

THIRD READING

Bill No: SB 943
Author: Becker (D), et al.
Amended: 3/23/26
Vote: 21

SENATE ENERGY, U. & C. COMMITTEE: 15-0, 3/17/26
AYES: Allen, Ochoa Bogh, Archuleta, Arreguín, Becker, Dahle, Gonzalez,
Hurtado, McNerney, Reyes, Richardson, Rubio, Stern, Strickland, Wahab
NO VOTE RECORDED: Caballero, Grove

SENATE APPROPRIATIONS COMMITTEE: 5-0, 5/14/26
AYES: Cervantes, Cabaldon, Grayson, Richardson, Wahab
NO VOTE RECORDED: Seyarto, Dahle

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

SOURCE: Author

DIGEST: This bill proposes two main policies authorizing changes in utility costs to encourage electrification of industrial process heat which would otherwise use fossil fuels, specifically: (1) request for 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) (Title 16 United States Code (U.S.C.) 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 (PUC) §§337 and 345)
- 5) 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. (PUC §451)
- 6) 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. (PUC §451.7)

- 7) Requires the California Energy Commission (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 a large commercial and industrial customer for separately metered new load to provide industrial process heat, to apply an adjustment factor to the per kWh rate to limit the nonbypassable charge ratio 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 request the CAISO to reconsider issues raised in its TAC structure enhancement proceeding.
- 5) Requires the CPUC to develop recommendations for changes to high voltage TAC that would improve consistency with the CPUC's causation principles and to submit the recommendations to the CAISO within a proceeding considering changes to the high-voltage TAC structure.

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 CEC's 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 investor-owned utilities (IOUs) 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

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

surcharges on each unit of electricity the customer consumes. Nonbypassable charges are assessed on a per kWh of usage basis, and as such, customers who use large amounts of electricity pay more in nonbypassable 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. All utility customers pay the charges including customers of electrical corporations served by other load-serving entities (LSEs) such as Community Choice Aggregators (CCA).

Examples of nonbypassable charges. 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). TACs are those rates recovered under a FERC approved tariff by the CAISO on each megawatt hour of load and exports to recover transmission revenue requirements from participating LSEs within the CAISO balancing authority – including IOUs, 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 commented on the proceeding, with mixed perspectives about the proposed changes, depending on how the proposal would affect their transmission rates. Ultimately, CAISO declined to adopt

changes, 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 year, 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 this 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 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 request the CAISO make 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 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 principles to TAC is intended to better reflect transmission system usage by the load's peak demand, to encourage more efficient use of the transmission system. Peak demand is often a driving cost of the transmission system buildout. This bill requires the CPUC to request these changes to the CAISO who develops the TAC which is ultimately approved by FERC.

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 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, though the inclusion of the 25% would necessarily support intervenors push for this amount within the CPUC proceeding. As this bill proceeds, the author may wish to ensure whether additional adjustments are needed in the statutes to allow for the proposed changes, as some nonbypassable charges are prescribed in existing statutes. Whereas proposals to collect different amounts 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.

Related/Prior Legislation

See policy committee analysis.

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

According to the Senate Appropriations Committee:

- The California Public Utilities Commission (CPUC) estimates ongoing costs of approximately \$200,000 to \$500,000 annually (ratepayer funds) for two positions to evaluate, develop, and implement a potential tariff adjustment framework for eligible industrial transition usage, including cost-allocation analysis, rate design, utility implementation review, stakeholder engagement, and ongoing oversight.
- Unknown fiscal impact to the state as an electrical utility ratepayer. The State of California is an electric customer, purchasing roughly one percent of the state's electricity. As such, the state incurs costs if electricity rates. See staff comments for additional details on potential rate impacts.

SUPPORT: (Verified 5/14/26)

350 Humboldt
Amy's Kitchen
Antora Energy, Inc.
Asian Pacific Environmental Network
Brightline Defense

California Large Energy Consumers Association
California Solar and Storage Association
Carbon Free Silicon Valley
Central Coast Alliance United for a Sustainable Economy
Center for Community Action & Environmental Justice
Clean Coalition
CleanEarth4Kids.Org
Climate Action California
Climate Action Campaign
Climate Action Campaign at Humboldt UU Fellowship
Climate Resolve
Democrats of Greater Irvine
Environmental Defense Fund
Fresnans Against Fracking
Industrious Labs
Long Beach Alliance for Clean Energy
Long Duration Energy Storage Council
Menlo Spark
Natural Resources Defense Council
Net-Zero California
Project 2030
Project Green Home
Redeemer Community Partnership
Renewable Thermal Collaborative
Rondo Energy, Inc.
SanDiego350
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 2035 Initiative at UC Santa Barbara
The Climate Reality Project: Orange County
Women for American Values and Ethics

OPPOSITION: (Verified 5/14/26)

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.

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5/16/26 9:55:37

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