

Ingmar Mueller

Public Comments on Proposed Cap-and-Invest and Mandatory Reporting Regulations

California's oil and gas industry remains a critical contributor to the state's economy, supporting more than 536,000 jobs statewide through direct operations and extensive supply chain activity, and generating over \$53 billion in annual labor income. The industry plays a significant role in funding essential public services, contributing approximately \$64 billion each year in state, local, and federal tax revenues that support education, infrastructure, and healthcare across California. In addition to its employment and fiscal contributions, the industry generates more than \$166 billion in value-added economic activity, underscoring its importance to California's economic resilience and energy security, even as the state pursues its long-term climate and environmental goals [1]. The industry also supports US military readiness by ensuring the extensive networks of military bases across the state have the fuels needed to protect and defend US territorial interests as well as needed forward power projection in defense of global allied interests.

I have significant concerns with the California Air Resources Board's (CARB) proposed Cap & Invest (C&I) regulation. Health & Safety Code § 38562 requires CARB to "seek[] to minimize costs and maximize the total benefits to California," to adopt rules consistent with what is "technologically feasible and cost-effective," to consider "benefits to the economy," and to "minimize leakage." [2] The proposed regulation fails to ensure C&I minimizes leakage within the petroleum industry and fails to ensure C&I is cost effective for consumers. The draft regulation currently proposed by CARB poses a direct existential threat to not only the oil and gas industry, but to the broader manufacturing industry in the state and beyond given the vital role that many California companies play in American supply chains. And because the proposed regulation risks the transfer of refining supply from California to other states and countries, the costs of the regulation will occur without any "real" and "permanent" "greenhouse gas emission reductions." [3] I urge CARB to consider alternative solutions that do not risk Californians' energy security or livelihood.

In addition to its direct economic impact, California's in-state refining system plays an important role in supporting California manufacturers and U.S. energy security and national defense, particularly on the West Coast. California refineries supply a broad range of transportation fuels, including aviation fuels that are critical to commercial and governmental operations, and they operate near major ports, military installations, and strategic aviation hubs serving the Pacific region. Continued erosion of California's refining capacity could increase reliance on imported fuels that are slower to arrive, more exposed to global supply disruptions, and less reliable during emergencies or periods of heightened geopolitical risk. Refinery closures in California reduce fuel supply resilience on the West Coast, increasing risks to military readiness and national security. Maintaining a stable policy framework that supports continued operation of

California refineries is therefore not only an economic and consumer affordability issue, but also a matter of broader energy security and national defense. [4]

California has a responsibility to understand the cumulative impact that C&I and the numerous other state policies have on the refining industry and consumers in California, and CARB has a responsibility to minimize leakage, which it has manifestly failed to uphold.

At a minimum, I urge CARB to revise the proposed amendments to address the following key recommendations:

- Strengthen program design to minimize economic leakage while preserving allowance supply, market stability, and affordability for covered entities, consistent with the statutory objectives of C&I.
- Establish stable, long-term Cap Adjustment Factors (CAFs) for the oil and gas production and refining sectors to support continued in-state fuel production and enable sustained investment necessary to meet California's ongoing transportation fuel demand
- Consider implementation of a Carbon Border Adjustment Mechanism (CBAM) on imported refined petroleum products to address emissions and economic leakage.
- Maintain existing crude extraction allocation methodologies and benchmarks, including separate benchmarks for thermal and non thermal crude extraction.

Strengthen program design to minimize emissions and economic leakage while preserving allowance supply, market stability, and affordability

Decades of state policies designed to restrict, rather than encourage, the production of affordable fuels have left California refineries trade exposed to refiners in jurisdictions without a carbon price. The California Energy Commission stated in its 2024 Transportation Fuels Assessment that "Price spike risk is especially concerning, as demand reduction is expected to be on a relatively smooth trajectory, while supply declines from refinery closures or conversions will result in steep, sudden declines in gasoline production capacity." [5] California is set to lose approximately 17%–20% of its oil refining capacity by early 2026 due to the closure of two major plants: Phillips 66's Wilmington facility (late 2025) and Valero's Benicia refinery (by April 2026). The closing of these 2 refineries will impact approximately 1,300 employees and contract workers. [6] These closures will reduce California's energy security and increase the state's reliance on foreign fuel imports. [7] 2025 gasoline imports into the West Coast (PADD 5) as of October 2024 averaged 118,580 b/d, or a total of about 35.5 million bbl. [8] The proposed amendments do nothing to help prevent additional refinery closures and will likely accelerate the closure of additional facilities as costs associated with C&I and other policies are expected

to increase significantly. Refiners will not make large capital investments or continue operating existing facilities if the long-term financial stability of those facilities remains in question.

Establish stable, long-term cap adjustment factors for the petroleum sector

Petroleum refineries and crude production require stable and predictable allowance allocation methodologies to sustain operations and support the long-term capital investments necessary to meet C&I goals and reliably supply transportation fuels. These facilities require large capital investments and long development timelines that are incompatible with frequent or uncertain changes to allocations.

Accordingly, I urge CARB to finalize CAFs beyond 2035 to give needed regulatory certainty and raise CAFs for petroleum refining (NAICS Code 324110), liquid hydrocarbon fuel production (NAICS Code 325199), and crude petroleum and natural gas extraction (NAICS Code 211111). Establishing fixed baseline CAFs would provide long term regulatory certainty, and support continued in-state fuel production, while helping to maintain affordable and reliable fuel supplies for Californians. Establishing a fixed CAF of 0.85 and pairing it with a CBAM would provide the needed leakage protection and economic certainty under C&I that refinery operators need.

Implement a Carbon Border Adjustment Mechanism

While C&I places a costly carbon price on in-state producers, imported fuels are not subject to equivalent costs, increasing emissions and economic leakage and undermining the program's environmental goals.

The way that CARB has structured the proposed regulation necessitates a well-designed CBAM to be paired with the existing carbon price to help ensure that in-state and out-of-state suppliers face comparable carbon costs when serving the California market. CARB agreed with this assessment in the findings of its industrial leakage study that it was required to perform under HSC s 38562.[9] In the October 2025 Workshop, CARB concluded that "Border carbon adjustments can mitigate leakage and reduce non-California EITE emissions." [10] CARB has studied this issue and concluded that it can address leakage via a CBAM, and it should do so. By addressing competitive distortions associated with imports, a CBAM would reinforce emissions reductions within California while helping to preserve in-state refining and maintain energy security.

As California becomes increasingly reliant on imported fuels, additional safeguards are needed to ensure emissions reductions are not simply shifted out of state. A thoughtfully designed CBAM can help achieve California's climate goals while maintaining affordability, competitiveness, and reliable fuel supplies.

Maintain existing crude extraction allocation methodologies and benchmarks

I support maintaining separate benchmarks for thermal and non thermal crude oil extraction. These production methods are fundamentally different, with materially different energy requirements, operating characteristics, and emissions profiles. A single, unified benchmark would mask these differences and weaken the link between allowance allocation and actual emissions performance.

Maintaining separate benchmarks is critical to preserving allocation integrity and minimizing emissions and economic leakage. Further reducing allowance allocations to thermal producers would accelerate declines in in-state crude production and increase reliance on imported crude produced in jurisdictions without a comparable carbon price or greenhouse gas abatement technologies.

Crude producers operate in a globally traded market and have limited ability to pass rising C&I compliance costs on to refiners without losing market share to imported crude that is not subject to comparable carbon costs. As C&I costs increase, refiners can more readily substitute lower-cost imports rather than absorb higher-priced in-state crude. This dynamic heightens leakage risk and undermines the competitiveness and long-term viability of California crude production without delivering proportional emissions reductions.

Structure the new regulation appropriately and consistent with governing law

CARB should carefully structure the proposed changes to C&I in a way that accounts for existing legal frameworks and governing statutes. Many of the suggestions in this letter will help CARB do so.

Specifically, CARB should be mindful that the severe effects of diminishing the cap allowances could violate federal protections for economic and property interests given the extensive compliance costs, which diminish in-state producers' market competitiveness and have forced many refineries to close.

Conclusion

CARB has a responsibility to understand the impact that C&I and the numerous other state policies have on the refining industry and consumers in California. LCFS, CARB At-Berth, Minimum Inventory (AB X2-1), and Maximum Gross Gasoline Refining Margin (SB X1-2) collectively impose significant costs and financial uncertainty on in-state refiners, increase leakage risk, and increase cost impacts on consumers.

Refiners contribute billions of dollars per year to the California Economy. When refineries close, California communities lose good paying jobs, and tax revenue.

California's energy future depends on policies that avoid undermining in-state refining and crude production, increasing consumer costs, or accelerating emission and economic leakage. As highlighted throughout this letter, the proposed amendments to the Cap-and-Invest Program do not adequately safeguard against these risks. With refinery closures already reducing California's fuel security and raising dependence on foreign imports [11], it is essential that CARB strengthen industrial allocation provisions, consider implementation of a CBAM, recognize the cumulative burden of overlapping state policies, and ensure regulatory stability that encourages continued investment in in-state facilities.

Achieving California's economic and environmental goals requires a balanced, data-driven policy approach that maintains affordability, protects jobs, minimizes leakage, and preserves the state's ability to reliably supply lower carbon fuels. California's petroleum refining industry operates under the world's strictest standards; with environmental protections no other operations can match. The California energy industry's economic, industrial, environmental and national security benefits have been the foundation of a healthy, prosperous state. Adversarial policies at local, regional and state levels have eroded that foundation. The draft regulations threaten to destroy it. I urge policymakers and regulators to reconsider and revise the proposed regulation before it causes lasting and irreversible harm to California's economy and energy security and broader vital American interests.

[1] Los Angeles County Economic Development Corporation (LAEDC). "2025 Report: Oil & Gas in California." Accessed February 22, 2026. Full document available at: laedc.org/download/oil-gas-in-california/

[2] California Health & Safety Code § 38562

[3] California Health & Safety Code § 38562

[4] "California Energy & Fuel Policies: A Clear and Present Threat to National Security and Force Readiness?" Assembly of State Militaries Reserve Component. October 2025. Full document available at: ad32.asmrc.org/wp-content/uploads/2025/10/CA-Impact-on-Force-Readiness.pdf (Accessed February 22, 2026)

[5] California Energy Commission. "Transportation Fuels Assessment: Policy Options for a Reliable Supply of Affordable and Safe Transportation Fuels in California." August 15, 2024. Accessed February 28, 2026. Full document available at: energy.ca.gov/publications/2024/transportation-fuels-assessment-policy-options-reliable-supply-affordable-and

[6] Lodi 411. "The Impact of Phillips 66 and Valero Refinery Closures in California." April 16, 2025. Accessed February 22, 2026. Full document available at: lodi411.com/lodi-eye/the-impact-of-phillips-66-and-valero-refinery-closures-in-california

[7] U.S. Energy Information Administration (EIA). "Refinery Closures Present Risk for Higher Gasoline Prices on the West Coast." Accessed February 18, 2026. Full document available at: eia.gov/todayinenergy/detail.php?id=65704

[8] OPIS. "As Reliance on Imported Gasoline Rises, California Adapts to a 'New World.'" November 4, 2025. Accessed February 23, 2026. Full document available at: opis.com/resources/energy-market-news-from-opis/as-reliance-on-imported-gasoline-rises-california-adapts-to-a-new-world/

[9] California Health & Safety Code § 38562(j), Division 25.5. California Global Warming Solutions Act of 2006, Part 4 - Greenhouse Gas Emissions Reductions

[10] California Air Resources Board (CARB). "Cap-and-Invest Program Workshop." October 29, 2025. Document available at: ww2.arb.ca.gov/sites/default/files/cap-and-trade/meetings/nc_CapInvestWorkshop_October2925.pdf

[11] OPIS. "As Reliance on Imported Gasoline Rises, California Adapts to a 'New World.'" November 4, 2025. Accessed February 23, 2026. Full document available at: opis.com/resources/energy-market-news-from-opis/as-reliance-on-imported-gasoline-rises-california-adapts-to-a-new-world/