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October 22, 2018

Jason Gray
Cap-and-Trade Program, Branch Chief
California Air Resources Board
Sacramento, CA

Re: 2018 Proposed Amendments to California's Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation

Dear Mr. Gray:

These comments are submitted on behalf of the Center for Biological Diversity ("Center") regarding the California Air Resources Board's ("CARB") Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation ("proposal" or "proposed amendments"). The Center is a non-profit organization with more than one million members and online activists, including over 150,000 members and supporters in California. The Center's mission is to ensure the preservation, protection and restoration of biodiversity, native species, ecosystems, public lands and waters and public health. In furtherance of these goals, the Center's Climate Law Institute seeks to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and human health and welfare. Specific objectives include securing protections for species threatened by global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues.

The need for steep reductions in greenhouse gas emissions in order to avoid the worst impacts of climate change is becoming clearer every year, and indicates that California and the world must use all available options to reduce greenhouse gas emissions in the near term. In this context, the cap-and-trade program is frustrating, as that market mechanism tends to postpone potentially greater reductions in favor of smaller and less expensive options in the near term, and can divert attention and resources from other urgently needed and cost-effective GHG reduction activities.

A recent 2018 report from the Intergovernmental Panel on Climate Change (IPCC) highlights the necessity of limiting warming to 1.5°C, rather than the Paris Agreement's 2°C, to

avoid catastrophic impacts to people and life on Earth.[1] According to the IPCC's analysis, the damages that would occur at 2°C warming compared with 1.5°C include more deadly heatwaves, drought and flooding; 10 centimeters of additional sea level rise within this century, exposing 10 million more people to flooding; a greater risk of triggering the collapse of the Greenland and Antarctic ice sheets with resulting multi-meter sea level rise; dramatically increased species extinction risk, including a doubling of the number of vertebrate and plant species losing more than half their range, and the virtual elimination of coral reefs; 1.5 to 2.5 million more square kilometers of thawing permafrost area with the associated release of methane, a potent greenhouse gas; a tenfold increase in the probability of ice-free Arctic summers; a higher risk of heat-related and ozone-related deaths and the increased spread of mosquito-borne diseases such as malaria and dengue fever; reduced yields and lower nutritional value of staple crops like corn, rice, and wheat; a doubling of the number of people exposed to climate-change induced increases in water stress; and up to several hundred million more people exposed to climate-related risks and susceptible to poverty by 2050.[2]

In order to avoid these catastrophic consequences, the 2018 IPCC report provided a revised carbon budget for a 66 percent probability of limiting warming to 1.5°C, estimated at 420 $GtCO_2$ and 570 $GtCO_2$ depending on the temperature dataset used, from January 2018 onwards.[3] At the current emissions rate of 42 $GtCO_2$ per year, this carbon budget would be expended in just *10 to 14 years*, underscoring the urgent need for immediate, transformative global action to transition from fossil fuel use to clean energy.[4] Simply put, we are out of time to make the significant and systemic changes needed to avert disaster.

However, given that ARB has chosen to place a great emphasis on cap-and-trade as a mechanism for achieving California's greenhouse gas reduction goals, it is very important that the program be as ambitious and well designed as possible. It is in that context that we offer these comments.

This letter largely—though not entirely—collates the Center's previous comments, while addressing any changes in the current draft. In short,

1. CARB should sunset surplus credits banked through 2020, as those excess credits, if they are allowed to carry forward after 2020, will substantially reduce the amount of reductions achieved in the 2020-2030 period.
2. The use of offsets for 2024 and 2025 emissions should be capped at 4% to be consistent with the intent of AB 398.
3. The current definition of "direct environmental benefits in the state" ("DEBS") is an improvement over previous iterations; however, determining whether a project qualifies

[1] IPCC [Intergovernmental Panel on Climate Change], Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), http://www.ipcc.ch/report/sr15/.
[2] *Id.* at Summary for Policymakers.
[3] IPCC [Intergovernmental Panel on Climate Change], Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), http://www.ipcc.ch/report/sr15/.
[4] *Id.*

should include a public process, and the criteria should include a way to prioritize a project's benefit to the state's tribal and disadvantaged communities.

4. CARB should include potential reductions and associated benefits in its analysis of 2018-2020 Industry Assistance Factors, rather than focusing solely on costs to polluters, and lower the Industry Assistance Factors, in particular, for refineries.
5. The Environmental Analysis ("EA") alternatives analysis should include an alternative that sunsets surplus credits and reduces 2018-2020 assistance factors for refineries.

1. Allowances banked through 2020 should sunset after 2020 in order to avoid postponing or precluding new, on-site reductions in the 2021-2030 period.

AB 398 directs CARB to address concerns regarding overallocation of allowances.[5] California's cap-and-trade program is projected to generate between 190 and 300 million surplus allowances through 2020,[6] with each allowance representing a ton of CO_2-equivalent GHG emissions. Since the cap-and-trade program went into effect in 2013, emissions from facilities subject to the cap have consistently been lower than the projected business-as-usual baseline, which has allowed covered polluters to acquire excess allowances at relatively low prices, as well as free allowances, that they have been able to trade and bank for future use.

At the same time, the price of offset credits has also stayed low, in part because the price of offset credits is dictated largely by the price of allowances, which have been readily available at low prices. This has allowed for the purchase of offset credits at low prices to use at a later date when the price of allowances may rise, and contributes to the current surplus of credits.

The expected surplus of allowances by 2020 is potentially greater than the 294 MMT in reductions that ARB estimates must come from cap-and-trade between 2021 and 2030. As a result, the reductions required under cap-and-trade through 2030 could feasibly be met in large part with the excess carbon credits leftover from the pre-2020 period, if those credits are allowed to carry forward for use in 2020-2030.

If GHG emissions have been lower than business-as-usual projections as a result of general economic factors and larger market forces (i.e., non-carbon market) or because the business-as-usual projection is too high for any reason, and cannot be attributed to climate policies, then the excess allowances are not the result of real reductions in the covered sectors. In that case, surplus allowances that are the accident of larger market trends would be treated the same as reductions attributed to climate policies, and would undermine future real reductions.

It is critical to determine the extent to which the existing surplus of allowances and credits can serve to postpone new, on-site reductions in the years after 2020. If there is a significant probability that the surplus of banked allowances will postpone new, on-site reductions, then the cap-and-trade regulation should contain options for retiring and/or devaluing pre-2021 allowances in private accounts after 2020.

[5] Health & Safety Code § 38562(c)(2)(D),

[6] Busch, Chris, Recalibrating California's Cap-and-Trade Program to Account for Oversupply: An original quantitative analysis and policy recommendations (March 2017), p. 16 https://energyinnovation.org/wp-content/uploads/2017/04/RecalibratingCA_Cap-Trade_2017.pdf (accessed 10/19/18).

2. The use of offsets for 2024 and 2025 emissions should be capped at 4% to be consistent with the intent of AB 398.

AB 398 establishes an offset usage limit of 4% for 2021-2025, and 6% for 2026-2030, and ARB proposes limits of 4% for the compliance obligations due in 2024 and 2025 and 6% for the compliance obligations due in 2026.

However, in the first years of each compliance period, covered entities are required to surrender obligations for only 30% of their emissions in each year, with the remainder due in at the end of the three-year compliance period.[7] Thus, the 4% limit would apply to only 30% of the 2024 emissions and 30% of the 2025 emissions, and the remaining 70% of emissions in each of those years would be subject to the higher 6% limit.

The distinction between when emissions are emitted, and the deadline by which compliance obligations covering those emissions must be surrendered to ARB should not be construed to weaken the offset usage limit for 2024 and 2025.

AB 398 states that: "(I) From January 1, 2021, to December 31, 2025, inclusive, a total of 4 percent of a covered entity's compliance obligation may be met by surrendering offset credits… (II) From January 1, 2026, to December 31, 2030, inclusive, a total of 6 percent of a covered entity's compliance obligation may be met by surrendering offset credits…."

Covered entities have a compliance obligation for all of their covered emissions in 2024 and 2025, even if the regulation allows them flexibility to postpone surrendering those obligations until 2026. That is, the "compliance obligation" is the emissions they cover, not the timing of when the compliance instruments are surrendered. As defined in the regulation, "Compliance Obligation" means the quantity of verified reported emissions or assigned emissions for which an entity must submit compliance instruments to ARB."[8]

The 4% offset limit applies to *all* covered emissions emitted during the years 2021-2025.

3. DEBS should include public input in determining whether individual projects meet the qualifications, and the process should prioritize projects with benefits to the state's tribal and disadvantaged communities.

The Center appreciates that the current definition of DEBS no longer includes benefits or avoidance of pollutants into any watershed that flows into California, and that CARB has removed the significantly problematic suggested provision that "[i]f [the] project is located adjacent to a water body that flows within or into California, no further information" on that project's impacts or benefits would be needed.[9]

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[7] Proposed Cap-and-Trade Amendments, Initial Statement of Reasons, Sept. 4, 2018 ("ISOR"), p. 50, available at: https://www.arb.ca.gov/regact/2018/capandtrade18/ct18isor.pdf.
[8] 17 C.C.R. § 95802.
[9] See Maya Golden-Krasner, Center for Biological Diversity, Additional comments to the 2018 amendments to California's GHG Cap-and-Trade regulation and the June 21, 2018 workshop (July 20, 2018), available at https://www.arb.ca.gov/lists/com-attach/38-ct-6-21-18-wkshp-ws-ADFRb1MNVTYKOwBf.pdf.

Because the current process for determining whether a project provides DEBS is a case-by-case determination, however, it is critical that the process include an opportunity for public participation. In particular, members of the public who live near projects, or are affected by projects attempting to use out-of-state offsets should have an opportunity to provide comment potential adverse impacts. In addition, public comment would allow area experts to review, evaluate, and comment on the data and other information provided by the applicant (or provide any other relevant information).

Additionally, the Center proposes that project applicants be required to submit any information as to whether the project benefits disadvantaged and/or tribal communities and that CARB prioritize such projects in its decisionmaking. Notably, a recent study ("Cushing Study") found that rather than investing in green projects within the state, an astounding seventy-five percent of offset credits went towards projects outside of California.[10] Meanwhile, the Study found, from 2011-2015, disadvantaged communities within California experienced *increases in both GHG emissions and co-pollutant emissions* from regulated facilities disproportionately located in their neighborhoods.[11] Incentivizing out-of-state projects while actively harming California's disadvantaged communities undermines the intent of AB 398.[12]

The intent of AB 398 to benefit disadvantaged communities is evident from the plain language of Health and Safety Code section 38591.1(a) (AB 398), which directs ARB to create a task force to create guidance for new offset protocols for a "market-based compliance mechanism for the purposes of *increasing offset projects with* ***direct environmental benefits in the state*** *while prioritizing disadvantaged communities, Native American or tribal lands, and rural and agricultural regions*." (Emphasis added.) It is clear from this language—one of only two places in the statute that "DEBS" is used—that any DEBS criteria must recognize and incorporate that the direct benefits should be not only within the boundaries of the state but also prioritize disadvantaged communities.

This reading is also consistent with the statutory scheme of California's climate regulation. As noted in the Senate Committee on Environmental Quality ("SCEQ") report for AB 398, AB 32 specified that prior to the inclusion of any market-based compliance mechanism in the regulations, ARB was required to (1) "consider the potential for direct, indirect, and cumulative emission impacts from these mechanisms, including localized impacts in communities that are already adversely impacted by air pollution," (2) "design any market-based compliance mechanism to prevent any increase in the emissions of toxic air contaminants or criteria air pollutants," and (3) "maximize additional environmental and economic benefits for California, as appropriate." Moreover, AB 197 (Garcia, 2016) directed ARB to consider social costs and prioritize direct emission reductions at large stationary, mobile, and other sources in order to protect disadvantaged communities.[13]

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[10] Cushing, Lara et al., "Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011– 2015)," *PLoS Med* 15(7) (July 10, 2018) ("Cushing, Carbon Trading"), available at http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002604.

[11] Cushing, Carbon Trading.

[12] Note that the Office of the Senate Floor Analyses stated its understanding that, of the offset credits allowed, AB 398 "[r]equires 50% of all offsets to be *in* California." See Senate Floor Analysis for AB 398, p. 5 (emphasis added).

[13] Health and Safety Code § 38562.5.

Moreover, to the extent CARB or others have raised dormant Commerce Clause concerns regarding the DEBS requirement, the clearer and more direct the environmental benefits are to California communities, the less likely a dormant Commerce Clause claim would survive in court.[14] "The guiding principle in determining whether a state regulation discriminates against interstate or foreign commerce is whether either the purpose or the effect of the regulation is economic protectionism."[15] Here, the purpose of requiring in-state benefits from offset credits is clearly protecting California's communities from pollution-related harm, not economic protectionism. Indeed, the Cushing Study clearly supports the need for such regulation. The more the DEBS criteria focus on scientific- and health-based criteria and the benefits to local communities, the better the regulation will be able to withstand any dormant Commerce Clause challenges.

4. CARB should include potential reductions and associated benefits in its analysis of 2018-2020 Industry Assistance Factors, rather than focusing solely on costs to polluters, and lower the Industry Assistance Factors, in particular, for refineries.

CARB proposes to maintain Industry Assistance Factors of 100% for all industries through 2020, given that AB 398 mandates 100% Industry Assistance Factors beginning in 2021. CARB submits that this will facilitate a smooth transition to a post-2020 regulatory structure, and that it protects against emissions leakage, enables earlier investments in onsite equipment upgrades, allows for economic growth, and will not increase compliance costs to polluters over that period.[16] CARB also indicates that lower Industry Assistance Factors would not be necessary to achieve the reductions currently expected from those sectors over the 2018-2020 period. However, CARB still failed to assess the implications for increased reductions and associated benefits.

We urge CARB to analyze the potential for lower Industry Assistance Factors for the 2018-2020 period to increase real reductions and associated benefits during that period and in the years after 2020. For example, a lower Industry Assistance Factor would raise the cost of emissions in the refinery sector for the next two years, providing an incentive for on-site reductions over that period, including equipment upgrades that would continue to provide real reductions in GHG emissions and co-pollutants on an ongoing basis after 2020. We recommend that the Industry Assistance Factors decline for the 2018-2020 period.

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We single out refineries here because AB 398 prohibits CARB from adopting any GHG regulation other than cap-and-trade for petroleum refineries and oil and gas production facilities through 2030. In addition, AB 398 prohibits local air districts through 2030 from "adopting or implementing an emission reduction rule for carbon dioxide from stationary sources that are also subject to a specified market-based compliance mechanism." Thus, refineries present a special

[14] See e.g., *Rocky Mtn. Farmers Union v. Corey*, 730 F.3d 1070, 1087-88 (9th Cir. 2013) [upholding California's Low Carbon Fuel Standard against dormant Commerce Clause claims] ["Absent discrimination, we will uphold the law 'unless the burden imposed on [interstate] commerce is clearly excessive in relation to the putative local benefits.' *Pike v. Bruce Church, Inc.*, 397 U.S. [137,] 142."].

[15] *Pacific Northwest Venison Producers v. Smitch*, 20 F.3d 1008 (9th Cir. 1994); *accord, Rocky Mountain*, 730 F.3d at 1087.

[16] ISOR, p. 62.

situation in which options for inducing GHG emission reductions are extremely limited, making it necessary to optimize the reductions achieved through cap-and-trade.

A lower Industry Assistance Factor would raise the cost of emissions in the refinery sector for the next two years, providing an incentive for on-site reductions over that period, including equipment upgrades that would continue to provide real reductions in GHG emissions and co-pollutants on an ongoing basis after 2020.

5. The environmental review alternatives analysis should assess the impacts of surplus credits and the 2018-2020 assistance factors for refineries.

In previous comments, the Center recommend that the alternatives analysis in the EA include an assessment of the potential reductions achieved if a 75% (and lower) Industry Assistance Factor were applied to petroleum refining for the 2018-2020 period, with respect to the emissions from that sector over that period and subsequently through 2030. The Center also recommend that the EA include an alternatives assessment of the impacts of sunsetting allowances banked before 2020, with its implications for new, on-site reductions in the years after 2020.

The alternatives analysis provided in the draft EA for the proposed amendments contains neither of these alternatives, even though they would feasibly attain most of the objectives; nor did the EA explain why it was not analyzing them. On the other hand, the EA includes clearly infeasible alternatives, such as an alternative that would exclude DEBS requirements (Alternative 6), even though it obviously fails to comply with the requirements of AB 398. The Center recommends that the EA analyze a scenario in which surplus credits are retired and CARB provides lower 2018-2020 assistance factors for refineries—an alternative clearly more feasible than several of the ones it did analyze.

Thank you for your consideration of these comments. Please contact me if you have any questions.

Sincerely,

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