Date of Hearing: June 10, 2026

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Cottie Petrie-Norris, Chair
SB 943 (Becker) – As Amended May 27, 2026

**SENATE VOTE**: 33-3

**SUBJECT**: Public utilities: electricity: retail transmission rates: industrial transition usage

**SUMMARY**: Authorizes changes to utility rates to support electrification of industrial heat by capping volumetric surcharges for large commercial or industrial customers with new load on or after January 1, 2027, including through thermal energy storage systems, and requires the California Public Utilities Commission (CPUC) to request California Independent System Operator (CAISO) to reconsider reforms to Transmission Access Charges (TAC). Specifically, **this bill:**

1) 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 heat, to apply an adjustment factor to the per kilowatt-hour (kWh) rate for each volumetrically determined surcharge on energy use to limit the surcharge ratio to no more than 25% or an alternative maximum ratio determined by the CPUC to be just and reasonable and in furtherance of facilitating electrification of industrial energy use.

2) States that it is the policy of the state that transmission and distribution cost allocation should follow cost-causation principles, including consideration of the differing impacts on costs caused by load occurring during the highest usage time periods relative to loads occurring during off-peak times.

3) Recognizes that CAISO determines the allocation of transmission costs in its high-voltage TAC pursuant to a tariff approved by the Federal Energy Regulatory Commission (FERC) and states the Legislature's intent that CAISO take notice of the state policies expressed in Section 351.

4) Requires the CPUC, on or before January 1, 2028, to request CAISO to reconsider the issues previously raised in its TAC-Structure Enhancements proceeding as potential reforms to high-voltage TAC.

5) Requires the CPUC to develop recommendations for changes to the high voltage TAC that would improve consistency with the CPUC’s cost-causation principles and to submit these recommendations to the CAISO within a proceeding considering changes to the high-voltage TAC structure.

6) Requires each electrical corporation to obtain CPUC approval for its retail transmission rates.

7) Defines:

   i) Eligible industrial transition customer to mean a large commercial or industrial customer with new load on or after January 1, 2027, that is metered separately from previously existing loads and that consists solely of industrial transition usage.

   ii) Eligible industrial transition usage means using electricity to provide industrial heat, including through the use of thermal energy storage system, and may include de minimis consumption necessary for management and control of that usage.

   iii) Industrial heat to include any of the following:

      a) Heat used directly as process heat in an industrial facility.
      b) Heat used for a thermal energy network that provides heat from a central source to multiple buildings connected to the thermal energy network.
      c) Heat used for both industrial heat and behind-the-meter cogeneration of electricity.

   iv) Surcharge ratio as the sum of all volumetrically determined surcharges on energy use for a billing period, including volumetrically determined nonbypassable charges (NBC's), divided by the sum of all volumetric energy and delivery charges for a billing period.

**EXISTING LAW**

1) Establishes the 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) Vests the CPUC with regulatory authority over public utilities, including electrical corporations. Requires that rates and charges fixed by the CPUC be just and reasonable. (Public Utilities Code § 451)

3) Requires the CPUC to apply specific costs to each customer based on the amount of electricity purchased by the customer from an electrical corporation or alternate supplier of electricity, subject to changes in usage occurring in the normal course of business. (Public Utilities Code § 371(a))

4) Defines "change in usage" to generally mean changes occurring in the normal course of business resulting from changes in business cycles, termination of operations, departure from the utility service territory, weather, reduced production, modifications to production equipment or operations, changes in production or manufacturing processes. (Public Utilities Code § 371(b))

5) Prohibits NBCs or departing load surcharges, as defined by the CPUC, from applying to a reduction in kWhs 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)

6) 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.)

7) Establishes the CAISO as a nonprofit, public benefit corporation and requires it to ensure the efficient use and reliable operation of the electrical transmission grid. CAISO's FERC-approved tariff governs the allocation of transmission costs through its high-voltage transmission access charges. (Public Utilities Code § 335)

8) Establishes the 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)

9) Defines "large electrical corporation" as an electrical corporation with more than 100,000 service connections in California. (Public Utilities Code § 2827)

**FISCAL EFFECT**: According to the Senate Committee on Appropriations, CPUC estimates ongoing costs of approximately $200,000 to $500,000 annually from ratepayer funds to implement this bill. This measure could also result in unknown costs to the State of California as an electricity customer, as the state purchases roughly 1% of California's electricity and could be affected by any resulting changes in electricity rates.

**BACKGROUND**

*California's Industrial Sector* – California's industrial sector includes a diverse range of facilities, including cement plants, metal processors, oil and gas producers, refineries, paper and glass manufacturers, mining operations, and food processors.[1] According to CARB's 2022 Scoping Plan, the industrial sector is the second-largest source of GHG emissions after transportation.[2] Approximately, 80% of the industrial sector's emissions come from combustion-related energy use, and the remaining emissions come from industrial processes and fugitive

[1] Pg.165, CARB, "DRAFT 2022 SCOPING PLAN UPDATE," MAY 10, 2022
[2] Pg.30, CARB; "California Greenhouse Gas Emissions for 2000 to 2020 Trends of Emissions and Other Indicators; https://ww2.arb.ca.gov/ghg-inventory-data

emissions. Combustion of fossil gas and fossil fuels provides energy to meet three broad industry needs: electricity, steam, and 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 GHGs.[3]

*Industrial Electricity Bill* – A large industrial electricity bill includes several charge categories:

- Energy and Delivery Charges: Costs for generating and delivering electricity, including transmission and distribution. These charges often vary by time of use (on-peak, mid-peak, and off-peak), season, and customer class.[4]

- Nonbypassable Charges (NBCs): Per-kilowatt-hour charges that fund public purpose programs such as low-income bill reduction and energy efficiency programs, as well as stranded cost recovery, Department of Water Resources bond obligations, and wildfire-related costs. These charges apply to all electricity consumed regardless of timing.[5] The amount a customer pays in NBCs generally increases with electricity consumption because the charges are assessed on a per-kilowatt-hour basis.

- Transmission Access Charges (TAC): FERC-jurisdictional charges associated with use of the transmission system operated under CAISO, allocated on a volumetric basis and generally not differentiated by time of use.[6]

- Demand Charges: Charges based on a customer's peak electricity demand during a billing period, measured in kilowatts (kW), reflecting the cost of maintaining grid infrastructure sized to meet peak demand conditions.[7]

*Transmission Cost Allocation* – The costs of transmission are recovered primarily through CAISO's TAC. CAISO was established under AB 1890 (Chapter 854, Statutes of 1996), which restructured California's electricity market and created an independent operator to manage the transmission grid and wholesale electricity markets. Before restructuring, transmission costs were generally recovered through bundled utility rates within each investor-owned utility's service territory. After AB 1890, CAISO took over operation of most of the state's transmission system, while utilities and other transmission owners continued to own the transmission facilities.

Transmission owners file their transmission revenue requirements with FERC for approval. Once approved, those costs are recovered through the TAC under CAISO's tariff structure, and TAC rates change as FERC approves updates to transmission owner revenue requirements. The TAC applies broadly across the CAISO balancing authority area and spreads transmission costs across

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[3] Office of ENERGY EFFICIENCY & RENEWABLE ENERGY, "Process Heat Basics." https://www.energy.gov/eere/iedo/process-heat-basics
[4] CPUC, Electric Rates and Tariffs Overview (including CARE, ESA, and Nonbypassable Charges) https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-rates
[5] Ibid
[6] CAISO, *Transmission Access Charge (TAC);* https://www.caiso.com/Pages/TransmissionAccessCharge.aspx
[7] PG&E, *Commercial and Industrial Rate Plans and Demand Charges* https://www.pge.com/en/account/rate-plans/rate-plans.html

electricity customers based largely on electricity consumption. Transmission charges generally do not vary depending on when electricity is used, meaning customers pay the same transmission rate during both peak and off-peak periods. In 2015, CAISO launched its TAC Structure Enhancements initiative to consider potential modifications to the TAC structure. Through 2017 and 2018, CAISO evaluated whether transmission costs should continue to be recovered primarily through volumetric charges or whether a portion should instead be allocated based on peak demand. However, the proceeding ultimately concluded without changes to the TAC structure.

**COMMENTS**:

1) *Author's statement*. 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. The PUC is developing dynamic rates which will go a long way toward offering very low-cost electricity at off-peak times. However, there are a couple of problems outside of the PUC's control 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, and 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 and clarifies the PUC's authority to regulate retail transmission rates so that the PUC can ensure that utilities follow the directive they've already issued to offer time-varying transmission rates. Second, surcharges on energy usage – similar to a sales tax on electricity to pay for public purpose programs – are also set as flat rates. For most customers, those are about 10-15% of the cost of electricity, but they could be more than 100% of the cost of off-peak electricity under dynamic rates. SB 943 authorizes the PUC to cap surcharges 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. If we get this right, off-peak electricity can be cheap enough to help industry switch to clean energy, and 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."

2) *Why this Bill?* SB 943 seeks to address electricity costs that can make electricity less competitive than natural gas for industrial heat applications (i.e., the use of heat in manufacturing and processing operations). In 2023, the industrial sector was the state's second-largest source of GHGs after transportation [8] Many industrial facilities use natural gas to produce industrial heat, including steam used for food processing, metal production, and chemical manufacturing. For some industrial applications, heat can be supplied through technologies such as industrial heat pumps, electric boilers, electric arc furnaces, and thermal energy storage systems instead of fossil fuel combustion. However, facilities considering electrification of industrial heat applications often face electricity costs that are higher than natural gas costs, even during periods when wholesale electricity prices are low.

[8] California Air Resources Board, California Greenhouse Gas Emissions from 2000 to 2023: Trends of Emissions and Other Indicators (Nov. 2025), p. 12; CARB Greenhouse Gas Inventory Data

While wholesale electricity prices vary by time, location, and system conditions, transmission charges and volumetrically determined surcharges can substantially **increase** the delivered cost of electricity, offsetting the benefit of lower off-peak wholesale prices. In 2025, the CPUC adopted guidelines for dynamic pricing tariffs and directed utilities to develop proposals that would allow electricity prices to vary based on wholesale market prices, but the author states that transmission charges and volumetric surcharges continue to limit the competitiveness of electricity relative to natural gas for industrial heat applications.

The author also contends that uncertainty regarding the CPUC's authority over retail transmission rate design could limit the CPUC's ability to require time-varying transmission rates**.**

Therefore, SB 943 would:

i) Authorize the CPUC to cap volumetric surcharges for large commercial and industrial customers electrifying industrial heat applications at 25% of the total electricity cost, or an alternative percentage the CPUC determines to be just and reasonable.

ii) Direct the CPUC to develop recommendations for reforming high-voltage TAC to better reflect cost-causation principles, which provides that customers who drive peak demand bear more of the costs of the transmission system, and to request that CAISO reconsider the issues raised in its prior TAC structure enhancements proceedings.

iii) Require each IOU to obtain CPUC approval of its retail transmission rates. According to the author, this provision would clarify the CPUC's authority over retail transmission rates so that time-varying pricing signals may be reflected in retail rates, particularly to incentivize off-peak electricity consumption.

According to the author, these changes could help accelerate industrial decarbonization while keeping electricity costs competitive and supporting the retention and expansion of industrial facilities and jobs in California.

3) *Who Receives the Benefit?* California's electricity rates include a variety of volumetrically determined surcharges, including NBCs, that are collected on a per-kilowatt-hour basis from electricity customers. Many of these charges originated during California's electricity restructuring in the late 1990s to ensure recovery of certain electricity-related costs as California transitioned to a more competitive electricity market. Over time, additional charges were adopted to recover the costs of programs and obligations established through state law and CPUC decisions, including energy efficiency programs, low-income assistance programs such as CARE, renewable energy programs, and certain above-market electricity procurement costs. Because these charges are generally assessed on electricity consumption, they continue to apply even during periods when electricity prices are low.

SB 943 would authorize the CPUC to apply an adjustment factor to certain volumetrically determined surcharges for eligible industrial heat electrification load. The bill is based on the premise that, when electricity prices are low, these surcharges can make up a larger portion of a customer's electricity bill and reduce the potential savings from switching industrial process heat from natural gas to electricity. By reducing surcharge obligations for separately

metered new load used to provide industrial heat, the bill would create an exception to charges that are otherwise broadly applied to electricity consumption, limiting the benefit to a specific category of industrial electricity use.

4) *Revisiting the TAC Debate.* In addition to modifying volumetric surcharges, SB 943 also seeks changes related to transmission cost allocation. The bill would require the CPUC to request that CAISO reconsider issues examined in its TAC Structure Enhancements initiative and develop recommendations for TAC reforms that better reflect cost-causation principles. CAISO examined potential TAC reforms through its TAC Structure Enhancements initiative in 2017 and 2018.[9,10] The initiative examined whether transmission costs should continue to be recovered through volumetric charges or whether a portion of those costs should instead be allocated based on a customer's electricity usage during periods of peak system demand (coincident peak demand). Stakeholders differed on these approaches and the extent to which they would better align transmission cost recovery with use of the transmission system. Although CAISO issued a draft final proposal in 2018, the proposal was not implemented, and the initiative was subsequently placed on hold.

   SB 943 would require the CPUC to request that CAISO reconsider the TAC reforms examined during the 2017-2018 TAC Structure Enhancements initiative. According to the author, California's electrification goals and efforts to encourage electricity consumption during lower-cost periods warrant revisiting whether transmission charges should better reflect differences in when electricity is used. The bill would revisit an issue that CAISO previously examined but did not ultimately pursue. While California's electricity system and policy objectives have evolved since that time, it is unclear whether those changes would lead CAISO to reach a different conclusion. To clarify, the bill would require the CPUC to request that CAISO revisit the issue, but it would not require CAISO to reopen the initiative nor to adopt any reforms. Any changes to the TAC structure would still require action by CAISO and approval by FERC.

5) *Transmission Rate Authority.* SB 943 requires each electrical corporation to obtain CPUC approval for its retail transmission rates. According to the author, this is intended to affirm the CPUC's authority over retail transmission rates because price incentives associated with time-varying transmission rates are reflected in retail transmission rates. The author references a 2025 FERC order which states that while wholesale transmission rates are subject to federal jurisdiction, states retain authority over how those costs are allocated to customer classes and reflected in retail rate structures.[11] *clarifying amendments stating that the provision does not grant the CPUC authority to determine or disallow FERC-approved wholesale transmission rates. Rather, it affirms the CPUC's authority to determine how those federally approved transmission costs are allocated among retail ratepayers*.

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[9] California Independent System Operator, *Transmission Access Charge Structure Enhancements: Draft Final Proposal*, September 17, 2018; https://www.caiso.com/Documents/DraftFinalProposal-TransmissionAccessChargeStructureEnhancements.pdf.
[10] California Independent System Operator, *Transmission Access Charge Structure Enhancements*, stakeholder initiative page; https://stakeholdercenter.caiso.com/StakeholderInitiatives/Transmission-access-charge-structure-enhancements.
[11] 190 FERC 61,115, Order Instituting Proceeding Under Section 206 of the Federal Power Act and Consolidating with Other Proceedings, FERC Docket Nos. EL25-49-000, AD24-11-000, EL25-20-000 (Consolidated), (February 20, 2025) at p.36. (referencing Nantahala Power & Light Co. v. Thornburg, 476 U.S. 953, 966 (1986))

6) *You Pay Less, You Get Less.* This bill authorizes the CPUC to limit certain volumetrically determined surcharges for separately metered new industrial heat load by applying an adjustment factor, subject to a maximum surcharge ratio of 25% or another ratio the CPUC determines to be just and reasonable. Because customers receiving reduced surcharges would contribute less toward the programs funded by those surcharges, it is unclear to what extent those customers should remain eligible for benefits funded by the same surcharges they do not financially support.
*industrial transition customer receiving reduced surcharges remain eligible for incentives funded by those surcharges only to the extent of the customer's actual surcharge contributions.*

7) *Reporting Requirement.* The bill authorizes the CPUC to apply an adjustment factor to certain volumetrically determined surcharges for eligible industrial transition customers. The adjustment factor is intended to reduce electricity costs for participating customers and support industrial electrification but could have cost implications for other ratepayers. Information regarding customer participation and resulting cost impacts would help the Legislature assess how the adjustment factor is being implemented and its impacts on participating customers and non-participating customers.
*a reporting requirement directing the CPUC to evaluate and report to the Legislature on the implementation of the adjustment factor, including the number of participating customers, the impact on electricity costs for eligible industrial transition customers, and any ratepayer impacts attributable to the adjustment factor.*

8) *Technical Amendments.*
*the bill that may benefit from additional clarification.*

9) *Related Legislation.*

AB 2182 (Irwin) requires each large electrical corporation, as defined, on or before August 1, 2027, to file a Tier 2 advice letter with the CPUC establishing an Industrial Decarbonization and Energy Efficiency Program with funding from energy efficiency charges collected from industrial or manufacturing facilities that meet specified requirements. Status: Pending hearing - Senate Committee on Energy, Utilities and Communications.

10) *Prior Legislation.*

SB 596 (Becker) required CARB to develop a strategy for achieving net-zero greenhouse gas emissions from the state's cement sector by 2045 and establish interim greenhouse gas intensity reduction targets, including a goal of reducing cement greenhouse gas intensity 40 percent below 2019 levels by 2035. **Status:** Chapter 246, Statutes of 2021.

AB 2109 (Carrillo) defined industrial process heat recovery as energy efficiency and exempted IPHR-driven reductions in electricity consumption from nonbypassable and departing load charges. Status: Chapter 700, Statutes of 2024.

AB 841 (Berman, 2023) would have required the CEC to create a roadmap for electrifying certain industrial processes, including high-heat processes. Status: Held in Senate Appropriations Committee.

**SB 993 (Becker)** would have required the CPUC to evaluate and, if just and reasonable, establish a clean energy development incentive rate tariff for new or expanded commercial and industrial electric loads that support greenhouse gas reductions, including hydrogen production and industrial process heat applications. **Status:** Held in Senate Appropriations Committee.

AB 209 (Committee on Budget, 2021) established the INDIGO program at CEC to fund industrial projects increasing energy efficiency and deploying decarbonization technologies. Chapter 251, Statutes of 2021.

SB 596 (Becker) required CARB to establish interim GHG intensity targets for cement, with a goal of 40 percent reduction by 2035. Status: Chapter 246, Statutes of 2021.

SB 32 (Pavley) required CARB to ensure statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. Status: Chapter 249, Statutes of 2016.

AB 32 (Nuñez) designated CARB as the state agency responsible for monitoring and regulating GHG sources. Status: Chapter 488, Statutes of 2006.

**REGISTERED SUPPORT / OPPOSITION**:

**Support**

350 Humboldt
Amy's Kitchen
Antora Energy, INC.
Asian Pacific Environmental Network
Bellwether Coffee
Bluegreen Alliance
Brightline Defense
California Large Energy Consumers Association
California Solar & Storage Association
Carbon Free Silicon Valley
Center for Community Action & Environmental Justice
Central Coast Alliance United for a Sustainable Economy
Clean Earth 4 Kids
Climate Action California
Climate Action California (UNREG)
Climate Action Campaign
Climate Action Campaign At the Humboldt Uu Fellowship
Climate Reality Project, Orange County Chapter
Democrats of Greater Irvine
Fresnans Against Fracking
Industrious Labs
Long Beach Alliance for Clean Energy
Long Duration Energy Storage Council
Menlo Spark
Natural Resources Defense Council

Natural Resources Defense Council (NRDC)
Net-zero California
Project 2030
Project Green Home
Redeemer Community Partnership
Renewable Thermal Collaborative (RTC)
Rondo Energy
Rondo Energy, INC.
Sandiego350
Santa Cruz Climate Action Network
Sierra Club California
Sierra Nevada Brewing Company
Silicon Valley Youth Climate Action
Skyven Technologies
St. George Spiritis
State Water Contractors
Sunflower Alliance
The 2035 Initiative At UC Santa Barbara
The Climate Reality Project Los Angeles Chapter
The Climate Reality Project Orange County Chapter
The Climate Reality Project San Diego Chapter
The Climate Reality Project, Sacramento Chapter
The Climate Reality Project, San Fernando Valley CA Chapter
Usgbc California
Women for American Values and Ethics (WAVE)

**Opposition**

None on file.

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