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IEPR Forecast Use in Electricity System Planning Processes



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October 2, 2024



Today's Workshop

Goals

- How the IEPR forecast feeds into electricity system planning processes
- What are the challenges with using the forecast?
- Any recommendations?

Agenda

- Morning Session
 - Resource Adequacy
- Afternoon Session
 - Reliability Assessments
 - Integrated Resource Planning
 - Transmission Planning
 - Distribution System Planning



Why does CEC forecast energy demand?

Warren-Alquist Act

Established the CEC

Public Resources Code 25301(a)

Requires the CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices."





Electricity System Planning

- CPUC, CAISO, IOUs, and others use the CEC's forecast for electricity system planning
- Creates consistency across the different planning processes
 - Resource adequacy requirements
 - Reliability assessments
 - Integrated resource planning
 - Transmission system planning
 - Distribution system planning



CEC IEPR Forecast

- Updated annually, with a full refresh in odd years
- 15+ year system-level forecast of electricity demand
 - Annual electricity demand
 - 8760 hourly electricity loads for a 1-in-2 year
 - Scenarios for distributed generation, energy efficiency, building electrification, and transportation electrification
 - 1-in-5, 1-in-10, and 1-in-20 year net electricity peak
- Final results posted in mid-January



Challenges

1. Balancing proactive planning for electrification with affordability
 - a) Overestimating the pace could result in overbuilding at the ratepayer's expense
 - b) Underestimating the pace could result in barriers to electrifying and reducing GHG emissions
2. Each planning process has unique needs
3. Variations in forecasts from year-to-year
4. Disaggregating the forecast for local studies
5. Climate change and increased weather variability
6. Limited visibility into BTM DER operations



2024 IEPR Forecast Timeline

Meeting Type	Topic	Date
IEPR Workshop	Forecast Use in Electricity Planning Processes	October 2 (today)
DAWG Meeting	Draft Load Modifier Results	October 21
IEPR Workshop	Draft Load Modifier Results	November 7
DAWG Meeting	Draft Overall Forecast Results	November 21
IEPR Workshop	Draft Overall Forecast Results	December 12
CEC Business Meeting	Forecast Adoption	January 21, 2025

[Demand Analysis Working Group \(DAWG\)](#)