

Resource adequacy risks to the Western Interconnection are likely to increase over the next 10 years as demand and resource variability grow, extreme weather continues and potentially intensifies, and the resource mix continues to shift.

If long-term resource adequacy issues are not addressed immediately, they may be insurmountable when they become near-term issues. As early as 2025, even with all planned resource additions and imports, all five subregions will have hours at risk for load loss.

Changes on the system are affecting how and when entities can rely on imports, creating a need for entities to change how they count the imports they rely on to remain resource adequate.

Planning Reserve Margins should be recalibrated regularly to account for significant changes in demand and resource variability

To determine Planning Reserve Margins, planning entities should evaluate the most strained times on the system, which do not necessarily align with the system peak demand

Planning entities should calculate Planning Reserve Margins based on energy instead of capacity

[Schedule an in-depth discussion here](#)

[Access the full report here](#)

WECC BACKGROUND

Resource adequacy is one of WECC's four Reliability Risk Priorities. WECC assesses this risk through the Western Assessment of Resource Adequacy. The Western Assessment complements NERC's Long-Term Reliability Assessment (LTRA), with a focus on the West and a more detailed look at resource adequacy through the lens of Western issues and perspectives. The Western Assessment evaluates existing resource adequacy approaches, proposes new methods, and assesses the resource adequacy of the system over the next 10 years. Specifically, the Western Assessment includes:

- A discussion of WECC's energy-based probabilistic approach and how it evaluates the risks of growing demand and resource variability.
- Findings and recommendations from the probabilistic analysis of resource adequacy for every hour over the next 10 years, including the Planning Reserve Margins needed to maintain resource adequacy.
- Evaluation of the reliance on imports to meet resource adequacy needs.
- A near-term look at how the system behaves under extreme resource adequacy conditions, specifically high-demand and drought scenarios.

