Ken Johnson

Please find herewith our second comment letter (following up on our February 8 letter) recommending that CARB establish a price floor sufficient to adequately support SB 840 budget allocations, and further recommending that SB 840 funding from auction revenue be limited to what is necessary to support SB 840 budget allocations.

March 8, 2026

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Public Comments for CARB's Proposed 2026 Amendments to the Cap-and-Invest Regulation

This is a follow-up to our February 8 comment letter[1], in which we recommended that CARB revise the Cap-and-Invest price floor (Auction Reserve Price) to bring it into conformity with regulatory and statutory policy objectives. In particular, we advocated for a price floor sufficient to adequately support SB 840 budget allocations. In this letter we further advocate that SB 840 funding from auction revenue be limited to what is necessary to support SB 840 budget allocations.

Under current regulations, the GGRF would receive about half of the alliance value at arbitrarily high allowance prices. However, the GGRF would not be able to effectively use revenue from high price excursions because such revenue windfalls cannot be anticipated in advance, and program plans cannot assume continued revenue at high prices. Moreover, the withholding of unneeded GGRF revenue at high allowance prices would impose unnecessary cost burdens on businesses and consumers, increasing the likelihood that CARB would have to lower the price ceiling and/or prematurely release APCR allowance reserves as directed by HSC 38562(c)(2)(A)(iii) ("If the state board finds that the price containment reserve or the price ceiling ... do not adequately protect California consumers, the state board shall consider additional actions ...")

We encourage CARB to establish a price floor and revenue allocation methodology that will sufficiently support SB 840 budgets, but limited by actual GGRF funding needs as determined by established program plans and legislative appropriations. As elaborated in the following pages, we believe that this common-sense alternative could overcome political opposition to supporting SB 840 budgets.

Sincerely,

Ken Johnson and Adam Sweeney
Legislation and Public Policy Committee
The Climate Reality Project: Silicon Valley Chapter

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1 https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid377/did200184/pid_213315/assets/merged/wo0yi8srn0x_document.pdf

Price floor and GGRF allocation recommendations

We recommend that CARB establish a price floor sufficient to cover SB 840 near-term funding requirements, and that an upper limit on the GGRF allocation also be determined by the price floor or by actual GGRF funding requirements. (As noted below, we request that these points be treated as two distinct recommendations in CARB's FSOR response.)

Our previous comment letter estimated an allowance price of $36 (in 2026) as being necessary and sufficient to fully support SB 840 in the near term.[2] That estimate is a coarse approximation, which CARB should refine through its own analysis, but it implies that the price floor should currently be set at about $36. At allowance prices above the price floor, the GGRF allocation would be identical to what it would be at the price floor; it would not increase in proportion to allowance prices.

Currently, about one half of issued allowances are auctioned, with auction revenue being allocated to the GGRF. Thus, at the current $28 price floor[3], about $14 per allowance (i.e. per MTCO2e in regulated sectors) goes to financing the GGRF, with the remainder going to consumer rebates or free allocation to industry. (Industry might be induced by market competition to pass some of its savings from free allocation onto consumers, or it might be motivated by the carbon price incentive to invest the savings in GHG reductions.)

The impact of an unrefunded $14/MTCO2e carbon price, applied to electricity rates in California, amounts to 0.28 ¢/kWh[4], about a 0.9% increase in typical utility rates.[5] The impact on gasoline prices is 12.6 ¢/gal[6], a 2.7% increase.[7] These are GGRF-related costs that consumers are bearing at the current price floor.

Raising the price floor to $36 would increase the GGRF revenue share from $14/MTCO2e to about $18/MTCO2e. The electricity cost impact would rise to 0.36

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[2] basis: The November 2025 auction generated $844 million in quarterly revenue at an allowance price of $28.32, and the LAO estimates that $4.3 billion in annual GGRF revenues ($1075 quarterly) is necessary to fully fund SB-840 allocations. $28.32*1075/844 = $36.
https://ww2.arb.ca.gov/sites/default/files/2025-11/nc-nov_2025_summary_results_report.pdf
https://lao.ca.gov/Publications/Report/5096

[3] https://ww2.arb.ca.gov/sites/default/files/2025-12/nc-2026_annual_reserve_price_notice_joint_auction.pdf

[4] basis: 0.2 MTCO2e/MWh carbon intensity of electricity in California (including imports)
https://ww2.arb.ca.gov/sites/default/files/2025-11/nc-2000_2023_ghg_inventory_trends.pdf#page=21

[5] basis: 32 ¢/kWh retail electricity price in California
https://www.chooseenergy.com/electricity-rates-by-state/

[6] basis: 9 kg-CO2/gal carbon intensity of gasoline
https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle

[7] basis: $4.674/gal California-average fuel price as of March 3, 2026
https://gasprices.aaa.com/?state=CA&utm

¢/kWh, a 0.08 ¢/kWh change, and the impact on gasoline prices would be 16.2 ¢/gal, a 3.6 ¢/gal change. This is the approximate maximum additional cost to consumers for fully supporting SB 840 budget allocations. At market prices above $36, the increased price floor would have no impact and there would be no additional cost.

By comparison, if allowance prices were to rise to the ceiling level (currently $102.52), the near-term impact of the GGRF allocation (about $51/MTCO2e) would be 1.03 ¢/kWh for electricity and 46.1 ¢/gal for gasoline under current regulations. These impacts would be greater if the GGRF allocation percentage is increased via reduced free allocation of allowances. However, our proposal to cap GGRF revenue at the price floor level would limit the impacts to 0.36 ¢/kWh and 16.2 ¢/gal even at the ceiling price.

These consumer impacts should be realistically gauged in weighing the merits of a price floor revision and GGRF allocation limitation. Policymakers cannot oppose an increased price floor based on affordability concerns while being indifferent to potential cost and affordability impacts of GGRF financing at higher allowance prices. Businesses and advocates for consumers who are paying the carbon prices would likely be amenable to a higher price floor, sufficient to cover current and future GGRF financing requirements, if it is paired with a common-sense provision to limit the GGRF allocation to actual funding requirements as determined by established program plans and legislative appropriations such as SB 840.

For the purpose of CARB's FSOR response to this comment letter (Gov. Code § 11346.9(a)(3)[8]), we request that our proposed alternative be addressed as two separate and distinct recommendations:

> **Recommendation 1**: Establish a price floor sufficient to cover SB 840 near-term funding requirements.
>
> **Recommendation 2**: Limit the GGRF allocation based on established GGRF funding requirements.

We believe that Recommendation 1 can be readily implemented in CARB's current rulemaking. We anticipate that Recommendation 2 might not be implementable at this stage due to legal, political, or scheduling factors unrelated to its policy merits, but we encourage CARB to address the policy merits in its FSOR response to inform potential future regulatory or legislative consideration of this recommendation.

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8 https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=GOV&division=3.&title=2.&part=1.&chapter=3.5.&article=5.

Recommendation 1 pertains only to the price floor base level; we are not proposing a change to the 5% inflator at this time. This recommendation would support SB 840 near-term funding requirements. Recommendation 2 should be considered along with measures to address longer-term funding requirements for existing SB 840 budget allocations, and potential new programs such as SB 540 implementation, which may require foundational changes in GGRF revenue allocations.

Our prior February 8 comment letter proposed an alternative of basing the price floor on CARB's Price Assumption for the Proposed Amendments[9] (currently $47, midway between the floor[10] and APCR-1[11] price levels). This would provide an estimated revenue surplus of $1.3 billion over current SB 840 requirements. We do not propose this alternative under Recommendation 1, but it could be considered after a specific need for the additional revenue has been identified.

Recommendation 2 is closely connected with HSC 38562(c)(2)(A)(iii)[12], which directs CARB to adjust the price ceiling and/or APCR price points, if necessary, to protect consumers. The GGRF funding limitation under Recommendation 2 would similarly serve to protect consumers, but via revenue allocation rather than pricing controls, and it would do so preemptively rather than reactively.

The following topic "Political opposition to SB 840 support" pertains primarily to Recommendation 1, while the topic "Alternative uses of surplus auction revenue" pertains primarily to Recommendation 2.

Political opposition to SB 840 support

Legislators at the February 23, 2026 JLCCCP hearing[13] expressed deep concerns about the low allowance prices that have persisted in recent auctions, but they displayed no cognizance that prices are within CARB's control and have been allowed to drop to current levels by CARB's choice.

A possible resolution to the current market stagnation was proffered by Katelyn Roedner Sutter, representing EDF, who gave the following testimony[14] at the JLCCCP hearing:

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[9] https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_isor.pdf#page=322

[10] https://ww2.arb.ca.gov/sites/default/files/2025-12/nc-2026_annual_reserve_price_notice_joint_auction.pdf

[11] https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cost-containment-information

[12] https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=HSC&division=25.5.&title=&part=4.&chapter=&article=

[13] https://www.assembly.ca.gov/media/joint-legislative-committee-climate-change-policies-20260223 https://climatechangepolicies.legislature.ca.gov/hearings/hearing-materials

[14] hearing recording @1:33:12

> ... And then there's climate ambition … we have some preliminary modeling updates from Greenline Insights that finds that if California were to adopt a tighter near-term emissions cap by removing 180 million allowances through 2030, instead of the proposed 118, that would significantly incentivize decarbonization while still saving money for working families. Specifically, over 860 million in net savings through 2045 for families earning $100,000 or less annually, which is more than half of California households. And importantly, that is done without hitting any of the price containment points in the program, those APCR tiers. So we're keeping allowance prices manageable and steadily increasing, not spiking. This would cumulatively generate about an additional 1 to 1.5 billion dollars for the Greenhouse Gas Reduction Fund. It would also help to increase near-term confidence in the market and counteract these very low prices we're seeing right now, and the resulting anemic GGRF revenue that we're seeing in the market.

The unstated caveat of this testimony is that it is premised on uncertain model projections of allowance prices[15] that have not been corroborated by any other modeling studies by reputable economists. But the multiple benefits recited in Ms. Sutter's testimony could be achieved without any such modeling uncertainty by establishing a price floor at whatever price level the Greenline Insights model projects.

EDF disfavors a price floor revision for the stated reason that "a higher price floor hasn't received any traction at CARB or in the Legislature and is a hard sell when all the policy-makers are focused on affordability."[16] However, affordability does not appear to be the issue. Policymakers generally do not oppose unlimited revenue allocations to the GGRF at high allowance prices, far beyond program requirements, even though such allocation of surplus funds could contravene legislative policy goals of preserving affordability and mitigating adverse economic impacts on businesses and consumers.

A supermajority of the Legislature passed SB 840 with the expectation and intent that CARB would be collecting and spending GGRF funds at a level consistent with SB 840 allocations. If the Legislature is not supportive of a price floor adapted to SB 840 requirements, it is only because neither the IEMAC, LAO, nor CARB has informed the Legislature of the price floor's essential role in maintaining price stability and sustaining GGRF funding. (There was no mention of the price floor in the JLCCCP hearing.) But although the Legislature is uninformed on this issue, the SB 840 statute's clear legislative intent necessitates a price floor sufficient to cover SB 840 budget allocations.

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[15] Greenline Insights' Issue Brief, attached to the EDF comment letter for CARB's October 29, 2025 Cap-and-Invest Workshop https://ww2.arb.ca.gov/form/public-comments/submissions/54521
[16] personal communication, February 26, 2026 email from Katelyn Roedner Sutter to Ken Johnson

If a higher price floor at the SB 840 budget level is politically unviable, then EDF's proposal to tighten allowance budgets, which provides no assurance of allowance price stability beyond speculative model projections, would be all the more politically untenable. CARB has no reason to trust Greenline Insights' "preliminary modeling updates" more than its own projections.

EDF's preference for cap tightening over price control is antithetical to "climate ambition." Their proposed emission cap is necessarily biased toward cost conservatism (as is CARB's) to accommodate predictive uncertainty, whereas a price floor could be set at a more ambitious level without risking increased likelihood of traversing the APCR price threshold.

The IEMAC is not planning (as of early February) to address the price floor in its forthcoming (delayed) 2025 Annual Report[17], despite the price floor's clear relevance to the "environmental and economic performance"[18] of the Cap-and-Invest regulation. Danny Cullenward, the IEMAC's Vice Chair, opined in a recent Politico interview[19] that "There's no question in my mind that we should be thinking about a higher price floor," and that the current floor price has "completely controlled the outcome of this program for most of its history." The IEMAC's Chair, Meredith Fowlie, testified at the JLCCCP hearing[20] that under CARB's Proposed Amendments "the GGRF revenues will never meet the minimum spending requirements anticipated for SB 840," but the IEMAC's hearing presentation[21] made no mention of the price floor.

The IEMAC recommended in its 2024 Annual Report[22] that CARB establish either an "Emissions Containment Reserve" (ECR) or a higher price floor. (An ECR is basically a higher price floor but with only a limited percentage of the available allowances being withheld at the higher price. The ECR was championed by former IEMAC member and Chair, Dallas Burtraw.) In its Feb 26, 2025 presentation to the JLCCCP, CARB dismissed the IEMAC's proposed ECR as a "fundamental design structure change that could increase compliance costs." [23] CARB made no mention of the alternative of a higher price floor, which would not constitute a "fundamental design structure change" and would provide benefits that counterbalance its costs. Although the current price floor has marginally increased near-term compliance costs, it has also helped to sustain

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[17] email communication from Danny Cullenward to Ken Johnson, February 12, 2026.
[18] HSC 38591.2(c)
[19] https://www.eenews.net/articles/dismal-california-carbon-auction-sparks-call-for-higher-permit-prices/
[20] hearing recording @1:26:35
[21] https://climatechangepolicies.legislature.ca.gov/system/files/2026-02/jlcccp_2026_fowlie.pdf
[22] IEMAC 2024 Annual Report, pages 43 and 45
https://calepa.ca.gov/wp-content/uploads/2025/02/2024-ANNUAL-REPORT-OF-THE-IEMAC-final.pdf#page=43
[23] Feb 26, 2025 presentation to the JLCCCP, slide 13
https://climatechangepolicies.legislature.ca.gov/system/files/2025-02/jlcccp_carb_2_26_25.pdf#page=13

GGRF revenue and contributed to early attainment of the 2020 Cap-and-Trade goal. The primary benefit of an increased price floor at this stage would be compliance with the SB 840 legislative intent.

CARB might be reluctant to increase the price floor because this could require coordinated changes by California's WCI partners, Quebec and (potentially[24]) Washington. If this is a factor in CARB's opposition, CARB's FSOR response should explain why an increased price floor would be adverse to Quebec's and Washington's interests and policy goals, and why such interests should preempt California's legislative policy goals under SB 840.

Alternative uses of surplus auction revenue

Carbon pricing creates marginal incentives for emissions reductions that are less costly, per ton-CO2, than the carbon price. But industry typically cannot respond to such incentives without first making substantial, long-term capital investments in low-emission technology and infrastructure. Those investments need to be made in the near term, not five or ten years in the future, if they are to make a significant contribution to achieving California's climate goals at affordable cost. Such investments require sustained, stable, and predictable carbon prices that can only be provided by a price floor sufficient to at least support near-term GGRF program requirements.

In the longer term, after the initial capital investments have been made, industries will be able to more readily respond to high market price incentives, and the GGRF will play a diminishing role in economywide deployment of low-carbon technologies. As allowance prices rise, diversion of surplus auction revenue to the GGRF, without any clear plan for how the revenue will be used, will just lead to waste and inefficiency and ultimately increased costs of decarbonization.

Allowances or allowance auction revenue in excess of the price floor can be freely allocated to industry and consumers without diminishing marginal incentives for decarbonization, provided that the allocation formula does not reward emissions. Free allocation can take the form of ratepayer rebates, output-based allowance allocation, or other forms of assistance for consumers and industry.

There is a general perception that free allocation to industry is only needed to protect emission-intense and trade-exposed (EITE) industries and to mitigate leakage risks, and that free allocation should be progressively phased out. But free, output-based

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24 https://www.newsfromthestates.com/article/wa-takes-another-step-link-its-carbon-market-california-and-quebec

allocation can also help to focus industry's capital resources on decarbonization and provide subsidization for low-carbon commodities, even more so as carbon prices rise.

As a case in point, free allocation to the cement industry would not diminish marginal incentives for decarbonization, because a zero-carbon cement producer would get the exact same per-ton-cement (output-based) allocation as a high-emission producer.[25] A zero-carbon producer would sell its allowance allocation to high-emission producers; thus the free allocation would induce subsidization of zero-carbon cement production by incumbents.

Only a small portion of incumbents' free allocation would go to such subsidies while zero-carbon producers have small market share, but the carbon price incentive would motivate incumbents to invest the bulk of their free allocation in decarbonizing their own operations. Even if carbon prices are initially low and there is little competition from zero-carbon start-ups, the prospect of increasing carbon prices and competition in future years, in addition to tightening SB 596 compliance obligations, could motivate substantial near-term investment in cement decarbonization. As carbon prices rise and zero-carbon cement gains market share, incumbents who have not decarbonized their operations will face steeply increasing compliance costs even with 100% free allocation.

At higher carbon prices, free allocation will become more indispensable for enabling industry to sustain high prices without imposing an intolerable economic burden on industry and consumers. If surplus auction revenue at high allowances prices is hoarded in GGRF accounts, rather than being allocated back to industry and consumers, then increased compliance costs and consumer impacts would make it more likely that CARB will have to significantly lower the price ceiling (per HSC 38562(c)(2)(A)(iii)), resulting in breached allowance budgets and diminished marginal incentives for decarbonization. For this reason, GGRF revenue should be limited, and free allocation should be maintained and not phased out, as allowance prices rise.

A viable strategy for achieving California's climate goals within limitations of affordability is not to make fossil fuels unaffordable, but rather to make renewable energy and technology more affordable than fossil fuels.

[25] ISOR Section II.K.2.a (pages 62-63), "Cement"
https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_isor.pdf#page=64