



California ISO

# Briefing on 2025 Summer Loads and Resources Assessment

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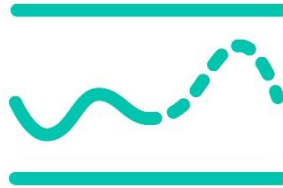
Director, Resource Assessment and Planning

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# 2025 Summer Outlook: resources, loads, and weather



## Resource Additions

- Capacity added from September 1<sup>st</sup> through December 31<sup>st</sup>, 2024: **2,478 MW**
- Capacity added from January 1<sup>st</sup> through April 1<sup>st</sup>, 2025: **894 MW**
- Capacity expected from April 1<sup>st</sup> through June 30<sup>th</sup>, 2025: **2,163 MW**

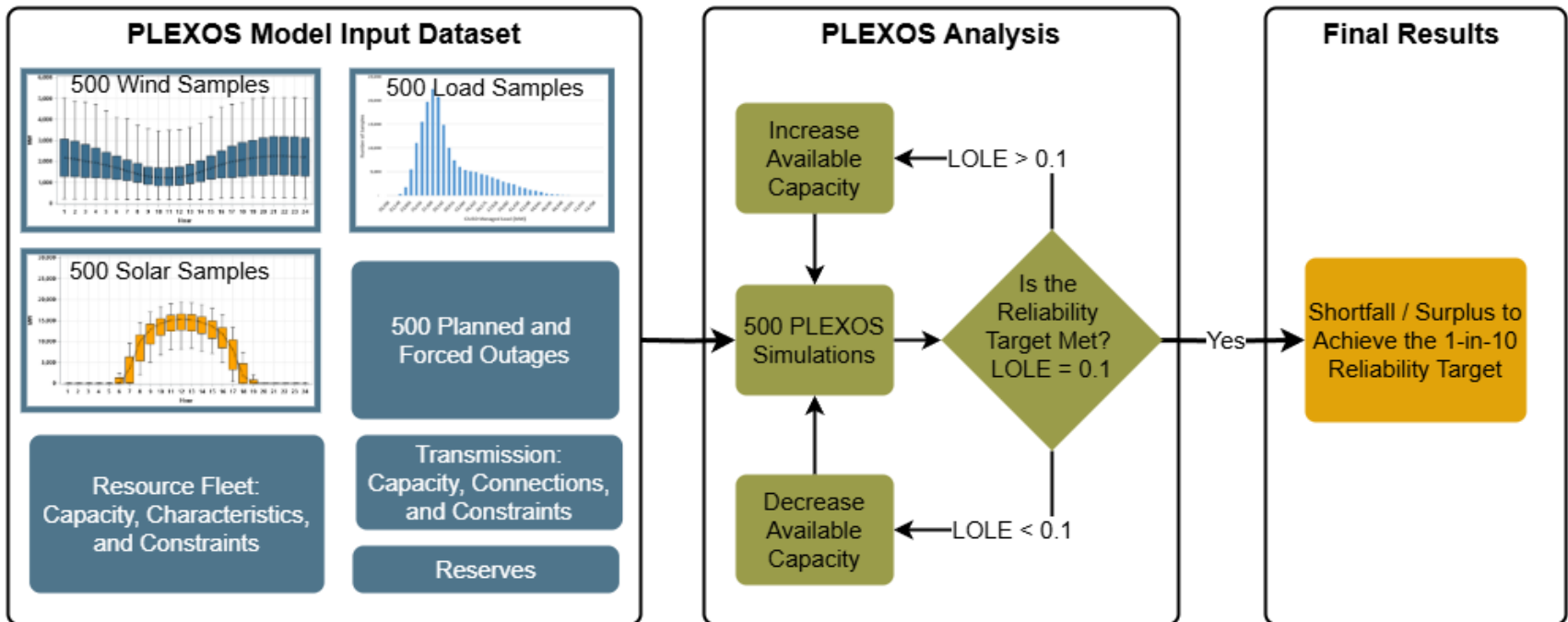
## Load Forecast

- September peak load forecast: **46,094 MW**, hour ending 18 (2024 California Energy Commission Integrated Energy Policy Report)

## Weather Outlook

- **Above normal temperatures are likely** June through August
- Increased chance of heat events in June and July across the West
- **Average hydro** conditions

The ISO conducted a probabilistic assessment to evaluate the sufficiency of the anticipated 2025 summer fleet to meet the 1-in-10 loss of load expectation planning target.



*Loss of load expectation (LOLE) is a measure of the number of days per year for which the available generation capacity is insufficient to serve the demand and maintain required reserves at least once during that day. 0.1 LOLE or 1-day-in-10 LOLE equates to "1 day with an event in 10 years".*

*PLEXOS is an energy market simulation engine.*

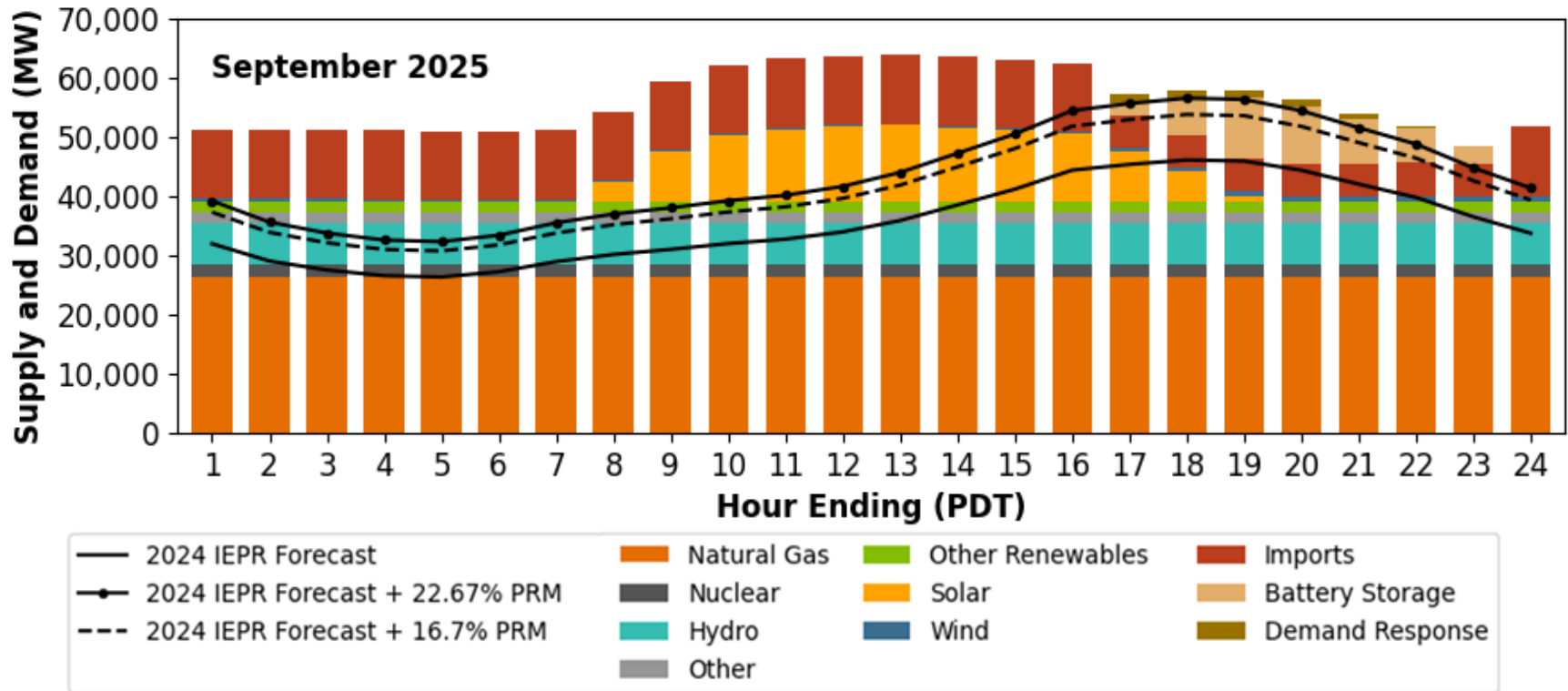
The ISO's probabilistic assessment concludes that the portfolio meets planning performance targets, yielding a surplus of 1,451 MW.

This assessment evaluates the likelihood of needing emergency measures to balance supply and demand.



*This probabilistic assessment does not consider coincident extreme events such as west-wide heatwave events coincident with major wildfire impacting large amounts of supply.*

The ISO's multi-hour stack analysis also indicates a reasonable margin above the planning reserve margin required to achieve a 0.1 loss of load expectation.

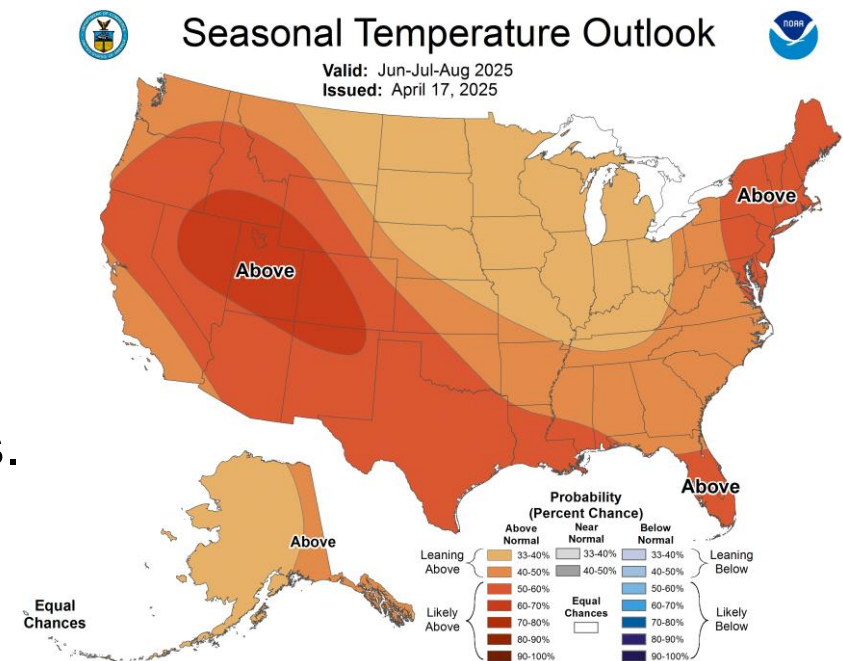


A planning reserve margin of **22.67 percent** is required to meet a **0.1 LOLE**, calculated by first subtracting the surplus capacity of 1,451 MW (as determined in the probabilistic study) from all available resources.

The **load-weighted average planning reserve margin** across all load serving entities for the 2025 resource adequacy year, which reflects Local Regulatory Authority established requirements, is **16.7 percent**.

Weather forecast guidance shows an increased chance of above normal temperatures across Intermountain West, but lower chances of above normal temperatures for coastal CA.

- For June through August 2025, increased chances of above normal temperatures are forecasted across the West, with:
  - Highest probabilistic chances across the Intermountain West,
  - Lower chances of above normal temperatures in coastal locations.
- For August and September of 2025, forecasters continue to project an increased chance of above normal temperatures across the West



## State reliability reserves and coordination with neighbors support reliability during extreme events.

- Extreme drought, wildfires, and the potential for widespread heat events continue to pose risks to the ISO grid
- To safeguard against these extremes, strategic reserves and state emergency programs have been mobilized and remain available in 2025

