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Document Title:	Single Forecast Set Agreement
Description:	Supporting Documentation for the 2025 IEPR Forecast This document contains the single forecast set agreement between the California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Independent System Operator (California ISO). This agreement is documented each year as part of the development of the CEC's California Energy Demand Forecast and Integrated Energy Policy Report. This document is provided by CEC staff to support Nick Fugate's presentation on the 2025 IEPR forecast at the January 21, 2026, CEC business meeting.
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Supporting Documentation for the 2025 IEPR Forecast

This document contains the single forecast set agreement between the California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Independent System Operator (California ISO). This agreement is documented each year as part of the development of the CEC's California Energy Demand Forecast and Integrated Energy Policy Report.

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Single Forecast Set Agreement

Choice of a Single Managed Forecast Set for Electricity Planning

The baseline electricity demand in combination with the following scenarios adopted by the California Energy Commission on January 21, 2026, create managed electricity forecasts. These managed forecasts constitute options for a "single forecast set" to be used for planning in CEC, CPUC, and California ISO (the joint agencies and California ISO) proceedings and processes.[1] The scenarios are as follows:

- One scenario for known loads (energization applications at the distribution system level)
- Four behind the meter distributed generation (BTM DG) scenarios
- Three data center scenarios
- Six Additional Achievable Energy Efficiency (AAEE) savings scenarios
- Six Additional Achievable Fuel Substitution (AAFS) scenarios
- Three Additional Achievable Transportation Electrification (AATE) scenarios

The joint agencies and California ISO have agreed that specific elements of this forecast set will be used for electricity planning and procurement in CPUC's resource adequacy program, California ISO's local studies, and other planning processes as outlined below, whereas the California ISO's Transmission Planning Process (TPP) bulk system, economic, and policy studies and CPUC's Integrated Resource Plan (IRP) will use the *2024 IEPR Update* Planning Forecast. The rationale is explained below. The combination of scenarios used for electricity system planning are not recommended for gas system planning. The details of this agreement will adapt as the needs of planning and procurement evolve.

The term "single forecast set" clarifies that the forecast is not a single number, but a set of forecast numbers adopted as part of the *IEPR*. This set includes managed forecast scenarios that combine baseline forecasts using alternative weather variants; BTM DG, data center, known load, AAEE, AAFS, and AATE scenarios; and hourly load forecasts for transmission access charge (TAC) areas.[2] Agreement on a single forecast set includes specification on the use for each component of the set.

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1 Memorandum of Understanding Between the CPUC, CEC, and California ISO regarding Transmission and Resource Planning and Implementation: https://www.energy.ca.gov/sites/default/files/2023-01/MOU_Dec_2022_CPUC_CEC_ISO_signed_ada.pdf

2 A *TAC area* denotes a portion of the California ISO balancing authority area that has been placed in the California ISO's operational control through an agreement with an electric utility or other entity operating a transmission system component. A TAC area typically consists of an IOU and several publicly owned utilities using the transmission system owned by the IOU.

The single forecast set consists of components of the IEPR electricity demand forecast:

- A baseline forecast of annual energy and peak demand, with peak event weather variants (*for example*, 1-in-2, 1-in-5, and 1-in-10)
- Hourly loads for the baseline forecast for each of three IOU TAC areas
- One known load scenario described by annual energy and hourly load impacts
- Four scenarios of BTM DG described by annual energy and hourly load impacts
- Three scenarios of data center load growth described by annual energy and hourly load impacts
- Six scenarios of AAEE described by annual energy and hourly load impacts
- Six scenarios of AAFS described by annual energy and hourly load impacts
- Three scenarios of AATE described by annual energy and hourly load impacts

The combination of the baseline forecast using a specific weather variant plus a known load, BTM DG, data center, AAEE, AAFS, and AATE scenario depends on the use. The practices and procedures used in electricity local studies address uncertainty about the location-specific impacts of various assumptions by systematically using adverse assumptions about weather-induced peak load, and conservative load modifiers to base loads. For example, AAEE Scenario 2 is used for local studies because it is more conservative than Scenario 3, which is used in planning studies. For fuel substitution, AAFS Scenario 3 is used for local studies and Scenario 2 is used in planning studies. For transportation electrification, Scenario 3 is used for local studies and Scenario 2 is used for planning studies.

To account for unforeseen uncertainties, variations of adopted IEPR forecast outputs that diverge from the single forecast set may be used in planning and procurement processes under specific circumstances with consensus from the joint agencies and California ISO leadership.[3] Variations of adopted IEPR forecast outputs or CEC's long-term demand scenarios may be used for proposed portfolio and sensitivity analyses. However, the joint agencies and California ISO agree that planning and procurement processes will generally align with the single forecast set.

The following list describes the current agreement among the joint agencies and California ISO:

3 For example, in May 2022, leadership of the joint agencies and California ISO decided to use a new scenario that reflected CARB's proposed regulations for zero-emission vehicles, given the long lead time for the types of system upgrades that could be required to support implementation of these regulations. This scenario, called the Additional Transportation Electrification scenario, was used by the California ISO for the 2022–2023 TPP.

- CPUC IRP Reference System Plan, Preferred System Plan, and California ISO TPP economic studies:[4]
    - 2024 IEPR baseline annual energy and annual peak demand
    - 2024 IEPR data center mid case
    - 2024 IEPR BTM DG mid case
    - 2024 IEPR AAEE Scenario 3 annual energy and peak demand
    - 2024 IEPR AAFS Scenario 3 annual energy and peak demand
    - 2024 IEPR AATE Scenario 3 annual energy and peak demand
    - 1-year-in-2 peak event weather conditions from the 2024 IEPR
- California ISO TPP policy studies and bulk system studies:
    - 2024 IEPR baseline annual energy and annual peak demand
    - 2024 IEPR data center mid case
    - 2024 IEPR BTM DG mid case
    - 2024 IEPR AAEE Scenario 3 annual energy and peak demand
    - 2024 IEPR AAFS Scenario 3 annual energy and peak demand
    - 2024 IEPR AATE Scenario 3 annual energy and peak demand
    - 1-year-in-5 peak event weather conditions from the 2024 IEPR
    - 2024 IEPR planning forecast hourly loads
    - Staff allocations of the 2024 IEPR data centers, AAEE, AAFS, and AATE to load buses used in transmission studies
- California ISO TPP local area reliability studies:
    - Baseline annual energy and annual peak demand
    - Known load impacts
    - Data center high case
    - BTM DG low case
    - AAEE Scenario 2 annual energy and peak demand
    - AAFS Scenario 3 annual energy and peak demand
    - AATE Scenario 3 annual energy and peak demand
    - 1-year-in-10 peak event weather conditions
    - Staff allocations of known loads, data centers, AAEE, AAFS, and AATE to load buses used in transmission studies
- California ISO local capacity technical studies:

4 In consultation with the CEC and California ISO, the CPUC may authorize procurement using an alternative weather variant.

    - Baseline annual energy and annual peak demand
    - Data center high case
    - BTM DG low case
    - AAEE Scenario 2 annual energy and peak demand
    - AAFS Scenario 3 annual energy and peak demand
    - AATE Scenario 3 annual energy and peak demand
    - 1-year-in-10 peak event weather conditions
- California ISO Maximum Import Capability allocation for CPUC's system resource adequacy requirements for load-serving entities (LSEs):
    - Monthly peak demand derived from the planning forecast managed sales hourly loads
    - Hourly loads for the monthly system peak-day demand derived from planning forecast managed sales hourly loads
    - Data center mid case hourly loads by California ISO area
    - BTM DG mid case hourly impacts by California ISO area
    - AAEE Scenario 3 hourly impacts
    - AAFS Scenario 2 hourly loads
    - AATE Scenario 2 hourly loads
    - 1-year-in-2 peak event weather conditions
- CPUC resource adequacy LSE system requirements:[5]
    - Hourly loads for the monthly system peak-day demand derived from planning forecast managed sales hourly loads
    - Data center mid case hourly loads by California ISO area
    - BTM DG mid case hourly impacts by California ISO area
    - AAEE Scenario 3 hourly impacts
    - AAFS Scenario 2 hourly loads
    - AATE Scenario 2 hourly loads
    - 1-year-in-2 peak event weather conditions[6]

5 Resource adequacy under the CPUC jurisdiction shifted to using a slice-of-day approach starting in 2025, which requires hourly loads. Non-CPUC jurisdictional load-serving entities have not shifted to a slice-of day-framework. System resource adequacy obligations in the California ISO's systems and processes (which account for CPUC and non-CPUC jurisdictions) continue to be based on annual and monthly coincident peak demand.
6 In consultation with the CEC and California ISO, the CPUC may authorize procurement using an alternative weather variant.

- CPUC IOU distribution planning:[7]
    - Baseline hourly demand and hourly loads from the data center, BTM DG, AAEE, AAFS, and AATE scenarios.[8] [9]
- California ISO flexible capacity studies for resource adequacy:[10]
    - Baseline hourly loads by California ISO area
    - Data center mid case hourly loads by California ISO area
    - BTM DG mid case hourly impacts by California ISO area
    - AAEE Scenario 3 hourly impacts by California ISO area
    - AAFS Scenario 2 hourly loads by California ISO area
    - AATE Scenario 2 hourly loads by California ISO area
    - 1-year-in-2 peak event weather conditions

The joint agencies and California ISO agreed to changes in this agreement compared to the *2024 IEPR Update.* These changes respond to uncertainties introduced in the 2025 IEPR forecast cycle regarding known loads, data centers, and impacts of recent federal policy changes. In 2026, CEC staff will review historical known load data to develop independent assumptions or confirm assumptions informed by the IOUs where feasible. Staff will continue to evaluate the interaction of known loads with other forecast components. CEC staff will also continue to monitor data center applications for energization as well as the impacts of recent federal policy changes that introduce uncertainty regarding the choice of load modifiers for forecast scenarios this cycle. The joint agencies and California ISO have agreed to the following:

- For resource adequacy:
    - System RA requirements, maximum import capability studies, and flexible capacity RA studies for 2027 will use the 2025 IEPR planning forecast without known loads.

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7 In October 2024, the CPUC adopted Decision (D).24-10-030 that requires large investor owned electric utilities to make various improvements to the distribution planning process. Ordered improvements include how distribution planning utilizes the CEC's forecast but does not change this joint agency and California ISO recommendation on what forecast elements shall be used in distribution planning.

8 Following a May 11, 2020, CPUC Distribution Resources Plan Ruling (R.14-08-013), the same IEPR datasets are used by each IOU. The IOUs meet and confer to establish which IEPR datasets to use and present a listing of the selected datasets to CPUC staff for approval. In all cases, IEPR datasets are used where feasible for disaggregation and forecasting, and the IOUs clearly state in their filings which datasets were used.

9 Each IOU uses its own known loads data for distribution planning and will begin to use pending loads data consistent with the directives of CPUC Resolutions E-5413 and E-5414.

10 The method for assessing flexible capacity using the hourly CEC forecast was first used for flexible capacity resource adequacy planning for 2020. The joint agencies and California ISO are collaborating to evaluate this use case into the overall CEC demand forecasting work flow and the California ISO's flexible capacity projection method. The joint agencies and California ISO are evaluating and potentially modifying the flexible capacity analysis going forward. Until finalization of evaluation and potential changes are made, the California ISO will continue to use the CEC's hourly forecast.

    - Local Capacity Technical studies used to derive Local RA requirements for 2027-2029 will use the 2025 IEPR local forecast without known loads.
    - To manage potential reliability risks for 2027, should the pace of load growth exceed the adopted 2025 IEPR forecast, joint agency and California ISO staff will closely monitor and analyze system load trends and the progress and pace of known load energizations in 2026 and 2027.
    - This approach allows CEC staff additional time to study the impacts and interactions of known loads in the planning forecast, and establishes a plan to closely monitor for and mitigate potential reliability risks in advance of 2027.
- For IRP and bulk system transmission planning:
    - California ISO TPP economic, policy, and bulk system studies for the 2026-2027 TPP, and CPUC IRP will continue to use the 2024 IEPR planning forecast.
    - This approach manages volatility and promotes stability in electric system resource and infrastructure planning currently underway.
    - Known loads and data centers increase demand while recent federal policy changes reduce the impacts of electrification – however, significant uncertainty remains regarding the net impact of these factors on the system forecast in the mid-term.
    - This approach allows CEC staff additional time to collect and review historical data, observe the impacts of known loads, data centers, and recent federal policy changes, and refine forecast approaches as needed.
- For local transmission planning
    - California ISO TPP local area reliability studies will use the 2025 IEPR local reliability forecast with known loads.
    - This approach promotes alignment between distribution planning and local transmission planning processes and allows for lead time for long-term infrastructure planning and development.

Staff of the joint agencies and California ISO have developed a process by which the CPUC or California ISO can make a formal request to the CEC for a desired demand forecast variant or combination that is not yet produced. If the CEC does not have the resources to develop such a variant, then lead staff from the requesting agency may consider deviating from this agreement to independently develop and use such a variant for the period until the CEC is able to develop it. Such requests should also be made and approved using appropriate procedures of the requesting agency to ensure all interested stakeholders are aware of such a deviation.