

Resource Adequacy Oregon House of Representatives Energy and Environment Committee

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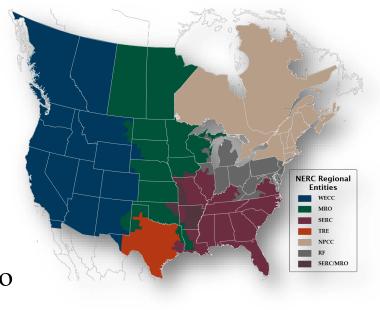
WECC



§215 Federal Power Act— FERC certifies an Electric Reliability Organization (ERO)



The ERO may delegate authority to Regional Entities





The Regional Entity carries out delegated responsibilities



Ensuring Reliability

WECC's Reliability Risk Priorities

- 1. Resource Adequacy and Performance
- 2. Changing Resource Mix
- 3. Distribution System and Customer Load Impacts on the BPS
- 4. Extreme Natural Events





The Western Assessment



Demand and Resource Projections for next 10 years Probabilistic modeling compares demand to resources Calculate Reserve Margin Probability of unserved demand for each hour over the next 10 years



Western Assessment: NWPP-NW Results

Scenarios Studied

Scenario 1: Stand-alone Area

Region is required to meet its own demand without imports.

Scenario 2: Imports Allowed

Region can use imports to meet its demand.

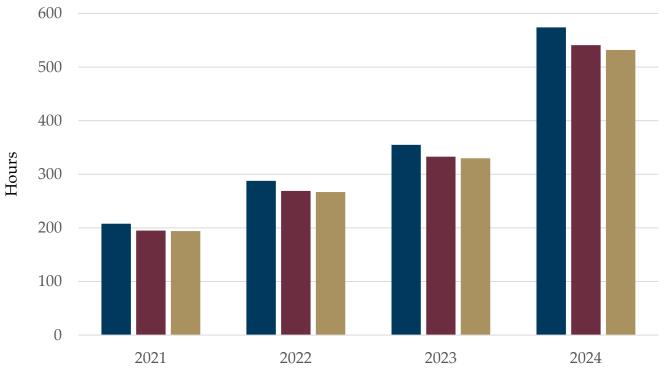
Variation 1: Existing Resources

Includes resources that are in service and can be expected to run in future forecasts. Variation 2: Tier 1 Resources

Existing resources plus those under construction and expected to be in service in the forecast year (Tier 1). Variation 3: Tier 1+2 Resources

Existing and Tier 1 resources plus those currently in licensing, siting, etc. but not yet under construction.

NWPP-NW Number of Hours with Potential Demand at Risk



■ Scenario 1 Variation 1 ■ Scenario 1 Variation 2 ■ Scenario 1 Variation 3

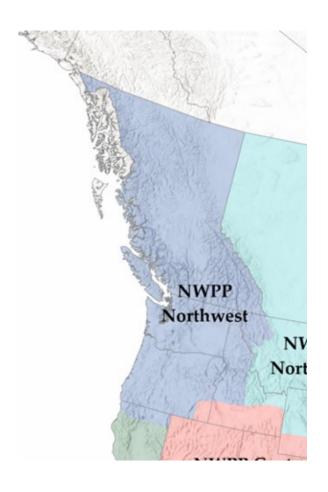
The value for all Scenario 2 variations is 0 hours



NWPP-NW Subregion Takeaways

- Without importing energy, the NWPP-NW subregion will not be 100% resource adequate over the next five years
- The NWPP-NW subregion is resource adequate if it can rely on imports
- Imports are becoming more scarce as other regions face similar challenges

The increasing variability of demand and resources is affecting the entire Western Interconnection, making reliance on neighbors more challenging.





Recommendations

- Recommendation 1: As variability grows, a dynamic reserve margin will better ensure reliability for all hours
- Recommendation 2: Areas should consider the degree to which they rely on external areas for imports when those areas are facing large amounts of variability as well
- Recommendation 3: WECC subregions should coordinate their resource planning each year to ensure they are not counting on the same imports to maintain reliability



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