

Date of Hearing: April 20, 2026

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

AB 1577 (Bauer-Kahan) – As Amended April 13, 2026

SUBJECT: Data centers: reporting

SUMMARY: Requires the owners of data centers to report monthly energy usage and efficiency information to the California Energy Commission (CEC). Requires CEC to integrate this data into the Integrated Energy Policy Report (IEPR) and annually publish the data in an anonymized and aggregated format on its website. Additionally, requires the owners of data centers to submit specified information to local agencies when requesting authorization to construct or operate a data center.

EXISTING LAW:

- 1) Requires 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 (PRC) 25301)
- 2) Requires CEC to generate the IEPR every two years, which includes, among other things, an assessment of resources and a forecast of reliability and energy usage. (PRC 25302)
- 3) Authorizes CEC to hold public hearings and stakeholder processes to best assess the necessary reporting and efficiency standards for buildings. (PRC 25402)
- 4) Requires each petroleum refiner and major marketer to submit monthly information to CEC, including, but not limited to, volume, price, and type of petroleum product, including the sources of those receipts, inventories of products, and exports of finished products from the state. (PRC 25354)

THIS BILL:

- 1) Defines terms used in the bill, including:
 - a) “Cooling degree day” as the number of degrees by which the average outdoor air temperature for a given day exceeds 65 degrees Fahrenheit, as specified.
 - b) “Data center” as a facility, or part of a facility, that houses computing infrastructure, including graphics and central processing units, servers, storage devices, networking equipment, and associated power and cooling systems, for the primary purpose of processing, storing, or distributing electronic data. Specifies that “data center” does not include a facility with an installed information technology equipment electrical capacity of less than 500 kilowatts.
 - c) “Power usage effectiveness” as a ratio of the total energy consumption of a data center to the energy specifically used by the information technology equipment housed in that data center.

- 2) Requires CEC to establish a process for the owner of a data center to submit all of the following information to CEC upon energization of the data center and following any substantive change to information previously submitted pursuant to the bill:
 - a) The name of the data center;
 - b) Any physical addresses associated with the operation of the data center;
 - c) The name of, and contact information for, the owner and operator of the data center;
 - d) The year and month that the data center began operating;
 - e) The total square footage of the data center;
 - f) The total square feet of the data center occupied by information technology equipment;
 - g) The anticipated electrical peak capacity of the data center, as submitted per the load interconnection request; and,
 - h) The anticipated quantity of electricity generated and consumed onsite, separated by generation type.
- 3) Requires, following energization, CEC to establish a process for the owner of a data center to submit all of the following information to CEC on a monthly basis:
 - a) The maximum electrical load of the data center;
 - b) The installed information technology electrical capacity of the data center;
 - c) The total energy consumption of the data center;
 - d) The power usage effectiveness of the data center;
 - e) Whether the data center participated in any demand flexibility programs, and the name and level of participation in each program;
 - f) The quantity of waste heat reused by the data center;
 - g) The average waste heat temperature of the data center;
 - h) The average intake air temperature setpoint for information technology equipment;
 - i) Which types of refrigerants are used to cool information technology equipment;
 - j) Cumulative cooling degree days for the data center;
 - k) The quantity of electricity generated and consumed onsite;
 - l) The quantity of fuel consumed by onsite generators or other fuel-based systems, separated by fuel type;
 - m) The energy storage type, capacity, and chemistry, if any, used onsite; and,
 - n) The quantity of electricity associated with renewable energy credits, as specified.
- 4) Requires the owner of a data center to submit the required information to CEC in a manner specified by CEC. Directs CEC to aim to establish reporting requirements that reduce duplicate filings and facilitate the submission of substantially similar information.
- 5) Requires CEC, beginning with the 2029 edition of the IEPR, to include an assessment of electrical load trends for data centers, including:
 - a) A projection of future load trends from data centers;
 - b) Identification of potential net peak load demands; and,
 - c) Recommendations for mitigating data center electricity consumption impacts on grid capacity, grid reliability, and greenhouse gas emissions, including any recommended energy efficiency and demand response measures.

- 6) Requires CEC to annually publish the information submitted in an anonymized and aggregated format on its website.
- 7) Requires the owner or developer of a data center, upon applying for a discretionary permit, entitlement, or land use authorization, to submit to the applicable local agency an estimate of the following:
 - a) The expected annual energy consumption of the data center;
 - b) The expected annual total water consumption of the data center;
 - c) The expected annual potable water consumption of the data center;
 - d) The expected annual quantity of electricity generated onsite, separated by generation type; and,
 - e) The expected average and maximum sound levels attributable to the operation of the data center, as specified.
- 8) Requires that the information submitted to the local agency be based on the best available estimates at the time of submission.
- 9) Authorizes a local agency to use the information submitted by the data center for various purposes, including, but not limited to, land use planning, infrastructure planning, energy and water supply assessment, and environmental review.
- 10) Prohibits CEC or a local agency from disclosing information submitted in a manner that would result in the disclosure of identifiable information or energy consumption data for a specific data center customer, as specified.

FISCAL EFFECT: Unknown

COMMENTS:

- 1) **Data centers.** Data centers are facilities that house information technology (IT) infrastructure, including high-performance computers, servers, data storage systems, and networking equipment. They are crucial for maintaining internet-based communications and providing services such as cloud-based computing, training and inference of artificial intelligence algorithms, and more.

Continued growth in AI-computing is driving data center development and construction. Generating more sophisticated AI models requires increases in the size of the datasets and demand for computational resources. For example, GPT- 4 – the large language model embedded in ChatGPT 4 – is reported to have been trained on roughly 10 trillion words of text. Adjusting the model’s 1.8 trillion parameters continuously as it was exposed to this vast corpus required trillions upon trillions of computations, which were performed by running approximately 25,000 expensive, energy-consuming microchips for nearly 100 days nonstop, at an estimated cost of \$63 million. It is estimated that this training consumed 50 gigawatt-hours (GWhs) of energy, enough to power San Francisco continuously for three days.

The explosive growth in AI is creating new demands for data center development and construction. California is home to 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. Pacific Gas and Electric (PG&E), which 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 approximately 2-3 million new homes on to the grid. As of 2023, 4.4% of all energy used in the United States is consumed by data centers. 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.

The speed at which the data center growth has led to unpredictability in the energy market. This growth is occurring alongside other changes to electricity demand, such as enhanced electrification in the building and transportation sectors and climate change induced extreme events. There is little transparency into data center energy usage, which makes it challenging to predict energy demands. There are ongoing efforts to mandate transparency across the United States and Europe.

In addition to high energy demands, data centers can have substantial and sometimes irregular demand for water. Computer chips produce heat as waste energy from the electricity flowing through them. While this heat is minimal in the context of a personal computer, data centers with thousands of servers produce immense amounts of heat that need to be removed from the facility to maintain safety, performance, and the equipment. To manage this heat, data centers use a variety of cooling technologies, including:

- Air-based cooling, in which chilled air is circulated through server racks using computer room air conditioners or air handlers to remove heat from equipment;
- Chilled water systems, in which mechanical chillers produce chilled water that absorbs heat from servers through heat exchangers before the heat is rejected outdoors;
- Evaporative cooling systems, which use cooling towers or evaporative coolers use the evaporation of water to remove heat, which can significantly reduce electricity use but increases water consumption;
- Liquid cooling, in which coolant is delivered directly to server components or through cold plates and immersion systems, allowing heat to be removed more efficiently than with air cooling; and
- Economization technologies, in which air-side or water-side economizers take advantage of cool outdoor air or water temperatures to reduce the need for mechanical cooling when environmental conditions allow.

Many data centers combine technologies either sequentially or depending on weather conditions and server load. The blend of possible technologies introduces tradeoffs between electricity and water use. Switching between technologies can result in irregular water use patterns. Research shows that the “peaking factor” (the factor of the peak use over average use) for data centers can be double or more than the peaking factor for other large water users. Shifting between cooling technologies can result in large surges in demand that need to be accommodated by water distribution infrastructure, even if the average demand is far lower.

Without reliable information about expected energy and water usage, it is challenging to make accurate infrastructure decisions. This bill is intended to ensure that state and local agencies have access to accurate information about projected energy and water needs for data centers.

2) **Author's statement:**

The rapid growth of the artificial intelligence (AI) industry is driving the construction of large, energy-intensive data centers across California. Increased energy demand, combined with grid infrastructure development needed to serve these facilities, risks increasing energy costs for Californians. At present, California lacks accurate statewide information on how many data centers exist, where they are located, how much energy they consume, how efficiently they operate, and how they affect California's power grid. This limits the ability of state and local agencies to plan infrastructure, evaluate efficiency opportunities, and protect ratepayers. AB 1577 closes this information gap by requiring data centers to report specified energy usage and efficiency information to the California Energy Commission on a monthly basis, and requiring proposed data centers to provide estimated information to local agencies prior to beginning construction.

3) **Double referral.** This bill passed the Assembly Utilities and Energy Committee 13-5 on April 8, 2026.

4) **Related legislation.**

AB 222 (Bauer-Kahan, 2025) would have required the California Public Utilities Commission (CPUC) to establish a process for the owner of a data center, as defined, to submit the power usage effectiveness ratio for the data center to the CPUC, as provided. The bill would have also required the CPUC to assess the extent to which electrical corporation costs associated with new loads from data centers result in cost shifts to other electrical corporation customers, as specified. This bill was held in the Senate Appropriations Committee.

AB 93 (Papan, 2025) would have required a data center operator to provide its estimated or actual water use to its water supplier as a condition of obtaining or renewing a business license issued by a city or county. This bill was vetoed by the Governor.

SB 57 (Padilla), Chapter 647, Statutes of 2025, authorizes the California Public Utilities Commission (CPUC) to conduct a specified assessment of electrical corporations' potential costs and rate impacts associated with serving new electrical loads from data centers.

AB 2619 (Papan) requires the owner of a data center to submit expected water use, anticipated source of water, and the data center's projected water use volume when applying to a city for license or permitting. This bill has been referred to the Assembly Local Government Committee.

AB 2469 (Papan) requires commercial, industrial, institutional, and large landscape water users, including data centers, to submit water use assessments and water scarcity plan to the Department of Water Resources. This bill has been referred to the Assembly Local Government Committee.

SB 886 (Padilla) requires the California Public Utilities Commission (CPUC) to establish an electrical corporation tariff that addresses costs associated with transmission, distribution, and generation services for data center customers that interconnect at the transmission level and have peak electricity demands of at least 25 MW. This bill has been referred to the Senate Appropriations Committee.

SB 887 (Padilla) specifies that development and operation of a data center is not eligible for a California Environmental Quality Act (CEQA) categorical exemption unless the data center meets specified criteria, such as using onsite zero-carbon energy storage. If the data center meets the specified criteria, it would be eligible for the “environmental leadership development” program, which would provide CEQA judicial streamlining, among other changes. This bill has been referred to the Senate Energy, Utilities, and Communications Committee.

SB 978 (Pérez) requires the CPUC to create a special rate structure for data centers with an estimated capacity of at least 75 MW. This bill also expands existing CPUC reporting requirements about large loads to include a specified assessment about increased load impacts on renewable procurement goals. This bill has been referred to the Senate Appropriations Committee.

SB 1168 (McNerney) sets a surcharge for natural gas and electricity consumed or purchased for a data center in California. These charges would be used to establish the Data Center Excess Energy Usage Surcharge Fund to provide rate assistance programs for low-income customers. This bill has been referred to the Senate Revenue and Taxation Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

Brightline Action (if amended)
California Environmental Voters (if amended)
California Initiative for Technology & Democracy, a Project of California Common CAUSE
Center for Biological Diversity (if amended)
Climate Reality Project, California Coalition
Leadership Counsel for Justice & Accountability (if amended)
League of California Cities
Sierra Club, California
Sustainable Rossmoor
USGBC California

Opposition

Bay Area Council
Building Owners and Managers Association of California

Calasian Chamber of Commerce
Calbroadband
California African American Chamber of Commerce
California Business Properties Association
California Chamber of Commerce
California Hispanic Chambers of Commerce (CHCC)
California Manufacturers & Technology Association (CMTA)
CTIA
Data Center Coalition
Naiop California
Silicon Valley Leadership Group
United States Telecom Association
Techca
Technet

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