



**CALIFORNIA CARBON MARKET COLLABORATIVE
COMMENT LETTER TO CARB
26 OCTOBER 2023**

Re: California Carbon Market Collaborative Comments on CARB’s Informal Workshop on Potential Amendments to the Cap-and-Trade Regulations

The California Carbon Market Collaborative (CCMC) appreciates the opportunity to provide public comment on the California Air Resources Board’s (CARB) informal workshop on potential amendments to the Cap-and-Trade (C&T) Program held on 5 October 2023. This comment letter should be read in conjunction with our letter dated 17 August 2023, submitted in response to CARB’s workshop on 27 July 2023.

Elevate Climate convenes the CCMC in support of the design and implementation of an ambitious and equitable California C&T Program through 2045 and beyond. The CCMC gathers a wide array of C&T stakeholders to deepen mutual understanding and undertake careful examination of key Program design features. Participants of the CCMC include Environmental Defense Fund, Liminality Capital LP, and Pacific Gas & Electric.

1. The CCMC Reiterates Support for the 48% by 2030 Scenario at the Minimum

The CCMC supports the C&T Program playing an increasing role in California’s overall climate policy mix over time. As stated in our 17 August 2023 letter¹ the CCMC believes that the C&T Program is uniquely positioned among the state’s suite of climate policies to lead the achievement of ambitious climate targets because it improves emissions certainty, aligns economic incentives, and can further enhance environmental justice. For these reasons, the CCMC continues to support the 48% by 2030 Scenario and remains interested in reviewing any modeling results for the 55% by 2030 Scenario.

Lower Cap Levels Imply Local Air Emissions Reductions

The CCMC believes that lower cap levels imply local air emissions reductions, thereby supporting environmental justice outcomes. Academics have studied and discussed this relationship extensively. For example, Cushing et al. (2016)² explain that “as regulated industries adapt to future reductions in the emissions caps, California is likely to see more reductions in localized greenhouse gas emissions and co-pollutant emissions”. The best empirical evidence we have to date is that the California Cap-and-Trade Program has indeed reduced local air emissions, where Hernandez-Cortes and Meng (2023)³ find that “during 2012–2017, the C&T program reduced emissions annually at a rate of 9%, 5%, 4%, and 3% for GHG, PM2.5, PM10, and NOx, respectively, for the average sample regulated facility.” Similarly, Sheriff (2023) finds that “minority

¹ California Carbon Market Collaborative Comment Letter Submitted to the California Air Resources on 17 August 2023. Available [here](#).

² Cushing, Lara, Wander, Madeline, Morello-Frosch, Rachel, Pastor, Manuel, Zhu, Allen and James Sadd. 2016. “A Preliminary Environmental Equity Assessment of California’s Cap-and-Trade Program”. Research Brief by UC Berkeley, Occidental College, and USC. Available [here](#).

³ Hernandez-Cortes, Danae and Kyle Meng. 2023. “Do Environmental Markets Cause Environmental Injustice? Evidence from California’s Carbon Market.” *Journal of Public Economics* 217: 104786. Available [here](#).

communities experienced a relative reduction in cumulative exposure from [air toxics]” caused by the California Cap-and-Trade Program.⁴ While these outcomes are not guaranteed and may vary over time, the overall weight of evidence in California provides sufficient grounds to posit that lower cap levels imply local air emission reductions. There are many other options for reducing local air emissions that are also worthy of further consideration.⁵ However, given the scope and timing of the informal workshop, the CCMC believes that ensuring a 48% Scenario at minimum is a focused and pragmatic approach for ensuring that the forthcoming Cap-and-Trade Program rulemaking supports further environmental justice outcomes by 2025 at the latest.

Request for Additional Modeling Runs Facilitative of Increased Ambition

The two Options presented at the workshop pose significant tradeoffs. The CCMC observes that the Emission Target Method (“Option #1”) increases 2031 budgets from the 2030 annual cap. While the estimated cumulative 2031-2045 allowance budget under Option #1 is similar to the estimated covered emissions under the Scoping Plan, we note that it is atypical for budgets to increase relative to the prior year’s cap. The CCMC further observes that the Allowance Budget Method (“Option #2”) supports greater climate ambition than called for in the Scoping Plan because it delivers greater cumulative reductions relative to Option #1 and creates a steeper near-term budget reduction trajectory in the 2031-2045 period. These Options are difficult to assess without further economic modeling that estimates allowance prices under each combination of Scenarios and Options. For that reason, we are especially looking forward to learning more about CARB’s economic modeling during the upcoming California-Quebec public [workshop](#) on November 16th, which was just recently announced.

In addition, the CCMC recommends consideration of additional modeling runs that may facilitate increased ambition including, but not limited to, the following:

- For Option 1, allocating some post-2030 allowances to the price containment reserve so that cap trajectories don’t necessarily snap back to a higher level than previous years.
- For any Scenario or Option combination, using an emissions containment reserve to “flex” toward more ambitious climate targets. For example, as we outline in our letter submitted on August 17, the cap trajectory could be set as ambitiously as CARB deems feasible and CARB could then take an additional protective step of designing an emission containment reserve to withhold allowances from the market if prices are persistently low. Leveraged in this way, the emissions containment reserve would serve as an insurance policy, automatically adjusting allowance supply if the selected cap trajectory ends up being not as ambitious as expected. In contrast, if the cap is indeed as ambitious as expected, then the emissions containment reserve will release its allowances to the market and therefore cap trajectories will remain unchanged. This approach would be especially prudent given the high uncertainty over business-as-usual emissions in California due to a number of factors including complementary policies (Borenstein et al., 2019).⁶

⁴ Sheriff, Glen. 2023. “California’s GHG Cap and Trade Program and the Equity of Air Toxic Releases”. *Journal of the Association of Environmental and Resource Economists*. Available [here](#).

⁵ Including, but not limited to, more funding for air quality policies and targeted funding for projects that reduce local air emissions. These and other approaches have been discussed at recent meetings of the Environmental Justice Advisory Committee and the Independent Emissions Market Advisory Committee.

⁶ Borenstein, Severin, Bushnell, James, Wolak, Frank A., and Matthew Zaragoza-Watkins. 2019. “Expecting the Unexpected: Emissions Uncertainty and Environmental Market Design”. *American Economic Review*: 109(11): 3953-77.

2. CARB Should Prioritize Ambition and Equity When Selecting Pools from Which to Retire Allowances

The CCMC encourages CARB to prioritize removals from allowance pools that lead directly to increased ambition of the cap-and-trade program while also supporting equity by protecting low-income households from higher allowance prices.

Prioritize Allowance Removals Which Enhance Ambition

Table 1 reflects the CCMC’s initial assessment of the impact of removing allowances from specific pools on ambition. This initial assessment suggests that removing allowances from the following pools has the following estimated impact on ambition:

- A *certain* increase in ambition from removals in allocated and auctioned allowance pools;
- A *potential* increase in ambition from removals in price containment reserve allowance pools *if and when* trigger prices are reached; and,
- A *potential and uncertain* increase in ambition from removals in the price ceiling *if and when* trigger prices are reached and *depending on* how any monies from “price ceiling unit” sales are used to reduce emissions.

**Table 1
Removals from Allowance Pools and Estimated Impact on Ambition**

Pool	Allowance Pool	Impact on Ambition
Price Ceiling	~78 Million	Per § 95915 of the Cap-and-Trade Regulation, allowances in the price ceiling are retired. Removals of these allowances only increase ambition if and when the price ceiling is triggered. After the allowances at the price ceiling are exhausted, price ceiling units are issued by CARB and any resulting monies are spent by CARB to achieve emissions reductions on “at least a metric ton for metric ton basis”. The ultimate impact on ambition is therefore uncertain partly because there is uncertainty over precisely how CARB would spend any resulting monies.
Price Containment Reserve	~156 Million	Removal only leads to emissions reductions if and when the containment reserve is triggered.
Allocation and Auctions	~1,373 Million	Removal directly leads to emissions reductions.

Maintain and Improve Allowance Allocations Which Protect and Support Equity

The CCMC encourages CARB to maintain allowance pools that support equity. For example, allocations to utilities that fund the [California Climate Credit](#), which takes proceeds from allowance

sales and returns them as lump-sum distributions⁷ on residential gas and electric bills. Maintaining these allocations will further protect equity because increases in utility bills are particularly onerous on low-income households. Indeed, Borenstein et al. (2021)⁸ argue that taxes on electricity are more regressive than taxes on gasoline or income. To further support equity, the CCMC notes that the California Climate Credit could be updated to increasingly target lump-sum distributions to low-income and/or disadvantaged electric and gas ratepayers to further channel revenue toward progressive outcomes.

Prioritizing Ambition and Equity While Balancing Tradeoffs

In conclusion, the CCMC urges CARB to prioritize ambition and equity when selecting which pools to remove allowances from, while acknowledging CARB’s responsibility to balance the many tradeoffs highlighted in Assembly Bill 32 and Assembly Bill 398.

3. Conclusion

The CCMC thanks CARB for the opportunity to provide public comments. The CCMC also applauds CARB for the level of detail provided in recent informal Cap-and-Trade workshops, especially information related to post-2030 allowance budget scenarios which begins to speak to the future of California’s carbon market.

Sincerely,



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⁷ This contrasts with distributions that scale with electricity consumption (sometimes called a “volumetric” distribution), which could disincentivize efforts to conserve electricity.

⁸ Borenstein, Severin, Fowlie, Meredith and James Sallee. 2021. “Designing Electricity Rates for an Equitable Energy Transition”. UC Berkeley Energy Institute Working Paper.