
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**

Senator Benjamin Allen, Chair

2025 - 2026 Regular

Bill No:	SB 943	Hearing Date:	3/17/2026
Author:	Becker		
Version:	2/2/2026	Introduced	
Urgency:	No	Fiscal:	Yes
Consultant:	Nidia Bautista		

SUBJECT: Public utilities: electricity: transmission charge: industrial transition usage

DIGEST: This bill proposes two main policies to encourage electrification of industrial process heat which would otherwise use fossil fuels by authorizing changes in utility costs, specifically: (1) reconsideration of changes to transmission access charges (TAC); and (2) adjustments to nonbypassable charges for new load that electrifies industrial process heat.

ANALYSIS:

Existing law:

- 1) Establishes the U.S. Federal Energy Regulatory Commission (FERC) has exclusive jurisdiction over the transmission of electric energy in interstate commerce. Establishes the process and procedures for establishing transmission of electric energy in interstate commerce by public utilities, i.e., the rates, terms, and conditions of interstate electric transmission by public utilities, including requiring all rates and charges to be just and reasonable. (Federal Power Act §§201, 205, 206 (16 USC 824, 824d, 824e))
- 2) Establishes and vests the California Public Utilities Commission (CPUC) with regulatory authority over public utilities, including electrical corporations. (Article XII of the California Constitution)
- 3) Requires the California Air Resources Board (CARB) to adopt a statewide greenhouse gas (GHG) emissions limit equivalent to 1990 levels by 2020, to ensure that statewide GHG emissions are reduced to at least 40% below the 2020 statewide limit no later than December 31, 2030, and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions. Declares the policy of the state to achieve net zero

GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. (Health and Safety Code §38500 *et seq.*)

- 4) Establishes the California Independent System Operator (CAISO) governing board with five members appointed for three-year terms by the Governor and subject to confirmation by the Senate. Requires the CAISO to ensure efficient use and reliable operation of the transmission grid consistent with achievement of planning and operating reserve criteria no less stringent than those established by the Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Corporation (NERC). (Public Utilities Code §§337 and 345)
- 5) Requires the CAISO, as a nonprofit, public benefit corporation, to conduct its operations consistent with applicable state and federal laws and consistent with the interests of the people of the state. Requires the CAISO to manage the transmission grid and related energy markets in a manner that is consistent with: making the most efficient use of available energy resources, reducing overall economic cost to the state's consumers, applicable state law to protect the public's health and the environment, maximizing availability of existing electric generation resources necessary to meet the needs of the state's electricity consumers, conducting internal operations in a manner that minimizes cost impact on ratepayers, and communicating with all balancing area authorities in California to support electrical reliability. (Public Utilities Code §345.5)
- 6) Requires all charges demanded or received by any public utility, or by any two or more public utilities, for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be just and reasonable. Every unjust or unreasonable charge demanded or received for such product or commodity or service is unlawful. (Public Utilities Code §451)
- 7) Prohibits nonbypassable or departing load surcharges, as defined by the CPUC, from applying to a reduction in kilowatt-hours (kWh) of electricity that an electrical corporation customer consumes from the electrical grid in a metered interval due to industrial process heat recovery technology, up to a cap established by the CPUC. (Public Utilities Code §451.7)
- 8) Requires the CEC to establish the Industrial Decarbonization and Improvement of Grid Operations program to provide incentives for projects at industrial

facilities that help achieve specified goals. (Public Resources Code §25662 *et seq.*)

This bill:

- 1) Makes several findings and declarations about the need to reduce GHGs, including from industrial sources, while minimizing leakage of industries leaving the state.
- 2) Authorizes the CPUC to direct an electrical corporation with more than 100,000 service connections in California, when billing an industrial customer for separately metered new load to provide industrial process heat, to apply an adjustment factor to the per kWh rate so as to limit the nonbypassable charge ratio, as specified, in furtherance of facilitating electrification of industrial energy use.
- 3) Establishes as a policy of the state that allocation of costs to ratepayers for transmission and distribution resources should follow cost causation principles.
- 4) Requires the CPUC, on or before January 1, 2028, to develop recommendations for changes to high voltage TAC that would improve consistency with the CPUC's causation principles, to communicate the recommendations to the CAISO, and to request the CAISO to reopen its TAC structure enhancements proceeding to consider reforms to its high-voltage TAC.

Background

Industrial sector. California's industrial sector includes a diverse range of facilities, including: cement plants, refineries, glass manufacturers, oil and gas producers, paper manufacturers, mining operations, metal processors, and food processors. According to the California Energy Commission's (CEC) 2023 Integrated Energy Policy Report, combustion of fossil gas, other gaseous fossil fuels, and solid fossil fuels provide energy to meet three broad industry needs: electricity, steam, and process heat. According to the CARB's 2022 Scoping Plan, industrial processes account for roughly 23% of statewide emissions of GHG in 2020 and are the second-largest contributor of GHG emissions in the state, behind transportation. Refineries and hydrogen production represent the largest sources in the industrial sector. Cement production accounts for about two percent of in-state

GHG emissions, more than half of those emissions are related to cement production processes and less than half are from fuel and electricity consumption.¹

Industrial process heat. Industrial process heat is defined as heat energy (thermal energy) used for preparation or treatment of materials that produce manufactured goods. Process heat is reportedly the most significant source of energy use and GHGs in the industrial sector, accounting for about 50% of all onsite energy use and 30% of GHG emissions, according to the 2018 Manufacturing Energy and Carbon Footprint analysis. According to the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (DOE OEERE), process heating systems are emission-intensive because fossil fuel combustion provides 95% of industrial heat across the manufacturing sector.

Electrification of industrial process heat. Electrification and solar thermal heat are best suited to industrial processes that have relatively low heat requirements, such as food processors, paper mills, and industries that use low-pressure steam in their processes. Approaches could include replacing fossil gas boilers with electric boilers, process heaters with industrial electric heat pumps, steel forging furnaces with induction heaters, and implementing other sector-specific processes. Under current rate structures for industrial electricity and fossil gas in California, most projects to electrify a fossil gas-powered industrial process will face operating cost barriers and potential reliability concerns. There are fewer commercially available and economically viable electrification options to replace industrial processes that require higher-temperature heat. For these processes, onsite combustion may continue to be needed, and decarbonization will require fuel substitutions to hydrogen or other low-carbon fuels. Fuel substitution and continued combustion will require monitoring and mitigation of any potential air quality impacts, especially in low-income and communities of color which already face disproportionate air pollution burdens. Industries in California with high heat needs include steel forging, glass manufacturing, and industries with calcination processes, such as manufacturing lime and cement.

Nonbypassable charges. The CPUC authorizes the electric utilities under its ratemaking jurisdiction to recover many of their costs through surcharges on each unit of electricity used by their customers. The CPUC, and in some cases statute, makes many of these charges nonbypassable, which means a customer must continue to pay the surcharges on each unit of electricity the customer consumes. Nonbypassable charges are assessed on a per kWh of usage basis, as such, customers who use large amounts of electricity pay more in nonbypassable

¹ <https://ww2.arb.ca.gov/ghg-inventory-data>

charges. Generally, nonbypassable charges represent the obligations of all the utility's customers, regardless of the amount of electricity the utility supplies to any given customer. As such, all utility customers pay the charges (this includes customers of electrical corporations served by other load-serving entities (LSEs) such as Community Choice Aggregators (CCA)).

Examples of nonbypassable surcharges. Nonbypassable charges are mandated volumetric customer surcharges assessed on each kWh of electricity used by the customer in order to help fund a variety of purposes and programs. For example, these charges fund public purpose programs (such as low-income rate assistance, energy efficiency procurement, biomass procurement mandates, and research and development). Other nonbypassable surcharges have been authorized to address specific purposes, including stranded investments during the electricity deregulation of the late 1990s, procurement costs incurred by the Department of Water Resources on behalf of electrical corporation customers during the Electricity Crisis of 2000-2001, and to fulfill ratepayers' portion of payments into the Wildfire Fund to settle claims related to certain wildfires. Additional charges assessed by electric utilities are not considered nonbypassable charges, and may be assessed depending on the customer tariff, such as demand charges, standby, and other charges.

Transmission access charges (TAC). TAC are those rates recovered under a FERC approved tariff by the CAISO on each megawatt hour of load and exports in order to recover transmission revenue requirements from participating LSEs within the CAISO balancing authority. These LSEs include investor-owned utilities, CCAs, electric service providers, some publicly owned utilities, and other entities, including the Bay Area Rapid Transit System (BART). In 2015, CAISO launched an initiative to consider options of potential modifications to the TAC structure. In 2018, CAISO proposed changes to the TAC that consisted in a hybrid approach that would utilize both peak demand and volumetric measurements of customer use to assess TAC charges. The CAISO stated that preserving a volumetric approach preserved cost-causation principle. However, the proposal also acknowledged that a volumetric-only approach is indifferent to when consumption occurs, which may not accurately reflect cost-causation, and the benefits users of the transmission receive from the transmission system. Many stakeholders weighed in on the proceeding, with mixed perspectives about the proposed changes, depending on how the proposal would affect their transmission rates. Ultimately, CAISO declined to proceed, perhaps due to other priorities for the entity, including expansion of the day-ahead market. Since then, there have been attempts to reconsider changes to the TAC which the CAISO has declined. Earlier this month, the Department of Water Resources, along with the State Water Contractors and

other parties, submitted a request to the CAISO to once again reconsider the approach to changes to the TAC.

Comments

Need for the bill. According to the author:

SB 943 will help industrial firms reduce air pollution and greenhouse gas emissions cost-effectively, keeping business and jobs in the state, while also reducing electricity rates for all utility customers – just by adopting some reforms to the way electricity is priced at off-peak times when California has abundant clean electricity. ...there are 2 other charges that will prevent off-peak electricity from being cheap enough for industrial firms to shift to electricity for the heat they need to run their factories. That is what this bill addresses. First, transmission charges on the CAISO grid are the same at all times, rather than higher during peak hours and lower off-peak, as is done almost everywhere else in the country. SB 943 requires the PUC to work with CAISO to reform transmission charges to encourage off-peak usage. Second, nonbypassable charges – similar to a sales tax on electricity to pay for public purpose programs – is also set as a flat rate. For most customers it is about 10-15% of the cost of electricity, but it could be more than 100% of the cost of off-peak electricity under dynamic rates. SB 943 authorizes the PUC to cap nonbypassable charges at 25% of the cost of electricity – just for new demand for industrial heat -- so that these extra costs don't double rates and prevent off-peak electricity from being cost-effective. Finally, because this is *new* electricity demand, every dollar paid, above the marginal cost of service, is new money to help pay for the fixed costs of the grid, which will lower rates for everyone else.

Electrification of industrial heat processes. Manufacturing processes are often large volume users who plan for every unit of fuel. Efforts to shift industrial heat processes to electricity are often challenged due to the comparative costs of the fuel needed in the manufacturing processes, often a comparison of the price of natural gas vs. electricity. With growing electricity rates in recent years, particularly driven by investments in wildfire mitigation by electrical corporations, among other factors, the higher cost of electricity compared to natural gas makes it unattractive to manufacturers to make this transition. Currently, the CPUC has been implementing dynamic, time-varying rates that better reflect real time prices on the grid. The CPUC is also requiring electrical corporations to incorporate cost-causation principles, including limiting certain charges to only recover those that are customer-specific non-peak distribution costs caused by the customer. This bill

proposes extending these efforts to other charges in order to further attract industrial manufacturing processes from fossil fuels to electricity, specifically: transmission charges overseen by CAISO and nonbypassable charges collected from all distribution customers.

Requiring CPUC to request changes to the TAC. This bill requires the CPUC to make recommendations to CAISO about changes to the TAC to improve consistency with cost causation principles. The cost causation principle is a utility rate-making principle that generally holds that the users responsible for causing specific costs should bear those costs. The principle is intended to eliminate cross-subsidies among customers. Cost causation is one of several rate-making principles that inform utility ratemaking, including by the CPUC and FERC. Other principles include that rates should be based on the marginal cost (or the additional expense to produce one extra unit of service), rates should encourage economically efficient use of energy and reduction of GHGs, rates should improve system reliability, and others. The author's and proponents' desire to recommend cost causation principle to TAC is intended to better reflect transmission system usage by the loads' peak demand, to encourage more efficient use of the transmission system. Peak demand is often a driving cost of the transmission system buildout. Additionally, this bill requires the CPUC to request CAISO reopen a 2018 proceeding mentioned above regarding structure enhancements for TAC that proposed a hybrid approach that utilized both peak demand and volumetric usage to assess TAC. Stakeholders have varying perspectives on the 2018 proposal given some may benefit and some may be disadvantaged from the approach. However, as of now, no stakeholder has expressed opposition to this request in this bill. Publicly owned utilities would prefer clearer language that the venue for any potential changes would be at the CAISO, not at the CPUC, as they are not subject to its economic regulation given their local governing boards oversee their rates. *In this regard, the author and committee may wish to amend this bill to further clarify the venue for any decision on changes to the TAC are at the CAISO, where non-CPUC regulated entities, such as publicly owned utilities, engage on these issues. Additionally, the amendments would recast the request of the CPUC for CAISO to reconsider the changes to the TAC, not reopen the previous proceeding.*

Adjustments to nonbypassable charges. This bill authorizes, but does not require, the CPUC to direct electrical corporations to adjust the ratio of nonbypassable charges collected from new electric industrial heat process load. This bill provides the CPUC with the authority to make changes, including suggesting an adjustment that would result in up to 25% of the nonbypassable charges that would otherwise be collected from this load. Adjustments to nonbypassable charges would necessarily result in less collection for those programs funded through these

charges, including public purpose programs and the Wildfire Fund. However, the proponents contend this is electric load that would likely otherwise not come online due to the cost difference between fossil fuel (largely natural gas) and electricity to operate industrial manufacturing processes. They suggest this additional electric load reduces overall costs for customers, including for nonbypassable charges collected, particularly as this bill requires the marginal cost of providing service to be covered. Importantly, this bill provides the CPUC with discretion to adjust this amount to any amount determined to be just and reasonable, thereby not limiting the adjustment to a specific amount in the statute. Importantly, there may be additional adjustments needed in the statute to allow for these changes as some nonbypassable charges are included in the statutes. Whereas generally differing collection of nonbypassable charges among electric customers are often disputed by stakeholders, the discretion afforded to the CPUC in this bill to ensure just and reasonable nonbypassable charges are still collected from this new load is possibly a reason stakeholders have not opposed this bill.

Additional clarifying amendments. The author and committee may wish to amend this bill to clarify the new load is for “large” commercial and industrial customers that transition fossil-based heat processes to electrification.

Prior/Related Legislation

AB 1280 (Garcia, Chapter 395, Statutes of 2025) added a new category of climate catalyst projects, thermal energy storage, to the list of those the Infrastructure and Economic Development Bank (IBank) is authorized to provide financial assistance in connection with, in consultation with the CEC and the CARB and according to specified requirements.

AB 2109 (Carrillo, Chapter 700, Statutes of 2024) prohibited some non-bypassable or departing load surcharges on electricity utility bills of industrial customers from applying to a reduction in electricity usage due to an industrial customer’s application of industrial heat recovery technology meeting specified requirements.

AB 2083 (Berman) of 2024, would have required the CEC to assess the potential for achieving an 85% reduction below 1990 levels in emissions from industrial heat application processes by January 1, 2045. The bill was held by the Senate Appropriations Committee.

SB 993 (Becker) of 2024, would have required the CPUC to consider establishing a new tariff to encourage new grid-responsive electricity consumption for

electrolytic hydrogen production and electrifying industrial heat processes. The bill was held by the Senate Appropriations Committee.

SB 1018 (Becker) of 2024, would have exempted certain entities selling solar and wind electrical generation from the definition of an “electrical corporation” if those entities provide electric generation solely over private lines exclusively for electrolytic hydrogen production and electrifying industrial heat processes.

AB 841 (Berman) of 2023, would have required CEC to create a roadmap for electrifying industrial processes, including processes requiring heat, as specified. The bill was held by the Senate Appropriations Committee.

AB 209 (Committee on Budget, Chapter 251, Statutes of 2021) implemented, via the 2021 Budget Act, and required the CEC to establish the INDIGO program to provide incentives for projects at industrial facilities that provide significant benefits to the electrical grid, reduce emissions, and achieve the state’s energy goals.

SB 596 (Becker, Chapter 246, Statutes of 2021) required CARB to develop a comprehensive strategy for the state's cement sector to achieve net-zero GHG emissions no later than December 31, 2045.

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

SUPPORT:

350 Humboldt
Amy's Kitchen
Antora Energy, Inc.
Asian Pacific Environmental Network
California Large Energy Consumers Association
Center for Community Action & Environmental Justice
Clean Coalition
CleanEarth4Kids.Org
Climate Action California
Climate Action Campaign
Fresnans Against Fracking
Industrious Labs
Menlo Spark
Natural Resources Defense Council
Net-Zero California

Project 2030
Project Green Home
Redeemer Community Partnership
Renewable Thermal Collaborative
Rondo Energy, Inc.
Santa Cruz Climate Action Network
Sierra Club California
Sierra Nevada Brewing Company
Silicon Valley Youth Climate Action
St. George Spirits
State Water Contractors
Sunflower Alliance
The 2025 Initiative at UC Santa Barbara
The Climate Reality Project: Orange County

OPPOSITION:

None received

ARGUMENTS IN SUPPORT: A coalition of manufacturers with operations in California, including Sierra Nevada Brewing Company, Amy's Kitchen, Antorra Energy, Rondo Energy, and St. George Spirits, states:

With technologies like thermal storage and industrial heat pumps are commercially available today to modernize our facilities with clean heat technologies, the current industrial electricity rate structure stands in the way. Unfortunately, the CPUC is statutorily limited from making changes to how these charges [TAC and NBCs] are assessed. ...SB 943 gives the CPUC the authority it needs to make that possible, unlocking a real path off fossil fuels for California manufacturers while keeping jobs in California.

-- END --