

Date of Hearing: April 26, 2023

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY

Eduardo Garcia, Chair

AB 1293 (Irwin) – As Amended April 17, 2023

SUBJECT: Interconnection: prioritization

Requires the California Public Utilities Commission (CPUC) to provide guidance to investor-owned utilities (IOUs) for the prioritization of interconnection projects, including that the project is shovel-ready, as determined by the CPUC.

EXISTING LAW:

- 1) Authorizes the CPUC to establish an expedited distribution grid interconnection dispute resolution process with the goal of resolving disputes over interconnection applications within the jurisdiction of the CPUC in no more than 60 days from the time the dispute is formally brought to the CPUC. (Public Utilities Code § 769.5)
- 2) Requires an IOU to permit any new or existing customer who applies for an extension of service from that IOU to install a gas or electric extension in accordance with the regulations of the commission and any applicable specifications of that electrical or gas corporation. (Public Utilities Code § 783)
- 3) Limits the application of state and local building standards to those in effect on the date an application for a building permit is submitted to a local building department. (Health & Safety Code § 18938.5)
- 4) Requires that a local building permit remain valid for 12 months after it is issued, if the work on the site is commenced within 12 months; allows a permittee to apply for extensions. (Health & Safety Code § 18938.6)
- 5) Establishes guidelines for the design, cost allocation, and responsibilities of a project applicant and a utility for electric distribution line extensions necessary to furnish permanent electric service. (Electric Rule 15)
- 6) Establishes guidelines for the design, cost allocation, and responsibilities of a project applicant and a utility for the extension of electric service from an IOU distribution line. (Electric Rule 16)

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

BACKGROUND:

IOUs and Interconnection – California’s IOUs build, own, and manage most of the transmission and distribution that serves their customers. Consequently, the IOUs play an integral role in interconnecting new generation and battery resources, which are generally owned by merchant developers. These interconnection projects are split into two queues: the distribution

interconnection queues, which are operated by the individual IOUs, or the transmission interconnection queue, which is operated by the California Independent System Operator (CAISO) but also involves the utilities. Which of the two queues a project enters is determined by the desired interconnection voltage level of the project. Projects exceeding a specific voltage threshold, set by whichever IOU covers the territory that the project is sited in, are routed into the transmission queue and shepherded through the process by CAISO.¹

Figure 1- The Parallel Interconnection Queues for Transmission and Distribution-level Projects.²



Connecting to the Transmission Grid – The interconnection process is largely guided by an agreement between the utility, the merchant developer, and CAISO after the completion of interconnection studies conducted by CAISO. The timeline for interconnection is based on the study results and is reflected within the interconnection agreement as the expected in-service date. After a resource has completed the study phases of the interconnection process, contracts must be signed, the resource must be modeled in the CAISO’s market systems, and metering and telemetry equipment will need to be installed before participation in the wholesale power market is allowed.³ The in-service date of a project can be affected by a wide variety of factors including permitting, engineering, procurement, and construction of generation and transmission.

National Efforts to Address Transmission Interconnection Delays – PJM, a regional transmission organization (RTO) which covers the Mid-Atlantic United States, recently received approval from the Federal Energy Regulatory Commission (FERC) for a plan to accelerate energization of new generation resources to the transmission grid by modifying the RTO’s interconnection queue.⁴ The PJM interconnection queue will move to a “first-ready, first-served” review process that groups proposals and assigns upgrade costs in clusters. While PJM clears out its pending backlog of interconnection requests, the grid operator won’t review new interconnection requests until early 2026. The plan includes a transition phase that will prioritize half of the pending projects, introduces a “fast-lane” process for projects to help clear the existing backlog, and will impose new requirements, such as “readiness deposits,” that aim to remove more speculative projects from the queue.

Connecting to the Distribution Grid – Rules governing the ability of new buildings, electricity generation, and storage resources to connect to the electric distribution grid are generally

¹ California ISO; “Getting started - exploring interconnection to the grid”; <http://www.caiso.com/participate/Pages/ResourceInterconnectionGuide/default.aspx>

² California ISO; “Getting started - exploring interconnection to the grid”; <http://www.caiso.com/participate/Pages/ResourceInterconnectionGuide/default.aspx>

³ California ISO; “Getting started - exploring interconnection to the grid”; <http://www.caiso.com/participate/Pages/ResourceInterconnectionGuide/default.aspx>

⁴ Utility Dive; “FERC approves PJM’s ‘first-ready, first-served’ interconnection reform plan, steps to clear backlog”; December 2022; <https://www.utilitydive.com/news/ferc-pjm-interconnection-reform-plan-queue/637717/>

determined by statute, CPUC rules, and tariffs⁵ for each of the IOUs. These service connections include:

- Interconnections, which generally refer to the interaction of physical connection of an energy generation or storage device to the electric distribution system that is either in front of the meter or behind-the-meter. Interconnection is a defined term in utility tariff rules that generally describe an electric utility’s physical connection to an external source of power. The interconnection process of generation resources is largely structured by Electric Tariff Rule 21.⁶
- New service connections, also known as “energization”, involve extending an electricity line or expanding distribution infrastructure to service new or expanded customer load. Energizations are subject to provisions specified in Electric Tariff Rule 15 and Electric Tariff Rule 16.

Talking Tariffs – Electric Tariff Rule 21 describes the interconnection, operating, and metering requirements for generation facilities to be connected to an electrical utility’s distribution system. The tariff provides customers who would like to install generating or storage facilities on their premises with access to the electric grid while protecting the safety and reliability of the electric grid at the local and system levels. Each IOU is responsible for administration of the rule in its service territory and maintains its own version of the tariff.⁷

Electric Tariff Rule 15 relates to distribution line extensions. Specifically, new distribution facilities that are a continuation of, or branch from, the nearest available existing permanent distribution line (including any facility rearrangements and relocations necessary to accommodate the extension) to the point of connection of the last service. Rule 15 generally pertains to electric distribution grid equipment used by multiple customers, for example, a transformer serving multiple homes.

Electric Tariff Rule 16 relates to service line extensions. The overhead and underground primary or secondary facilities (including but not limited to utility-owned service facilities and applicant owned service facilities) extending from the point of connection at the distribution line to the service delivery point. Rule 16 generally pertains to network equipment used by just one customer.

Electric Tariff Rules 15 and 16 establish the guidelines for design, cost allocation, and responsibilities of a project applicant and a utility for electric distribution line extensions. The ability to connect to the larger electrical system can take months (or years, in some cases) as the process can require designs and assessments on cost allocations associated with improvements on the electric distribution system to allow for the connection, among other issues. In the case of new building developments, electric service extensions may be required in phases over the span of months or years, depending on the size of the development.

Timelines for Electric Lines – The demands for new service connections and/or upgrades to existing distribution lines have been increasing, especially as California advances policies to deploy more infrastructure to charge electric vehicles, shift from natural gas to electricity in

⁵ Documents that specify rates, charges, rules, and conditions under which an IOU will provide service.

⁶ CPUC; “Rule 21 Interconnection”; <https://www.cpuc.ca.gov/rule21/>

⁷ CPUC; “Rule 21 Interconnection”; <https://www.cpuc.ca.gov/rule21/>

buildings, and increase the housing supply.⁸ These projects all rely on access to the electrical grid and often require upgrades to the distribution system. Additionally, the COVID-19 pandemic has created supply shortages and challenges affecting many sectors of the economy, including limiting access to electrical equipment needed to connect new customers or expand energy load, such as transformers.⁹

The challenges have been especially acute within the Pacific Gas & Electric (PG&E) service territory as the backlog for energization projects has grown substantially and delays have increased.^{10,11} The utility company has acknowledged the growing backlog of identified capacity work that has delayed, sometimes by years, the in-service dates for new business customers. PG&E has taken steps to attempt to better manage their project queue. The utility recently formed a technical committee, led by representatives from labor groups and regional building association members, to work on technical issues in the interconnection process, evaluate the impact of recent process changes, and determine next steps. Nonetheless, the backlog is a growing frustration for the utility, project developers, customers, and others waiting to have their projects energized.

Efforts to Address Energization Delays – In response to a proposal from the IOUs, the CPUC issued Resolution E-5247 in December 2022, which establishes an interim 125-business day average timeline for the energization of projects under the EV Infrastructure Rules. This timeline excludes projects that must go through Rule 15 for distribution upgrades, projects above two megawatts, and projects that require upgrades to a substation, and applies only to EV infrastructure projects entering the queue. The CPUC cites lack of data as the rationale for setting an interim timeline requirement and directs the IOUs to collect one year of EV Infrastructure Rule implementation data to inform an updated proposal for a permanent service energization timeline.¹²

COMMENTS:

- 1) *Author's Statement.* “California will not be able to meet its clean energy and climate change goals if developers cannot get interconnected to the grid fast enough. AB 1293 would help solve interconnection delays by prioritizing shovel ready projects.”
- 2) *Scratching the Surface.* Energizations are generally a routine and core electric utility function. Unfortunately, the growing backlog of projects has led to frustrated customers, including affordable housing developers, local governments, and other customers which has sparked the desire for legislation. However, as the process to energize projects entails

⁸ California Energy Markets; “Interconnection Delays Disrupting Housing Markets, Causing 'Chaos'”; March 2023; https://www.newsdata.com/california_energy_markets/regional_roundup/interconnection-delays-disrupting-housing-markets-causing-chaos/article_a577776a-c4fc-11ed-9e15-5ffc130cbd98.html

⁹ Bakersfield Californian; “Power connection work delays local development projects”; November 2022; https://www.bakersfield.com/news/power-connection-work-delays-local-development-projects/article_8bc9ed88-6d0f-11ed-b3ee-973f5213928a.html

¹⁰ Fresno Bee; “California homes face PG&E delays for power connections. Frustrated leaders seek options”; October 2022; <https://www.fresnobee.com/news/local/article267995517.html>

¹¹ San Francisco Chronicle; “Big holdup for new Northern California housing? PG&E”; March 2023; <https://www.sfchronicle.com/politics/article/california-housing-projects-pge-17828169.php>

many factors and stakeholders, it can be challenging to pinpoint the causes for delay, or develop universal solutions when problems are very project specific. The proposed change in prioritization put forward by this bill does not attempt to resolve the underlying structural problems contributing to the pervasive delays in interconnection. However, in requiring the CPUC to provide guidance to the IOUs for prioritizing interconnection and energization projects, this bill may invite a larger discussion of existing problems and potential solutions with these delays.

- 3) *Winners and Losers.* Any prioritization of certain types of projects in a queue will likely lead to delays to other projects, as dollars and workers shift from one project type to another. The implementation of CPUC Resolution E-5247, as mentioned above to add a 125 business day project timeline to EV charger energizations, may shift the project queue to favor certain EV energization projects over other projects. Placing timeline requirements on a specific type of project, as this bill seeks to do in an unspecified manner, will likely divert resources from and lead to delays on other project types.

In the PJM case, where the priority was to clear out the substantial backlog of transmission interconnection requests in the queue, PJM indicated that it would cease review of new interconnection requests until early 2026. The “readiness deposits” required under the PJM queue reforms essentially raise the ante for projects to enter the queue. The implicit trade-off in that change is that more of the projects entering the queue will be closer to fully funded, and therefore more likely to proceed to completion, but the change may bias queue entry toward more readily funded types of projects or those backed by large corporations. The “shovel-ready” specification included in this bill may have a similar effect by giving preference to projects that meet a certain funding threshold or have already met certain permitting requirements. This may cause a surge in project completion but risks biasing the process toward projects which were most expedient to complete. The CPUC in providing guidance to the IOUs on prioritization, as well as defining what constitutes as “shovel-ready,” will need to be mindful of these potential pitfalls.

- 4) *A Tale of Two Queues.* The bill requires the CPUC to direct the IOUs to provide “prioritization of interconnection projects”. However, this language is broad enough to refer to both the distribution interconnection queues, which are operated by the individual IOUs, and the transmission interconnection queue, operated by CAISO. The author has expressed her desire to have the bill specific to distribution interconnection, but also inclusive of customer energization projects. *As such, the author and committee may wish to consider amendments to specify that the bill applies to the IOU distribution interconnection queue and customer energization projects.*

- 5) *Related Legislation.*

AB 50 (Wood) would require public utilities to furnish and maintain timely service, , require the CPUC to determine the criteria for timely service for electric customers that

meets specified requirements, and, until the CPUC determines those criteria, would require each large electrical corporation to make a good faith effort to deliver electric service within 90 days of issuing a written commitment to serve for customers seeking a new connection or 30 days for upgrades to an existing connection. Status: *set for hearing* in this committee on April 26, 2023.

AB 1482 (Gabriel) would establish an average service energization time for electric vehicle charging infrastructure of 125 business days for publicly-owned utilities (POUs), and would require POUs to annually report certain information to the CEC regarding the service energization time for electric vehicle charging infrastructure projects. It would additionally require the CPUC and the CEC, in consultation with IOUs and POUs, to jointly host an annual public workshop to review and evaluate the information submitted and to revise, if needed, the average service energization time for EV charging infrastructure. Status: *set for hearing* in this committee on April 26, 2023.

SB 319 (McGuire) would require the CEC, CPUC, and CAISO to jointly develop and recommend an expedited permitting roadmap that describes timeframes and milestones for a coordinated, comprehensive, and efficient permitting process for electrical transmission infrastructure. Status: *pending hearing in the Senate Committee on Energy, Utilities and Communications*.

SB 83 (Wiener) requires electrical corporations to interconnect development projects to the electrical distribution system within eight weeks for projects defined as interconnection ready. Additionally, this bill requires electrical corporations to compensate development projects for failing to meet the deadline. Status: *pending hearing in the Senate Committee on Energy, Utilities and Communications*.

SB 410 (Becker) requires the CPUC to establish a working group to improve the ability of the electric IOUs to be informed of needed distribution capacity and requires the CPUC to establish time periods for interconnection projects and provides for cost recovery processes from ratepayers for these projects. Status: *pending hearing in the Senate Committee on Appropriations, after passage in the Senate Committee on Energy, Utilities, and Communications on a 17-0-1 vote*.

6) *Prior Legislation.*

AB 1026 (Wood) requires an electrical or gas corporation to apply only those construction and design specifications, standards, terms, and conditions that are applicable to a new extension of service project for the 18 months following the date the application for a new extension of service project is approved. Authorizes an electrical or gas corporation to adopt modifications, as specified, of the construction and design specifications, standards, terms, and conditions of a new extension of service project. Status: Chapter 446, Statutes of 2019.

AB 2861 (Ting) authorizes the CPUC to establish an expedited distribution grid interconnection dispute resolution process with the goal of resolving disputes over interconnection applications within the jurisdiction of the CPUC in no more than 60 days.
Status: Chapter 672, Statutes of 2016.

SB 48 (Vuich) established rules governing the extension of service by gas and electrical corporations to new residential, commercial, agricultural, and industrial customers.
Status: Chapter 1229, Statutes of 1983.

REGISTERED SUPPORT / OPPOSITION:

Support

None on file.

Opposition

None on file.

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