SENATE COMMITTEE ON ENERGY, UTILITIES AND COMMUNICATIONS
Senator Josh Becker, Chair
2025 - 2026 Regular

Bill No:	AB 1408	**Hearing Date:**	7/15/2025
Author:	Irwin		
Version:	6/19/2025 Amended		
Urgency:	No	**Fiscal:**	Yes
Consultant:	Nidia Bautista		

SUBJECT: Electricity: interconnections

DIGEST: This bill requires specified actions of electrical corporations, local publicly owned electric utilities, and the California Independent System Operator (CAISO) to evaluate, consider, and integrate surplus interconnection, generally understood as additional available capacity on the transmission system.

ANALYSIS:

Existing law:

1) Establishes and vests the California Public Utilities Commission (CPUC) with regulatory authority over public utilities, including electrical corporations. (California Constitution, Article XII)

2) Establishes the CAISO as a nonprofit, public benefit corporation and requires the CAISO, among other duties, to ensure the efficient use and reliable operation of the transmission grid consistent with the achievement of planning and operating reserve criteria, as provided. (Public Utilities Code §345.5)

3) Requires the CPUC to adopt a process for each load-serving entity (LSE) to file an integrated resource plan (IRP), adopt a schedule for periodic updates to the IRP, and ensure each LSE take specified actions, as specified. (Public Utilities Code §454.52)

4) Requires the governing board of each local publicly owned electric utility (POU) with an annual electrical demand exceeding 700 gigawatt hours (GWh) to adopt an IRP and a process for updating the plan at least once every five years to ensure the utility achieves certain goals, as specified. (Public Utilities Code §9621)

This bill:

1) Requires the CAISO to integrate surplus interconnection considerations into its long-term transmission planning and enhance transparency around surplus interconnection opportunities in order to maximize opportunities for federal tax credits.

2) Requires each electrical corporation, and each local POU with an annual electrical demand exceeding 700 GWh, to require the evaluation of surplus interconnection options and to consider surplus interconnection options, for purposes of its IRP.

3) Requires each electrical corporation or local POU to use available grid infrastructure through surplus interconnection to use any available interconnection capacity, such as the addition of renewable energy resources or battery energy storage.

Background

Federal Policies to Modernize the Transmission Grid. Federal Energy Regulatory Commission (FERC) Order No. 845 (issued in 2018) reformed the federal rules governing how large energy projects (20 megawatts (MW) and above) connect to the transmission grid. It modernized the generator interconnection process to improve transparency, reduce costs, and accommodate the rapid growth of renewable energy resources like wind and solar. Key reforms included requiring transmission providers to publicly post available interconnection capacity, allowing flexible interconnection options (such as energy-only service without firm transmission rights), enabling multiple projects to share a single interconnection point (surplus interconnection), and improving the process for project withdrawal without financial penalties. These reforms were driven by mounting concerns over long study backlogs, high costs, and the barriers facing clean energy development. FERC issued Order No. 845 following a multi-year stakeholder engagement process.

FERC Order No. 845 laid the foundation for the broader reforms in FERC Order No. 2023, issued in 2023. Order 2023 builds directly on the principles established in Order 845, further addressing persistent interconnection backlogs by mandating cluster studies (instead of project-by-project reviews), stricter study deadlines, standardized technical requirements, and more efficient cost allocation frameworks. Where Order 845 focused on improving fairness and transparency, Order 2023 streamlined the entire process to prevent delays and support federal goals for clean energy deployment. Together, these orders reflect a federal

regulatory shift toward modernizing the nation's grid infrastructure to accommodate a massive expansion of renewable and storage technologies.

Surplus Interconnection. Surplus Interconnection Service (SIS), as established by FERC in Order No. 845, refers to the unused portion of interconnection capacity at an existing generator's point of interconnection. This service allows new generating facilities – such as solar arrays, wind turbines, or battery storage systems – to connect to the grid using the existing infrastructure, provided that the combined output does not exceed the originally approved interconnection capacity. The primary advantage of SIS is that it enables these additional resources to bypass the often lengthy and complex standard interconnection queue, facilitating faster deployment of clean energy projects. However, SIS is typically limited to scenarios where no new network upgrades are required, and its availability is contingent upon the continued operation of the original generating facility. The SIS approach not only optimizes the use of existing grid infrastructure but also supports the integration of renewable energy sources by reducing interconnection delays and associated costs.

Comments

Need for this bill. According to the author:

> California's ambitious electrification goals will require the addition of a myriad of clean energy resources to serve load by 2035. The CPUC estimates that California will need to add 56 GW of clean power to serve load by 2035. Those clean energy projects must be connected to the grid after undergoing rigorous studies and impact reports. Only after an average 4-year study timeline for interconnection, these projects are added to a lengthening interconnection queue. The Federal Energy Regulatory Commission and the U.S. Department of Energy have identified Surplus Interconnection Service as a savvy, medium-term solution to delays in the interconnection process. Surplus Interconnection Service allows for clean energy projects to be sited near or at existing fossil power plants and share power grid access. Many fossil power plants do not utilize their allotted operating capacity, allowing for other energy users to connect to the grid using the existing interconnection at the fossil power plant. This method expedites clean energy projects, and saves ratepayers money from the reduction in necessary transmission and distribution infrastructure.

Potential but further study of opportunities needed. A February report by GridLab noted the national potential of surplus interconnection capacity. The report noted that 1,500 gigawatts (GW) of solar and wind and over 1,000 GW battery storage remain stalled in interconnection transmission queues, with median wait times

increasing from less than two years in 2000-2007 to five year for projects built in 2023. These bottlenecks are further compounded by extended lead times for critical grid equipment (including transformers and breakers). The GridLab report suggests that a promising solution is leveraging existing grid infrastructure through interconnection sharing, specifically the addition of renewable energy or battery storage capacity at or near fossil fuel plants to utilize their existing capacity. The report noted a number of potential benefits to this approach, including alignment with a least-cost power system in many states and included several recommendations. This bill encompasses some of the recommendations.

Chasing federal tax credits. This bill would require surplus interconnection capacity in order to maximize federal production and investment tax credits for clean energy. These tax credits are largely from the Inflation Reduction Act (IRA) adopted under the Biden administration which have been slashed in the recently adopted Budget Reconciliation Act under the Trump administration. These tax credits for solar and wind have been limited to requiring construction to begin within a year of the bill being signed in order to benefit from the tax credits. More recently, President Trump issued an executive order directing the U.S. Treasury to place additional limits to ensure these projects do not circumvent the requirement that construction must begin within a year. There's concern that treasury guidance could further limit the timing of the start of construction. In the case of battery storage, the tax credits seem to be available for a longer time horizon (a couple of additional years).

Amendments needed. *The author and committee may wish to amend this bill to incorporate the CAISO definition for surplus interconnection capacity.*

Prior/Related Legislation

AB 2779 (Petrie-Norris, Chapter 741, Statutes of 2024) required the CAISO to report to the CPUC and to relevant policy committees in the Legislature any new use of any grid-enhancing technologies (GETs) and their associated cost and efficiency savings.

SB 1006 (Padilla, Chapter 597, Statutes of 2024) required electrical transmission utilities, by January 1, 2026, to develop studies on the feasibility of using GETs and advanced reconductors, and specifies the content and cadence of those studies.

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

SUPPORT:

Environment California (Sponsor)
Advanced Energy United
Independent Energy Producers Association

OPPOSITION:

None received

ARGUMENTS IN SUPPORT: According to Environment California, the sponsor of this bill:

> Leveraging existing interconnection infrastructure offers a significant opportunity to rapidly expand our clean energy and storage capacity. By enabling new renewable generation and storage at sites already connected to the grid, we can bypass the often lengthy and complex process of developing new transmission infrastructure, leading to faster deployment of crucial clean energy resources. Furthermore, supporting surplus interconnection maximizes our ability to capture the expiring federal Investment Tax Credit (ITC) and Production Tax Credit (PTC). These federal incentives are essential for making renewable energy projects economically viable. The ability to quickly build and connect new clean energy and storage at existing sites will help project developers meet deadlines and fully utilize these credits, ensuring California benefits from substantial federal investment in our clean energy infrastructure.

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