BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's 2025 Integrated Resource Plan Annual Update Filing	)))	File No. EO-2025-0250
In the Matter of Evergy Missouri West, Inc. d/b/a Evergy Missouri West's 2025 Integrated Resource Plan Annual Update Filing	)))	File No. EO-2025-2051

NOTICE OF STAKEHOLDER PRESENTATION

COMES NOW, Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro") and Evergy Missouri West, Inc. d/b/a Evergy Missouri West[1] ("Evergy Missouri West") (collectively, the "Company") and for their Notice, state as follows:

1. On April 3, 2025, the Company held a presentation for stakeholders related to Evergy Missouri Metro's and Evergy Missouri West's respective annual resource plans previously filed in the above-captioned dockets. A copy of the presentation is attached hereto.

WHEREFORE, the Company files this Notice for the Commission's information.

WHEREFORE, Evergy Missouri Metro and Evergy Missouri West file this Notice for the Missouri Public Service Commission ("Commission") information.

Respectfully submitted,

/s/ Roger W. Steiner

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Kansas City, MO 64105
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ATTORNEYS FOR EVERGY MISSOURI METRO AND EVERGY MISSOURI WEST

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 7th day of April 2025.

Roger W. Steiner

Roger W. Steiner

2025 Evergy Metro and Evergy Missouri West Annual Update Stakeholder Meeting

Evergy Metro
Case No. EO-2025-0250
Evergy Missouri West
Case No. EO-2025-0251

** Confidential **

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Agenda

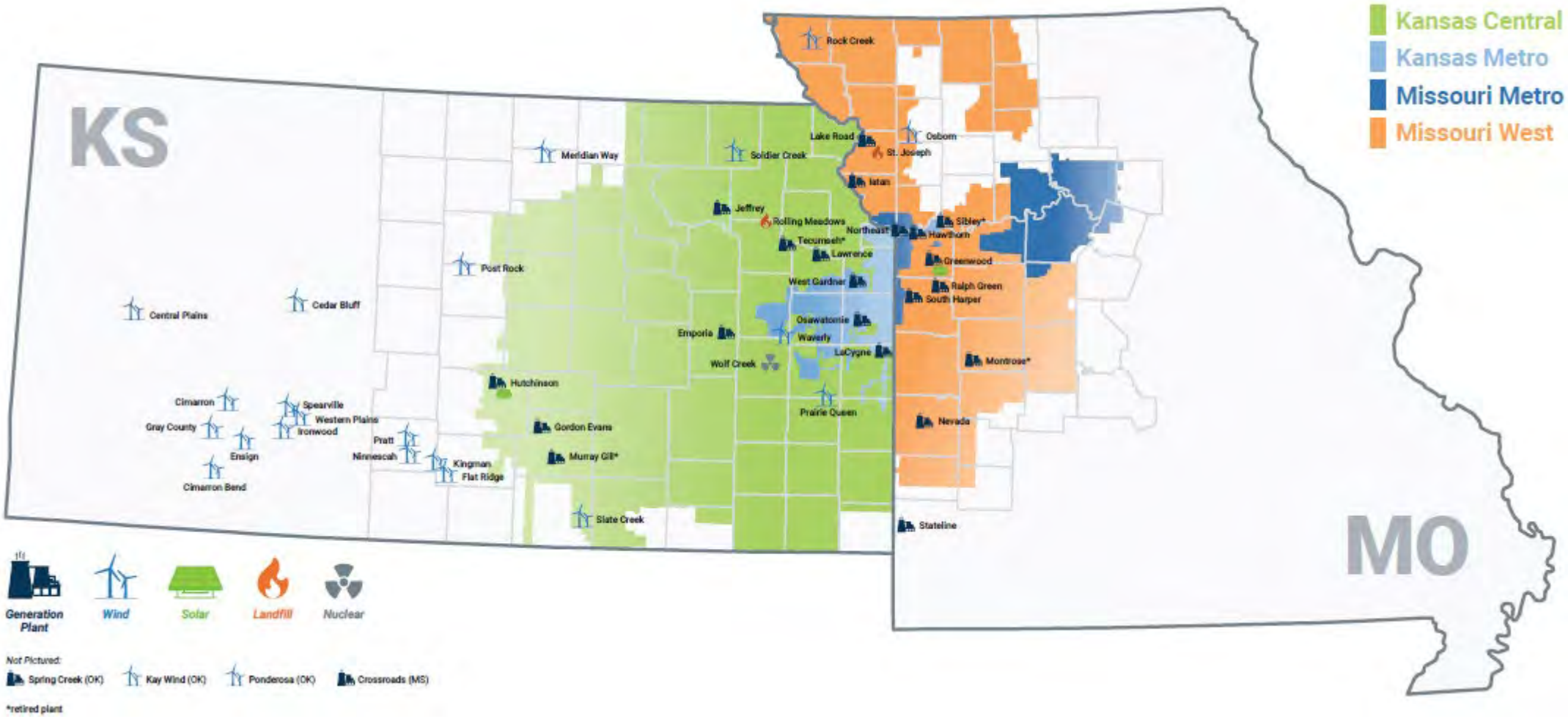
- Evergy Overview
- Changes since 2024 Triennial
- Load Forecasting
- Supply-Side Resources
- Integrated Resource Analysis and Preferred Plan
- Load Growth Scenarios
- GHG Rule Compliance
- Resource Acquisition Strategy
- Next Steps

Goals for IRP Stakeholder Engagement

Encourage Transparency	Share the IRP methodology, analysis and planning process with stakeholders to build understanding and gain insight
Expand and Enrich Analysis	Engage a variety of viewpoints to expand and enrich the scenarios evaluated through the IRP process
Discuss and Balance Trade-Offs	Understand and balance trade-offs between the different IRP tenets (reliability, value/affordability, safety, flexibility, environmental stewardship)

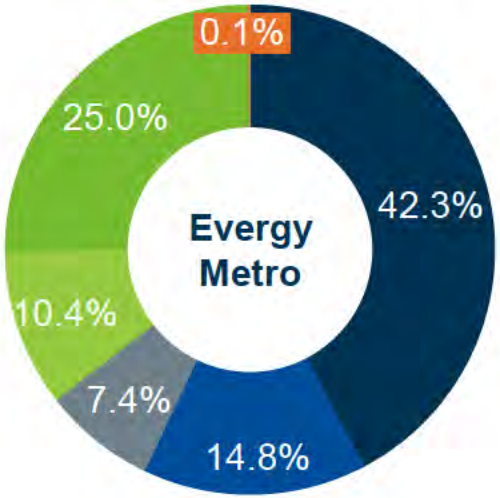
Evergy Overview

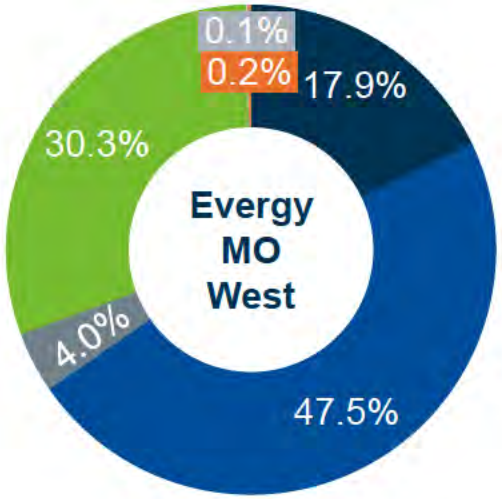
Evergy's Service Territory

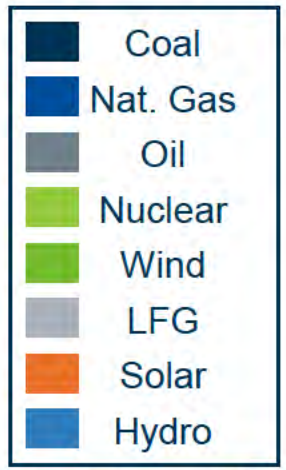


Capacity & Energy Profiles

Capacity

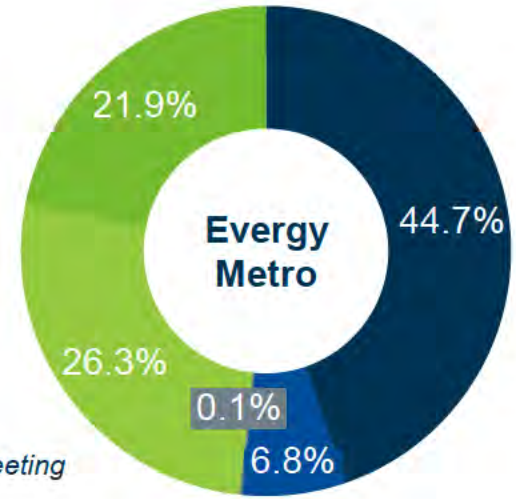


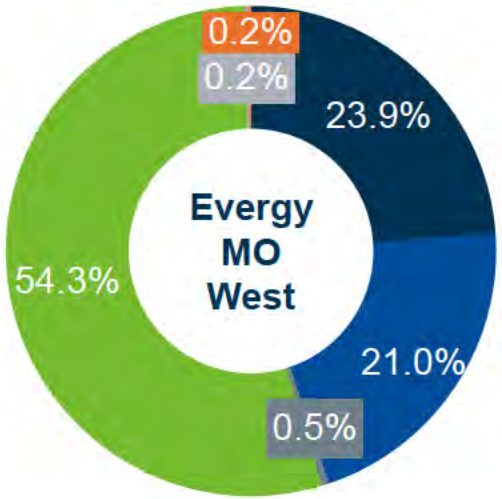




Note: As of year-end 2024

Energy





Changes since 2024 Triennial

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Changes from the 2024 Triennial IRP

Big Themes This Year

- **Demand-side management:**
  - Lowered volume of DSM capacity primarily to align with current MEEIA Cycle 4 approval
- **Resource adequacy**
  - Updated SPP planning reserve margin requirements and future estimates, driving higher winter needs, updated resource accreditation due to latest performance-based and ELCC methodology
- **Update modeling assumptions for generation resources and market capacity**
  - Increased thermal build costs and updated attributes to true-up with latest estimates used in CCN requests
  - Analyzed risk and sensitivities to near-term resource additions, particularly given further increases in capacity requirements and competing market demands for near-term projects (renewable and thermal)
- **Economic development / large load additions**
  - Ongoing assessments of new loads and economic development opportunities for Missouri
  - Building in economic development load profiles to meet future growth
- **Evaluate a risk-adjusted approach to retain baseload capacity**
  - Tested converting Jeffrey Unit 2 to natural gas to reduce environmental compliance costs and retain capacity
- **Understand the potential implications of the federal EPA's proposed GHG rule**
  - Scenario analysis to understand the implications of proposed GHG rule
  - Include costs associated with natural gas conversion, natural gas co-firing, capacity factor limits, carbon capture

Load Forecasting

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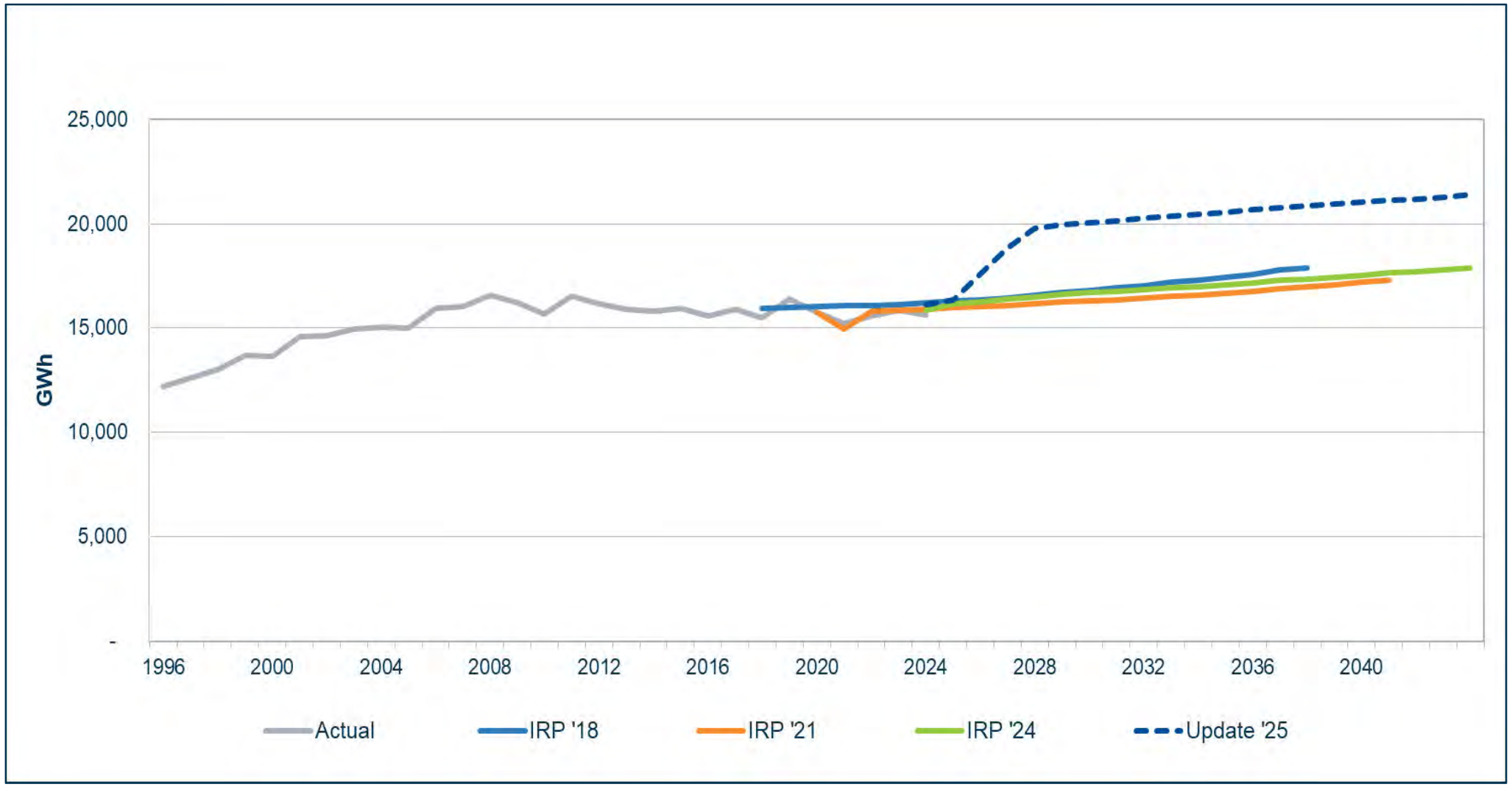
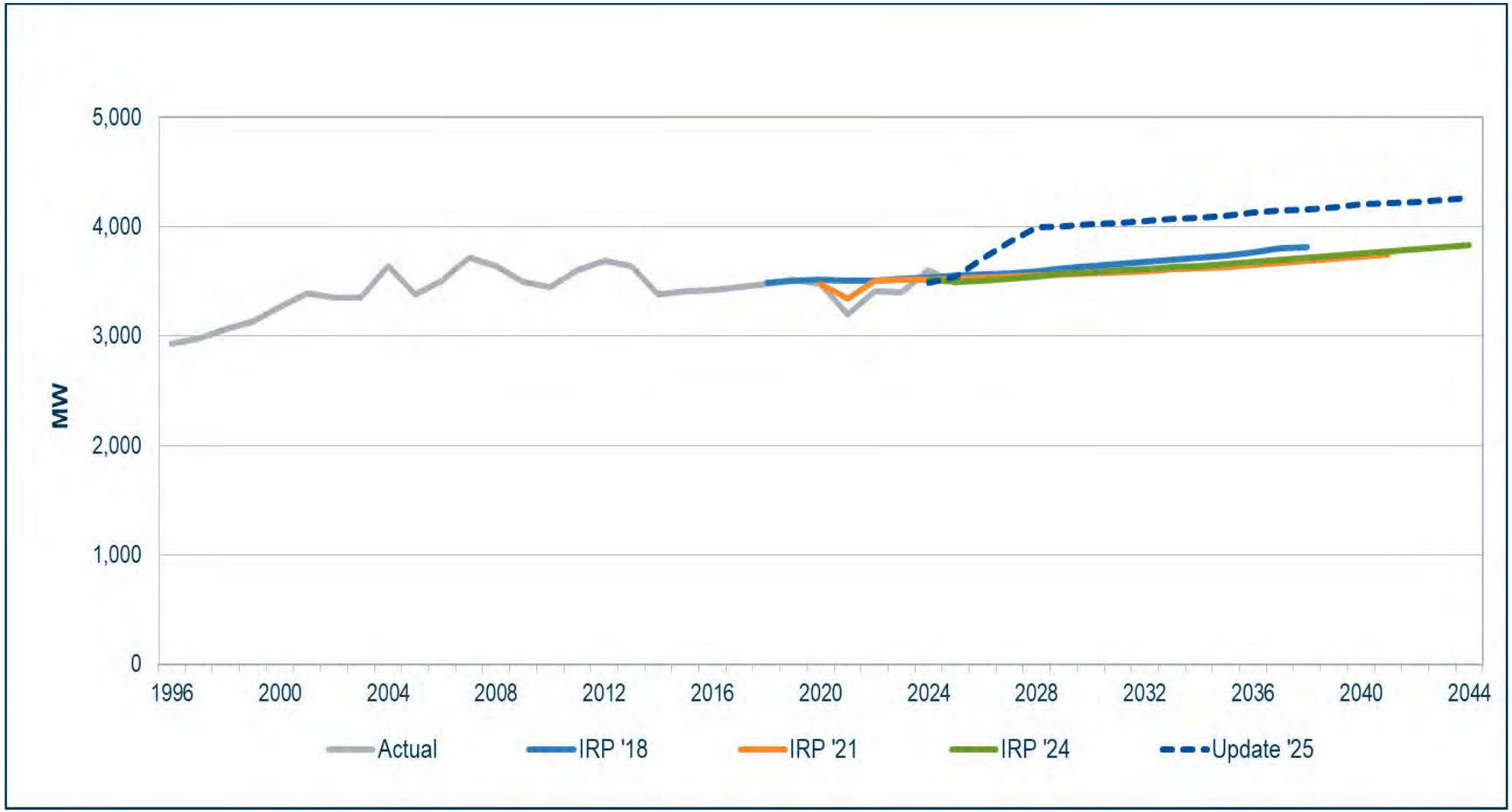
Changes in Inputs to Load Forecasting Models

- Model methodology – Statistical Adjusted End-use (SAE)
- Historical data for customers, kWh and $/kWh: ending June 2024
- DOE forecasts of appliance and equipment saturations and kWh/unit: Annual Energy Outlook (“AEO”) 2023. Note that the EIA did not produce a 2024 Annual Energy Outlook in order implement broad changes to their modeling procedures.
- Updated Economic forecasts from Moody’s Analytics, historical data ending June 2024
- The Company also re-evaluated the output elasticity used in the commercial and industrial models and the elasticity used in the residential model. Adjustments made were to improve the model fit.
- Company utilized EPRI electric vehicle study within its modeling for the 2025 IRP Update
- The Load Forecast includes a low scenario, a high scenario and a High Electrification scenario in addition to the base case forecast.
  - The low and high scenarios are the product of low and high growth Economic Forecast assumptions.
  - The High Electrification scenario includes: high growth Economic assumptions, EPRI electric vehicle high case adoption, 1898 Electrification Study long-haul trucking electrification forecast and assumptions for increased adoption of electric space heat and electric water heat in Residential and Commercial buildings.
- The Company utilized Google Mobility Reports data to account for load changes resulting from geolocation behaviors induced by the COVID19 pandemic.
- EIA data includes EE impact from IRA that relate to tax credits. Currently the impact is very small.

Evergy Metro Historical and Comparison of Mid-Case Forecasts of Net System Input, Excluding future DSM Impacts



Evergy Metro Historical and Comparison of Mid-Case Forecasts of Demand, Excluding future DSM Impacts



Evergy Metro Mid-Case Forecast

Base Annual 2025-2044 Net System Input (NSI) and Peak Forecast

Net System Input (NSI) and Peak Forecast

Date	Gross NSI (MWh)		DSM	Net NSI (MWh)		Gross Peak (MW)		DSM	T-stat	Net Peak (MW)		Gross LF
2002	14,810,168			14,810,168		3,229				3,229		0.5236
2003	15,100,010	2.0%		15,100,010	2.0%	3,307	2.4%			3,307	2.4%	0.5212
2004	15,434,710	2.2%		15,434,710	2.2%	3,600	8.9%			3,600	8.9%	0.4894
2005	15,735,417	1.9%		15,735,417	1.9%	3,496	-2.9%			3,496	-2.9%	0.5138
2006	15,960,834	1.4%		15,960,834	1.4%	3,416	-2.3%			3,416	-2.3%	0.5334
2007	16,286,867	2.0%		16,286,867	2.0%	3,718	8.8%			3,718	8.8%	0.5001
2008	16,306,299	0.1%		16,306,299	0.1%	3,703	-0.4%			3,703	-0.4%	0.5027
2009	16,024,573	-1.7%		16,024,573	-1.7%	3,642	-1.6%			3,642	-1.6%	0.5023
2010	16,057,247	0.2%		16,057,247	0.2%	3,605	-1.0%			3,605	-1.0%	0.5084
2011	15,918,871	-0.9%		15,918,871	-0.9%	3,573	-0.9%			3,573	-0.9%	0.5086
2012	15,642,354	-1.7%		15,642,354	-1.7%	3,401	-4.8%			3,401	-4.8%	0.5250
2013	15,733,616	0.6%		15,733,616	0.6%	3,444	1.3%			3,444	1.3%	0.5215
2014	15,908,170	1.1%		15,908,170	1.1%	3,540	2.8%			3,540	2.8%	0.5130
2015	15,882,360	-0.2%		15,882,360	-0.2%	3,591	1.4%			3,591	1.4%	0.5193
2016	15,827,972	-0.3%		15,827,972	-0.3%	3,524	-1.9%			3,524	-1.9%	0.5127
2017	15,951,842	0.8%		15,951,842	0.8%	3,485	-1.1%			3,485	-1.1%	0.5225
2018	15,849,039	-0.6%		15,849,039	-0.6%	3,518	1.0%			3,518	1.0%	0.5143
2019	15,718,799	-0.8%		15,718,799	-0.8%	3,498	-0.6%			3,498	-0.6%	0.5129
2020	15,475,646	-1.5%		15,475,646	-1.5%	3,317	-5.2%			3,317	-5.2%	0.5326
2021	15,591,290	0.7%		15,591,290	0.7%	3,466	4.5%			3,466	4.5%	0.5135
2022	15,856,161	1.7%		15,856,161	1.7%	3,535	2.0%			3,535	2.0%	0.5120
2023	15,850,387	0.0%		15,850,387	0.0%	3,609	2.1%			3,609	2.1%	0.5014
2024	16,116,739	1.7%	(6,530)	16,110,209	1.6%	3,557	-1.4%	(21)	(35)	3,501	-3.0%	0.5172
2025	16,343,753	1.4%	(34,163)	16,309,590	1.2%	3,542	-0.4%	(26)	(8)	3,508	0.2%	0.5267
2026	17,603,402	7.7%	(55,485)	17,547,917	7.6%	3,706	4.6%	(44)	(8)	3,654	4.2%	0.5422
2027	18,808,736	6.8%	(77,405)	18,731,331	6.7%	3,862	4.2%	(68)	(8)	3,786	3.6%	0.5560
2028	19,792,769	5.2%	(83,822)	19,708,947	5.2%	3,992	3.4%	(38)	-	3,954	4.4%	0.5660
2029	19,952,518	0.8%	(80,544)	19,871,974	0.8%	4,009	0.4%	(30)	-	3,979	0.6%	0.5681
2030	20,052,567	0.5%	(78,233)	19,974,334	0.5%	4,024	0.4%	(29)	-	3,995	0.4%	0.5689
2031	20,147,437	0.5%	(76,000)	20,071,437	0.5%	4,037	0.3%	(27)	-	4,010	0.4%	0.5697
2032	20,274,154	0.6%	(73,783)	20,200,371	0.6%	4,057	0.5%	(26)	-	4,031	0.5%	0.5705
2033	20,350,101	0.4%	(71,157)	20,278,944	0.4%	4,070	0.3%	(24)	-	4,046	0.4%	0.5708
2034	20,456,101	0.5%	(66,751)	20,389,350	0.5%	4,087	0.4%	(22)	-	4,065	0.5%	0.5714
2035	20,560,570	0.5%	(60,914)	20,499,656	0.5%	4,106	0.5%	(21)	-	4,085	0.5%	0.5716
2036	20,691,608	0.6%	(50,208)	20,641,400	0.7%	4,128	0.5%	(16)	-	4,112	0.7%	0.5722
2037	20,761,347	0.3%	(36,716)	20,724,631	0.4%	4,146	0.4%	(12)	-	4,134	0.5%	0.5716
2038	20,855,290	0.5%	(25,152)	20,830,138	0.5%	4,164	0.4%	(8)	-	4,156	0.5%	0.5717
2039	20,941,746	0.4%	(18,217)	20,923,529	0.4%	4,182	0.4%	(6)	-	4,176	0.5%	0.5716
2040	21,058,587	0.6%	(15,960)	21,042,627	0.6%	4,204	0.5%	(5)	-	4,199	0.6%	0.5718
2041	21,111,954	0.3%	(13,800)	21,098,154	0.3%	4,217	0.3%	(5)	-	4,212	0.3%	0.5715
2042	21,185,860	0.4%	(9,824)	21,176,036	0.4%	4,231	0.3%	(4)	-	4,227	0.4%	0.5716
2043	21,265,481	0.4%	(5,216)	21,260,265	0.4%	4,249	0.4%	(2)	-	4,247	0.5%	0.5713
2044	21,377,781	0.5%	(2,259)	21,375,522	0.5%	4,269	0.5%	(1)	-	4,268	0.5%	0.5717

Historical Gross NSI is Historical WNNSI
2024 - first 6 months are Historical WNNSI

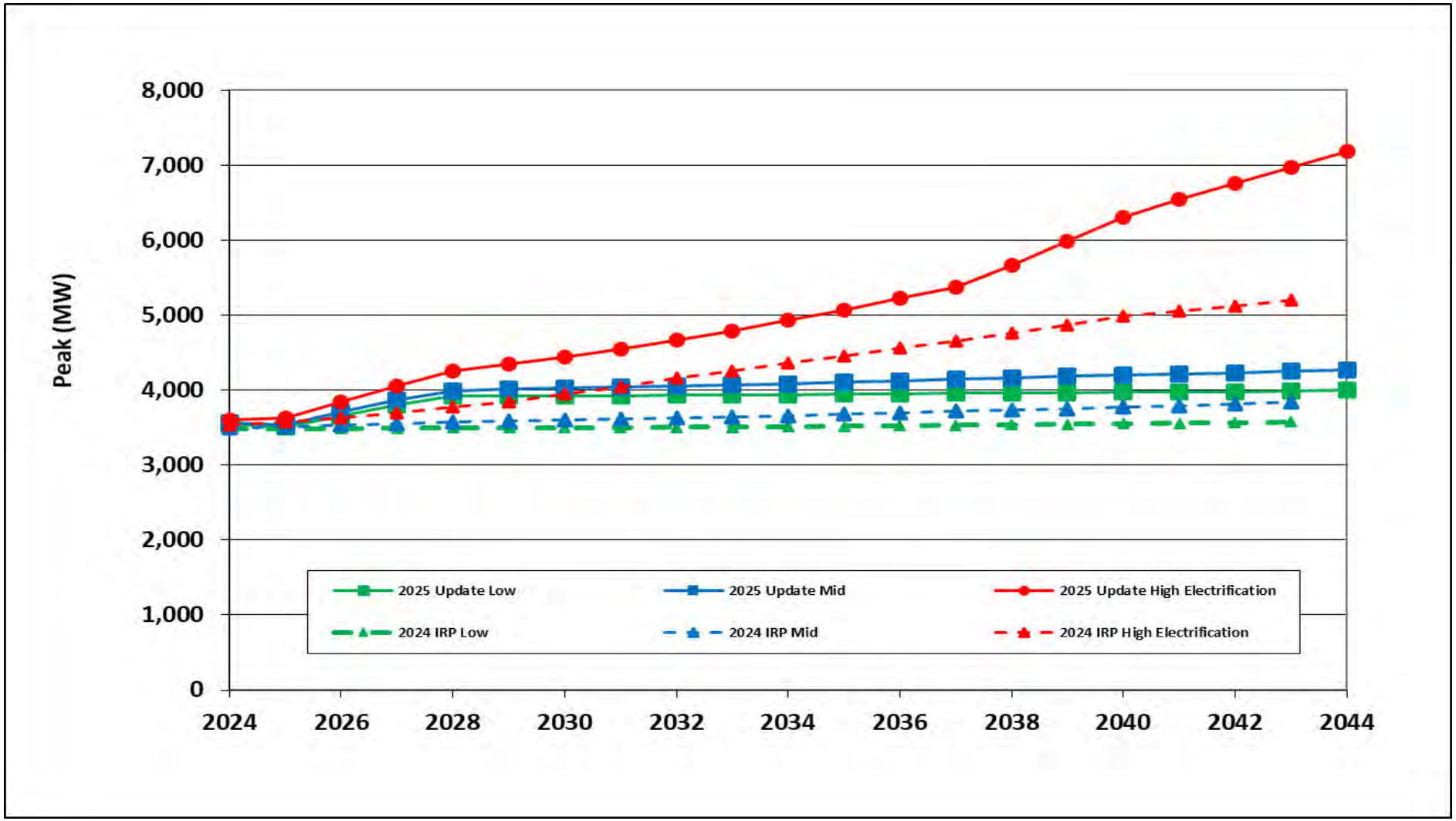
Gross NSI (MWh) - Forecast

Forecast Year	2025 IRP Update	2024 IRP Trienniel
5 Yrs	4.36%	0.94%
10 Yrs	2.41%	0.69%
15 Yrs	1.86%	0.65%
20 Yrs	1.42%	0.60%

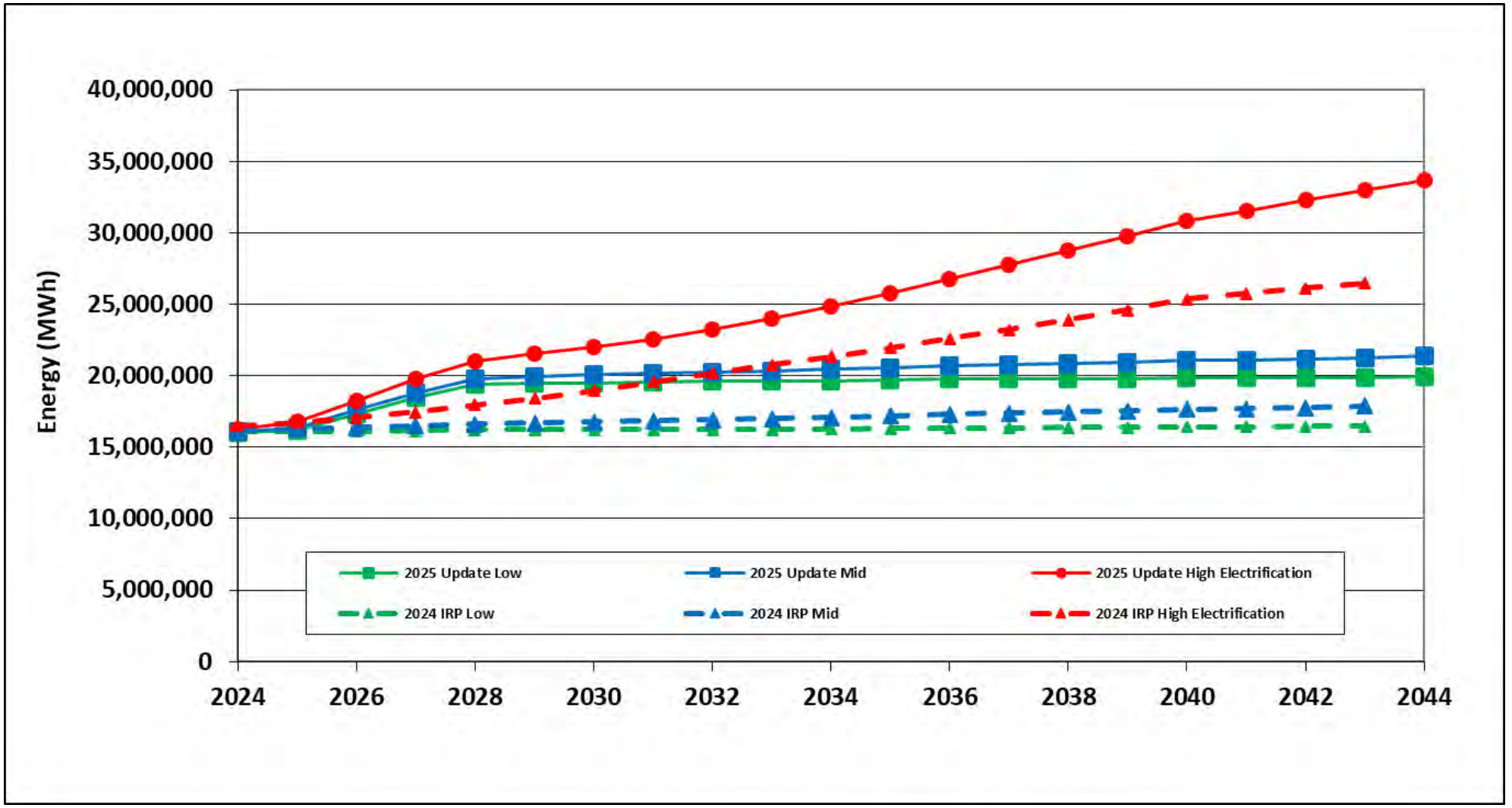
Gross Peak (MW) - Forecast

Forecast Year	2025 IRP Update	2024 IRP Trienniel
5 Yrs	2.42%	0.32%
10 Yrs	1.40%	0.35%
15 Yrs	1.13%	0.40%
20 Yrs	0.92%	0.44%

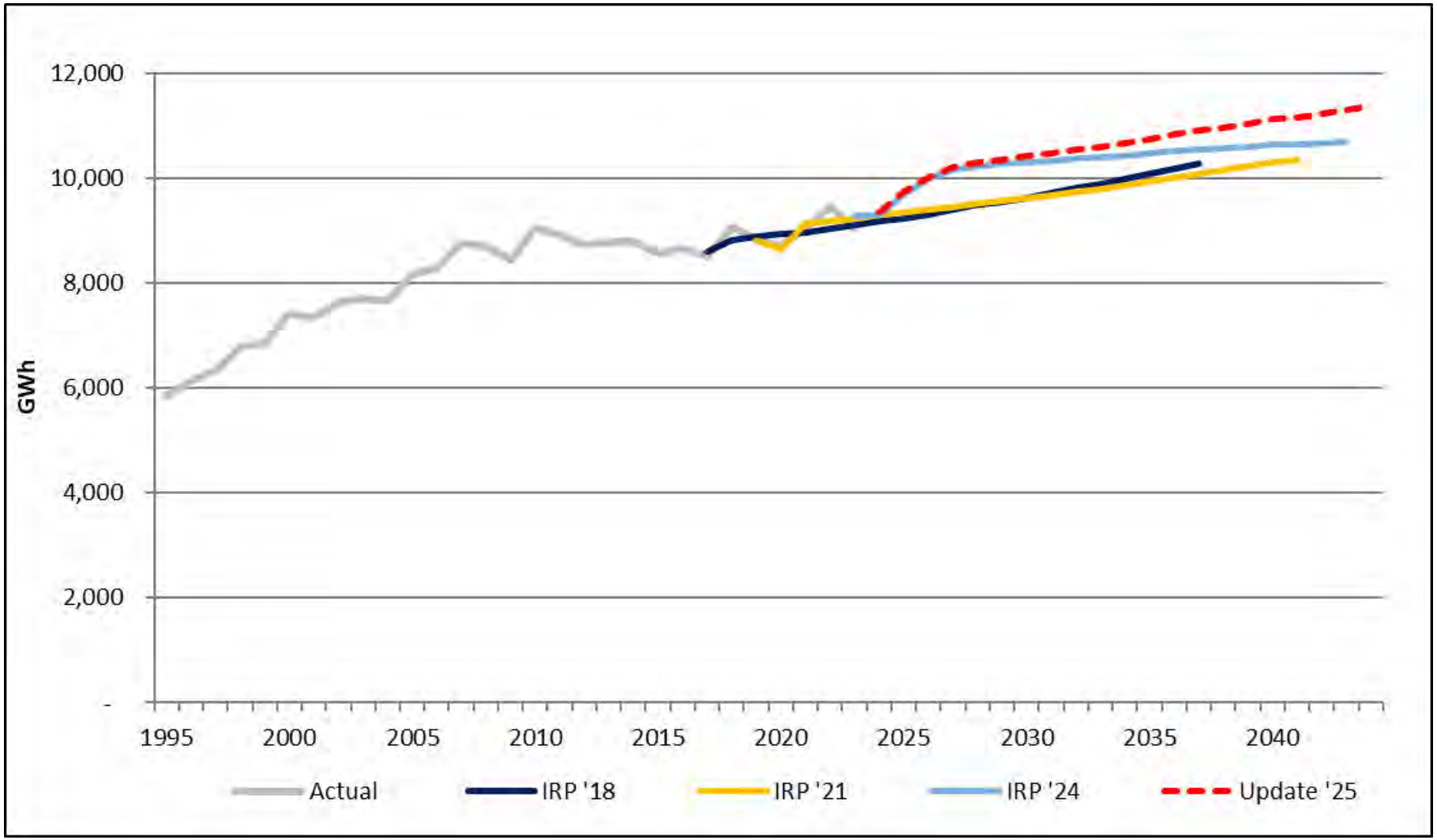
Peak Forecasts – 2025 Annual Update Vs. 2024 Triennial IRP
Evergy Metro



Energy Forecasts – 2025 Annual Update Vs. 2024 Triennial IRP
Evergy Metro



Evergy Missouri West Historical and Comparison of Mid-Case Forecasts of Net System Input, Excluding future DSM Impacts



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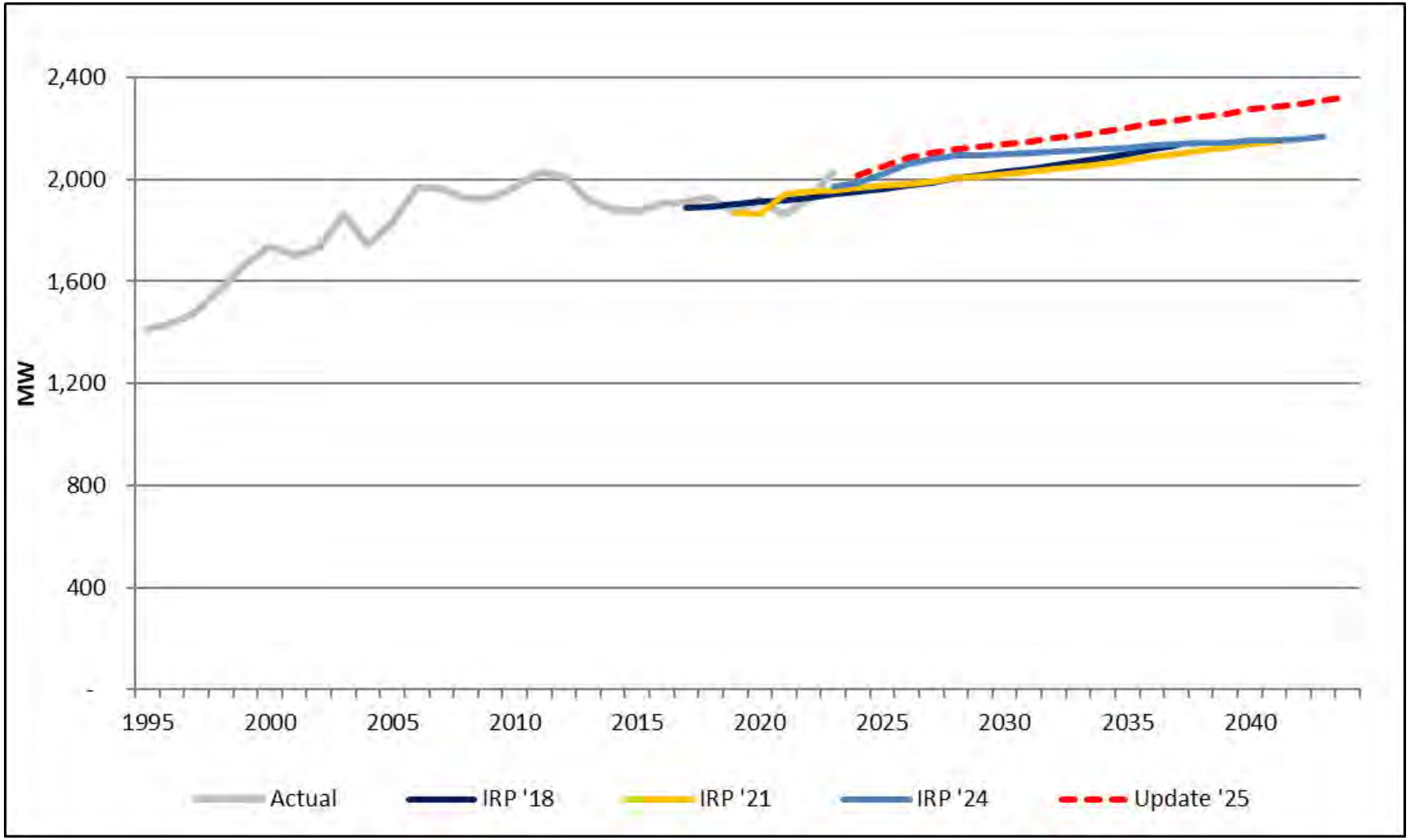


Evergy MO West Mid-Case Forecast

Base Annual 2025-2044 Net System Input (NSI) and Peak Forecast

Net System Input (NSI) and Peak Forecast

Date	Gross NSI (MWh)		DSM	Net NSI (MWh)		Gross Peak (MW)		DSM	Net Peak (MW)		Gross LF
2003	7,621,565			7,621,565		1,716			1,716		0.5070
2004	7,881,521	3.4%		7,881,521	3.4%	1,828	6.5%		1,828	6.5%	0.4922
2005	8,049,913	2.1%		8,049,913	2.1%	1,812	-0.9%		1,812	-0.9%	0.5071
2006	8,271,620	2.8%		8,271,620	2.8%	1,842	1.7%		1,842	1.7%	0.5126
2007	8,552,828	3.4%		8,552,828	3.4%	1,926	4.6%		1,926	4.6%	0.5069
2008	8,708,764	1.8%		8,708,764	1.8%	1,958	1.7%		1,958	1.7%	0.5077
2009	8,650,524	-0.7%		8,650,524	-0.7%	1,896	-3.2%		1,896	-3.2%	0.5208
2010	8,754,972	1.2%		8,754,972	1.2%	1,890	-0.3%		1,890	-0.3%	0.5288
2011	8,732,993	-0.3%		8,732,993	-0.3%	1,914	1.3%		1,914	1.3%	0.5209
2012	8,640,687	-1.1%		8,640,687	-1.1%	1,945	1.6%		1,945	1.6%	0.5072
2013	8,694,450	0.6%		8,694,450	0.6%	1,861	-4.3%		1,861	-4.3%	0.5333
2014	8,737,596	0.5%		8,737,596	0.5%	1,870	0.5%		1,870	0.5%	0.5335
2015	8,717,003	-0.2%		8,717,003	-0.2%	1,869	0.0%		1,869	0.0%	0.5324
2016	8,623,847	-1.1%		8,623,847	-1.1%	1,873	0.2%		1,873	0.2%	0.5193
2017	8,743,444	1.4%		8,743,444	1.4%	1,923	2.7%		1,923	2.7%	0.5190
2018	8,709,034	-0.4%		8,709,034	-0.4%	1,926	0.2%		1,926	0.2%	0.5162
2019	8,718,677	0.1%		8,718,677	0.1%	1,930	0.2%		1,930	0.2%	0.5157
2020	8,854,282	1.6%		8,854,282	1.6%	1,919	-0.6%		1,919	-0.6%	0.5267
2021	9,007,618	1.7%		9,007,618	1.7%	1,998	4.1%		1,998	4.1%	0.5147
2022	9,235,409	2.5%		9,235,409	2.5%	2,038	2.0%		2,038	2.0%	0.5173
2023	9,051,820	-2.0%		9,051,820	-2.0%	2,020	-0.9%		2,020	-0.9%	0.5115
2024	9,341,689	3.2%	(5,977)	9,335,712	3.1%	2,016	-0.2%	(79)	1,937	0.9%	0.5290
2025	9,741,157	4.3%	(21,275)	9,719,882	4.1%	2,050	1.7%	(103)	1,947	0.5%	0.5424
2026	10,020,297	2.9%	(21,753)	9,998,544	2.9%	2,082	1.6%	(27)	2,055	5.5%	0.5494
2027	10,207,599	1.9%	(21,734)	10,185,865	1.9%	2,105	1.1%	(29)	2,076	1.0%	0.5536
2028	10,299,536	0.9%	(21,677)	10,277,859	0.9%	2,120	0.7%	(29)	2,091	0.7%	0.5546
2029	10,356,707	0.6%	(21,378)	10,335,329	0.6%	2,129	0.4%	(29)	2,100	0.4%	0.5553
2030	10,415,831	0.6%	(19,691)	10,396,140	0.6%	2,137	0.4%	(28)	2,109	0.4%	0.5564
2031	10,473,460	0.6%	(18,488)	10,454,972	0.6%	2,147	0.5%	(25)	2,122	0.6%	0.5569
2032	10,551,699	0.7%	(18,163)	10,533,536	0.8%	2,162	0.7%	(24)	2,138	0.8%	0.5571
2033	10,607,274	0.5%	(17,848)	10,589,426	0.5%	2,173	0.5%	(23)	2,150	0.6%	0.5572
2034	10,678,956	0.7%	(14,777)	10,664,179	0.7%	2,188	0.7%	(23)	2,165	0.7%	0.5572
2035	10,753,487	0.7%	(11,510)	10,741,977	0.7%	2,202	0.6%	(8)	2,194	1.3%	0.5575
2036	10,845,822	0.9%	(6,729)	10,839,093	0.9%	2,219	0.8%	(6)	2,213	0.9%	0.5580
2037	10,902,121	0.5%	(3,169)	10,898,952	0.6%	2,231	0.5%	(4)	2,227	0.6%	0.5578
2038	10,973,209	0.7%	(3,119)	10,970,090	0.7%	2,245	0.6%	(3)	2,242	0.7%	0.5580
2039	11,037,784	0.6%	(2,184)	11,035,600	0.6%	2,257	0.5%	(3)	2,254	0.5%	0.5583
2040	11,122,439	0.8%	(1,367)	11,121,072	0.8%	2,275	0.8%	(2)	2,273	0.8%	0.5581
2041	11,167,339	0.4%	(1,337)	11,166,002	0.4%	2,284	0.4%	(2)	2,282	0.4%	0.5581
2042	11,229,128	0.6%	(1,014)	11,228,114	0.6%	2,297	0.6%	(1)	2,296	0.6%	0.5581
2043	11,294,634	0.6%	(754)	11,293,880	0.6%	2,311	0.6%	(1)	2,310	0.6%	0.5579
2044	11,380,430	0.8%	(343)	11,380,087	0.8%	2,326	0.6%	0	2,326	0.7%	0.5585

Historical NSI is weather normal NSI, first 6 months of 2024 are weather normal
Historical Peak is Weather Normal, first 6 months of 2024 are weather normal

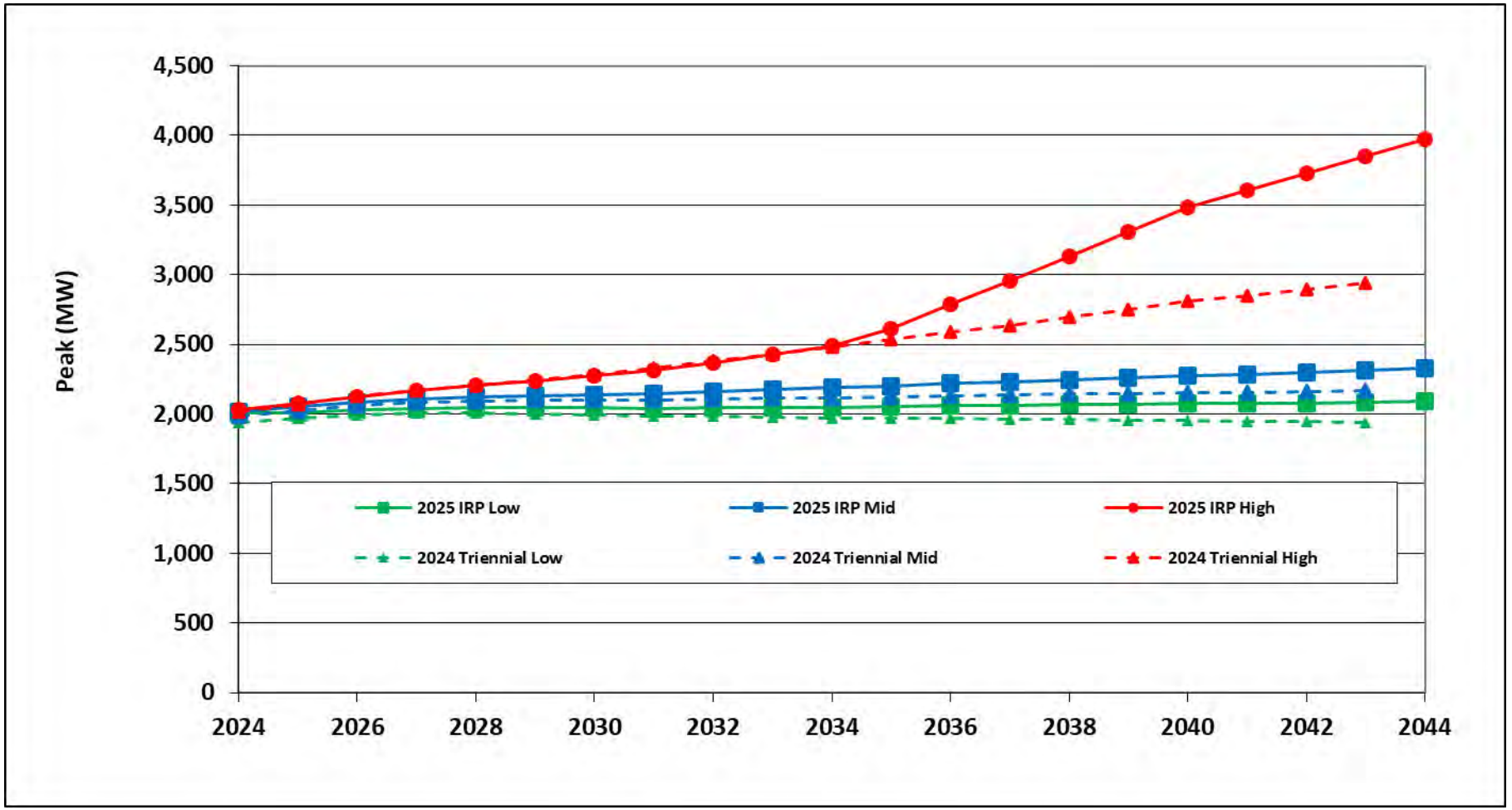
Gross NSI (MWh) - Forecast

Forecast Year	2025 IRP Update	2024 IRP Triennial
5 Yrs	2.08%	1.99%
10 Yrs	1.35%	1.14%
15 Yrs	1.12%	0.88%
20 Yrs	0.99%	0.71%

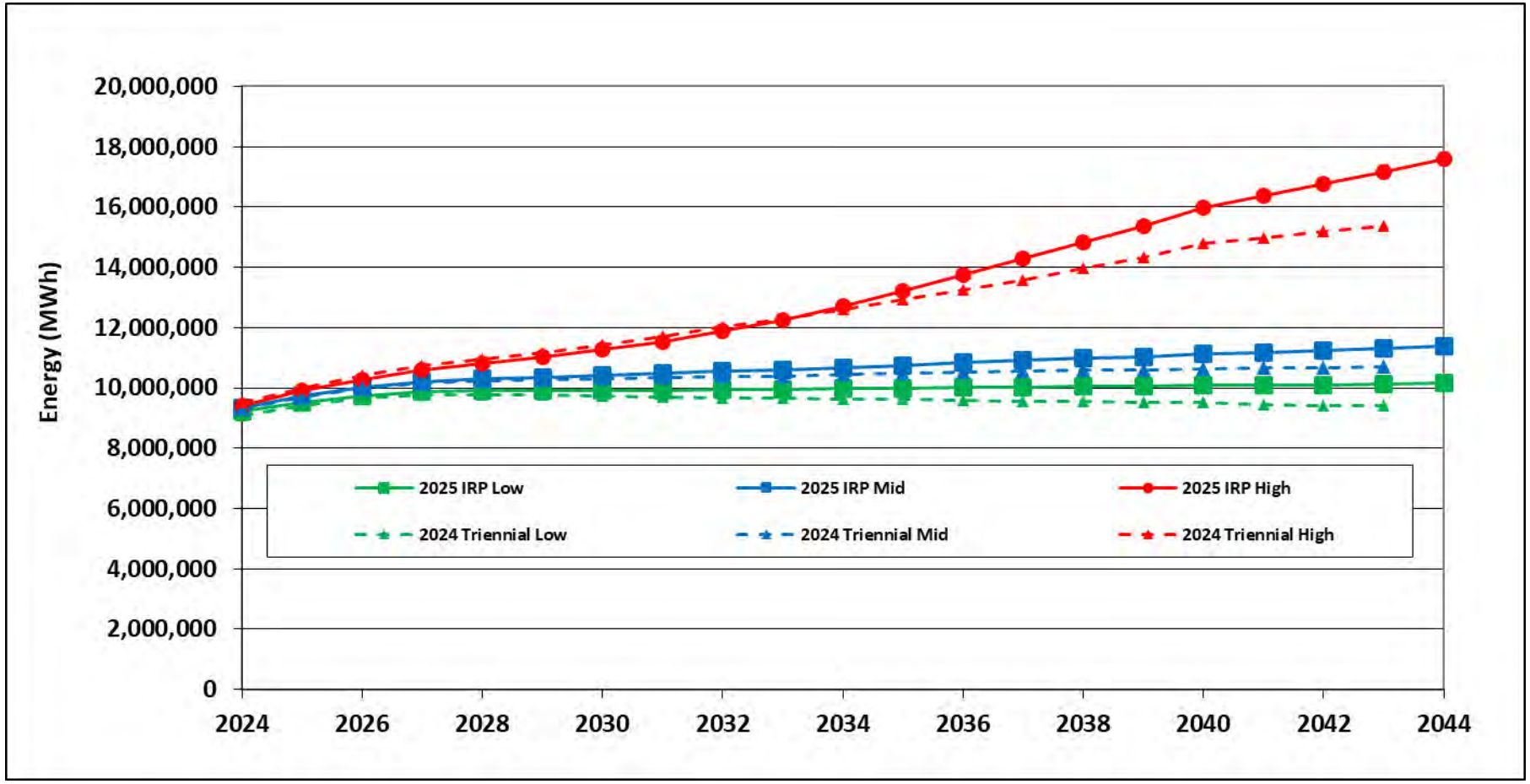
Gross Peak (MW) - Forecast

Forecast Year	2025 IRP Update	2024 IRP Triennial
5 Yrs	1.10%	1.21%
10 Yrs	0.82%	0.70%
15 Yrs	0.76%	0.56%
20 Yrs	0.72%	0.48%

Peak Forecasts – 2025 Annual Update Vs. 2024 Triennial IRP
Evergy Missouri West



Energy Forecasts – 2025 Annual Update Vs. 2024 Triennial IRP
Evergy Missouri West

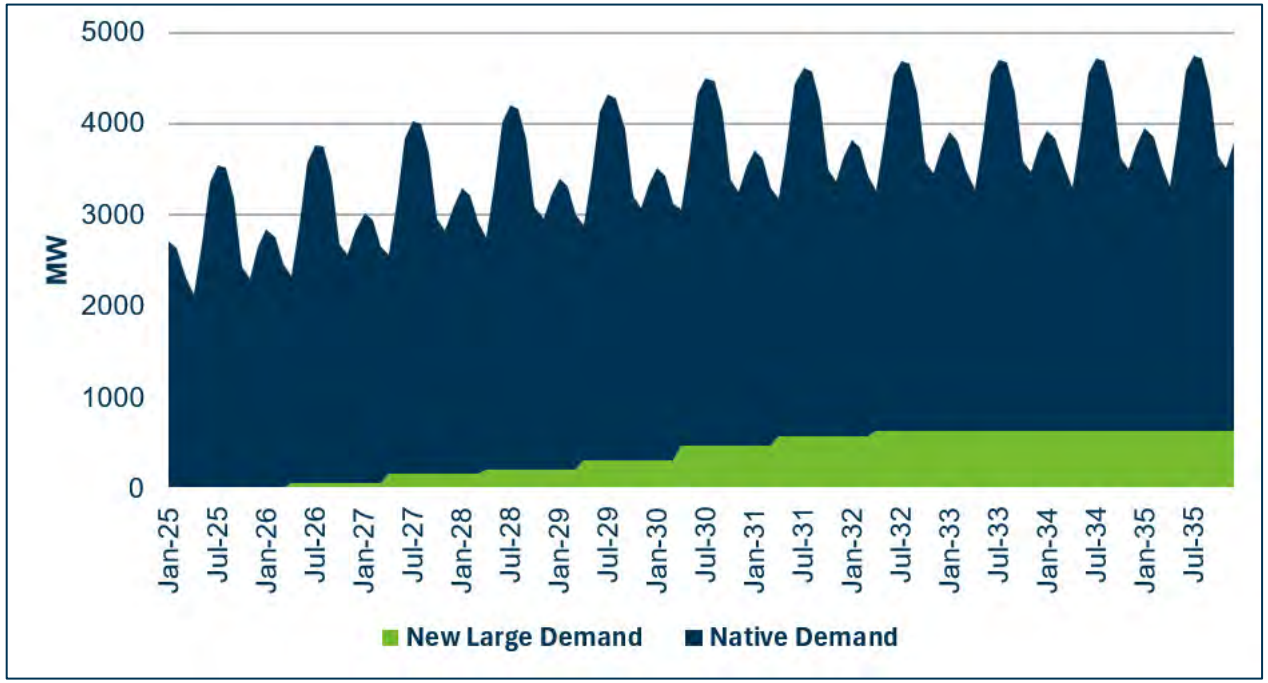


Large Customer Load in Base Forecast

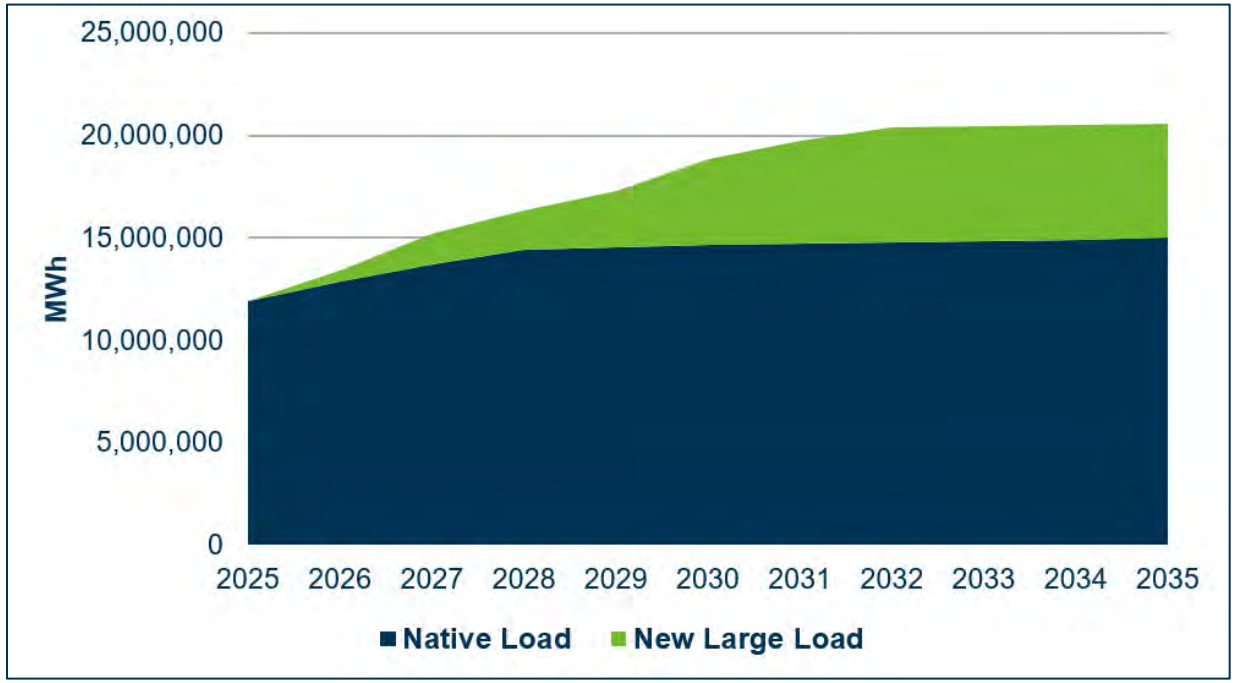
- Evergy has a large pipeline of prospective new large load customers, but not all are included in base load planning until certain progress on Evergy's internal review process has been met to avoid exposing our Preferred Plan to unnecessary risks.
- **Evergy Metro**
  - A portion of the new large load was included in the typical load forecast. After the 2025 IRP load forecast update process was complete the expected ramp for this customer was increased. In order to fully plan for this customer load profile an adjustment was made to increase the base load.
  - In January 2025, Evergy submitted an Attachment AQ study to the SPP to study the transmission upgrade requirements of adding the new large load.
- **Evergy Missouri West**
  - The new large load was not included in the typical load forecast data due to the timing of when Evergy completed its annual load forecast update and the subsequent timing of gaining more certainty of the new large load customer locating in Evergy Missouri West's service territory. In order to plan for the new load, an adjustment was made after the load forecast process was complete.
  - In January 2025, Evergy submitted an Attachment AQ study to the SPP to study the transmission upgrade requirements of the incremental new large load.
- New large load customer(s) continue to progress with negotiations and expect to have Construction and Service Agreements fully executed in the second quarter of 2025 with an expected project announcement in the second half of 2025.

Evergy Metro Peak Large Customer Load

Peak MW Load Forecast Including New Large Load



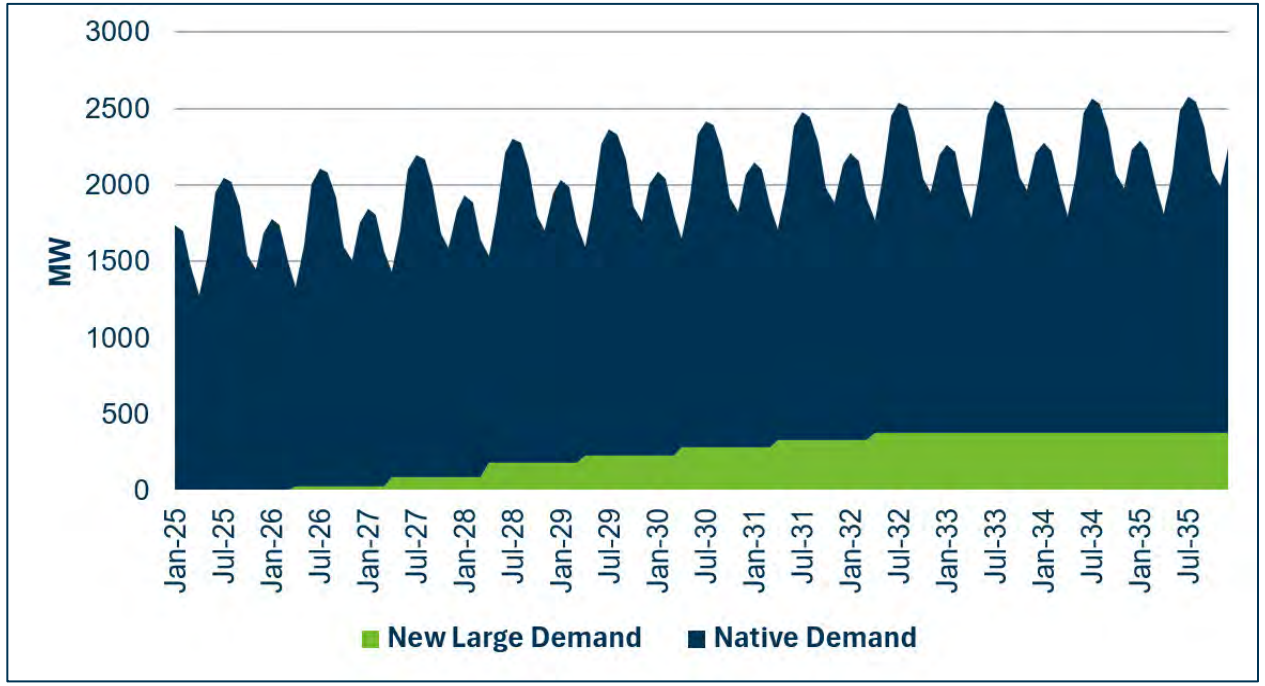
Peak MWh Load Forecast Including New Large Load



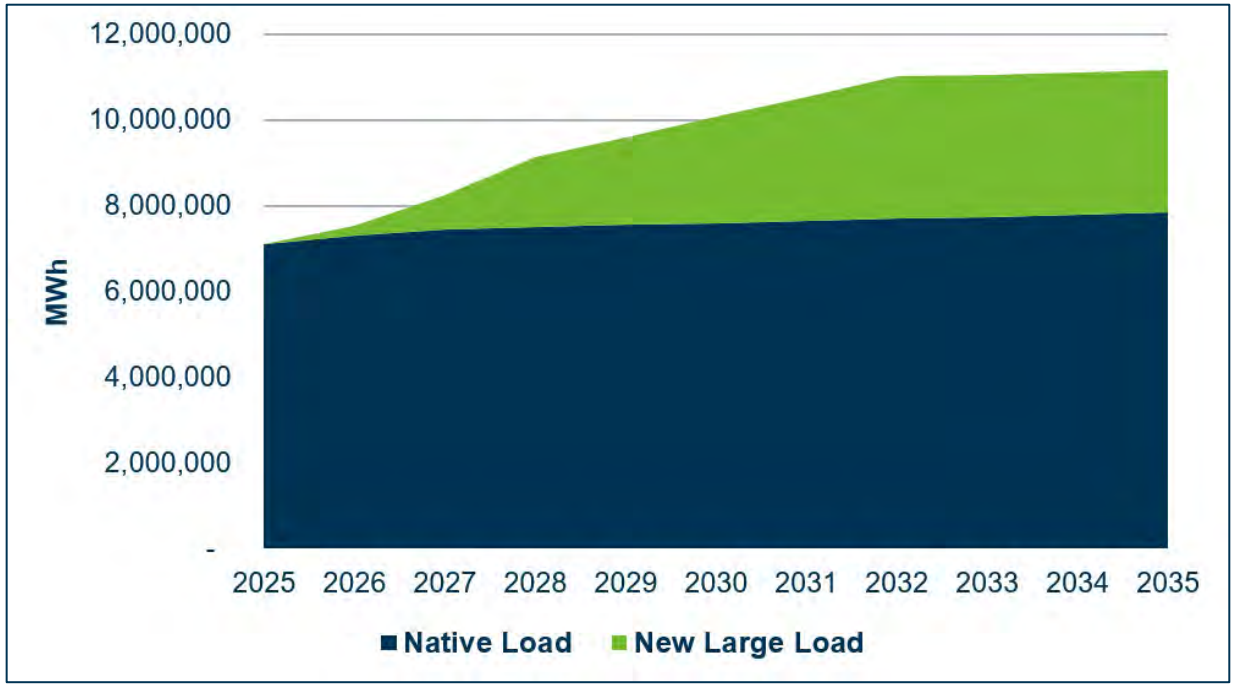
Each of the base planning scenarios studied in this 2025 IRP include the new large load starting its ramp in 2026 and continuing at the MW peak load in the early-2030s through the end of the 20-year planning period

Evergy Missouri West Large Customer Load

Peak MW Load Forecast Including New Large Load



Peak MWh Load Forecast Including New Large Load



Each of the base planning scenarios studied in this 2025 IRP include the new large load starting its ramp in 2026, reaching its peak in 2032, and continuing at the peak load in the early-2030s through the end of the 20-year planning period.

Supply-Side Analysis

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Review of Cost Assumption Sources – New Resources

- Wind: 2023 All Source Request for Proposal responses, confirmed with offer refresh; adjusted over time based on average cost curve from NREL and EIA - only updated NREL curve
- Solar: 2023 All Source Request for Proposal responses, confirmed with offer refresh; adjusted over time based on average cost curve from NREL and EIA - only updated NREL curve
- Battery Storage: Average price based on 2023 All Source Request for Proposal responses; adjusted over time based on average cost curve from NREL and EIA - only updated NREL curve
- Natural Gas: Updated with construction costs and attributes with the latest information for combined cycle (Viola, McNew) and simple cycle (Mullin Creek); cost estimates include latest estimates for transmission interconnection, consistent with CCN filing
  – updated since 2024 IRP

New Build Cost Assumptions

Primary resource options *****CONFIDENTIAL*****

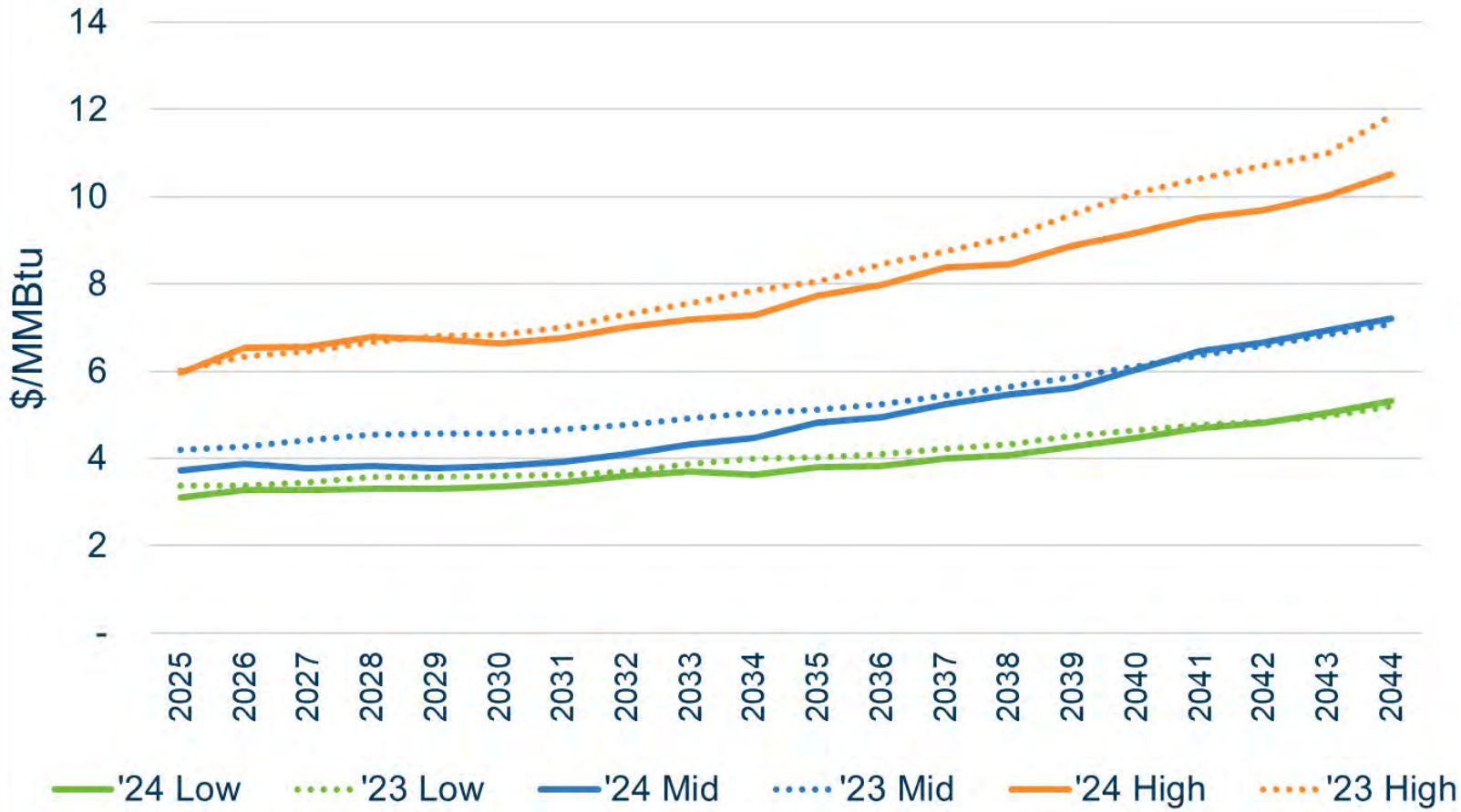
Critical Uncertain Factors and Probabilities

Scenario	Natural Gas Prices	CO_2 Emission Restrictions	Construction Costs
Low	35%	25%	25%
Mid	50%	60%	50%
High	15%	15%	25%

Natural Gas Price Forecasts

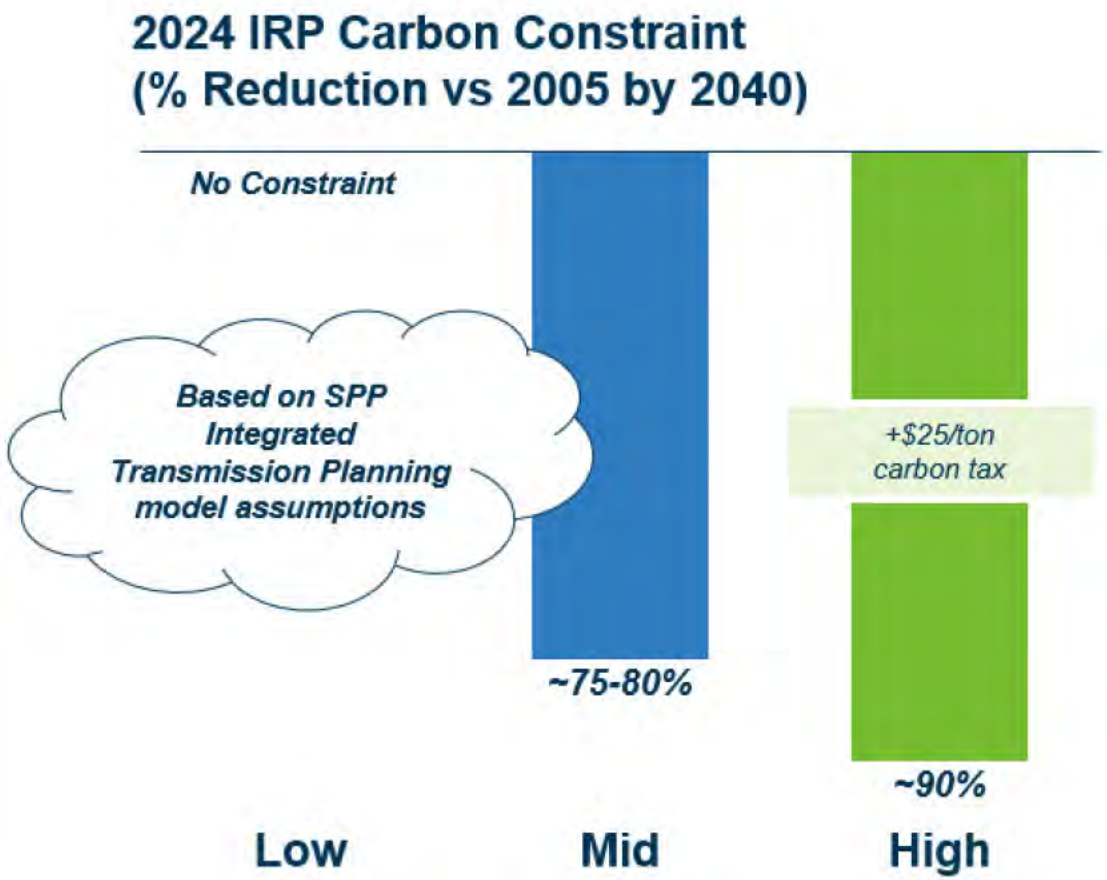
- 2025 forecasts used are same forecasts as 2024 Triennial
- EIA has not updated fundamental supply & demand outlook

Figure 8: Natural Gas Price Forecasts 2024 IRP and 2023 IRP



Critical Uncertain Factors – Legal Mandates / CO_2 Restriction

- Same as 2024 Triennial
- Includes varying levels of carbon restriction, consistent with SPP assumptions, which impact market prices and dispatch
- High Carbon Restriction scenario includes additional carbon tax
- Included incremental cost of carbon capture on new natural gas combined cycles in order to enable non-emitting operations in High restriction scenario



Build and Interconnection Costs

- Same +/- 25% high and low forecast sensitivity as 2024 Triennial
- Large cost increases seen for development projects
- Evergy will conduct another RFP this year to refresh renewable and storage costs
- Tariffs, policy changes, inflation, and supply & demand forces may contribute to future cost volatility

*****CONFIDENTIAL*****

Renewables and storage interconnection cost mid estimates based on 2019-2023 SPP median costs (Low: 25th percentile estimate / High: 75th percentile estimate)
CC/CT interconnection cost mid estimate based on Evergy 2029 & 2030 project estimates (Low: -25% / High +25%)
Renewables and storage build cost mid estimates based on 2023 ASRFP, technology study, public sources (Low: -25% / High: + 25%)
CC/CT build cost mid estimates based on Evergy 2029 & 2030 project estimates

Maximum MW Available Evergy Missouri West

Base Build Limit Assumptions

Year	Solar	Wind	Battery	CC	CT
2027	Foxtrot, Sunflower Sky	n/a	n/a	n/a	n/a
2028	150 MW	150 MW	150 MW	n/a	n/a
2029	n/a	n/a	n/a	Viola	n/a
2030	n/a	n/a	n/a	McNew	Mullin Creek
2031+	150 MW	150 MW	150 MW	355 MW	440 MW

Note: Each year shown represents the MW available by resource type in that year and following years until the next year shown in the table, which represents updated constraints.

Maximum MW Available Evergy Metro

Base Build Limit Assumptions

Year	Solar	Wind	Battery	CC	CT
2027	300 MW	n/a	n/a	n/a	n/a
2028	300 MW	150 MW	300 MW	n/a	n/a
2029	300 MW	150 MW	300 MW	n/a	n/a
2030	300 MW	150 MW	300 MW	n/a	n/a
2031+	300 MW	150 MW	300 MW	355 MW	440 MW

Note: Each year shown represents the MW available by resource type in that year and following years until the next year shown in the table, which represents updated constraints.

Integrated Resource Analysis

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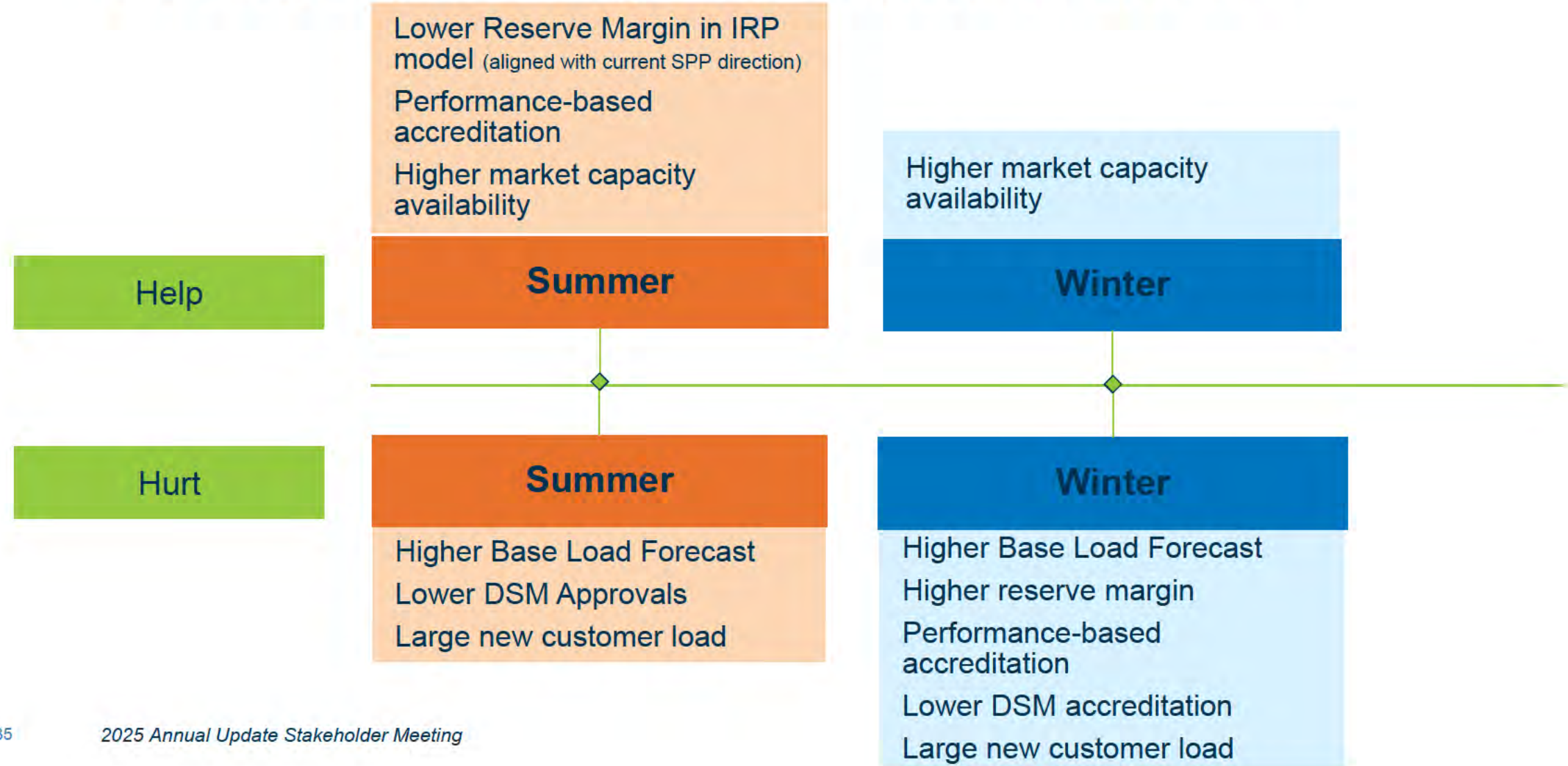
Resource Adequacy

Many changes … some not final

- **Reserve Margin – 2026 & 2029 set**
  - LOLE studies forecasting higher reserve margin (for both winter and summer) going forward to maintain 1-day-in-10 metric
    - 2026 – Summer: 16%; Winter 36%
    - 2029 – Summer: 17%; Winter 38%
  - Winter needs exacerbated by correlated cold weather outages (need more resources if expect higher percent of forced outages in cold weather)
- **Performance-based accreditation (thermal resources) – Preliminary FERC approval**
  - Metric to redistribute accreditation based on historical availability at peak times. If resources perform worse than average, will get less accreditation relatively and vice versa. Currently 7yr average seasonal forced outage rate will be used
  - Implementation summer 2026
- **Fuel assurance (winter thermal resources) – Preliminary FERC approval**
  - Further penalize (beyond PBA) conventional generation for poor performance during winter peak conditions
- **ELCC (renewable, storage resources) – Preliminary FERC approval**
  - Metric establishing ability of resources to meet energy needs considering limitations (fuel supply/weather, duration)
  - Implementation summer 2026
- **Penalties for not meeting capacity requirement up to 2x CONE (cost of new entry) – Existing**
- **Other refinements – still being finalized – Pending SPP stakeholder process / approval**
  - Planned outage scheduling rules/restrictions to avoid LOLE risk shifting to spring/fall
  - Demand response accreditation changes

Changes to capacity balance – Evergy Missouri West

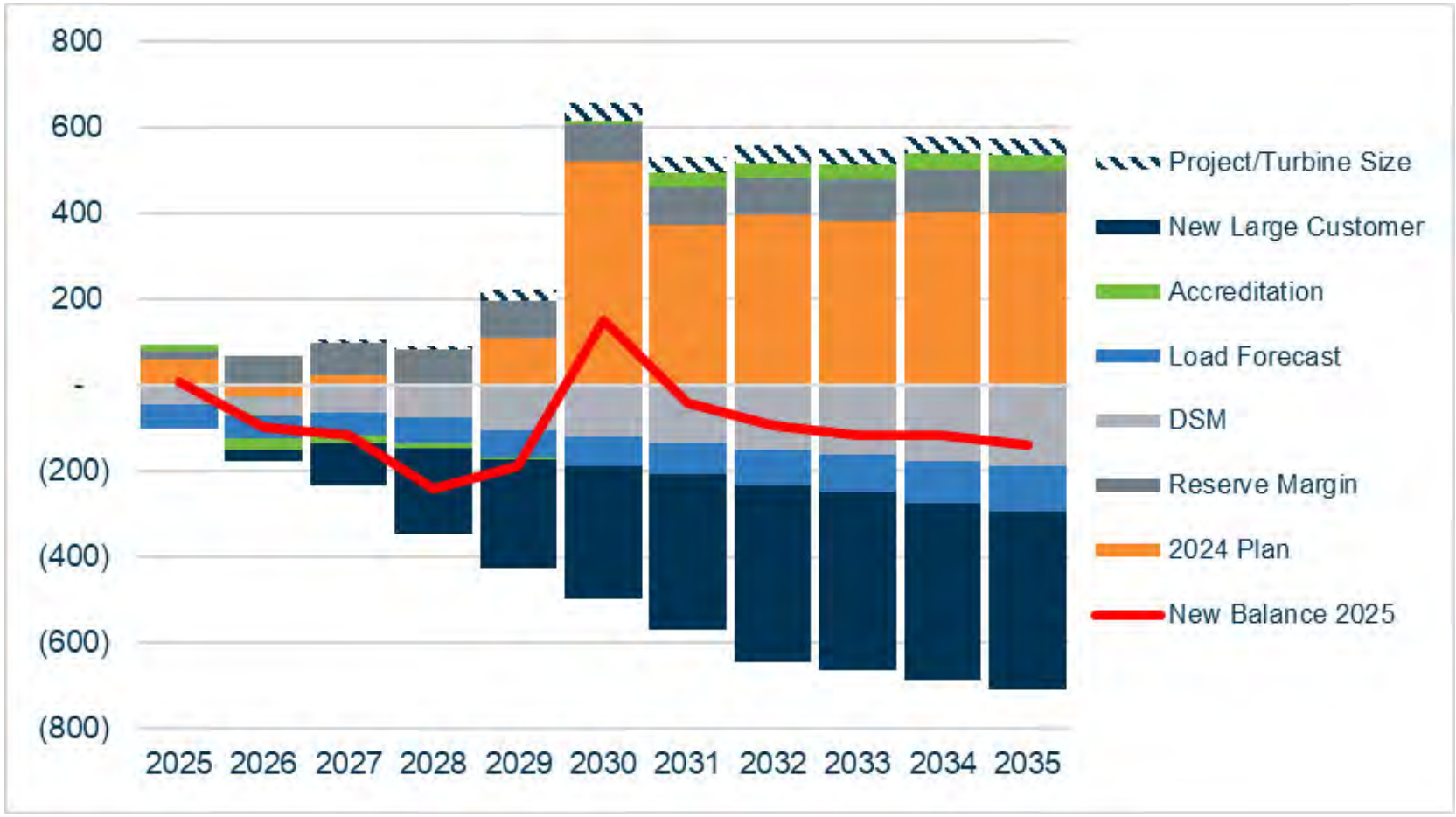
Overall capacity need is higher than forecast from 2024 IRP



Evergy Missouri West Capacity Changes

2025 IRP -vs- 2024 Triennial IRP Forecasts

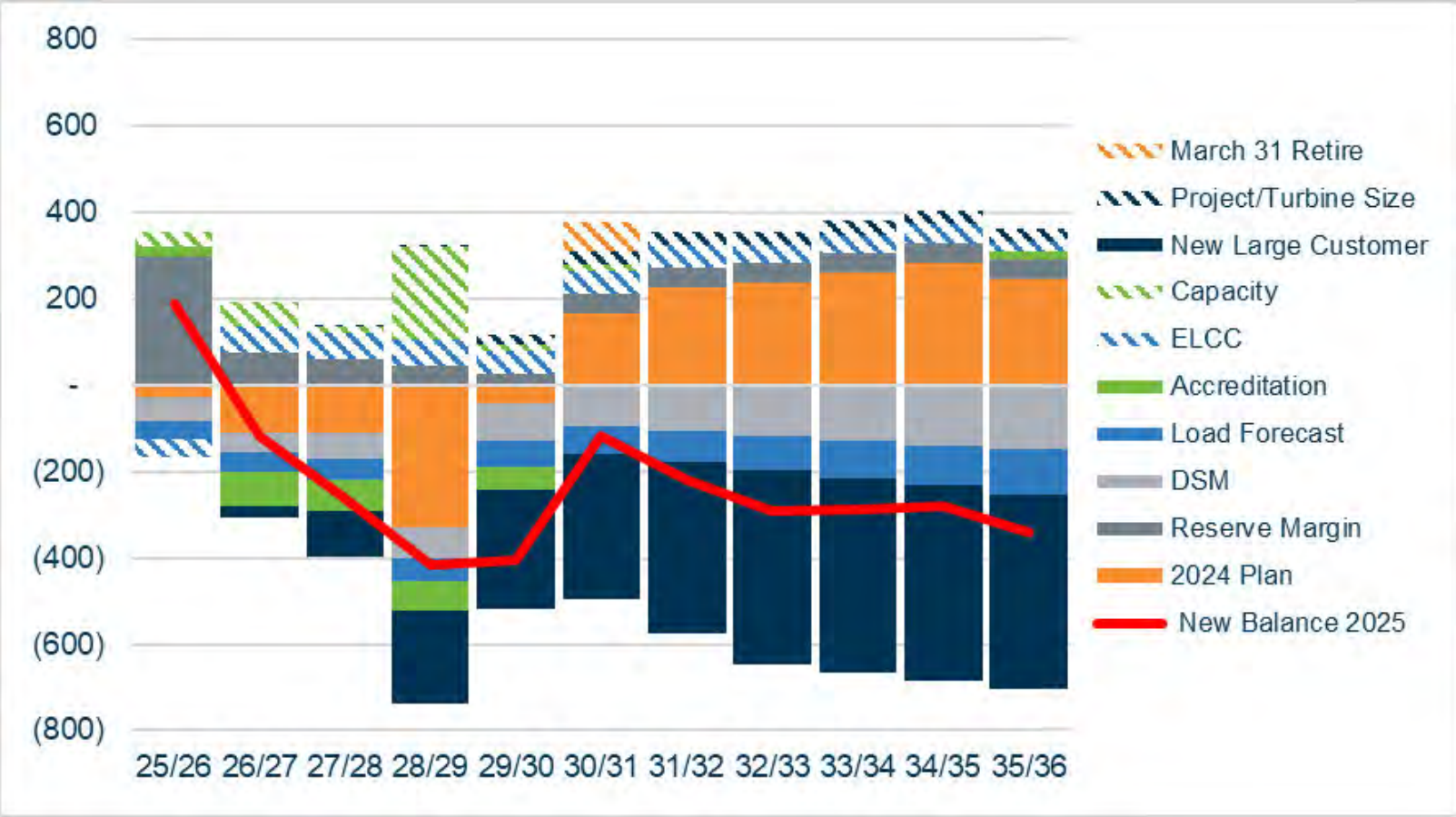
Changes to Summer Capacity Balance



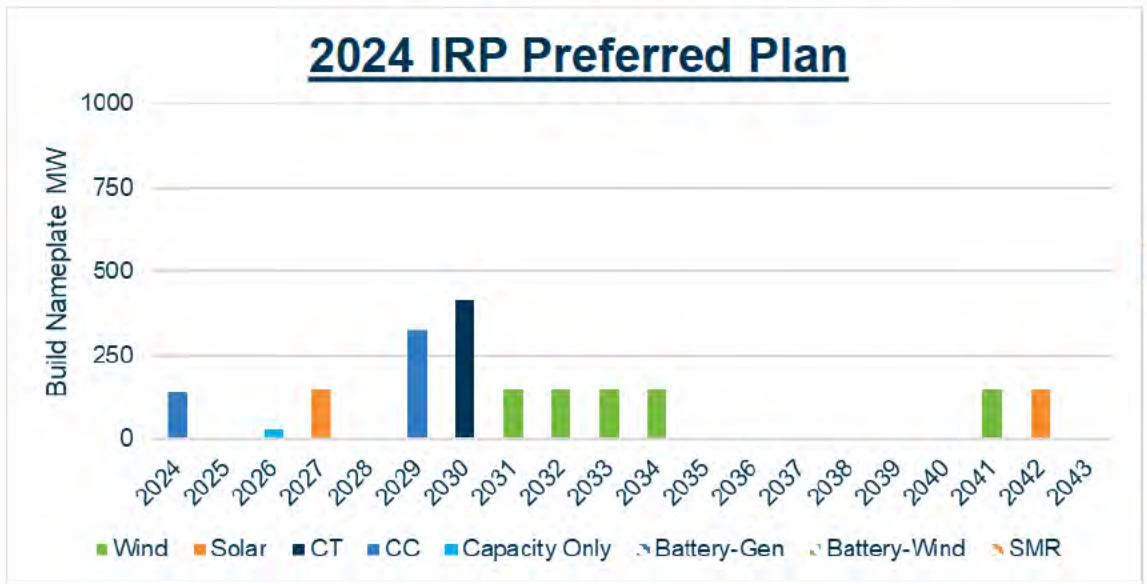
Evergy Missouri West Capacity Changes

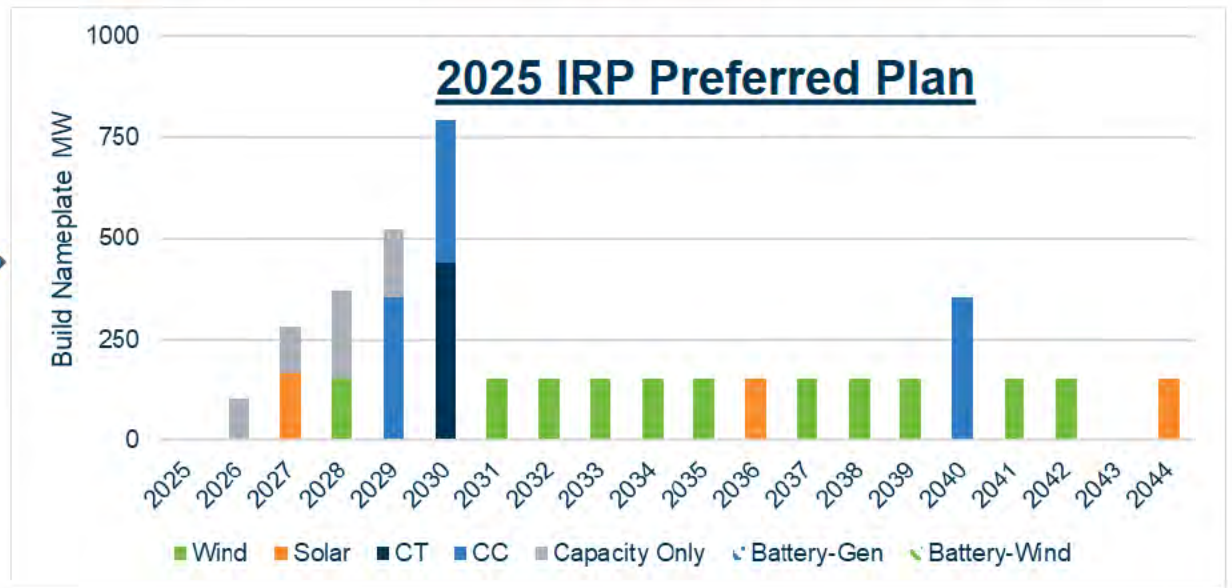
2025 IRP -vs- 2024 Triennial IRP Forecasts

Changes to Winter Capacity Balance



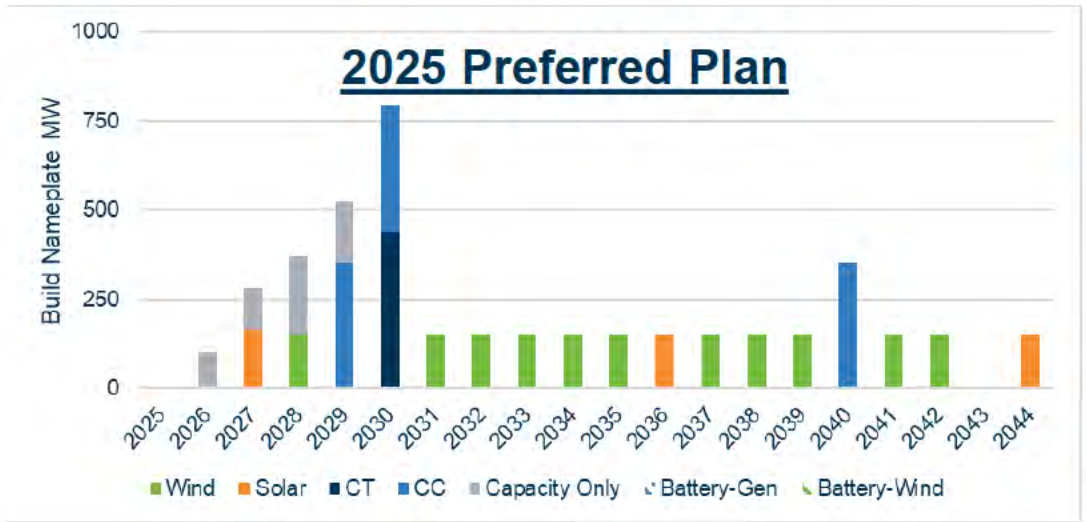
2025 Evergy Missouri West Preferred Plan

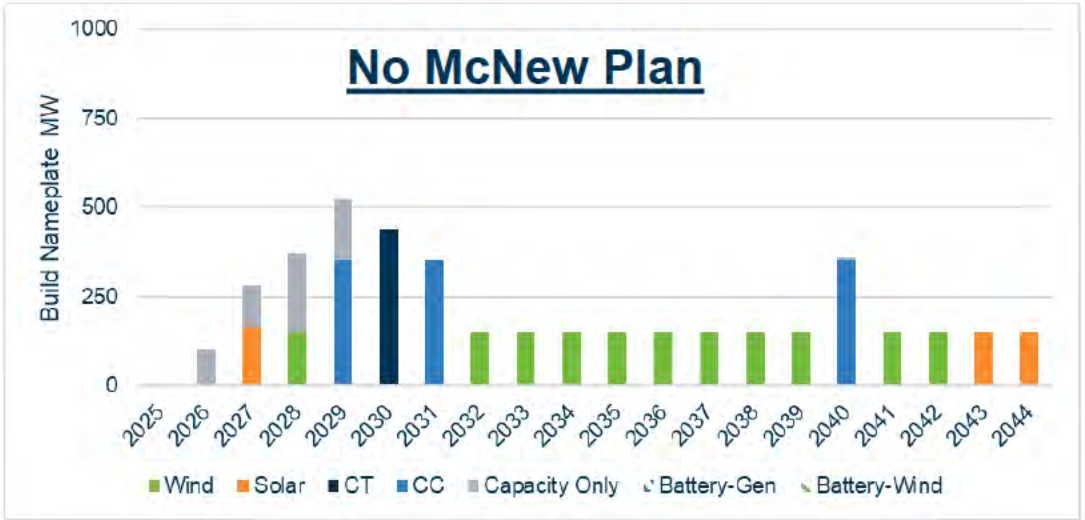


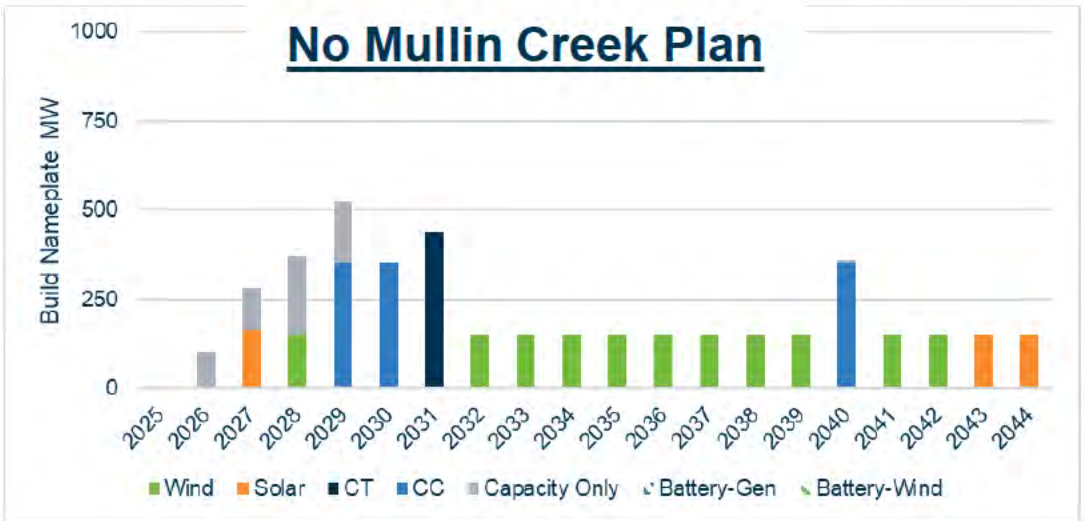


EMW can meet load growth and reliability needs through incremental market capacity 2026-2030, wind 2028, allocating McNew (1/2 CCGT) in 2030. Jeffrey 2 converts to NG in 2031.

2025 Evergy Missouri West Execution Alternatives

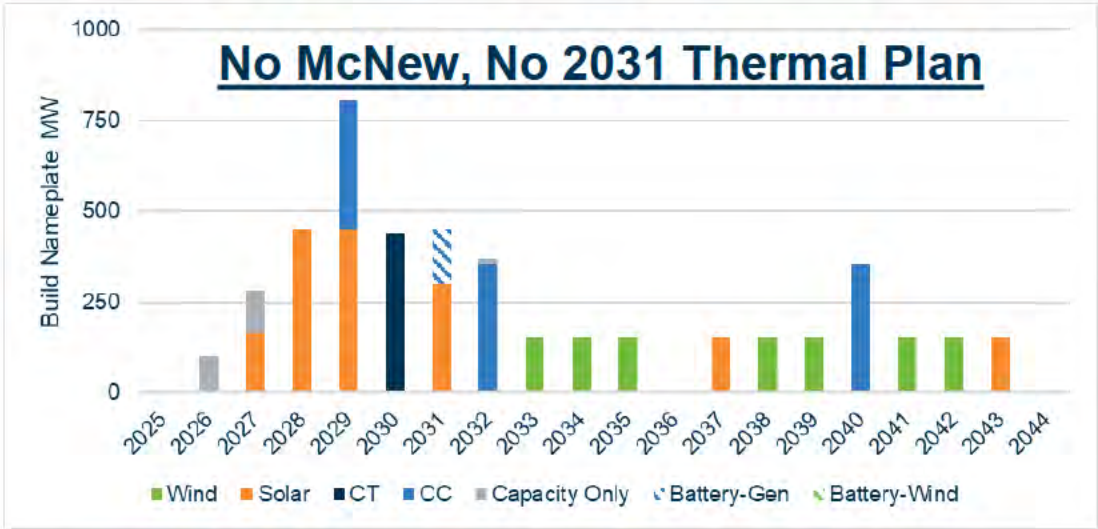


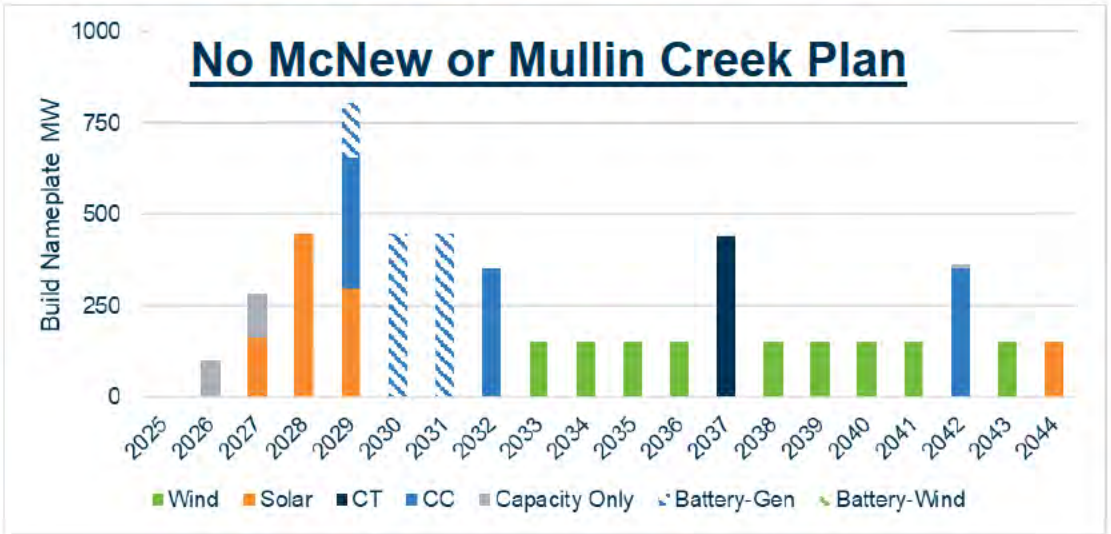




EMW plan would opt to build same unit in next year (2031) if McNew or Mullin Creek were unavailable in 2030. Evergy does not expect 2031 development costs to be lower than 2030 costs.

2025 Evergy Missouri West Solar/Storage Alternatives





Rank	Plan	NPVRR	Difference	Description
1	ACAA	14,124		McNew, Mullin Creek selected
2	ACIA	14,244	120	No McNew, No 2031 Thermal, allow higher early solar/storage
3	ACJA	14,267	142	No Mullin Creek
4	ACGA	14,278	154	No McNew
5	ACHA	14,377	253	No McNew, No 2031 CCGT, allow higher early solar/storage
6	ACKA	14,786	662	No Mullin Creek, No McNew, or 2031 Thermal, allow higher early solar/storage

Next viable alternatives if EMW does not have a 2030 or 2031 thermal option are solar/storage. These plans temporarily postpone thermal build at much higher expected cost.

Evergy Missouri West Alternative Resource Plans

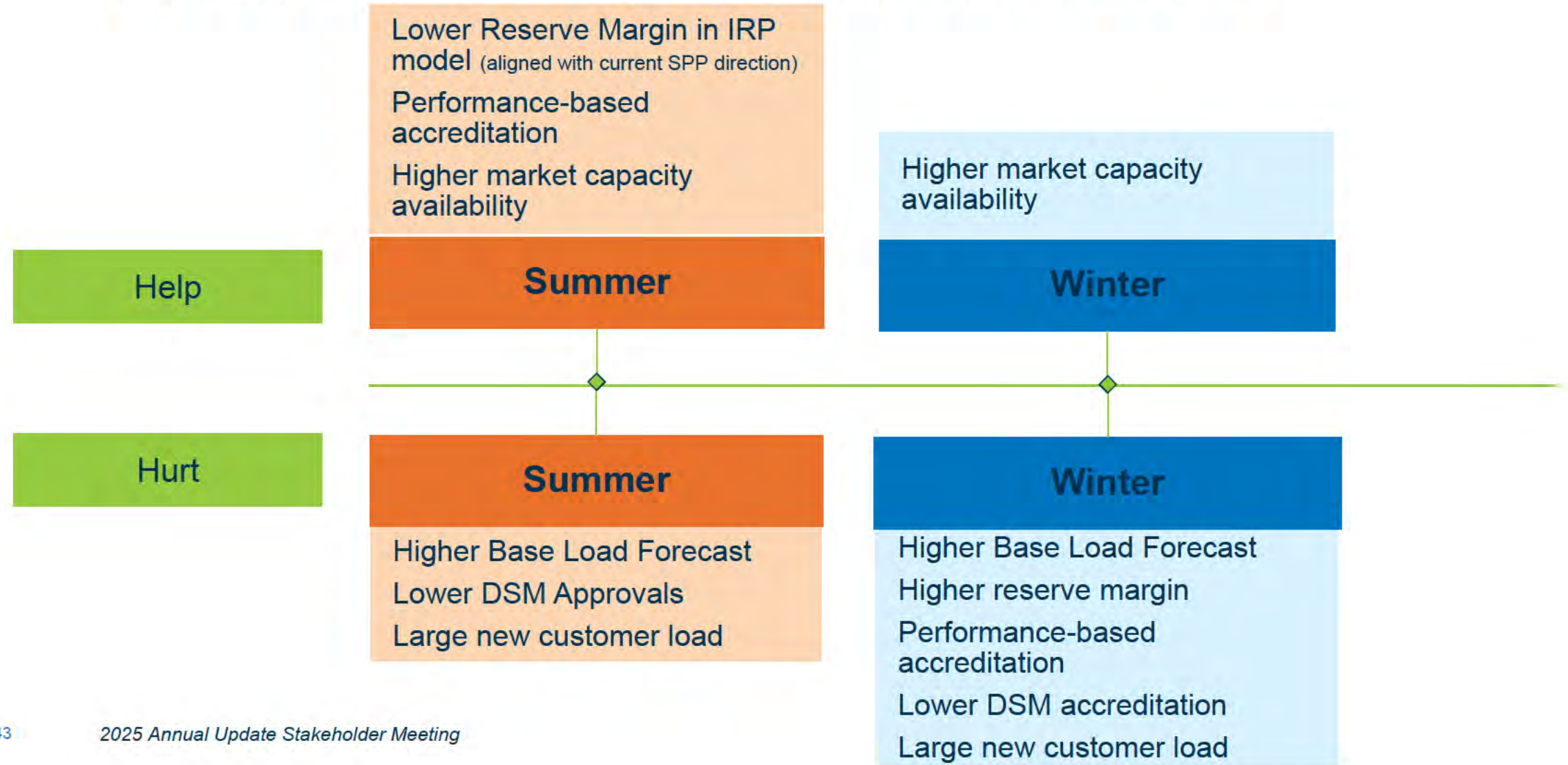
Rank	Plan	NPVRR	Difference	Description
1	AAAA	14,086		Base Load, MEEIA Extends, CCN Resources, Build Limits, 2024 PP Retirements
2	ABAA	14,093	7	Extend JEC 2 2039
3	ACAA	14,124	38	JEC 2 NG 2030
4	ACAR	14,135	48	High NG/Mid CO_2
5	ADAA	14,171	85	Retire IAT 1 2030
6	ACIA	14,244	158	No McNew, No 2031 Thermal, allow higher early solar/storage
7	ACJA	14,267	180	No Mullin Creek
8	ACGA	14,278	192	No McNew
9	ACHA	14,377	291	No McNew, No 2031 CCGT, allow higher early solar/storage
10	ACFA	14,420	334	Only renewables/storage; relaxed build limit
11	ACFP	14,449	362	High NG/High CO_2, Only renewables/storage, relaxed build limit
12	ACKA	14,786	700	No Mullin Creek, No McNew, or 2031 Thermal, allow higher early solar/storage
13	ACAP	15,914	1,828	High NG/High CO_2
14	ACAQ	16,865	2,779	Low NG/Low CO_2

Preferred Plan

The selected preferred plan for Missouri West is the lowest cost plan that incorporates the decision to operate Jeffrey 2 on natural gas rather than retire it in 2030.

Changes to capacity balance – Evergy Metro

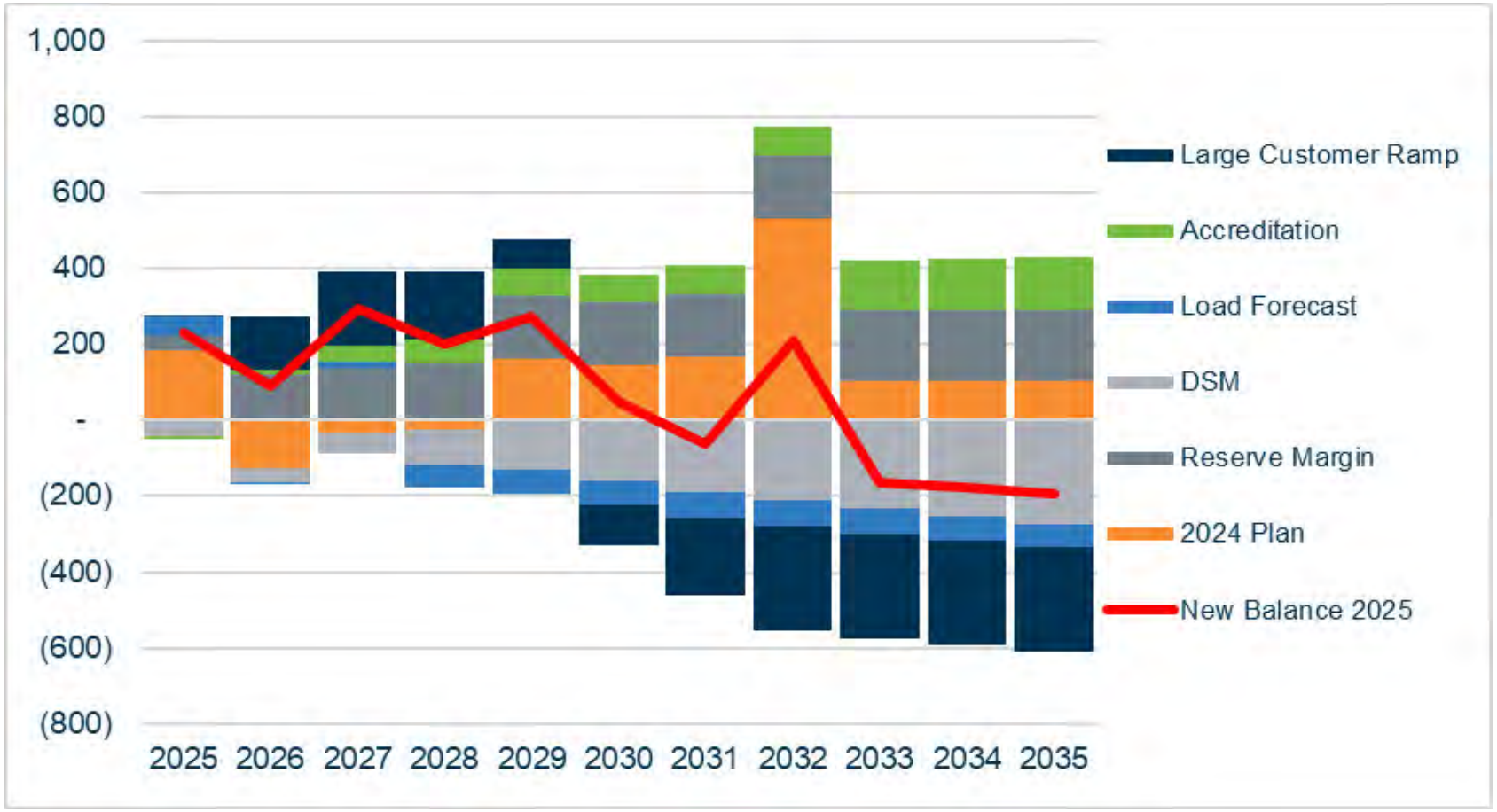
Overall capacity need is higher than forecast from 2024 IRP



Evergy Metro Capacity Changes

2025 IRP -vs- 2024 Triennial IRP Forecasts

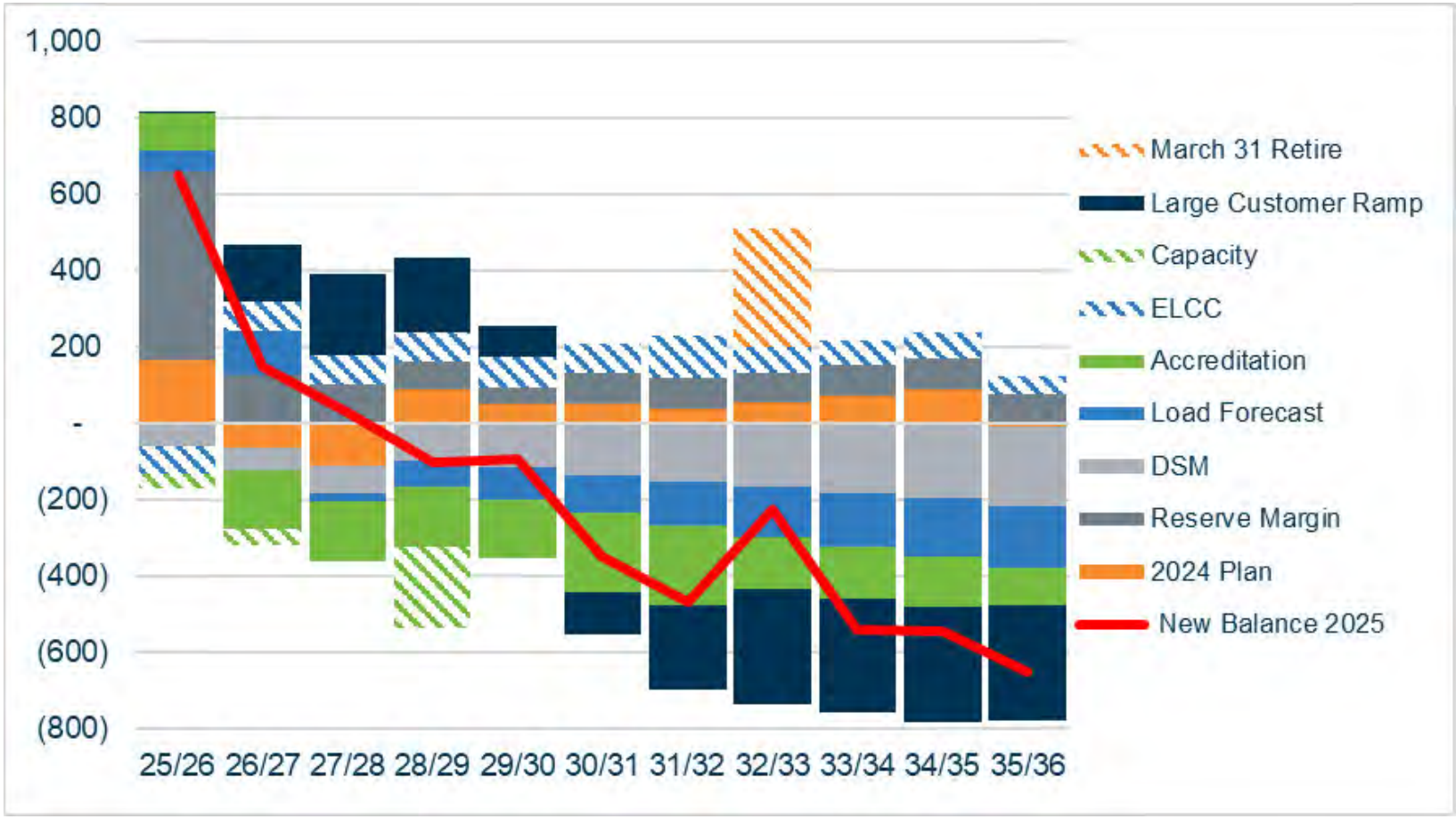
Changes to Summer Capacity Balance



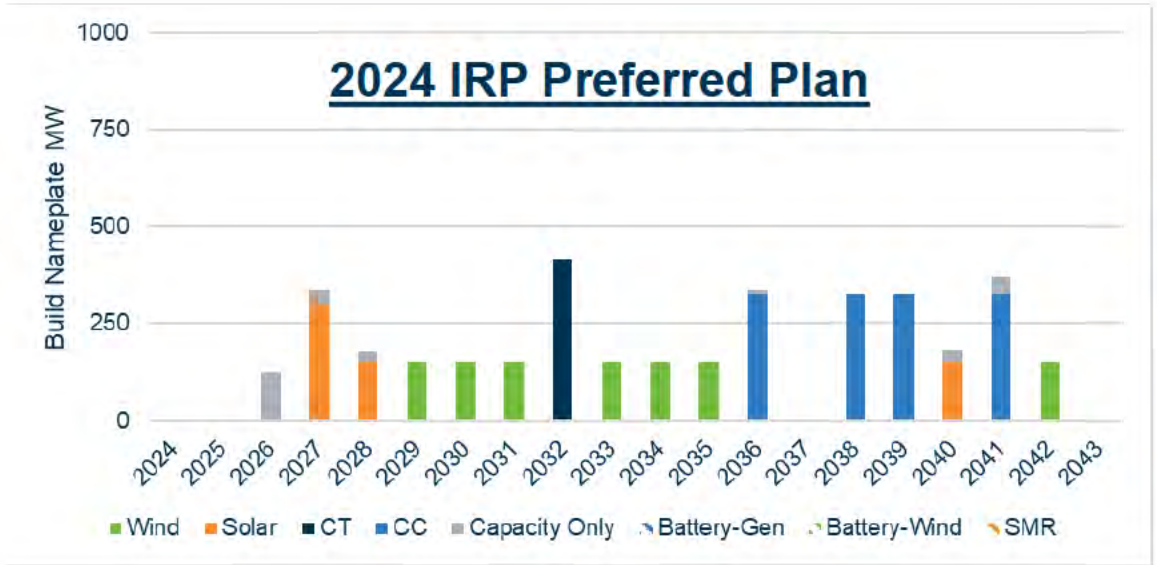
Evergy Metro Capacity Changes

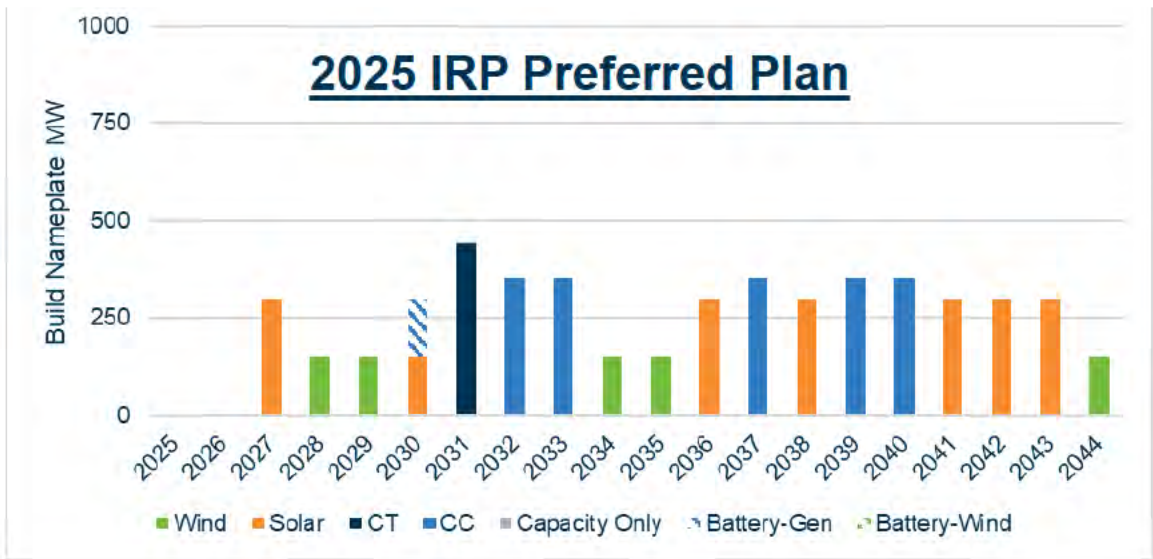
2025 IRP -vs- 2024 Triennial IRP Forecasts

Changes to Winter Capacity Balance



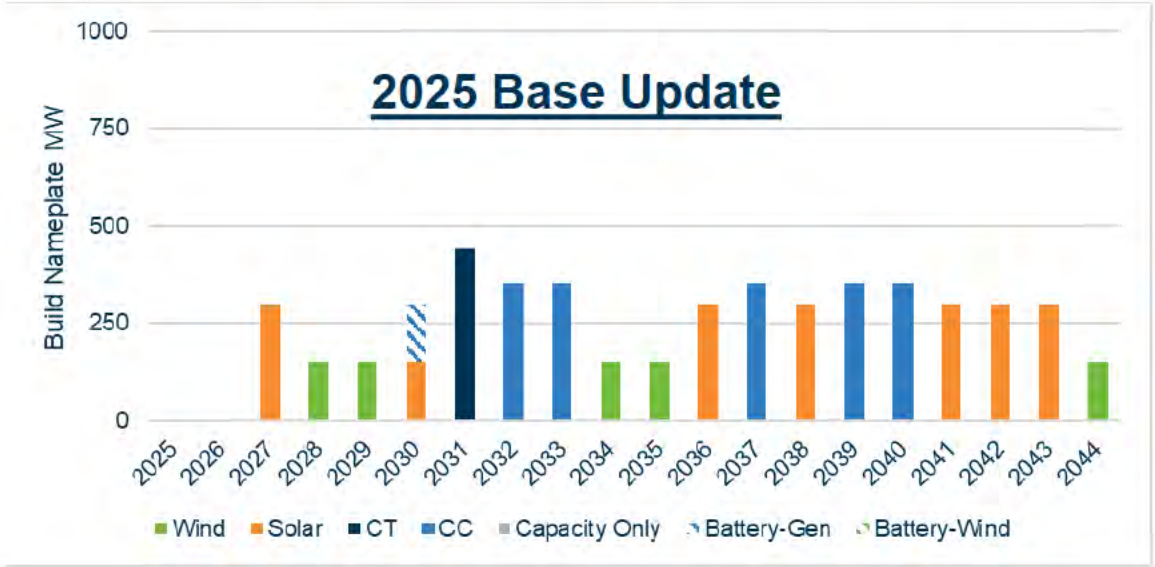
2025 Evergy Metro Preferred Plan

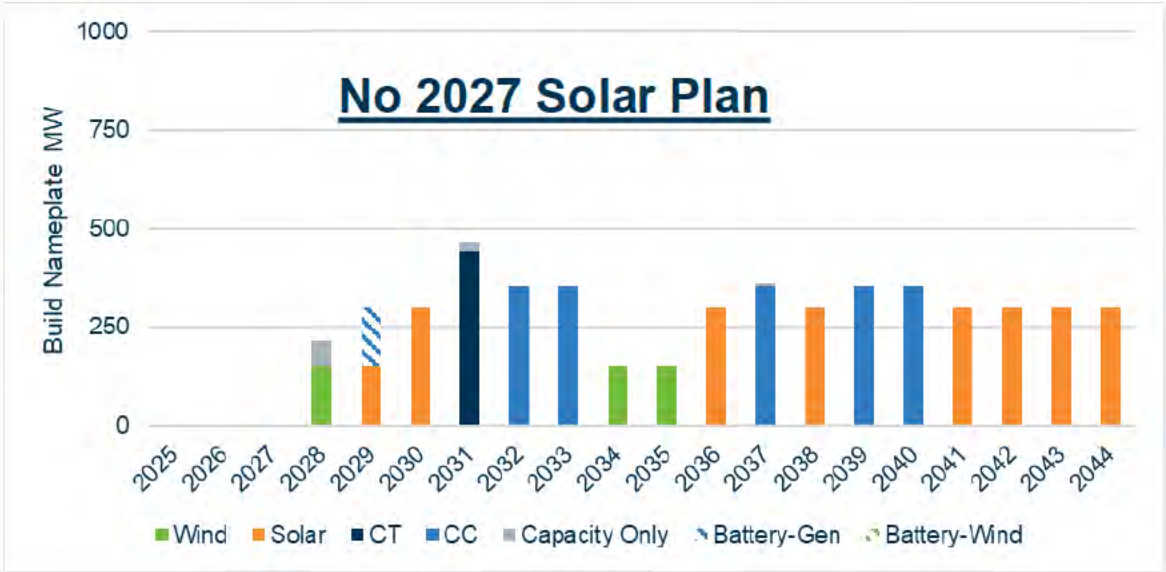




EMM can meet load growth and reliability needs by adding 150 MW storage by 2030, pulling forward SCGT to 2031 and building full CCGT in 2032-2033.

2025 Evergy Metro Base Case - Alternatives

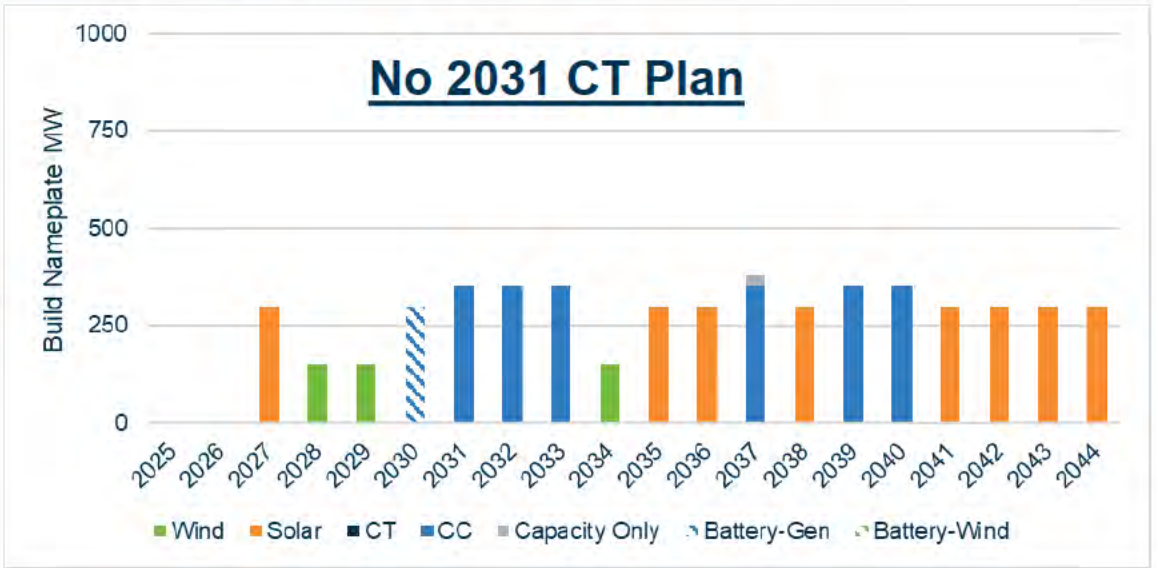


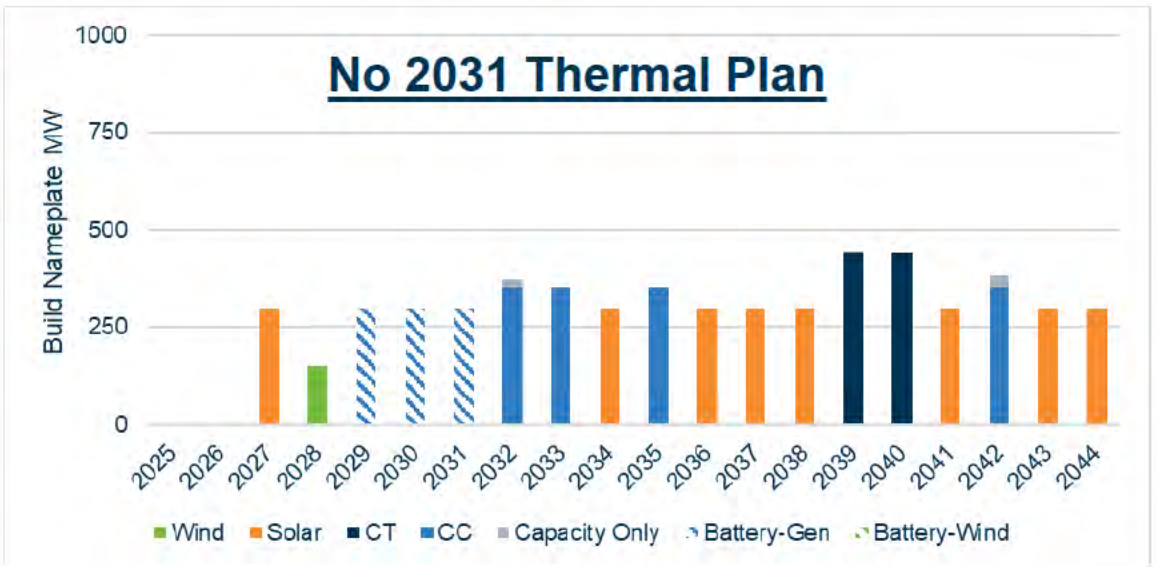


Rank	Plan	NPVRR	Difference	Description
1	AAAA	23,609		Base Load, MEEIA Extends, Build Limits, 2024 PP Retirements
2	AAJA	23,903	294	No 2027 Solar

Without option of 2027 solar, EMM would move solar builds to later year, increase market capacity purchases and reduce early wind, for higher expected NPVRR.

2025 Evergy Metro Base Case - Alternatives

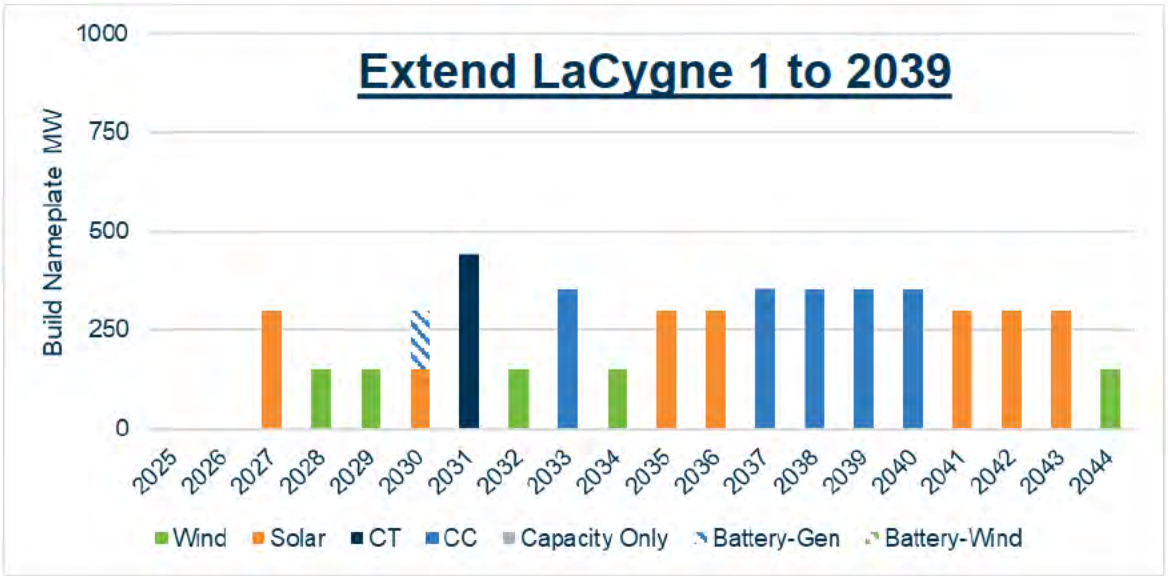




Rank	Plan	NPVRR	Difference	Description
1	AAAA	23,609		Base Load, MEEIA Extends, Build Limits, 2024 PP Retirements
2	AAGA	23,642	33	No 2031 CT
3	AAHA	24,824	1,215	No 2031 Thermal

Without option of 2031 SCGT, plan builds ½ CCGT in 2031 and substitutes storage for solar in 2030. Without option of any thermal in 2031, plan builds 900 MW of storage in 2029-2031.

2025 Evergy Metro – Retirement Planning



Rank	Plan	NPVRR	Difference	Description
1	ADAA	23,452		LaCygne 1 Retires 2039
2	AAAA	23,609	157	2024 PP Retirements
3	ACAA	24,022	570	LaCygne 2 retires 2032
4	ABAA	25,149	1,697	IAT 1 Retires 2030

Postponing LaCygne 1 retirement shows some economic benefit in deferring need for ½ CCGT in 2032. Retiring Iatan 1 earlier requires more earlier storage build and ½ CCGT in 2035. Evergy Metro continues to plan for retirement risk before 2039.

Evergy Metro Alternative Resource Plan Rankings

Rank	Plan	NPVRR	Difference	Description
1	ADAA	23,452		LaCygne 1 Retires 2039
2	AAAA	23,609	157	Base Load, MEEIA Extends, Build Limits, 2024 PP Retirements
3	AAGA	23,642	190	No 2031 CT
4	AAAP	23,870	418	High NG/High CO_2
5	AAJA	23,903	451	No 2027 Solar
6	ACAA	24,022	570	LaCygne 2 Retires 2032
7	AAHA	24,824	1,372	No 2031 Thermal
8	ABAA	25,149	1,697	IAT 1 Retires 2030
9	AAFP	27,788	4,336	High NG/High CO_2, Only renewables/storage no build limit
10	AAFA	27,880	4,427	Only renewables/storage; No Build Limit
11	AAAQ	28,393	4,940	Low NG/Low CO_2

Preferred Plan

The Preferred Plan is near the lowest-cost plan, but is not lowest-cost due to selecting a resource plan that includes the risk of losing one coal resource before 2039

Preferred Plan Summary

Evergy Missouri West (ACAA)

Year	Wind (MW)	Solar (MW)	Battery (MW)	Thermal (MW)	Capacity (Summer MW)	DSM (Summer MW)	Retirements (MW)
2025	0	0	0	0	0	97	0
2026	0	0	0	0	101	136	0
2027	0	165	0	0	117	147	0
2028	150	0	0	0	222	145	0
2029	0	0	0	355	169	128	0
2030	0	0	0	795	0	128	0
2031	150	0	0	0	0	128	155
2032	150	0	0	0	0	127	0
2033	150	0	0	0	0	127	0
2034	150	0	0	0	0	127	0
2035	150	0	0	0	0	127	0
2036	0	150	0	0	0	126	0
2037	150	0	0	0	0	126	0
2038	150	0	0	0	0	126	0
2039	150	0	0	0	0	126	0
2040	0	0	0	355	0	125	187
2041	150	0	0	0	0	125	0
2042	150	0	0	0	0	124	0
2043	0	0	0	0	0	124	0
2044	0	150	0	0	0	125	0

Evergy Metro (AAAA)

Year	Wind (MW)	Solar (MW)	Battery (MW)	Thermal (MW)	Capacity (Summer MW)	DSM (Summer MW)	Retirements (MW)
2025	0	0	0	0	0	90	0
2026	0	0	0	0	0	139	0
2027	0	300	0	0	0	174	0
2028	150	0	0	0	0	175	0
2029	150	0	0	0	0	159	0
2030	0	150	150	0	0	158	0
2031	0	0	0	440	5	157	0
2032	0	0	0	355	0	155	0
2033	0	0	0	355	0	153	375
2034	150	0	0	0	0	152	0
2035	150	0	0	0	0	151	0
2036	0	300	0	0	0	148	0
2037	0	0	0	355	0	144	0
2038	0	300	0	0	0	140	0
2039	0	0	0	355	0	137	0
2040	0	0	0	355	0	136	832
2041	0	300	0	0	0	134	0
2042	0	300	0	0	0	133	0
2043	0	300	0	0	0	132	0
2044	150	0	0	0	0	131	0

Additional Load Scenarios

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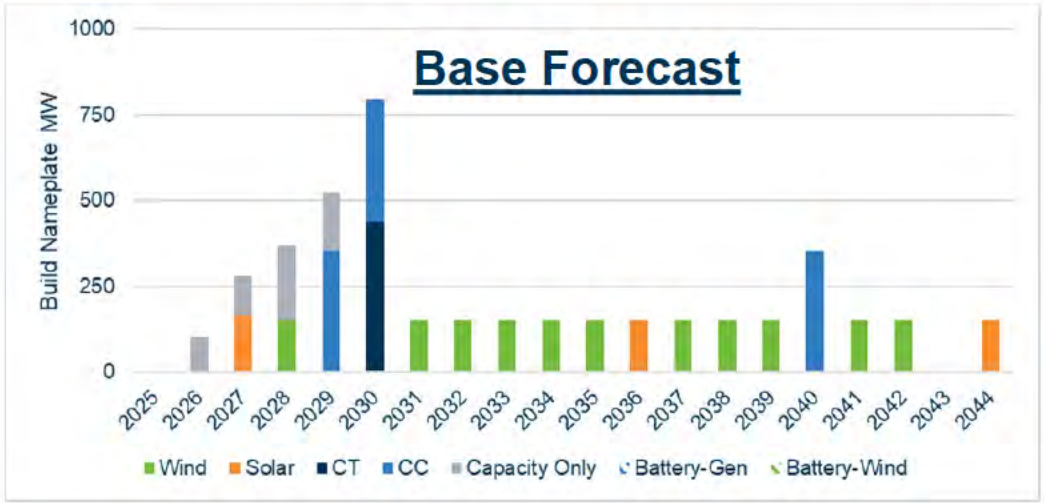
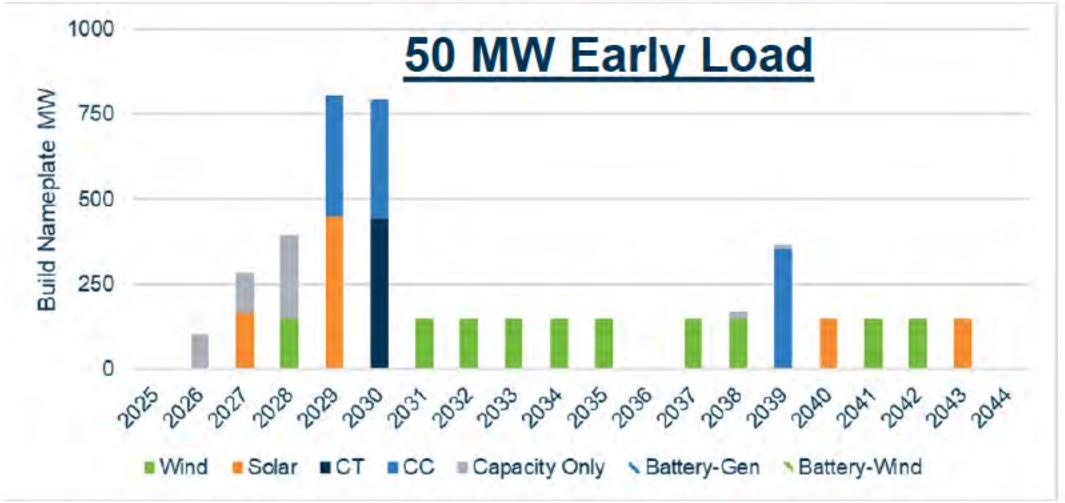
New Large Customer Scenarios - EMW

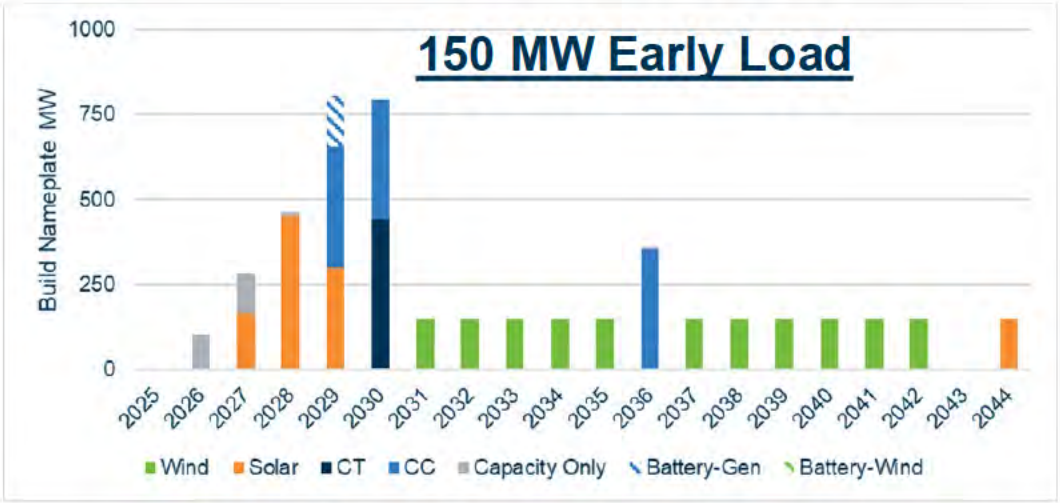
New Load Scenario	2028	2029	2030	2031	2032	2033+
50 MW Early	20	30	50	50	50	50
150 MW Early	50	100	150	150	150	150
250 MW Early	70	150	250	250	250	250
50 MW Late	0	0	0	20	30	50
150 MW Late	0	0	0	50	100	150
250 MW Late	0	0	0	70	150	250
Very Large Customer	115	340	570	810	940	940

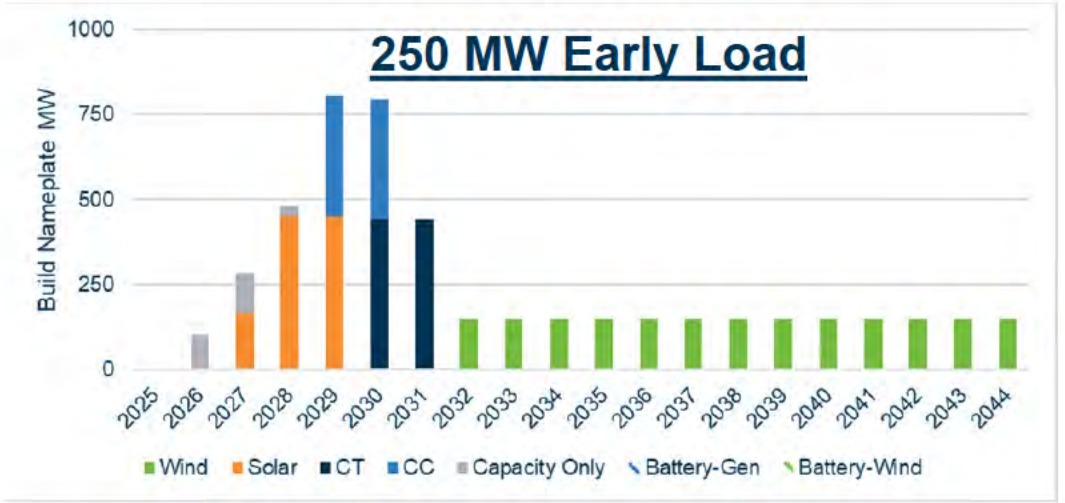
- Evergy Missouri West is capacity constrained in early years prior to thermal buildout in 2029-2030.
- Early load ramps would require greater solar/storage build beyond base capital limits to meet capacity needs
- Later load ramps require earlier next thermal build after 2030
- The next very large customer in queue would drive need for early solar and storage as well as 1 ½ CCGT builds in 2031-2032
- The high electrification load forecast requires the most capacity additions over the planning horizon, exceeding new large customer scenarios

Early Large Load Ramp - EMW

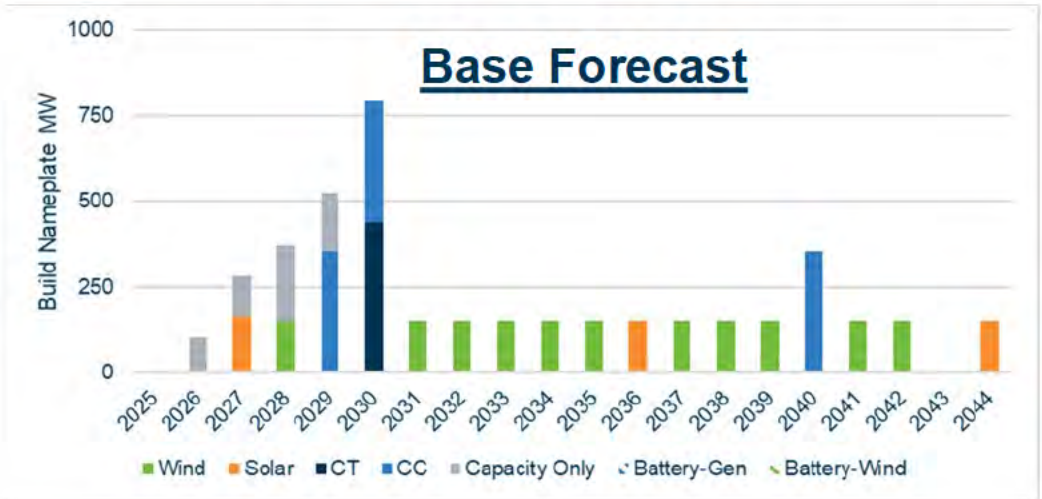


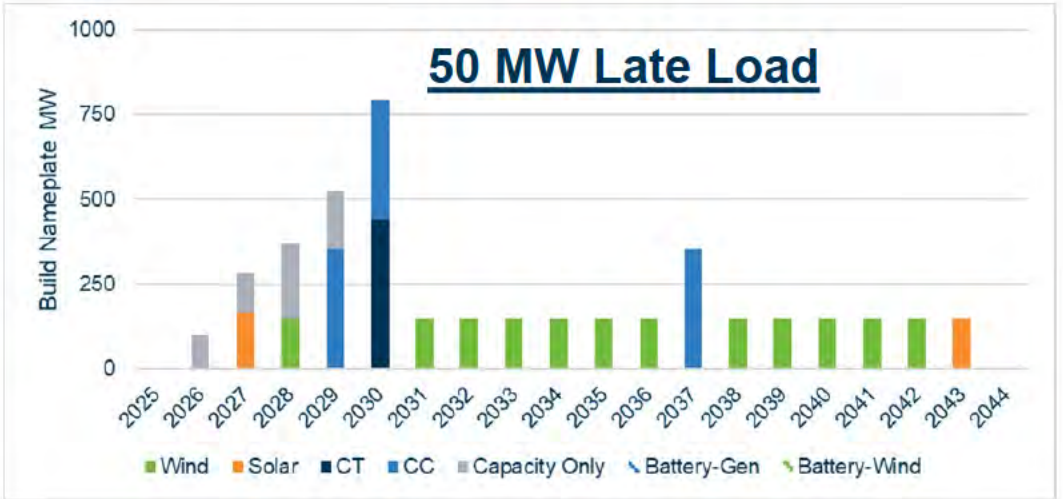


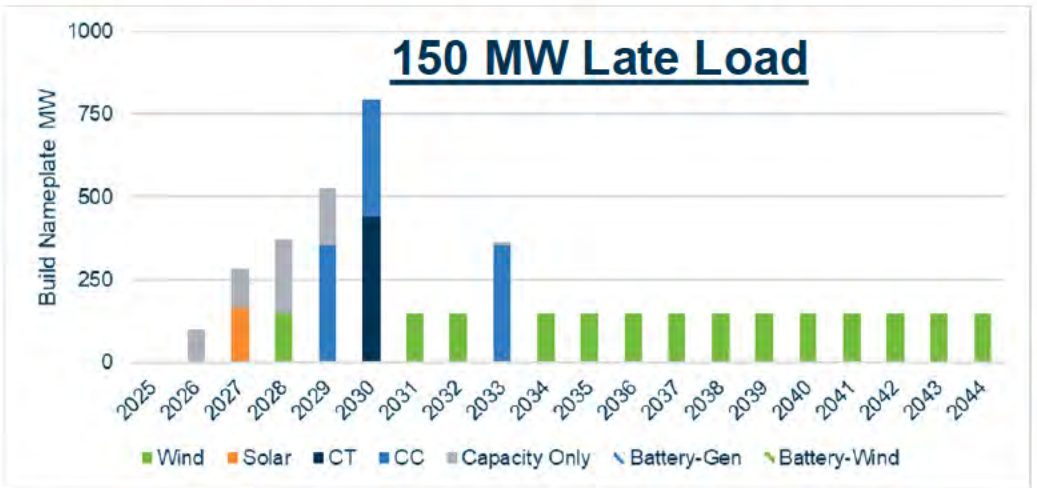


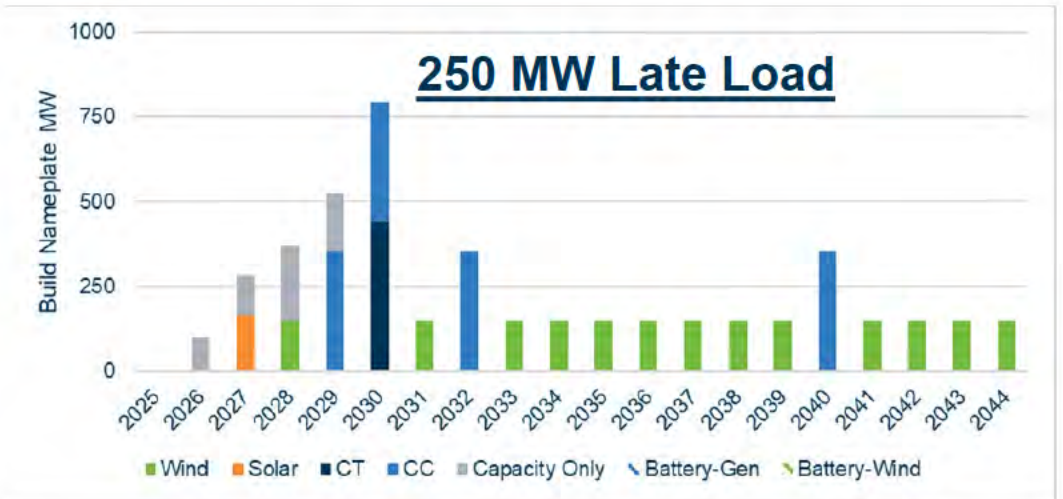


Late Large Load Ramp - EMW

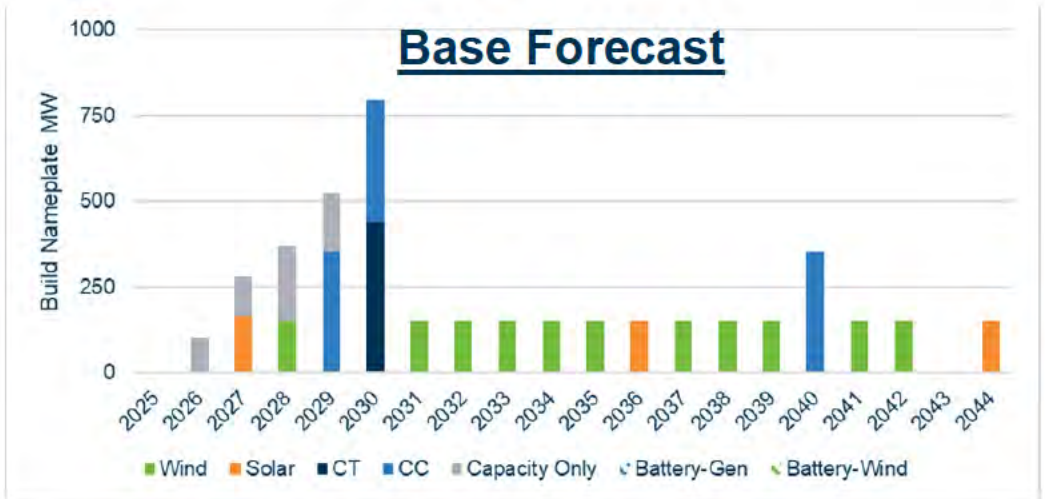


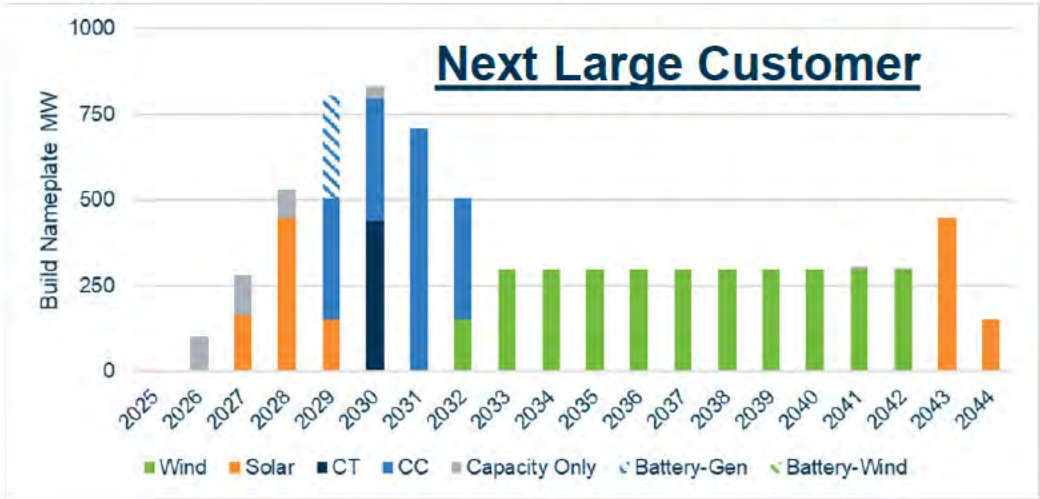


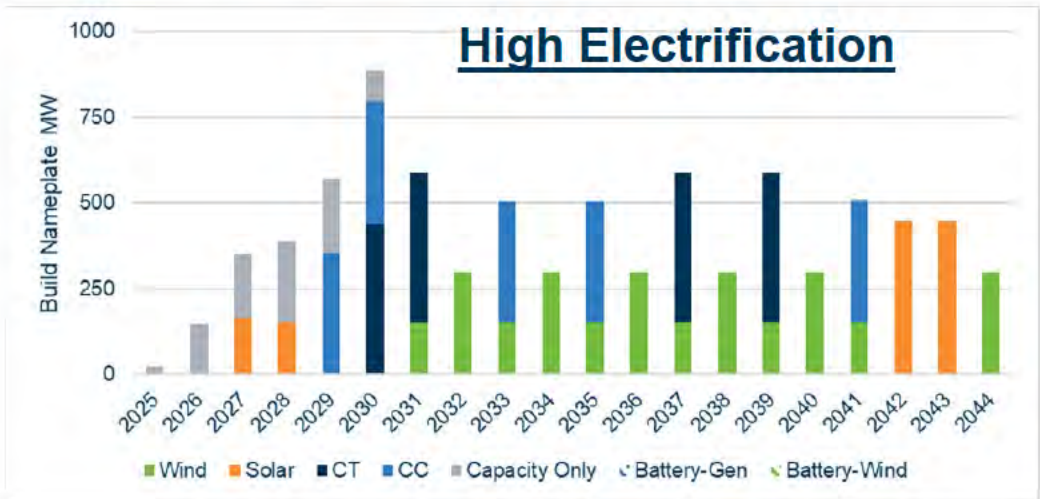




Higher Load Growth Scenarios- EMW





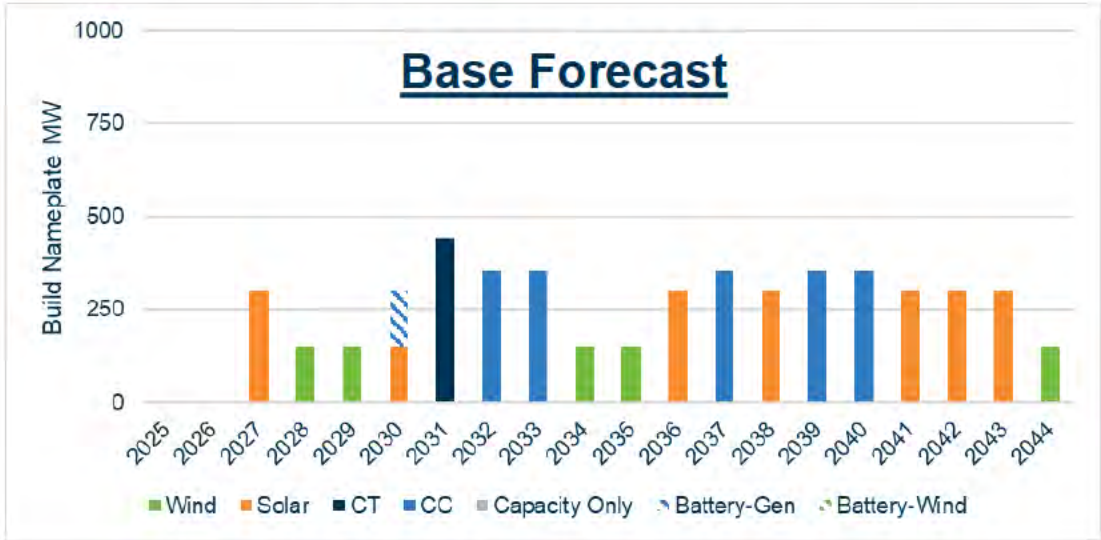


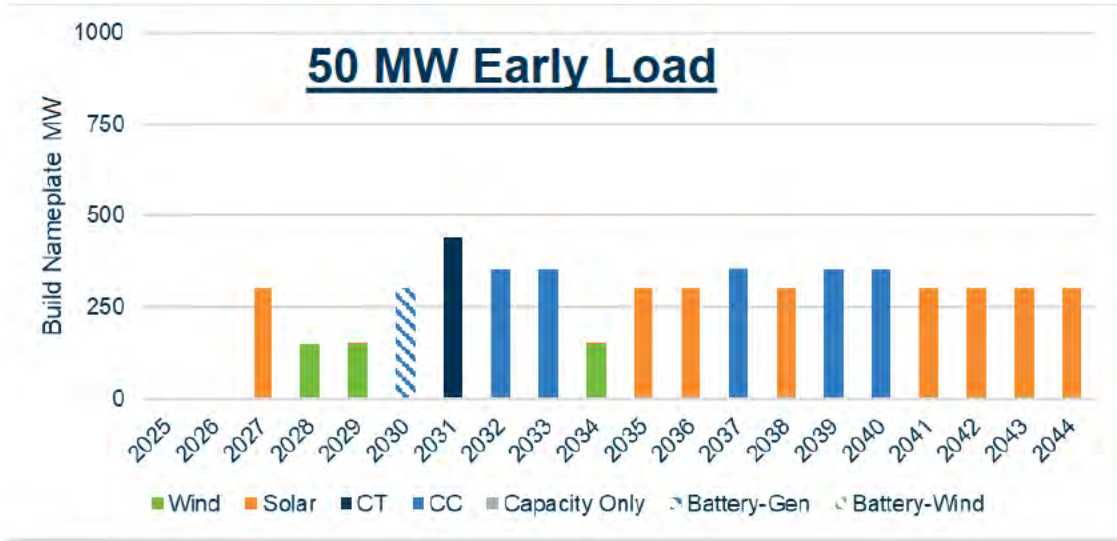
New Large Customer Scenarios - EMM

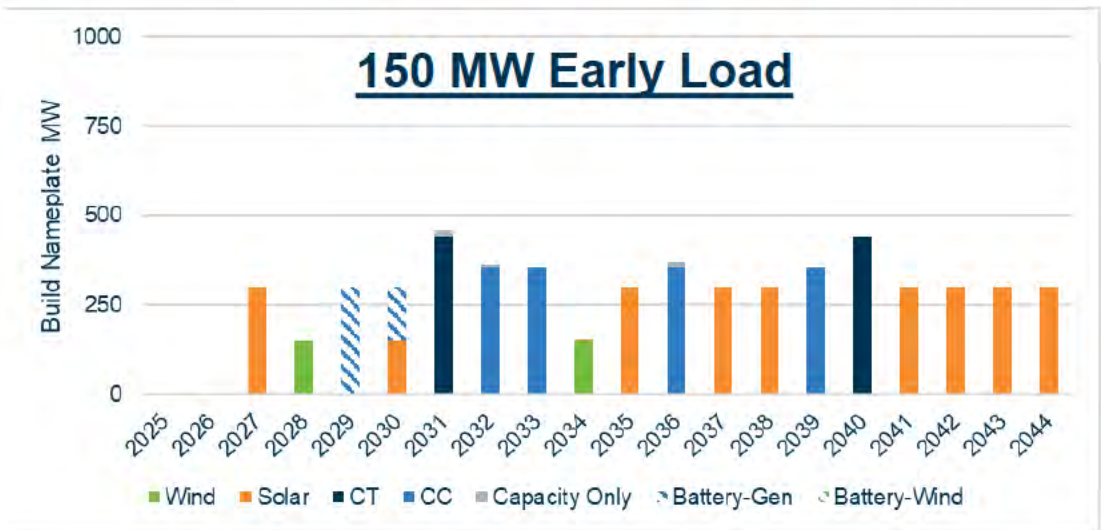
New Load Scenario	2028	2029	2030	2031	2032	2033+
50 MW Early	20	30	50	50	50	50
150 MW Early	50	100	150	150	150	150
250 MW Early	70	150	250	250	250	250
50 MW Late	0	0	0	20	30	50
150 MW Late	0	0	0	50	100	150
250 MW Late	0	0	0	70	150	250
Next Large Customer	150	250	205	250	205	250

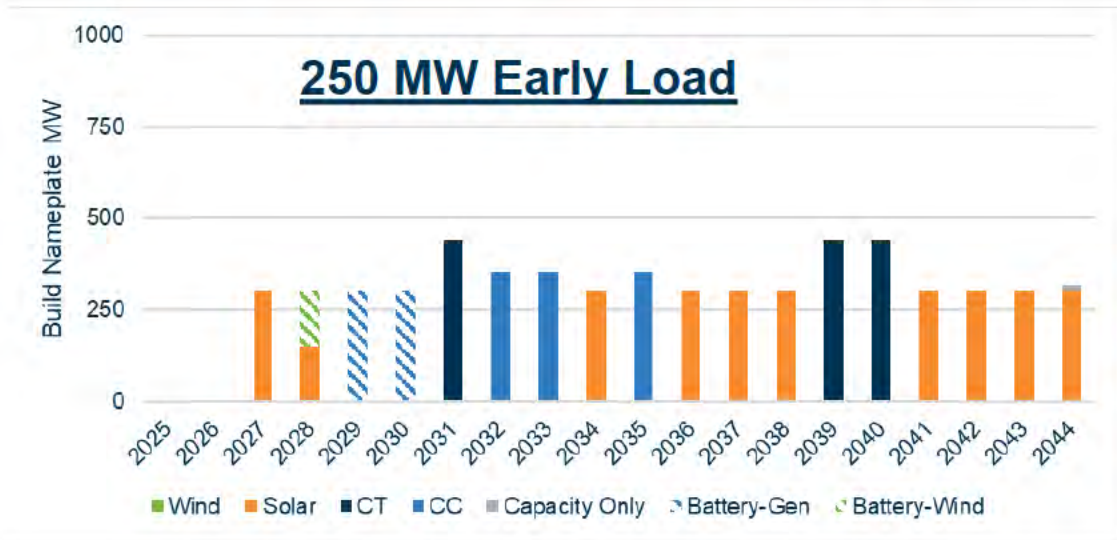
- Evergy Metro can accommodate some additional early load within its base build limits by selecting more storage instead of wind and solar
- Later load ramps require earlier next thermal build after 2033
- The next very large customer in queue would drive need for early storage and pull forward the next thermal build to 2035 (relative to the preferred plan)
- The high electrification load forecast requires the most capacity additions over the planning horizon, exceeding new large customer scenarios

Early Large Load Ramp – Evergy Metro

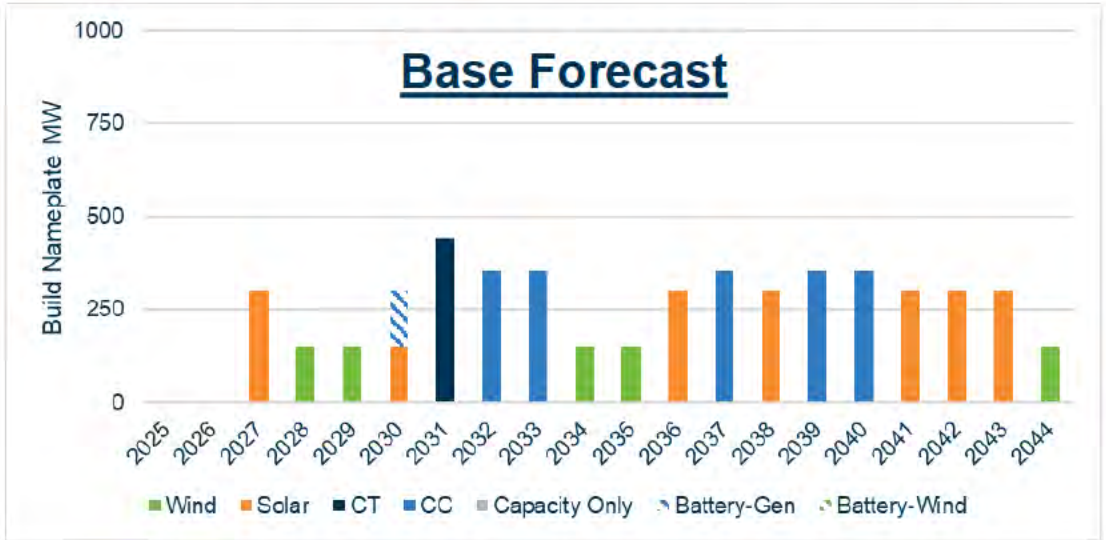


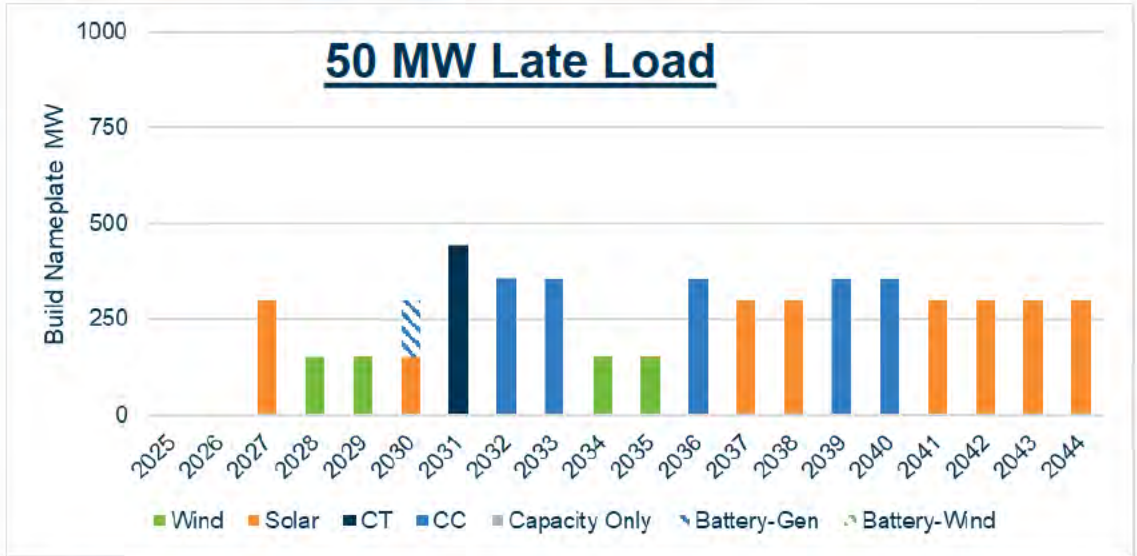


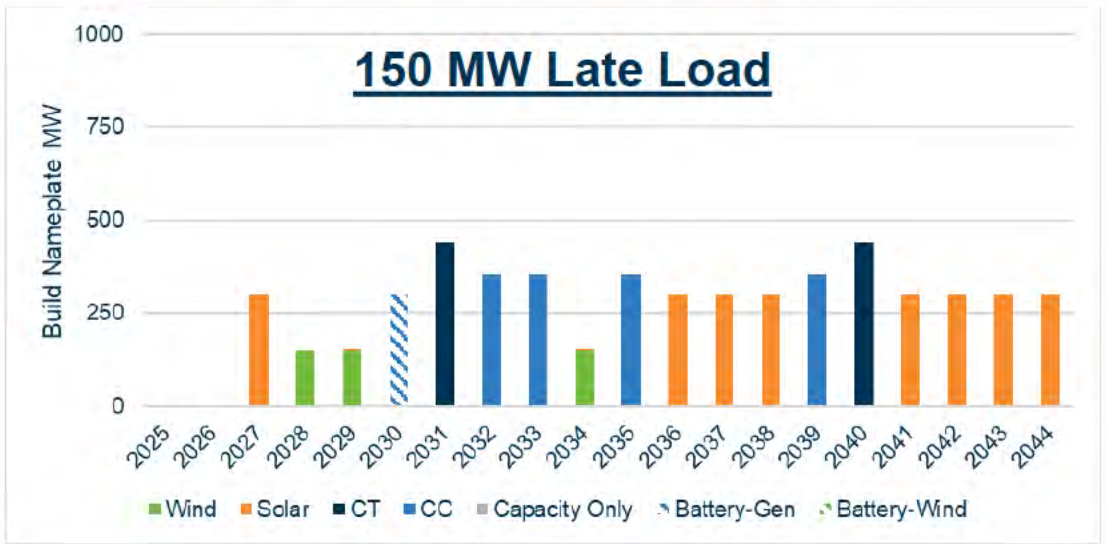


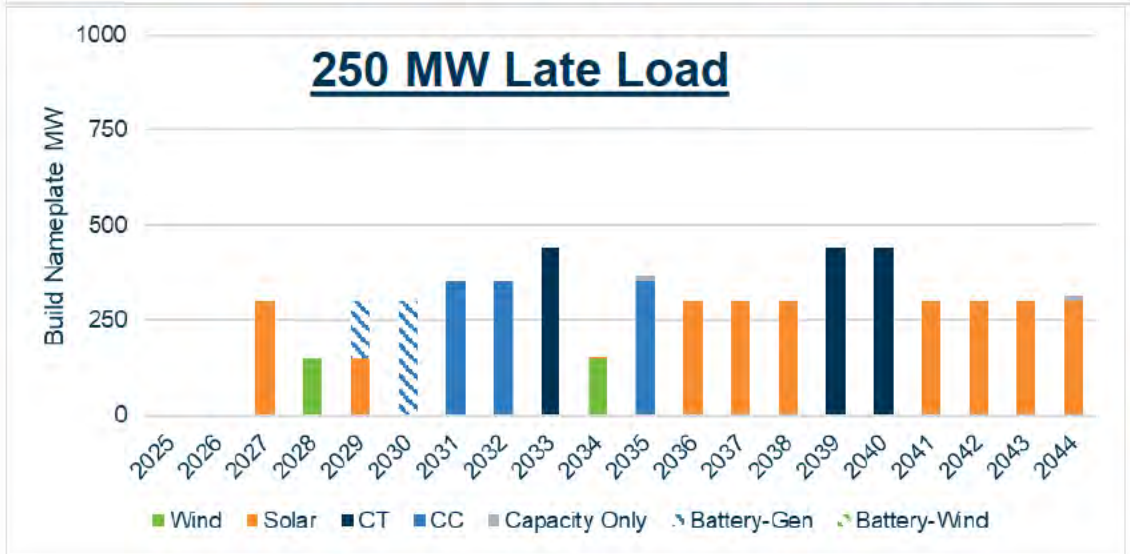


Late Large Load Ramp – Evergy Metro

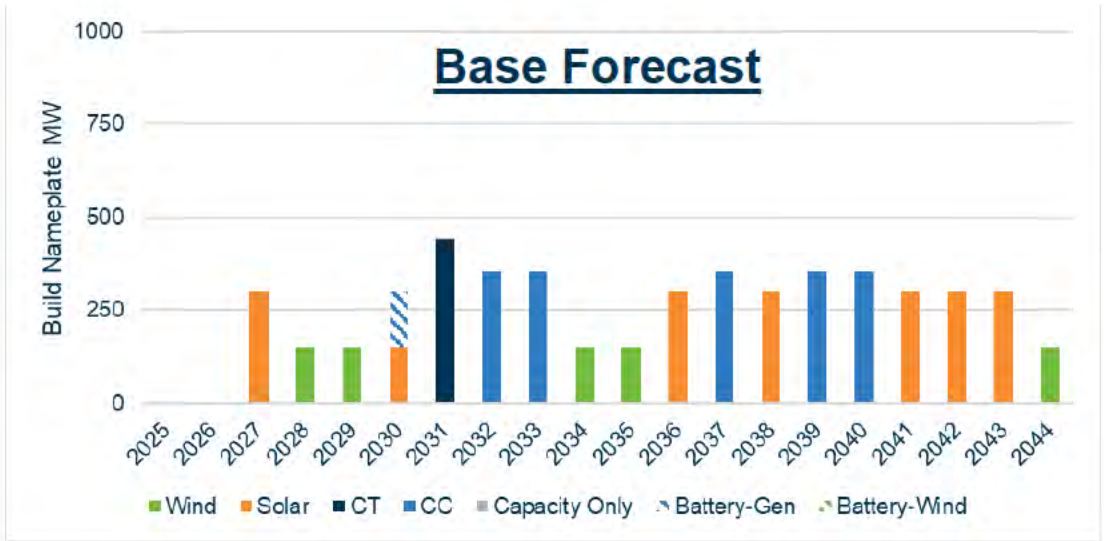


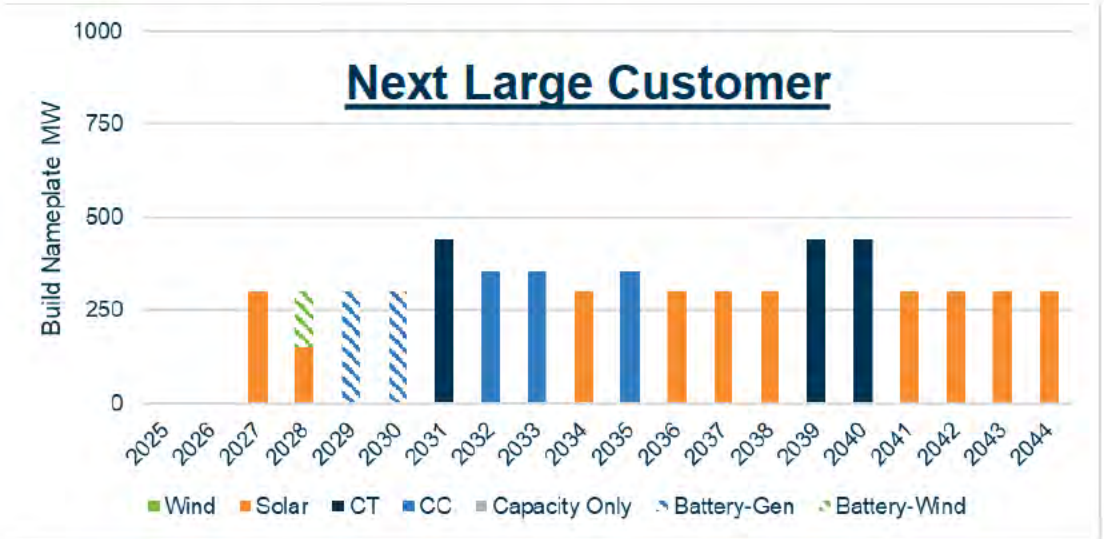


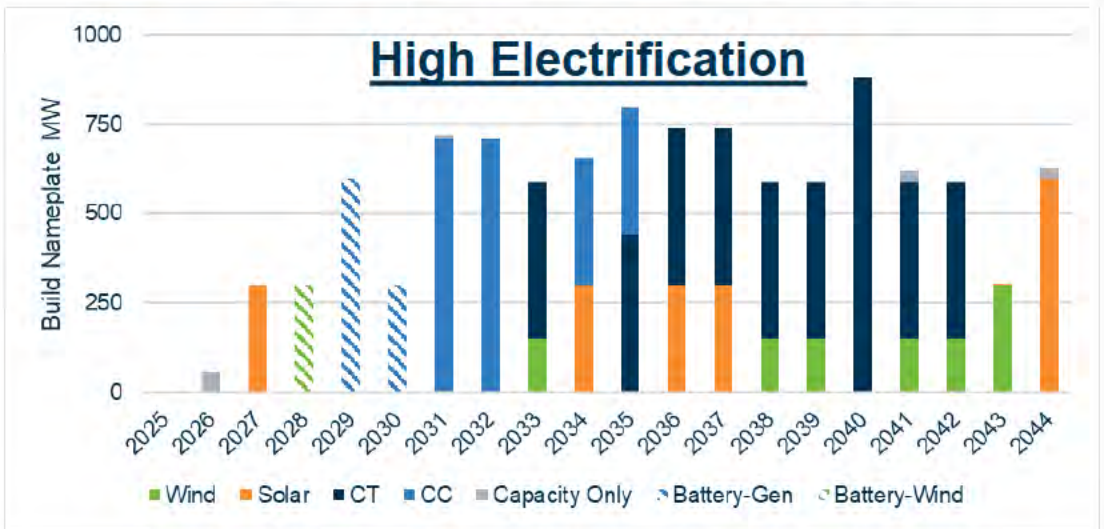




Higher Load Growth Scenarios- Evergy Metro







GHG Rule Compliance

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Final Rule and Best System of Emission Reduction

- 2025 Annual Update aligns with the GHG rule finalized May 2024
- Standards aim to reduce greenhouse gas (GHG) emissions from power plants
- Existing Coal Plants
  - **Retire by January 1, 2032: no emissions reduction**
  - **Retire by January 1, 2039: 40% natural gas cofire starting January 1, 2030**
  - Retire after January 1, 2039: CCS with 90% capture starting January 1, 2032
  - **No Retirement: Full natural gas conversion starting January 1, 2030**
- New Natural Gas Plants
  - < 20% capacity factor: use of low-emitting fuels
  - **20-40% capacity factor: highly efficient generation standard**
  - > 40% capacity factor: highly efficient generation standard and CCS with 90% capture starting January 1, 2032
- Evergy remains concerned about the feasibility of CCS so evaluation of compliance paths did not include this technology

GHG Compliance Cost Estimates

- For existing coal units, the natural gas co-firing and conversion compliance options require significant capital investment and ongoing operating expense

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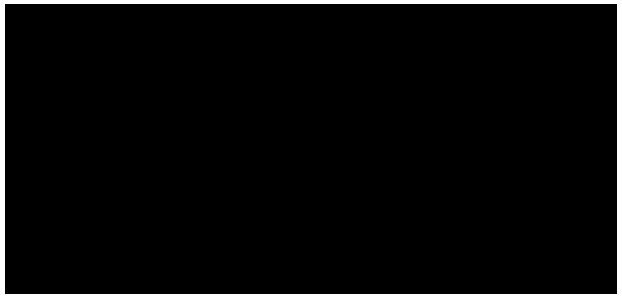


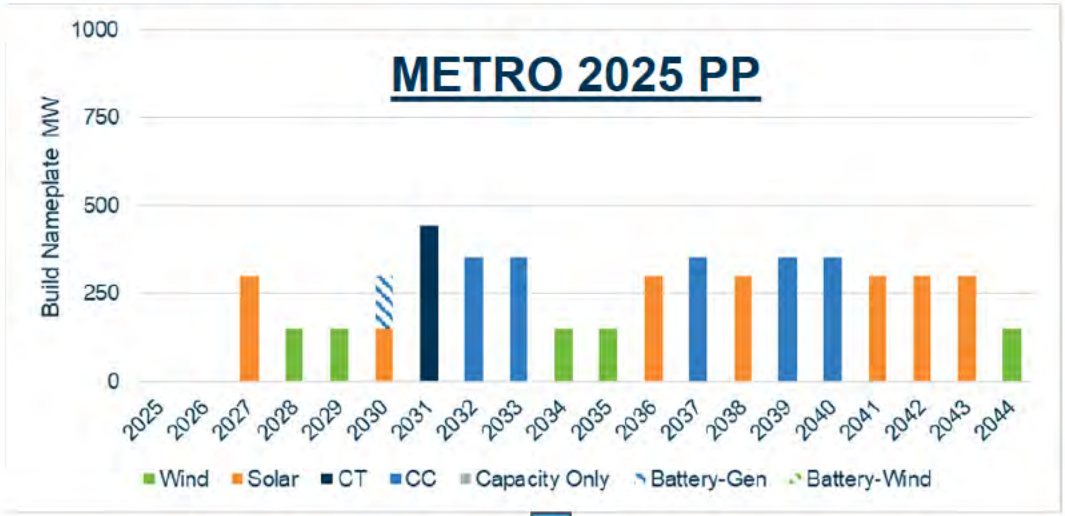
GHG Final Rule Planning Results

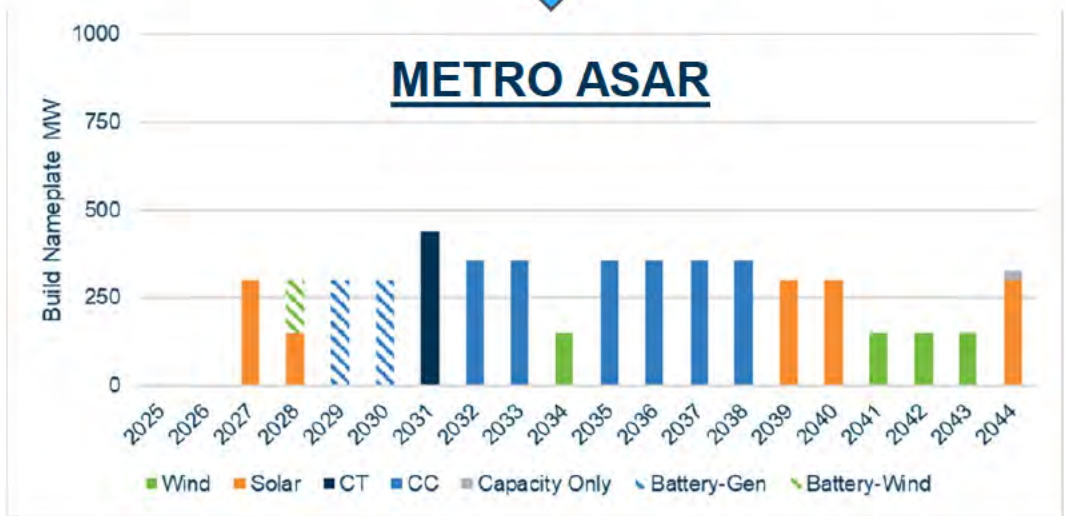
- Evergy modeled a range of scenarios to estimate the cost of compliance versus the IRP preferred plan.
- For capacity expansion and production cost modeling, Evergy used high natural gas prices with a mid-point carbon dioxide restriction (H2C) to reflect the assumed increase in gas demand and upward pressure on prices.

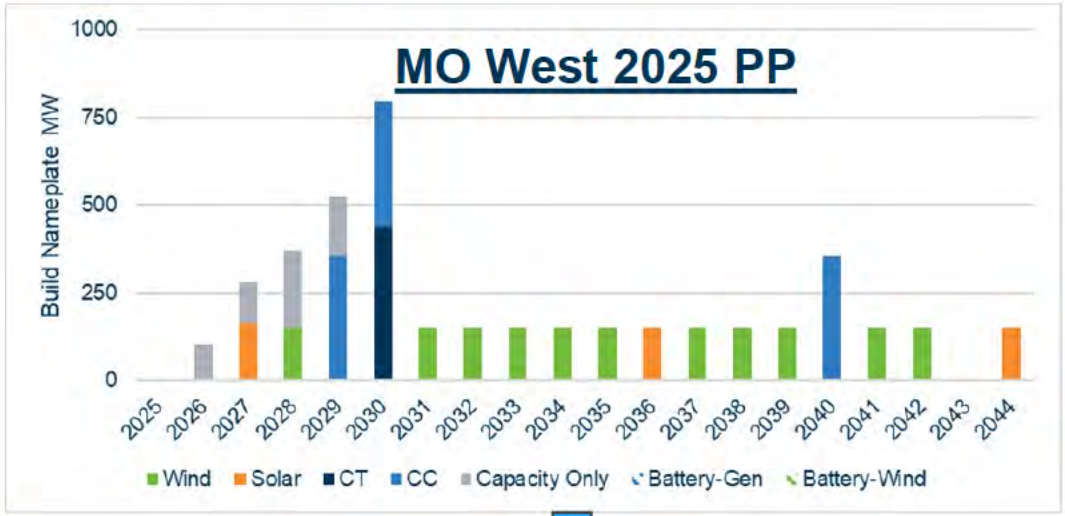
Metro Compliance Paths				
Plan	**AAAA**	**AQAR**	**ARAR**	**ASAR**
Iatan 1	Ret 2039	Co-Fire	Co-Fire	**Ret 2031**
Iatan 2	No Ret	Conv	**Co-Fire**	Conv
LaCygne 1	Ret 2032	Ret 2031	Ret 2031	Ret 2031
LaCygne 2	Ret 2039	Co-Fire	Co-Fire	Co-Fire
Hawthorn 5	No Ret	Co-Fire	Co-Fire	Co-Fire
H2C NPVRR ($ mil)	**24,532**	**28,072**	**29,018**	**27,868**
GHG vs AAAA ($ mil)	**-**	**3,540**	**4,486**	**3,336**

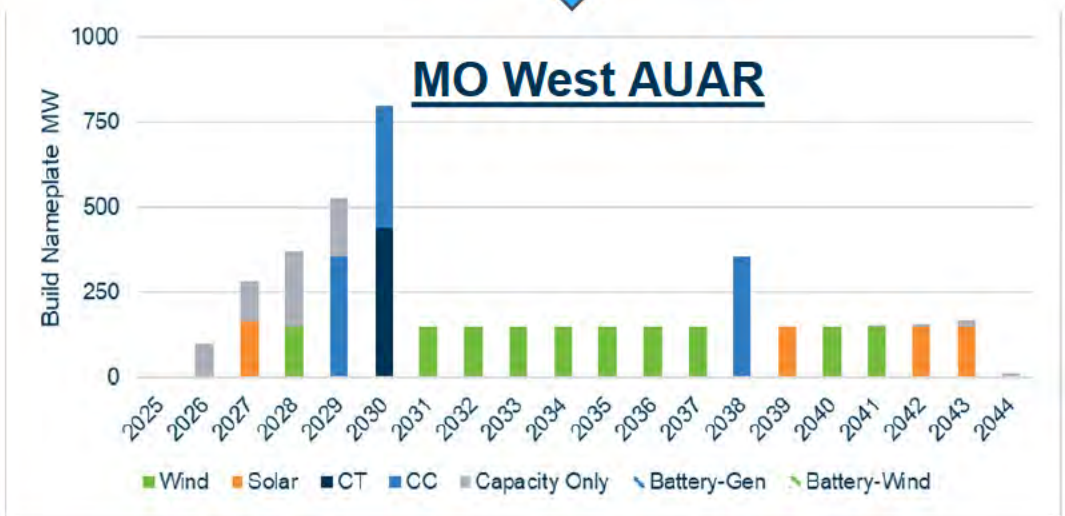
Missouri West Compliance Paths							
Plan	**ACAA**	**AQAR**	**ARAR**	**ASAR**	**ATAR**	**AUAR**	**AVAR**
Iatan 1	Ret 2039	Co-Fire	Co-Fire	Co-Fire	Co-Fire	Co-Fire	Co-Fire
Iatan 2	No Ret	Conv	**Co-Fire**	Conv	Conv	**Co-Fire**	Conv
Jeffrey 1	Ret 2039	Co-Fire	Co-Fire	Co-Fire	Co-Fire	Co-Fire	Co-Fire
Jeffrey 2	Conv	Conv	Conv	**Co-Fire**	Conv	**Co-Fire**	**Ret 2030**
Jeffrey 3	Ret 2030	Ret 2030	Ret 2030	Ret 2030	**Conv**	Ret 2030	Ret 2030
H2C NPVRR ($ mil)	**15,070**	**15,684**	**15,484**	**15,642**	**15,685**	**15,455**	**15,608**
GHG vs ACAA ($ mil)	**-**	**614**	**414**	**572**	**615**	**385**	**538**

Least Cost Compliance Plans vs Preferred Plans









Resource Acquisition Strategy

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Implementation Plan

- Acquisition of the Sunflower Sky Solar project pending necessary regulatory approvals
- Acquisition of the Foxtrot Solar project pending necessary regulatory approvals
- Development of two advanced class 710 MW combined cycle gas turbine generating facilities known as the Viola and McNew Generating Stations. EMW will own ½ of each plant
- Development of a 440 MW simple cycle gas turbine generating facilities known as the Mullin Creek #1 Generating Station.
- Acquisition of future projects will be achieved through release of the 2025 All Source RFP. Release timing is planned for Q2 2025

Sumner County/Viola 1x1 CCGT – 2029 Operation

Metric	Value
Plant Planning Name	Viola
Plant Output	710 MW
Fuel Supply	Single Fuel – Natural Gas
Location	Sumner County, KS
Plant Efficiency (%LHV) at ISO	~64%
Minimum Emission Compliant Load	22% (154 MWs) – Short durations on bypass
Proposed Ownership	50% - Evergy Kansas Central 50% - Evergy Missouri West

Viola is located in Sumner County, Kansas in adjacent to a 345 kV substation. While electrical infrastructure is at the site, a ~20 mile gas line will be required to run natural gas to the site. The gas pipeline is to be constructed and owned by the pipeline company.

Reno County/McNew 1x1 CCGT – 2030 Operation

Metric	Value
Plant Planning Name	McNew
Plant Output	710 MW
Fuel Supply	Single Fuel – Natural Gas
Location	Hutchinson, KS
Plant Efficiency (%LHV) at ISO	~64%
Minimum Emission Compliant Load	22% (154 MWs) - Short durations on bypass
Proposed Ownership	50% - Evergy Kansas Central 50% - Evergy Missouri West

McNew is located in Reno County, Kansas in a salt production community adjacent to natural gas infrastructure. While natural gas is close to the site, an ~12-mile 345 kV generator tie line will be needed to get to the point of grid interconnection.

Nodaway County/Mullin Creek #1 SCGT– 2030 Operation

Metric	Value
Plant Planning Name	Mullin Creek #1
Plant Output	440 MW
Fuel Supply	Dual Fuel – Natural Gas & Fuel Oil
Location	Nodaway County, MO
Plant Efficiency (%LHV) at ISO	~44%
Minimum Emission Compliant Load	35% (154 MWs)
Proposed Ownership	100% - Evergy Missouri West

Mullin Creek is located in Nodaway County, Missouri adjacent to a large 345 kV substation. While electrical infrastructure is at the site, a gas line will be required to run natural gas to the site. The gas pipeline is to be constructed and owned by the pipeline company.

Wilson County/Sunflower Sky – 2027 Operation

Metric	Foxtrot Solar
Project Name	Sunflower Sky
Location	Wilson County, KS
Fuel	Sunlight
Plant Output	65 MWac
Estimated Net Capacity Factor	28.4%
Max PTC/ITC qualification	100% PTC/30% ITC
Proposed Ownership	100% Evergy Missouri West

Sunflower Sky Solar is a 65 MWac solar facility located in Wilson County, Kansas. It is scheduled to be online by early 2027

Jasper County/Foxtrot Solar – 2027 Operation

Metric	Foxtrot Solar
Project Name	Foxtrot Solar
Location	Jasper County, MO
Fuel	Sunlight
Plant Output	100 MWac
Estimated Net Capacity Factor	24.2%
Max PTC/ITC qualification	100% PTC/30% ITC + Energy Community 10% Bonus
Proposed Ownership	100% Evergy Missouri West

Foxtrot Solar is a 100 MWac solar facility located in Jasper County, Missouri. It is scheduled to go into service in Q1 2027

Next Steps

- *Filing of Summary Report (today's presentation) and notice of any changes to Annual Update (within 10 days of this meeting)*
- *Stakeholder comments due (within 30 days of Summary Report being filed)*

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