

Date of Hearing: April 26, 2023

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Eduardo Garcia, Chair
AB 50 (Wood) – As Amended April 17, 2023

SUBJECT: Public utilities: timely service: timely electrical interconnection

SUMMARY: Establishes interim timelines for large electrical corporations to provide customer energization following a written commitment to serve by the utility. Requires that a failure to energize customers by the date provided on a commitment to serve will entitle a customer to a utility bill credit, as specified. Requires the California Public Utilities Commission (CPUC) to determine criteria for timely service for electric customers by January 1, 2025 that may replace or revise the interim timelines.

Specifically, **this bill:**

- 1) Adds “timely” to the core criteria public utilities must ensure as part of their service under the regulatory compact of Public Utilities Code § 451.
- 2) Requires the CPUC to determine criteria for timely service for electric customers by January 1, 2025 that shall include timely start of service for new connections, timely fulfillment of requests for increased load, and reenergization of customers following a power outage.
- 3) Establishes interim timelines for large electrical customers to energize customers until the CPUC determines the criteria for timely service. The interim timelines include:
 - a. Issuing a written commitment to serve within 30 days of receipt of a customer request for service, and shall state whether service will be delivered and the anticipated date on which new or upgraded service will be completed.
 - b. For new connections, energization within 90 days of the large electrical corporation issuing a written commitment to serve.
 - c. For upgrades to existing connections, energization within 30 days of the large electrical corporation issuing a written commitment to serve.
- 4) Provides that a failure to energize customers by the date provided on a commitment to serve will entitle a customer to a utility bill credit sufficient to compensate the customer for any financial damages suffered from the delay unless the electrical corporation can demonstrate that unanticipated events occurring after the date of the written commitment justify the delay.
- 5) Specifies that any bill credits will not be collected from ratepayers.
- 6) Requires large electrical corporations to evaluate and update their distribution planning processes, including conducting biannual meetings with relevant county staff and sharing information with local governments, the CPUC, and the California Energy Commission (CEC) about the utilities’ distribution system capacity.

- 7) Requires the large electrical corporations to report to the CPUC information on the number of submitted energization requests in the prior year, the number of completed energization requests in the prior year, the number of pending and uncompleted energization requests the prior year, the number of days between customer requests for energization and fulfilment of the request, and a summary of the recorded spending on energization. Provides the CPUC can request any other information as necessary. Specifies the reporting only applies to interconnection of customers and does not include generation interconnection.

EXISTING LAW:

- 1) Requires that all charges demanded or received by any public utility for any product, commodity or service be just and reasonable, and that every unjust or unreasonable charge is unlawful. (Public Utilities Code § 451)
- 2) Defines “large electrical corporation” as an electrical corporation with 250,000 or more customer accounts within the state. This definition would be inclusive of Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) (Public Utilities Code § 3280 (k))
- 3) 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)
- 4) Requires an electrical corporation to permit any new or existing customer who applies for an extension of service from that electrical corporation to install an electric extension in accordance with the regulations of the CPUC and any applicable specifications of that electrical corporation. (Public Utilities Code § 783)
- 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 investor-owned utility (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:

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

determined by statute, CPUC rules, and tariffs¹ 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 21.²
- 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.³

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.

Energization Lifecycle – Customer energization processes and timelines can vary greatly depending on utility territory, project type (ranging in complexity from home panel upgrades to

¹ Documents that specify rates, charges, rules, and conditions under which an IOU will provide service.

² CPUC; “Rule 21 Interconnection”; <https://www.cpuc.ca.gov/rule21/>

³ CPUC; “Rule 21 Interconnection”; <https://www.cpuc.ca.gov/rule21/>

energizing a stadium), system upgrades necessitated by the energization request, or events outside the utilities’ control such as supply chain delays, weather, or pending customer application information or permit completion, among others. The energization requests can take anywhere from a month to years depending on these various factors. As shown in Figure 1, there are many steps—and thus many opportunities for delay—in the customer energization lifecycle.

Figure 1: Customer Project Lifecycle (for complex projects)⁴



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 buildings, and increase the housing supply.⁵ 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.⁶

The challenges have been especially acute within the PG&E service territory as the backlog for energization projects has grown substantially and delays have increased.^{7,8} 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

⁴ Example provided by SDG&E and representative of their territory. Timelines and activities reflect those for complex projects (e.g., subdivisions, developments involving design by SDG&E). Requests that do not involve SDG&E design tend to have shorter timelines. Duration of the project phases are estimates only and represent activities managed by SDG&E; i.e. do not include time for activities that are the customer responsibility.

⁵ 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

⁶ 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

⁷ 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>

⁸ 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>

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.⁹

COMMENTS:

- 1) *Author's Statement.* According to the author, “Severe electric interconnectivity delays have become the everyday reality of utility customers in California. In just one county located in my district, over 30 customers were told they would have to wait over 10 years for their lights to be turned on. This is unacceptable and alarming here in California, where we have set some of the most ambitious climate goals in the world. Currently, families and business-owners are being asked pay significant planning fees - up to hundreds of thousands of dollars – upon receiving “Will Serve” letters provided by utilities. Decades ago, these letters may have been an adequate commitment to customers, but what’s really happening is businesses and residents are investing huge amounts of money only to later find out it may be many months or years before their houses and businesses can be occupied. As it turns out, “Will Serve” really means “Will Serve Eventually.” As we strive to advance housing development, expand business, and meet our climate change goals, we have to get serious about the realities of electrification.”
 - 2) *Is it energization?* As described above, interconnection and energization are related but distinct terms. “Interconnection” is used when a generation resource—be it a rooftop solar array or a large natural gas power plant—is connected to the electrical grid. “Energization” is when a connection to the grid is facilitated to serve either new or expanded customer load. Simplistically, “interconnection” ensures more power can flow *onto* the grid; while “energization” ensures more power can flow *off* the grid. This bill is intended to respond and create new rules around customer energization. However, it occasionally uses the term “interconnection” when energization is the intent. Moreover, this bill includes a provision requiring timely reenergization of customers following a power outage event. While such events do involve connecting customers to the grid, they are neither serving new nor expanded customer load. Moreover the restoration process during a power outage—be it a Public Safety Power Shutoff (PSPS) or an unplanned outage—is unique to the timelines and processes inherent in customer energization work. (For instance, the requirement that after PSPS events utilities must visually inspect the lines before reenergizing customers.) *As such, the author and committee may wish to consider amendments to this bill that clarify its focus on customer energization, striking reference to reenergization following a power outage and the usage of “interconnection” wherever “energization” is intended.*
 - 3) *Desire for Greater Collaboration.* Customer energizations are not isolated work. They involve, and are largely guided by the utility, but are dependent upon active collaboration with the customer, local permitting authorities, construction and design personnel, and project developers, among others. This large pool of potential parties can lead to
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frustration when project delays arise and it is unclear who in the process is responsible for the stoppage. PG&E—which has had numerous reported issues in customer energization recently, including in the author’s district—has recently formed a monthly Technical Committee work group with representatives from their labor partners, California Building Industry Association, and regional building association staff and members to work on technical and field issues arising in new construction energization. These monthly meetings are used to provide updates on the actions underway to improve the new service connection process. Additionally, these meetings are used to collaborate and collect feedback on the improvement efforts and to address emerging areas of concern or interest.

This measure builds upon this collaborative approach by requiring utilities to conduct biannual meetings with relevant county staff who are often acutely aware of both the local project pipeline, as they have granted the building and construction permits, and also any frustrations or delays to projects. Requiring utilities to meet with local government staff to discuss these local issues seems prudent. However, such collaboration should not be kept at the local level. Rather the CPUC, as part of the development of timely service required under this bill, should convene public workshops from interested parties to help inform their efforts in determining criteria for timely service for electric customers. *As such, the author and committee may wish to consider an amendment directing the CPUC as part of its determination of timely service for electric customers, to convene public workshops of interested parties, including representatives from local governments.*

- 4) *Amending the Fundamental Principal.* Section 451 of the Public Utilities Code is generally considered the core governing statute for regulated utility service. It establishes the principal that all customer charges shall be just and reasonable, and applies to all regulated entities from railroads to telecommunications companies to electric, gas, and water companies. This bill amends Section 451 to require all regulated utilities to not only furnish and maintain such adequate, efficient, just, and reasonable service and equipment to ensure the health, safety, comfort, and convenience of their customers; but to require that service be timely. The opponents of this bill raise the inclusion of “timely” in this section as a concern, noting the bill is focused on timely electric energization while the inclusion in Section 451 is much broader and far-reaching. While it may be reasonable to suggest *all* utility customers, from railroads to telecommunications, deserve timely service, the author might wish to consider removing reference to Section 451 from this bill as the intent to address electric customer energization timeliness can be achieved without its inclusion.
- 5) *When to begin the Countdown?* This bill requires the CPUC to determine criteria for timely energization by January 1, 2025, but prior to that establishes interim timelines for customer energization that utilities must adhere to. These include 30 days to respond to a customer request for service; 30 days to energize upgrades to existing connections following the utility issuing a written commitment to serve; and 90 days to energize new connections following the utility issuing a written commitment to serve. While these timelines generally match what utilities have reported for energization of new

construction in commercial, multi-family, and single family properties,¹⁰ this bill mandates these timelines for every type of project with little consideration of potential unforeseen delays, aside from the acknowledgement that utilities shall “take all practical measures” to meet these timelines. Moreover, this bill conditions the start of this clock on the utility issuing a written commitment to serve, which is currently unclear and varied across the utilities as to what stage of the project pipeline such commitments may occur. This bill makes them occur within 30 days, and then energization must occur within 30 or 90 days, depending on the request. Such timelines may be achievable for some, or even most, projects; but not all. Failure to meet these times results in customer bill credits paid for by utility shareholders.

The utilities oppose such timelines as forcing them to commit to an accelerated schedule before there is even confidence that the customer application is complete and all necessary local permits are acquired. Such actions often delay projects and are often outside the utilities’ control. This seems unreasonable, and should be a subject for the collaborative process called for under this bill. However, as noted above, the CPUC recently established a seemingly arbitrary timeline of 125 business days for electric vehicle charging infrastructure energization,¹¹ seemingly to provide a starting baseline to collect data and information against. The timelines in this bill could operate in a similar fashion, providing the utilities with goals while guiding the CPUC in their development of appropriate energization timelines. However, if such timelines are meant to be informative rather than punitive, additional provisions should be added to this measure to acknowledge the difference across energization projects and alleviate utilities in meeting the timelines if events outside the utilities’ control arise.

- 6) *Creating Perverse Incentives.* This bill provides that any failure of a utility to meet the 30 and 90 day energization timelines will result in the impacted customer being entitled to a utility bill credit sufficient to compensate the customer for any financial damage suffered from the delay. While this provision may have merit in addressing real harm to customers who met all requirements for service and were still delayed due to utility inaction, such circumstances are not universal. As described previously, many energization delays can occur from customers that fail to provide necessary paperwork or permits, or experience construction delays from their own inaction or planning failure. This bill treats both circumstances the same, and puts the financial responsibility on the utility. While an exception is provided that a credit will not be given if the utility can demonstrate that unanticipated events justify the delay, such a provision still puts the burden of proof on the utility. Such proof may not always be easily obtained by the utility if the customer is the cause. The credit provisions of this bill create an environment for extensive litigation between utilities and their customers, when, as noted above, collaboration is needed. Moreover, the credits could have the unintended consequence of establishing perverse incentives for customers to withdraw from projects citing utility failures in order to receive bill credits. *Given the many potential pitfalls of tying interim energization timelines to a financial obligation from the utility, the author and committee may wish to strike the provision requiring customer bill credits when the interim timelines are not*

¹⁰ Per data request to the committee on April 21st, 2023 from PG&E, SCE, and SDG&E, as well as data received by the CPUC pursuant to a February 13, 2023 request from Senator Scott Wiener.

¹¹ Resolution E-5247, December 2022

met; and, rather, direct the CPUC as part of its process to determine timely service to consider whether and how customer credits may be appropriate.

- 7) *Balancing the Benefits of Reporting.* This bill requires customer energization to be tracked and reported to the CPUC on an annual basis. It includes reporting of both requested energization as well as completed projects. Utilities have reported to this committee that annual completed requests range from around 4,500 to 8,000 depending on how many distinct project types are counted.¹² Yet the utilities report these numbers represent less than a third of projects that are requested, as many energization requests drop out during various stages of the project pipeline. Tracking the tens of thousands of energization requests a utility receives per year may create an onerous new reporting requirement on the utilities. The utilities already report on Rule 21 customer-sited interconnection, which number into the hundreds of thousands per month, but the reporting obligation is limited to only the largest projects reducing the overall requirement significantly.¹³ *The author and committee may wish to consider amendments to this bill limiting the reporting requirements to just the time period under the interim energization timelines, in order to allow for the CPUC to use the data reported to guide decisionmaking on establishing timely service, but direct the CPUC to establish new reporting requirements as part of their evaluation.*

- 8) *Related Legislation.*

AB 643 (Berman) allows the CPUC to impose fines for electrical corporations that routinely violate established interconnection timelines, and consider negligent exceedance of the timeline, as defined, as a violation of CPUC rules subject to a maximum \$100,000 penalty per offense. Additionally adds new reporting requirements for interconnections of customer-sited energy generation projects. Status: *set for hearing* in this committee on April 26, 2023.

AB 1293 (Irwin) requires the 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. 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 83 (Wiener) requires IOUs to interconnect development projects to the electrical distribution system within eight weeks for projects defined as interconnection ready.

¹² Per data request to the committee on April 21st, 2023 from PG&E, SCE, and SDG&E.

¹³ Quarterly IOU Interconnection Data Reports; <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/rule-21-interconnection/quarterly-iou-interconnection-data-reports>

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 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 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 timelines for interconnection 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.

9) *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 dispute resolution process for generating facility interconnection disputes. Status: Chapter 672, Statutes of 2016.

SB 48 (Vuich) establishes 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

California Community Choice Association
County of Humboldt
County of Sonoma
East Bay Yimby
Grow the Richmond
How to Adu
Mountain View Yimby
Napa-solano for Everyone
Non-profit Housing Association of Northern California (NPH)
Northern Neighbors
Peninsula for Everyone
People for Housing - Orange County
People for Housing Orange County

Progress Noe Valley
Redwood Coast Energy Authority
Rural County Representatives of California (RCRC)
San Diego Community Power
San Francisco Yimby
San Luis Obispo Yimby
Santa Cruz Yimby
Santa Rosa Metro Chamber of Commerce
Santa Rosa Yimby
Sonoma Clean Power
South Bay Yimby
Southside Forward
The Climate Center
The Utility Reform Network (TURN)
Urban Environmentalists
Ventura County Yimby
Yimby Action

Oppose

Edison International and Affiliates, Including Southern California Edison
Pacific Gas and Electric Company
San Diego Gas and Electric

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