

Date of Hearing: May 6, 2026

ASSEMBLY COMMITTEE ON APPROPRIATIONS

Buffy Wicks, Chair

AB 2111 (Papan) – As Amended April 13, 2026

Policy Committee: Utilities and Energy

Vote: 17 - 0

Urgency: No

State Mandated Local Program: Yes

Reimbursable: No

SUMMARY:

This bill modifies requirements concerning planning for the development of electricity resources and electricity transmission facilities so that such planning, consistent with federal requirements, achieves state objectives in a way that considers a range of plausible futures and improves adaptability in response to such potential futures.

Specifically, among other things, this bill directs the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC), in coordination with the California Independent System Operator (CAISO), by January 1, 2028, to update an existing memorandum of understanding (MOU) between the three entities and a related workplan—so that:

- The MOU and workplan reflect the requirements of Federal Energy Regulatory Commission (FERC) Order 1920-A, as published in Volume 89 of the Federal Register, Number 97174, to support the development of resource portfolios and approval of transmission facilities that are cost effective and risk prudent and equip CAISO with at least three portfolios that represent state policy needs in planning transmission in accordance with Order 1920-A.
- The CEC provides electrical load forecasts to support risk prudent planning by the CPUC.
- The CPUC may provide guidance on any supplemental or accelerated transmission needs to improve system adaptability, reduce risk or support competitive resource procurement.

Key to these requirements, the bill provides the following definitions:

- **Planning uncertainties**—future uncertainties that may affect resource planning decisions, including, but not limited to, load growth, in-state and out-of-state resource availability, technology costs and other factors.
- **Risk prudent**—reflective of all of (1) achieving 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; (2) accounting for and including characterization of the ability of near-term decisions to improve adaptability—meaning, at least, planning sufficient resources and transmission facilities to accommodate planning uncertainties, to maintain a competitive market for resource procurement, account for development and

interconnection delays, and improve preparation for other contingencies; and (3) the ability of a risk prudent plan to meet state objectives is not dependent on an assumption of perfect foresight reflective of predictions or forecasts that assign one specific value to planning uncertainties.

In addition, the bill requires the CPUC, in coordination with the CEC and CAISO, by January 1, 2028, to make available on its internet website all nonconfidential input and output data used in the integrated resource planning (IRP) and transmission planning processes (TPP), consistent with requirements governing the treatment of confidential and market-sensitive information.

FISCAL EFFECT:

Implementation of this bill will entail significant new workload of the CPUC modify its planning processes and to make data available on its website. The CPUC anticipates cost of \$3.2 million (Public Utilities Reimbursement Account), of which approximately \$1 million annually, ongoing, is for in-house staffing to implement the bill's planning requirements and \$2.2 million is for one-time costs, as follows:

- \$1.2 million—A four-year contract with an outside entity to support and provide expertise in advanced modeling methods (e.g., stochastic optimization, stress test and analyze scenarios and resource portfolios; support development or customization of tools; assist with staff training, model validation, and independent review of methodologies; and other technical duties.
- \$1 million—A three-year contract with an outside entity to develop CPUC's website so it is capable of hosting all nonconfidential input and output data used in the IRP and TPP, consistent with requirements governing the treatment of confidential and market-sensitive information.

The CEC, for its part, anticipates minor cost as a result of this bill.

COMMENTS:

Planning for transmission involves several entities and several interrelated processes. CAISO—a nonprofit public benefit corporation established by state law and operating under federal regulation—directs the operations of transmission facilities and is responsible for the reliability of such facilities, and ensures electric reliability across much of California and a small part of Nevada by balancing electricity supply and demand at every moment. The electrical transmission system under CAISO's direction is often referred to as "the grid." Each year, CAISO conducts a TPP to identify inadequacies of the grid and upgrades needed to ensure reliability and meet state policy goals, such as renewable energy procurement, and to approve transmission projects and related procurement.

The CPUC, as directed by statute, regularly develops IRPs to "identify a diverse and balanced portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable energy in a cost-effective manner." The CPUC's IRPs are inputs to CAISO's TPP.

Foundational to the work of both the CAISO and the CPUC is the CEC's forecast of demand for electricity and natural gas, both for California as a whole, but also for regions and subregions.

Traditionally, the CEC’s demand forecast has looked out ten years, but the CEC’s demand forecast published in January 2022 looked out 15 years.

Building off of, but distinct from these processes, CAISO, in collaboration with the CPUC and the CEC, published its “CAISO 20-year Transmission Outlook.” The outlook is to identify longer-term transmission needs to achieve the state’s clean energy goals. However, unlike CAISO’s TPP, the outlook does not approve transmission projects or procurement.

In furtherance of better coordination, the three entities—the CEC, the CPUC and CAISO—signed an MOU in December of 2022. Known as the Memorandum of Understanding Between the CPUC and the CEC and the CAISO Regarding Transmission and Resources Planning and Implementation, the document reflects what the three entities describe as a:

desire to work together to enhance coordination of resource planning and transmission planning to achieve state reliability and policy needs, and coordinate the timely development of resources, resource interconnections, and the needed transmission infrastructure.

These efforts at coordination notwithstanding, the author contends the transmission planning process “was not built to adapt to evolving conditions” and describes this bill as ensuring “sustained load growth and evolving system requirements are fully incorporated into transmission planning.”

A joint letter penned by the Abundance Network and two of the state’s community choice aggregators, Peninsula Clean Energy and Sonoma Clean Power, similarly describes the state’s transmission planning efforts as “largely around a single ‘best guess’ forecast of future demand and resources” and that “those assumptions can quickly become outdated.” According to these supporters, the bill “would improve California’s transmission planning framework by requiring the state to evaluate a wider range of plausible future scenarios and compare the total system costs of different transmission and resource strategies.”

The bill is underpinned by a recent study Gabriel Mantegna et al., “Uncertainty-Aware Grid Planning in the Real World: A Method Enabling Large-Scale, Two-Stage Adaptive Robust Optimization for Capacity Expansion Planning,” funded by the two CCAs. A summary of the study states:

In this paper we introduce a method for endogenizing uncertainty into capacity expansion models, a variant of adaptive robust optimization, that addresses this gap. We apply the method to a real-world capacity expansion planning problem, that of the State of California, and compare its performance to that of traditional adaptive robust optimization. We find that both the traditional method and our method identify increased transmission investment as a key lever for increasing robustness and adaptability, while helping to avoid downside risks that current deterministic planning processes may be exposing ratepayers to. Our method performs similarly to the traditional method in terms of outcomes, while significantly reducing computational complexity, making it scalable to real-world planning problems.

There is no opposition registered against this bill.

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