



CPS ENERGY CONSIDERATIONS FOR LONG DURATION ENERGY STORAGE

PRESENTED BY:

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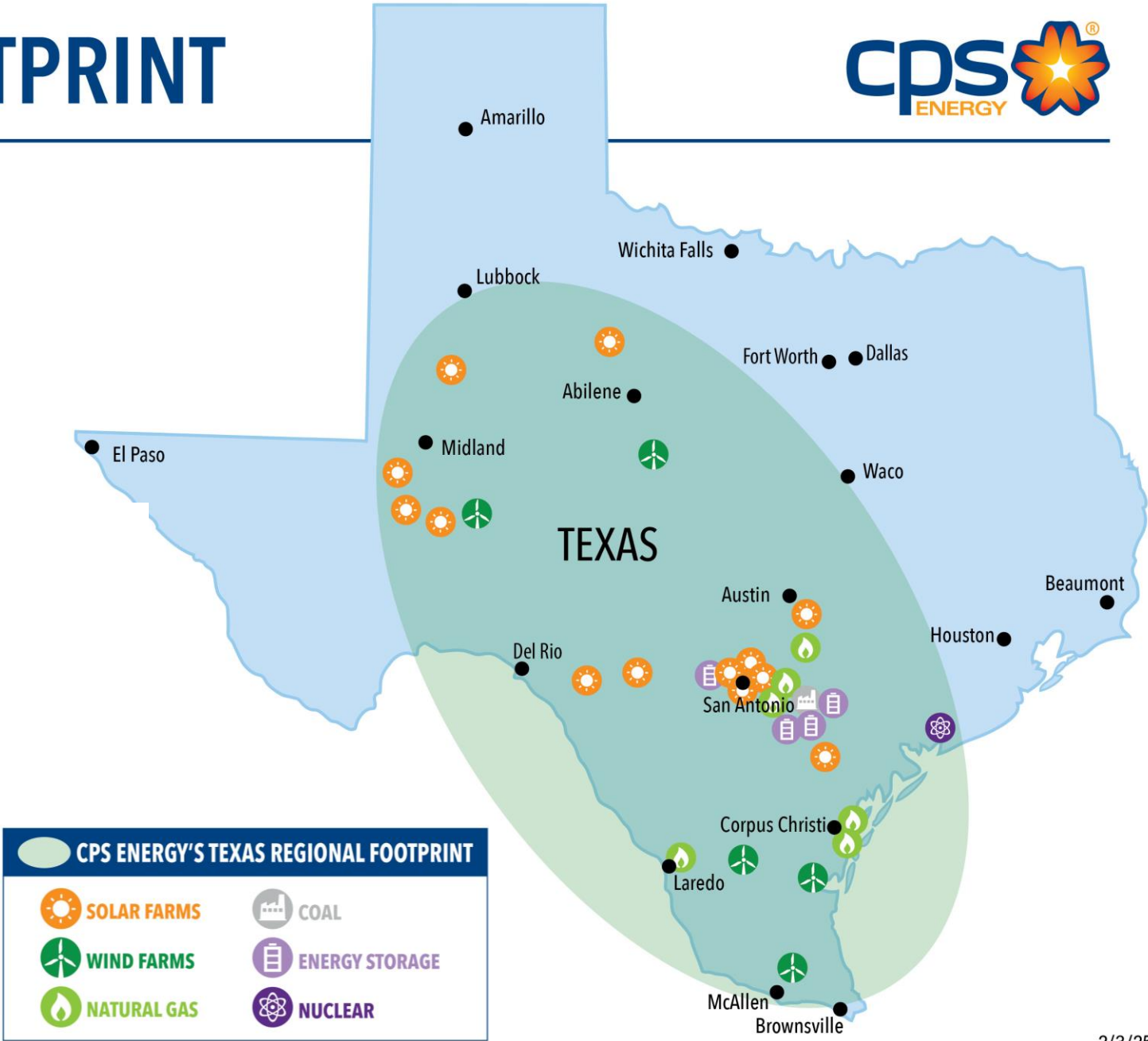
July 30, 2025

TEXAS REGIONAL FOOTPRINT



Existing Capacity (Operational & Contracted)		
	MW	%
Solar	1,294	12%
Wind	1,067	10%
Natural Gas	4,814	46%
Coal	1,345	13%
Battery Storage	530	5%
Nuclear	1,100	11%
Landfill Gas	4	0.04%
<u>Market</u>	<u>200</u>	<u>2%</u>
Total	10,354	100%

Operational Capacity	9,493
<u>Average ELCC</u>	<u>82%</u>
ELCC Adjusted Capacity	7,827
Historical Peak Load	5,858
Reserves over Historical Peak	34%

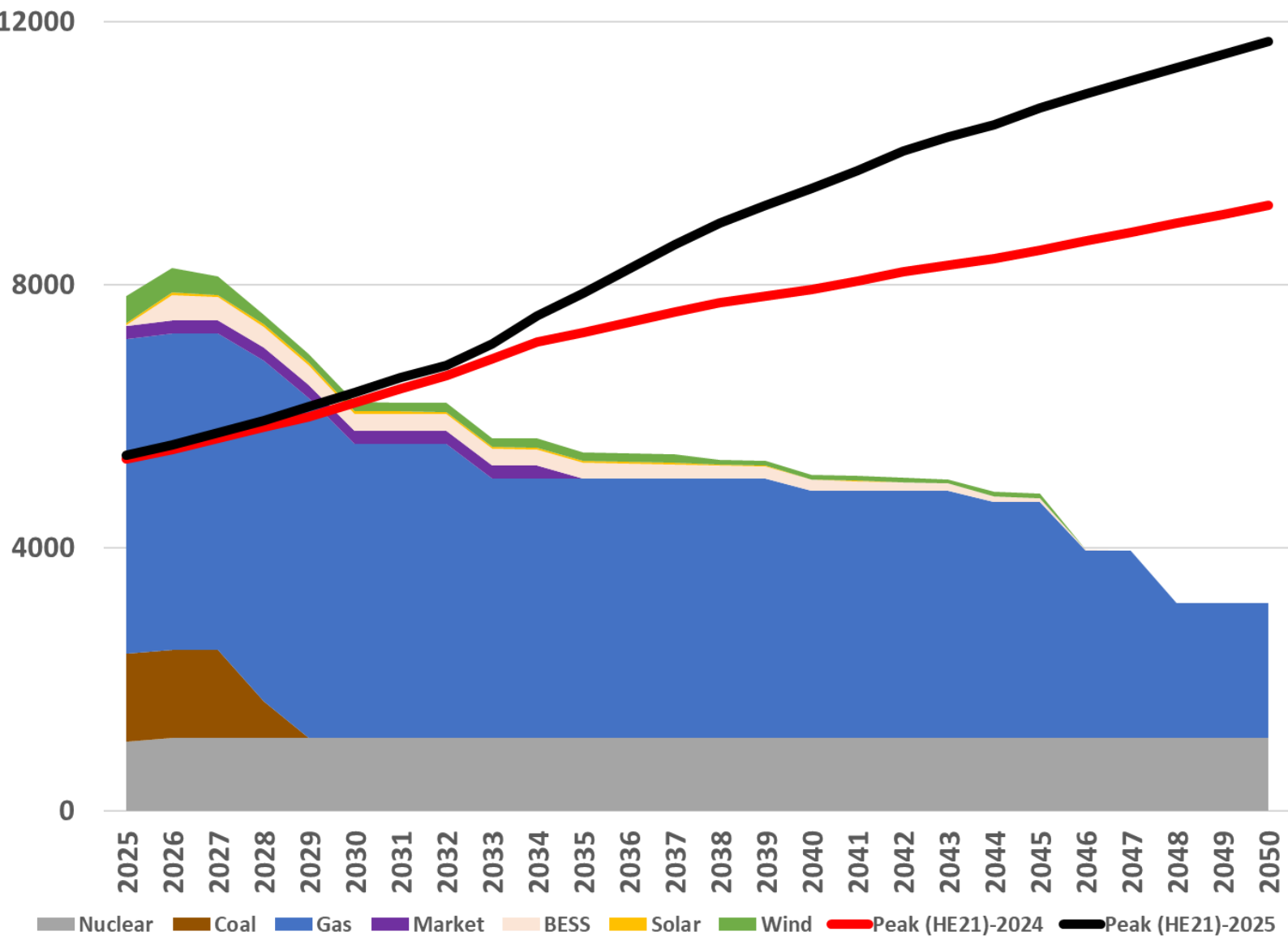


GENERATION PLAN KEY CONSIDERATIONS

Plan Frequency	Annually: Updated by Staff, Vetted and Approved by CPS Leadership as part of budget process; Every 3 years: Additional external involvement with reviews/approvals by CPS Board
Native Load Demand	Datacenters & other large loads are influencing much higher demand outlooks
Wholesale Commitments	Existing long-term wholesale deals may be considered in our buildout
Reserve Margin Targets	Target minimum annual reserves of 13.75%
Capacity Accreditations (ELCCs)	With growing intermittent resources in our portfolio, ELCC estimates are having growing impacts.
Regulatory Requirements	Less federal stringency under Trump. Evolving ERCOT rules/proposals
Company goals	Reliable, affordable, emission reduction goals, clean goals, others
Technology Options	Costs for all technologies are trending higher
Generation Diversity	Integrate diverse resources to improve efficiency, mitigate exposure, and help meet established requirements and goals.
Market Prices	To understand how our Portfolio compares and project dispatch

EXISTING RESOURCES VS HE21 PEAK DEMAND (MW)

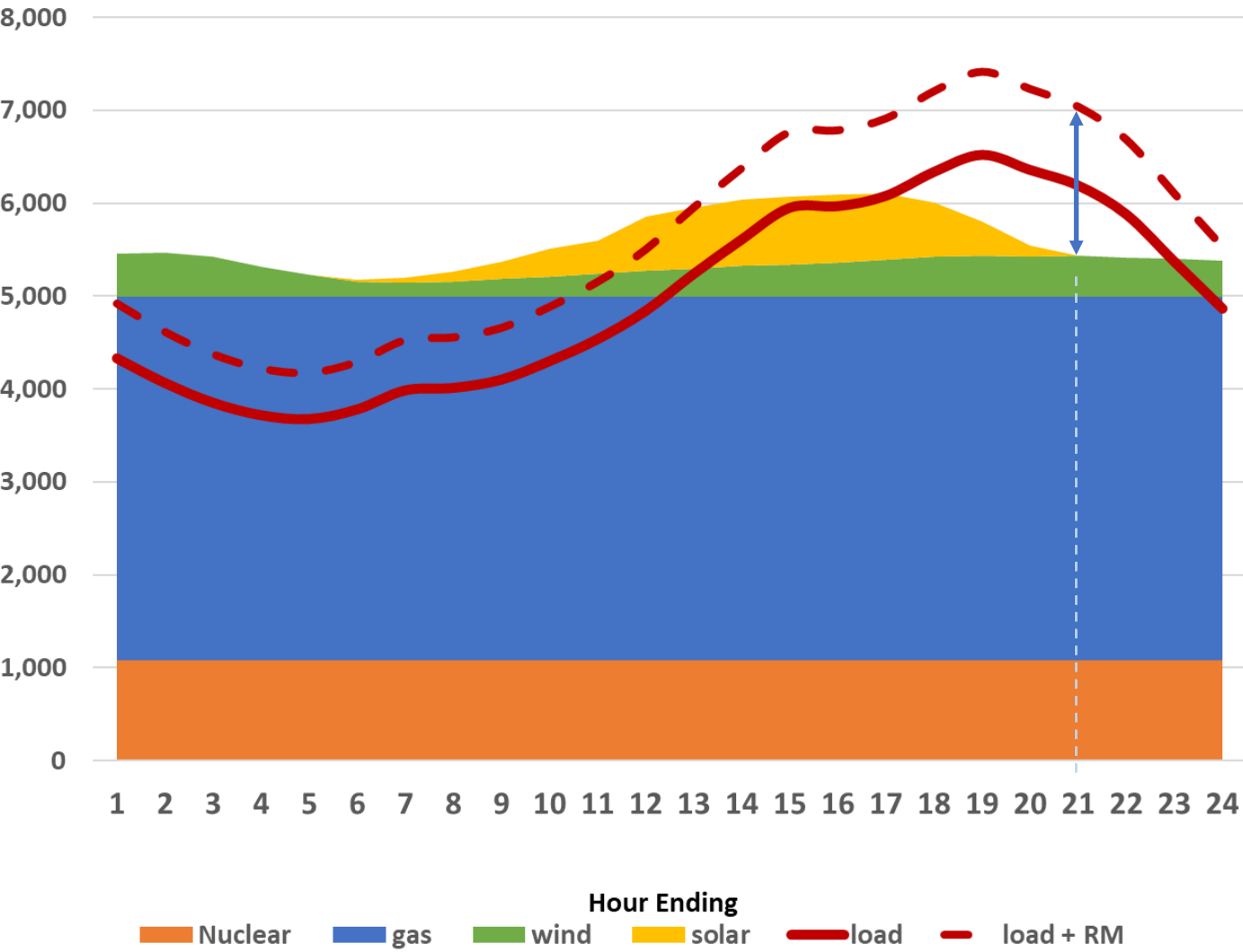
ELCC



- Demand outlooks are bullish, with datacenters and other large loads as biggest impact.
- The area between existing resources and demand plus targeted reserves needs to be filled with new resources.

EXISTING RESOURCES VS DEMAND (MW)

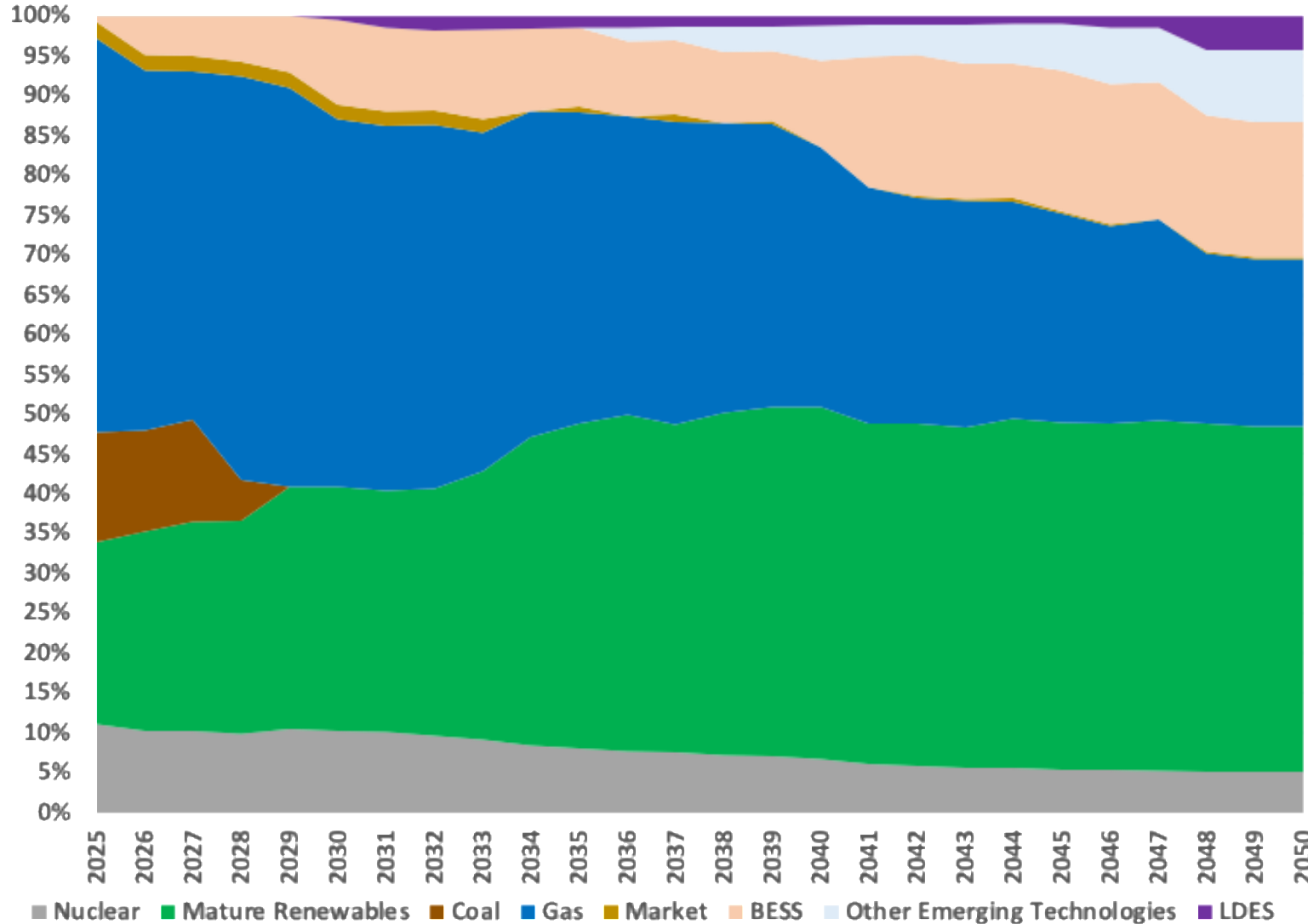
CY2029 – TYPICAL PEAK SUMMER DAY



As solar becomes a larger part of our portfolio our planning hour shifts to later hours.

LDES IN RESOURCE MIX

2024 PLAN

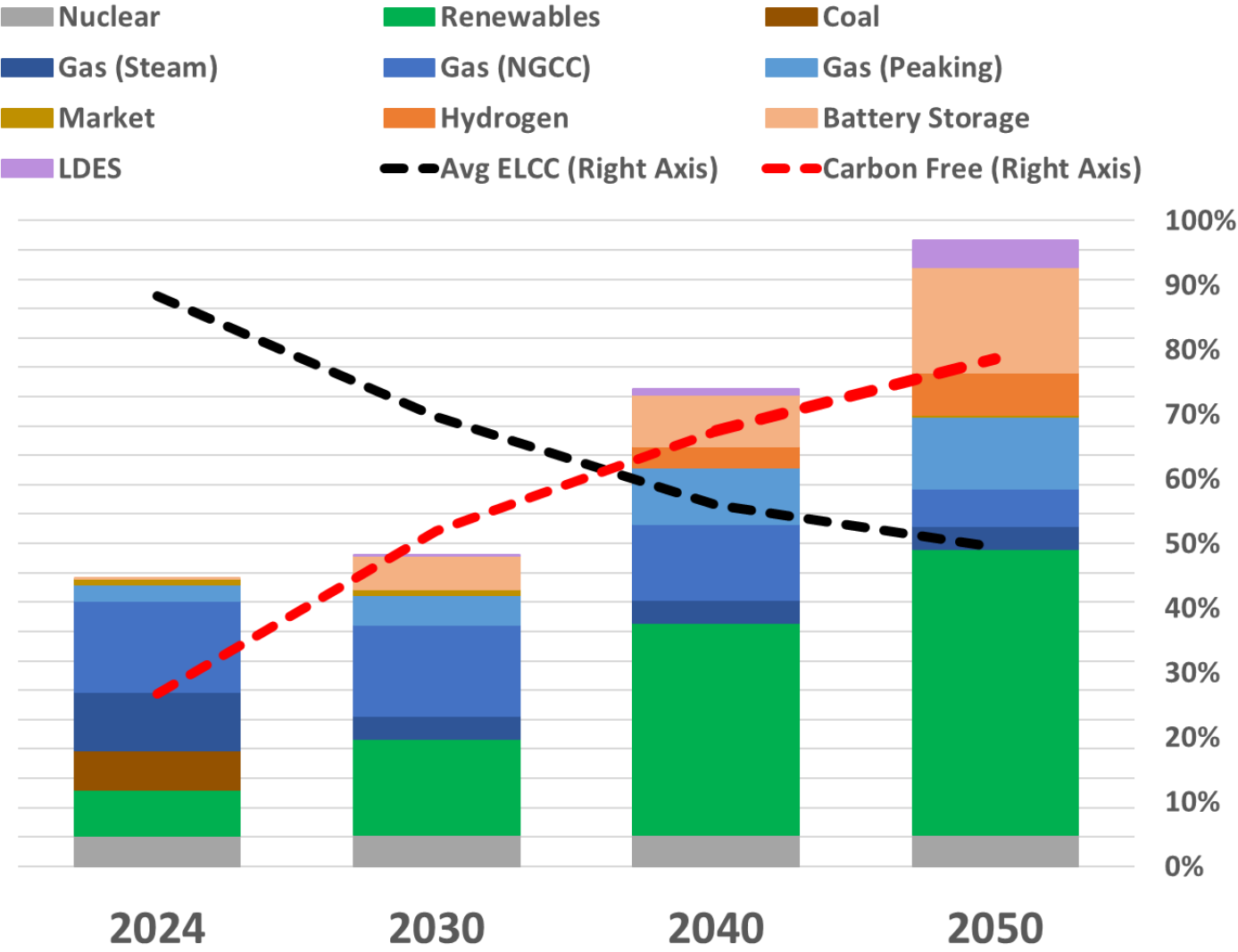


- LDES and other emerging Technologies serve as placeholders in the Plan.
- LDES 1st entered our 2024 Plan in 2031.
- LDES and other emerging technologies represented about 13% of our Portfolio by 2050.
- A Multitude of Technology Options are being evaluated and considered for the 2025 Resource Plan Update.

Note: Percentage calculations are based off nameplate capacities

2024 RESOURCE PLAN BY DECADE (MW)

NAMEPLATE



Clean: Carbon-free resources expand to nearly 80% by 2050.

Dispatchability: Average ELCC of Portfolio Resources decreases to less than 50% by 2050.

TECHNOLOGY CONSIDERATIONS

	Resource Options	Dispatchable	Clean	Affordable	Commercially Available
Gas Options	RICE	X		X	X
	CTs (aero, frame)	X		X	X
	NGCC	X		X	X
Conventional Renewables	Solar		X	X	X
	Wind		X	X	X
BESS	Battery Storage (various durations)	partially	depends	uncertain	X
Emerging Options	LDES Options	X	X		
	Hydrogen	X	X		
	Advanced Geothermal	X	X		
	Advanced Nulcear	X	X		
	Coal with CCS	X	X		
	NGCC with CCS	X	X		

Significant amounts in 2024 Plan

Small amounts in 2024 Plan as placeholders

- More Dispatchable/Clean Resources needed to meet long-range environmental goals, while maintaining reliability
- Emerging Options are not currently affordable or commercially available

WHAT'S NEEDED TO HELP LDES BECOME AFFORDABLE & COMMERCIALY AVAILABLE

- Better Analysis Tools
- Policy Support
- Proven Demonstrations at Utility-Scale
- Use Case Strategies
- Reduced Cost
- Lower Cost Solar & Wind



THANK YOU