



**BASIN ELECTRIC
POWER COOPERATIVE**

A Touchstone Energy® Cooperative 

2025 Basin Electric Reliability and Construction Updates

Gavin McCollam & George Ransom

GTAFA Annual Meeting

June 2025

Agenda

Reliability

Generation Projects

Pioneer Generation Station Phase IV

Bison Generation Station

Transmission Projects

Looking Forward

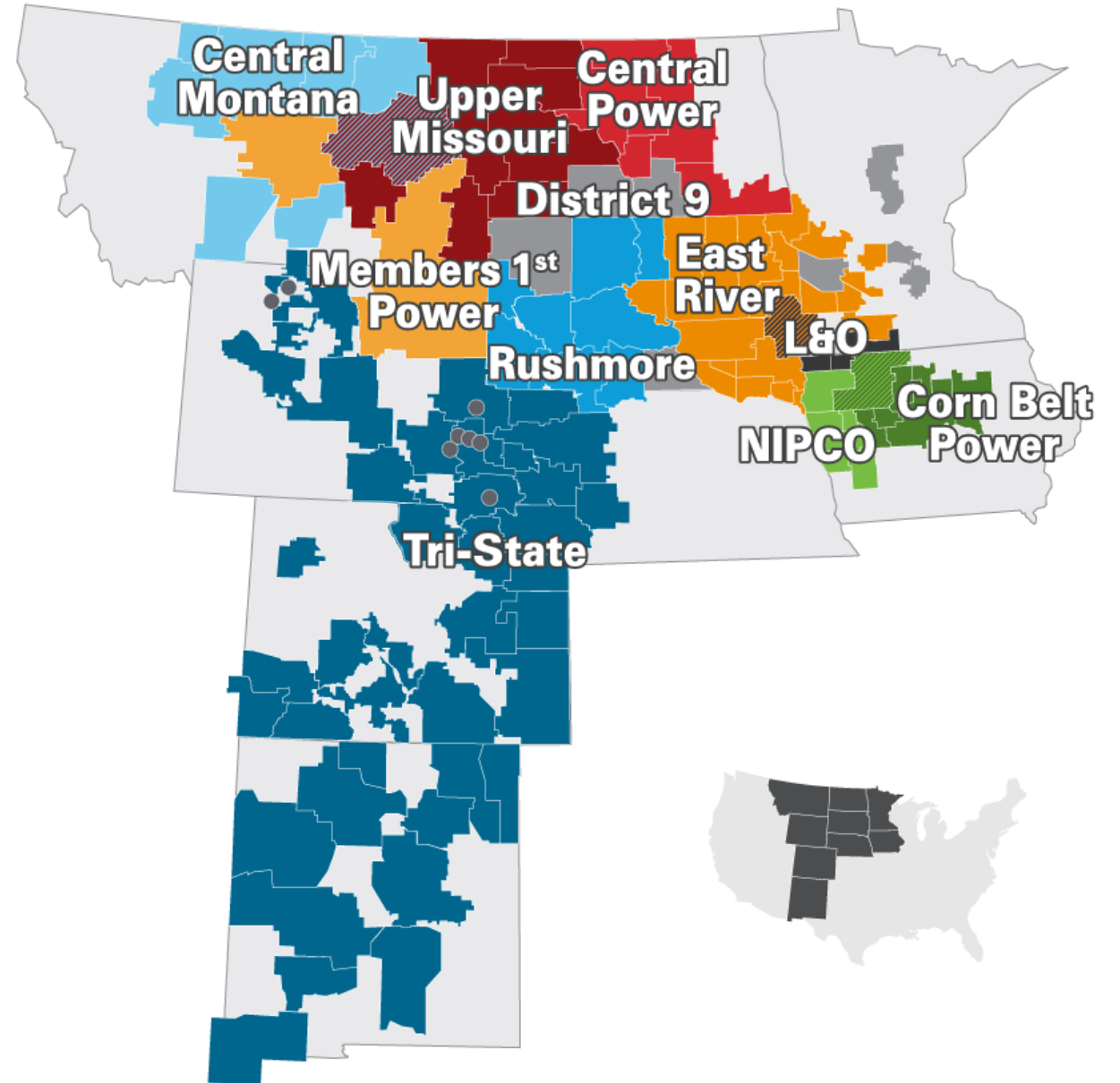
Basin Electric Snapshot

139 Members in 9 States

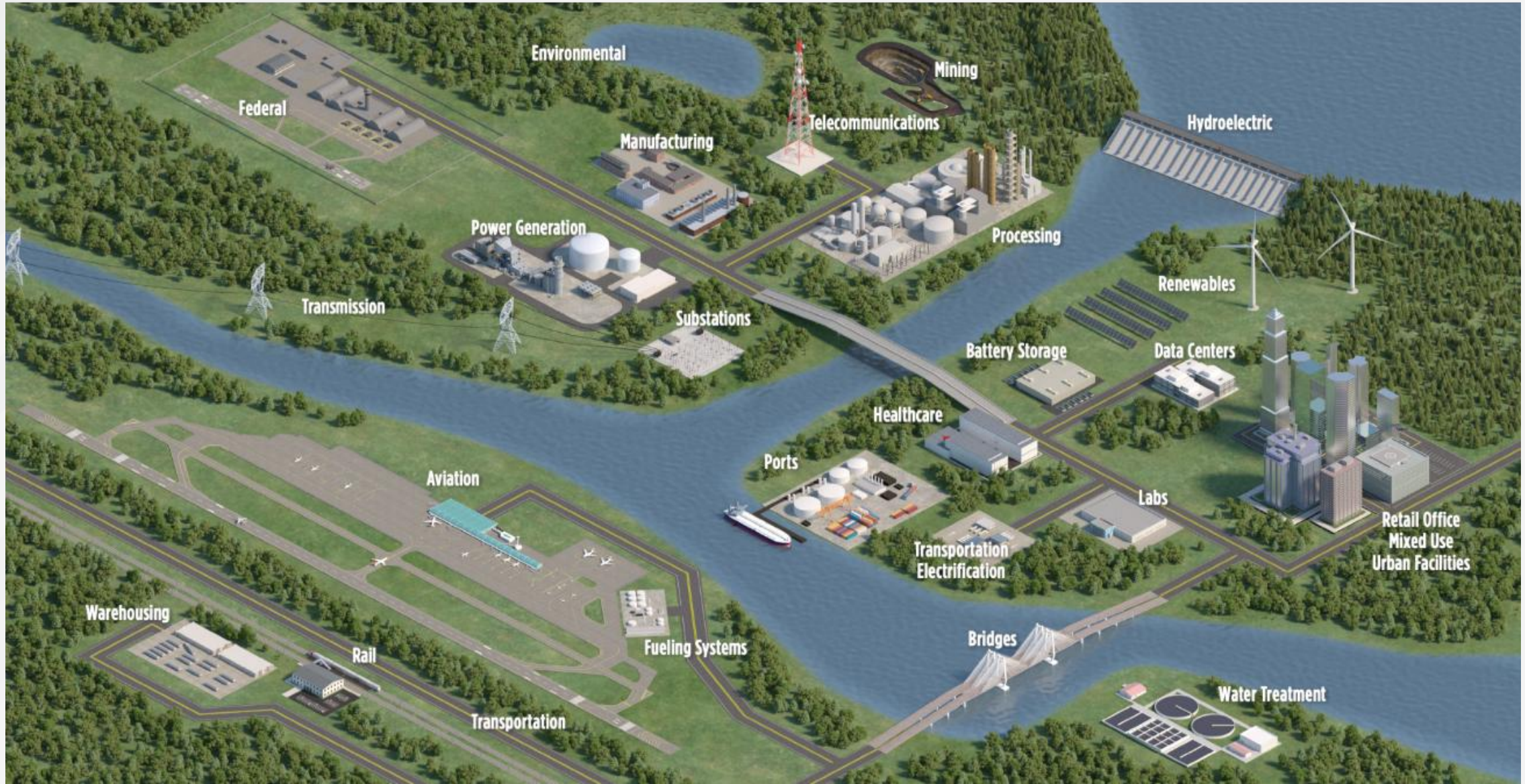
3 million member-owners

Nearly 8,500 megawatts
of winter capacity

Largest G&T by operating
revenues, MWhs and geographic
territory served



KEY INDUSTRIES AND MARKETS WE SERVE



Installed more than
400,000
feet of pipe in the past three
years

60+ GW
of gas-fired power
generation experience

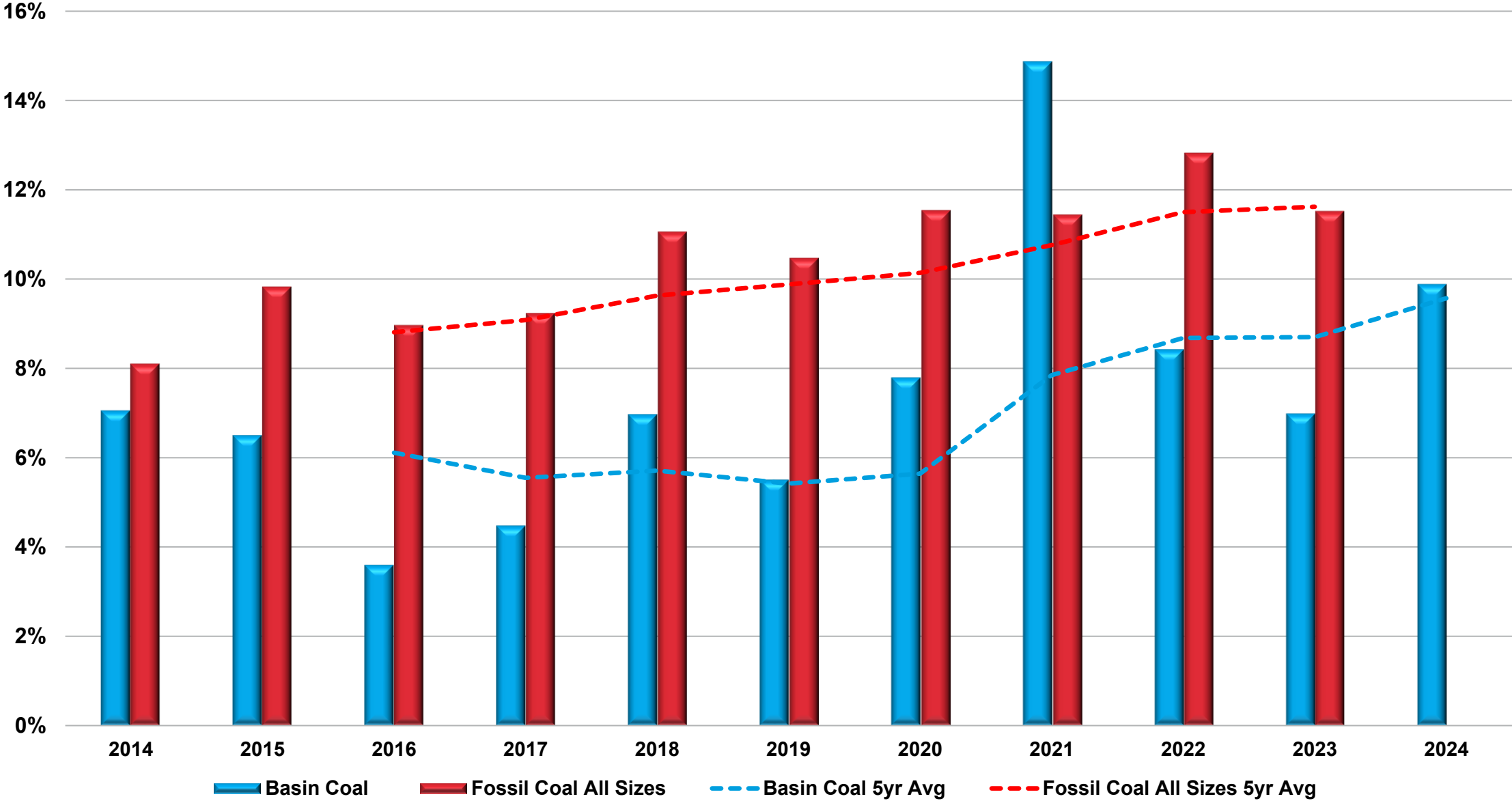
BURNS  MCDONNELL
ENR
Engineering News-Record
#1 Engineering
Design Firm
Serving the Electrical
Power Industry

2,400,000
Solar modules installed and
counting....

Executed or currently building
more than
2GWhs
Of Battery Energy Storage
EPC Projects

Reliability

Equivalent Forced Outage Rating (EFOR)

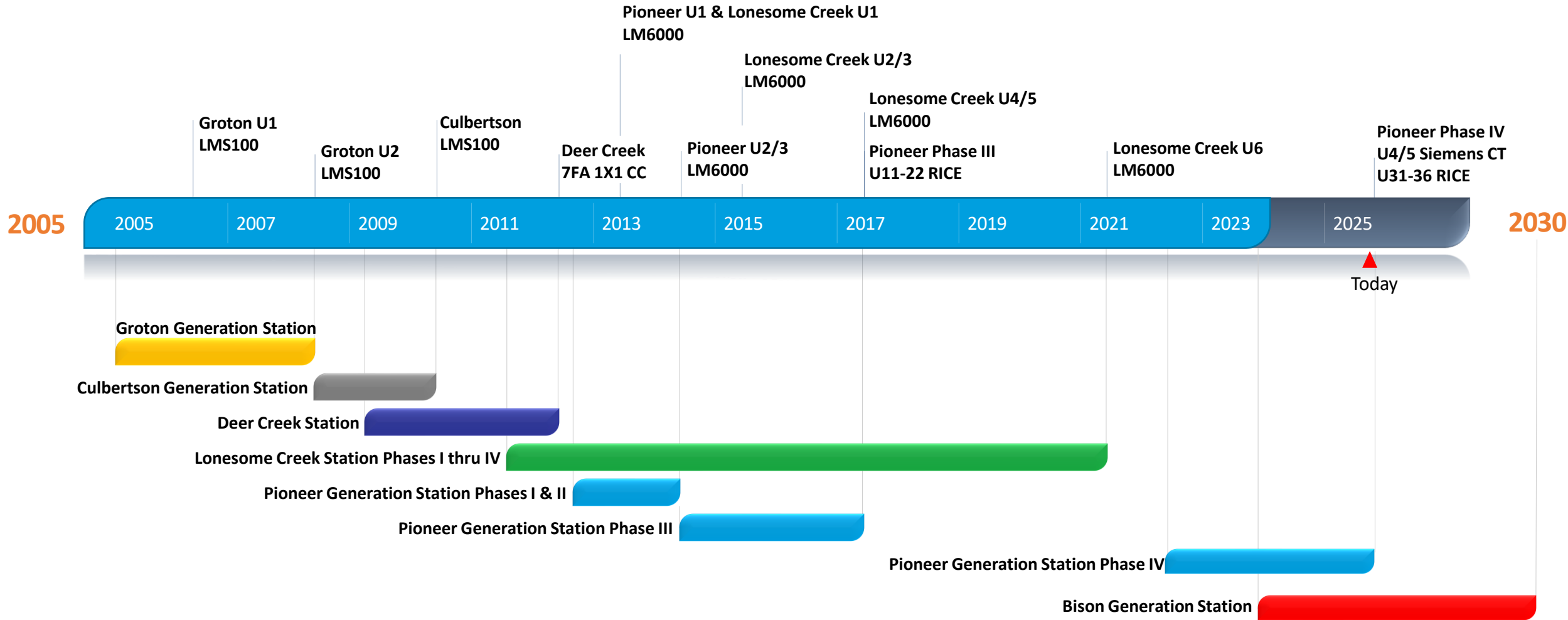


Reliability Focus

- Tube Leak Task Force
- Benchmarking
- Consistent Practices
- Organizational / Functional Evaluation

Generation Projects

Basin Electric Fleet Gas Additions

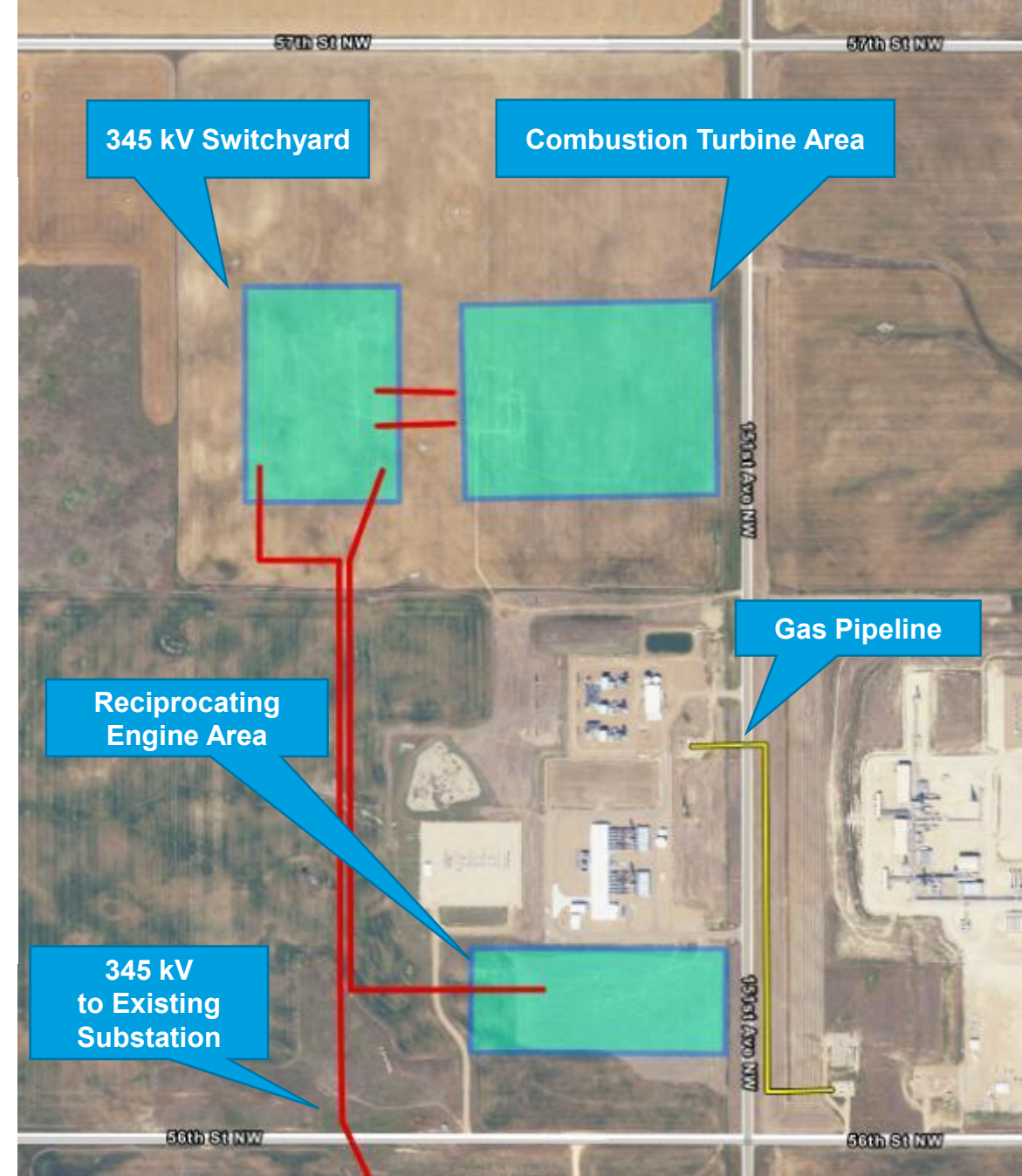
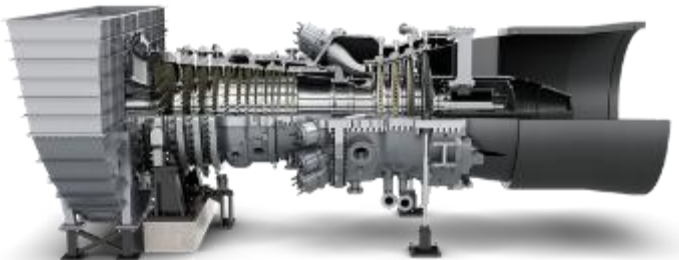


Pioneer Generation Station (PGS) Phase IV



Scope

- Adjacent to existing Pioneer Generation Station
- Approx. 580 MW of New Generation
 - 2 x Siemens SGT6-5000F Combustion Turbines
 - 6 x Wartsila W18V50SG Reciprocating Engines
- 345-kV Switchyard & Transmission (~15 Miles)
- Natural Gas Pipeline (~0.5 Mile)
- Open-to-Closed Book EPC Contract Strategy



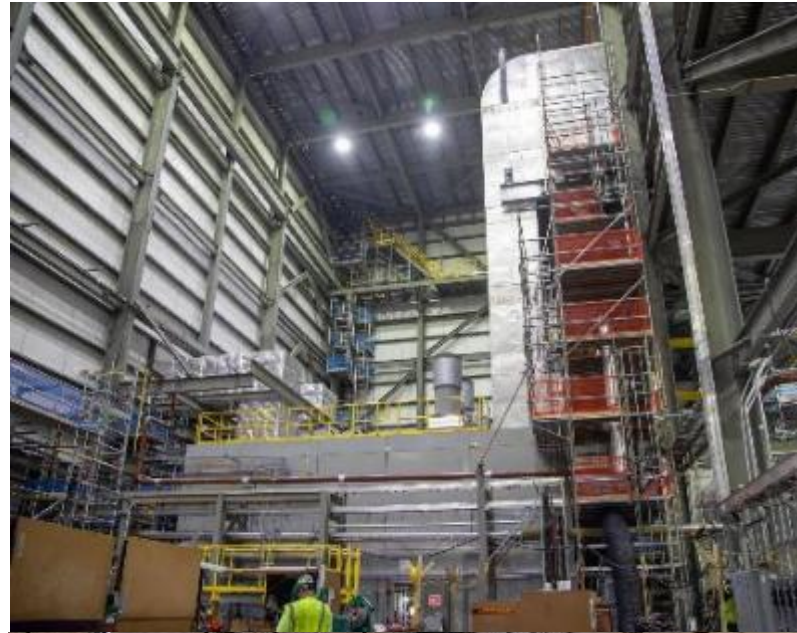
Current Status

- Safety
 - Total site hours thru April: 1.43MM
 - 4 OSHA recordable incidents to date (0.56 TRIR)
- Reciprocating Engine Area
 - Units have been turned over to PGS Operations
 - Facility punchlist work & site finishing
- Combustion Turbine Area
 - Unit 5 achieved first fire & CO catalyst installation
 - Unit 4 mechanical piping flushes completed
 - Admin building & warehouse turned over to BEPC

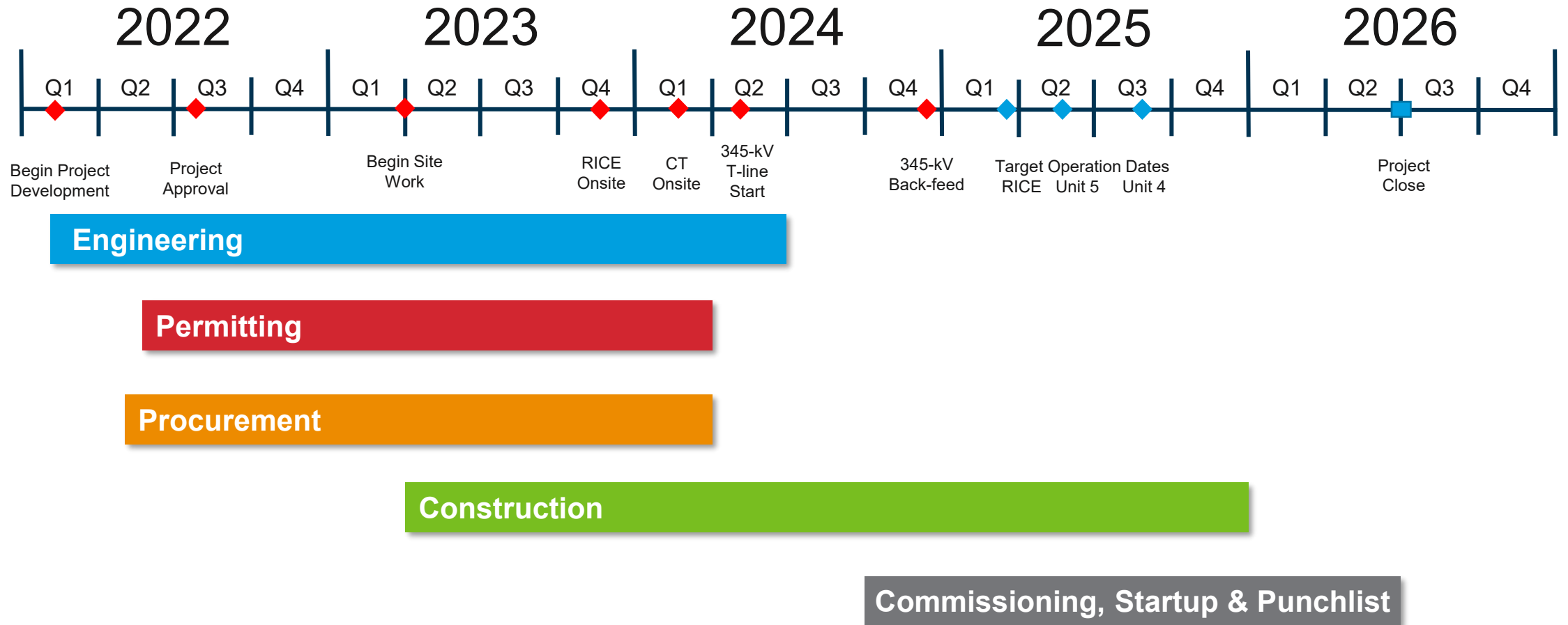


Budget / COD

- Target On-Line Dates
 - RICE: April 11, 2025
 - Unit 5: June 16, 2025
 - Unit 4: Early August
- Budget: \$805MM
 - Spent: \$702MM
 - Committed: \$783MM
 - Projected Final Expenditures: \$794MM



Schedule





Bison Generation Station

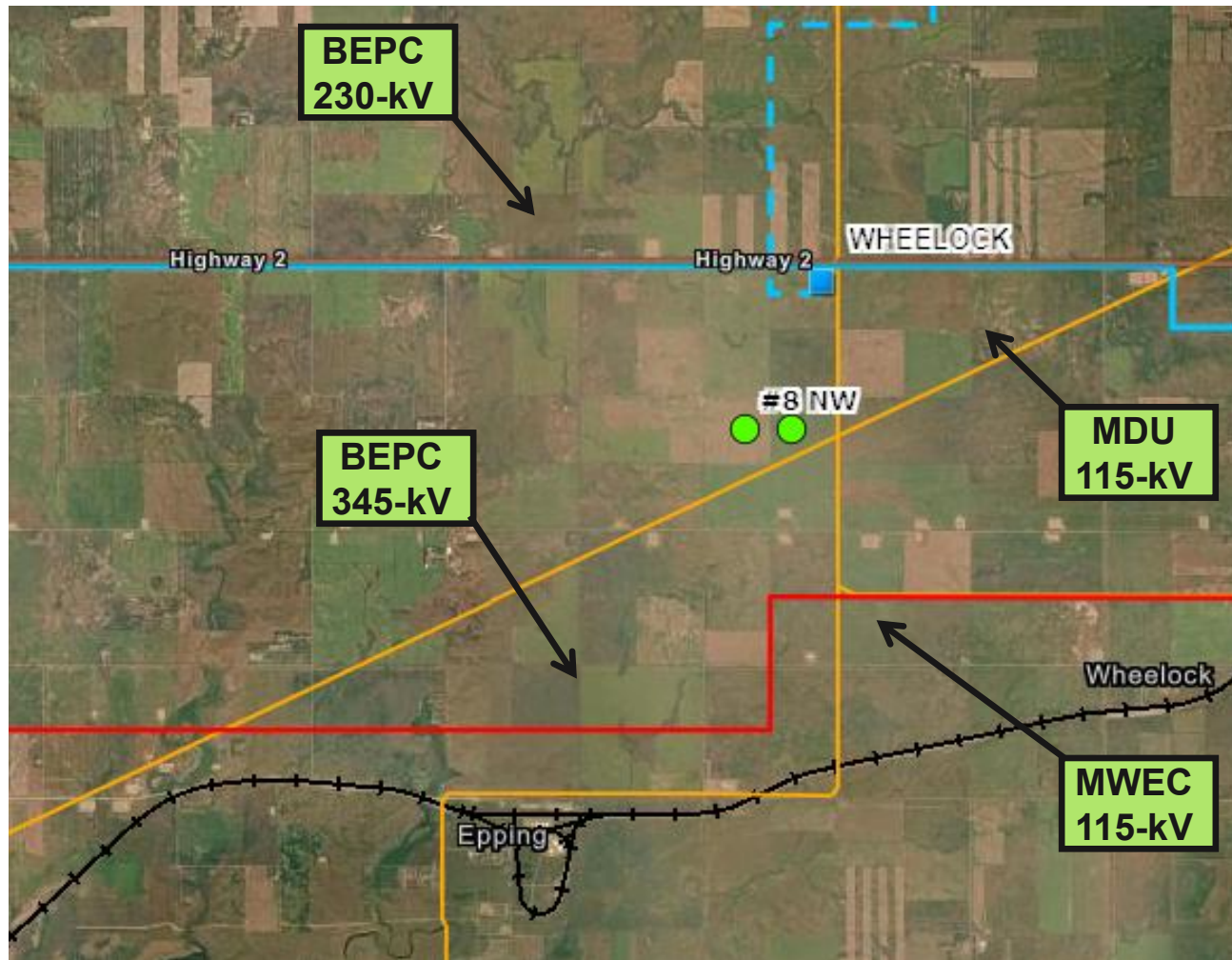
Project Scope

- 2-(1x1) Combined Cycle configuration
- Closed cycle air-cooled condenser (ACC) for cooling
- Total station output from 1,360 MW to 1,490 MW
- Transmission interconnections to both 230-kV and 345-kV systems
- Fuel supply via 24" diameter steel pipeline
- Target commercial operation date of 2030
- Project Budget: \$3.9B

Current Status

- All major equipment awarded
- Detailed design underway
- The final plat of the property was recorded with Williams County
- PSC hearing scheduled for June 30th
- Begin grading mid-August, pending PSC approval
- Begin piling January 2026, pending air permit

Project Site

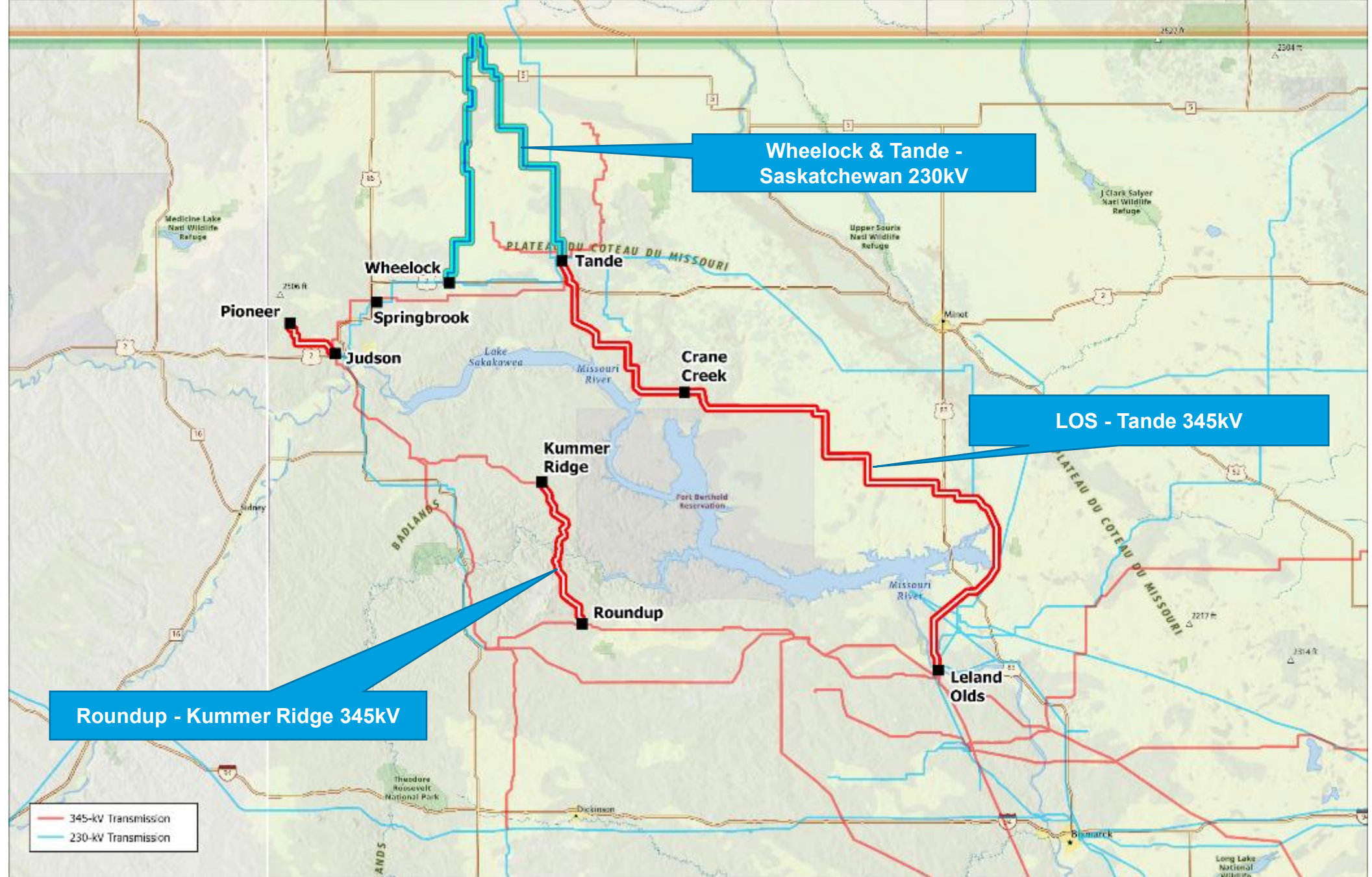




Timeline



Transmission Projects



Roundup-to-Kummer Ridge 345-kV



- Energized on December 17, 2024
- Distance: 32.5 miles
- Budget: \$95MM
- Final Projected Expenditures: \$83.8MM
- Reclamation and pipe mitigation costs in 2025

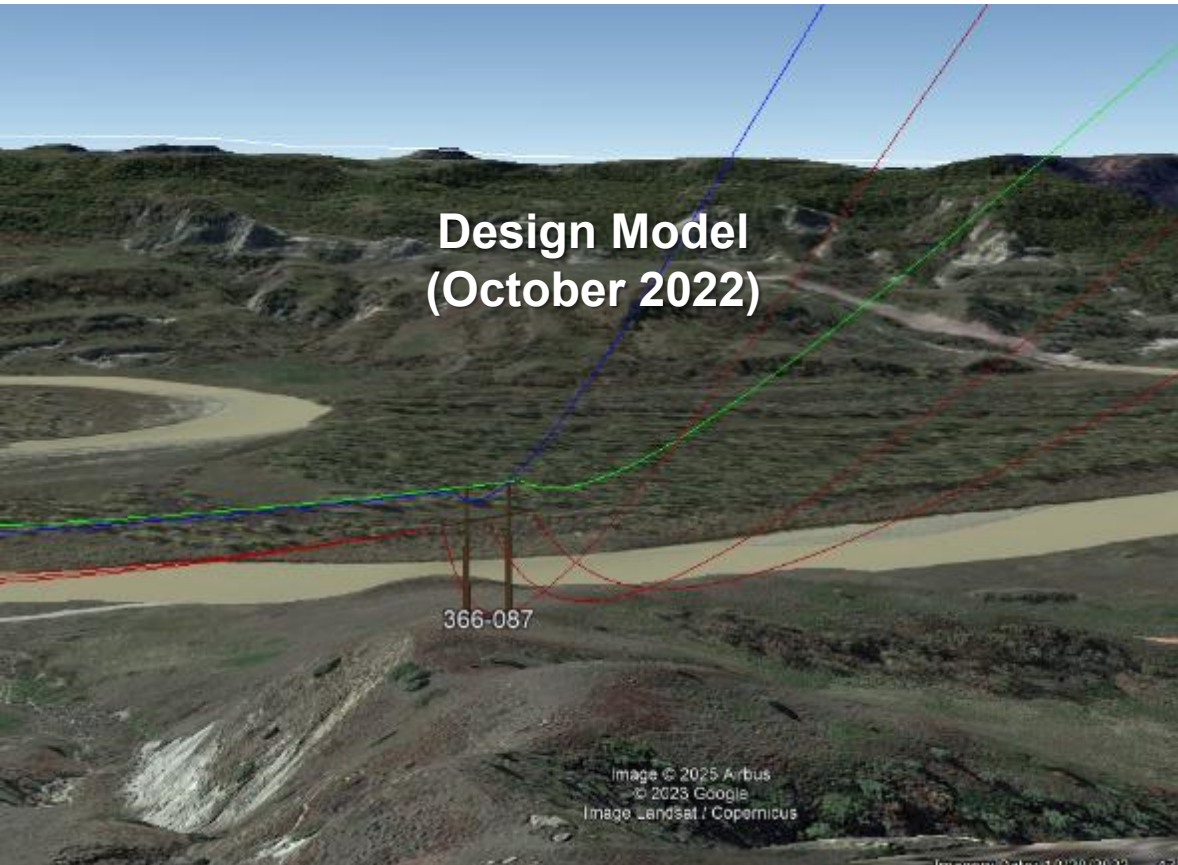
Roundup-to-Kummer Ridge 345-kV



Roundup-to-Kummer Ridge 345-kV

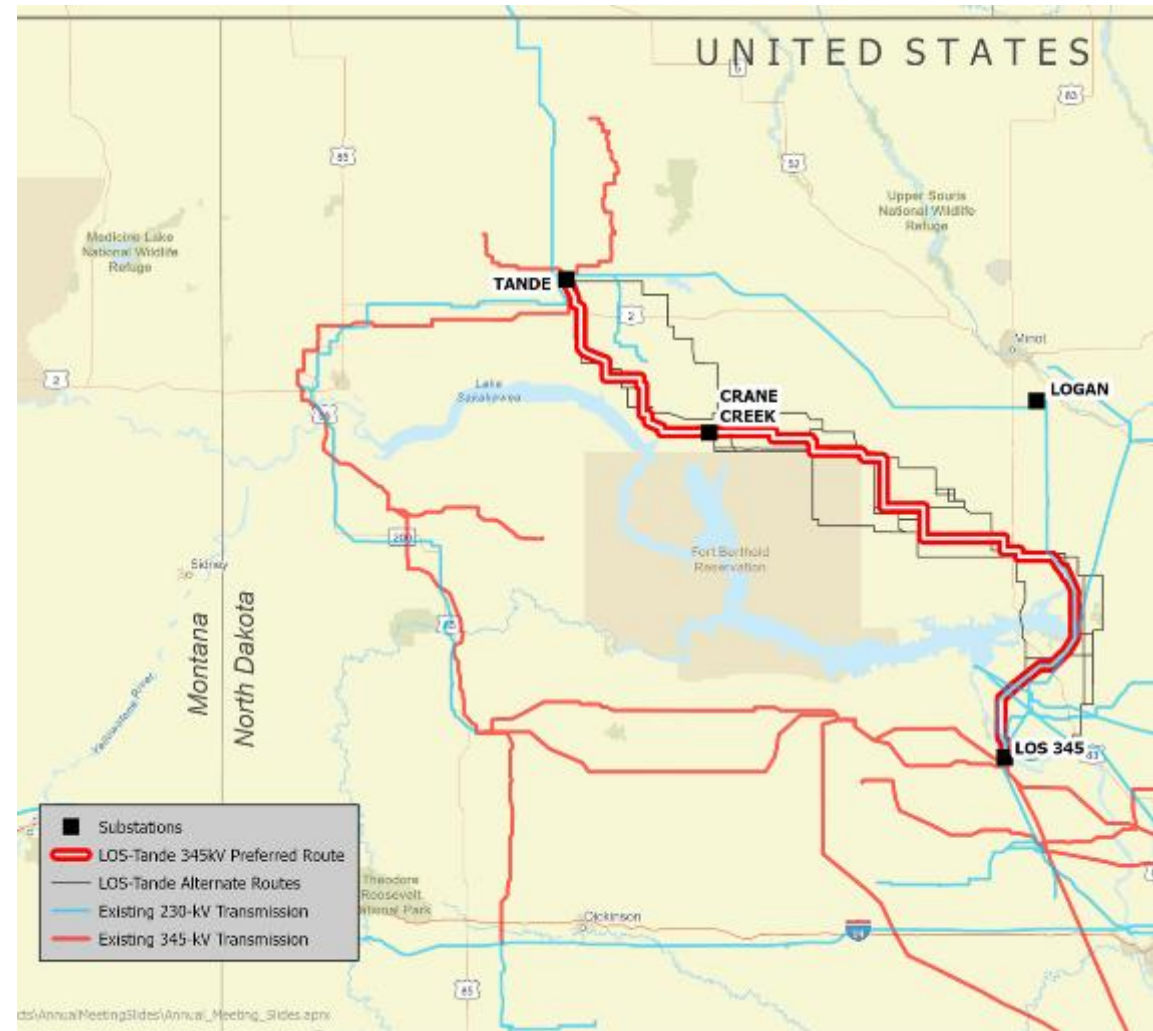


Roundup-to- Kummer Ridge 345-kV



LOS-to-Tande 345-kV

- 262 of 269 landowners have signed easements (97%)
- PSC approved 4/22/25
- Mountrail County approved 4/28/25
- Construction kickoff meeting held May 5
- PSC kickoff held May 7
- Construction started June 2
- Some parcels on hold pending easements
- Distance: 162 miles
- Budget: \$417MM

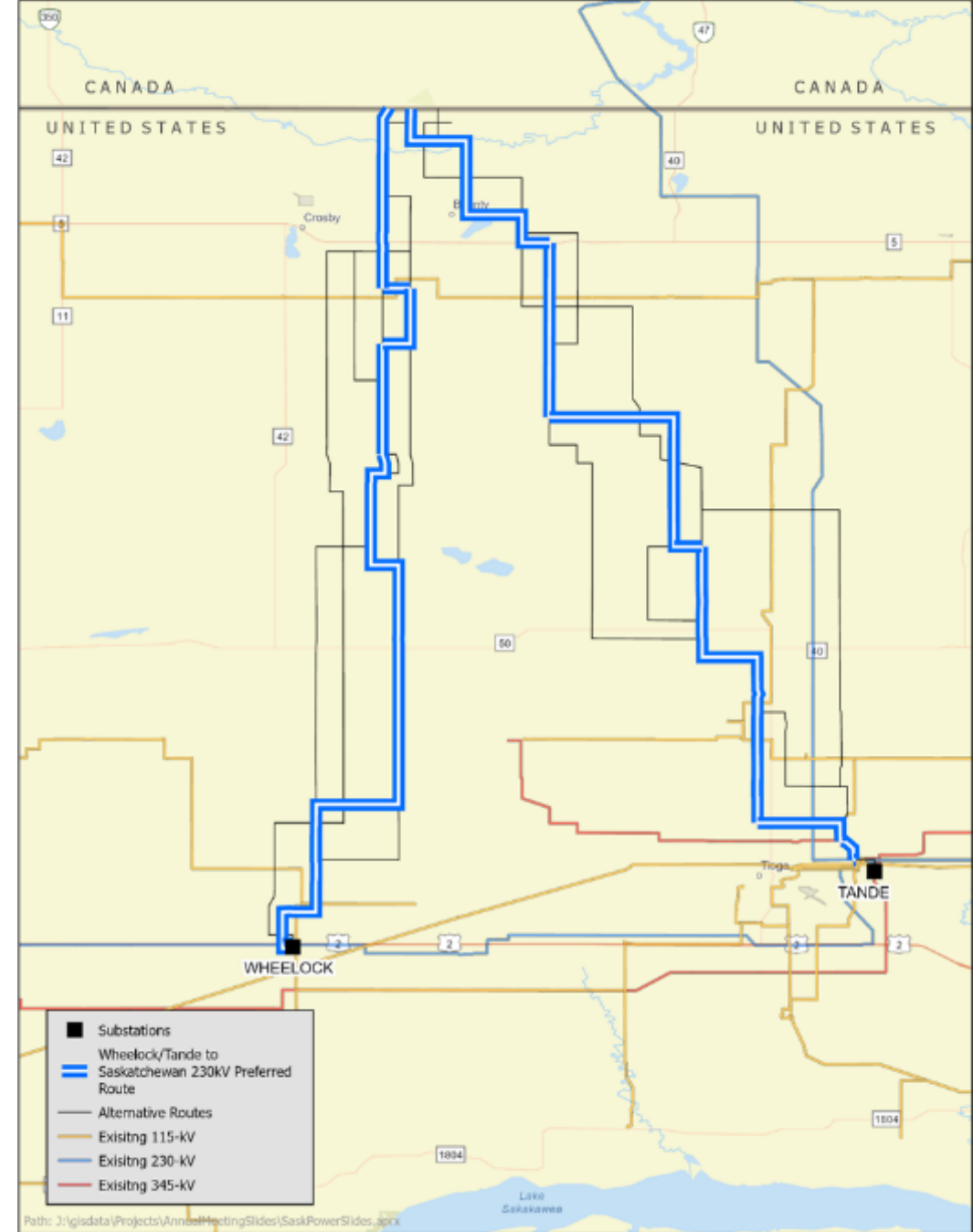


LOS-to-Tande 345-kV

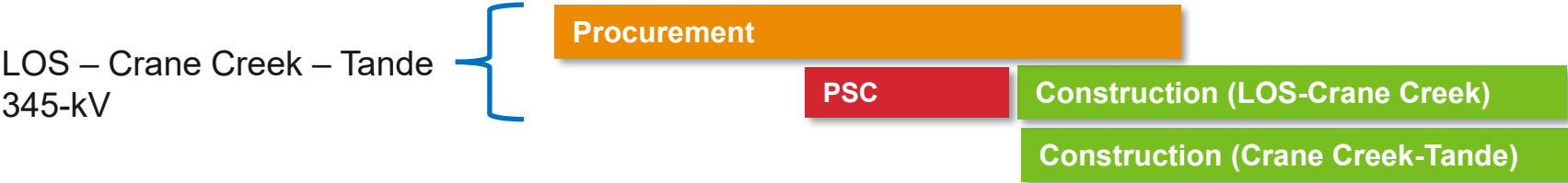
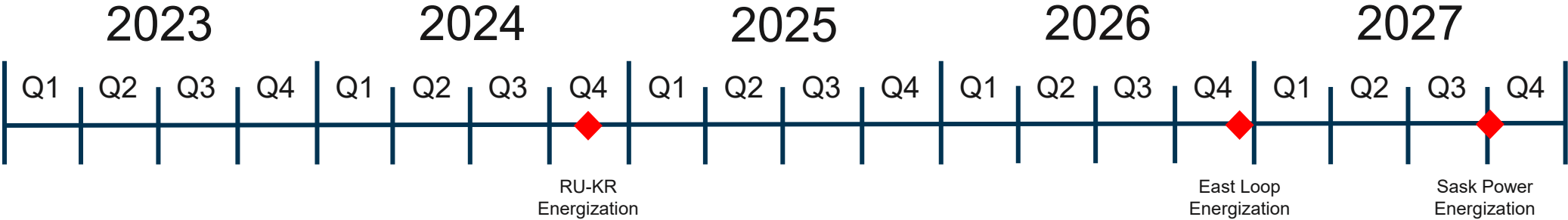


Wheelock/Tande-to-Saskatchewan 230-kV

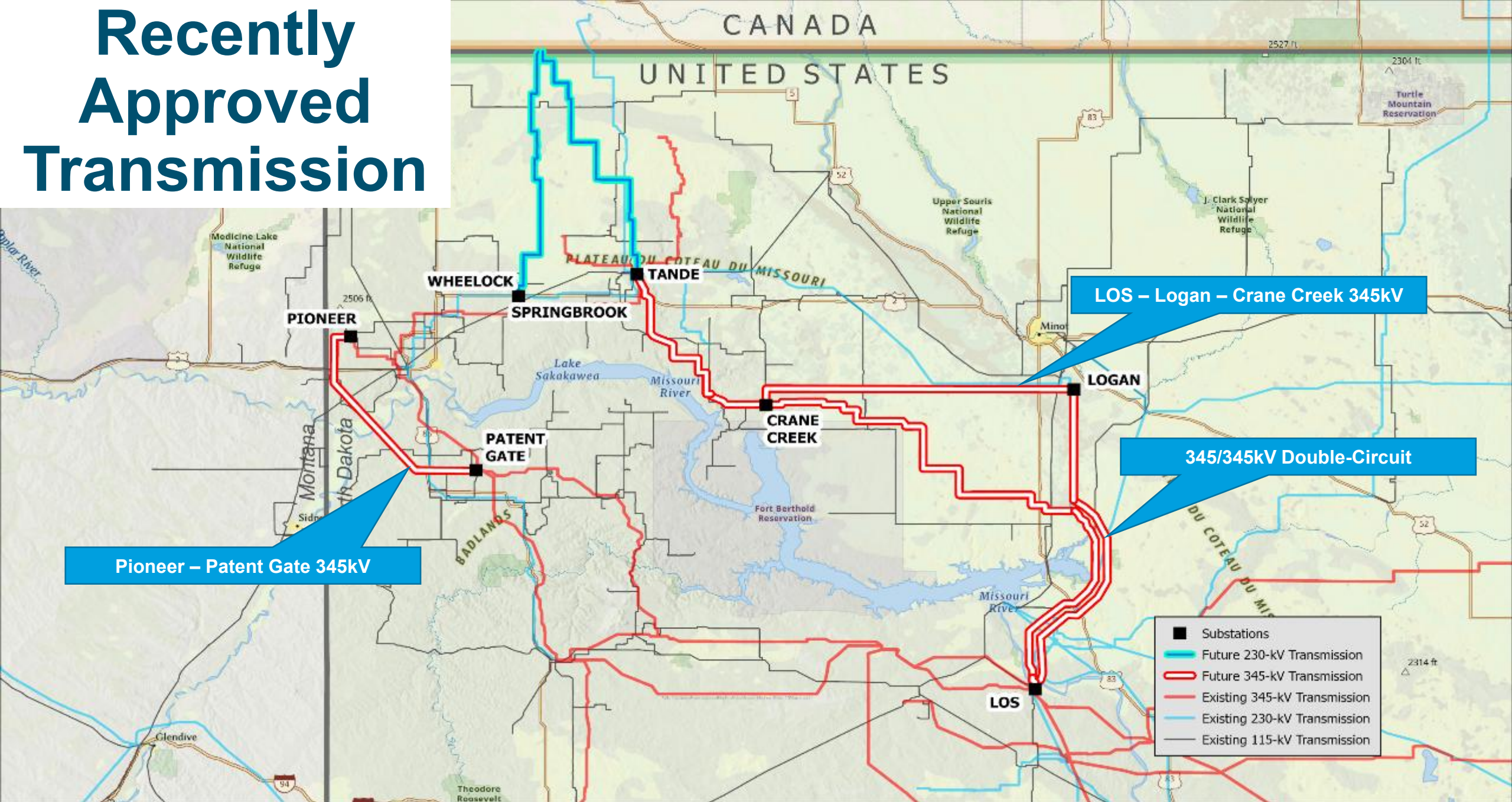
- Routing, easement acquisition, and permitting underway
- Target construction start in summer 2026, energization October 2027
- Distance:
 - Wheelock-to-Sask: ~53 miles
 - Tande-to-Sask: ~59 miles
- Budget: \$179MM



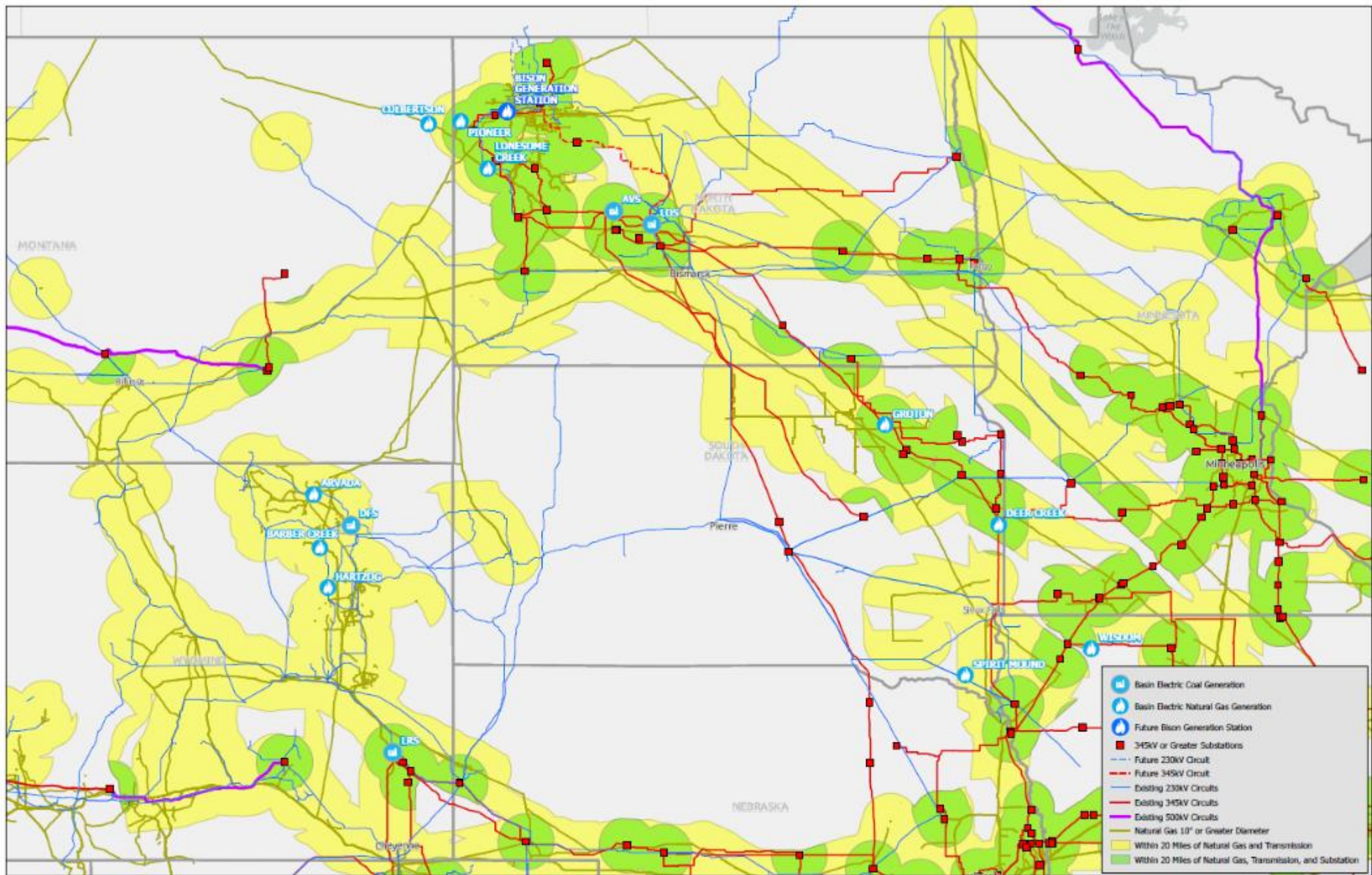
Transmission Projects Schedule Summary



Recently Approved Transmission



Looking Forward





Gas Market Update





2030



RESERVE MARGINS



LOAD GROWTH



RENEWABLE LOAD FOLLOWING



COAL RETIREMENTS

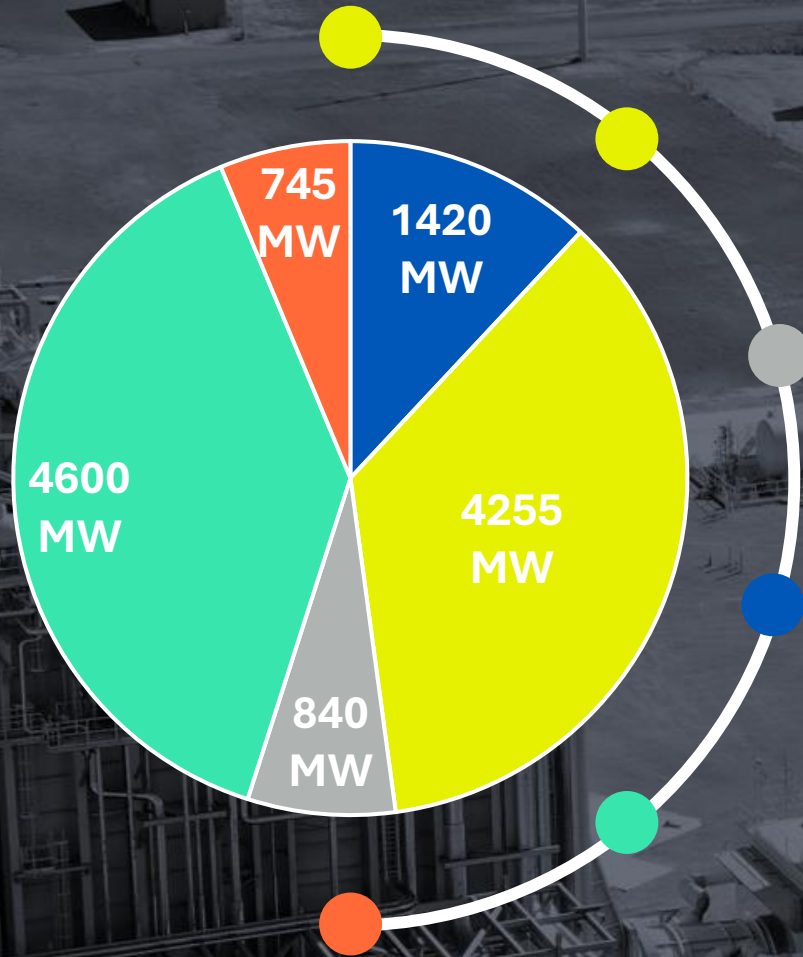


DATA CENTERS



CHIPS ACT

Current BMcD GHI Projects



RESERVE MARGINS



LOAD GROWTH



RENEWABLE LOAD FOLLOWING



COAL RETIREMENTS

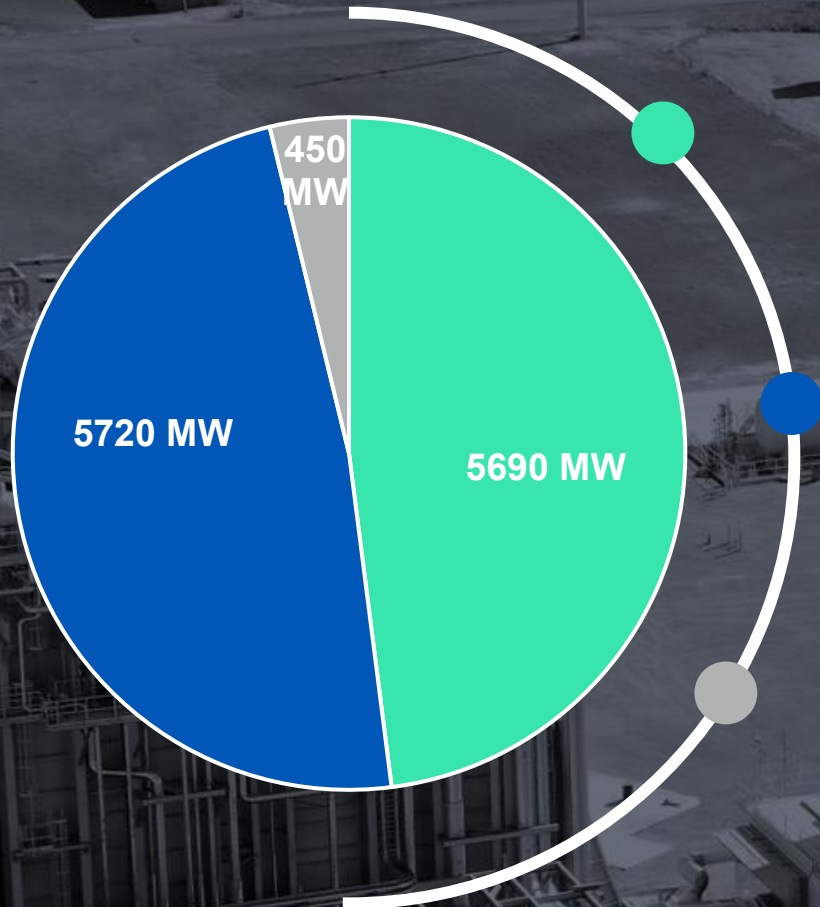


DATA CENTERS



CHIPS ACT

Technology of Current GHI Projects



CCGT

SCGT

Recip

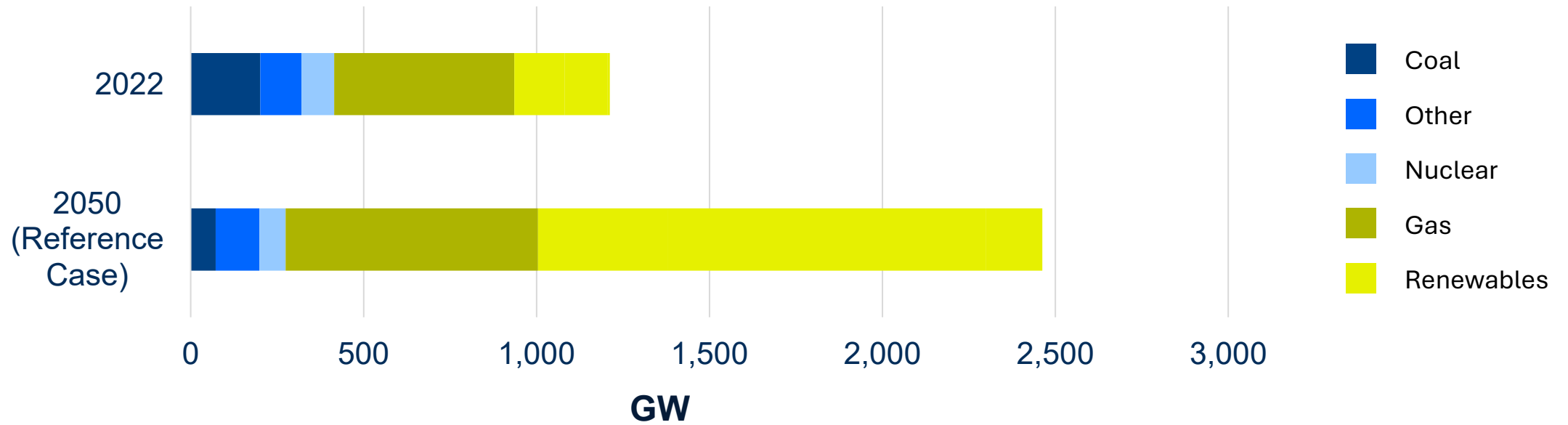


Increasing Demand

EIA Annual Energy Outlook 2023



Total installed capacity in all sectors, 2022 (history) and 2050 (projected)
gigawatts

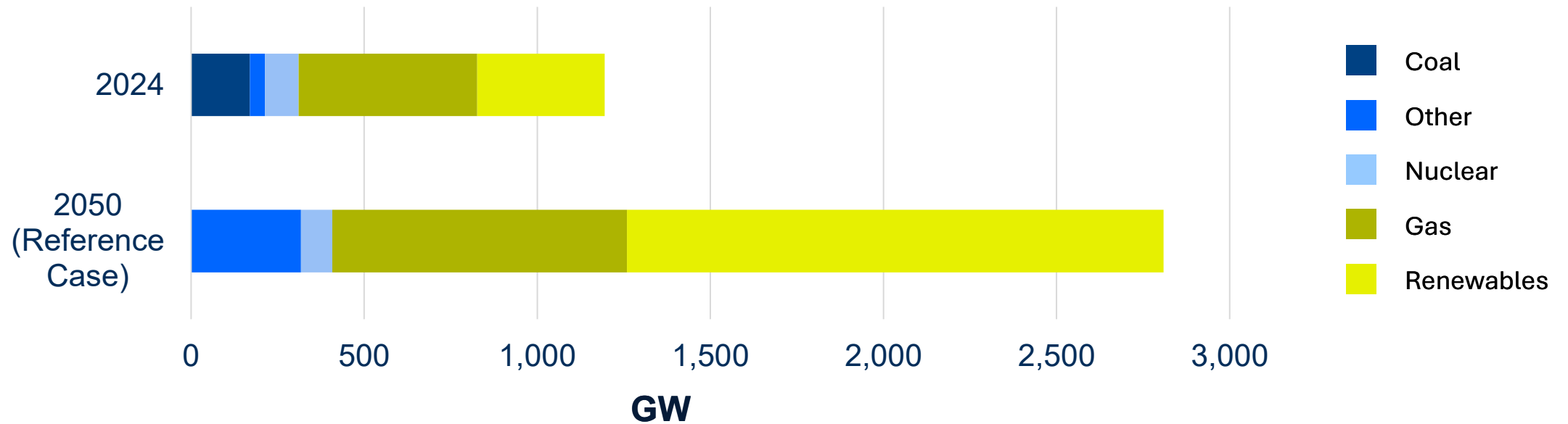


Increasing Demand

EIA Annual Energy Outlook 2025

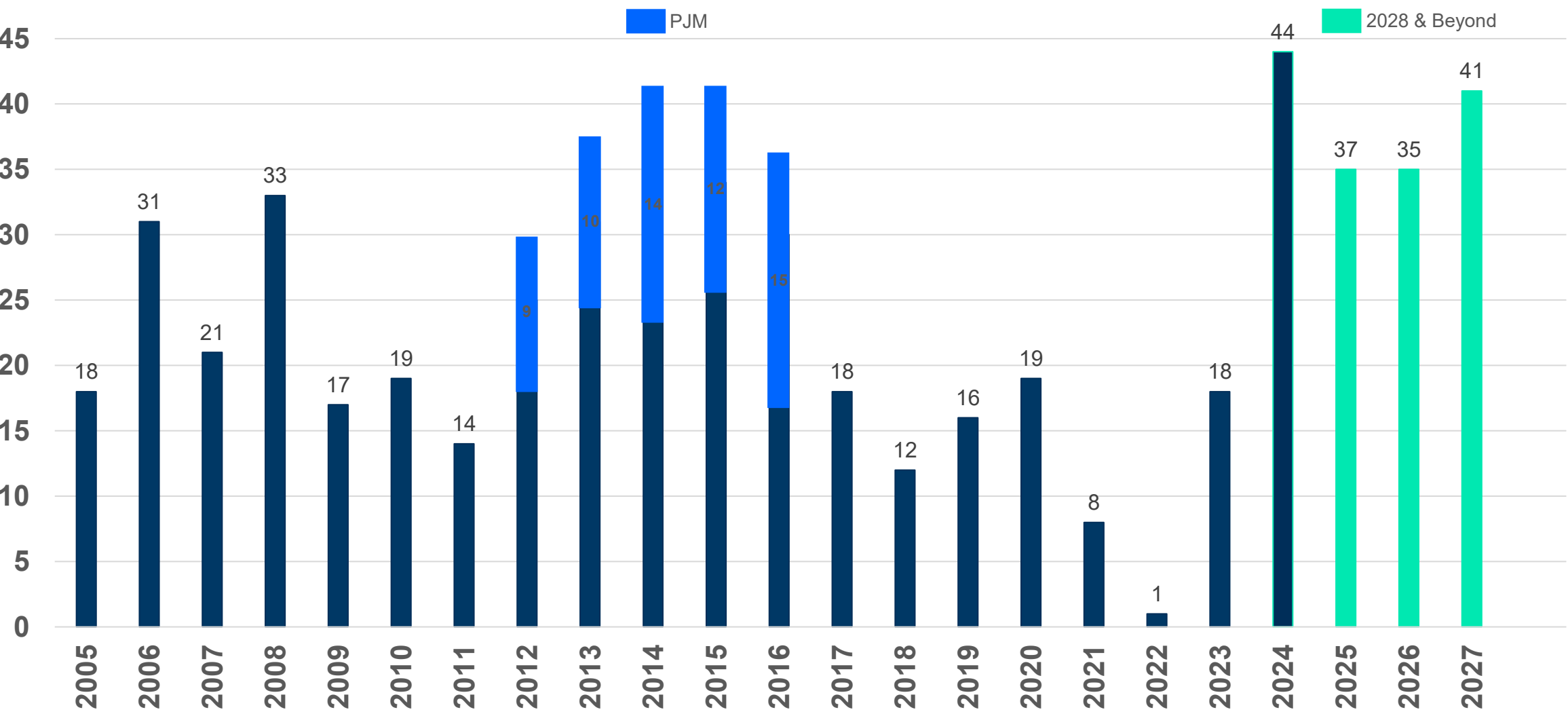


Total installed capacity in all sectors, 2024 (history) and 2050 (projected)
gigawatts



~14 GW/Yr (Gas)

North American Frame Units – 2025



Large Frame (North America)



Discussion