Date of Hearing: June 22, 2022

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Eduardo Garcia, Chair
SB 1174 (Hertzberg) – As Amended May 19, 2022

SENATE VOTE: 39-0

SUBJECT: Electricity: eligible renewable energy or energy storage resources: transmission and interconnection

SUMMARY: Requires specified reports and regulatory actions related to transmission and modifies planning priorities for the management of peak demand. Specifically, **this bill**:

1) Requires electrical corporations (IOUs) that own transmission to include in annually mandated reports on renewable procurement, a report on any delays to in-service dates of new renewable generation or battery storage and remedial actions to address and minimize delays.

2) Requires the CPUC to consider the role of transmission in helping to ensure that load-serving entities (LSEs) meet energy and reliability needs during peak demand and eliminates the requirement that the CPUC give consideration to reducing the need for new generation and transmission to meet peak demand as part of its review of integrated resource plans (IRPs).

3) Requires the CPUC, in coordination with specified agencies, to identify all interconnection or transmission projects necessary to ensure that renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers by 2045, and that necessary approval processes for transmission projects are prioritized.

EXISTING LAW:

1) Requires every IOU that owns transmission to annually identify and report to the CPUC any electrical transmission facility, upgrade, or enhancement that is reasonably necessary to achieve its Renewables Portfolio Standard (RPS) requirements looking out five years. (Public Utilities Code § 399.13 [a][2][A])

2) Requires the filing of IRPs by LSEs showing how each entity will meet greenhouse gas reduction targets and the RPS at reasonable rates while ensuring reliability. (Public Utilities Code § 454.52 [a][1])

3) Requires the CPUC to consider the role of existing renewable generation, grid operational efficiencies, energy storage, and distributed energy resources in helping to ensure LSEs meet energy and reliability needs during peak demand, while reducing the need for new electricity generation resources and new transmission resources in achieving the state's energy goals at the least cost to ratepayers. (Public Utilities Code § 454.52 [a][2][B][3])

4) Establishes as the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045 (SB 100 policy). (Public Utilities Code § 454.53)

5) Requires the CPUC to annually report specified information to the Legislature in order to evaluate the progress of the IOUs in complying with the Renewables Portfolio Standard (RPS). (Public Utilities Code § 913.4)

FISCAL EFFECT:

According to the Senate Appropriations Committee:

- Unknown costs of up to $1.7 million annually (PUC Utilities Reimbursement Account) for CPUC to identify projects, prioritize approval processes, and coordinate with the California Energy Commission (CEC), California Air Resources Board (ARB), California Independent System Operator (CAISO), and internally, among other things.

- Unknown but likely significant costs, potentially in the range of $100,000 to $200,000 (General Fund or special funds), for the CEC and ARB to coordinate with CPUC as necessary.

BACKGROUND:

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.[1] 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) process[2] to identify the optimal mix of system-wide resources capable of meeting greenhouse gas planning targets for the electric sector.[3] 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.[4] 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.

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[1] 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.

[2] Called for under SB 350 (De León, Chapter 547, Statutes of 2015)

[3] 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.

[4] 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.

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,[5] 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.[6]

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 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, "California is facing an unprecedented need for renewable energy resources to power the state's electric grid over the next 10 to 20 years. This heightened need is driven by increased customer demand for clean energy, the continued electrification of transportation and other industries, and state greenhouse

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[5] Kavya Balaraman, "CAISO approves nearly $3B of transmission projects to prepare for California's clean energy goals," *Utility Dive*, March 18, 2022.
[6] 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

gas reduction and renewable energy objectives. This transformation necessitates a substantial build out of transmission systems to deliver the new added capacity to end-use customers – our clean energy ambitions are nothing more than goals without the right infrastructure. California not only needs more clean power, it needs a modern transmission system that can deliver it to every community. SB 1174 will connect the state's bold plans for electrifying our economy with common-sense policy for ramping up the clean energy and modern infrastructure required to power a cleaner, greener California."

2) *IOUs, Interconnection, & Transmission.* The state's IOUs build, own and manage most of the transmission and distribution that serves their customers. Consequently they play an integral role interconnecting new generation and battery resources generally owned by merchant developers. Interconnection is largely guided by an interconnection agreement between the utility, the merchant developer, and the CAISO after the completion of interconnection studies. The utility determines the timelines for interconnection during the interconnection studies which is then reflected in the interconnection agreement as the expected in-service date. The in-service date of a project can be affected by many factors from build to bid into the CAISO markets including permitting, engineering, procurement and construction of generation and transmission.

   This measure requires the IOUs to report generally on in-service delays of energy and storage resources pending interconnection and to identify all remedial actions to address and minimize the delays. The IOU is responsible for transmission construction or upgrades to facilitate interconnection but delays to the in-service date of an energy or storage resource can be affected by many other factors of which the utility has no knowledge or involvement (e.g. construction of the resource). Additionally, the term delay can be subjective. The developer may perceive a delay that the utility does not. If the utility doesn't characterize the project as delayed, it would have nothing to report.

   Consequently the committee may wish to consider amending the bill to require the IOUs to report on the status of all interconnection work for which there is an active interconnection agreement and the reasons for changes to the in-service dates.

   > *(B) Each electrical corporation that owns electrical transmission facilities shall annually prepare, and submit to the commission, a ~~consolidated~~ report on ~~any delays to~~ the in-service dates of eligible renewable energy resources or energy storage resources that have executed interconnection agreements and that are active. ~~and~~ The report shall identify ~~all prudent remedial actions to address and minimize those~~ the reason for any changes to the status of in-service dates.*

3) *Demand Reduction or New Construction?* This measure directs the CPUC to consider the role of transmission in meeting peak demand but also strikes from current law a requirement that the CPUC consider load reduction resources (e.g. demand response and energy efficiency) which the Legislature adopted in 2017 to address the challenges of meeting peak demand.[7] This phrase is reflective of the state's loading order which intends that cost effective energy efficiency and demand response be accomplished before new generation and transmission. The kilowatt of electricity not needed has

[7] SB 338 (Skinner, Chapter 389, Statutes of 2017.)

historically been less costly than building a new kilowatt of electricity generation and transmission. *Consequently, the committee may wish to consider reinstating the phrase "while reducing the need for new electricity generation resources and new transmission resources" at page 11, line 7, between "399.12" and "and".*

4) *Additional Transmission Planning.* Several state agencies are asked to "identify all interconnection or transmission projects necessary to achieve" the SB 100 goals. On its face this appears to replicate the work in the CAISO's annual transmission plan which has historically encompassed ten years although the CAISO did recently take the initiative to produce a 20-year assessment. There is no detail or foundation provided for what the other agencies could produce that is not reflected in the CAISO's plans.

   The measure also directs these same agencies to "prioritize necessary approval processes" for transmission projects. It appears that this direction concerns the federal, state, and local permits required to complete those projects. However, permitting requirements are complex, multiple, and varied. This type of information would need the lead entity to determine specifically for each project which would most likely be the IOU building the transmission. There are two other bills pending (SB 887 (Becker) and AB 2696 (E. Garcia) which address transmission planning in far greater detail. *Consequently, the committee may wish to consider striking this requirement at page 13, lines 34-40, and page 14, lines 1-3.*

5) Related Legislation.

   SB 1032 (Becker) Requires the CEC to identify, study, and report on proposals to accelerate the development and reduce the costs of transmission. Status: Set for hearing in Assembly Utilities & Energy Committee June 22, 2022.

   AB 2696 (E. Garcia) Requires the CEC, in consultation with other agencies, to conduct a study to review potential lower cost ownership and alternative financing mechanisms for new transmission facilities. Status: Set for hearing in Senate Energy, Utilities & Communications June 21, 2022.

6) Prior Legislation.

   SB 338 (Skinner) Requires the CPUC and the governing board of each local POU to each consider the role of a variety of energy technologies and resources in meeting energy and reliability needs during and around the hour of peak demand while reducing the need for new generation and transmission resources. Status: Chapter 338, Statutes of 2017.

REGISTERED SUPPORT / OPPOSITION:

Support

American Clean Power Association
California Energy Storage Alliance
California Environmental Voters (formerly Clcv)
California State Association of Electrical Workers
Clean Power Campaign

Coalition of California Utility Employees
Independent Energy Producers Association
Large-scale Solar Association
Silicon Valley Leadership Group
Solar Energy Industry Association

Opposition

None on file.

Oppose Unless Amended

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