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March 16, 2018

Rajinder Sahota
California Air Resources Board
1001 I Street
Sacramento, CA 95184

Re: Comments in Response to March 2, 2018 Cap-and-Trade Workshop

Dear Ms. Sahota:

On behalf of the Natural Resources Defense Council, and our more than 700,000 members and activists in California, we appreciate the opportunity to comment on the material and proposals presented by staff at the March 2, 2018 workshop.

I. Introduction

In 2016, the California legislature directed the Air Resources Board to ensure that statewide greenhouse gas emissions fall *at least* 40 percent below 1990 levels by 2030. While cumulative emissions drive climate change, the legislation unambiguously requires ARB to design its climate programs to achieve an annual emissions limit in 2030. Last year, in developing the 2030 Scoping Plan, ARB appropriately emphasized the role of the cap-and-trade program in ensuring achievement of the 2030 target, as unlike other measures it places a quantitative limit on emissions from all major sources. But enforcing that limit rests on several market design features that ARB must develop in response to Assembly Bill 398, including how to set a price ceiling and how to prevent California's early action from diluting the investment signals required to sustain long-term emission reductions.

ARB faces an unenviable task in balancing the array of considerations the Legislature has provided to reach resolution on those issues. As ARB prepares its scales, however, we encourage staff to calibrate them to ensure the cap-and-trade program is tuned to achieve the 2030 emissions limit set by the Legislature. In our view, that is the conservative approach.

II. ARB Should Adjust Post-2020 Cap Budgets To Send A Stronger Price Signal In Support of Near-Term Emissions Reductions

We fully agree with staff's perspective that achieving the 2020 statewide emissions limit ahead of schedule, as reflected in current emission levels well below program caps, is a result to cheer,

not bemoan. But as Chair Nichols recently remarked, the program must send a stronger signal to support investments “*now*” in technologies that are going to reduce emissions over the long run.¹ Indeed, ARB’s 2030 Scoping Plan is counting on the price signal from cap-and-trade to drive nearly 40 percent of the required cumulative reductions.² Those forecasts are inherently uncertain, and it is entirely plausible that additional policies passed by the Legislature and market forces driving clean energy deployment will keep taking the burden off cap-and-trade to drive reductions. Yet it is equally plausible that other Scoping Plan policies will underperform due to a host of legal, market, and technology barriers.

To guard against that risk, and drive more near-term investment in carbon abatement strategies within capped sectors, we recommend ARB reduce future cap budgets to account for present oversupply. In its presentation and remarks at the workshop, staff raised several concerns with this approach, including that it would penalize covered entities by making the program more stringent in response to early action, incent entities to only do the minimum, and make the program more susceptible to hitting the price ceiling. We agree with staff that this issue requires more in-depth analysis and should be evaluated holistically with other design features, such as banking rules, the level of the price ceiling, and reserve tier prices. But we disagree with staff’s stated rationale, which suggests ARB does not consider a cap adjustment merits further analysis or consideration in this rulemaking.

First, staff appears to view a cap adjustment as “penalizing” covered entities regardless of the factors driving present oversupply. From an emissions standpoint, we agree with staff that obsessing over attribution is misplaced. But the economic downturn does not constitute early action that should inhibit any corrective response. Second, a market-based program with tradeable allowances still provides strong incentives to over-comply. Even with a mechanism in place to correct for periodic oversupply, covered entities face an opportunity cost for every compliance instrument they surrender. With added scarcity the incentive to over-comply may only increase, as each compliance instrument will be more valuable.

Finally, taking slack out of the cap would send a stronger near-term price signal to support emissions reductions. Economic modelling by Severin Borenstein, James Bushnell, and Frank Wolak forecasts that allowance prices will likely end up at either the floor or the ceiling in 2030, due to limited abatement opportunities between those two price points.³ Borenstein and Bushnell subsequently argue that bimodal distribution cuts against the value of making a cap adjustment, as it is unlikely to drive significant emissions reductions.⁴ Even under Borenstein and Bushnell’s modelling framework, however, the cap adjustment they analyze would result in a probability-weighted average reduction of 42 MMT through 2030. From the global emissions perspective they take that may not be significant, but it should be significant to ARB in the context of achieving California’s 2030 emissions limit. Moreover, as Chris Busch points out, their model

¹ Joint Committee on Climate Change Policies and Assembly Committee on Natural Resources, “Oversight Hearing 2030 Target Scoping Plan” January 4, 2018; see also transcript from “Senate Standing Committee on Environmental Quality & Senate Select Committee on Climate Change and AB 32 Implementation Hearing” (February 03, 2016), available at: <https://digitaldemocracy.org/hearing/739>

² https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

³ <https://ei.haas.berkeley.edu/research/papers/WP281.pdf>

⁴ <https://energyathaas.wordpress.com/2018/01/02/californias-carbon-cap-is-not-in-jeopardy-because-its-not-really-a-cap/>

uses a highly inelastic abatement supply curve that likely discounts fuel switching opportunities over the next decade that will become more price responsive as technology improves.⁵ Allowing for more price-responsive abatement between the floor and ceiling prices would increase the expected emission reductions from a cap adjustment – and reduce the likelihood of reaching the ceiling.

But whether the elasticity assumptions are overly conservative or not is beside the point. The value of an emissions cap is that regulators do not need to prejudge compliance strategies or price effects to hit reduction targets; they just need to set the caps appropriately.

a. ARB Should Commit To Periodically Review And Adjust Cap Budgets As Needed To “Avoid An Unintentionally Lax Cap”

In 2016, covered entities emitted 324 million metric tons (MMT) of greenhouse gases subject to a compliance obligation. That is already approaching the cap budget (320.8 million allowances) ARB has proposed for 2021, five years hence.⁶ This mirrors the situation ARB warned against in comments to the U.S. Environmental Protection Agency on the Clean Power Plan model rule, when it strongly recommended that “a pre-established mechanism be in place to avoid an unintentionally lax cap.”⁷

At the workshop, staff dismissed its own comments to EPA as inapposite to concerns about oversupply in California’s cap-and-trade program, but we fail to see the difference. In both instances, the concern is the lag between setting mass-based targets for cap-and-trade programs based on historical emissions data. Indeed, the same reasons ARB cited in its CPP comments regarding why historical data is problematic are applicable to California; namely, the “likelihood that the grid will be increasingly decarbonized with the increasing affordability of, and state-level policy mandates for, renewable electricity.”⁸

ARB’s comments also cite to the European Union’s Emissions Trading System (EU ETS) as an example of a “loose carbon cap” that “has led to a reduced incentive for European regulated entities to undertake actions reducing emissions.”⁹ Like California’s program, the EU ETS is a multisector cap-and-trade program that operates alongside other complementary measures to help the EU achieve a 40 percent reduction in greenhouse gas emissions below 1990 levels by 2030. If ARB found the EU ETS representative of the concerns of overallocation in its comments to EPA, the burden is on staff to explain why California’s program is not.¹⁰

⁵ <http://energyinnovation.org/2018/01/10/analyzing-likely-impact-oversupply-californias-carbon-market-must-consider-states-2030-emissions-goal-potential-clean-tech-breakthroughs/>

⁶ <https://ww2.arb.ca.gov/mrr-data>; https://www.arb.ca.gov/cc/capandtrade/capandtrade/unofficial_ct_100217.pdf

⁷ http://www.arb.ca.gov/cc/powerplants/arbcommentsfedplan-01_21_2016.pdf (at 19-20).

⁸ *Id.* at 20

⁹ *Id.*

¹⁰ The only meaningful difference that comes to mind is the absence of a price floor in the EU ETS, but a price floor is not a cure-all for addressing oversupply (see discussion, *supra*; see also <http://www.rff.org/blog/2017/landmark-california-climate-program-enjoys-new-opportunities>).

Accordingly, we reiterate our call for ARB to heed its own advice: it should “revisit planned mass-based targets” based on updated emissions and output data, and update cap budgets “on a rolling basis for later compliance periods” to “ensure the [cap-and-trade program] delivers meaningful carbon reduction beyond the status quo.”¹¹

b. ARB Should Not Issue Allowances Above Updated Forecast Emissions Levels in 2021, Including the 52.4 Million Allowances That Represent A Continuation Of A Straight-Line Cap Trajectory Post-2020

We recommend ARB not issue the 52,400,000 allowances that represent the difference between a straight-line cap trajectory post-2020 and a ‘step-down’ starting in 2021. These allowances represent the absence of the corrective action ARB has previously championed to adjust cap budgets based on updated emissions data. In the alternative, we recommend ARB designate this allowance pool to the price ceiling to ensure they are only available to covered entities if the market is stressed. Finally, we note that this allowance pool reflects staff’s estimate from last year of emissions in 2021, which was likely based on 2015 MRR data. If ARB proceeds with issuing these allowances, it should first update its 2021 emissions estimate to size the allowance pool appropriately.

c. ARB Should Designate 2% Of The 2026-2030 Cap Budget To The Price Ceiling To Account For The Commensurate Increase In The Offsets Usage Limit

We appreciate staff’s proposal to consider adjusting the 2026-2030 cap budgets to reflect the increase in the offsets usage limit from 4% to 6% during that period. As staff notes, to mirror the design of the pre-2021 program, 2% of the cap budget over those five years (23 million allowances) should be set aside for cost containment. We recommend ARB designate those allowances to the price ceiling. While short of the holistic review ARB should undertake to address concerns regarding oversupply, as required by AB 398, moving those allowances to the ceiling would send a constructive signal that future cap budgets are not sacrosanct. Unlike the additional compliance instruments that ARB is statutorily required to make available at the price ceiling, those allowances would also not trigger the requirement in Section 38562(c)(2)(A)(ii)(II) to achieve equivalent ton-for-ton reductions, as they would be taken from *within* the cap budgets. That would help alleviate the challenges involved with maintaining environmental integrity if the price ceiling is reached. In the alternative, we recommend ARB distribute these allowances to the highest tier of the new post-2020 Reserve.

III. ARB Must Prevent The Price Ceiling From Undermining California’s Ability to Achieve Its 2030 Statewide Emissions Limit

AB 398 directs ARB to establish a price ceiling based on six factors, ranging from the need to avoid adverse impacts on the state’s economy to considering the full social cost associated with emitting a ton of greenhouse gases.¹² As the statute reveals, while undoubtedly the Legislature was concerned about cost containment, it was also concerned about not letting a price ceiling

¹¹ *Id.*

¹² California Health & Safety Code § 38562(c)(2)(A)(i).

frustrate achievement of California’s climate goals. The final factor requires ARB to consider “the cost per metric ton of greenhouse gas emissions reductions *to achieve the statewide emissions targets* established in Sections 38550 and 38566” (emphasis added).¹³ ARB must achieve equivalent ton-for-ton reductions in the event the price ceiling is ever reached.¹⁴ And the Legislature did not relieve ARB from its responsibility to ensure statewide emissions fall at least 40 percent below 1990 levels by 2030.

Reaching the price ceiling will accordingly not operate as a cap on aggregate compliance costs for achieving California’s climate targets; it will merely shift them to other programs. As ARB’s 2030 Scoping Plan modelling indicates, achieving those reductions elsewhere will most likely be more expensive. In Table 10 of the final 2030 Scoping Plan, ARB estimates the cost per metric ton of the measures it considered.¹⁵ Many of the measures – including policies passed by the Legislature, like the Renewable Portfolio Standard – have abatement costs in 2030 well above \$150/MT. ARB should accordingly set the price ceiling at the high end of the range it presented at the workshop (between \$81 and \$150, in \$2015). Setting a price ceiling any lower would merely shift required reductions to other more expensive measures, contravening the Legislature’s direction to minimize leakage risk and avoid adverse economic impacts.

IV. ARB Should Clarify How Offset Projects Can Meet The Definition of “Direct Environmental Benefits In The State”

We generally support staff’s direction on implementing AB 398’s requirement that no more than half of the offset credits used for compliance from 2021-2030 may be sourced from projects that do not provide “direct environmental benefits in the state” (DEBS). Given the diverse nature of offset projects, we agree that affording some flexibility to project developers to assert DEBS within a general framework is appropriate and constitutionally sound. But that general framework must conform to the statute, which defines DEBS as “the reduction or avoidance of emissions of any air pollutant in the state or the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state.”¹⁶

We therefore recommend ARB clarify the direction to offsets developers on how they can qualify for meeting the legislative direction on DEBS if a project i) does not reduce or avoid air pollutants in California, and ii) is not located adjacent to a water body that flows within or into California (‘step 1’ in the text box). At a minimum, the additional material that a project developer would be permitted to submit (‘step 2’) must bear on how the project meets the definition of DEBS in the statute.

¹³ *Id.*

¹⁴ § 38562(c)(2)(A)(ii)(II).

¹⁵ https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (at 46).

¹⁶ § 38562(c)(2)(E)(ii).

V. Allowance Allocation

a. ARB Should Not Afford Windfalls To Industrial Polluters By Increasing Assistance Factors Above Demonstrated Leakage Risk For The Third Compliance Period

We strongly oppose staff’s proposal to increase the industrial assistance factors (AFs) to 100% across the board for the third compliance period. Staff defends this proposal as a “conservative” approach to protect against leakage, enable earlier investments, and allow for economic growth. But there is no evidence in the record to support that rationale. Quite the contrary, staff’s analysis last year concluded that the total value awarded to industrial sectors in the form of free allowances to date “likely *exceeds* compensation required for emissions leakage protection for most sectors.”¹⁷ Moreover, as ARB and its economic advisers have repeatedly noted, *auctioning* facilitates early action, not excessive free allocation.¹⁸ The longer industrial entities receive most of their allowances for free, the more opportunity they will have to delay investing in emissions reductions at their facilities that will be required to achieve California’s long-term climate goals.

Finally, as we noted at the workshop, there is nothing “conservative” about granting windfalls to industrial emitters. The proposed change would direct millions of additional allowances to polluters at the expense of public investments through the Greenhouse Gas Reduction Fund, which provide essential benefits to California’s disadvantaged communities.¹⁹ While the Legislature superseded staff’s original allocation proposal for the post-2020 program, AB 398 does not apply to the pre-2021 program. The Legislature was aware of ARB’s proposal to step down AFs for the third compliance period and declined to intervene. There is no basis for ARB to change course.

b. We Support Staff’s Direction To Provide Additional Clarity On The Use Of Allowance Value By EDUs And Natural Gas Suppliers But Request ARB Make Additional Summary Reports Publicly Available

We support staff’s direction to provide more specificity and clarity regarding how electric distribution utilities (EDUs) and natural gas suppliers may use allowance value. While only one summary report on EDUs’ use of allowance value is publicly available (from 2013), its findings are troubling: publicly-owned utilities (POUs) were submitting 84% of their allowances directly for compliance, which operates as an implicit volumetric return by preventing retail electricity rates from reflecting the full carbon price.²⁰ Correcting this outcome, which violates ARB’s explicit prohibition on returning allowance proceeds to ratepayers in a volumetric manner,²¹

¹⁷ “Cap-and-Trade Regulation 2016 Amendments: Staff Presentation on a Methodological Framework for Emissions Leakage Designation for 2018 and Beyond,” May 18, 2016, available at:

<https://www.arb.ca.gov/cc/capandtrade/meetings/20160518/staff-leakage-workshop-methodology.pdf> (slide 16) (emphasis added).

¹⁸ <https://www.arb.ca.gov/regact/2010/capandtrade10/capv4appj.pdf>;

http://www.climatechange.ca.gov/eaac/documents/eaac_reports/2010-03-22_EAAC_Allocation_Report_Final.pdf

¹⁹ https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/2018_cci_annual_report.pdf

²⁰ “Summary of Vintage 2013 Electrical Distribution Utility Allocated Allowance Value Reports,” at: <http://www.arb.ca.gov/cc/capandtrade/allowanceallocation/edu-v2013-allowance-value-report.pdf> (figure 2, p.7).

²¹ § 95892(d)(5)

would first require the POU's to consign allowances to auction like the investor-owned utilities (IOUs). Short of that, ARB can help ensure allowance value is truly benefiting utility customers and reducing GHG emissions with more specificity on permissible uses. We support, for example, a clear prohibition on using allowance value to cover administrative costs with complying with the program, which has no GHG benefit. Without access to the summary reports, however, it is difficult to assess what other prohibitions or clarifications ARB should consider. We therefore request that ARB make those reports available in advance of further rulemaking activity on this item.

VI. Conclusion

Thank you for considering these comments. We look forward to engaging with staff and stakeholders to develop a post-2020 program that supports California's exemplary climate and clean energy leadership.

Sincerely,

A handwritten signature in black ink, appearing to read 'Alex Jackson', with a long horizontal line extending to the right.

Alex Jackson
Legal Director, California Climate Project
NRDC