Nebraska agencies oversee retail service rules and intrastate safety, and local utilities manage distribution networks.

Federal oversight

- The Federal Energy Regulatory Commission reviews applications to construct and operate interstate natural gas pipelines under the Natural Gas Act
- Federal pipeline safety requirements are set under U.S. Department of Transportation rules
- Federal pipeline safety oversight for interstate gas pipelines sits with the federal Office of Pipeline Safety

Nebraska oversight

- The Nebraska Public Service Commission works with jurisdictional natural gas distribution companies to support safe and reliable service and administers state rules for retail gas utilities
- Nebraska Public Service Commission rules require utilities to include emergency curtailment plans in their tariffs and govern service area expansions
- Nebraska inspects and enforces pipeline safety regulations for intrastate gas pipeline operators through the Nebraska State Fire Marshal under certification by the federal Office of Pipeline Safety

Local and operator roles

- Local gas distributors deliver gas within defined service areas and operate local distribution networks
- Interstate pipeline operators transport gas long distances under tariffed services and contracted capacity
- City owned gas utilities and metropolitan utilities districts are treated differently from jurisdictional utilities under Nebraska definitions, which affects who regulates retail service in some areas

Why cross sector coordination can be challenging



Roles are split across multiple bodies



Gas and power planning runs on different timelines



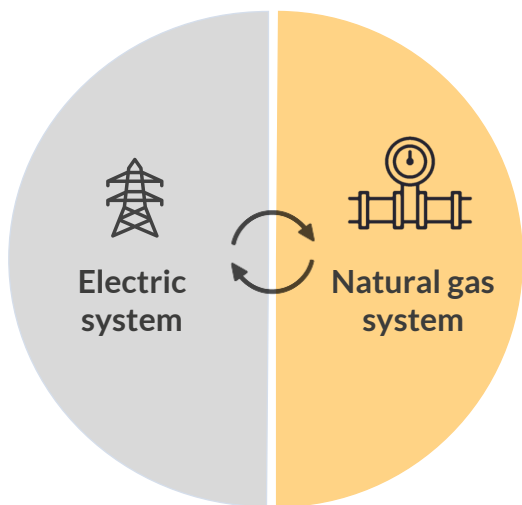
Infrastructure is optimized for different operating patterns



Fuel assurance responsibilities can be unclear in stress events

Nebraska can better support new investment and load growth through stronger gas and electricity coordination

What better coordination could achieve



Plan infrastructure for future growth

- Gas and electric planning should be aligned early so infrastructure is designed to support expected industrial growth, new load, and business expansion, not added only after constraints emerge.

Create a stronger coordination framework

- Nebraska can improve coordination across public power entities, natural gas utilities, and other regulators so infrastructure decisions better reflect shared economic development goals and long-term system needs.

Bring gas suppliers into economic development planning

- Aligning gas and electric day ahead nominations, so that Day-Ahead wholesale electricity bids occur after providers know their gas nominations, would elevate market clarity and streamline operations.

Earlier coordination among electric utilities, natural gas utilities, pipeline operators, suppliers, regulators, and economic development stakeholders can help Nebraska plan infrastructure ahead of need. That can better position the state to serve new industrial load, support business expansion, and attract investment with confidence in long-term energy deliverability.

I. Executive summary

II. Power demand growth

1. US-wide context
2. Nebraska load environment
3. Expected growth
4. SPP market reforms

III. The need for new power generation in Nebraska

1. Existing generation mix in Nebraska
2. Capacity planning and generator interconnection
3. Policy and regulation

IV. Implications for transmission infrastructure

1. Existing transmission and constraints
2. SPP's transmission planning process
3. Planned transmission buildout

V. Gas-Electric Interconnection and Resilience

1. Gas infrastructure overview
2. Deliverability considerations
3. Gas-electric coordination

VI. Nebraska power market policy analysis

VII. Appendix

Stakeholder interviews provided insight into policy impacts on Nebraska's energy infrastructure development

Context and Methodology

- The Aurora team conducted several interviews with key stakeholders across the Nebraska energy infrastructure landscape, including private developers and investors, public power utilities, industrial energy consumers, and professional advisors.
- Through these discussions, stakeholders shared their views on the driving forces, challenges, and opportunities for public policy to support energy infrastructure development and economic growth in Nebraska.
- Stakeholder discussion topics included: (i) the challenges and pain points impacting energy infrastructure development; (ii) the advantages and challenges facing Nebraska compared to other states; (iii) regional differences in energy infrastructure development opportunities within Nebraska, (iv) the impact of changes to the legal and policy framework on project development; (v) considerations for development of large industrial loads.
- Interviews were conducted on an anonymized basis in order to facilitate a free, open, and candid discussion.

Overview of Findings

- The following section captures the distilled insights, key themes, and takeaways from the stakeholder discussions.
- These findings represent the viewpoints, experiences and analyses of stakeholders and not those of Aurora Energy Research.
- These findings reflect the key themes that came across from the entirety of stakeholder discussions, and do not purport to reflect every viewpoint shared by every stakeholder.

Stakeholder interviews revealed four key themes

Across the stakeholders in Nebraska's power market, the following trends were identified...

1

Statewide leadership is essential

State-level stewardship is vital for Nebraska to attract energy investment to facilitate economic development

2

Local permitting challenges can impede project development

Local permitting presents one of the largest uncertainties and bottlenecks in development, often hindering investment

3

Attractive investment environment

Nebraska has certain competitive advantages that help generate interest in development of energy projects in Nebraska

4

Public power model advantages and opportunities

The public power model represents a strategic advantage for the state and brings distinct opportunities and responsibilities

1 State-level stewardship is vital for Nebraska to attract energy investment to facilitate economic development (1/2)

What we heard from stakeholders:

Electricity plays a pivotal role in enabling economic development

- Economic development in numerous sectors is dependent on available electricity. Businesses highlighted how vital access to energy is across industries. A large load user shared that one of their biggest questions when developing was “How quickly can we get power?”
- Providing energy to support large economic development projects is not as easy as it may seem. One public power utility remarked, “People want to build here, build quickly, and plug in overnight—but they don’t understand what it really takes to get energy.”

Many states are vying for a limited number of new growth opportunities

- States are jockeying for a limited pool of opportunities, particularly for rural areas. One local professional advisor commented, “the best tax relief is growing the base” and noted that energy projects can offer multimillion-dollar additions to the tax base in rural Nebraska counties.
- Siting projects is not a decision that developers take lightly. They weigh their options and consider all factors. A developer posited, “Why would we want to invest... when a state across the river is more friendly?”, underscoring the importance of a growth-friendly environment.

Statewide leadership essential to drive energy investment and economic growth

- Stakeholders consistently reiterated the value of statewide leadership. They noted that this stewardship can guide action from public and private entities at the state and local level while signaling to the market that Nebraska is eager to take advantage of growth opportunities.
- One public power utility noted, “The state needs an active, thoughtful, cohesive, economic strategy... it needs that kind of leadership.” Another stakeholder noted, “This isn’t about Republican or Democrat, right or left, renewables or not, it’s about growing the economy of our state and providing tax relief.” A developer remarked, “This is a state-wide problem and we need a state-wide solution.”

1 State-level stewardship is vital for Nebraska to attract energy investment to facilitate economic development (2/2)

Electricity plays a pivotal role in enabling economic development	Many states are vying for a limited number of new growth opportunities	Statewide leadership essential to drive energy investment and economic growth
<ul style="list-style-type: none"> Energy is becoming an increasingly primary concern for industry as growth continues to stress the electricity system It is important to find a way to enable economic growth while continuing to provide reliable, affordable electricity to Nebraskans Continued economic growth will rely upon increased generation to meet the future demand for electricity 	<ul style="list-style-type: none"> An “arms race” is occurring. States are trying to position themselves as the ideal location for economic growth An industrial energy consumer expressed that certain elements of Nebraska’s large load tax framework were historically competitive, but recently other states have been offering more attractive tax advantages States must balance attracting industry with ensuring that new industry is helping the community and building the tax base 	<ul style="list-style-type: none"> Stakeholders expressed a desire for clear, well-defined objectives for Nebraska energy development coming from the highest levels of state leadership A state-wide economic development playbook could help communicate the attractiveness of Nebraska to businesses while providing guardrails to ensure that future growth is organized and measured If successful, the economic benefits and increased tax revenue can materially help Nebraskans, particularly in rural areas
Takeaways		
<ul style="list-style-type: none"> Electricity availability and development makes economic development possible 	<ul style="list-style-type: none"> A favorable and predictable tax and regulatory environment can make Nebraska competitive with other states 	<ul style="list-style-type: none"> A consistent statewide strategy and policy framework, with clearly defined objectives and buy-in from state-level officials, can facilitate energy investment and unleash economic growth

2 Local permitting processes can present a challenge for development of utility scale power and industrial projects (1/2)

What we heard from stakeholders:

Municipal and county boards wield significant power in permitting

- Counties in Nebraska can unilaterally strike down an energy project, even if it would be beneficial to the state. A utility-scale developer shared that they felt this made project development an uphill battle: “If [the county] can’t reach a decision, the default is ‘no.’”
- Utility-scale developers expressed the challenges of staying on-schedule and on-budget without clear guidelines, timelines or oversight for county permitting processes, creating uncertainty that ultimately makes Nebraska less attractive for development.

County boards often do not have the time or expertise to analyze large project proposals

- Stakeholders reiterated how lengthy and technical energy project proposals are, which makes the county boards’ job difficult. A utility-scale developer noted, “It’s an unreasonable ask for counties to approve things where they do not have resources.” Another observed, “You wouldn’t ask a county commissioner to tell you the optimal cabin pressure in a 747. Why should they tell you the pressure in a pipeline?”
- Developer stakeholders suggested that the state could support counties with technical resources to help with energy project permitting.

Regional differences make some areas viewed as more favorable for development

- Different parts of Nebraska are perceived to have varying interest in new development, particularly when it comes to utility-scale power projects. This can inject another layer of uncertainty for economic development projects.
- Developers’ main objectives were clear objectives to meet and predictable timelines. One utility-scale developer stated that they were “happy to pay a fee – just tell us the number. It’s not the money; it’s the uncertainty that kills projects.”

2 Local permitting processes can present a challenge for development of utility scale power and industrial projects (2/2)

Municipal and county boards wield significant power in permitting

- Local boards have the power to deny or indefinitely sit on conditional use permits, without a clear playbook, timeline, or criteria for developers to meet
- Developers might not fight an unfavorable ruling because litigation is costly and time-consuming
- Developers feel that the default response of county boards is often “no”, partially where the benefits of development are not clear and the intricacies and unfamiliarity can be daunting

County boards often do not have the time or expertise to analyze large project proposals

- Electricity projects are highly technical and require expertise to review
- Municipal and county boards have multiple priorities to balance and often do not have adequate time or resources to evaluate utility scale power projects
- Without clear objectives or timelines for county review, the uncertainty can stifle projects and discourage economic development

Regional differences make some areas viewed as more favorable for development

- Regional differences, or perceived differences, in friendliness to utility-scale project development can drive investment to specific areas in the state
- Developers express a desire to be a partner with communities, and identifying counties that are receptive to development can streamline the process
- Developers noted the importance of keeping projects on-schedule, highlighting a desire to focus on counties that want to welcome development

Takeaways

- Unpredictability and uncertainty with local permitting processes can deter and hinder economic development

- Counties often do not have the time or expertise to analyze projects, and would benefit from state-level resources to support project review and help address local concerns

- Voluntary programs, where counties can adopt favorable zoning laws in exchange for higher nameplate capacity taxes and state grants, can facilitate investment

3 Nebraska has a handful of key competitive advantages that has led to significant interest in development in the state (1/2)

What we heard from stakeholders:

Nebraska offers access to cheap, reliable energy and other benefits

- Nebraska has done a great job of maintaining low power prices while also staying reliable. A public power utility shared that “rates and reliability are the two top selection criteria” that developers have expressed make Nebraska attractive for investment.
- Nebraska also enjoys other benefits. Two common factors that developers shared were the importance of land and workforce availability; Nebraska scored well in these categories.

Nebraska’s tax structures have attracted development interest

- Nebraska’s nameplate capacity tax, in which wind and solar projects are taxed based on project size, garnered a lot of positive feedback from utility scale-developers for its simplicity and predictability.
- Other tax regimes have been competitive historically but may lag behind other states that are pursuing new development more aggressively. A large load user remarked that “[Nebraska’s] programs are becoming less competitive relative to other states.”

Being part of SPP is a boon for Nebraska

- SPP has high wind penetration and is forecasted to have continued growth in wind and solar generation. For companies with sustainability goals, this is a major factor. A large load user highlighted the value of SPP’s “abundant renewable, low-carbon footprint energy.”
- SPP has adopted innovative market reforms, including for generator interconnection and large load interconnection, which make it attractive to economic development and energy infrastructure projects.

3 Nebraska has a handful of key competitive advantages that has led to significant interest in development in the state (2/2)

Nebraska offers access to cheap, reliable energy and other benefits	Nebraska's tax structures have attracted development interest	Being part of SPP is a boon for Nebraska
<ul style="list-style-type: none"> Energy availability, reliability, and affordability, are important considerations for companies examining potential development sites. Nebraska is viewed as strong in all these categories Nebraska utilities have helped maintain reliable, affordable electricity service, which supports business continuity and economic growth Energy is not the only input to successful economic growth. Nebraska's availability of affordable land attracts developers 	<ul style="list-style-type: none"> Nebraska taxes renewable projects through a nameplate capacity tax with a flat rate based on project size. Developers appreciate the simple structure and the benefit to communities is easily definable Similarly, defined tax advantages for large load developers has garnered interest in Nebraska historically Stability is key for investment decisions, and proposed changes to tax structures have created uncertainty that is viewed as a future investment risk 	<ul style="list-style-type: none"> SPP has among the highest renewable penetration in the country, which makes it a desirable location for development that seeks to limit its carbon footprint Additionally, SPP is well interconnected with other regions, with Nebraska positioned in the center of SPP SPP is pursuing market design changes and improvements to bring more generation online and support large loads

Takeaways

<ul style="list-style-type: none"> Nebraska utilities have helped support economic growth by providing affordable, reliable electricity that is attractive to new investment 	<ul style="list-style-type: none"> Clearly defined, predictable tax structures with long-term stability are beneficial to attracting large economic development projects 	<ul style="list-style-type: none"> Inclusion in SPP helps unlock investment and enables public power utilities to advocate within SPP stakeholder processes
---	---	--

4 In Nebraska, the public power model represents a strategic advantage and brings distinct opportunities and responsibilities (1/2)

What we heard from stakeholders:

Nebraska utilities are focused on supporting growth while maintaining affordable, reliable power

- Stakeholders indicated that Nebraska utilities are focused on delivering reliable, affordable power to customers while supporting beneficial economic development.
- Utilities described economic development as aligned with their core mission, alongside reliability and affordability objectives. One utility noted, “We view economic development as part of our mission.”

In some areas, public power and private investment have led to fruitful partnerships

- Some private developer stakeholders expressed a positive, mutually beneficial relationship with public power utilities. One large load developer noted that a public utility was supportive of the developer “self-supplying”, a process in which a load user brings its own power.
- Some utility-scale developers, particularly wind developers, also cited positive relationships with utilities that led to a favorable development environment and support with local permitting.

Certain private developers expressed a desire to play a more meaningful role within Nebraska’s energy ecosystem

- Some renewable and battery developer stakeholders highlighted difficulties in trying to develop private energy projects in Nebraska. These stakeholders expressed challenges in demonstrating the value of private investment to complement public power utilities.
- Private developers felt that their ability to invest private capital in innovative new technologies could ultimately benefit Nebraskans, who could benefit from new innovations without public power utilities risking public money on new technologies.

4 The public power model represents a strategic advantage for the state and brings distinct opportunities and responsibilities (2/2)

Nebraska utilities support growth while maintaining affordable, reliable power	In some areas, public power and private investment have led to fruitful partnerships	Certain private developers expressed a desire to play a more meaningful role
<ul style="list-style-type: none"> Stakeholders emphasized that Nebraska utilities support economic development while continuing to prioritize affordability and reliability for customers Utilities' focus on rate stability and dependable service helps make Nebraska attractive for business investment and expansion Together with Nebraska's diverse energy resource mix, this has helped Nebraska maintain competitive power prices 	<ul style="list-style-type: none"> Some developers expressed positive working relationships with the public power utilities Effective partnerships have led to efficient development and operation of various assets that bring new power and added reliability to the state's grid An industrial power user indicated a strong partnership with its public power district, including a self-supply option that the utility supported 	<ul style="list-style-type: none"> Private developers would like to support the public power model by taking on risk with their own capital in areas where utilities may have a lower risk appetite Some renewable and battery developers, indicated room for growth in mutual understanding and alignment with public power utilities Some developers expressed the concern that Nebraska could fall behind other states in the adoption of innovative technologies like grid-scale batteries
Takeaways		
<ul style="list-style-type: none"> Nebraska utilities are supporting economic growth while continuing to focus on affordability and reliability for customers 	<ul style="list-style-type: none"> Public power and private investment can lead to positive partnerships where there are mutually beneficial relationships 	<ul style="list-style-type: none"> Nebraskans can benefit from incorporating private investment together with public power to bring economic development to the state

Key takeaways from stakeholder interviews

<p>1</p> <p>State-level leadership</p>	<p>Electricity availability and development makes economic development possible</p> <p>A favorable and predictable tax and regulatory environment can make Nebraska competitive with other states</p> <p>A consistent statewide strategy and policy framework, with with clearly defined objectives and buy-in from state-level officials, can facilitate energy investment and unleash economic growth</p>
<p>2</p> <p>Local permitting challenges</p>	<p>Unpredictability and uncertainty with local permitting processes can deter and hinder economic development</p> <p>Counties often do not have the time or expertise to analyze projects, and would benefit from state-level resources to support project review and help address local concerns</p> <p>Voluntary programs, where counties can adopt favorable zoning laws in exchange for higher nameplate capacity taxes and state grants, can facilitate investment</p>
<p>3</p> <p>Attractive investment environment</p>	<p>Nebraska utilities' achievements in building an affordable energy system in Nebraska helps to attract investment</p> <p>Clearly defined, predictable tax structures with long-term stability are beneficial to attracting large economic development projects</p> <p>Inclusion in SPP helps unlock investment and enables public power utilities to advocate within SPP stakeholder processes</p>
<p>4</p> <p>Public power model opportunities and responsibilities</p>	<p>Nebraska utilities are supporting economic growth while continuing to focus on affordability and reliability for customers</p> <p>Public power and private investment can lead to positive partnerships where there are mutually beneficial relationships</p> <p>Nebraskans can benefit from incorporating private investment together with public power to bring economic development to the state</p>

I. Executive summary

II. Power demand growth

1. US-wide context
2. Nebraska load environment
3. Expected growth
4. SPP market reforms

III. The need for new power generation in Nebraska

1. Existing generation mix in Nebraska
2. Capacity planning and generator interconnection
3. Policy and regulation

IV. Implications for transmission infrastructure

1. Existing transmission and constraints
2. SPP's transmission planning process
3. Planned transmission buildout

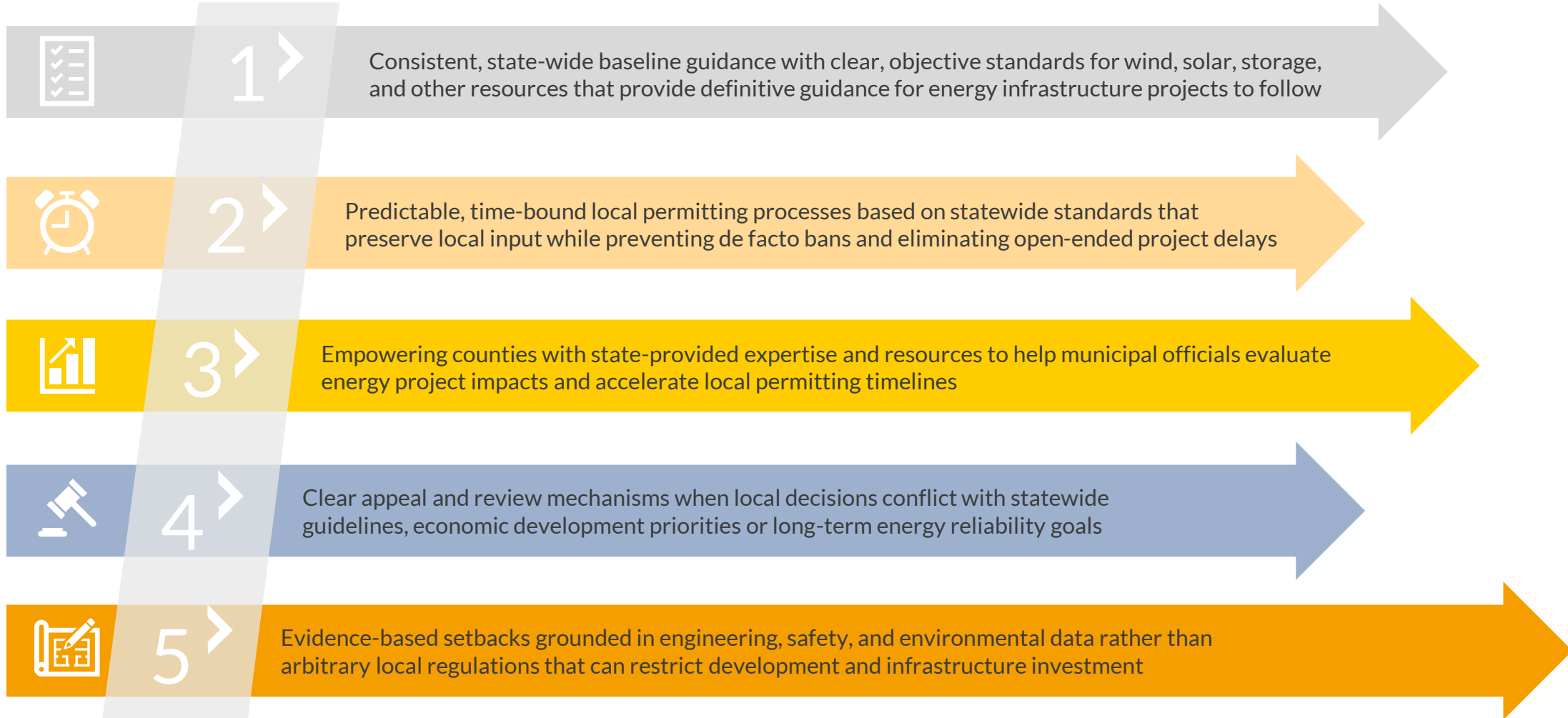
V. Gas-Electric Interconnection and Resilience

1. Gas infrastructure overview
2. Deliverability considerations
3. Gas-electric coordination

VI. Nebraska power market policy analysis

VII. Appendix

Stakeholders provided several suggestions to streamline Nebraska permitting processes and facilitate energy infrastructure investment



AURORA



ENERGY RESEARCH

Details and disclaimer

Date: April 2026

Prepared by

Juan Garcia Luengo

Juan.GarciaLuengo@auroraer.com

Liam Lynch

Liam.Lynch@auroraer.com

Approved by

Paden Williams

Paden.Williams@auroraer.com

Gaurav Sen

Gaurav.Sen@auroraer.com

Copyright and Confidentiality

- This document (“Report”) and its content (including, but not limited to, the text, images, graphics and illustrations) is the copyrighted material of Aurora Energy Research Limited and/or one or more of its affiliates (currently Aurora Energy Research GmbH, Aurora Energy Research Pty Ltd, Aurora Energy Research LLC, Aurora Energy Research Investigacion y Análisis S.L.U., Aurora Energy Research SAS, Aurora Energy Research AB, Aurora Energy Research S.R.L, Aurora Energy Research Single Member Private Company, Aurora Energy Research K.K., Aurora Energy Research PTE. Ltd., Aurora Energy Research Brasil Limitada, Aurora Energy Research India Private Limited and such other subsidiary or affiliate of Aurora Energy Research Limited as may be incorporated from time to time) (together “Aurora”), unless otherwise stated.
- This Report is the confidential information of Aurora and may not (in whole or in part) be copied, reproduced, distributed or in any way used for commercial purposes without the prior written consent of Aurora.

General Disclaimer

- This Report is provided "as is" for your information only and no representation or warranty, express or implied, is given by Aurora or any of their directors, employees agents or affiliates as to its accuracy, reliability, completeness or suitability for any purpose.
- Aurora accepts no responsibility and shall have no liability in contract, tort or otherwise to you or any other third party in relation to the contents of the Report or any other information, documents or explanations we may choose to provide in connection with the Report.
- Any use you make of the Report is entirely at your own risk. The Report is not to be relied upon for any purpose or used in substitution for your own independent investigations and sound judgment.
- You hereby waive and release any and all rights, claims and causes of action you may have at any time against Aurora based on the Report or arising out of your access to the Report.
- The information contained in this Report may reflect assumptions, intentions and expectations as of the date of the Report. Aurora assumes no obligation, and does not intend, to update this information.
- If you are a client of Aurora and have an agreed service contract with Aurora (“Service Contract”), or have received the Report subject to a release, reliance or other agreement with Aurora (“Alternative Agreement”), your access to the Report is also subject to the terms, exclusions and limitations in the applicable Service Contract or Alternative Agreement between you and Aurora.
- This Notice and Disclaimer must not be removed from this Data Book and must appear on all authorized copied, reproduced or distributed versions.
- If there is an inconsistency or conflict between this Notice and Disclaimer and your Service Contract or Alternative Agreement, your Service Contract or Alternative Agreement shall prevail.