March 9, 2026

Ms. Lauren Sanchez
Chair
California Air Resources Board
1001 "I" Street
Post Office Box 2815
Sacramento, California 95812

Dear Ms. Sanchez,

The California Large Energy Consumers Association (CLECA) appreciates the opportunity to submit these comments to the California Air Resources Board (CARB or Board) for the May 28, 2026, public hearing regarding the proposed amendments to the California Cap-and-Invest Program (Program), as described in the Initial Statement of Reasons (ISOR) released on January 20, 2026. These comments build upon CLECA's prior engagement,[1] focusing on industrial allowance allocation, the transition of indirect allocation administration, and the proposed Manufacturing Decarbonization Incentive (MDI).

CLECA members represent a broad array of emissions-intensive, trade-exposed (EITE) industries that are essential to California's economy and public welfare. These member industries include steel, cement, industrial and medical gases, beverage, and minerals processing. The facilities anchor critical supply chains and provide foundational materials for infrastructure, health care, and goods for daily life.

As CARB tightens allowances to align with the statewide climate targets, industrial leakage protections must remain commensurate with demonstrated EITE risk. The industrial allowance allocation is a central mechanism for minimizing emissions leakage under the Program and enabling California facilities to remain competitive while they invest in projects to achieve cost-effective, long-lasting emission reductions.

I. The Proposed CAF Trajectory Reduces Leakage Protection Contrary to AB 1207's Mandate

Assembly Bill (AB) 1207 (Irwin) expressly directs CARB to design industrial allocation in a manner that minimizes emissions leakage and preserves the competitiveness of California industries subject to carbon pricing.[2] Consistent with this statutory direction, adjustments to allocation parameters, including the Cap Adjustment Factor (CAF), should ensure that the level of assistance provided to EITE sectors remains aligned with the economic pressures these industries face.

Assistance Factors (AFs) proposed to remain at 100 percent for all EITE sectors through 2035 is consistent with the mandate and reflects the current broad state of emissions leakage risk.

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[1] California Large Energy Consumers Association (CLECA). Comments on October 2025 Cap-and-Invest Workshop. Submitted to the California Air Resources Board, November 12, 2025. Available at: https://ww2.arb.ca.gov/form/public-comments/submissions/54541

[2] AB 1207 (Irwin), Ch. 117, Statutes of 2025, p. 8.

However, CARB's proposed CAFs include an allocation "cliff" for budget year 2032 with substantially reduced allowance allocation coverage through 2035. The CAF is the primary driver of declining industrial allocation coverage during this period.

This trajectory materially reduces the share of emissions covered by free allocation, thereby increasing uncovered compliance costs for EITE facilities. Industrial activities with the standard CAF would decline to only 27.9% coverage of compliance costs by 2035.[3]

As allocation coverage declines, the relative cost of operating in California rises compared to jurisdictions without comparable carbon constraints. This dynamic contributes to a well-established leakage pathway. When compliance costs are greater in one jurisdiction and lower or non-existent in others, businesses in the higher-cost jurisdiction become less competitive, pushing investment and production toward lower-cost jurisdictions. Such shifts can ultimately lead to higher global emissions due to weaker regulatory structures, differences in grid emissions intensity, and the additional emissions associated with transporting imported goods.

Maintaining allocation levels that are commensurate with leakage risk is therefore essential to ensuring that California's climate policies reduce global emissions and align with the legislative intent of AB 1207.

II. Policy Driven Industrial Cost Pressures in California Intensify the Need for Robust Leakage Protection

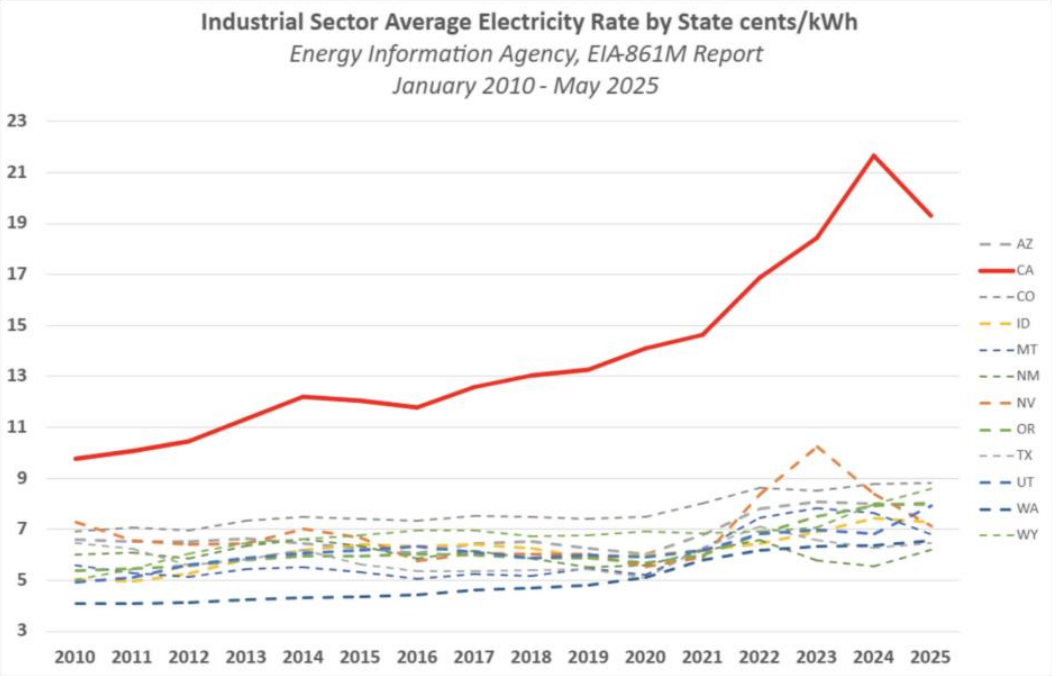
The proposed reduction in the CAF also intensifies the cost pressures already confronting California's industrial sector. As CLECA has previously commented, industrial electricity rates in California have risen to more than two-and-a-half times the U.S. average.[4] California's high electricity rates reflect embedded carbon compliance as well as broader state environmental policy, such as resource procurement planning and renewable portfolio standard (RPS) mandates. For energy and emissions-intensive industries, the impact of elevated electricity rates on EITE competitiveness is compounded by Cap-and-Invest compliance costs. Together, these cost pressures directly impact the ability of these industries to compete with out-of-state production and drive the economic feasibility of electrification, carbon capture, and other technology investments needed to decarbonize California's industrial sectors.

Figure 1[5]

[3] California Air Resources Board (CARB). Staff Report: Initial Statement of Reasons for Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms. Released January 20, 2026. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_isor.pdf

[4] Little Hoover Commission. *The High Cost of Electricity in California*. Report #290. Sacramento, CA: Milton Marks Commission on California State Government Organization and Economy. October 2025. Available at: https://lhc.ca.gov/wp-content/uploads/LHC-Report-290-The-High-Cost-of-Electricity-in-California-Final-Draft-Prior-to-Publication-10.31.25.pdf

[5] Source: Energy Information Agency (EIA), EIA-861M Monthly Electric Power Industry Report, Monthly sales to ultimate customers by state for all sectors, January 2010 – May 2025.



These conditions place California manufacturers at a structural cost disadvantage relative to facilities located in jurisdictions with lower electricity prices and no comparable carbon pricing policies. As the Program's cap of allowances tightens and free allocation declines, these cost differentials become more consequential, increasing the risk that production will shift to jurisdictions with a higher emissions intensity.

III. Industrial Compliance Coverage in California is Lower than Competing Jurisdictions

CARB's comparison of industrial allocation coverage across emissions trading systems highlights the sensitivity of California's EITE sectors. Staff materials indicate that in 2023, California provided the lowest ratio of industrial allocation to covered emissions among peer programs. According to Table 6 of the ISOR, industrial sectors in California received 62 percent of their covered emissions as free allowances, while carbon programs in other jurisdictions provided coverage ranging from 72 to nearly 100 percent.[6] Compared to California's neighboring states with no carbon compliance mandates in place, California's uncovered compliance costs are dramatically higher still. In this context, further CAF-driven reductions would continue to widen the gap between California and other competing jurisdictions with or without carbon programs in place, increasing the likelihood of emissions leakage.

CLECA therefore urges CARB to revise the proposed CAF trajectory to ensure that leakage protection remains commensurate with EITE risk and aligned with the statutory mandate of AB 1207. While CLECA supports CARB's proposal to maintain the current AFs at 100 percent through 2035, we also

[6] California Air Resources Board (CARB). Staff Report: Initial Statement of Reasons. *See Table 6: Ratio of Industrial Allocation to Covered Emissions in Various Jurisdictions (2023).* Released January 20, 2026. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_isor.pdf

urge the Board to strengthen the emissions leakage protections provided by the CAFs to better reflect the economic realities facing EITE industries.

IV. Suspend Further CAF Reductions Pending Implementation of a Border Carbon Adjustment (BCA)

CARB Staff's evaluation of emissions trading systems also highlighted that other programs employ multiple, coordinated strategies to mitigate emissions leakage while pursuing long-term climate targets. According to the ISOR, jurisdictions such as the European Union are pairing the implementation of a border carbon adjustment mechanism (BCA) with a gradual phase-down of free industrial allocation under the EU Emissions Trading System.[7]

This sequencing reflects practical policy design: reductions in free allocation occur alongside the introduction of a mechanism that applies comparable carbon costs to imported products.

While market-based instruments such as BCAs or other embodied-carbon approaches could help California's EITE sectors manage competitiveness pressures as further CAF reductions are proposed, such policies have not yet been developed or implemented within the Program. In the absence of such mechanisms, the cumulative burden of compliance costs and energy price differentials will continue to erode the competitiveness of sectors that are central to the state's low-carbon economy.

CLECA therefore recommends that CARB suspend further CAF reductions for EITE industries to preserve effective leakage mitigation until longer-term market solutions can be implemented in coordination with the phase-down of CAFs. Notably, the sequencing of an effective BCA (should one be adopted) followed by a gradual ramp-down of industry assistance is critical to avoiding industrial leakage. This approach is utilized by other carbon compliance jurisdictions, such as the European Union, and helps explain why California's level of industry assistance is relatively low compared with other carbon compliance jurisdictions.

V. Ensure a Value-Neutral Transition and Holistic Review of Emissions Leakage Including Indirect Electricity Allocation

CLECA recognizes CARB's objective in consolidating the administration of purchased electricity allocation under the Cap-and-Invest Regulation. Improving transparency in allocation methodologies and expanding coverage to facilities served by publicly owned utilities (POUs) are constructive goals. At the same time, the transition of indirect allocation administration from the California Public Utilities Commission (CPUC) to CARB provides an important opportunity for the Board to confirm that the transition is value-neutral to covered entities and evaluate industrial leakage protection more holistically across both direct and indirect emissions.

A. Confirm the Value Neutrality Between CPUC and CARB Administration of Indirect Allocation

According to the ISOR, CARB intends the transition from the prior bill-credit framework administered by the CPUC to CARB's direct issuance of annual allowances under the Program

[7] California Air Resources Board (CARB). Staff Report: Initial Statement of Reasons. Released January 20, 2026. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_isor.pdf

to be value-neutral for affected sectors. However, stakeholders currently lack the ability to independently verify this outcome.

Under the current framework, the CPUC administers industrial assistance for electricity-related Cap-and-Invest costs through utility bill credits funded by utility allowances. Rather than flowing directly to industrial customers through CARB's allowance allocation process, the value returned to these customers is calculated through a multi-step administrative process involving utility filings, energy intensity baselines, and conversion factors established by CARB rules and CPUC proceedings.[8]

Because the CPUC methodology includes significant administrative complexity and sector specific proprietary data rather than a single public formula, stakeholders cannot easily reconstruct facility level outcomes. As a result, facilities are unable to directly compare historical outcomes under the CPUC framework with projected allocations under the proposed CARB-administered system. Without that direct comparison, stakeholders have limited ability to independently confirm whether the new methodology will maintain the same level of effective leakage protection for EITE industries.

CARB is uniquely positioned to conduct this comparison because it has access to all the information necessary to evaluate the transition. CLECA therefore respectfully requests that CARB document the analytical approach used to evaluate value neutrality between the CPUC-administered framework and the proposed allocation methodology and confirm that no EITE sector experiences a reduction in effective leakage protection as a result of the administrative transition.

Finally, for non-covered entities eligible to opt in to receive indirect emissions credits, the ISOR proposed to retain substantially the same process of distributing credits through a CPUC process and administered through the Investor-Owned Utilities (IOUs). CLECA supports this approach and requests that CARB and the CPUC ensure that the appropriate allowances are transferred to the IOUs. This approach is important for supporting EITE facilities that are primarily exposed to carbon costs embedded in electricity prices, as mitigating these costs is essential for maintaining their competitiveness in California.

B. Evaluate Direct and Indirect Allocation Holistically to Avoid Electrification Disincentives

CARB's proposed amendments would also place responsibility for both direct and indirect industrial allocation under a unified regulatory framework. This provides the Board with an important opportunity to evaluate industrial compliance cost exposure holistically across emissions sources.

Industrial decarbonization strategies frequently involve electrifying core production processes. While these investments reduce on-site direct emissions, they often increase electricity demand and therefore increase exposure to California's high electricity rates, including embedded carbon compliance costs and related state policy costs. Most non-renewable fuels currently being used in industrial facilities are dramatically cheaper than the equivalent energy content of

[8] California Public Utilities Commission. Decision Adopting Customer Climate Credit Updates (Decision 21-08-026, Rulemaking 20-05-002). August 19, 2021. Available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M402/K296/402296732.PDF

electricity, which creates an "energy penalty" to electrifying industrial processes. Similarly, certain decarbonization technologies, such as carbon capture and sequestration (CCS), also impose an energy penalty, requiring 13 to 44 percent additional energy to operate capture and compression equipment.[9] As a result, the deployment of these technologies can significantly increase electricity consumption even as direct emissions decline.

If direct and indirect allocation are evaluated independently, facilities pursuing electrification may experience a reduction in total leakage protection as emissions shift from direct to indirect sources. Without a coordinated evaluation of these two allocation streams, the net effect could be an increase in total compliance exposure despite the facility undertaking emissions-reduction investments.

Such an outcome would be inconsistent with the Program's objective of encouraging industrial decarbonization while minimizing emissions leakage. Electrification and other electricity-intensive decarbonization technologies should not inadvertently reduce the level of leakage protection available to facilities that are actively lowering their emissions.

VI. Design a Workable and Effective Manufacturing Decarbonization Incentive

CLECA supports CARB's consideration of an MDI as a mechanism to accelerate emissions reductions within California's industrial sector. Properly designed, the MDI could help facilitate capital investment in industrial decarbonization technologies and the use of renewable fuels while supporting the State's broader climate objectives. However, for the MDI to be effective, its structure must align with industrial investment cycles, include commercially available decarbonization technologies, and operate alongside existing leakage protections rather than inadvertently weakening them.

A. Align the MDI with Electrification to Avoid Structural Penalties for Direct-to-Indirect Emissions Shifts

As discussed in the preceding section, many industrial decarbonization pathways rely on electrifying core production processes. While electrification reduces direct on-site emissions, it simultaneously increases electricity consumption, and with it, the indirect compliance costs embedded in electricity rates. Facilities that are actively electrifying their operations could face higher net compliance costs than before, effectively penalizing the very investments the program is designed to encourage.

Consider a facility that replaces a natural gas process heater with an electric alternative under the MDI framework. Such a project eliminates on-site fossil fuel combustion emissions while necessarily increasing purchased electricity leaving the facility more exposed to indirect compliance costs than it was prior to electrification. It is important for CARB to evaluate direct and indirect emissions holistically to ensure desired decarbonization investments are economically feasible.

[9] Intergovernmental Panel On Climate Change (IPCC) (Ed.). (2023). Energy Systems. In Climate Change 2022 - Mitigation of Climate Change (1st ed., pp. 613–746). Cambridge University Press. https://doi.org/10.1017/9781009157926.008.

B. Expand Project Eligibility for MDI to Support Broad Technologies that Deliver Material Verifiable Emissions Reductions

To maximize the MDI's impact and ensure it delivers durable, long-term emissions reductions, project eligibility criteria should remain technology-neutral and reflect the full diversity of cost-effective decarbonization pathways available to California's industrial sectors. The program should support both operational and procurement strategies and capital investments that enable facilities to fundamentally transform their energy systems.

Renewable Fuels and Biomass

Current MDI eligibility for renewable and biomass-derived fuels represents an important step in enabling covered entities to reduce their carbon intensity through fuel switching. To ensure this eligibility delivers fair and effective incentives, CARB should calculate emissions reductions against a conventional fossil fuel baseline, rather than against a facility's current fuel mix.

Setting baselines based on existing renewable fuel purchases would inadvertently penalize early actors; facilities that proactively adopted biomass fuels before the MDI program would receive less credit than facilities that delayed action.

This baseline approach would create a perverse incentive structure that discourages voluntary early decarbonization. Most acutely, facilities are incentivized under the 3-year look back to curtail use of renewable fuels between the publication of the ISOR and the official program start. Moreover, because fuel purchases are operational decisions that can be suspended or reversed at any time, using current fuel mix as a baseline does not reflect the structural emissions profile of a facility. A fossil fuel baseline ensures that every unit of forward looking purchased renewable fuel receives consistent credit, regardless of when a facility began its transition, and avoids anchoring the program to historic purchasing decisions.

To build on this foundation and ensure these emissions reductions are durable and scalable, CARB should also expand eligibility to include the capital investments and infrastructure upgrades that enable facilities to procure and utilize biomass fuels on a sustained, long-term basis. Specifically, MDI eligibility should be extended to cover on-site equipment upgrades necessary to handle, process, and combust biomass fuels, as well as investments that strengthen the biomass supply chain.

Expanding MDI eligibility to include this capital equipment can encourage deep retrofits to enable biomass fuel adoption and ensure that facilities have the infrastructure in place to sustain fuel switching over the long term. This expanded approach, supporting both the procurement of low-carbon fuels and the capital necessary to integrate them into facility operations, would strengthen the durability of emissions reductions.

Waste heat recovery (WHR)

Waste heat recovery (WHR), also known as industrial process heat recovery, is another compelling example of a high-impact, commercially proven decarbonization strategy that should be added to the MDI eligible project list. WHR systems capture excess thermal energy generated during high-temperature industrial processes, energy that would otherwise be

vented or lost, and redirect it to generate electricity on-site, directly displacing grid power and reducing a facility's indirect emissions.

For energy-intensive sectors like cement manufacturing, the potential impact of WHR is substantial. An analysis specific to the California cement industry shows that WHR could supply 20 to 40 percent of a plant's power needs, yielding energy savings of roughly 40 to 60 million kWh annually per facility.[10] Similar to currently MDI-eligible renewable energy procurement, WHR can support electrification of industrial processes to help improve the economics and availability of sufficient electricity to meet the increased requirements. At a time when California's industrial electricity rates continue to climb steeply, investments of this kind simultaneously reduce compliance costs, improve competitiveness, and deliver lasting greenhouse gas (GHG) reductions.

Electricity Energy Efficiency

Similarly, projects that improve the electricity efficiency of motors, pumps, and other large electrical equipment can free up capacity for electrification of other processes. Accordingly, projects that improve electricity efficiency to enable electrification and reduce associated process emissions should also be eligible as MDIs.

Natural Gas Energy Efficiency

Projects that improve the fuel efficiency in industrial processes should also be considered for MDI-eligible projects. Electrification of some industrial processes is not practical in the short to medium term due to high process heat requirements or the lack of sufficient electricity through existing interconnections. CARB should encourage investments that materially improve the efficiency of natural gas consumption through process improvements, burner upgrades, waste heat preheaters, and similar technologies.

CLECA recommends expansion of eligible projects under the MDI framework to encompass all material, verifiable, and structurally durable emissions reduction investments, including renewable and biomass fuels procurement and capital upgrades, WHR, and equipment upgrades to enable capital-intensive electricity and fuel efficiency measures.

C. Extend MDI Eligibility to Industrial Gas Manufacturing

As currently drafted, the MDI excludes "energy industries such as liquid fuels providers, energy extraction, or electricity generation."[11] CLECA understands the rationale for this exclusion but notes that Table 9-1a also includes Industrial Gas Manufacturing (NAICS Code 325120), which produces medical and industrial grade oxygen, nitrogen, and argon that are used in hospitals, manufacturing, and other non-energy use cases.

[10] California Nevada Cement Association (CNCA). *Achieving Carbon Neutrality in the California Cement Industry: Key Barriers & Policy Solutions*, Second Edition. July 2023. Available at: https://static1.squarespace.com/static/65255bbe3f377e609244546f/t/6571fa23c11add2d88b8cc7d/1701968419719/cnca_carbonneutrality_secondedition_vfinal_07_19_23_.pdf

[11] California Air Resources Board (CARB). Staff Report: Initial Statement of Reasons. Released January 20, 2026. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_isor.pdf

Additionally, Section 95891(g)(1) limits MDI eligibility to covered or opt-in covered facilities that are already eligible for product-based or energy-based allocation. This requirement effectively excludes EITE manufacturers whose operations result in direct emissions below the 25,000 MTCO2e coverage threshold. These facilities are non-covered not because they do not have leakage risk, but because their processes are predominantly electricity-driven, yet these facilities face competitive pressures, leakage risks, and decarbonization challenges like their covered facility counterparts.

Importantly, the fact that a facility is non-covered today does not mean it lacks direct emissions reduction opportunities worth incentivizing: process improvements, fuel switching for ancillary combustion equipment, and other capital investments may represent meaningful and verifiable GHG reductions that an MDI could help unlock.

CLECA therefore recommends that CARB extend MDI eligibility to entities below the 25,000 MTCO2e coverage threshold by providing a path to opt-in to the MDI and including the Industrial Gas Manufacturing sector.

D. Align Incentive Timing with Industrial Investment Cycles

The MDI's proposed quickly declining Cap Adjustment Factor Modifier (CAFM), combined with a five-year expenditure window, risks being misaligned with the realities of large-scale industrial decarbonization. Capital-intensive projects such as kiln conversions, furnace electrification, and hydrogen integration routinely require multi-year feasibility studies, permitting processes, and construction timelines that can easily exceed five years from project conception to operation. A facility that identifies an eligible project today may find that by the time it has completed the necessary engineering work and secured the required permits, the incentive value that was intended to cover core project costs has either declined significantly or expired entirely.

This structural mismatch risks producing a perverse outcome: rather than catalyzing the deep, long-term decarbonization investments the MDI is designed to encourage, the current incentive trajectory may disproportionately favor near-term projects that are relatively simple, low-risk, and with limited emission reduction durability. Meanwhile, the most transformative investments, which by their nature require the longest lead times, may be effectively squeezed out of the program.

To address this, these structural adjustments warrant implementation:

1. Extend the allowable expenditure period from five to at least seven years to reflect the extensive California permitting and approval process.
2. Begin the expenditure time clock from when allowances are withdrawn from a facility's CARB account.
3. Moderate the rate of decline in the CAFM schedule so that the incentive retains meaningful value throughout a project's development cycle.
4. Ensure costs are eligible starting with the publication of the ISOR to ensure no perverse incentive to delay otherwise eligible projects.
5. Include project development costs as eligible project costs, including permits, engineering, and environmental studies.

Together, these refinements would better align the MDI's incentive structure with real-world project timelines.

VII. Conclusion

As CARB evaluates the proposed amendments to the Cap-and-Invest Program, CLECA urges the Board to ensure that industrial allocation remains durable, predictable, and commensurate with demonstrated emissions leakage risk. Specifically, the Board should:

- Revise the CAF trajectory to preserve robust leakage protection;
- Condition further CAF reductions on the implementation of comparable carbon cost safeguards such as a BCA;
- Affirmatively demonstrate value neutrality in the transition of indirect allocation administration;
- Evaluate direct and indirect allocation holistically to avoid unintended electrification disincentives;
- Calculate MDI emissions reductions against conventional fossil fuel baselines to avoid penalizing early action;
- Expand MDI eligibility to include capital investments in renewable and biomass fuel infrastructure and eliminate fuel baseline requirement, waste heat recovery, and electricity efficiency improvements that enable electrification;
- Extend MDI eligibility to all non-energy EITE manufacturers; and
- Adjust MDI to align the incentive timing with industrial investment cycles.

CLECA appreciates the opportunity to provide these comments and looks forward to continued collaboration with CARB Staff as the Board refines these proposals consistent with the statutory mandate to minimize emissions leakage while advancing California's long-term climate objectives.

Respectfully submitted,

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