Date of Hearing: July 9, 2025

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY Cottie Petrie-Norris, Chair

SB 57 (Padilla) – As Amended June 30, 2025

SENATE VOTE: 25-9

SUBJECT: Electrical corporations: tariffs

SUMMARY: Requires the California Public Utilities Commission (CPUC) to establish a specified tariff for transmission and distribution level customers of at least 50 kilovolts and a peak demand of 50 MW by July 1, 2026, that prevents a cost shift to non-participating This bill also requires that eligible customers of the tariff meet specified environmental and electrical grid improvement goals.

Specifically, this bill:

- 1) Mandates that on or before July 1, 2026, the commission shall establish or modify a special electrical corporation tariff for transmission and distribution service to eligible customers that, at minimum, does all of the following:
 - a. Ensures just and reasonable rates for ratepayers and does not result in cost shifts to non-participating customers
 - b. Reduces the emissions of greenhouse gases associated with electrical generation.
 - c. Promotes stable or reduced retail rates for electrical service.
 - d. Contributes to the safe and reliable operation of the electrical grid
 - e. Ensures electrical grid investments to serve an eligible customer are fully recovered from the eligible customer in the event that the eligible customer ceases operations or uses less electricity than initially projected.
 - f. Ensure that eligible customers taking transmission-level service will contribute to wildfire mitigation, wildfire liability, electrification and environmental programs, and other societal cost obligations typically included in distribution rates.
- 2) The commission may require an eligible customer to site distributed energy storage systems and backup power systems meet the state's emission reduction goals.
- 3) The commission may require eligible customers for the tariff to meet its load requirements with renewable energy and zero-carbon resources.
- 4) The tariff will only apply to applications for interconnection to the transmission grid that are submitted after the commission establishes or modifies the tariff.
- 5) "Eligible customer" means a customer newly connecting to transmission-level service of at least 50 kilovolts and with an estimated peak demand of at least 50 megawatts, but does not include an existing customer whose increased demand is caused by fuel switching from a fossil fuel source to electricity or a new or existing customer whose increased electricity usage is predominantly for transportation electrification or greenhouse gas emission reductions required pursuant to the California Global Warming

Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code), as enacted by Chapter 488 of the Statutes of 2006 (Assembly Bill 32).

EXISTING LAW:

- 1) Authorizes the CPUC to supervise and regulate every public utility in the state and permits the CPUC to do anything that is necessary and convenient to exercise its power and jurisdiction. (Public Utilities Code § 701)
- 2) Authorizes the CPUC to set rates for public utilities and specifies that every cost charged by utilities to customers must be just and reasonable. (Public Utilities Code § 451)
- 3) Defines a "retail seller" as an entity engaged in the retail sale of electricity to end-use customers located within the state. This definition expressly includes investor-owned utilities (IOUs), community choice aggregators (CCAs), and energy service providers (ESPs); however, this definition does not include the Department of Water Resources (DWR), publicly owned utilities (POUs), or co-generation facilities. (Public Utilities Code § 399.12(j))
- 4) Creates the Renewables Portfolio Standard (RPS) by establishing a state goal of procuring at least 60% of total retail sales of electricity from renewable energy resources by December 31, 2030, with specified benchmarks up to that date. Existing law requires the CPUC to oversee electrical corporations' compliance with renewable energy procurement mandates and requires the California Energy Commission (CEC) to oversee POU renewable energy procurement compliance. (Public Utilities Code § 399.11 et. seq.)
- 5) Establishes a policy to source 100% of all in-state retail electricity sales from zero-carbon resources by December 31, 2045. Existing law requires the CPUC, CEC and the California Air Resources Board (CARB) to incorporate this policy into all relevant plans. (Public Utilities Code § 454.53)
- 6) Mandates the CEC to develop energy policies 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))
- 7) Requires to the CEC to generate an Integrated Energy Policy Report, or IEPR every two years, which will include, among other things, an assessment of resources and a forecast of reliability and energy usage. (Public Resources Code § 25302)
- 8) Grants the CEC the authority to hold public hearings and stakeholder processes to best assess the necessary reporting and efficiency standards for buildings. (Public Resources Code § 25402(b)(4))

FISCAL EFFECT: According to the Senate Appropriations Committee, the CPUC estimates one-time costs of about \$130,000 spread over 3 years and ongoing costs of \$403,000 annually (ratepayer funds) for 2 positions in order to develop special tariff offerings as specified, conduct

extensive research, develop records in a new or existing proceeding, and evaluate alternative revenue neutral rate design proposals, among other things.

CONSUMER COST IMPACTS: Unknown.

BACKGROUND:

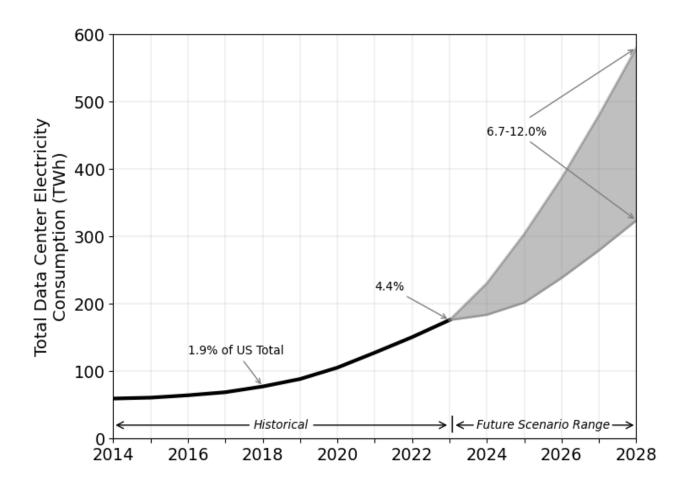


Figure 1: Data Center Energy Use. The graph shows U.S. data center annual energy use between 2014-2016 at about 60 TWh. Starting in 2017 server numbers accelerated nationwide, primarily for artificial intelligence. By 2023, data centers were 4.4% of total U.S energy consumption. By 2028, data centers are predicted to use between 6.7 and 12% of the country's electricity.¹

The AI Energy Boom – The AI industry is growing rapidly, and the demand to train new AI models is accelerating, resulting in data center development and construction. As the demand for compute grows, the need for larger data centers and the requirement for more energy grows as well. California has more than 270 data centers, concentrated largely around Santa Clara, close to the headquarters of Alphabet, Apple, and Meta. Data centers are already the single largest load for the municipal utility, Silicon Valley Power.^{2,3} Pacific Gas and Electric (PG&E), who

¹ Shehabi, Arman, et al. "2024 United States Data Center Energy Usage Report." 2024.

² Sebastian Moss, "Silicon Valley Power says data center load to double by 2035, will need geothermal power and batteries" *Data Ceneter Dynamics*, December, 2023

provides distribution service in Santa Clara County, is expected to add 3.5 GW of new load attributed to data centers in the next four years, equivalent to adding ~2-3 million new homes on to the grid.⁴ As of 2023, 4.4% of *all* energy used in the United States is consumed by data centers (Figure 1). A study from Lawrence Berkeley National Laboratory predicted that by 2028, data centers would use between 6.7 and 12% of the country's electricity.⁵

Procurement and the Maintenance of Aging and Dirty Power to Feed Energy Hungry Data Centers — Increased demand is leading to continued investment in brown energy and reinvestment in nuclear energy. On September 20, 2024, Constellation Energy announced it will reopen Three Mile Island nuclear power plant, the site of the worst commercial nuclear accident in U.S. history, in a deal with Microsoft to power its cloud computing and artificial intelligence program. Meta is building a \$5 billion dollar data center project in Louisiana that will require a 2,300 MW expansion in natural gas power. Southern Company, a major U.S. utility plans to extend the life of three coal-fired power plants in Mississippi and Georgia in order to meet increased data center growth. Researchers at Caltech and UC Riverside assessed the public health impact as a result of AI energy usage and found by 2030, data centers could contribute to 1,300 premature deaths in California, carry \$20 billion in health care costs, and rival the greenhouse gas emissions of every car in California on a health cost basis.

Consumer Cost Shift Concerns – With the remarkable boom in AI and data center development, there is has been increased scrutiny on who is paying for this growth. Consumer advocates, regulators, ratepayers and even utility companies across the country are starting to spotlight problems in the existing system to manage large load customers. For example, in the mid-Atlantic region, the regional power grid has experienced a huge amount of new data center growth in the state of Virginia. PJM Interconnect, the grid operator, needed to secure additional power during periods of extreme weather in the region. The exorbitant expense of this additional power is causing a rise in consumer bills by 20% in five states by 2025. Many blame the sudden growth of additional power demand, leading to shortages and increased cost. Similar concerns have been voiced in Oregon as well. In addition to this supply squeeze, consumer advocates are also concerned about the discounts that data centers receive for their utility rates. For example, Google negotiated \$0.06 per kilowatt-hours for their energy from Dominion

³ Melody Petersen, "Explosion of power-hungry data centers could derail California clean energy goals," *Los Angeles Times*. August 12, 2024

⁴ Nuclear Regulatory Commission, "What is a Megawatt" February 12, 2024

⁵ Shehabi, Arman, et al. "2024 United States Data Center Energy Usage Report." 2024.

 $^{^6\} https://www.constellationenergy.com/newsroom/2024/Constellation-to-Launch-Crane-Clean-Energy-Center-Restoring-Jobs-and-Carbon-Free-Power-to-The-Grid.html$

⁷ Jeffrey Tomich, "Meta goes all in on gas to power a mega data center," *Politico*, November 2024

⁸ Zachary Skidmore, "Southern Company to extend life of three coal plants due to data center energy demand," *Data Center Dynamics*, February, 2025

⁹ Han, Yuelin, et al. "The Unpaid Toll: Quantifying the Public Health Impact of AI." *arXiv preprint arXiv:2412.06288* (2024).

¹⁰ Brad Plumer and Nadja Popovich, "A New Surge in Power Use Is Threatening U.S. Climate Goals" *New York Times*, March, 2024.

¹¹ Evan Halper and Caroline O'Donovan. "As data centers for AI strain the power grid, bills rise for everyday customers," *Washington Post*, November 1, 2024.

¹³ Mike Rogoway, "Data center boom could trigger higher power rates, energy shortage," *The Oregonian*, October 13, 2024.

Energy in South Carolina. This is less than half of the residential rate.¹⁴ Consumer advocates argue that these rate discounts are compensated by the rest of the residential and small business ratepayer base. PG&E and other utilities push back on these assertions, suggesting that improvements and growth to the grid will lead to cheaper utility bills for all customers.¹⁵ Beyond increasing demand and paying discounted rates, the final cost shift concern from regulators and consumer advocates is the increasing need for infrastructure and investment in the grid to accommodate new load.

AI Energy Demand Skepticism – With current predictions around growth in AI and data centers, many believe that there is an inappropriate hysteria around the future energy demands in the industry. Some scholars note that similar concerns were voiced in the 1990s but that technological advances prevented the predicted energy crunch. 16,17 Advances in efficiency are likely to change the AI landscape through new model design, innovations in chip and hardware efficiency and better cooling technologies. 18,19,20,21 The release of the AI model DeepSeek, which required significantly less computing power to train, supports the possibility that energy cost in training AI may not continue to grow as expected.²² Recent studies have also shown that if demand response and load flexibility programs are implemented at data centers, peak loads on the grid can be avoided. As a result, these studies suggest there are sufficient existing resources for an expanding AI load, and interconnection of new data centers can often be expedited.²³ An example of implementation of demand response programs for data centers include SB 6, which was signed by the Governor of Texas on June 21, 2025. SB 6 pairs a voluntary demand response competitively procured reliability service active during specific times with a mandated demand management program for interconnection of loads 75 MW or more, requiring the ability to ramp down or switch to backup generation at utilities' request.²⁴

Who pays for the cost of new infrastructure? As infrastructure needs rise parallel to growth of data center demand, communities are asking who is going to pay for it. The cost of new infrastructure for large industrial customers is generally borne by the utility and ultimately payed for by the ratepayers.²⁵ However, there has never been an equivalent predicted growth in energy load attributed to a single industrial customer base in this short time frame.²⁶ In addition, without

¹⁴ Evan Halper and Caroline O'Donovan. "As data centers for AI strain the power grid, bills rise for everyday customers," *Washington Post*, November 1, 2024.

¹⁵ Melody Petersen, "Explosion of power-hungry data centers could derail California clean energy goals," *Los Angeles Times*. August 12, 2024

¹⁶ Masanet, Eric, et al. "Recalibrating global data center energy-use estimates." Science 367.6481 (2020): 984-986.

¹⁷ Shayle Kann, "A skeptic's take on AI electricity load growth", *Latitude Media*. March 6, 2025.

¹⁸ Google, "Announcing Trillium, the sixth generation of Google Cloud TPU," May 14, 2024

¹⁹ Shayle Kann, "Can chip efficiency slow AI's energy demand?" Catalyst, July 18, 2024

²⁰ Kylie Foy, "New tools are available to help reduce the energy that AI models devour" *MIT News*, October 5, 2023.

²¹ Aljbour, Jordan, Tom Wilson, and P. Patel. "Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption." EPRI White Paper no. 3002028905 (2024).

²² Guo, Daya, et al. "Deepseek-r1: Incentivizing reasoning capability in llms via reinforcement learning." arXiv preprint arXiv:2501.12948 (2025).

Norris, Tyler, et al. "Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads in US Power Systems." (2025).

²⁴ Martucci, Brian "Texas law gives grid operator power to disconnect data centers during crisis." *Utility Drive*, June 25, 2025.

²⁵ Extracting Profits from the Public: How UtilityRatepayers Are Paying for Big Tech's Power

²⁶ Çam, Eren, Marc Casanovas, and John Moloney. "Electricity 2025: Analysis and Forecast to 2027." (2025).

some protections, data centers and data center customers may have incentive to shop rates for electricity across the country, potentially leaving expensive new infrastructure stranded. This concern is reflected in recent generation of large load tariffs requiring 5 year upfront payments and 20 year commitments for new data centers in Kentucky, as well as American Electric Power in Ohio requiring payment for 85% of projected energy use each month for its large load customers, even if the customer uses less, to cover infrastructure costs.

Pacific Gas and Electric's (PG&E) Electric Rule 30 Filing and Proposed Decision – In November 2024, PG&E filed an application at the CPUC to establish a new Electric Rule 30 (Application 24-11-007). PG&E's filing seeks to establish rules for interconnecting nonresidential retail electric customers at transmission level voltages. PG&E's Rule 30 application notes that applications for transmission-level interconnections have accelerated in recent years. ²⁷ Between 2014 and 2022, PG&E had a total of 16 retail customers interconnected with the transmission grid. Since 2023, PG&E has received 34 applications for transmission-level service from entities with an electrical demand of at least four megawatts (MW). According to PG&E's filings, data centers comprise 67% of the 34 transmission interconnection applications that PG&E has received since 2023. In the absence of an electric rule for these interconnections, PG&E has increased its use of the "exceptional case" filing process at the CPUC, which is reserved for those circumstances when adhering to existing rules are not feasible, and a party requests a solution that is not authorized under existing CPUC rules and regulations. Negotiating each interconnection on a case-by-case basis can lead to differing obligations included in each agreement and unpredictable ratepayer costs from those differing obligations. PG&E's Rule 30 application seeks to create standardized requirements for these interconnections.

On June 20, 2025 the CPUC released a Proposed Decision partly granting PG&E's motion for interim implementation of Electric Rule 30. The decision requires new transmission-level customers seeking retail services to be responsible for the initial costs of all transmission facilities rather than those costs being borne by ratepayers. The decision designates four types of transmission level facilities. These four facility types include Transmission Service Facilities (Type 1), Transmission Interconnection Upgrades (Type 2), Transmission Interconnection Network Upgrades (Type 3), and Transmission Network Upgrades (Type 4). The Commission supports PG&E's proposal to require invoicing transmission level-customers for Facility Types 1-3. The Commission also supports PG&E proposal to provide the option for transmission level customers to pre-fund Type 4 Facilities via loan, because Type 4 Facilities benefit all customers. No recovery of costs through rates is authorized as part of the Proposed Decision but this could change in the Commission's final decision.²⁸

COMMENTS:

1) Author's Statement. According to the author: "Growing energy demand driven by data centers hold the potential, if done correctly, to lower existing ratepayer costs by more widely spreading costs. If done incorrectly, however, it could have significant ramifications for ordinary ratepayers in the form of expensive stranded assets. This measure is patterned off actions taken in several other states to support the industry while

²⁷ A.24-11-007, Application of Pacific Gas and Electric Company (U39E) for Approval of Electric Rule No. 30 for Transmission-Level Retail Electric Service (Nov. 21, 2024).

²⁸ A-25-11-007, Proposed Decision, (June 20, 2025)

- ensuring existing ratepayers are protected in this new and quickly expanding sector of our economy."
- 2) Environmental and efficiency provisions. The bill includes a number of provisions that allow the Commission to mandate specific actions by customers of the new tariff to help meet the state's climate goals, as well as encourage more efficient use of existing grid assets. These provisions are public policy objectives that would be clearer if outlined separately from some of the rate design aspects of the tariff. Additionally, multiple large load customers have expressed concerns that allowing the CPUC to mandate these provisions could practically prohibit interconnection of specific industries. Therefore the committee recommends moving these public policy provisions to a separate section in the bill, outside of the tariff requirements, and directing the commission to consider prioritizing large load customer interconnections that accomplish these goals.
- 3) Understanding the cost shift. As discussed above, one of the concerns of increased interconnection of large load customers and specifically data centers, is whether and how other ratepayers are going to bear the burden of new costs, such as infrastructure costs or procurement costs. One possibility of this rapid demand growth is it leading to higher costs to customers that may not receive any benefit for the electric service provided to these large load customers. An alternative possibility, and one mentioned above as asserted by the utilities and others, is that improvements and growth to the grid will lead to cheaper utility bills for all customers. For instance, this bill proposes that the tariff be structured to mandate (or prioritize in the proposed amendments) large load customers that contribute to statewide environmental and efficiency goals, which could benefit all ratepayers. How the increased demand from these large load customers may impact either beneficially or detrimentally – existing customer classes remains to be seen, and will largely depend upon how the applicable tariff is structured, although early examples from the east coast show rising impact to customer bills.²⁹ Given this unsettled discussion, the committee recommends mandating the CPUC assess the extent to which costs associated with data centers will result in cost shifts to other utility customers. The committee also recommends modifying the proposed tariff to indicate it should minimize cost shifts for customers on other rate schedules.
- 4) Other practical amendments. The committee recommends a number of additional amendments that will enhance the practical implementation of the bill while maintaining the goals as outlined by the author. This includes:
 - a. Shifting the deadline for the commission to establish or modify a tariff to meet the requirements of the bill from July 1, 2026 to December 31, 2026.
 - b. Altering the definition of "Eligible customer" such that the exemption for customers whose increased electricity usage is predominantly for transportation electrification or greenhouse gas emission reductions is not limited to those required specifically by AB 32 (Chapter 488 of the Statutes of 2006).

²⁹ Rise in consumer bills by 20% in five states by 2025; Evan Halper and Caroline O'Donovan. "As data centers for AI strain the power grid, bills rise for everyday customers," *Washington Post*, November 1, 2024.

c. Allowing the commission to determine if an existing electrical corporation rate design meets the tariff requirements outlined in the bill and to allow an electrical corporation to file a new or modified rate application within 12 months if the existing designs are found insufficient.

5) Related Legislation.

AB 222 (Bauer Kahan, 2025) requires publication of energy use associated with the development and use of artificial intelligence (AI), requires the California Energy Commission (CEC) to track energy usage of data centers in the state, and tasks the California Public Utilities Commission (CPUC) to minimize utility costs related to data center development. Status: Referred the Senate Committee on Judiciary.

AB 93 (Papan, 2025) requires data centers to meet specific water efficiency standards as well as local mandates. It requires the State Energy Resources Conservation and Development Commission to develop guidelines to maximize the use of natural resources in accordance with California and federal guidelines to address new technological needs. Finally, the bill requires data centers to report their water usage as part of a water usage demand analysis Status: Referred to the Senate Committee on Local Government.

SB 58 (Padilla, 2025) establishes a tax credit incentive program for data centers that use energy resources that produce zero carbon emissions. Status: Referred to the Senate Revenue and Taxation Committee.

6) Prior Legislation.

SB 1298 (Cortese, 2024) authorizes the CEC to exempt from certification a thermal power plant with generating capacity of up to 150 megawatts (MW) if that power plant is used solely as a backup generation for a data center. Status: Died – Assembly Committee on Rules.

SB 253 (Wiener) or the Climate Corporate Data Accountability Act, Requires any partnership, corporation, limited liability company, or other U.S. business entity with total annual revenues in excess of \$1 billion and that does business in California to publicly report their annual greenhouse gas (GHG) emissions, as specified by the California Air Resources Board (ARB). Status: Chapter 382, Statutes of 2023.

SB 261 (Stern) requires companies that do business in California and have gross revenues exceeding \$500 million annually, excluding insurance companies, to report on their climate-related financial risk. It also requires the Air Resources Board (ARB) to contract with a qualified climate reporting organization to review and publish an analysis of those reports. Status: Chapter 382, Statutes of 2023.

SB 423 (Stern) required the CEC to submit a specified report to the Legislature assessing the supply of firm zero-carbon resources supporting clean, reliable, and resilient electrical grid in California. Status: Chapter 243, Statutes of 2021.

AB 1373 (Garcia) among other provisions, authorized DWR to act as a central procurement entity to help the state meet its renewable and zero-carbon energy procurement goals. The bill required the CPUC to determine if procurement is needed, and identify the amount of procurement required. Status: Chapter 367, Statutes of 2023.

SB 100 (De Leon) updated the RPS by establishing a state goal of procuring at least 60% of total retail sales of electricity from renewable energy resources by December 31, 2030, and procuring 100% of retail electricity sales from zero-carbon resources by December 31, 2045. Status: Chapter 312, Statutes of 2018.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Bay Area Action
350 Humboldt
California Environmental Voters (formerly Clcv)
Climate Center; the
Santa Cruz Climate Action Network
Sustainable Rossmoor
The Utility Reform Network (TURN)

Oppose

Calchamber
California Cement Manufacturers Environmental Coalition
California Hydrogen Business Council
California Large Energy Consumers Association
California League of Food Producers
Chamber of Progress
Data Center Coalition
Pacific Gas and Electric Company and its Affiliated Entities
Silicon Valley Leadership Group

Oppose Unless Amended

California Hydrogen Business Council

Other

California Trucking Association

Analysis Prepared by: Kristen Koenig / U. & E. / (916) 319-2083