

Fact Sheet: Administrative Law Judge's Ruling Seeking Comments on a Proposed IRP Preferred System Plan (<u>R.20-05-003</u>)

Background on the CPUC 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 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 while maintaining 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 Preferred System Plan represents the final step of an IRP cycle.

Overview of the Ruling

On October 5, 2023, the CPUC issued an Administrative Law Judge's Ruling Seeking Comments on a Proposed Preferred System Plan and Transmission Planning Process Portfolios, which proposes:

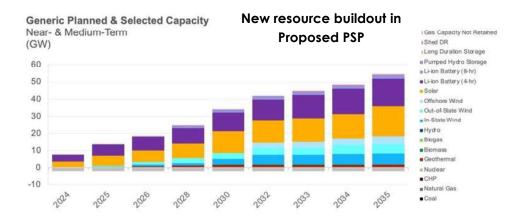
- A Preferred System Plan: The Ruling recommends that the CPUC adopt an aggregated portfolio that reduces GHG to 25 million metric tons (MMT) by 2035, which is the more stringent of the two targets the LSEs were directed to plan for in a previous CPUC <u>Decision</u>. This portfolio includes over 50 GW of new clean energy resources by 2035.
- Portfolios to be sent to the California Independent System Operator (CAISO) for the 2024-2025 Transmission Planning Process (TPP): The Ruling proposes transmitting the Proposed Preferred System Plan to the CAISO for their transmission planning purposes, as well a sensitivity portfolio that will help develop a better technical understanding on the transmission grid changes that could be necessary to accommodate potential future gas requirements.
- Potential 2,000 MW of additional procurement of renewable or zero-emissions resources for 2028 in response to recent Petitions for Modification to prior IRP Procurement Orders: The Ruling presents additional analysis regarding electric system reliability, with findings consistent with recent California Energy Commission (CEC) and CAISO reliability analyses. The analysis also relates to the consideration of two Petitions for Modification (PFMs) of the IRP Mid-term Reliability (MTR) decisions. One seeks an extension of the 2028 deadline for large and/or long lead-time (LLT) resources set in D.21-06-035 and modified by D.23-02-040. The other seeks to modify requirements for the category of resources designed to offset the loss of the Diablo Canyon Power Plant. The Ruling proposes that if the LLT resource extension is granted, that LSEs be required to procure replacement clean capacity by 2028.
- A Reliability Framework Methodology for IRP: The Ruling includes a set of recommendations the CPUC can use to formalize the analytical methods IRP uses to determine whether the set of grid resources will provide sufficient reliability (i.e., protection against blackouts). Adopting this framework would allow the CPUC to have a more consistent approach to counting how much each resource type contributes to meeting reliability needs.
- Installing and counting as incremental long-duration energy storage (LDES) at existing natural gas sites: The Ruling seeks party comments on a proposal to allow minimum 8-hour LDES at existing natural gas sites. The LDES would charge from the grid, and then discharge during grid emergencies, when natural gas turbines experience derating due to high ambient temperatures. The reliability benefits could be realized as soon as summer 2025 and be allowed to count towards MTR procurement.

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Proposed Preferred System Portfolio:

- Aggregated LSE Plans: The proposed 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 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.
- **Differences from prior cycle:** This proposed PSP differs from the one adopted in <u>D.22-02-004</u> primarily in that it includes more solar and battery storage, as well as new long-duration storage, out-of-state and in-state wind.
- **Relationship to MTR Decisions:** Through two decisions <u>D.21-06-035</u> and <u>D.23-02-040</u> the CPUC has ordered LSEs to procure 15,500 MW of net qualifying capacity (NQC). The proposed PSP portfolio assumes compliance with those orders and includes corresponding resources.
- The cumulative buildout of new resources in the proposed PSP portfolio is shown below:



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

- Annual Process for TPP portfolio development: The CPUC's annual process for TPP portfolio development ensures
 that electricity resources identified within IRP inform CAISO's transmission system planning, to facilitate
 infrastructure development to meet state goals. A new 2022 MOU among the CAISO, California Energy
 Commission (CEC), and CPUC guides this process.
- Additional Process for this year's TPP portfolio development and busbar mapping: New to this TPP cycle, the
 CPUC will be mapping and transmitting portfolios projecting resource needs out 15-years to 2039. CPUC staff
 also completed an update to the resource-to-busbar mapping methodology, which will be used to map the
 recommended portfolios for the 2024-2025 TPP. Draft mapping results will be released for stakeholder review and
 comments that will be 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. The Ruling recommends the proposed PSP portfolio, which includes 4.6 GW of offshore wind and a 70 percent reduction in natural gas utilization by 2035, as the base case portfolio and a High Gas Retirement scenario, which includes 9.3 GW of natural gas retirements by 2035 and 15.2 GW by 2039, as the one sensitivity portfolio.

CPUC IRP Website: https://www.cpuc.ca.gov/irp

CPUC Ruling: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M520/K522/520522241.PDF

Relevant TPP materials: Assumptions for the 2024-2025 TPP

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