

Date of Hearing: April 6, 2022

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY

Eduardo Garcia, Chair

AB 2696 (Eduardo Garcia) – As Introduced February 18, 2022

SUBJECT: Electricity: renewable energy and zero-carbon resources: state policy: transmission planning

SUMMARY: Requires the California Energy Commission (CEC) to conduct a study that reviews lower cost ownership and alternative financing for new transmission facilities. Additionally, requires the California Public Utilities Commission (CPUC) to find the construction of new transmission by an investor-owned utility (IOU) necessary if the new transmission will achieve the 100 percent clean energy policy of SB 100 (De León, Chapter 312, Statutes of 2018). Specifically, **this bill:**

- 1) Requires the CEC to consult with the California Infrastructure and Economic Development Bank (I-Bank), the Governor’s Office of Business and Economic Development (Go-Biz), the California Independent System Operator (CAISO), and the CPUC in order to conduct a study to review lower cost ownership and alternative financing for new transmission facilities needed to meet the state’s clean energy and climate targets.
- 2) Requires the CEC to submit the report to the governor and Legislature by September 30, 2023.
- 3) Repeals the CEC reporting requirement on January 1, 2024.
- 4) Requires the CPUC to find in IOU’s applications for certificates of public convenience and necessity (CPCNs) for the construction of new transmission facilities that such facilities are needed if the new facility will help achieve the policy of meeting all of the state’s retail electricity supply with a mix of renewable and zero-carbon resources by December 31, 2045 (“SB 100 policy”).
- 5) Requires the CPUC to direct an IOU to file an application for a CPCN for a transmission facility if the facility is proposed to be located in their service territory and identified in the CAISO’s transmission planning process as needed to achieve the SB 100 policy.
- 6) Allows cost recovery of transmission facilities through electricity rates subject to a prudence review by the CPUC, if the facilities are found necessary to achieve the SB 100 policy but were not approved for recovery in transmission rates by the U.S. Federal Energy Regulatory Commission (FERC).
- 7) Makes a number of findings and declarations related to the need for new transmission facilities in the state.

EXISTING LAW:

- 1) Establishes that FERC has exclusive jurisdiction over the transmission of electric energy in interstate commerce. Also establishes the process and procedures for establishing

transmission of electric energy in interstate commerce by public utilities, i.e., the rates, terms, and conditions of interstate electric transmission by public utilities. (Federal Power Act §§ 201, 205, 206 (16 USC 824, 824d, 824e))

- 2) Prohibits any construction by an electrical corporation¹ of a line, plant, or system, or their extensions, without first obtaining from the CPUC a certificate that the present or future public convenience and necessity require or will require such construction. This is known as a CPCN. For electric transmission facilities, the CPUC shall consider cost-effective alternatives, including demand-side alternatives during their consideration of a CPCN. (Public Utilities Code §§ 1001-1103)
- 3) Requires retail sellers and publicly owned utilities to increase purchases of renewable energy such that at least 60% of retail sales are procured from eligible renewable energy resources by December 31, 2030. This is known as the Renewables Portfolio Standard (RPS). (Public Utilities Code § 399.11 et seq.)
- 4) Authorizes the CPUC to approve, in advance, the recovery through electricity rates of the costs of a transmission project proposed to meet the state's RPS goals. Provides that ultimate rate recovery is still subject to review by the CPUC to ensure that utilities incur costs reasonably and prudently. (Public Utilities Code § 399.2.5)
- 5) Establishes the CAISO as a nonprofit public benefit corporation, and requires the CAISO to ensure the efficient use and reliable operation of the electrical transmission grid consistent with the achievement of planning and operating reserve criteria, as specified. (Public Utilities Code § 345.5)
- 6) Establishes the policy that all of the state's retail electricity be supplied with a mix of RPS-eligible and zero-carbon resources by December 31, 2045, for a total of 100% clean energy. This is called throughout this analysis the "SB 100 policy." (Public Utilities Code § 454.53)

FISCAL EFFECT: Unknown. This bill is keyed fiscal and will be referred to the Committee on Appropriations for its review.

BACKGROUND:

CAISO – The CAISO is a nonprofit public benefit corporation created by California statute as part of the effort to deregulate the electricity market in the late 1990s. The CAISO manages the flow of electricity across the high-voltage bulk power system that makes up 80 percent of California's, and a small part of Nevada's, electric grid. CAISO is registered as both a transmission operator and balancing authority (BA) under federal reliability requirements. Transmission operators direct the operations of transmission facilities and are responsible for their reliability. BAs ensure electric reliability over an area that includes the generation, transmission, and loads, balancing electricity supply and demand at every moment. As with other BAs, the CAISO is regulated by federal statute, with oversight by FERC and the North American Energy Reliability Corporation.

¹ Or other corporations, as specified, including railroad, gas, water, telephone, and sewer.

Transmission Planning Process (TPP) – Each year, the CAISO conducts its TPP to identify potential system limitations as well as transmission projects in need of upgrades or new infrastructure in need of construction to improve reliability and efficiency.² The TPP fulfills the CAISO’s core responsibility to identify and develop solutions to meet the future needs of the electricity grid. The TPP relies on the CPUC’s integrated resource plan (IRP) process³ to identify the optimal mix of system-wide resources capable of meeting greenhouse gas planning targets for the electric sector.⁴ CAISO receives the IRP results as inputs into its TPP. In February 2021, the CPUC transferred the electric resource portfolios to the CAISO to begin the CAISO’s 2021-2022 TPP.⁵ The CAISO also receives the CEC’s demand forecast of electricity and natural gas sales, consumption, and peak and hourly electricity demand. The most recent CEC demand forecast published in January 2022 was a 15-year forecast.

The development of the TPP entails an annual public stakeholder process that is conducted pursuant to the CAISO’s FERC-approved tariff. It includes a three-phase process that leads to annual CAISO Board of Governors’ approval of a transmission plan and associated transmission projects. There are three main categories of CAISO approved transmission projects:

- Reliability projects to meet federal standards;
- Policy projects to meet state policy goals (i.e., RPS-needed projects);
- Economic projects that reduce congestion, production costs, transmission losses, capacity requirements or other electric supply costs.

Following the CAISO Board’s approval of a TPP, new projects that are identified as necessary go through a competitive solicitation process. Transmission developers—which may be public or investor-owned utilities or private, for-profit entities—apply for the project solicitation and those applications are evaluated on a number of qualifying criteria, including cost. The CAISO Board recently approved its 2021-2022 TPP on March 17, 2022,⁶ and identified 23 projects—at an estimated \$2.9 billion—needed for reliability and to meet state policy goals; four of these projects are eligible for competitive solicitation.⁷

What Happens After Winning the Solicitation – Once a transmission developer’s project proposal is selected in the competitive solicitation, it undergoes two application processes at the CPUC: a

² There are other transmission planning efforts, including local capacity requirements, special studies, interregional transmission project, and others that are not mentioned here for sake of clarity.

³ Called for under SB 350 (De León, Chapter 547, Statutes of 2015)

⁴ Via the Reference System Plan (RSP) and Preferred System Plan (PSP). The CPUC creates the Reference System Plan (RSP) to meet the electric sector target informed by the California Air Resources Board Climate Change Scoping Plan. The CPUC uses this RSP to establish filing requirements for the load-serving entities. The second year considers the procurement each load-serving entity proposes to meet these GHG targets. As each load-serving entity has its own local constraints to consider, each files its own plan. The CPUC reviews, modifies, and aggregates these individual load-serving entities’ plans into a preferred system plan (PSP). Based on the approved PSP, the CPUC considers authorizing load-serving entities to procure resources within the next 1-3 years to meet GHG planning targets.

⁵ D. 21-02-008 *Decision Transferring Electric Resource Portfolios to California Independent System Operator for 2021-2022 Transmission Planning Process*; R. 20-05-003; issued February 17, 2021.

⁶ Kavya Balaraman, “CAISO approves nearly \$3B of transmission projects to prepare for California’s clean energy goals,” *Utility Dive*, March 18, 2022.

⁷ See CAISO Notice from March 22, 2022, “2021-2022 Transmission Planning Process: Competitive Solicitation Key Selection Factors Posted,” <http://www.caiso.com/Documents/2021-2022-Transmission-Planning-Process-Competitive-Solicitation-Key-Selection-Factors-Posted.html>

California Environmental Quality Act (CEQA) review and a CPCN review. The CEQA review requires the examination of particular environmental issues such as water and air quality, noise, land uses, and agricultural, biological, mineral, and cultural resources, among others. As part of the CEQA review, alternatives to the proposed transmission project must be evaluated. The CPCN review considers the need for the project based on economic, reliability, and/or renewable goals. The CPCN review also requires the examination of alternatives, with a focus on cost-reduction. CAISO is often a party to these CPCN proceedings, making the case for why a particular transmission project is necessary, per their TPP.

Tracking Energy Development (TED) Task Force – The TED Taskforce is a recent joint effort of the CPUC, CEC, CAISO, and Office of Business and Economic Development (GO-Biz) to track new energy projects under development. According to the CPUC, the objective is to build on the success of ad hoc 2021 efforts to provide energy resource project development support, as appropriate, and identify barriers and mitigation strategies to accelerate energy project development. Currently, the TED Taskforce is focused on near-term projects, roughly 200 contracted projects needed for summer reliability in 2022 and 2023.

COMMENTS:

- 1) *Author's Statement.* According to the author, “While California has made tremendous strides in meeting our renewable energy goals, the closer we get to that 2045 deadline, the more difficult it will be to reach that goal. One of those difficulties is the need to bolster and expand our energy infrastructure, including the buildout of transmission facilities. We are falling behind in planning and building the electric transmission facilities needed to meet our clean energy and climate targets. This bill would lead to alternative funding mechanisms while aligning the transmission planning process with our GHG reduction goals.”
- 2) *Need for Alternative Financing.* One major provision of this bill seeks to study alternative financing mechanisms for new electric transmission facilities needed to meet the state’s clean energy goals. As highlighted in many discussions—most recently in this Committee’s informational hearing on March 30, 2022—California’s electric rates are increasing and forecasted to continue to increase at an alarming pace. According to the CPUC’s 2021 *Utility Costs and Affordability of the Grid of the Future Report*,⁸ electric transmission costs have been on the rise in recent years. The Transmission Access Charge (TAC) that is paid by all ratepayers has been increasing as a result, while the total gross load has been declining in the CAISO area.⁹

These increasing costs arise from both FERC-authorized rates, as well as IOU “self-approved” projects.¹⁰ In data reported to the CPUC by all three IOUs in July 2020,

⁸ Submitted pursuant to SB 695 (Kehoe, Chapter 337, Statutes of 2009); “Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1,” CPUC, February 2021.

⁹ Pg. 35, *Ibid.*

¹⁰ Projects that expand the capacity of the transmission grid are included in CAISO’s annual TPP, pursuant to requirements of FERC Order No. 890, which requires transparent transmission planning. However, a majority of the California IOUs’ transmission spending is not related to grid capacity expansion and therefore receives no review by the CAISO through the TPP. FERC has determined that Order 890 does not apply to projects that do not expand the capacity of the transmission grid. These projects that are outside of the scope of the TPP are referred to as “self-

transmission projects between 2016 and 2019 totaled over \$7.5 billion.¹¹ For 2020 and 2021 these totals were expected to increase to \$5.3 billion, with approximately 60 percent arising from self-approved projects. For comparison, in 2010 the transmission projects totaled less than \$950 million (roughly \$1.2 billion in today's dollars). Given this more than doubling of transmission costs, it seems opportune to explore alternative financing or lower cost ownership options. Additionally, as all the agencies identified as participants in the financing study—with the exception of the I-Bank—already participate in the TED Taskforce to track new energy projects under development, these agencies seem well positioned and coordinated to undertake such a study expeditiously, as called for under this bill.

- 3) *CPUC backstop of Transmission Cost Recovery.* Transmission owners recover the costs of CAISO-approved (and CPCN-awarded) projects through the TAC. The transmission owner submits an application to FERC to recover project costs. FERC approves just and reasonable costs with a rate of return. CAISO charges transmission customers based on the FERC-approved costs.

For transmission developers, the FERC generally sets and approves rates for their transmission projects. While for generation developers, the costs of the transmission needed to connect their power plant to the grid are traditionally funded through their generation project's development and construction costs. Once a generation project comes on line the costs of the transmission are recouped in the form of rates and the generation developer is paid back over time.

In the earlier days of the RPS, this process created problems in financing transmission lines that were primarily needed for new renewable generation development. A number of factors made it difficult for the generation developers to provide the upfront financing for the transmission lines. Instead, the electric utility, in some instances, would pay the upfront costs. However, the utilities did not want to be responsible for those costs—which require FERC approval for recovery—if the generation never came on line. The Legislature addressed this issue by allowing backstop cost recovery for renewable transmission projects. In other words, statute¹² allows the CPUC to guarantee that a utility that constructs transmission projects needed for meeting RPS requirements can obtain recovery in retail rates should FERC not permit wholesale rate recovery.

This bill extends this backstop financing protection to transmission projects found to facilitate achieving the SB 100 policy. It is unclear to the Committee how much this statutory provision has been employed over the past decade for RPS-needed transmission projects. And, as stated previously, FERC-approved costs have been increasing, rather than decreasing, over the last years. This seems to suggest expanding this backstop financing to transmission projects deemed necessary to achieve the SB 100 policy may have a small ratepayer impact. The expansion itself may be small, as the majority (60%) of the SB 100 policy applies to RPS-eligible resources whose transmission is already

approved.” A TO rate case at FERC includes no review of specific utility self-approved projects. The end result is that there is no state or federal review on either the need or costs for these self-approved projects.” Pg. 39, *Ibid.*

¹¹ Approximately \$4.5 billion (60 percent) of these were utility self-approved, while \$3 billion were CAISO-approved. Pg. 39, *Ibid.*

¹² Public Utilities Code § 399.2.5 as added under AB 1954 (Skinner, Chapter 460, Statutes of 2010)

permitted to access this backstop financing. Moreover, this statute provides that ultimate rate recovery is still subject to review by the CPUC to ensure that utilities incur costs reasonably and prudently.

- 4) *Is it Still Competitive?* As described above, new transmission projects that are found necessary in the CAISO's TPP undergo a competitive solicitation process, where bids from transmission developers are submitted and the best option is chosen based on a number of criteria. This competitive solicitation process dates back to 2010,¹³ and is now incorporated into CAISO's Electric Tariff at FERC¹⁴ and called for under FERC Order 1000.¹⁵

This bill mandates the CPUC to direct IOUs to file for a CPCN if a transmission facility is identified in the CAISO's TPP as needed to achieve the SB 100 policy. In doing so, this bill inadvertently subverts the competitive solicitation process at the CAISO, which requires a competitive bidding process prior to the winner of the process filing a CPCN. The author has indicated this is not the intent of the legislation. Rather they note frustration with the current CPUC regulatory process governing transmission development.

This bill seeks to establish more streamlining of the current transmission approval process. However, the intent of the measure is not to overhaul the CAISO's competitive solicitation process, but rather to create a presumption of need if the CAISO's TPP has already identified a transmission project helps achieve the SB 100 policy. *As such, the author and committee may wish to strike Section 454.53(f)(2) of this bill to ensure CAISO's competitive solicitation process is unaffected.*

- 5) *Additional amendments needed.* *The author and committee may wish to amend this bill to clarify or reword some of the findings and declarations to more accurately reflect the existing challenges of transmission development in the state.*
- 6) *Related Legislation.*

SB 887 (Becker, 2022) adjusts the planning horizon for the annual electricity transmission plan from 10-years to 15-years, and requires approval of at least two transmission projects as part of the CAISO 2022-23 transmission planning process. Status: Referred to the Senate Committee on Appropriations after passage in the Senate Committee on Energy, Utilities, and Communications on March 28th, 2022. Vote: 13 Ayes, 1 NVR.

SB 1032 (Becker, 2022) creates the Clean Energy Infrastructure Authority as a public instrumentality of the state for the purpose of leading the state's efforts to build critical electrical transmission infrastructure necessary to enable the state to transition to 100 percent clean energy, as specified. Status: *pending hearing* in the Senate Committee on Energy, Utilities, and Communications.

¹³ CAISO, "Competitive Solicitation Process Enhancements," October 12, 2015, pg. 5.

¹⁴ CAISO, eTariff, § 24.5.1;

https://www.caiso.com/Documents/Section24_ComprehensiveTransmissionPlanningProcess_asof_Sep27_2017.pdf

¹⁵ FERC Order 1000 – Transmission Planning and Cost Allocation; <https://www.ferc.gov/electric-transmission/order-no-1000-transmission-planning-and-cost-allocation>

SB 1174 (Hertzberg, 2022) requires specified reporting related to electric transmission projects, and also requires the CPUC in coordination with other state agencies to identify and advance all interconnections or transmission approvals necessary, as specified.

Status: Referred to the Senate Committee on Appropriations after passage in the Senate Committee on Energy, Utilities, and Communications on March 28th, 2022. Vote: 10 Ayes, 4 NVR.

SB 1274 (McGuire, 2022) would include, as a project eligible for streamlining benefits related to CEQA certification, a clean energy transmission project that upgrades existing transmission infrastructure to bring renewable energy from an offshore wind project located within or adjacent to the County of Humboldt that meets specified requirements.

Status: *pending hearing* in the Senate Committee on Environmental Quality.

7) *Prior Legislation.*

SB 100 (De León) established the 100 Percent Clean Energy Act of 2018 which increases the RPS requirement from 50 percent by 2030 to 60 percent, and created the policy of planning to meet all of the state's retail electricity supply with a mix of RPS-eligible and zero-carbon resources by December 31, 2045, for a total of 100 percent clean energy.

Status: Chapter 312, Statutes of 2018.

AB 1954 (Skinner) authorizes the CPUC to approve in advance the recovery through electricity rates of the costs of a transmission project proposed to meet the state's RPS goals. The bill provides that ultimate rate recovery is still subject to review by the CPUC to ensure that the utility incurred the costs reasonably and prudently. Status: Chapter 460, Statutes of 2010.

- 8) *Double Referral.* This bill is double-referred; upon passage in this Committee, this bill will be referred to the Assembly Committee on Natural Resources.

REGISTERED SUPPORT / OPPOSITION:

Support

American Clean Power Association
California Environmental Voters (formerly CLCV)
Central California Asthma Collaborative
Clean Power Campaign
Environmental Defense Fund
Independent Energy Producers Association
Large-scale Solar Association
Solar Energy Industry Association

Opposition

None on file.

Analysis Prepared by: Laura Shybut / U. & E. / (916) 319-2083