Resource Adequacy (RA) and Electric Reliability in Kansas

Joint Committee on Kansas Security
October 9, 2024

Justin Grady – *Deputy Director of Utilities*

Kansas
Corporation Commission

Agenda

Relative roles of KCC, SPP, and Electric Utilities to ensure reliability in Kansas.

1. KCC—K.S.A 66-101b, K.S.A. 66-1282, Integrated Resource Planning (IRP), Annual Reliability Reporting (02-365 Docket); and Rate Cases.

2. Southwest Power Pool (SPP)—Planning Reserve Margin (PRM), Other RA Policies, Summer 2024 RA Report

3. Electric Utilities—Resource Planning and Reliability Investments

1a— K.S.A 66-101b

- Ensuring reliability of the Electric Grid in Kansas is a shared responsibility, amongst the KCC, SPP, and Electric Utilities that serve in Kansas.
- K.S.A. 66-101b provides shared responsibility for reliability in Kansas:

> **66-101b. Electric public utilities; efficient and sufficient service; just and reasonable rates.** Every electric public utility governed by this act shall be required to furnish reasonably efficient and sufficient service and facilities for the use of any and all products or services rendered, furnished, supplied or produced by such electric public utility, to establish just and reasonable rates, charges and exactions and to make just and reasonable rules, classifications and regulations. Every unjust or unreasonably discriminatory or unduly preferential rule, regulation, classification, rate, charge or exaction is prohibited and is unlawful and void. The commission shall have the power, after notice and hearing in accordance with the provisions of the Kansas administrative procedure act, to require all electric public utilities governed by this act to establish and maintain just and reasonable rates when the same are reasonably necessary in order to maintain reasonably sufficient and efficient service from such electric public utilities.

1b— K.S.A. 66-1282

- K.S.A. 66-1282 requires the following:

> On or before February 1, 2013, and every two years thereafter, the state corporation commission shall compile a report regarding electric supply and demand for all electric utilities in Kansas. The report shall include, but not be limited to, generation capacity needs, system peak capacity needs and renewable generation needs associated with the 2009 Kansas renewable energy standards.

- The KCC provides this report to the Senate Utilities Committee and the House Energy, Utilities, and Telecommunications Committee. It is also posted on the Commission's website at:

https://www.kcc.ks.gov/images/PDFs/legislative-reports/2023_Electric_Supply_and_Demand_Report.pdf

1c—IRP Filings

Integrated Resource Planning (IRP)

- The KCC requires Evergy to conduct IRPs.
- Empire conducts IRPs pursuant to MO rules/requirements.
- Other Kansas utilities, COOPs and Munis conduct resource planning as directed by their Member-Owners and Board.

Evergy's IRP requires:

- Load and supply forecasting 10-20 years out.
- Resource modeling to determine optimal portfolio of resources; i.e., lowest reasonable cost given an uncertain future.
- Input sensitivity analysis, contingent scenario analysis, and a range of alternative futures is evaluated to ensure that the plan is robust and flexible.
- Most recent filing available at:

https://estar.kcc.ks.gov/estar/portal/kscc/page/docket-docs/PSC/DocketDetails.aspx?DocketId=b9e04bef-9c67-4200-acb2-81585e41f52c

1d—KCC Annual Reliability Reporting

- Docket No. 02-GIME-365-GIE requires extensive annual electric reliability reports.
  - https://estar.kcc.ks.gov/estar/portal/kscc/page/docket-docs/PSC/DocketDetails.aspx?DocketId=fc5773da-5a22-4fd5-85c0-368659ef4092
- Evergy files additional annual reliability reports in Docket No. 19-KCPE-178-CPL.
  - https://estar.kcc.ks.gov/estar/portal/kscc/page/docket-docs/PSC/DocketDetails.aspx?DocketId=92535381-ab30-4af2-9192-f6e0d14ba572
- Empire files additional annual reliability reports in Docket No. 17-EPDE-393-CPL.
  - https://estar.kcc.ks.gov/estar/portal/kscc/page/docket-docs/PSC/DocketDetails.aspx?DocketId=2a186a52-f211-4ac5-8d13-02d92cdfb1d7

1e—How are Reliability Investments Paid For?

K.S.A. 66-101b recognizes the link between just and reasonable rates and reasonably efficient and sufficient service.

- Investments in Generation and Distribution end up in a rate case, or in the case of new natural gas fired generation, a semi-annual surcharge on customers bills (see K.S.A. 66-1239).
  - For example, Docket No. 23-EKCE-775-RTS included $18.5 million/year for a 199 MW Persimmon Creek Wind Farm and $6.7 million/year for 176MW of additional Coal-Fired Generating Capacity at Jeffrey Energy Center.

- Transmission investments in Kansas are recovered through the TDC surcharge, pursuant to K.S.A 66-1237.

2a—SPP PRM

SPP, a Federal Energy Regulatory Commission (FERC)-jurisdictional Regional Transmission Operator (RTO), also has roles and responsibilities pertaining to Kansas electric reliability.

- By FERC tariff, SPP must set a Planning Reserve Margin (PRM) which maintains a 1 day in 10-year level of reliability (.1 day per year). See Section 4.0 of Attachment AA of SPP Tariff: https://www.spp.org/documents/58597/attachment%20aa%20tariff.pdf
- SPP has delegated this authority to the Regional State Committee (RSC) but maintains the ability to file separate filings with FERC.
- Currently PRM is 15% for Summer. Pending FERC approval, will go to 16% summer for Summer 26, 36% Winter for Winter 26/27.

The RSC consists of a utility regulator from each state with retail load in the SPP—currently 12 members, including Kansas.

- K.S.A. 74-633 authorizes the KCC to participate at RSC and Cost Allocation Working Group (CAWG)

2b—Other RA Policies

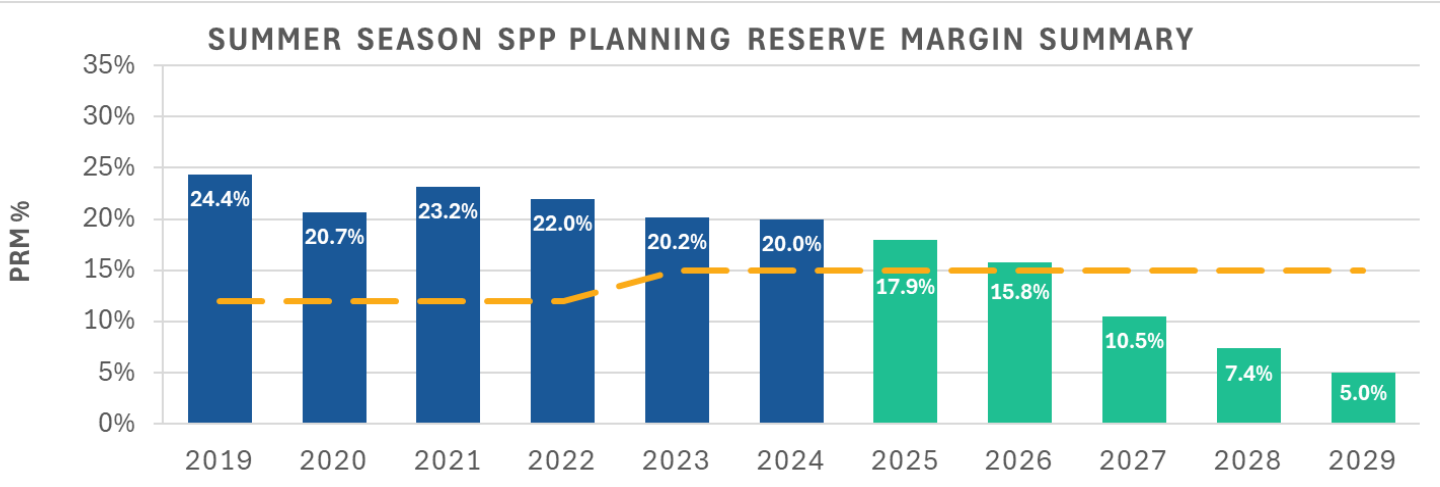
RA POLICY AND FERC FILINGS

Policy	REAL Target	MOPC Target	RSC/BOD Target	Binding	FERC Filing Timeline
Performance Based Accreditation/Effective Load Carrying Capability	Complete	Complete	Complete	Summer 2026 / Winter 2026-2027	Filed on February 23, 2024: Docket No. ER24-1317
Outage Policy RR	Complete	Complete	Complete	Winter 2025/2026	No Filing Required (Planning Criteria)
Availability RR/Winter RAR refile	Complete	Complete	Complete	Winter 2025/2026	Filed on June 28, 2024: Docket No. ER24-2397
Winter PRM RR	Complete	Complete	Complete	Winter 2026/2027	Planned on Fall 2024 Filing
Summer PRM RR	Complete	Complete	Complete	Summer 2026	Planned on Fall 2024 Filing
Fuel Assurance/OMC RR	Complete	Complete	Complete	Winter 2026/2027	Filed on September 3, 2024; Docket No. ER24-2953

2c—Summer RA Reports

Every June, SPP publishes a Resource Adequacy (RA) report detailing the anticipated levels of generation capable of meeting demand in the SPP region for the upcoming Summer.

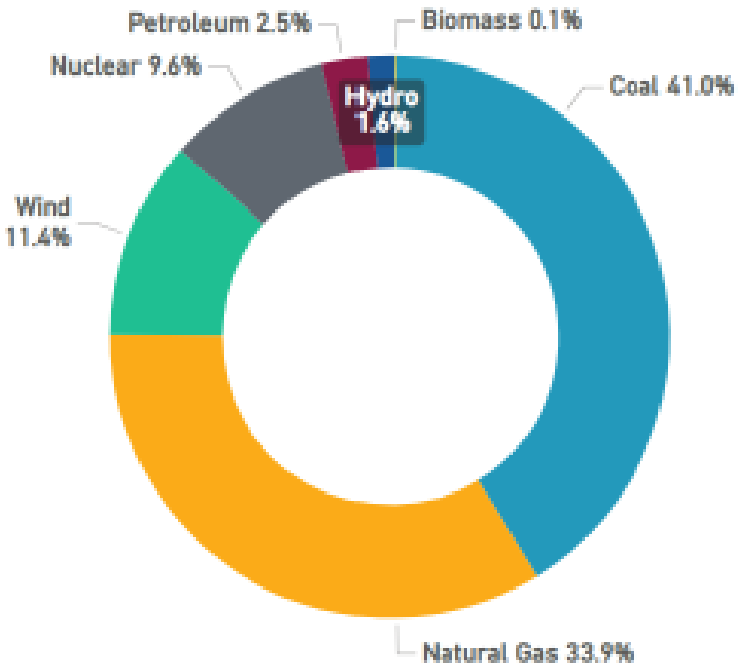
- 2024's report can be located here:
  - https://www.spp.org/documents/71804/2024%20spp%20june%20resource%20adequacy%20report.pdf
- The report shows adequate capacity for 2024, with a 20% reserve margin. However, by Summer 2027, the report shows the reserve margin falling below 15%, with no excess capacity.
- By the summer of 2029, SPP forecasts a capacity deficit of 5,950 MW, due to peak load growth increases, and a 3% reduction in capacity.



2c—Summer RA Reports

WESTAR ENERGY (EVERGY KANSAS CENTRAL)

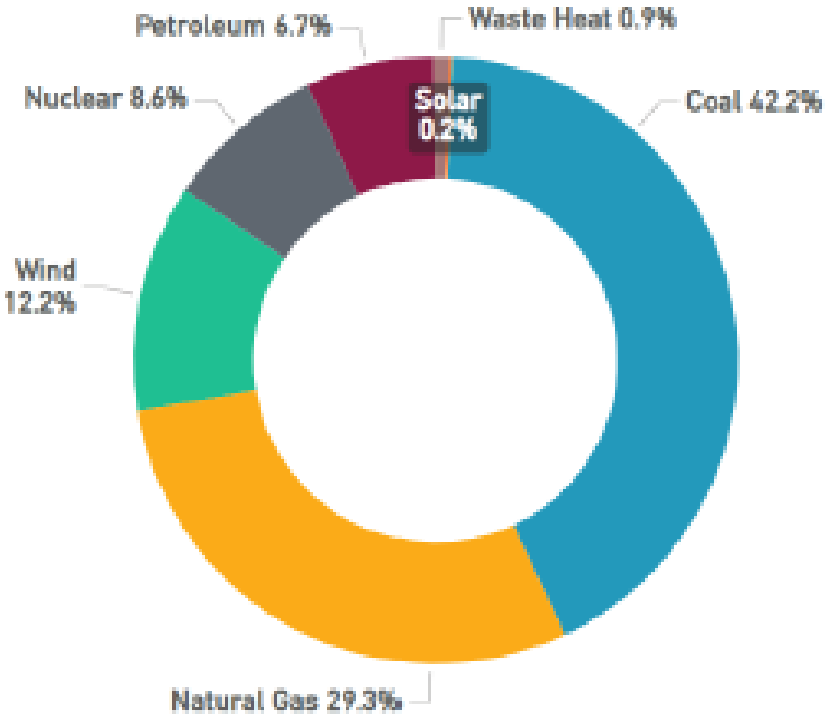
Capacity Summary	
Capacity Resources (MW)	6,010.5
Firm Capacity Purchases (MW)	702.6
Deliverable Capacity Purchases (MW)	370.3
Firm Capacity Sales (MW)	578.6
Deliverable Capacity Sales (MW)	284.8
External Firm Power Purchases (MW)	119.6
External Firm Power Sales (MW)	0.0
Confirmed Retirements (MW)	0.0
Total Capacity (MW)	6,339.7
Demand Summary	
Forecasted Peak Demand (MW)	5,140.0
Internal Firm Power Sales (MW)	0.0
Internal Firm Power Purchases (MW)	15.0
Controllable and Dispatchable DR (MW)	105.1
Net Peak Demand (MW)	5,019.9
Requirements Summary	
Resource Adequacy Requirement (MW)	5,772.9
Excess Capacity (MW)	566.7
Deficient Capacity (MW)	0.0
LRE planning reserve margin (%)	26.3
Planning Reserve Margin (%)	15.0



2c—Summer RA Reports

KANSAS CITY POWER & LIGHT (EVERGY METRO)

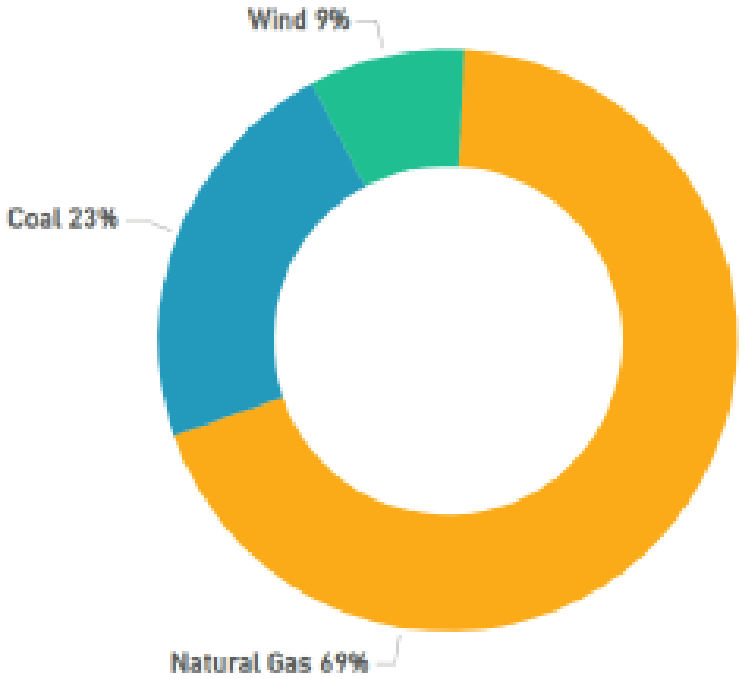
Capacity Summary	
Capacity Resources (MW)	5,851.0
Firm Capacity Purchases (MW)	1,020.9
Deliverable Capacity Purchases (MW)	0.0
Firm Capacity Sales (MW)	447.7
Deliverable Capacity Sales (MW)	0.0
External Firm Power Purchases (MW)	0.0
External Firm Power Sales (MW)	0.0
Confirmed Retirements (MW)	0.0
Total Capacity (MW)	6,424.2
Demand Summary	
Forecasted Peak Demand (MW)	5,308.0
Internal Firm Power Sales (MW)	0.0
Internal Firm Power Purchases (MW)	0.0
Controllable and Dispatchable DR (MW)	124.6
Net Peak Demand (MW)	5,183.4
Requirements Summary	
Resource Adequacy Requirement (MW)	5,960.9
Excess Capacity (MW)	463.3
Deficient Capacity (MW)	0.0
LRE planning reserve margin (%)	23.9
Planning Reserve Margin (%)	15.0



2c—Summer RA Reports

EMPIRE DISTRICT ELECTRIC COMPANY (LIBERTY UTILITIES)

Capacity Summary	
Capacity Resources (MW)	1,251.1
Firm Capacity Purchases (MW)	57.0
Deliverable Capacity Purchases (MW)	30.0
Firm Capacity Sales (MW)	78.0
Deliverable Capacity Sales (MW)	0.0
External Firm Power Purchases (MW)	0.0
External Firm Power Sales (MW)	0.0
Confirmed Retirements (MW)	0.0
Total Capacity (MW)	1,260.1
Demand Summary	
Forecasted Peak Demand (MW)	1,095.0
Internal Firm Power Sales (MW)	0.0
Internal Firm Power Purchases (MW)	0.0
Controllable and Dispatchable DR (MW)	0.0
Net Peak Demand (MW)	1,095.0
Requirements Summary	
Resource Adequacy Requirement (MW)	1,259.3
Excess Capacity (MW)	0.9
Deficient Capacity (MW)	0.0
LRE planning reserve margin (%)	15.1
Planning Reserve Margin (%)	15.0

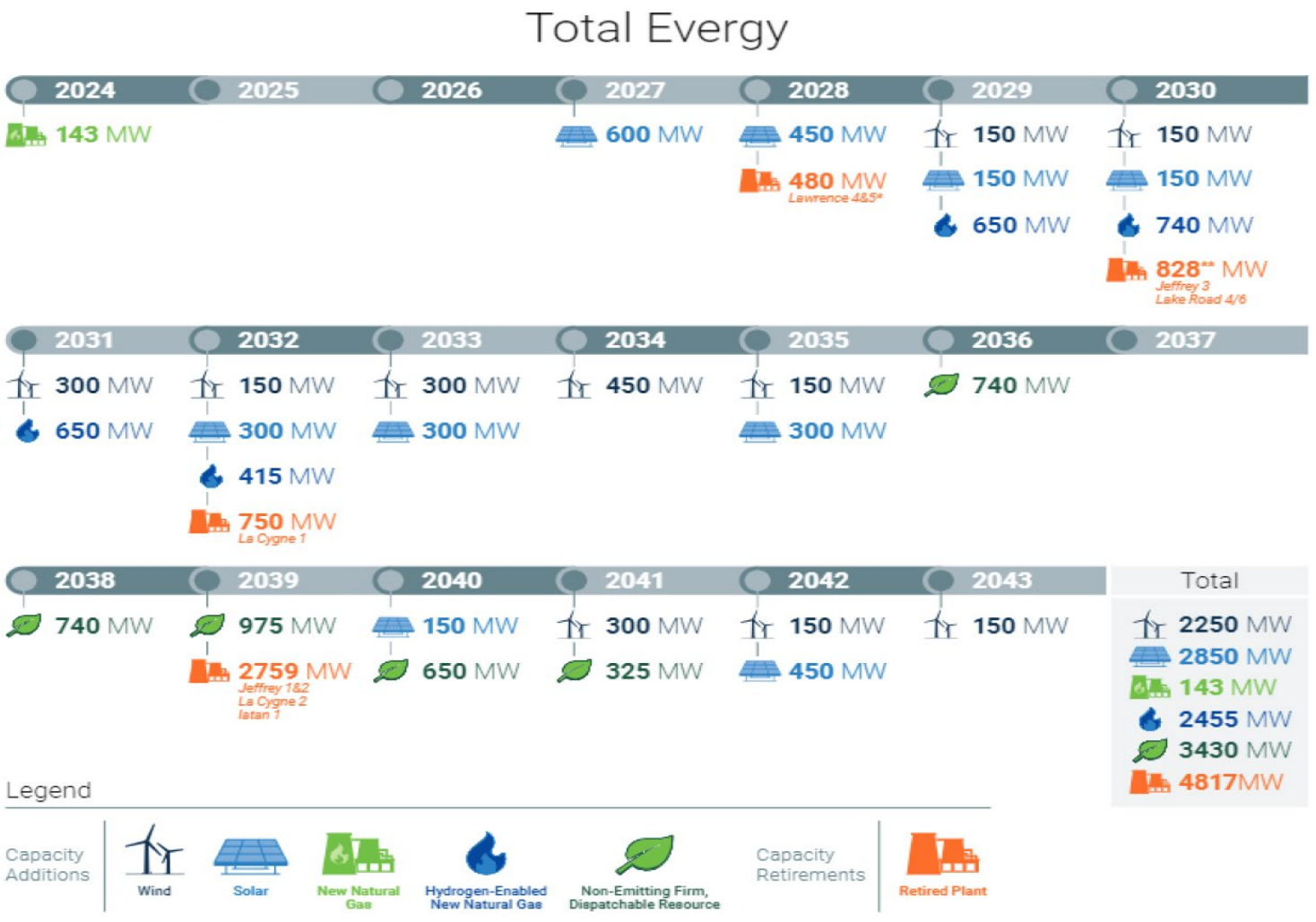


2c—Summer RA Reports

- Published Reserve Margin of other Kansas electric utilities:
  - Sunflower: 21.5%
  - Midwest Energy: 23.5%
  - KMEA (Eudora): 16.3%
  - KMEA (EMP3): 25.6%
  - KMEA (EMP2): 23%
  - KMEA (EMP1): 37.1%
  - Kansas Power Pool: 15.1%
  - Kansas City Board of Public Utilities: 21.7%
  - Kansas Electric Power Cooperative (KEPCo): 18.7%
  - City of Pratt, KS: 20.9%
  - City of Chanute, KS: 36%

3a—Electric Utility Resource Planning

Figure 3: Evergy's Supply Side Additions and Retirements



*Lawrence Energy Center 4 (107MW) retires and Unit 5 (373MW) transitions to natural gas only (338MW).

**Preferred Plan includes a placeholder for an additional coal retirement in 2030 assumed to be Jeffrey Unit 2 (733 MW).

3b—Electric Utility Resource Planning

- In Docket No. 19-KCPE-096-CPL, Evergy files Annual Capital Investment Plan filings, detailing the anticipated capital investment in its system for the next five years.
- These filings are available here: https://estar.kcc.ks.gov/estar/portal/kscc/page/docket-docs/PSC/DocketDetails.aspx?DocketId=6466c623-7063-4114-b608-feff73520a6d
- These reports show significant annual investment in utility infrastructure—$7.9 billion in total from 2024-2028.
- Evergy Kansas Central and Evergy Kansas Metro capital investment tables are shown separately on the next two slides.

3b—Electric Utility Resource Planning

Evergy Kansas Central **PUBLIC**

Capital Investment Plan Update

Schedule 1 - Current Five-Year Plan and Comparisons to Prior Five-Year Plan by Category **February 28, 2024**

In millions (may not foot due to rounding) Category	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2023-2027	Projected 2024-2028
Current Plan								
01.New Renewables/New Generation	$ 211	$ 57	$ 289	$ 372	$ 359	$ 689	$ 1,288	$ 1,766
02.Generating Facilities: Other	273	178	170	182	168	176	971	874
03.Transmission Facilities	433	478	357	378	456	467	2,103	2,137
04.Distribution Facilities	358	240	214	276	291	272	1,378	1,292
05.Information Technology	116	106	63	62	87	102	435	421
06.General Facilities	35	56	22	18	26	29	158	152
Total	**$ 1,427**	**$ 1,116**	**$ 1,115**	**$ 1,288**	**$ 1,387**	**$ 1,736**	**$ 6,333**	**$ 6,642**
Prior Plan								
01.New Renewables/New Generation	$ 2	$ -	$ 469	$ 362	$ 255		$ 1,088	
02.Generating Facilities: Other	204	184	175	143	199		906	
03.Transmission Facilities	469	474	374	369	419		2,105	
04.Distribution Facilities	306	275	295	266	273		1,415	
05.Information Technology	101	102	71	73	82		429	
06.General Facilities	30	22	20	28	34		135	
Total	**$ 1,112**	**$ 1,057**	**$ 1,405**	**$ 1,241**	**$ 1,263**		**$ 6,078**	
Current Versus Prior Plan								
01.New Renewables/New Generation	$ 209	$ 57	$ (180)	$ 10	$ 104		$ 200	
02.Generating Facilities: Other	69	(6)	(5)	39	(32)		65	
03.Transmission Facilities	(35)	4	(17)	8	37		(3)	
04.Distribution Facilities	52	(36)	(81)	10	18		(37)	
05.Information Technology	15	4	(7)	(11)	5		6	
06.General Facilities	5	34	2	(10)	(8)		23	
Total	**$ 315**	**$ 58**	**$ (289)**	**$ 47**	**$ 124**		**$ 255**	

3b—Electric Utility Resource Planning

Evergy Kansas Metro **PUBLIC**

Capital Investment Plan Update

Schedule 1 - Current Five-Year Plan and Comparisons to Prior Five-Year Plan by Category **February 28, 2024**

In millions (may not foot due to rounding) Category	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2023-2027	Projected 2024-2028
Current Plan								
01.New Renewables/New Generation	$ 0	$ -	$ -	$ -	$ 13	$ 26	$ 13	$ 38
02.Generating Facilities: Other	89	62	63	62	59	70	335	316
03.Transmission Facilities	46	34	44	34	39	48	197	198
04.Distribution Facilities	175	89	95	111	115	125	586	536
05.Information Technology	53	29	17	17	24	28	140	115
06.General Facilities	4	15	5	9	10	12	43	51
Total	**$ 368**	**$ 229**	**$ 224**	**$ 233**	**$ 260**	**$ 309**	**$ 1,314**	**$ 1,255**
Prior Plan								
01.New Renewables/New Generation	$ 52	$ 41	$ 93	$ 65	$ 32		$ 283	
02.Generating Facilities: Other	77	60	57	47	52		292	
03.Transmission Facilities	50	47	41	54	53		247	
04.Distribution Facilities	135	75	93	113	131		549	
05.Information Technology	30	30	21	21	24		126	
06.General Facilities	7	6	7	5	6		31	
Total	**$ 351**	**$ 260**	**$ 312**	**$ 305**	**$ 299**		**$ 1,528**	
Current Versus Prior Plan								
01.New Renewables/New Generation	$ (52)	$ (41)	$ (93)	$ (65)	$ (19)		$ (270)	
02.Generating Facilities: Other	12	2	6	16	7		43	
03.Transmission Facilities	(4)	(13)	2	(20)	(15)		(50)	
04.Distribution Facilities	39	14	2	(2)	(16)		37	
05.Information Technology	23	(1)	(4)	(4)	(1)		14	
06.General Facilities	(3)	9	(2)	3	5		11	
Total	**$ 17**	**$ (31)**	**$ (89)**	**$ (72)**	**$ (39)**		**$ (215)**	

Contact Information

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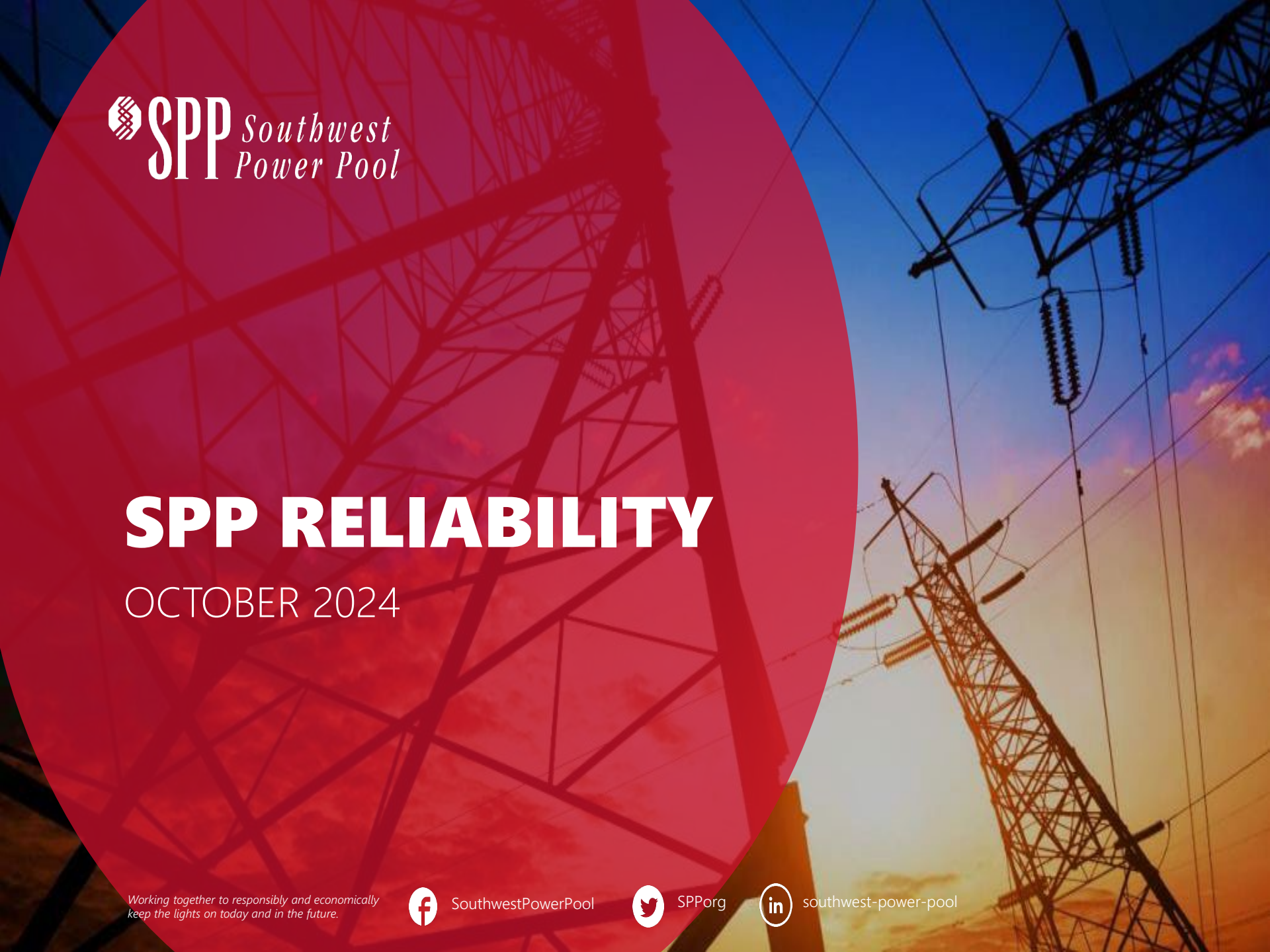
Kansas Corporation Commission



SPP Southwest Power Pool

SPP RELIABILITY

OCTOBER 2024

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

SouthwestPowerPool SPPorg southwest-power-pool

OUTLINE

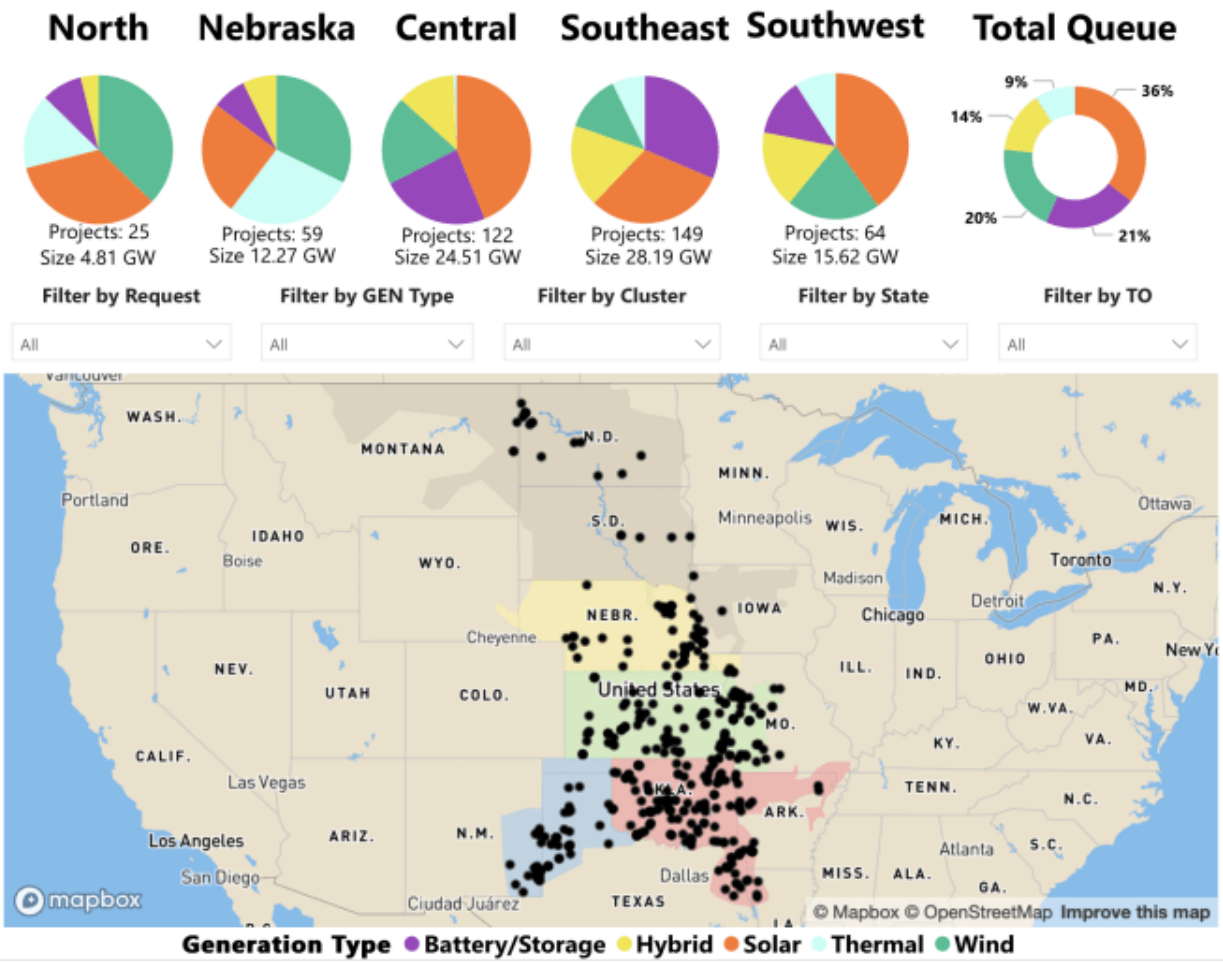
1. Generator Interconnection update
2. Resource Adequacy
3. Load Forecasting Task Force
4. Transmission Planning
   a) 2024 Integrated Transmission Planning (ITP) portfolio
   b) Consolidated Planning Process (CPP)

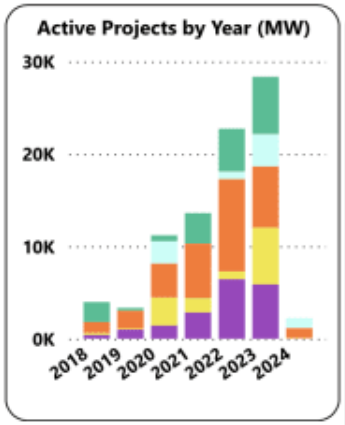
GI STATUS AND UPCOMING

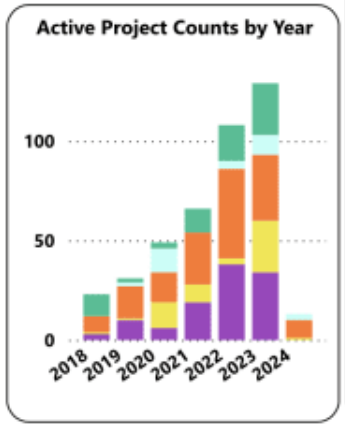
SEPTEMBER 2024

Southwest Power Pool Generation Interconnection Queue Dashboard

The current generator interconnection active queue consists of 419 projects totaling 85.4 GW







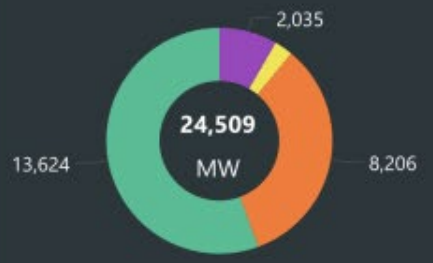
Cluster	MW	Projects
01 NORTH	**4,805.29**	**25**
Battery/Storage	425.00	2
Hybrid	184.50	2
Solar	1,625.00	6
Thermal	783.15	6
Wind	1,787.64	9
02 NEBRASKA	**12,269.10**	**59**
Battery/Storage	905.00	6
Hybrid	905.00	4
Solar	3,050.87	19
Thermal	3,449.96	14
Wind	3,958.27	16
03 CENTRAL	**24,510.55**	**122**
Battery/Storage	5,786.49	35
Hybrid	3,090.00	12
Solar	10,747.58	51
Thermal	166.56	4
Wind	4,719.92	20
04 SOUTHEAST	**28,194.44**	**149**
Battery/Storage	8,846.79	55
Hybrid	5,124.60	27
Solar	8,668.15	47
Thermal	2,046.40	4
Wind	3,508.50	16
05 SOUTHWEST	**15,615.38**	**64**
Battery/Storage	2,002.00	12
Hybrid	2,685.00	9
Solar	6,281.88	29
Thermal	1,423.00	3
Wind	3,223.50	11
Total	**85,394.76**	**419**

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.

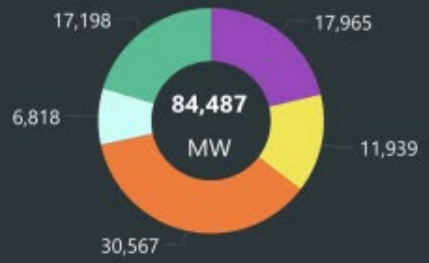
Commercial Operation Date Forecast

SPP currently has 140 projects with Executed GIAs expected to come on-line over the next 6 years.
Additionally, there are 420 projects in active study status. Based on a historical 60% withdraw rate, we can estimate 168 additional projects to come on-line over the next 6 years.

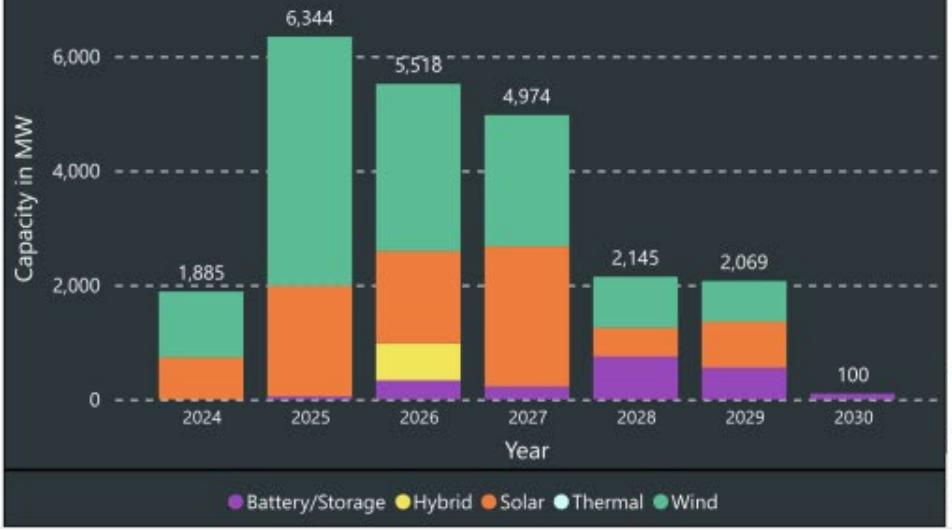
Executed GIA Generation (MW)



Active Study Generation (MW)



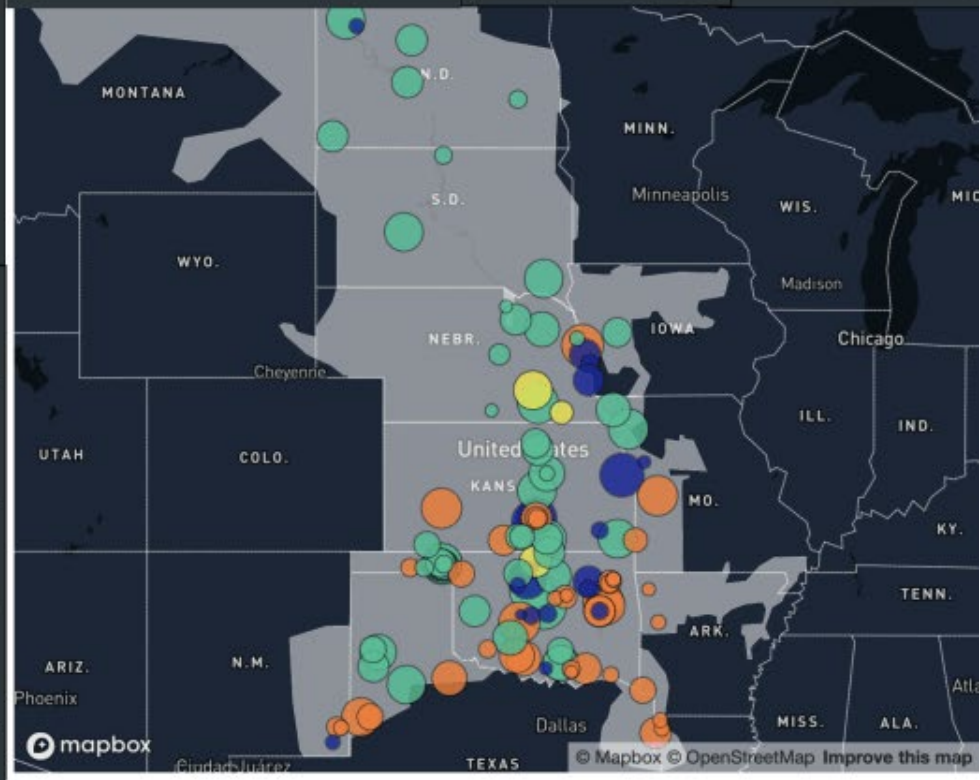
Executed GIA by Commercial Operation Year



Southwest Power Pool Commercial Operation Date Forecasting Map

State: All

Transmission Owner



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Click HERE for SPP GI Web Site. Click HERE for GI Queue data.

GI BACKLOG CLEARING PLAN STATUS

All backlog requests will receive P1, P2 results by June 2025, many requests will have executed GIAs

SPP Generation Interconnection Queue Study Schedule*

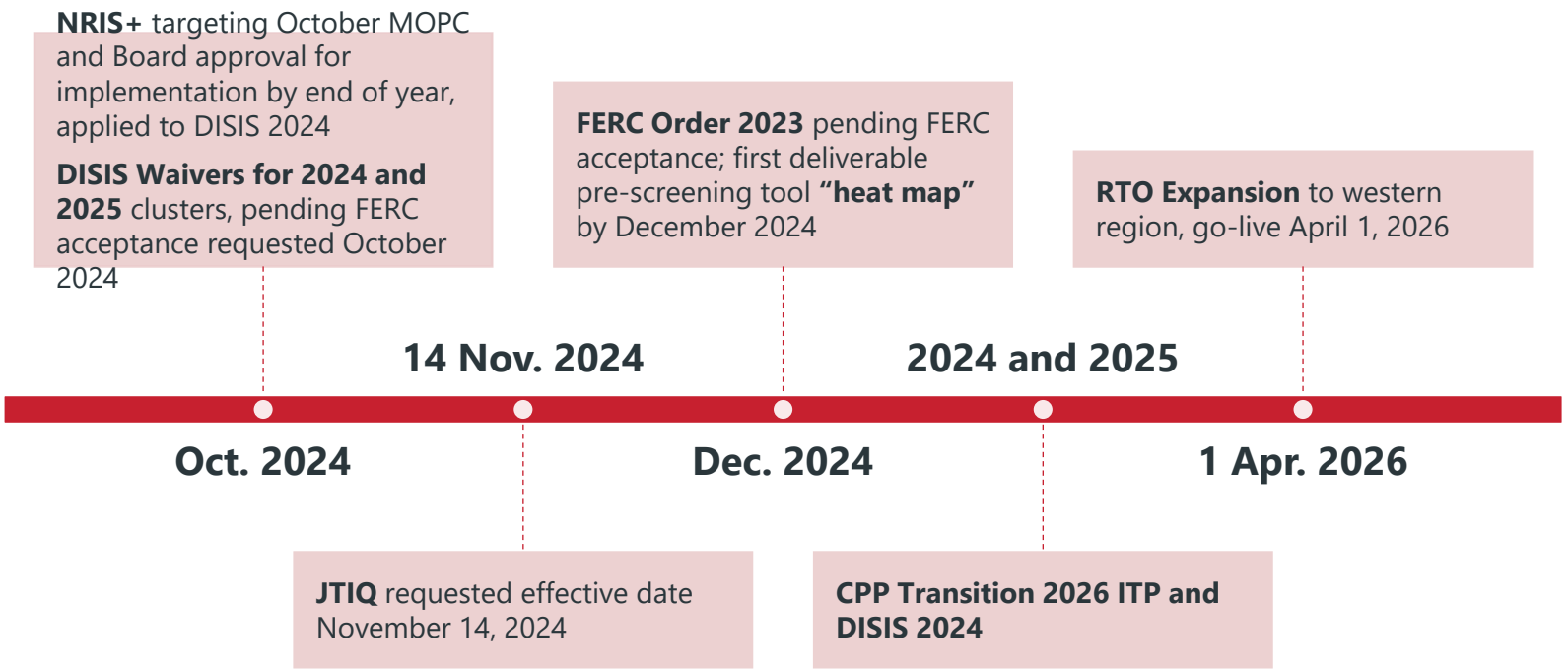
Green shaded cells indicate milestone completion. *Actual Start and Completion dates may vary and are subject to change. **Restudy start dates may change pending the outcome of the previous restudy.

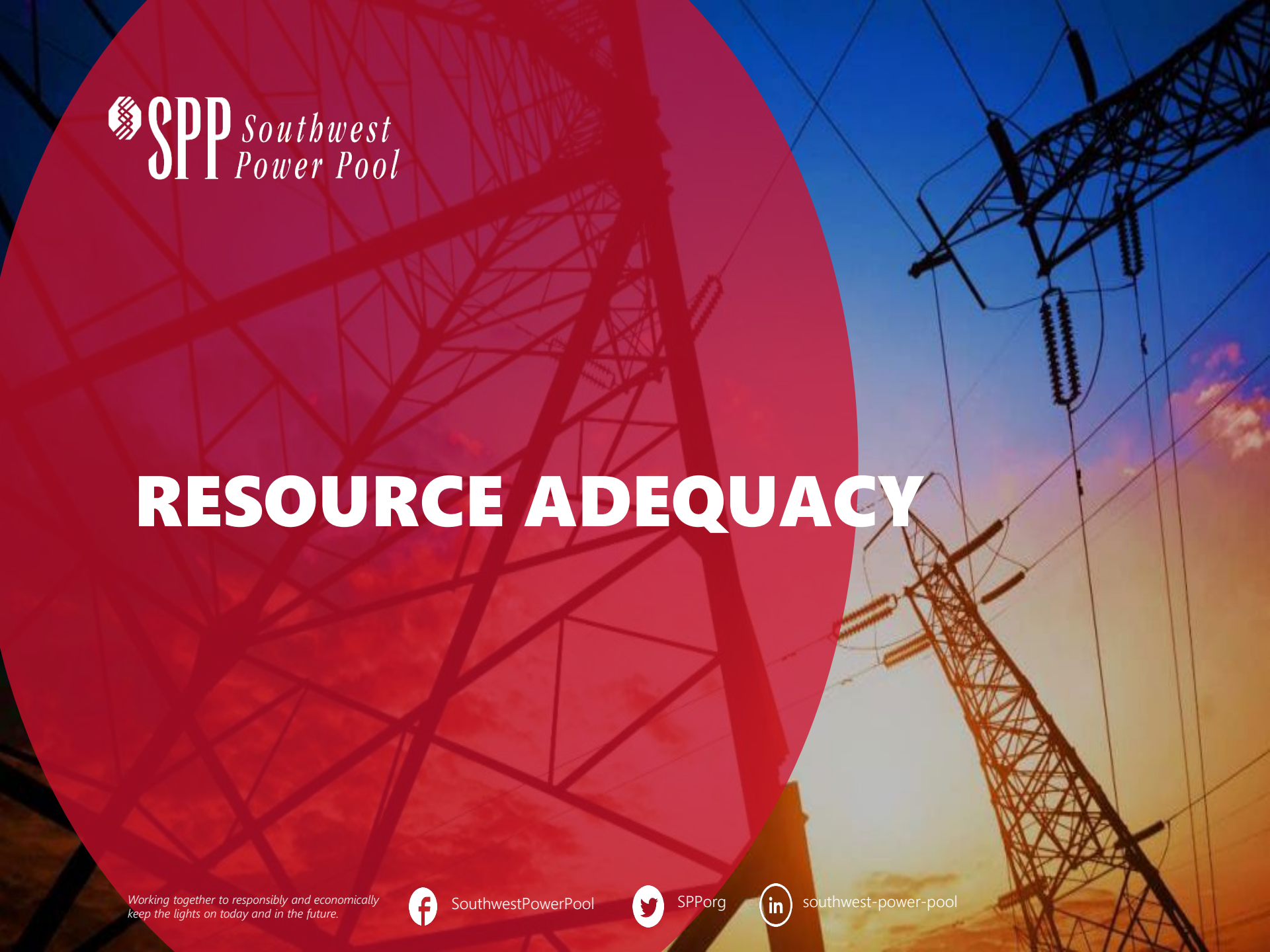
DISIS Cluster	Projects	MWs	*Projected DISIS Study Start	Phase 1 Posting	Projected DP 1 Completion	Phase 2 Start	Phase 2 Posting	Projected DP2 Completion	**Projected Restudy Start	Projected Restudy Completion	Projected Facilities Studies Start (pending restudy)	Projected GIA Start	Current Status	Postings & Comments
DISIS-2017-001									None planned	None planned				2017-001 Cont. Fac. study cancelled, no plan to re-open GIA's
DISIS-2017-002	59	11,727	6/21/2021	2/18/2022	3/14/2022	3/15/2022	8/29/2022	9/20/2022	1/5/2024	6/26/2024	6/27/2024	8/26/2024	GIA's in progress	4/12 Final restudy posting delayed due to contingent facility analysis
DISIS-2018-001	32	4,955	3/15/2022	7/19/2022	8/23/2022	9/21/2022	3/20/2023	4/24/2023	6/27/2024	9/23/2024	9/24/2024	11/25/2024	Restudy complete	Restudy posting delayed until close of 2021 DP2
DISIS-2018-002 & DISIS-2019-001	54	7,298	8/24/2022	10/25/2022	12/1/2022	4/25/2023	8/23/2023	10/13/2023	9/24/2024	11/22/2024	11/25/2024	1/24/2025	Restudy pending	Phase 1 Final re-posted 11/16/2022, Phase 2 Final re-posted 9/14/23
DISIS-2020-001	65	14,371	12/2/2022	3/17/2023	4/7/2023	10/16/2023	2/16/2024	3/11/2024	11/25/2024	1/24/2025	1/27/2025	3/28/2025	Restudy pending	Phase 1 Final posted 3/17/2023 Phase 2 Final posted 2/16/2024
DISIS-2021-001	68	13,942	4/10/2023	6/8/2023	7/17/2023	3/12/2024	8/9/2024	9/16/2024	1/27/2025	3/27/2025	3/28/2025	5/27/2025	Restudy pending	P1 Final re-posted 6/30/2023, P2 posted 8/9/24, re-posted 8/30/24
DISIS-2022-001	109	22,824	7/18/2023	9/28/2023	11/3/2023	9/17/2024	1/14/2025	2/5/2025	3/28/2025	5/26/2025	5/27/2025	7/28/2025	Phase 1 complete	Phase 1 Final re-posted 10/20/23
DISIS-2023-001	214	46,517	1/2/2024	3/1/2024	3/22/2024	2/6/2025	6/5/2025	6/27/2025	6/30/2025	8/28/2025	8/29/2025	10/28/2025	Phase 1 complete	Phase 1 Final posted 3/1/2024
DISIS-2024-001 normal DISIS	13	2,233	12/2/2024	1/30/2025	2/21/2025	2/24/2025	6/23/2025	7/15/2025	7/30/2025	9/29/2025	9/30/2025	12/1/2025	Window Open	Window opened 12/1/23, closes 10/31/24
DISIS-2024-001 with waiver	13	2,233	9/2/2025	10/31/2025	11/24/2025	11/25/2025	3/24/2026	4/14/2026	4/29/2026	6/29/2026	6/30/2026	8/31/2026	Window Open	Window opened 12/1/23, closes 3/1/2025 (Pending FERC approval)

BCP

Normal

GI UPCOMING


NRIS+ targeting October MOPC and Board approval for implementation by end of year, applied to DISIS 2024
DISIS Waivers for 2024 and 2025 clusters, pending FERC acceptance requested October 2024
FERC Order 2023 pending FERC acceptance; first deliverable pre-screening tool **"heat map"** by December 2024
RTO Expansion to western region, go-live April 1, 2026
14 Nov. 2024
2024 and 2025
Oct. 2024
Dec. 2024
1 Apr. 2026
JTIQ requested effective date November 14, 2024
CPP Transition 2026 ITP and DISIS 2024



SPP Southwest Power Pool

RESOURCE ADEQUACY

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

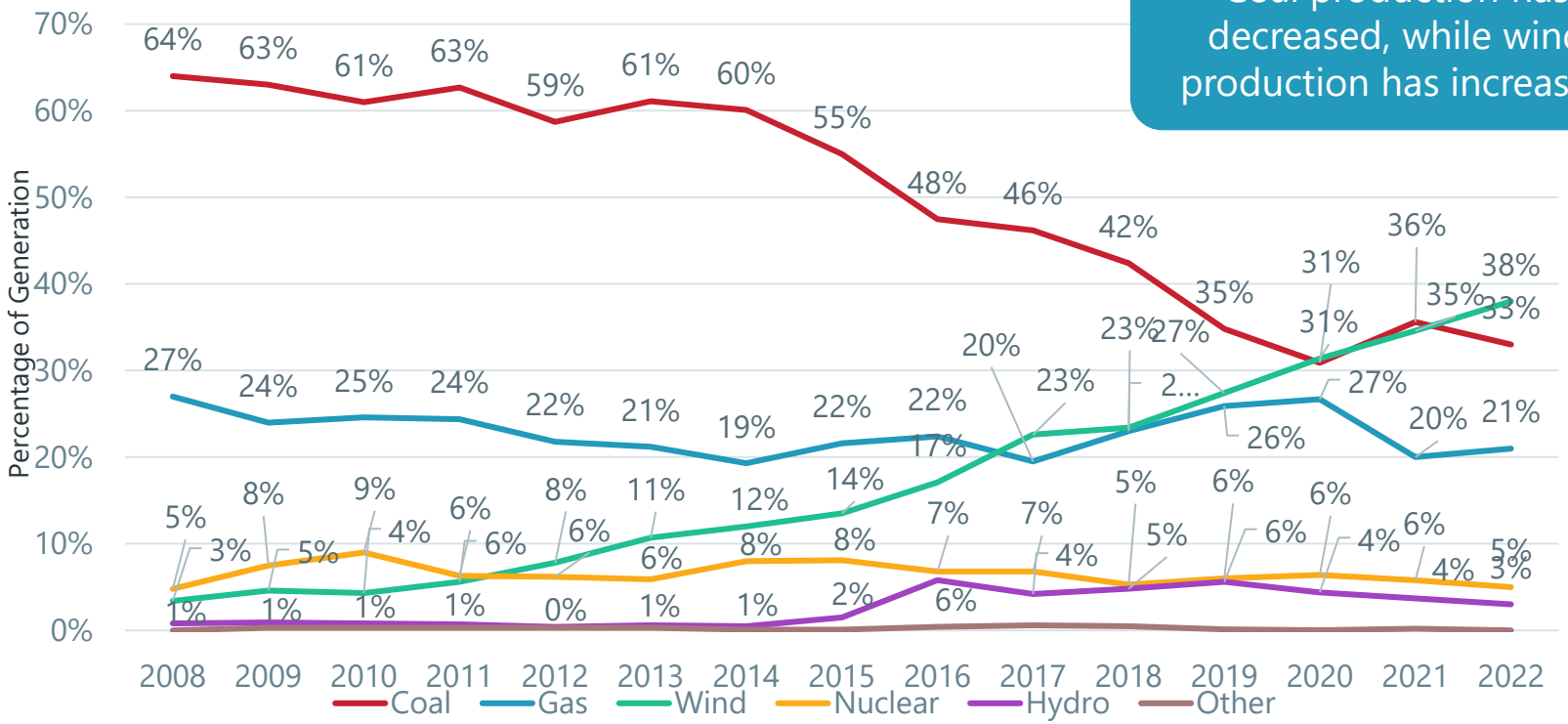
SouthwestPowerPool SPPorg southwest-power-pool

RESOURCE ADEQUACY CHALLENGES

- Influx of intermittent renewable generation
- Thermal generation retirements
- Resource under-performance & unavailability
- Increasing load & volatility
- Extreme weather events
- Reducing margins

SPP'S EVOLVING ENERGY MIX

Coal production has decreased, while wind production has increased

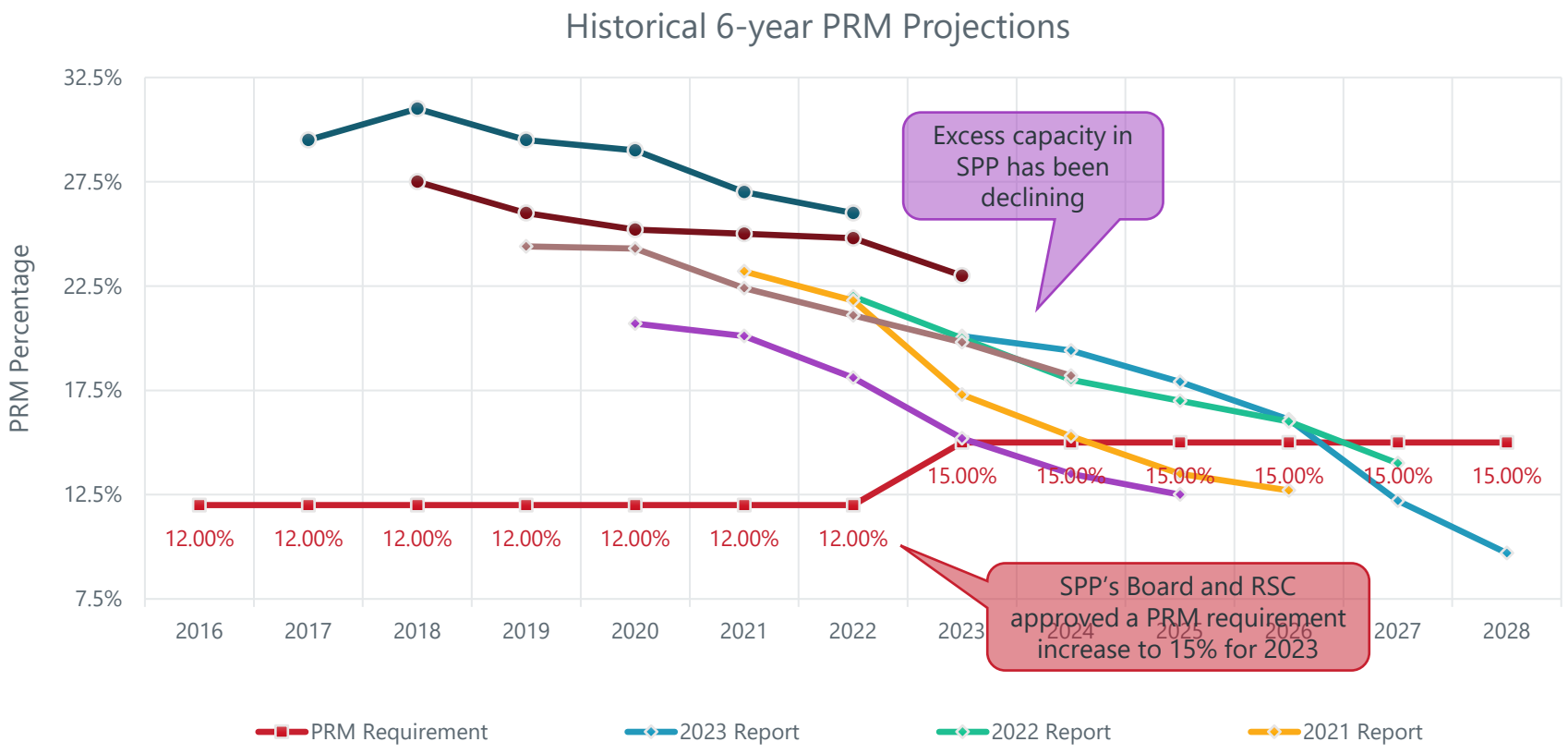


SPP'S CURRENT RESOURCE ADEQUACY APPROACH

- Regional resource adequacy requirements imposed on Load Responsible Entities ("LREs")
- LREs must demonstrate sufficient accredited capacity will be available to meet peak demand plus the Planning Reserve Margin (PRM) requirement
  - Summer Requirement (deficient LREs subject to deficiency payment)
  - Winter Obligation
- LREs build or procure capacity through bilateral market
- PRM requirement established through Loss of Load Expectation (LOLE) analyses performed at least biennially
- Compliance measured through annual data collection process

Capacity
Team members' collective ability to play
Energy
Output of players on field
Reserve margin
Ability of reserve players to contribute

HISTORICAL MARGIN PROJECTIONS



WHAT IS CURRENTLY AT FERC?

RR	Policy	FERC Filing	Docket
549	Winter Season Resource Adequacy Requirement	June 28, 2024	Docket No. ER24-2397
605	Availability Language	June 28, 2024	Docket No. ER24-2397
616	Outage Policy	No Filing Required (The Tariff changes were contained in the Winter RAR filing)	
554	Performance Based Accreditation	February 23, 2024	Docket No. ER24-1317
568	Effective Load Carrying Capability	February 23, 2024	Docket No. ER24-1317
600.15	RTO West Expansion for Attachment AA	June 4, 2024	Docket No. ER24-2184
621	Fuel Assurance	September 3, 2024	Docket No. ER24-2953
622	Summer and Winter Season PRM	Planned Filing in Fall 2024	

Other Dockets		
PRM Complaint	Docket No. EL23-40	Pending at FERC (2nd Compliance Filing)
Accreditation Complaint	Docket No. EL24-96	Pending at FERC

SAWG PRIORITIZATION RANKING

End Date represents policy Target

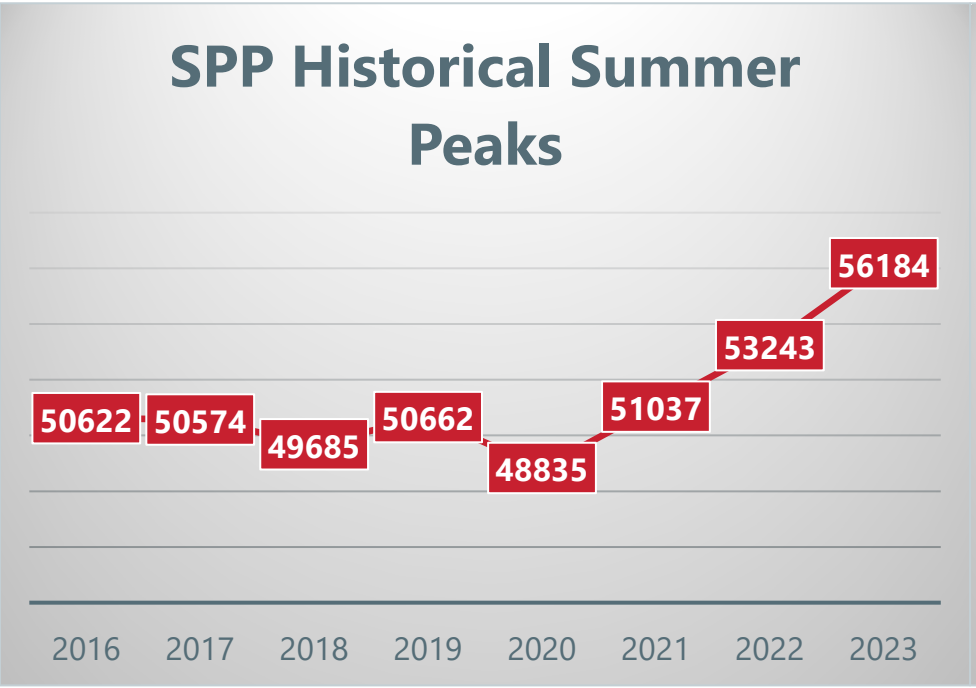
RR Date represents MOPC Target

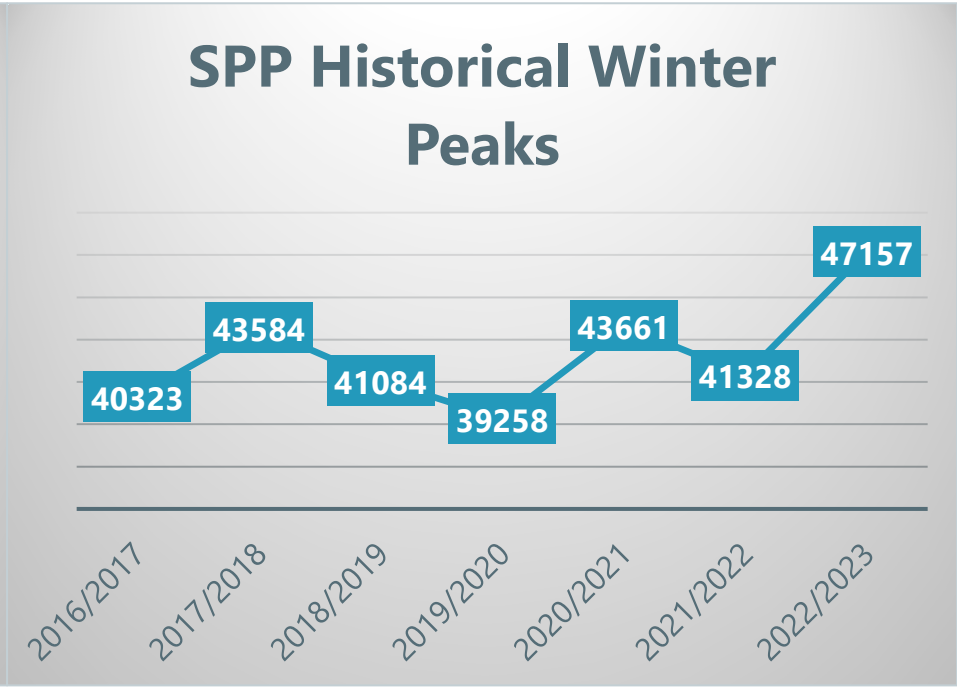
*Estimate

Project	SAWG Priority	Status	Revision Request	Start Date	End Date	RR Date	Comments
Demand Response	High	Not started	Yes	June '25*	June '27*	Oct '27*	Phase II to be aligned with operations and markets
Long Term PRM Projection	High	Not started	TBD	July '24	Nov '24	TBD	Discussions on the potential "binding" nature can continue before this analysis takes place
Long Term Resource Mix	High	Not started	TBD	Jan '25	Mar '26	June '26	Replicates the REAL future resource mix study with updates
Enable more gen to connect faster	High	Not started	TBD	Jan '25*	TBD	TBD	CPPTF, GIAG, and TWG are primary
Cost & Benefit or Reliability Standards (PRM/EUE)	New	Not Started	TBD	Sept '24	Jan '27*	April '27*	Precursor to standardized EUE, may include VOLL, includes discussion on balance of affordability and reliability
Normalized EUE Standard	High	Not started	Yes	Jan '25	Mar '26	June '26	Replicates the REAL future resource mix study with updates
Outage Planning Alignment	Medium	Not started	TBD	Jan '25	Mar '26	June '26	Additional policy and direction needed
Warm Weather De-rates	Medium	Not started	TBD	August '24	June '25	TBD	Should be included in the 2025 LOLE study scope
Non-firm Import Availability	Low	Not started	Yes	Sept '25	Jan '27	June '27*	Evaluate post 2025 LOLE Study
LRE Peak Demand Accountability	**Low**	Not started	Yes	August '24	June '25	Oct '25*	Staff suggests this initiative be prioritized as high, SAWG would like to wait to see the outcome of LFTF
CP vs NCP Demand Methodology	Low		Yes	Jan '27	June '27	Oct '27*	There is an accreditation component and a RAR component
Seasonal RA Requirements	Low	Not started	Yes	Jan '26*	June '26*	Oct '26*	
Determine value of Resiliency	New		TBD	Jan '25	Mar '25		Primarily a transmission planning function to be discussed in coordination with the 2025 ITP
Ramping for RA	Low	MWG/ Monitoring	Yes	TBD	TBD	TBD	Staff will monitor ramp trends and reconsider at SAWG after MWG work and/or if trends are concerning

LOAD GROWTH

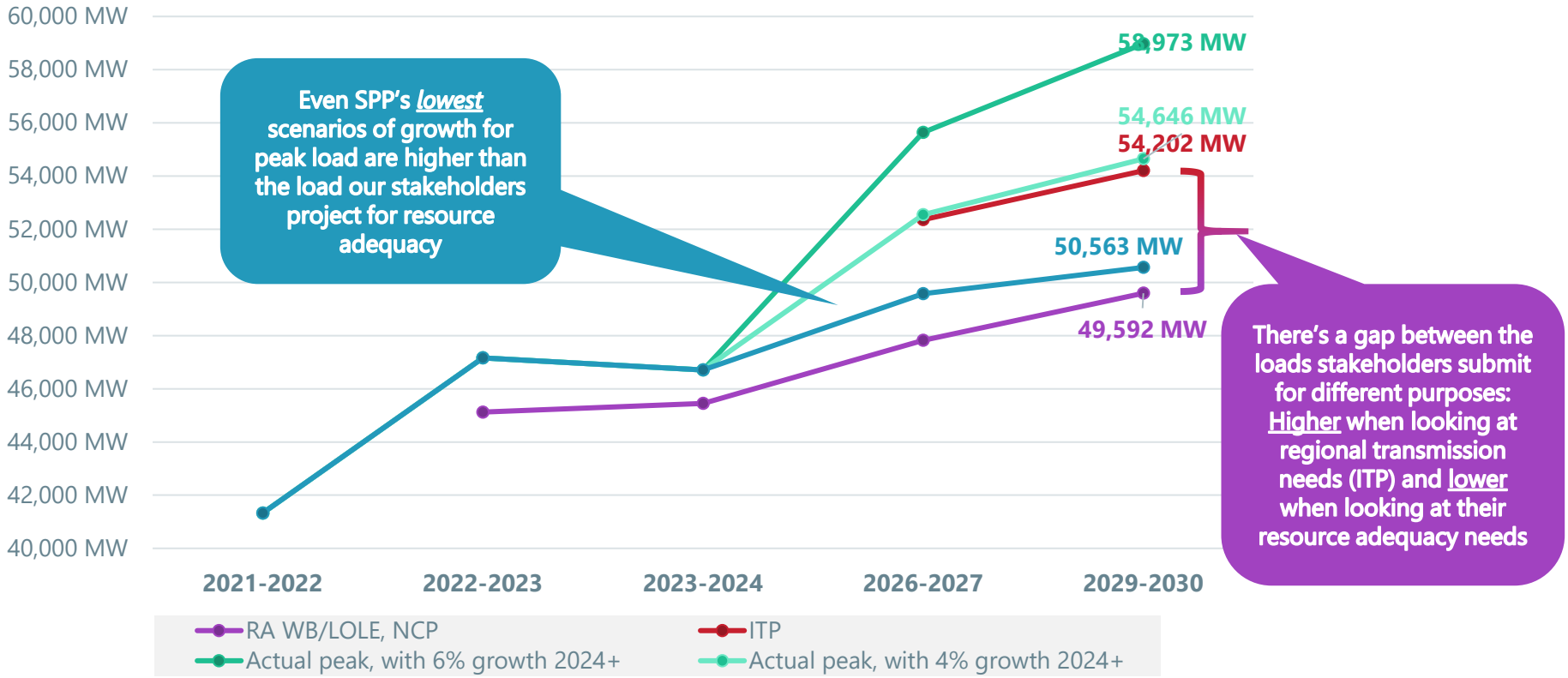
PEAK LOAD TRENDS



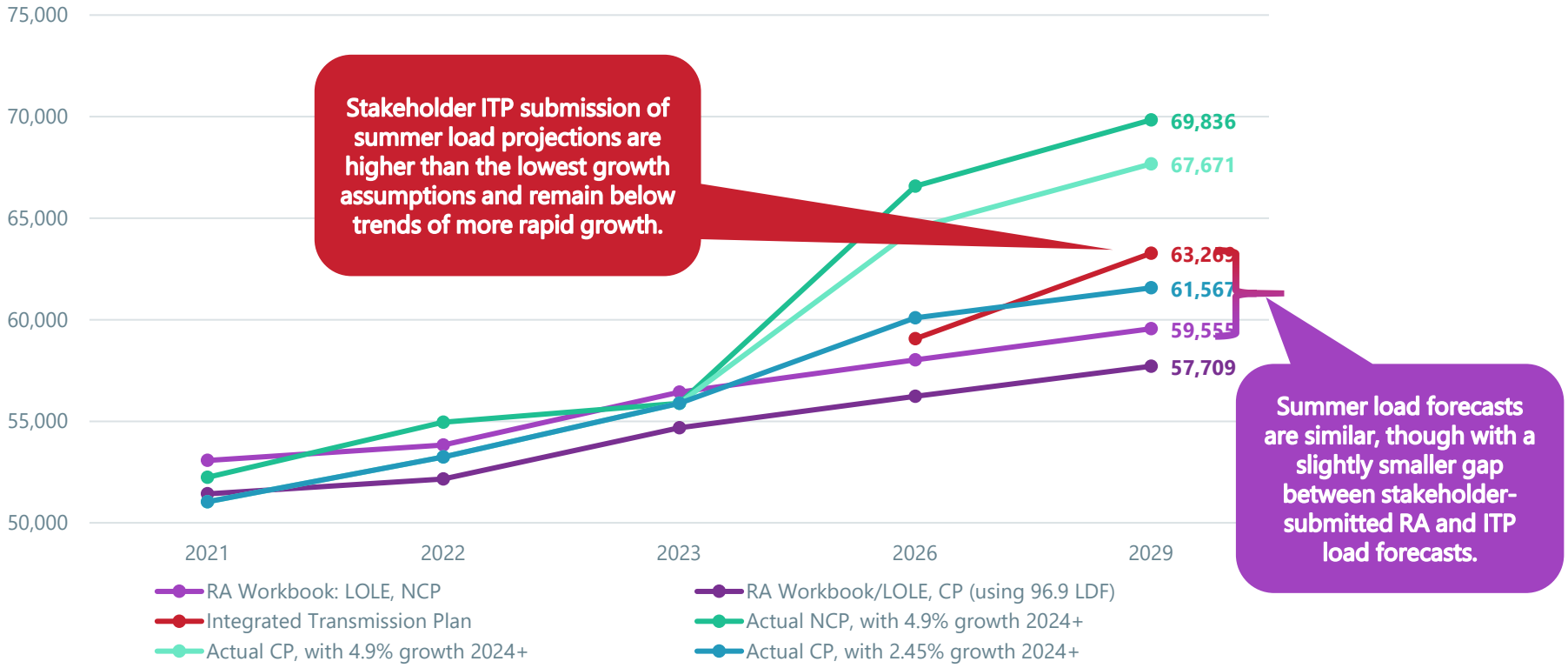


2023 summer peak load 5.5% higher than previous peak and 2022/23 winter peak 8% higher than previous winter peak

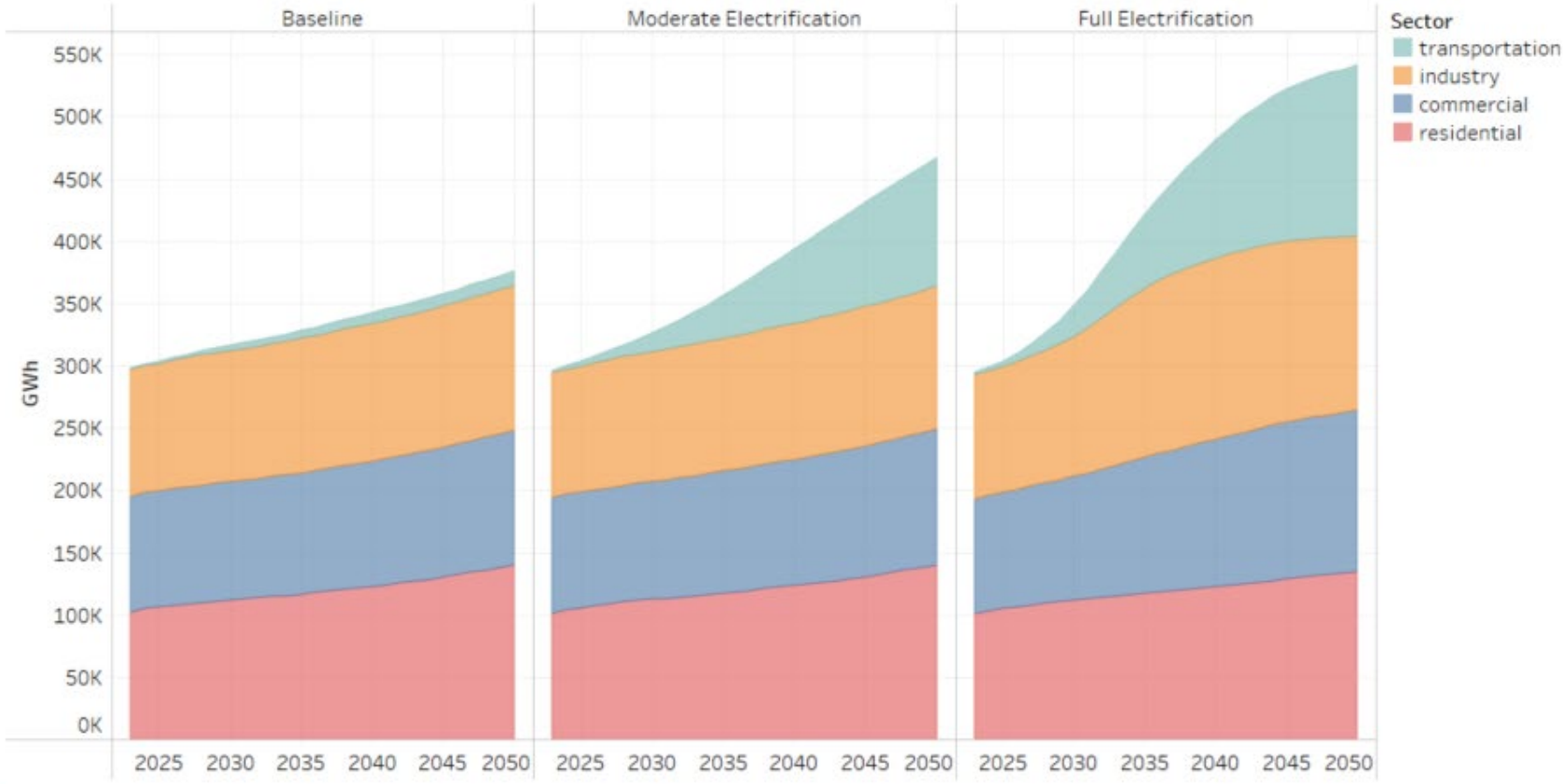
WINTER LOAD FORECASTS: MEMBER-SUBMITTED COMPARED TO ACTUALS AND GROWTH SCENARIOS



SUMMER LOAD FORECASTS: MEMBER-SUBMITTED COMPARED TO ACTUALS AND GROWTH SCENARIOS



Electricity demand by sector



LOAD FORECASTING TASK FORCE

Purpose

- Assess current load forecast construct and anticipated challenges and provide guidance and policy recommendations to increase assurance that the best practices are implemented

Considerations

- Transmission Planning
- Resource Adequacy
- Load of the future
- Demand electrification

Deliverables

- Whitepaper and RR to define, evaluate, and develop Large Load Interconnection process
- Whitepaper to describe load forecasting and best practices to improve load forecasts utilized by SPP
- Potential RR to develop a process to review inputs and assumptions of load forecasts
- Potential RR to clarify responsibilities of LREs to meet load forecasting needs of SPP

2024 ITP

2024 ITP OVERVIEW

Deliver greater, more equitable value to members

- 2024 ITP portfolio helps levelize energy costs, particularly benefiting members with higher energy prices.

Achieve seamless boundaries

- Portfolio improves intra-regional transfer capability and enhances renewable energy access for more members and neighbors.

Innovative transmission planning

- Introduced extreme winter weather models in 2024 ITP, recommending transmission investment to boost system resiliency.

Attain high-quality decisions through collaborative stakeholder process

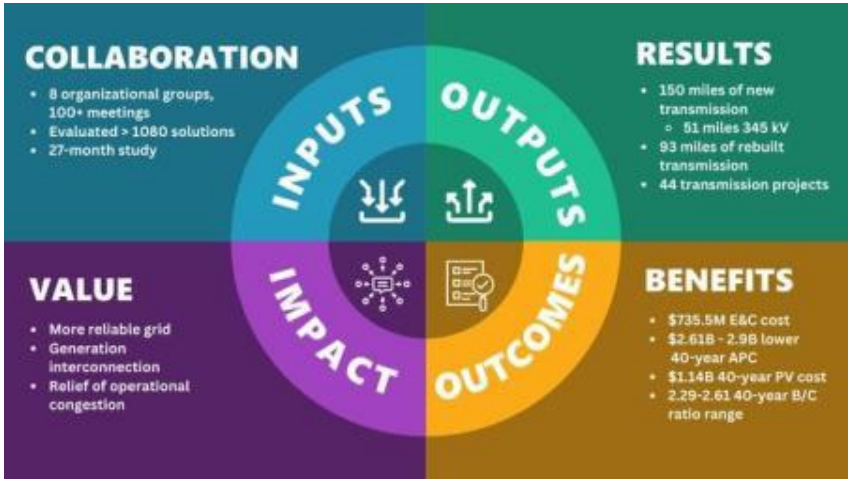
- 138+ working group meetings over 27 months, local TO discussions, and quarterly MOPC updates resulted in strong stakeholder support for the 2024 ITP.

Drive value beyond reliability

- Eight projects identified with both reliability and economic benefits, achieving record B/C ratios of nearly 23-to-1 and 26-to-1 for future scenarios.

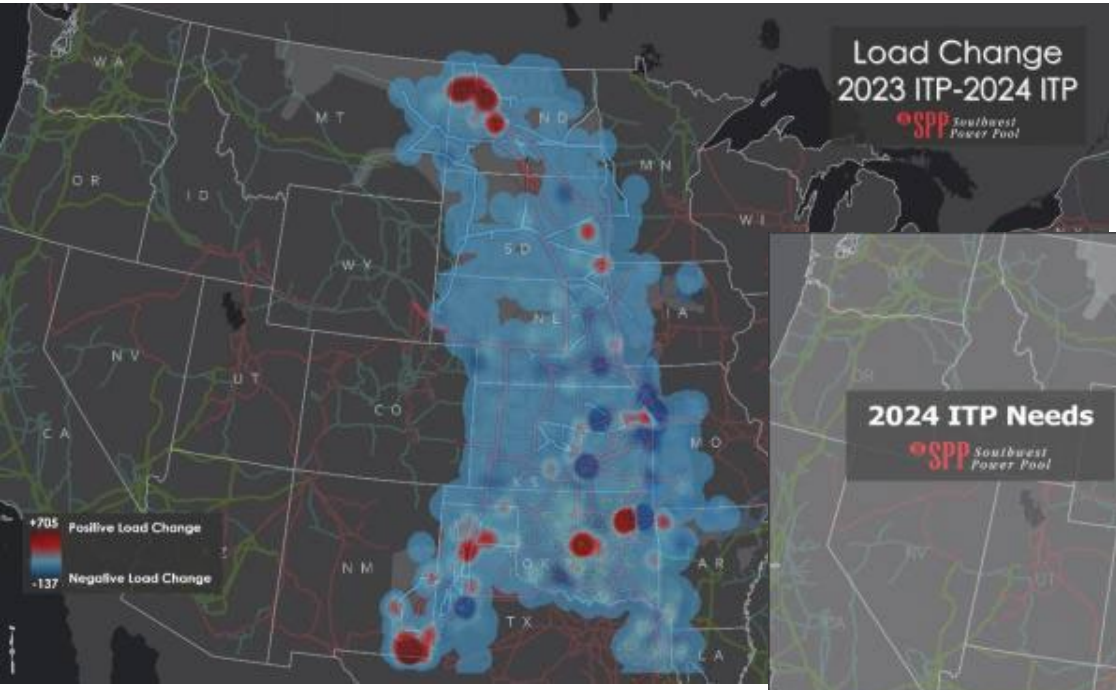
Achieve collaboratively and engage passionately

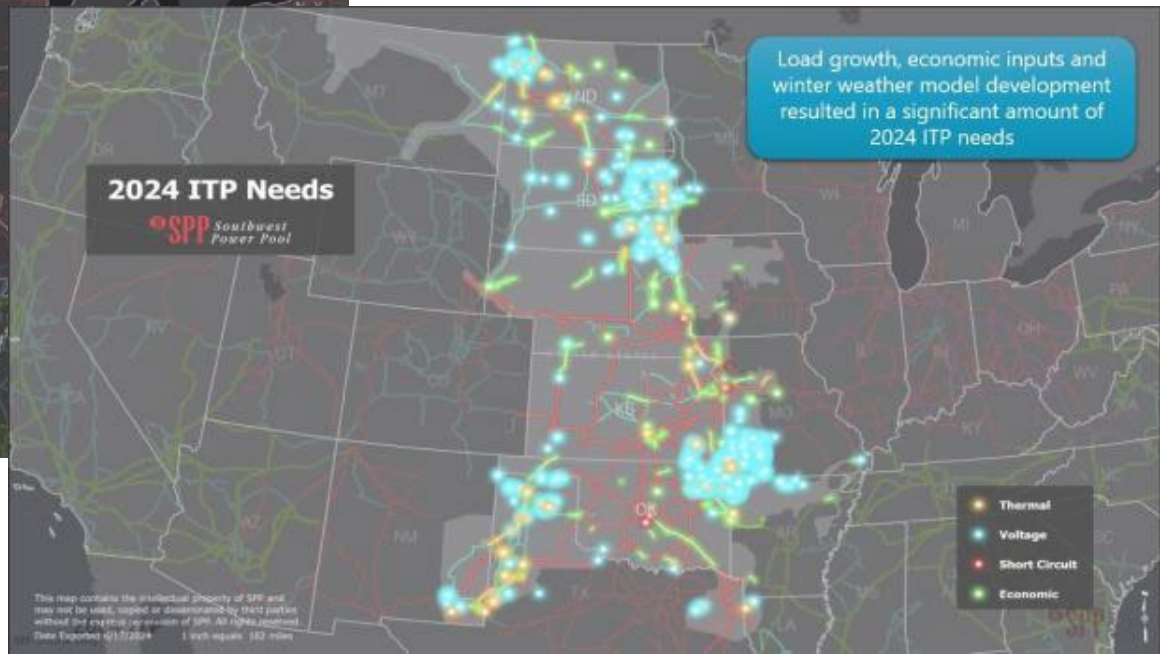
- Winter Weather Strike Team (WWST) held weekly meetings in 2023, leading to clear guidance for evaluating extreme winter weather impacts on the 2024 ITP.



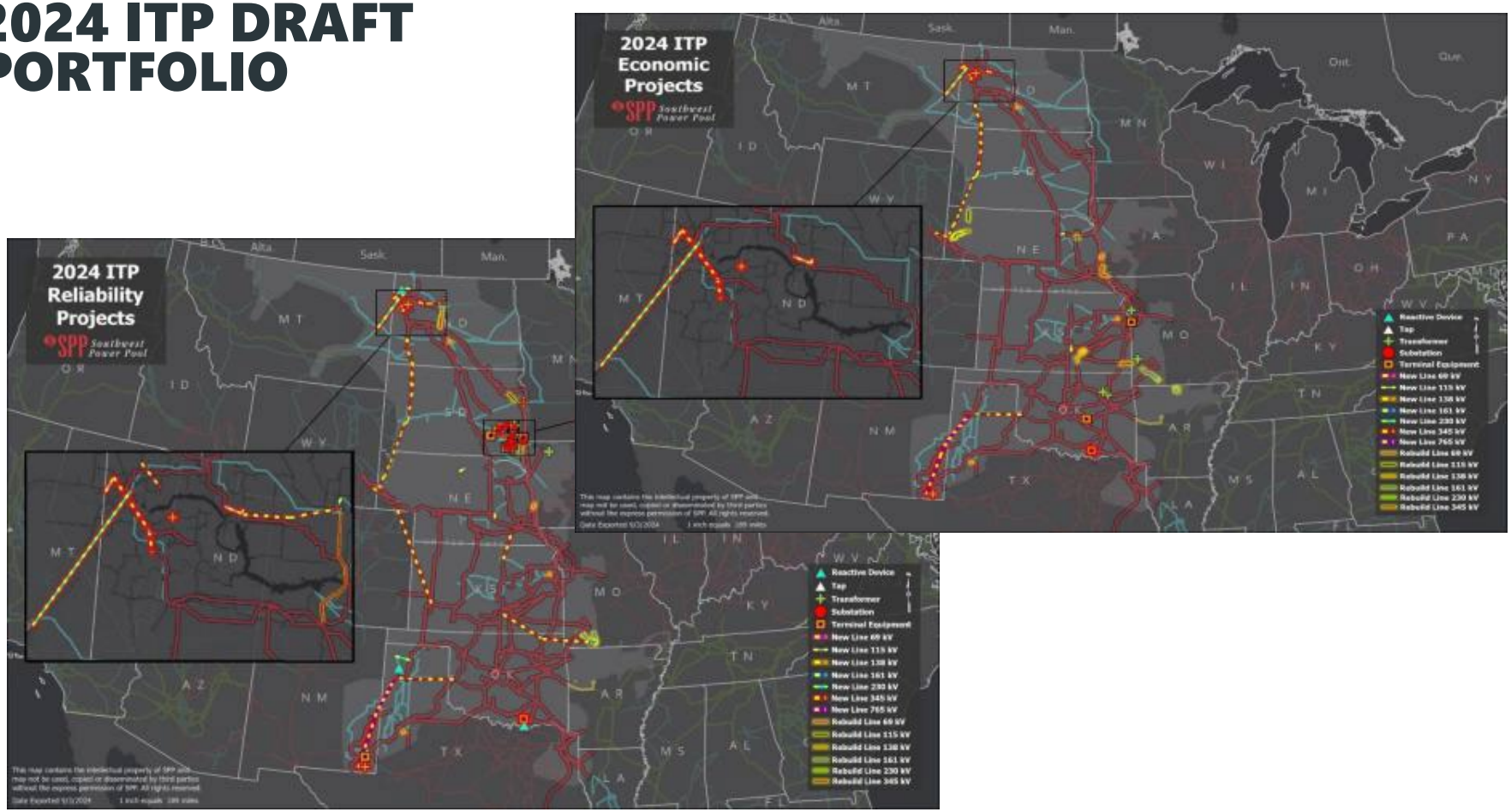
2024 ITP LOAD CHANGES

2024 ITP portfolio is comprised of reliability, winter weather, economic, short circuit and operational projects that will mitigate **1,512** system issues

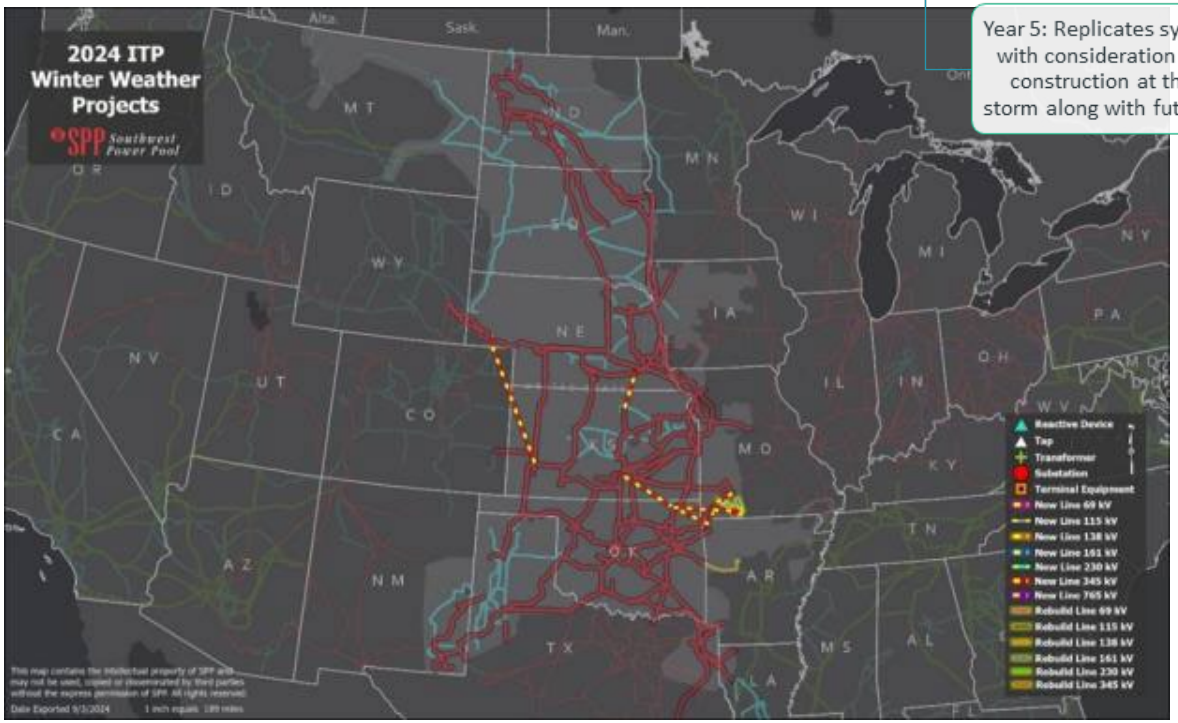




2024 ITP DRAFT PORTFOLIO



2024 ITP DRAFT PORTFOLIO



Two (2) Elliott models : December 2022 and Year 5 (2028)

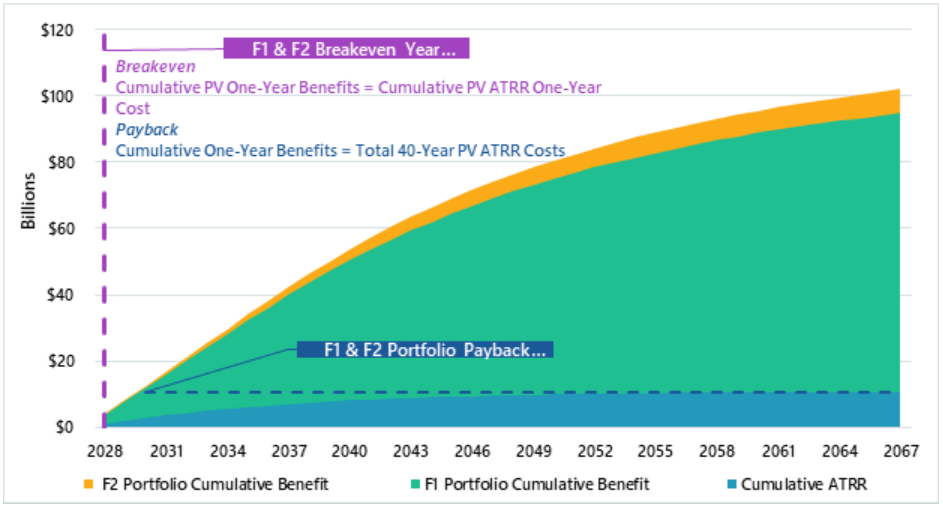
- Dec. 2022: Replicates system conditions during the time of TO-directed load shed
- Year 5: Replicates system conditions with consideration of NTCs under construction at the time fo the storm along with future load growth

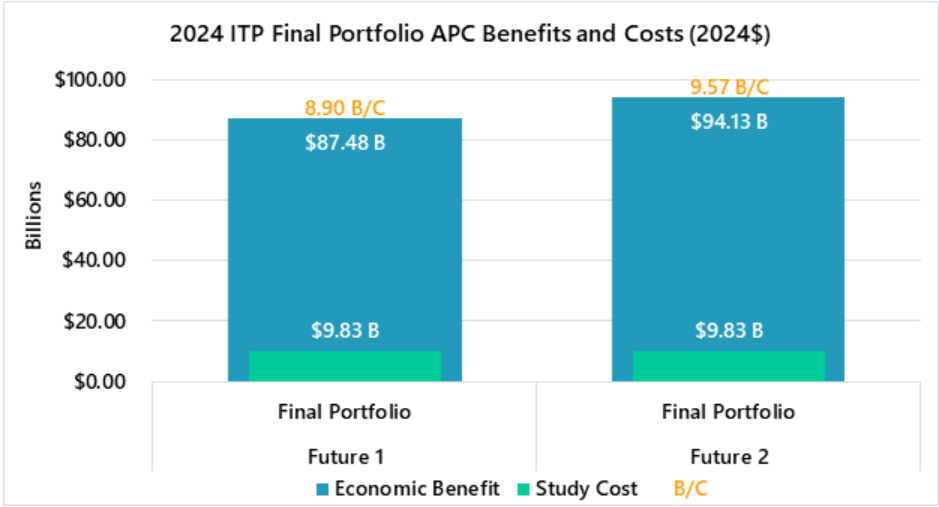
Three (3) Uri-based Extreme Winter Models: Years 2/5/10

- Model extreme winter conditions based on Winter Storm Uri
- Defined conditions included: effects of low temperatures, load, wind output, transmission/generation availability, fuel supply issues, etc.

2024 ITP DRAFT BENEFITS AND SAVINGS

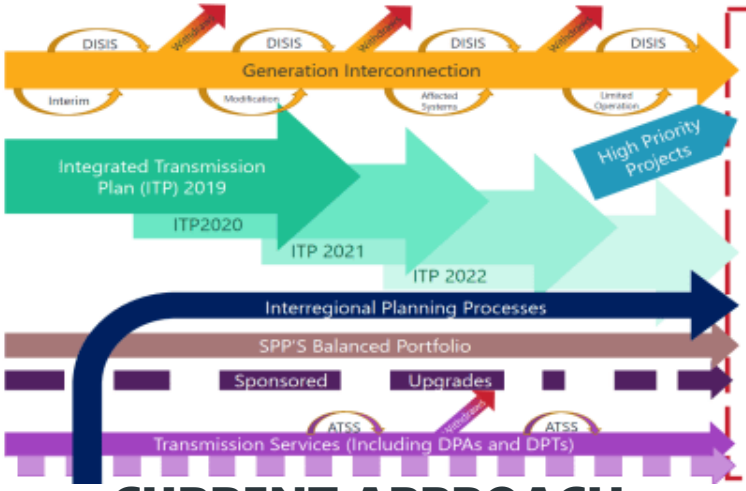
SPP expects the recommended consolidated portfolio to be cost beneficial within the first year of being placed in-service and to pay back the total investment within the first 2 years





CPP

Transmission solution assignment based on first to the finish line



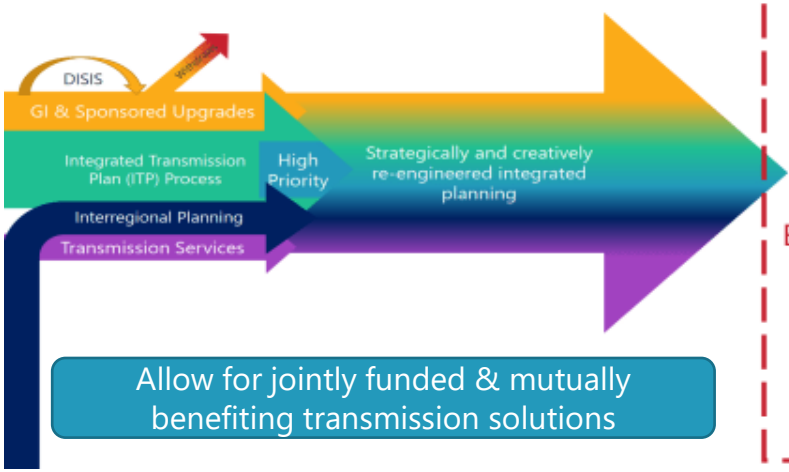
SPP's Transmission Expansion Plan (STEP)

CURRENT APPROACH

How do we address the nationwide challenge within SPP process ?

The Consolidated Planning Process will allow for simultaneous planning of transmission, as opposed to the piecemeal approach we have today. For example, the transmission needed for Generation Interconnection and the Integrated Transmission Planning (ITP) process will be planned at the same time.

CPP APPROACH



Allow for jointly funded & mutually benefiting transmission solutions

SPP's Transmission Expansion Plan (STEP)

PROPOSED CONSOLIDATED PLANNING PROCESS

The Department of Energy (DOE) i2x roadmap report mentions the CPP concept goals as one of the key recommendations to improve regional and GI planning.

Primary goal: Develop transmission improvements to address multiple needs at lower overall cost

- Example: Single larger-scale project that eliminates multiple smaller projects that would have emanated from the separate studies
- Lower long-term optimize costs will benefit load and generator developers

Additional goals: cost certainty and timing certainty for GI customers

- GI customers want cost certainty while SPP and load want to know that GI customers are committed to proceeding through process and will not withdraw and trigger multiple re-studies as currently happens
- This should help facilitate more generation being able to connect faster

PRINCIPLES

To be successful, the CPP concept requires firm commitment, cost certainty, and timeliness.

Cost Certainty

Provides service customers and load serving entities cost certainty and eliminating restudies

Commitment

Service customers to have a high level of commitment to receive cost certainty

Timeliness

Maintaining annual assessments for recommending timely transmission recommendations. Looking out 20 years and co-optimizing transmission will identify transmission needs sooner as well as provide a faster mechanism for projects that benefit both GI and Load to be built

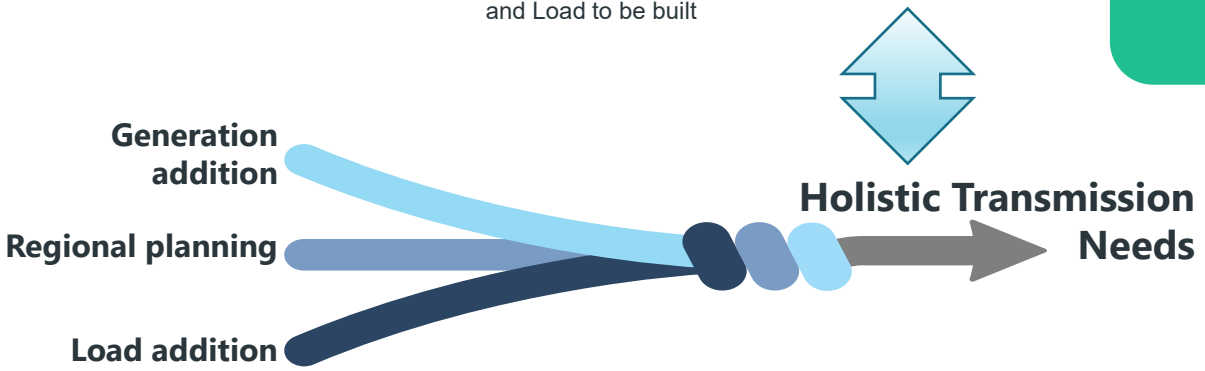
MECHANISMS

Cost Allocation Solution

- Create a general contribution funding mechanism (Entry Fee) for network upgrades meeting ITP and GI needs, paid for by both load and generation customers

Transmission Solutions

- Optimizing short-term requirements while addressing holistic needs across multiple study horizons
- Ensure cost certainty, commitment, and timeliness requirements enable justified holistic transmission



CPP TARIFF RR PLAN TIMELINE