
SENATE COMMITTEE ON APPROPRIATIONS

Senator Sabrina Cervantes, Chair
2025 - 2026 Regular Session

AB 2111 (Papan) - Electricity: transmission planning and transmission facilities

Version: July 1, 2026

Urgency: No

Hearing Date: August 3, 2026

Policy Vote: E., U. & C. 17 - 0

Mandate: Yes

Consultant: Ashley Ames

Bill Summary: This bill would require various actions to better incorporate uncertainty and risk in resource portfolio planning to inform transmission planning. This bill would require the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC), in coordination with the California Independent System Operator (CAISO), on or before January 1, 2028, to incorporate specified requirements into an update to the Memorandum of Understanding (MOU) regarding transmission and resource planning adopted by the CEC, CPUC, and CAISO on December 23, 2022, and any related workplan.

Fiscal Impact:

- The CPUC estimates ongoing costs of about \$1.8 million annually and one-time costs of about \$5.2 million spread over a period of four years (ratepayer funds) to ensure compliance with this new addition, conduct analysis of the unaccounted-for transmission plan deliverability (TPD) issue, develop an interagency website with the CEC and CAISO to centrally manage and publish integrated resource planning and transmission planning data, and work with LSEs to better understand which entities are receiving interconnection points — that is, which projects LSEs are signing right of first refusal offers with in exchange for commercial interest points — among other things.
- The CEC anticipates minor cost as a result of this bill.

Background:

SB 100 (De León, Chapter 312, Statutes of 2018). SB 100 established the state's target to meet 100% of the state's electricity retail load with renewable and zero-carbon resources by 2045. SB 1020 (Laird, Chapter 361, Statutes of 2022) established interim goals to meeting the SB 100 target, specifically requiring 90% of retail sales by 2035, 95% by 2040 to be met with renewable and zero-carbon energy resources. SB 100 Joint Agency Report evaluates the challenges and opportunities in implementing SB 100. It includes an initial assessment of the additional energy resources and the resource building rates needed to achieve 100% clean electricity, along with the associated costs. It uses a computer model to analyze these factors under various conditions and technologies. The report is scheduled to be updated every four years. The first report issued on March 2021 identified that on average the state may need six gigawatts (GW) of new renewable and energy storage annually to meet the SB 100 goals.

Integrated Resources Plan (IRP) process. SB 350 (De León, Chapter 547, Statutes of 2015) required each load-serving entity (LSE) to file a biennial IRP for approval or certification by the CPUC. The CPUC combines all LSEs' IRPs to ensure the state is on its path to meet its clean energy procurement goals. Publicly owned utilities (POUs) are required to file their own IRPs with the CEC. The goal of the IRP is a two-year planning process to ensure that LSEs are meeting targets that allow the electricity sector to contribute to California's economy-wide greenhouse gas (GHG) emissions reductions goals and that helps to reduce overall costs. The effort is intended to forecast needs on a 10-year horizon. In this regard, the IRP is a forward-looking activity. Whereas the requirements to meet renewable energy standards is a compliance activity to review whether LSEs and POU have satisfied their three-year compliance obligation under the Renewable Portfolio Standard (RPS) requirements to meet an increasing share of its retail load with eligible renewable energy resources, until achieving 60% by 2035. As part of the IRP process, the CPUC has issued several procurement orders on LSEs to address near-term and mid-term procurement needs, including the need for energy storage resources. SB 887 (Becker, Chapter 358, Statutes of 2022) adjusts the planning horizon for resource portfolios to inform transmission planning from 10 years to 15 years.

Transmission Planning Process (TPP). Each year, the CAISO conducts its TPP to identify system limitations and determine where transmission upgrades or new infrastructure are needed to improve reliability and support the integration of clean new resources. The TPP relies on the CPUC's IRP process to identify the optimal mix of resources capable of meeting the state's GHG planning targets and reliability needs, with IRP results serving as key inputs into the TPP. In addition, the CAISO also incorporates the CEC's demand forecasts for electricity and natural gas sales, consumption patterns, and peak and hourly electricity demand to ensure that transmission plans are aligned with anticipated future load conditions.

The TPP is built around an annual public stakeholder process under the CAISO tariff approved by the FERC. Each year, the process concludes with the CAISO Board of Governors approving a transmission plan that identifies projects needed to support the electric grid.

CAISO 20-year Transmission Outlook. The CAISO created a 20-Year Transmission Outlook for the electric grid, in collaboration with the CPUC and the CEC, with the goal of exploring the longer-term grid requirements and options for meeting the State's SB 100 clean energy objectives reliably and cost-effectively. The 20-year Outlook was released in September 2021, and the CAISO intends for the expanded planning horizon to provide valuable input for resource planning processes conducted by the CPUC and CEC, and to provide a longer-term context and framing of pertinent issues in the CAISO's ongoing annual 10-Year Transmission Plan.

Memorandum of Understanding on transmission planning. On December 23, 2022, the CPUC, the CEC, and the CAISO entered into a MOU related to resource and transmission planning, transmission development and permitting, procurement, and interconnections to achieve reliability and policy needs and to coordinate the timely development of resources, resource interconnections, and needed transmission infrastructure. The CPUC, CEC, and CAISO entered an updated MOU, replacing a 2010 MOU, in order to better coordinate their respective and shared efforts for the

timely development of resources needed to achieve the state's clean energy goals reliably and economically. The MOU focuses on linkages between forecasting, planning, procurement direction, and the interconnections process, among others, including those related to transmission. SB 319 (McGuire, Chapter 390, Statutes of 2023) codified the MOU and requires the entities to update the MOU every five years.

FERC Order 1920-A. In May 2024, FERC issued a new transmission and cost allocation rule, FERC Order 1920, to ensure a reliable grid by requiring the nation's transmission providers to plan for the transmission system that will be needed in the future. The rule adopts several requirements concerning how transmission providers must conduct long-term planning for regional transmission facilities and determine how to pay for them, to ensure needed transmission is built. These requirements include: requirement to conduct and periodically update long-term transmission planning to anticipate future needs; requirement to consider a broad set of benefits when planning new facilities; requirement to identify opportunities to modify in-kind replacement of existing transmission facilities to increase their transfer capability; ensuring customers pay only for projects from which they benefit; and expand states' role throughout the process of planning selecting, and determining how to pay for transmission facilities. Subsequently, in November 2024, FERC adopted Order 1920-A that further clarified requirements in FERC Order 1920.

The rule requires each transmission operator to produce a regional transmission plan of at least 20 years to identify long-term needs and facilities to meet them and requires the planning is conducted at least every five years using a plausible and diverse set of at least three scenarios that incorporate specific factors. Several states have challenged FERC's issuance of Order 1920 in federal court, arguing that the Order's requirements privilege states with renewable energy policies over those without. These cases have been consolidated into one case, *Appalachian Voices, et al. v. FERC* (4th Cir. No. 24-1650). The current administration continues to defend FERC's rule in the court and California's Attorney General Bonta has co-lead a coalition of 12 states defending the order in an Amicus Brief. The case remains active.

Energy-only resources. Energy-only resources are those that generating resources that are interconnected to the electric grid but are not studied for deliverability. The CAISO has begun exploring pathways through its Interconnection Process Enhancements to allow certain energy-only resources to seek deliverability after coming online, where sufficient transmission capacity exists and no network upgrades are required. Under this concept, some projects may come online earlier as energy-only and later obtain deliverability if conditions permit.

Proposed Law: This bill would:

1. Require the CEC, CPUC, and CAISO, on or before January 1, 2028, to update the MOU and workplan to, among other things, ensure that the MOU and workplan reflect the requirements of FERC Order 1920-A, as applicable.
2. Define "risk prudent" to mean reflective of two characteristics:
 - a. Achieving the state objectives, including ensuring a reliable electricity supply that provides optimal integration of renewable energy and resource diversity in

a cost-effective manner, across a range of plausible futures informed by planning uncertainties.

- i. The ability of a risk-prudent plan to achieve state objectives is not dependent on an assumption of perfect foresight reflective of predictions or forecasts that assign one specific value to planning uncertainties.
 - b. Accounting for and including characterization of the ability of near-term decisions to improve adaptability in response to planning uncertainties. Would define "improving adaptability" to include planning sufficient diverse resources and transmission facilities to accommodate planning uncertainties, maintaining a competitive market for resource procurement, accounting for development and interconnection delays, and improving preparations for other contingencies.
3. Require that the portfolio of resources required by Public Utilities Code §454.51 provide optimal integration in a cost-effective and risk-prudent manner.
 4. Require the CPUC to provide transmission-focused guidance to the CAISO on a recurring basis, in place of the existing requirement that the guidance be provided beginning as soon as possible and not later than March 31, 2024, and require that the guidance include both sufficient infrastructure capacity to facilitate cost-effective procurement of certain resources and improvements to resource diversity and competition by increasing interconnection capacity to specific locations that reflect resource availability, including improvements informed by interconnection requests and development in areas with limited deliverability, and projects with site control in areas of high resource potential.
 5. Require the CPUC to separately provide additional transmission-focused guidance to the CAISO that is risk prudent and supports compliance with FERC Order 1920-A, as applicable, as specified.
 6. Remove the requirement that the projections be provided annually and would require the projections of resource portfolios and electricity demand by region to be for at least 20, rather than 15, years into the future. Would add to those state policy goals reducing resource interconnection timelines and supporting achievement of the state's energy, climate change, and air quality goals.
 7. Require the CPUC, beginning on or before January 1, 2028, to make available on its internet website all nonconfidential input and output data used in the integrated resource planning and transmission planning processes.

Related Legislation:

SB 254 (Becker, 2025) established the Transmission Infrastructure Accelerator and requires the Governor's Office of Business and Economic Development Energy Unit, in coordination with specified entities, to develop a financing and development strategy for eligible transmission projects, select projects that may receive public financing, and take steps to accelerate transmission development.

AB 2779 (Petrie-Norris, 2024) required the CAISO, upon approval of each transmission plan, to report to the CPUC and the relevant policy committees of the Legislature any new use of grid-enhancing technology deemed reasonable in that plan, and the costs and efficiency savings associated with that technology.

SB 1006 (Padilla, 2024) required electrical corporations to evaluate the use of advanced conductors and grid-enhancing technologies to increase transmission capacity and to report those evaluations to the CAISO.

SB 319 (McGuire, 2023) required specified actions related to electric transmission planning, including a review and update to a December 2022 MOU and related workplan among California energy agencies and the CAISO, the development of an electrical transmission infrastructure guidebook, and a report to the Legislature regarding the status of transmission projects.

SB 887 (Becker, 2022) directed, among other provisions, the CPUC, on or before January 15, 2023, to request the CAISO to identify the highest priority anticipated transmission facilities that are needed to deliver renewable energy resources or zero-carbon resources, and adjusted the planning horizon for the annual electricity transmission plan from 10 years to 15 years.

SB 1174 (Hertzberg, 2022) required certain CPUC reports and assessments, including to identify interconnection transmission projects and prioritize necessary approvals.

SB 100 (De León, 2018) established the 100 Percent Clean Energy Act, which increased the RPS requirement from 50% by 2030 to 60% and established a state policy that eligible renewable and zero-carbon resources supply 100% of retail electricity sales by December 31, 2045.

SB 350 (De León, 2015) established the Clean Energy and Pollution Reduction Act, which increased the RPS requirement from 33% to 50% by 2030 and created the IRP process at the CPUC to ensure long-term electricity planning aligns with the state's GHG reduction targets while maintaining reliability and controlling costs.

-- END --