



August 17, 2023

Dr. Mark Sippola
Branch Chief, Cap-and-Trade Program
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on the [Cap-and-Trade Program Workshop, July 27, 2023](#)

Dear Dr. Sippola,

The [Climate Reality Project: Silicon Valley Chapter](#) respectfully offers the following comments and recommendations in response to the “SRIA Request for Alternatives” on slide 30 of the July 27, 2023 Cap-and-Trade Workshop Presentation.

We recommend that CARB increase the Cap-and-Trade regulation's level of ambition by (1) increasing the price floor to the projected market equilibrium price at an ambitious GHG reduction target (e.g. 48% or higher), and (2) using the carbon pricing revenue to finance cost-effective GHG reductions.

Increased price floor

The current price floor was originally set at \$10/MTCO_{2e}, the same as the Waxman-Markey cap-and-trade legislation introduced in the United States Senate in 2009, and increasing by 5% per annum.¹ It is currently \$22/MTCO_{2e}.

A higher price floor would be more effective than a tighter cap at achieving greater GHG reductions for the following reasons:

(1) A significantly higher 2030 reduction target sufficient to ensure climate stability (e.g., much greater than 55%) is infeasible due to limitations of cost acceptability.

(2) In order to ensure cost acceptability, CARB must base its 2030 target on conservative cost projections. Although newly developing technologies might greatly

¹ See CARB's *October 28, 2010 Initial Statement of Reasons for the Cap-and-Trade Program*, page II-37. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2010/capandtrade10/capisor.pdf#page=67>

reduce decarbonization costs, CARB must base its cost projections on existing, proven technologies with well established costs.

(3) If CARB adopts a fixed reduction target such as 48% or 55% and relies on Cap-and-Trade to achieve the target (without increasing the price floor), then the likely result is that the target will be achieved but allowance prices will be lower than expected due to CARB's cost conservatism.

(4) On the other hand, if CARB sets the price floor at or above the cap's expected equilibrium price, then the likely result of CARB's cost conservatism is that the reduction target will be surpassed while carbon prices remain stable.

Relying on a more stringent price floor rather than a more stringent cap would favor GHG reductions over carbon price reductions. The benefits of unanticipated market opportunities, whether from economic conditions, technology advances, or local and individual climate actions, would be channeled toward further reducing emissions rather than reducing allowance prices. From the perspective of industry interests, a stable carbon price might be more favorable than a lower but volatile and unpredictable price.

Allocation of carbon pricing revenue

The price floor would not be the only determinant of how much GHG reduction can be achieved; what is equally or more important is how the carbon pricing revenue is used. For example, consider a policy for decarbonizing cement production by imposing a carbon price equivalent to \$10 per ton of cement. If 10% of the cement industry is carbon-neutral, then the revenue collected from the remaining 90% could finance a \$90-per-ton subsidy for green cement. The combination of the \$10/ton carbon fee and the \$90/ton subsidy would give green cement a \$100/ton cost advantage over conventional cement, ten times higher than the carbon fee. This could overcome high technology and startup capitalization costs before green cement has attained significant market share and economies of scale.

Carbon pricing revenue can be allocated through the California Climate Investments program pursuant to [HSC 38560](#), which required CARB to "adopt rules and regulations ... to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions ...". However, CARB's climate investments are not currently guided by a clear standard of cost-effectiveness. (The statute provides no such standard, other than to define "cost-effectiveness" in terms of a carbon price.) California Climate Investments are reportedly reducing GHG emissions at an average cost of \$96/MTCO_{2e}, with individual program costs ranging from \$8/MTCO_{2e} to

\$163,934/MTCO₂e.² (By comparison, allowance prices have recently been trending around \$30/MTCO₂e.) Some of the program cost factors are in error. (The CVRP cost rating of \$193/MTCO₂e, in particular, only considers GHG reduction benefits over the first couple years of a vehicle's life, rather than for the full life of the vehicle, and it assumes that none of the participating consumers would have purchased a qualifying vehicle in the absence of the program.³) But the most glaring error in CARB's costing methodology is that it neglects the nullifying effect of Cap-and-Trade on additional climate actions. To the extent that emissions in capped sectors are determined by the cap, they are not influenced by California Climate Investments, and investments in those sectors provide no environmental benefit.⁴

However, if allowances are selling at the price floor, then emissions in capped sectors are determined by demand elasticities and not by the cap. A high price floor would enable additional emissions reductions, not only from California Climate Investments, but also from individuals, corporations, communities and municipalities seeking to support the state's climate goals through their own actions. We encourage CARB to employ a high price floor, combined with efficient and cost-effective revenue allocation, as a mechanism for adapting Cap-and-Trade to the more stringent 2030 and 2045 emission goals.

Sincerely,

Kenneth Johnson, Legislation and Public Policy Committee
The Climate Reality Project: Silicon Valley Chapter

² See the 2023 Annual Report on Cap-and-Trade Auction Proceeds, Appendix A
https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci_annual_report_2023.pdf#page=65

³ See the Legislative Analyst Office's December, 2018 report, *Assessing California's Climate Policies—Transportation*, page 14-15
<https://lao.ca.gov/reports/2018/3912/climate-policies-transportation-122118.pdf#page=18>

⁴ See the Legislative Analyst Office's January, 2016 report, *Cap-and-Trade Revenues: Strategies to Promote Legislative Priorities*, page 14
<https://lao.ca.gov/reports/2016/3328/cap-trade-revenues-012116.pdf#page=14>