

Fact Sheet:

Proposed Decision Transmitting Electric Resource Portfolios to the California Independent System Operator for the 2025-2026 Transmission Planning Process (<u>R.20-05-003</u>)

January 15, 2025

Overview of the Proposed Decision

On January 10, 2025, the CPUC issued a proposed Decision (PD) with Transmission Planning Process (TPP) portfolios for the California Independent System Operator (CAISO) to analyze as part of its transmission planning cycle. This cycle's proposed 2025-2026 TPP base case portfolio builds off of the 2024-2025 TPP base case portfolio that the Commission adopted in D.24-02-047. If adopted, the proposed base case will continue to facilitate the analysis of the transmission needed to bring online over 60 gigawatts (GW) of new generation and storage resources to cost-effectively achieve a 25 million metric ton (MMT) greenhouse gas (GHG) emissions level by 2035, while maintaining system reliability.

By 2035, the proposed 2025-2026 TPP base case portfolio is modeled to reduce GHG emissions by over 45 percent compared to the 2026's modeled 47 MMT target and surpasses Senate Bill (SB) 1020's target of 90 percent clean energy retail sales. This proposed 2025-2026 portfolio continues to model decreased use of natural gas plants in the CAISO-system throughout the modeling timeframe, with a projected 71 percent decline in annual natural gas generation in terawatt-hours by 2035 as compared to the first modeled year, 2026. By 2040, modeled natural gas usage would be reduced by 80 percent from modeled 2026 usage.

The PD also recommends that the CAISO study a sensitivity portfolio with a high upper bound for resources that require longer lead times to develop and come online, such as geothermal and offshore wind.

CPUC Transmittal of IRP Resource Portfolios to CAISO's TPP

The CPUC's annual process for TPP portfolio development ensures that electricity resources identified within Integrated Resource Planning (IRP) inform CAISO's transmission system planning to facilitate infrastructure development to meet state goals. A 2010 MOU between the CAISO and the CPUC outlines this process in coordination with the California Energy Commission (CEC).

The CPUC's 2025-2026 TPP portfolio development continues the annual process of deriving generation and storage portfolios as key inputs into the CAISO's TPP. The modeling to develop these portfolios uses complex electric system planning tools and a robust stakeholder process to help guide the CPUC's decision-making on meeting GHG and reliability goals for the electric sector. The CPUC's 2025-2026 TPP portfolio development process builds off of previous cycles' efforts, which were unprecedented in their scope and potential infrastructure impact. A CPUC-led stakeholder process to provide insight into TPP portfolio development and the resource-to-busbar mapping effort for these portfolios commenced in October 2024. Additionally, for the first time, the CPUC solicited formal stakeholder comments on the draft busbar mapping results via an ALJ Ruling.

Summary of the Portfolios for the 2025-2026 Transmission Planning Process

Proposed 2025-2026 TPP Base Case Portfolio

- The base case portfolio in the PD like the portfolio adopted in the 2024-2025 TPP includes all generation and storage resources procured or planned by CPUC jurisdictional load serving entities (LSEs) in their November 2022 Integrated Resource Plans, plus additional resources identified in IRP modeling.
- If adopted, the portfolio will allow the CAISO to identify and authorize transmission development needed to meet the required reliability standard, a 25 MMT GHG target, and increased demand as forecasted in the California Energy Commission's (CEC) Integrated Energy Policy Report (IEPR).

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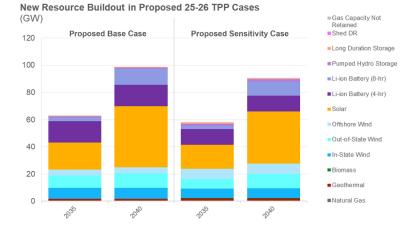
• IRP modeling shows that the two study years for the base case portfolio meet or beat the 0.1 Loss of Load Expectation (LOLE), meaning that the modeling portfolios are aligned with the reliability target.

As in the previous 2024-2025 TPP cycle, the CPUC is transmitting a portfolio with the typical ten-years-out 2035 results and 15-years-out 2040 results, pursuant to SB 887.

Proposed 2025-2026 TPP Sensitivity Portfolio

- In addition to the proposed base case, the PD recommends that the CAISO study a sensitivity portfolio that depicts a potential long lead-time resource deployment future reflective of the upper bound of the CPUC's need determination that was adopted in <u>D.24-08-064</u>, pursuant to Assembly Bill 1373.
- The sensitivity portfolio is designed to serve as a reasonable alternative to the proposed base case and will allow the CAISO to continue studying transmission infrastructure needs and costs that could be needed to meet the upper bounds quantity of long lead-time resources.

The cumulative buildout of new resources included in the two cases for the key TPP study years is shown below:



To help ensure that California continues to cost-effectively identify infrastructure needs to meet the needs of diverse resource types, the PD also proposes the following recommendations to the CAISO:

- Study the necessary transmission capacity needed to ensure the deliverability of potential out-of-state wind and offshore wind resources.
- Reserve transmission deliverability for future geothermal, offshore wind, non-battery long-duration energy storage, and biomass development in locations identified through the Commission's resource-to-busbar mapping process.
- Conduct further studies on potential new transmission and possible alternatives needed by a portion of the out-of-CAISO onshore wind identified in the proposed 2025-2026 TPP base case before approving the specific transmission needed.

References

- CPUC Proposed Decision: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M553/K678/553678610.PDF
- CPUC IRP Website: <u>https://www.cpuc.ca.gov/irp</u>
- Relevant 2025-2026 TPP materials: Assumptions for the 2025-2026 TPP