



CALIFORNIA METALS COALITION

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November 12, 2025

Submitted electronically via CARB Comment Portal

Dr. Mark Sippola
Climate Change Program Evaluation Branch Chief
California Air Resources Board
1001 I Street
Sacramento CA 95814
Email: Mark.Sippola@arb.ca.gov

Subject: Comments on Possible Cap-and-Invest Regulation Amendments

Dear Dr. Sippola:

The California Metals Coalition (CMC) is the nation's largest state trade association servicing the metals sector. Our membership encompasses nearly all sectors of the metals industry, including foundries, die casters, CNC (computer numerical control) machine shops, forging operations, laser cutting, fabricators, heat treaters, metal stampers, metal formers, metal extruders, wire metal, recyclers, shredders, and suppliers and consultants to the industry. CMC appreciates the opportunity to comment on the information the California Air Resources Board (CARB) shared during the October 29, 2025 workshop on CARB's contemplated Cap-and-Invest Program regulatory updates.

Minimizing Leakage Risk for Manufacturing Sectors Reliant on High Heat Processes

CMC appreciates CARB's recognition during the October 29 workshop that certain manufacturing sectors are hard to decarbonize due to high heat requirements and high abatement costs.¹ For manufacturing sectors reliant on high heat processes, decarbonization is not technologically possible with currently available and foreseeable technology. As a result, these manufacturers cannot lower their Cap-and-Invest Program compliance costs by

¹ CARB, [Cap-and-Invest Workshop October 2025](#), Slide 39.

further reducing their greenhouse gas (GHG) emissions and, as the stringency of the Program increases and allowance prices increase, emissions leakage will also increase. To effectively minimize emissions leakage, additional free allowances or other measures to reduce compliance costs will be needed for these sectors.

The seamless rolled ring manufacturing sector provides a salient example. In California, seamless rolled rings are manufactured at two facilities in California, primarily for commercial and national defense applications in the aerospace industry. Seamless rolled ring manufacturing is subject to strict regulations to ensure performance, efficiency, safety, and reliability. It requires a heat-intensive, multi-cycle process in which titanium and other alloys are heated to temperatures approaching their recrystallization point during configuration and formation. The manufacturing process requires sustained temperatures over 2,000 degrees Fahrenheit, which can only be achieved through natural gas-fired combustion technology. A post-forging heat treatment step alters the microstructure of the metal, increasing surface hardness, temperature resistance, ductility, and strength, making seamless rolled rings more fatigue-resistant and well-suited for components subject to high torque, pressure, and temperature. Due to the physical properties of the alloys, this heat-intensive process is necessary to create products that meet regulatory and Quality Management System (QMS) requirements for aerospace and other similarly demanding applications.^{2,3} Electric heating technology is unable to heat the furnaces to the temperatures required to meet these quality and safety rules and specifications.

Cap Adjustment Factor and Other Mechanisms to Minimize Leakage Risk

CMC agrees with CARB's assessment that free allocations are an effective tool to lower compliance costs and reduce emissions leakage risk.⁴ Free allocations are especially critical for manufacturing sectors reliant on high heat processes to compete with out-of-state

² An aerospace QMS is a set of processes and procedures designed to ensure that aerospace products and services meet the highest quality and safety standards.

³ Facilities in this industry sector periodically audited and certified as meeting the requirements for Nadcap accreditation and aerospace QMS standards in AS9100:D and ISO 9001:2015. (See Performance Review Institute (PRI) website, Nadcap, available at <https://www.p-r-i.org/nadcap> [Nadcap is a cooperative program that provides independent certification of manufacturing processes for the aerospace and defense industry]; SAE International website, AS 9100D, available at <https://www.sae.org/standards/content/as9100d/> [AS9100D, a QMS setting requirements for aviation, space, and defense organizations, includes ISO 9001:2015 QMS requirements].)

⁴ CARB, [Cap-and-Invest Workshop October 2025](#), Slides 27, 35, 40.

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manufacturers and to the State's ability to keep manufacturing in-state and subject to California's more robust environmental laws and regulations.⁵

CMC supports CARB's suggestion to help industrial sectors decarbonize through a targeted incentive for decarbonization projects to lower compliance costs and emissions leakage for industrial sectors. Incentives alone, however, are not sufficient to minimize leakage for all industrial sectors, especially sectors reliant on high heat manufacturing processes for which natural gas-fired combustion is the only option to reach required temperatures.

In addition to decarbonization incentives, CMC supports CARB's proposal to retain the current the Cap Adjustment Factor (CAF) through 2030 to avoid increasing the rate of cap decline for industrial allocations. For high-heat manufacturing sectors, we also encourage CARB to consider using other tools it has available to minimize emissions leakage through 2030. For example, CARB can minimize emissions leakage in high heat manufacturing sectors by re-evaluating its existing policy governing the use of alternative CAFs (Alt-CAFs) for allowance allocation to make this cost containment and leakage prevention mechanism accessible to industry sectors that rely on high-heat processes. CARB can also ensure its product benchmarks for high-heat manufacturing sectors are effective in mitigating leakage going forward by reevaluating benchmarks for these limited sectors to ensure they accurately reflect the average emissions per unit product. For the period post-2030, we urge CARB to exercise the additional flexibility to allocate emission allowances to industrial sectors after 2030 it was granted in AB 1207 (Irwin, 2025), to develop an allocation methodology that increases the free allowance allocation to manufacturing sectors that cannot decarbonize due to high heat manufacturing requirements to minimize emissions leakage in these sectors.

If you have any questions or if you would like to discuss these issues further, please do not hesitate to contact me at james@metalscoalition.com.

Sincerely,



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⁵ Out-of-state manufacturing may also result in increases in transportation emissions, in addition to increases in production-related emissions, due to increases in vehicle miles traveled for shipping of components and completed products.