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**SENATE COMMITTEE ON ENERGY, UTILITIES AND  
COMMUNICATIONS**  
**Senator Ben Hueso, Chair**  
**2021 - 2022 Regular**

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**Bill No:** SB 887 **Hearing Date:** 3/28/2022  
**Author:** Becker  
**Version:** 3/8/2022 Amended  
**Urgency:** No **Fiscal:** Yes  
**Consultant:** Nidia Bautista

**SUBJECT:** Electricity: transmission facility planning

**DIGEST:** This bill 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 California Independent System Operator (CAISO) 2022-23 transmission planning process.

**ANALYSIS:**

Existing law:

- 1) Establishes that U.S. Federal Energy Regulatory Commission (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 & conditions of interstate electric transmission by public utilities. (Federal Power Act §§§201, 205, 206 (16 USC 824, 824d, 824e))
- 2) 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)
- 3) Establishes the California Public Utilities Commission (CPUC) with jurisdiction over all public utilities, including electrical and gas corporations. Grants the CPUC certain general powers over all public utilities, subject to control by the Legislature. (Article XII of the California Constitution)
- 4) Requires the California Energy Commission (CEC) to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices and to use these assessments and forecasts to develop and evaluate energy policies and programs that conserve resources, protect the environment, ensure energy reliability, enhance the state's

economy, and protect public health and safety. (Public Resources Code 25301(a))

- 5) Requires the CPUC, as part of the Public Utilities Act, 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 act also requires the CPUC, in consultation with the State Energy Resources Conservation and Development Commission (CEC), to identify all potentially achievable cost-effective electricity efficiency savings and establish efficiency targets for an electrical corporation, as specified. (Public Utilities Code §§454.51 and 454.55)

This bill:

- 1) Requires the CPUC, on or before January 15, 2023, to request the CAISO to identify the highest priority transmission facilities that are needed to allow for reduced reliance on carbon-emitting electrical generation resources in transmission-constrained urban areas by delivering renewable energy resources or zero-carbon resources that are expected to be developed by 2035 into those areas and to approve at least two of the identified transmission projects as part of the CAISO's 2022–23 transmission planning process.
- 2) Requires the CPUC, in consultation with the CEC and the California Air Resources Board (CARB), to provide transmission-focused guidance to the CAISO about resource portfolios of expected future renewable energy resources and zero-carbon resources to allow the CAISO to identify and approve transmission facilities needed to allow for full deliverability of those resources to load centers.
- 3) Expresses the policy of the state that new transmission facilities incorporate into their planning wildfire risk reduction and increased system-wide reliability and cost efficiency, among other goals.

## 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. As a general matter, BAs may contain transmission operators. As with other BAs, the CAISO is regulated

by federal statute and regulations with oversight by FERC and the North American Energy Reliability Corporation (NERC).

*Transmission planning process.* Each year, the CAISO conducts its transmission planning process to identify potential system limitations as well as opportunities for system reinforcements that improve reliability and efficiency. The transmission plan fulfills the CAISO's core responsibility to identify and plan the development of solutions, transmission or otherwise, to meet the future needs of the electricity grid. The CAISO Transmission Plan provides a comprehensive evaluation of the CAISO transmission grid to address grid reliability requirements, identify upgrades needed to successfully meet California's policy goals, and explore projects that can bring economic benefits to consumers. The plan relies heavily on key inputs from state agencies in translating legislative policy into actionable policy driven inputs. The development of the transmission plan entails 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 Governor approval of transmission plan and associated transmission projects. The plan is prepared in the larger context of supporting important energy and environmental policies while maintaining reliability through a resilient electric system.

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., renewable portfolio standard);
- Economic projects that reduce congestion, production costs, transmission losses, capacity requirements or other electric supply costs.

Additionally, there are other transmission planning efforts, including local capacity requirements, special studies, interregional transmission project, and others. Transmission owners recover the costs of ISO-approved projects through the Transmission Access Charge (TAC). The transmission owner submits an application to FERC to recover project costs. FERC approves just and reasonable costs and rate of return. CAISO charges transmission customers based on FERC-approved costs.

*Forecasting by CEC and supply-side inputs by CPUC.* The CEC conducts demand forecast that is used to inform several planning processes, including the CAISO's transmission planning process. The demand forecast is often a ten-year outlook for electricity and natural gas sales, consumption, and peak and hourly electricity demand. The most recent demand forecast published in January of this year was a 15 year forecast. Additionally, the CPUC provides energy resource supply-side

inputs, including an annual resource portfolio, to inform the transmission planning by the CAISO.

*Transmission Development Forum.* The Transmission Development Forum is a recent joint effort between the CAISO and the CPUC to discuss and track Participating Transmission Owners expansion and network upgrade projects and schedules. The Transmission Development Forum creates a single forum to track the status of transmission network upgrade projects that affect generators and all other transmission projects approved in the CAISO's transmission planning process. The effort allows for increased transparency for all stakeholders about transmission projects and enhances accountability of transmission owners by having them explain schedule changes, delays, and address stakeholders' questions.

*Tracking Energy Development (TED) Task Force.* The TED Taskforce is also 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.

*SB 100 (De León, Chapter 312, Statutes of 2018).* SB 100 established the 100 Percent Clean Energy Act of 2017 which increases the Renewables Portfolio Standard (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. SB 100 also required CARB, CEC, and CPUC to issue a joint report by January 1, 2021, and at least every four years, that describes technologies, forecasts, affordability, and system and local reliability. The report is required to include an evaluation of costs and benefits to customer rate impacts, as well as, barriers to achieving the SB 100 policy. The first Joint Agency report was issued January 2021.

*CAISO 20-year Transmission Outlook.* The CAISO embarked on creating 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 greenhouse gas (GHG) reduction and renewable energy objectives reliably and cost-effectively. The CAISO also 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.

*SB 887.* This bill seeks to require the CPUC and CEC to provide forecasts and inputs to the CAISO that extend at least 15 years into the future to inform transmission planning process. Specifically, this bill would require the CPUC, in consultation with the CEC and CARB, to provide transmission-focused guidance to the CAISO about resource portfolios of expected future renewable energy resources and zero-carbon resources. Requires the guidance to include allocation of resources by region, make full use of studies completed before January 1, 2023, and additional projections each year to support the CAISO's planning and approvals in its annual transmission planning process. This bill would require the CPUC and CEC to provide 15-year resource portfolios and demand forecasts, provide load growth projections that achieve economy-wide GHG reductions, eliminate the need for carbon-emitting resources for reliability in locally constrained regions by no later than 2035, among other provisions. Additionally, this bill requires the CPUC to require the CAISO, before January 15, 2023, to (1) identify the highest priority transmission projects, and (2) approve at least two of the transmission projects identified. This bill also makes several findings and declarations and establishes certain policies of the state regarding transmission facilities and reduced reliance on carbon-emitting resources.

*Replacing 10-year planning with 15-year planning.* The author and supporters note the desire to better plan and prepare for the transmission needs to achieve the SB 100 goals, given the long lead times needed to build new transmission. As noted by the recently released 20-year Transmission Outlook, the need for new transmission is likely to be great. A 15-year outlook may prove to be more certain than a 20-year outlook, but less certain than a 10-year. Nonetheless, the author is correct to note the need to better plan for long lead time new transmission. The CPUC has noted in recent FERC filings, it would support a longer planning horizon. However, such a change may not happen quickly and would entail transforming many yet to be identified, data collection and inputs to accommodate this transformation. As such, the author may wish to consider including a date by when these changes may be concluded that is further out than January 2023. In this regard, the requirement in this bill to have the CPUC request the CAISO approve two transmission projects for incorporation into the 2022-23 transmission plan may be premature. *As such, the author and committee may wish to amend this bill to instead request the CAISO to determine whether it may need to approve one or more least-regrets project(s).*

*Reduced reliance on carbon-emitting resources.* As proposed in this bill, the CPUC and CEC would need to provide inputs to the CAISO that reduce reliance on carbon-emitting resources, including eliminating reliance on gas-fired power plants for reliability in locally constrained regions at times when sufficient renewable energy resources and zero carbon resources would be available outside those locally constrained regions. While this bill does not, in and of itself, eliminate the use of carbon emitting resources, it would require the state to forecast and plan transmission projects in a manner that would expand transmission to provide greater access to zero-carbon resources to help satisfy these local needs. The CPUC has noted the need to rely on gas-fueled power plants for reliability for likely the next 10 years and possibly through 2045. In this regard, the 2035 date in this bill seems to coincide with the CPUC's 10-year projection, but not align with a 2045 date should these resources continue to be needed to provide local reliability. However, the author and supporters argue that the need to plan transmission is necessary if we are able to retire the use of carbon-emitting resources that do not satisfy the state's SB 100 goals.

*Too soon?* This bill would require the CPUC, CEC, and CAISO to take actions by January 15, 2023, roughly two weeks from the date this bill would be enacted should it be passed by the Legislature and signed by the Governor. The author notes this date may seem ambitious, but a signature on this bill could occur as late as September, and the author believe this may be sufficient time before the January dates. Should this bill move forward, the author may wish to revisit the timing of actions noted in this bill.

*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 and procedures.**

### **Prior/Related Legislation**

SB 1174 (Hertzberg) 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. The bill is scheduled to be heard in this committee on March 28<sup>th</sup>.

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. The bill is pending in this committee.

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. The bill is pending in the Committee on Environmental Quality.

SB 100 (De León, Chapter 312, Statutes of 2018) established the 100 Percent Clean Energy Act of 2017 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.

**FISCAL EFFECT:** Appropriation: No Fiscal Com.: Yes Local: Yes

**SUPPORT:**

350 Humboldt: Grass Roots Climate Action  
 350 Silicon Valley  
 California State Association of Electrical Workers  
 California Wind Energy Association, if amended  
 Carbon Free Mountain View  
 Carbon Free Palo Alto  
 Carbon Free Silicon Valley  
 Coalition of California Utility Employees  
 Environmental Defense Fund  
 Foundation for Climate Restoration  
 Large-scale Solar Association  
 Silicon Valley Youth Climate Action  
 Solar Energy Industry Association

**OPPOSITION:**

Independent Energy Producers Association

**ARGUMENTS IN SUPPORT:** According to the author:

We cannot meet the goals of SB 100 -- reaching 100% renewable or zero carbon electricity by 2045 -- without building the transmission necessary to deliver that clean power to our cities. SB 887 will accelerate planning and approval of new transmission to help us get to 100% clean energy. The Joint Agencies SB 100 report estimated that we will need to triple the state's electric generation capacity by 2045. California's transmission grid is not

prepared to deliver this vast increase in clean energy... And this problem is only going to get worse as the electrification of transportation and buildings increases demand for electricity – unless we begin to build the transmission capacity that we will need to handle the clean energy grid of the future. It is urgent that we get started on this transmission build out now because major new transmission projects often take 10 years or more to build...

California is on a path to build tens of thousands of megawatts of new clean electricity generation, but without comparable efforts to expand our transmission capacity, this effort will fail to meet our climate goals. SB 887 will cause our state agencies to focus on the urgent need for transmission to ensure it is tackled in a timely and cost-effective manner and does not become a barrier to the state's clean energy transition.

**ARGUMENTS IN OPPOSITION:** The Independent Energy Producers (IEP) oppose this bill because (1) it would create a new 15-year planning horizon which complicates, not simplifies, the transmission planning and approval process, which may require a FERC approved tariff; (2) the CAISO already does an annual analysis of Local Constrained Areas. IEP argues that this bill would dictate the elimination of natural gas plants that are used as reliability resources without regard to cost-effectiveness.

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