Joseph Silvi

Dear Chair and Members of the Board, March 9, 2026

My name is Joseph Silvi, and I am a recent graduate of the University of California, Berkeley, where I earned a Bachelor of Science degree in Environmental Engineering from the Department of Civil & Environmental Engineering. I appreciate the opportunity to provide comments regarding the proposed amendments to California's Cap-and-Invest program.

California has long served as a global leader in environmental policy and climate innovation. As someone trained in environmental engineering, I value science-based approaches to greenhouse gas mitigation that achieve meaningful environmental outcomes while remaining economically and socially sustainable. Market-based mechanisms such as Cap-and-Invest can be effective policy tools when carefully calibrated to balance environmental ambition with economic practicality and equity considerations.

In reviewing the proposed amendments, three considerations appear particularly important to evaluate carefully: the potential for environmental leakage, environmental justice implications, and the distributional impacts of energy policy on California residents.

Environmental Leakage and Global Emissions

Climate policy is most effective when it reduces global greenhouse gas emissions, rather than simply shifting emissions geographically. When regulatory costs diverge significantly between jurisdictions, economic activity may sometimes relocate rather than disappear. In energy markets, this dynamic can result in increased reliance on imported fuels produced under different environmental and regulatory frameworks.

California currently imports a substantial portion of the crude oil processed in its refineries and the gasoline used every day by Californians. Production practices and environmental safeguards in some exporting regions differ meaningfully from those enforced in California. In certain regions of the world, routine flaring and venting of associated gas releases methane and other pollutants that contribute significantly to climate change and local air quality degradation.

Methane emissions are particularly relevant given methane's high global warming potential, approximately 84 times greater than carbon dioxide over a 20-year time horizon. As a result, upstream methane releases from oil and gas production can significantly affect the overall lifecycle greenhouse gas intensity of fuels, as is the case in Iraq – California's largest source of foreign oil imports.

Another aspect worth considering is the structure of regulatory coverage across global supply chains. While fuels consumed in California ultimately fall under the state's Cap-and-Invest compliance framework, fuel production occurring outside California is not subject to California's carbon pricing system or environmental regulatory standards. As a result, upstream emissions associated with foreign crude extraction and fuel production occur largely outside the regulatory scope of California's program.

The broader point is that global supply dynamics and lifecycle emissions matter when evaluating the net climate impacts of policy changes. Policies that significantly alter the balance between in-state production and imported fuels could influence global emissions outcomes depending on the environmental standards governing those sources.

For this reason, it may be useful for policymakers to consider the possibility that emissions reductions observed within California's regulatory boundaries could, under certain circumstances, be offset by increases in emissions occurring elsewhere in global supply chains, especially considering California is already importing substantial amounts of foreign crude oil and gasoline which have high levels of associated emissions and pollution due to the lack of regulations in their respective areas of production and refining abroad.

Environmental Justice Considerations

Another consideration relates to environmental justice and how climate policy decisions can influence the geographic distribution of environmental impacts. California's environmental justice framework recognizes that environmental benefits and burdens should be shared fairly and that pollution should not simply be shifted from one community to another. Because petroleum demand remains strong in California and will continue to for the foreseeable future, reductions in in-state oil production or refining capacity do not necessarily reduce California's demand for fuels used in transportation, goods movement, agriculture, and other essential activities. Instead, reduced local supply can lead to increased reliance on imported crude oil and refined fuels from other regions of the world.

In many cases, oil production in exporting regions occurs under environmental and regulatory standards that differ significantly from those enforced in California. Practices such as routine gas flaring, methane venting, and weaker environmental protections can result in higher upstream greenhouse gas emissions as well as localized air pollution, negative ecosystem impacts, and severe ecological destruction. As a result, when in-state production declines and imports increase, a portion of the environmental burden associated with fuel production is effectively shifted to communities outside California, including communities that already face environmental, economic, or governance challenges such as those in Iraq, where air pollution from oil field flaring is leading to high cancer rates, and Ecuador, where tribal lands have been stolen and polluted by oil companies recklessly developing oil reserves in the Amazon Rainforest – often clearcutting millions of acres of the rainforest to do so while spilling oil constantly. From an environmental justice perspective, this raises the question of whether emissions reductions achieved within California's regulatory boundaries may cause increased pollution and emissions impacts elsewhere as a result of making California oil production and refining prohibitively expensive, compared to imported oil and fuel, by means of emissions programs that only impact oil production and refining which occur within California. Considering these global supply chain dynamics may therefore help ensure that climate policies reduce pollution overall rather than unintentionally exporting emissions and environmental burdens to other populations.

Equity and Affordability Considerations

A further consideration involves the distributional impacts of energy policy on California households and businesses.

Transportation fuels remain a critical input for commuting, goods movement, agriculture, emergency services, and many other essential economic activities across the state. Changes in compliance costs within upstream fuel sectors can propagate through the supply chain and potentially influence consumer prices.

Even relatively modest changes in fuel costs can have meaningful aggregate economic effects across California's large population and economy. These impacts are not always evenly distributed.

Households with lower incomes, residents in rural areas with longer commuting distances, and small businesses operating on thin margins may be particularly sensitive to changes in transportation energy costs. For many of these communities, fuel expenditures represent a larger share of household budgets compared with higher-income households.

California has historically attempted to address these concerns through policy mechanisms designed to balance environmental progress with affordability and economic stability. Maintaining attention to these distributional considerations may remain important as the Cap-and-Invest program evolves.

Conclusion

California's climate policies have often served as models for other jurisdictions around the world. Continuing that leadership may depend on ensuring that regulatory frameworks achieve meaningful emissions reductions while also accounting for global supply dynamics and potential equity impacts.

From an environmental engineering perspective, evaluating both jurisdictional emissions and lifecycle emissions across global supply chains can provide a more complete understanding of environmental outcomes. If reductions in in-state oil production or refining capacity lead to increased reliance on imported fuels produced under weaker environmental standards, global emissions and pollution may not decline, and in some cases could increase. Incorporating environmental justice considerations, including the potential displacement of pollution and emissions to communities outside California, may help ensure that climate policies achieve genuine environmental improvements rather than simply shifting environmental burdens geographically.

Careful consideration of environmental leakage risks, lifecycle emissions, environmental justice implications, and the distributional impacts of policy changes may help strengthen the long-term effectiveness and durability of the Cap-and-Invest program.

Thank you for the opportunity to provide comments on this proposal.

Respectfully,

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B.S. Environmental Engineering
University of California, Berkeley

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The broader point is that global supply dynamics and lifecycle emissions matter when evaluating the net climate impacts of policy changes. Policies that significantly alter the balance between in-state production and imported fuels could influence global emissions outcomes depending on the environmental standards governing those sources.

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