



Expanding Horizons:

What SPP's Western Expansion Means for the Region

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July 2026

SPP Background

OUR BEGINNING

In 1941, 11 member utilities pooled electricity to power aluminum plant at Jones Mill for critical defense

Maintained after WWII to continue benefits of regional coordination



WHAT DO WE DO?

OUR ROLE

We plan, operate and optimize the bulk power system to ensure reliable electricity and value for our members and customers.



PLAN THE FUTURE

We conduct long-term reliability assessments and collaborate with stakeholders to identify future needs and build the right transmission solutions.



OPERATE TODAY

We monitor the grid 24/7 and coordinate the flow of electricity across the region to keep the system reliable and secure.



MAINTAIN RELIABILITY

We proactively shape and advance reliability standards, anticipate risks, and consistently exceed requirements to deliver a stronger, more resilient grid.



ENABLE THE MARKET

We administer a competitive wholesale energy market that allows our members to buy and sell power and manage costs.



SERVE OUR MEMBERS

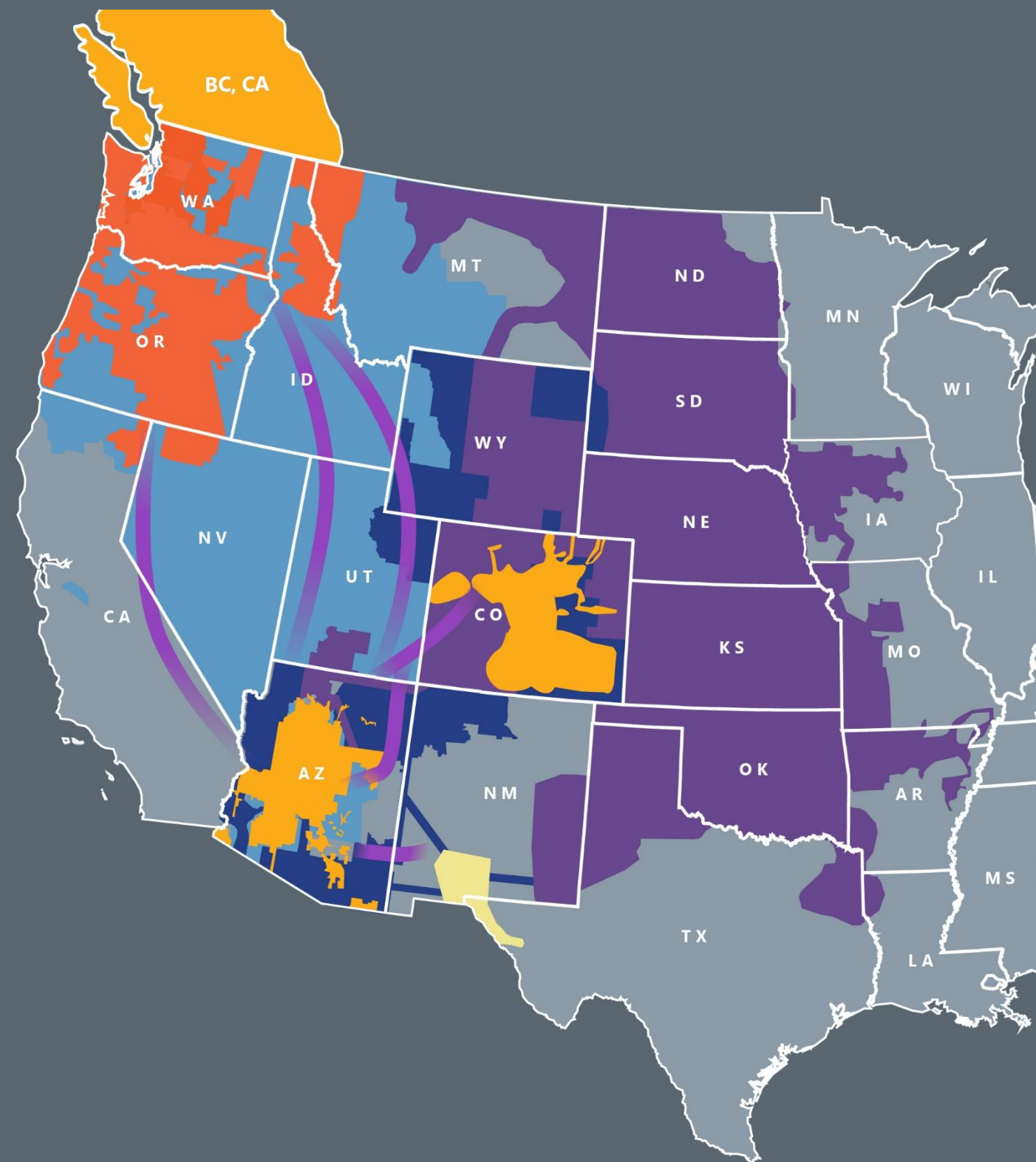
We are member-driven and stakeholder-focused, working together to deliver value to the communities we serve.



OUR MISSION

Working together to responsibly and economically keep the lights on today and in the future.

SPP Regional Footprints



- Regional Transmission Organization (RTO)
- Markets+ (2027 Wave 1 Parties)
 - Arizona Public Service
 - Powerex
 - Public Service Company of Colorado
 - Salt River Project
 - Tucson Electric
- Markets+ (2028 Wave 2 Parties)
 - Bonneville Power Administration
 - Chelan County PUD
 - Grant County PUD
 - Puget Sound Energy
 - Tacoma Power
- Markets+ (Funding Party / Indicated Intent to Join)
 - El Paso Electric
- Markets+ areas connect via transmission service rights of participants
- Western Resource Adequacy Program (WRAP)
- Western Reliability Coordinator (RC)

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SPP Market Services Comparison

Markets+

Transmission Planning

BAA Consolidation

*Transmission Service
Provider*

Resource Adequacy

Reliability Coordinator

Day-Ahead Market

Real-Time Market

RTO Services

Transmission Planning

BAA Consolidation

Transmission Service Provider

Resource Adequacy

Reliability Coordinator

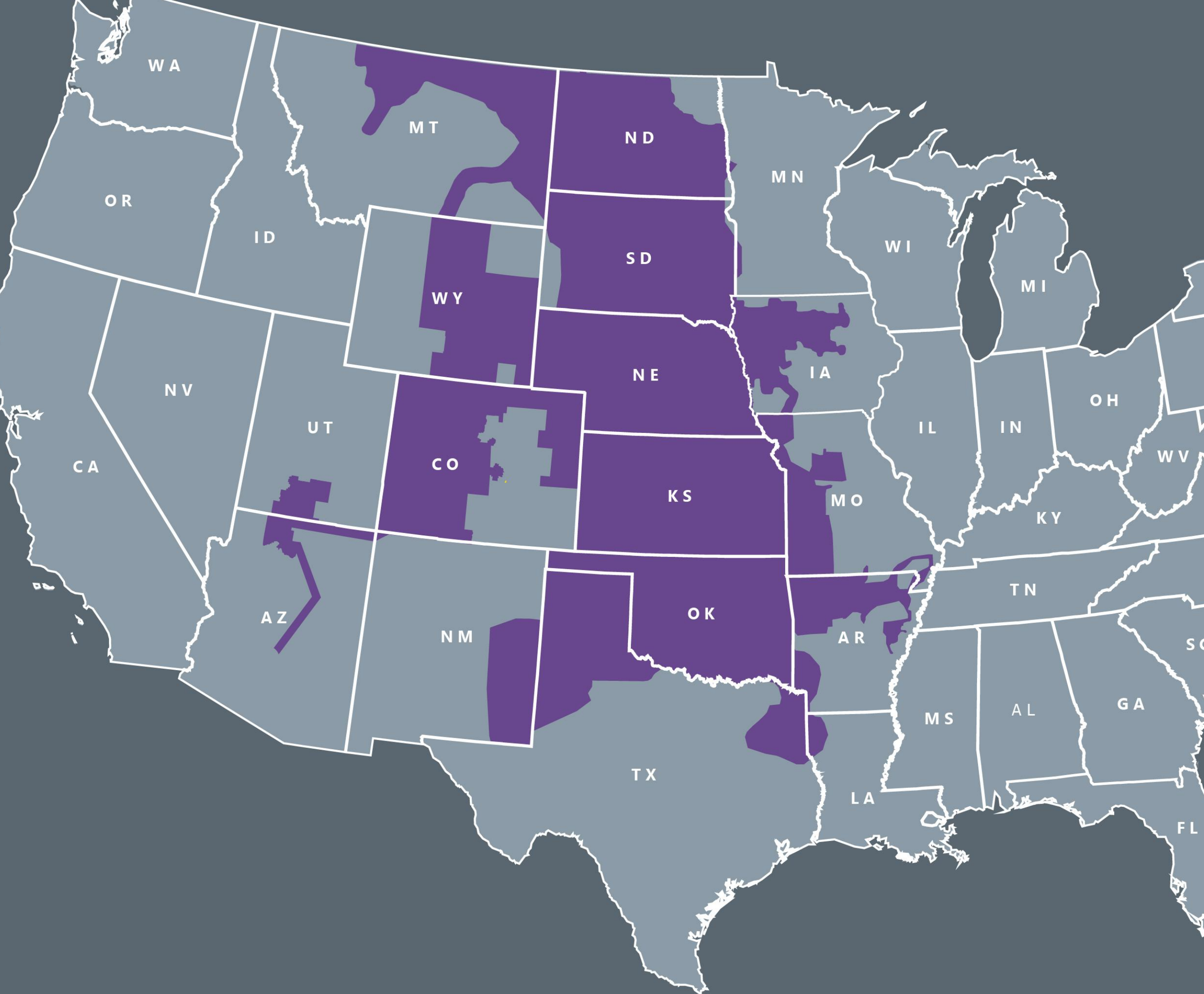
Day-Ahead Market

Real-Time Market

RTO Expansion Project Firsts

- First RTO to span two interconnections
- First RTO to solve a single market solution across two Balancing Authority Areas
- First interstate RTO in the western interconnection
- 33-month project timeline



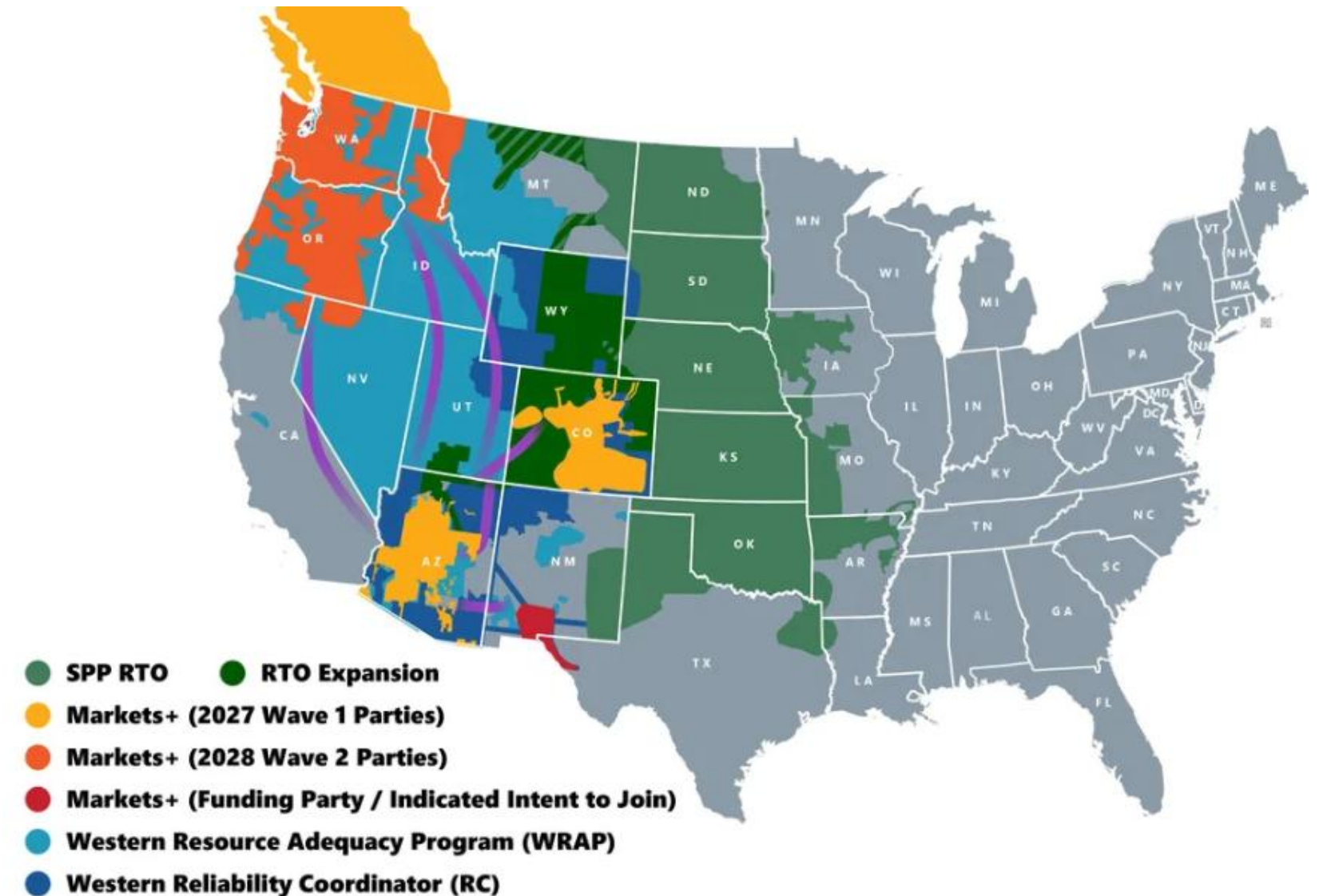


RTO OPERATING REGION

- **732,086** square mile service territory
- **~20 million** population served
- **East Balancing Authority**
 - **72,979** miles of transmission
 - **1,013** generating plants
 - **5,205** substations
- **West Balancing Authority**
 - **12,552** miles of transmission
 - **166** generating plants
 - **507** substations

Key Takeaways – Western Services

- SPP RTO Expansion into the western interconnection went live on time and within 5% of original budget, accomplishing many firsts in the industry
- Markets+ Target go-live: October 2027 with two waves of participant entries
 - Wave 1 (2027) – Arizona Public Service, Powerex, Public Service Company of Colorado, Salt River Project, Tucson Electric (RC onboarding April 2027 for APS and SRP)
 - Wave 2 (2028) – Bonneville Power Administration, Chelan County PUD, Grant County PUD, Puget Sound Energy, Tacoma Power (RC onboarding April 2028)



THE NATIONAL IMPERATIVE

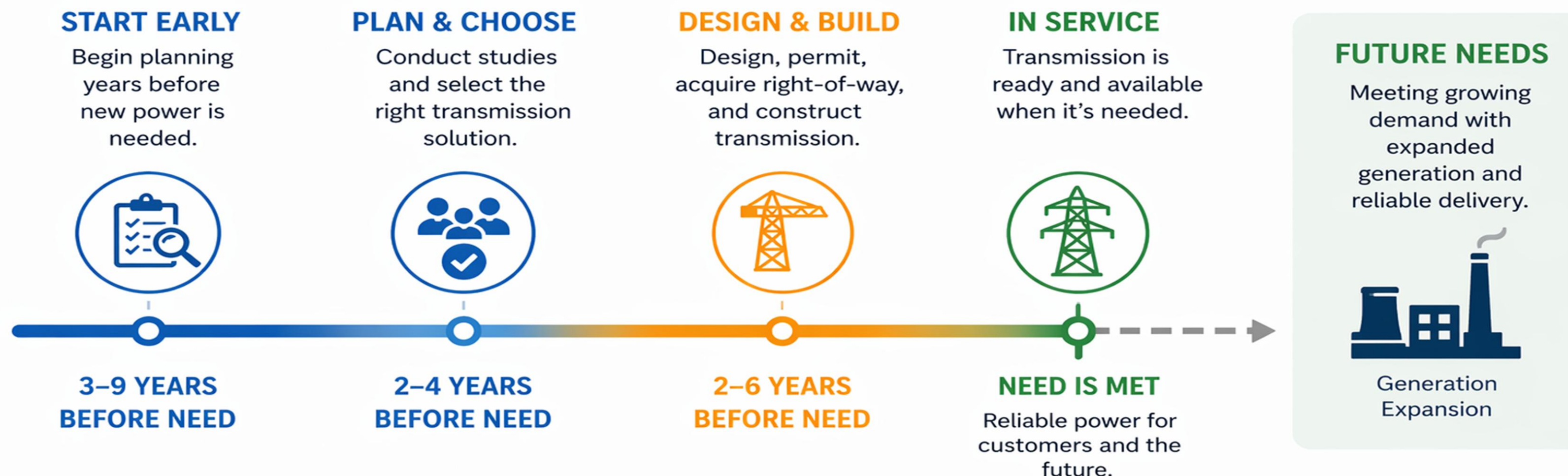
- **America's grid is under pressure:** AI, reshoring, and industrial growth are driving explosive demand, threatening reliability and affordability
- **SPP's peak demand is projected to nearly double:** from 56 GW to 109 GW over the next decade
- **The system is at capacity:** congestion and reliability risks are mounting



The Wires

Plan Transmission Today to Power Tomorrow

Transmission infrastructure takes 3 to 9 years to build.
Decisions made today ensure we can meet future load and generation needs.



KEY TAKEAWAY: Transmission takes **3 to 9 years** to build.
Start early so the system is ready when the future arrives.

SPP'S 10-YEAR TRANSMISSION PLAN



SPP's 14-state region is facing a projected electricity demand increase of **25-60% by 2030** and **35-100% by 2035**



New lines take, on average, **six years** to develop, creating a mismatch between readiness & demand



Delayed transmission expansion leads to higher energy costs, unsustainable reliability risks & lost economic opportunities

SPP's transmission plans ensure grid reliability, reduce energy costs & power prosperity

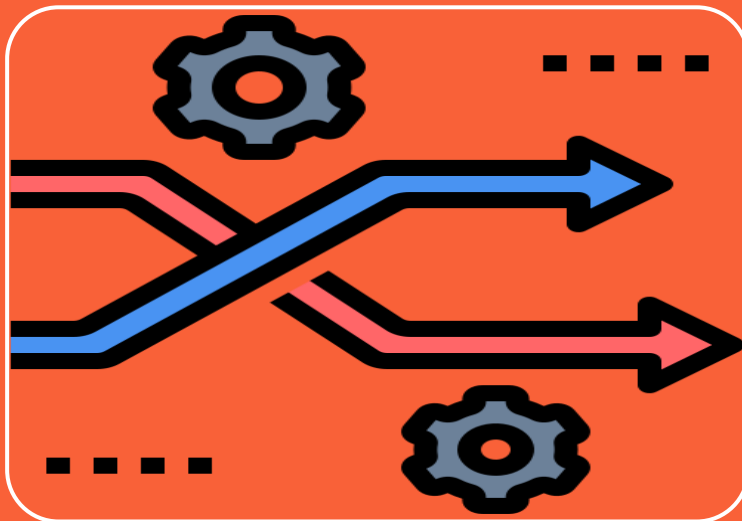


We must balance system needs, growth, and affordability: every decision matters



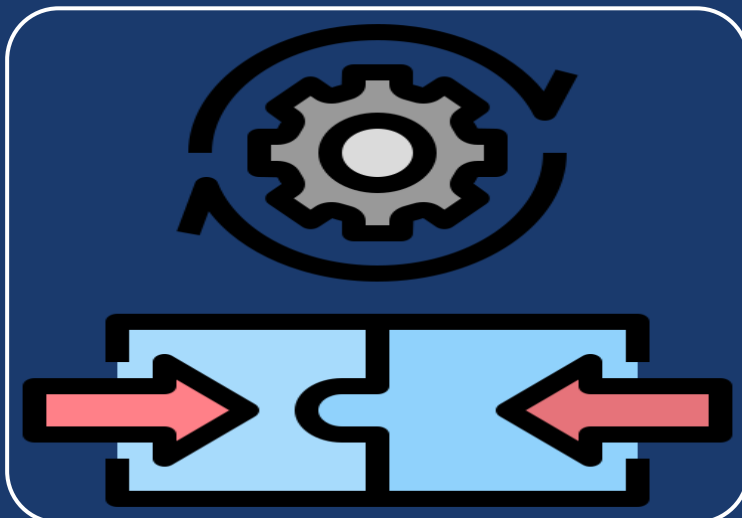
WHAT IS THE CPP?

The **Consolidated Planning Process (CPP)** is a revolutionary integrated planning process that aligns regional transmission planning with the generator interconnection process.



Previously, **Generation Interconnection (GI)** and regional **Integrated Transmission Planning (ITP)** were handled in separate processes.

This disjointed approach led to **delays, redundancies, and missed opportunities** for synergistic solutions.



Streamlined Assessment: Certainty on timing of interconnection cost, accelerated transmission project decisions, and efficient proactive grid development leveraging 2, 5, 10, and 20 year generation and load projections

Enhanced Interconnection: Cost certainty for Planned Interconnection Locations

Revolutionary Cost Sharing: GI Cost based on transmission usage, projected accreditation needs

The CPP window is now open with Planned Interconnection Location GIA expected the end of 2027

The Supply

SPP's RESOURCE ADEQUACY APPROACH

- Requirements imposed on load responsible entities
- Regional requirements for resource adequacy
- Bilateral capacity market
- Compliance measured through data submission and enforced by SPP tariff
- Planning Resource Management requirement established through biennial Loss of Load Expectation (LOLE) analyses
- Forward looking 6 months to 5 years



Capacity

All team members' ability to play

Energy

Output of players on field

Reserve margin

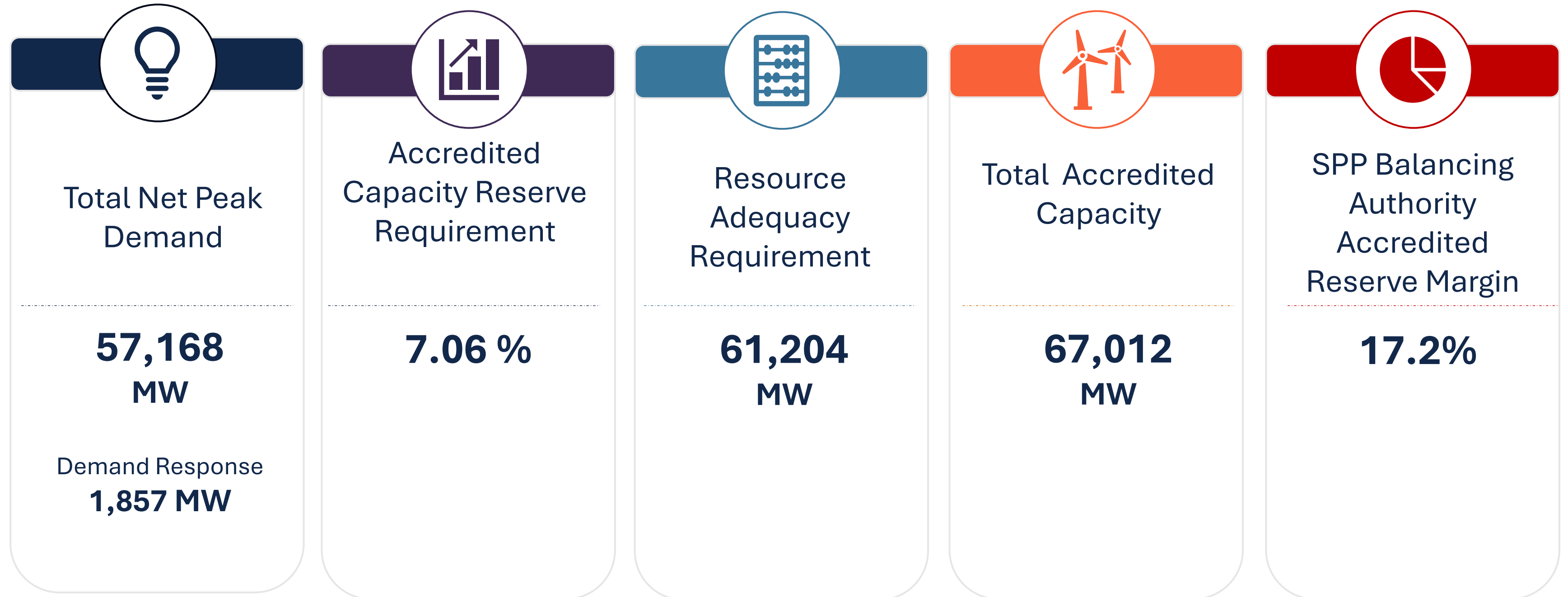
Ability of bench members to play

Accreditation and Qualification of resources

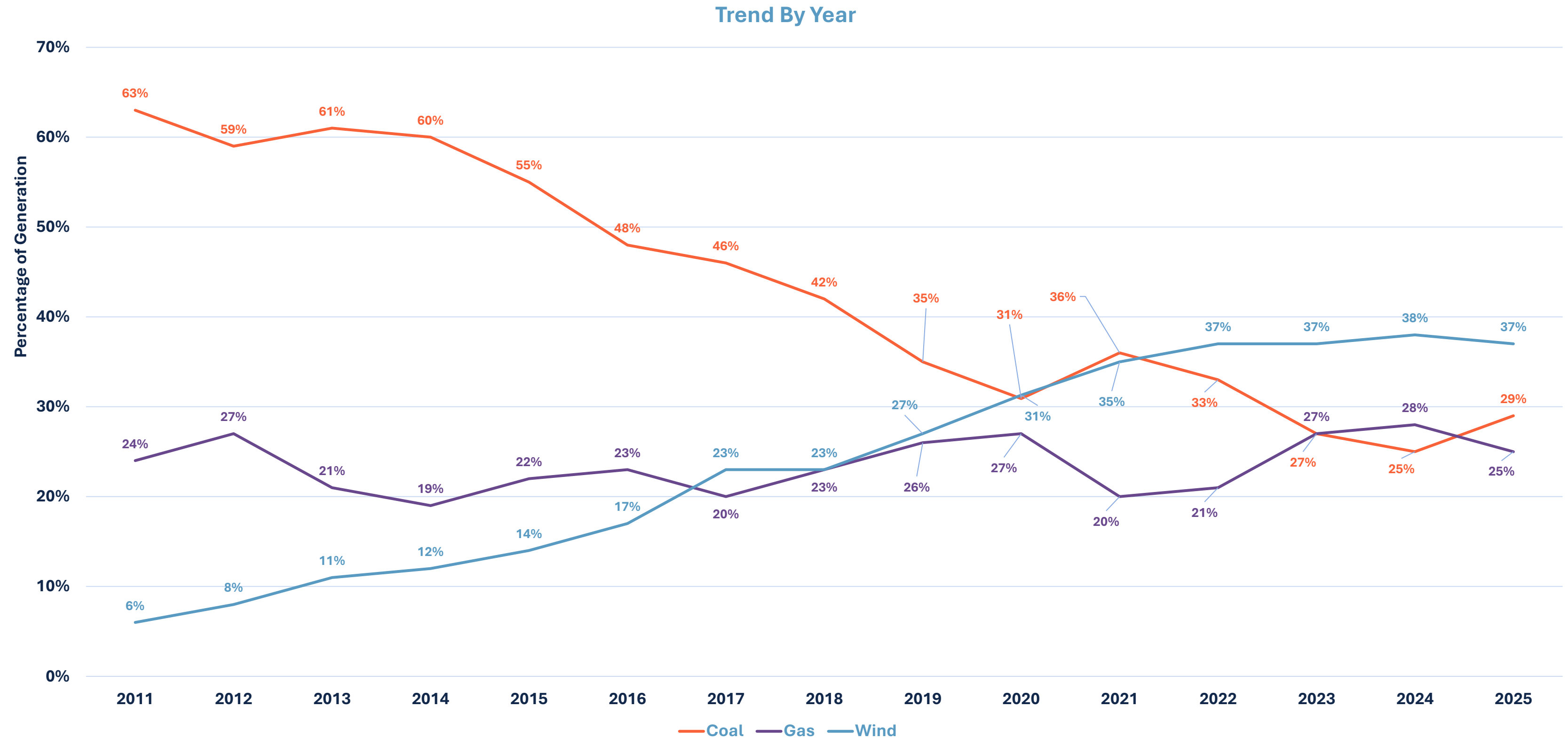
- Value of capacity for specific resources is determined by the accreditation of those resources
 - Critical that resources contribution to reliability are not over-valued.
 - Values feed into PRM calculation
- Net Generating Capability of conventional resources (gas, coal, etc.) is determined by their performance testing (operational and capability) as required by SPP Planning Criteria
 - Performance Based Accreditation method (using EFORd)
 - Fuel Assurance mechanism utilizing performance on capacity critical hours
- Accreditation of renewable resources is determined by historical performance method
 - Effective Load Carrying Capability (ELCC) methodology
- Resources utilized for the upcoming summer and winter season requirements must qualify capacity every year
 - Capability and Operational Tests



SUMMER 2026 RESOURCE ADEQUACY



OUR EVOLVING ENERGY MIX



LATEST LOAD FORECASTS

Unprecedented growth projections present challenges & opportunities

56 GW

SPP peak load as of today

75 GW

Latest 10-year forecast for which resources have been planned

110 GW Latest 10-year forecast including anticipated large loads

Adding new
load

SPP'S LARGE LOAD POLICIES



Innovative solutions for connecting large loads



Deliver speed to information & speed to power



Attract commercial & industrial growth



Improve reliability, promote market price stability & facilitate transparent cost allocation



Provide clear path to interconnection agreements within 90 days



Integrating transmission service, generator interconnection & delivery point studies into single, coordinated framework

Southwest Power Pool Generation Interconnection Queue Dashboard

The current Generator Interconnection Requests in Active Queue 230 projects totaling 64.8 GW

Adding new generation

Filter by Request

Cluster Filter

All

Filter by GEN Type

Cluster Filter

All

Filter by State

Cluster Filter

All

Filter by Cluster

Cluster Filter

All

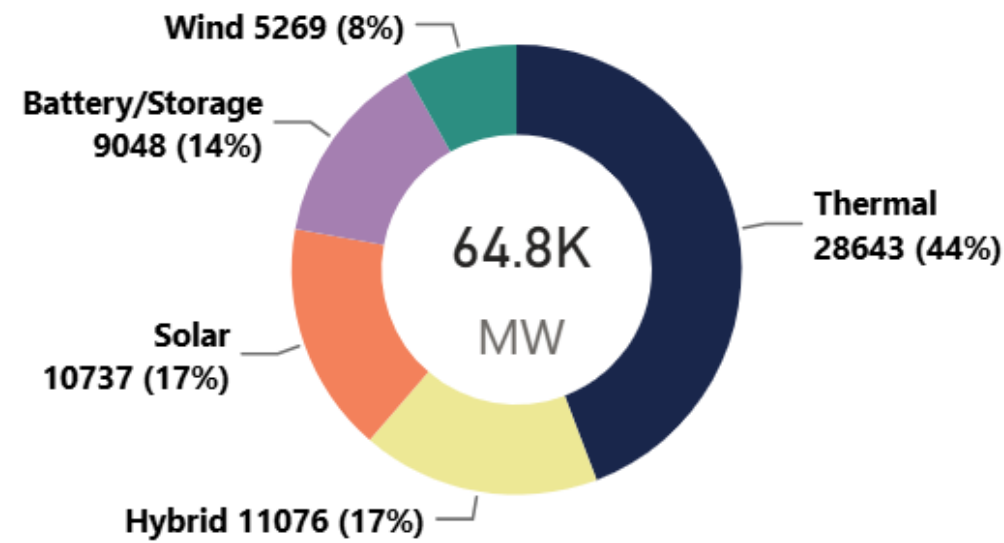
Filter by TO

Cluster Filter

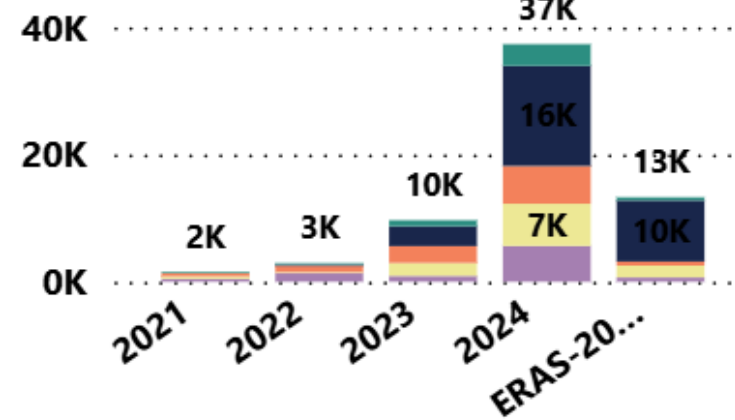
All

Generation Type ■ Battery/Storage ■ Hybrid ■ Solar ■ Thermal ■ Wind

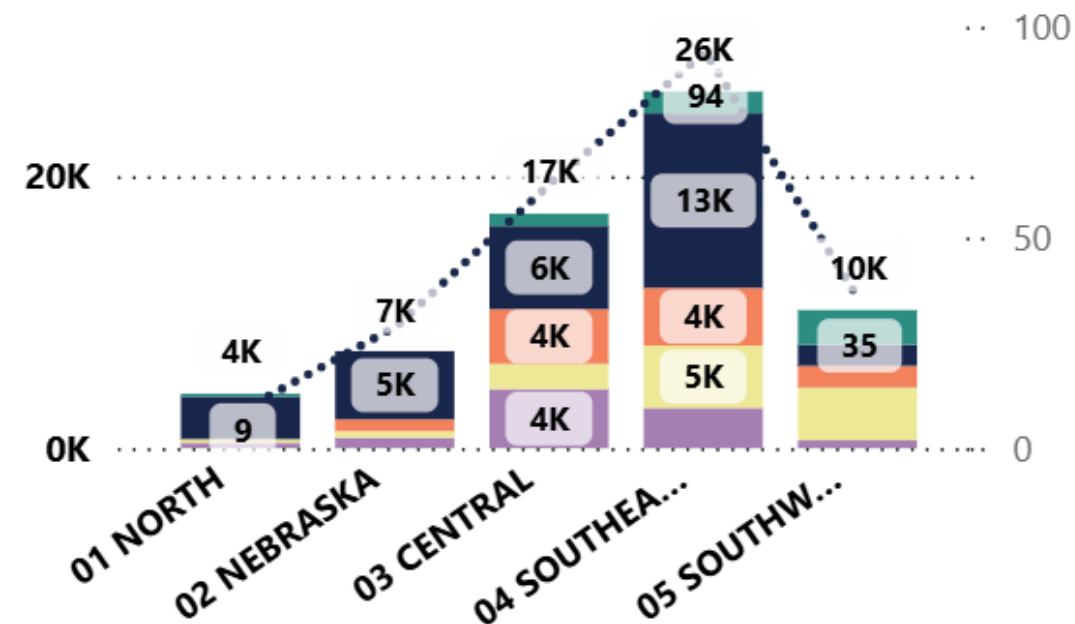
Total Queue



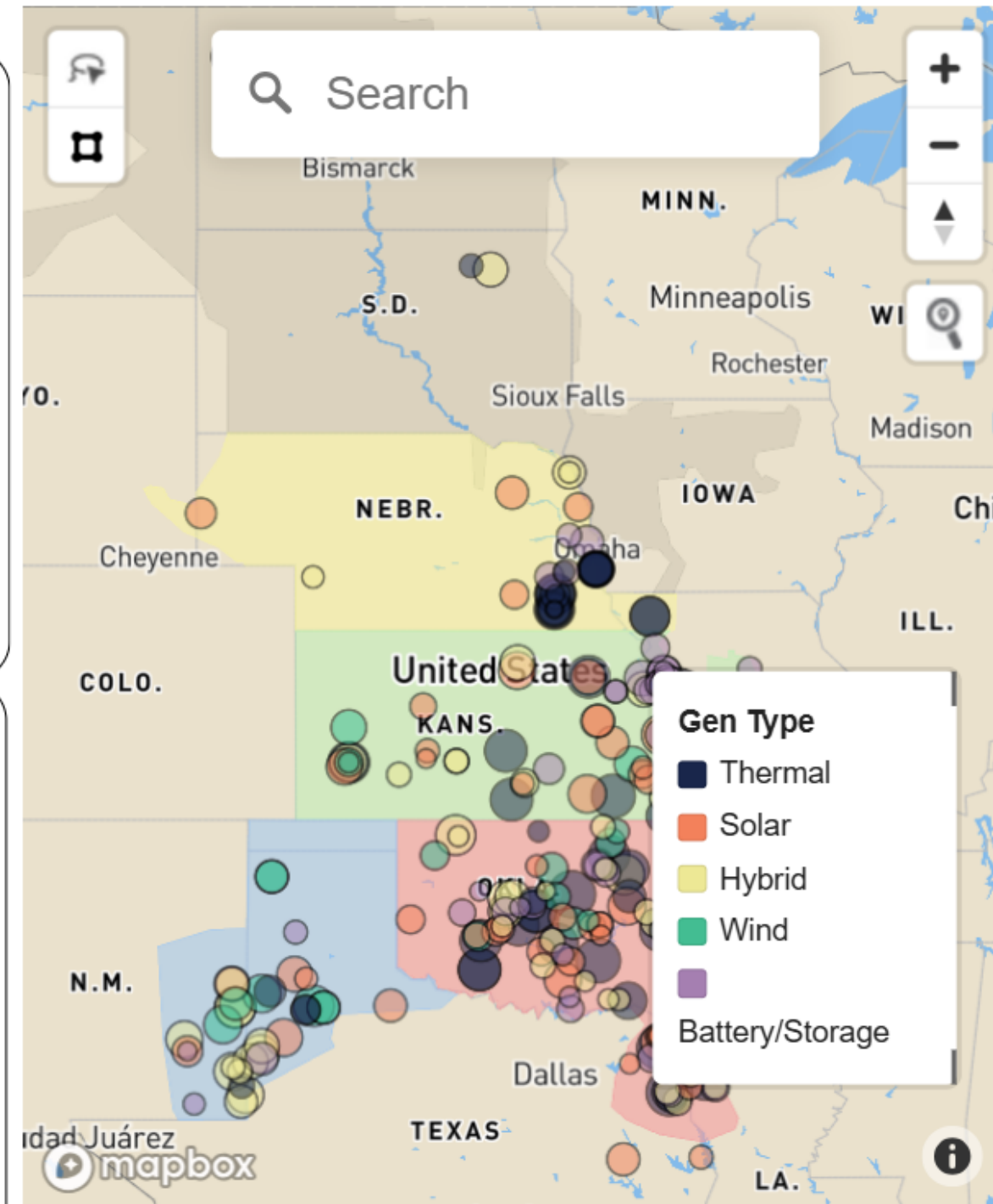
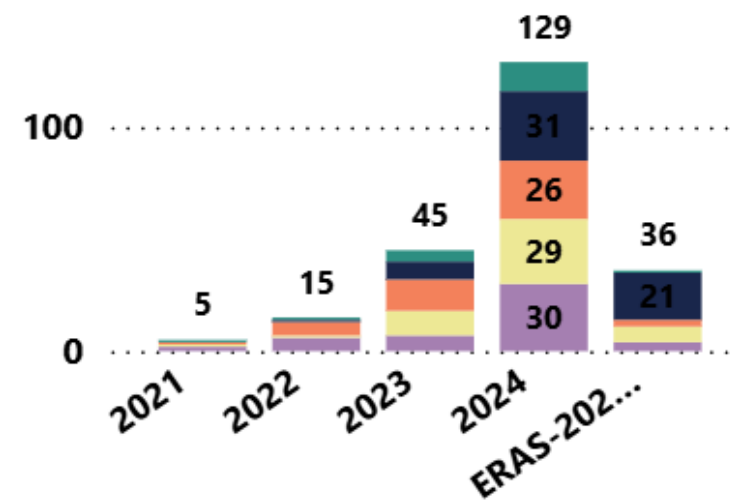
Active Projects by Year (MW)



Active Projects by Group



Active Project Counts by Year



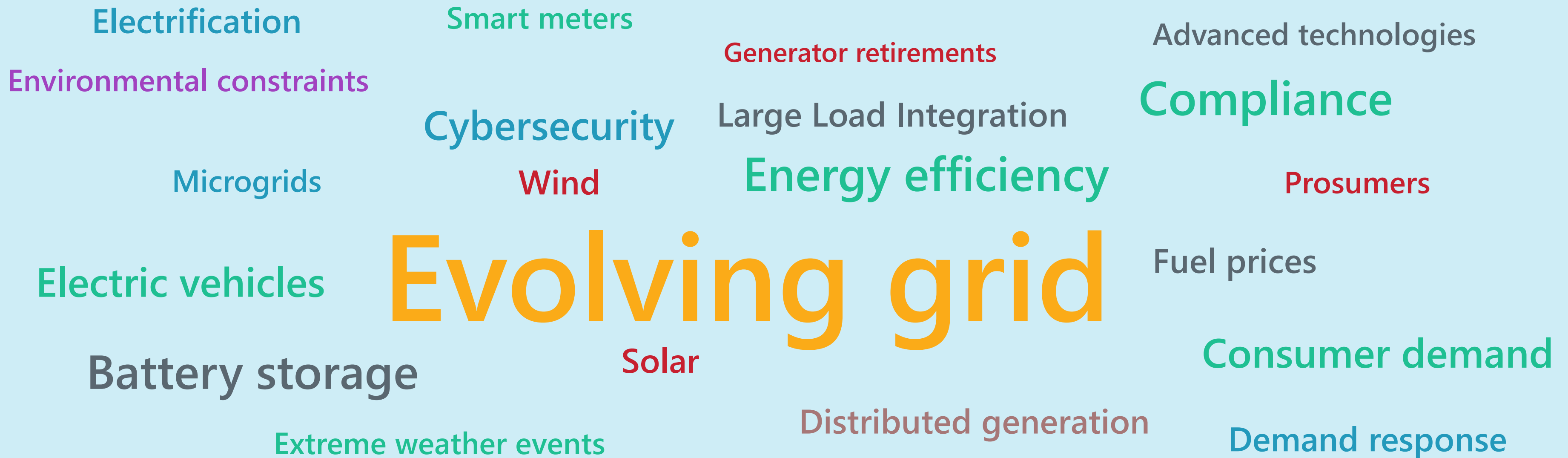
Disclaimer: The data provided is for information purposes only. Questions? Submit to [Request Management System](#). Click [HERE](#) for SPP GI Web Site. Click [HERE](#) for GI Queue data.

Cluster	MW	Projects
01 NORTH	4,009.96	9
Battery/Storage	400.00	2
Hybrid	270.00	1
Thermal	3,127.96	5
Wind	212.00	1
02 NEBRASKA	7,134.70	29
Battery/Storage	770.00	4
Hybrid	480.00	3
Solar	875.00	4
Thermal	5,009.70	18
03 CENTRAL	17,245.70	63
Battery/Storage	4,344.60	22
Hybrid	1,854.80	8
Solar	4,025.10	17
Thermal	6,121.20	12
Wind	900.00	4
04 SOUTHEAST	26,225.95	94
Battery/Storage	2,952.90	17
Hybrid	4,590.00	25
Solar	4,248.01	23
Thermal	12,828.60	21
Wind	1,606.44	8
05 SOUTHWEST	10,156.50	35
Battery/Storage	580.00	4
Hybrid	3,881.00	12
Solar	1,589.00	6
Thermal	1,556.00	5
Wind	2,550.50	8
Total	64,772.81	230

June 10, 2026



THIS ISN'T OUR PARENTS' ELECTRIC GRID



PLANNING FOR AN UNCERTAIN FUTURE

Thank You!