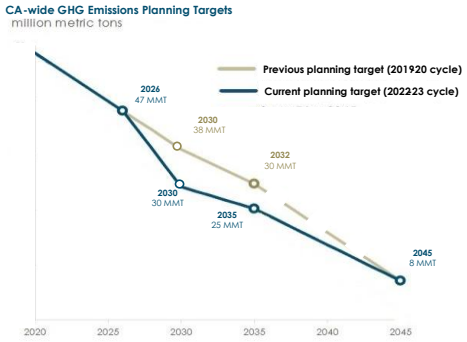
Fact Sheet:
Decision Adopting 2023 Preferred System Plan (R.20-05-003)

The CPUC's Integrated Resource Planning (IRP) Process:

- **Senate Bill (SB) 350 (De León, 2015)** directed the CPUC to ensure that California's electric sector meets its greenhouse gas (GHG) reduction and other policy goals while maintaining reliability at the lowest possible costs. The CPUC developed an IRP process to do this work. The 2022-2023 IRP cycle targets electric sector decarbonization to support statewide GHG efforts, achieve the Senate Bill (SB) 100's goals, and maintain system reliability. The IRP process uses state-of-the art electric system modeling tools and a robust stakeholder process to help guide the CPUC's decision-making on meeting GHG and reliability goals for the electric sector.
- **IRP is a multi-step process.** The first half of an IRP cycle builds on the findings of the previous cycle and is designed to provide analysis and guidance for those who provide power to the grid (called load-serving entities (LSEs)) to use to plan for meeting their GHG, reliability, and cost objectives. The second half of the IRP cycle is designed to consider the portfolios and actions that each LSE proposes for meeting these goals, and to allow the CPUC to review each LSE plan and aggregate their portfolios to develop a preferred one (called a Preferred System Plan (PSP) portfolio), and to consider further related actions. The development and adoption of a PSP represents the final step of an IRP cycle.
- **The Commission's IRP Process is the State's primary vehicle for building new clean energy resources.** Procurement orders issued through the CPUC's IRP process require jurisdictional LSEs – serving the vast majority of the state's load – to bring on 18,800 MW of net qualifying capacity (NQC) of predominantly new, utility-scale, clean generation online. The PSP portfolio reflects those builds and informs future resource planning needs to meet state goals.

Overview of the Decision

On February 15, 2024, the CPUC adopted a Decision on the 2023 Preferred System Plan (PSP) and Transmission Planning Process (TPP) Portfolios, which:

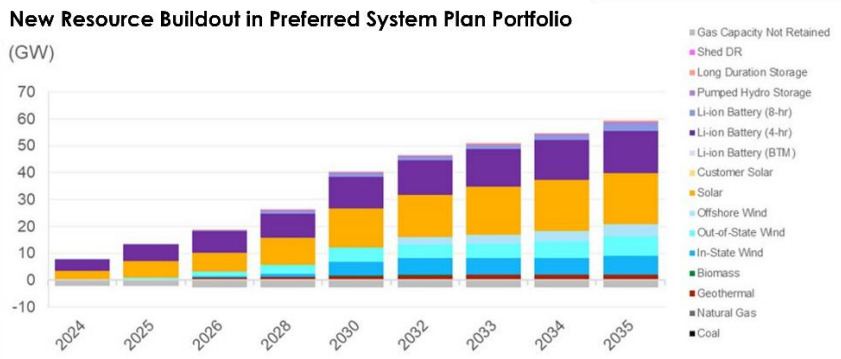


- **Adopts a Preferred System Plan:** The Decision adopts an aggregated portfolio that reduces statewide yearly GHG emissions from the electric sector to 25 million metric tons (MMT) by 2035 as compared to the previously adopted 38 MMT by 2030 planning target. The portfolio reflects the resource preferences of CPUC jurisdictional load-serving entities and includes an expectation that over 56 GW of new clean energy resources will be built to serve load by 2035, including 4.5 GW of offshore wind. The PSP portfolio is a 25 MMT portfolio, which corresponds to the low end of the 2030 target range set by the California Air Resources Board when it adopted the most recent Scoping Plan update.
- **Transmits portfolios to the California Independent System Operator (CAISO) for the 2024-2025 TPP:** The Decision recommends to the CAISO that the 25 MMT PSP portfolio be utilized to plan transmission investments that will facilitate the 50 GW of new generation and storage in the adopted plan. The Decision requests that the CAISO use the reliability and policy-driven base case to establish the generation resource buildout for study in its 2024-2025 TPP. The Decision also recommends a policy-driven sensitivity portfolio that would help develop a better technical understanding of the transmission grid changes that could be necessary to accommodate potential future natural gas plant retirements.
- **Addresses two petitions for modification (PFMs) of existing IRP procurement orders:** The Decision denies a PFM jointly filed by Southern California Edison and Pacific Gas and Electric seeking a two-year extension from 2025 to 2027 on the capacity and energy required to be procured in D.21-06-035 to replace the reliability and zero-emissions energy attributes of the Diablo Canyon Power Plant. The Decision notes additional flexibility may be considered in a future venue. Additionally, the Decision grants – in part and with modifications – the California Energy Storage Alliance and Western Power Trading Forum PFM seeking modifications to two IRP procurement decisions to allow the extension of deadlines for procurement of long lead-time (LLT) resources. LSEs requiring an extension of their LLT procurement beyond June 1, 2028, are required to procure generic capacity to cover the shortfall and still bring online LLT resources by no later than June 1, 2031.
- **Adopts a Reliability Framework Methodology for IRP:** The Decision formally adopts a high-level set of recommendations that the CPUC has been using for the past two years to determine whether the set of grid resources will provide sufficient reliability. The Decision's framework creates a more consistent approach to counting each resource type's contribution to meeting reliability needs.

Preferred System Portfolio:

- **Aggregated LSE Plans:** The PSP portfolio is designed to reduce GHG emissions to meet a 25 MMT GHG target by 2035. It is a "Core" portfolio, meaning it includes all generation and storage resources that LSEs have procured or are planning to procure, according to their individual IRP filings, to meet the 25 MMT GHG target, plus additional resources identified in IRP modeling. This PSP portfolio's combination of LSE-selected and modeling-selected resources cost-effectively achieves clean energy production well-beyond SB 100 interim targets while also reflecting the procurement decisions of jurisdictional LSEs.
- **Differences from prior cycle:** This PSP portfolio differs from the one adopted in February 2022, D.22-02-004, primarily in that we are now expecting to need to build more solar and battery storage resources, as well as new long-duration storage, out-of-state wind, and in-state wind.
- **Relationship to Mid-Term Reliability (MTR) Decisions:** Through two decisions in 2021 and 2023, D.21-06-035 and D.23-02-040 – the CPUC has already ordered LSEs to procure 15,500 MW of net qualifying capacity (NQC) that is now appearing in LSE plans. The CPUC's proposed PSP portfolio assumes compliance with those orders and includes the NQC of resources ordered in those decisions in the Proposed PSP portfolio.

The cumulative buildout of new resources, including those ordered in two of the IRP procurement orders and a buildout of selected new candidate resources[1], in the PSP portfolio is shown below:



CPUC Transmittal of IRP Resource Portfolios to CAISO's Transmission Planning Process (TPP)

- **Additional process for portfolio development and busbar mapping of resources for the 2024-2025 TPP:** The CPUC is for the first time transmitting portfolios projecting resource needs out 15-years, to 2039. Draft mapping results for the proposed base case were released for stakeholder review and comments are being incorporated into the final mapping.
- **Recommended base case and sensitivity portfolios for the 2024-2025 TPP:** The base case scenario analysis, conducted during the CAISO's TPP, results in specific transmission upgrade recommendations that can be taken directly to the CAISO Board for approval for investment. Sensitivity portfolios are used to produce transmission location and cost information that can inform future analyses, such as IRP, but do not usually result in direct recommendations and approval for transmission projects. If adopted, the PSP portfolio would serve as the base case portfolio. Under this portfolio, the use of natural gas plants in the CAISO-system would decrease by 71 percent by 2035 as compared to the first modeled year, 2024. By 2039, modeled natural gas usage would be reduced by 90 percent from modeled 2024 usage. The High Gas Retirement portfolio is recommended to be used by CAISO for their TPP sensitivity study. This portfolio meets the same GHG target as the PSP portfolio (25 MMT) but assumes retirements of natural gas generation capacity of 9.3 GW in 2035 and 15.2 GW in 2039.

CPUC IRP Website: https://www.cpuc.ca.gov/irp
CPUC Decision:
Relevant TPP materials: Assumptions for the 2024-2025 TPP

[1] New candidate resources include: established, commercially viable resource technologies such as solar, including utility-scale and distributed, wind, geothermal, storage, biomass, pumped hydro storage, and shed demand response. IRP modeling also considers non-default candidate resources, like more experimental and/or are not yet commercially mature such as shift demand response, emerging technologies, vehicle-to-grid integration, in some sensitivity analyses.