



October 27, 2017

Ms. Rajinder Sahota
Assistant Division Chief, Industrial Strategies Division
California Air Resources Board

Dear Ms. Sahota,

Thank you for the opportunity to comment on the October 2017 scoping plan and cap-and-trade staff workshop presentations.¹ We appreciate ARB's efforts to finalize the 2030 Scoping Plan and continue California's climate policy leadership.

We write today with comments on the relationship between the 2030 Scoping Plan and the AB 398 implementation process. As everyone is aware, AB 398 requires a number of substantive changes to the post-2020 cap-and-trade market design ARB adopted in August 2017;² however, the timing of these changes presents analytical challenges that we believe warrant additional consideration. At the October 2017 workshop on the cap-and-trade program, ARB staff indicated the Board hopes to approve final AB

¹ ARB, 2017 Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. Public workshop (Oct. 12, 2017); ARB, Cap-and-Trade Regulation Workshop (Oct. 12, 2017).

² ARB Resolution 17-21 (Aug. 4, 2017).

398 cap-and-trade regulations in mid-2019.³ In contrast, AB 398 directs ARB to finalize the 2030 Scoping Plan by January 1, 2018.⁴

Because AB 398 requires ARB to finish the 2030 Scoping Plan by the end of 2017, ARB will need to select its preferred portfolio of policy measures for reaching the state's 2030 climate target more than a year before the Board completes its post-2020 cap-and-trade market design process. As a result, the 2030 Scoping Plan could identify a role for the cap-and-trade program, but any such quantitative role might not reflect the final market design ARB later adopts in implementing AB 398.

We appreciate that ARB's statutory deadlines preclude any other outcome with respect to timing. Nevertheless, we call on ARB to commit to integrating its AB 398 implementation regulations with the 2030 Scoping Plan environmental analysis. Specifically, ARB should commit to directly and quantitatively evaluating how its AB 398 regulations will deliver the annual emission reductions expected from the cap-and-trade market in the final 2030 Scoping Plan, consistent with the SB 32 target for 2030. We elaborate on these points below.

- **A larger role for cap-and-trade.** In its draft 2030 Scoping Plan, ARB decided to analyze the emission reduction requirements from 2021-30 on a cumulative basis, estimating that policy measures would have to reduce emissions by 680 million tons CO₂e over this period relative to a business-as-usual scenario in order to meet the 2030 target.⁵ ARB projected that in its preferred scenario, cap-and-trade would need to deliver 191 million tons CO₂e (about 28%) of that total reduction.⁶ In its

³ ARB staff cap-and-trade presentation, *supra* note 1 at slide 34.

⁴ Cal. Health & Safety Code § 38592.5(a)(1).

⁵ ARB, The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target (Jan. 2017) at 37, 42. As we and our colleagues have previously emphasized, we believe that a single point forecast of business-as-usual emissions—whether annual or cumulative—cannot be accurate and should be accompanied by sensitivity analysis to create a robust strategy. *See, e.g.*, Comment letter from Mason Inman, Michael D. Mastrandrea, Danny Cullenward, and Michael Wara to ARB (Apr. 10, 2017), *available at* <http://www.nearzero.org/wp/reports/>.

⁶ *Id.* at 41-42.

October 2017 workshop slides, ARB calls for an even larger role for cap-and-trade, which ARB now projects will need to reduce 294 million tons CO_{2e} (about 43%) of the total in order to reach the target.⁷ As this new outlook indicates, a well-designed cap-and-trade program is essential to delivering on California's climate goals.

- **Cumulative vs. annual accounting.** As discussed above, ARB's analysis in the 2030 Scoping Plan process emphasizes *cumulative* emission reduction requirements over the period 2021-30; however, the draft scoping plan and workshop slides also present estimates for *annual* reductions from policy measures in 2030.⁸ For example, the workshop slides suggest that after accounting for the effects of non-cap-and-trade policies, cap-and-trade will still need to deliver between 34 and 76 million tons of additional reductions in the year 2030 alone, depending on how those other policies perform.⁹ Annual estimates of policy impacts on emissions are essential, because SB 32 sets an annual target of reducing statewide emissions to 40% below 1990 levels by the year 2030.¹⁰

As we and our colleagues have previously emphasized, ARB needs to show how its 2030 Scoping Plan delivers on the SB 32 annual target for the year 2030, not an estimated reduction in cumulative emissions relative to a modeled baseline.¹¹ While cumulative emission reduction estimates can provide a helpful, high-level metric for comparing the role of individual policies, no cumulative analysis can replace a direct analysis of annual emissions showing that ARB's selected policy measures will deliver on ARB's legal requirement to achieve the SB 32

⁷ ARB staff scoping plan presentation, *supra* note 1 at slide 16.

⁸ ARB draft 2030 Scoping Plan, *supra* note 5 at 43 (see Table II-3); ARB staff presentation, *supra* note 1 at slide 17.

⁹ ARB staff scoping plan presentation, *supra* note 1 at slide 17.

¹⁰ Cal. Health & Safety Code § 38566.

¹¹ See, e.g., comment letter from Mason Inman et al., *supra* note 5; comment letter from Michael Wara and Danny Cullenward to ARB (Dec. 16, 2016); comment letter from Michael Wara and Danny Cullenward to ARB (Nov. 21, 2016). All comment letters available at <http://www.nearzero.org/wp/reports/>.

annual target in the year 2030. ARB's inclusion of annual emission reduction requirements for the cap-and-trade program in the draft Scoping Plan is helpful but not sufficient, because the program is at core a cumulative emissions reduction instrument; translating the cumulative reduction requirements ARB identifies for the program into annual reductions will depend on the details of AB 398 implementation.

Further analysis showing how the 2030 annual target will be achieved is especially important given the large role ARB expects cap-and-trade to play. Like any cap-and-trade program, California's program allows regulated emitters to shift the timing of their emissions through various measures such as banking of allowances,¹² access to some 80 million extra allowances at price containment points in the post-2020 market period,¹³ the use of over-allocated allowances from the pre-2020 period in the post-2020 period,¹⁴ and unlimited allowances made available at a hard price ceiling.¹⁵ As a result, the specific market design ARB adopts pursuant to AB 398 will have important effects on the timing of emission reductions from sources regulated under the cap-and-trade program. In turn, the timing of emission reductions will determine whether or not the cap-and-trade program is capable of closing the gap between ARB's selected complementary policies and the SB 32 annual target in 2030.

- **ARB should commit to analyzing how its final AB 398 regulations deliver on SB 32's 2030 annual target, making use of the PATHWAYS model results from the 2030 Scoping Plan.** Because ARB will not be able to incorporate the final cap-and-trade program market design into the 2030 Scoping Plan and because the final cap-and-trade market design has critical implications for the timing of annual emission reductions through 2030, ARB should commit to integrating its environmental analysis across these two regulatory processes.

¹² Cal. Health & Safety Code § 38562(c)(2)(H).

¹³ *Id.* at § 38562(c)(2)(B).

¹⁴ *Id.* at § 38562(c)(2)(D).

¹⁵ *Id.* at § 38562(c)(2)(A).

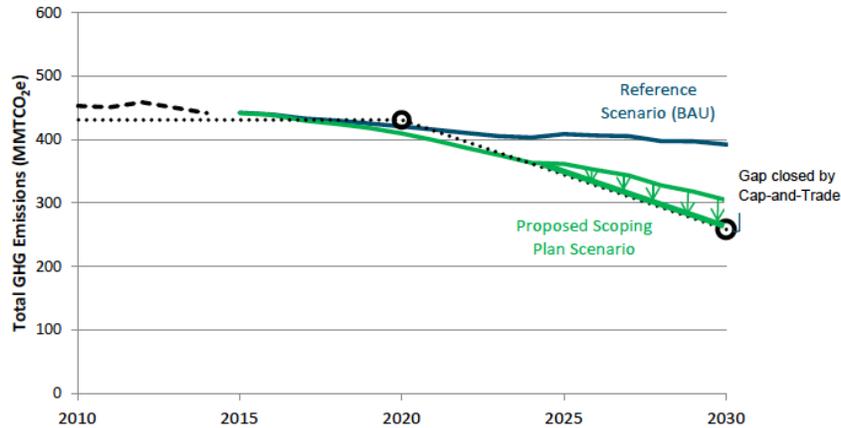
Specifically, we recommend that ARB explicitly analyze the annual reductions it expects from its final AB 398 market design regulations and compare these reductions with the PATHWAYS projections developed for the final 2030 Scoping Plan. Connecting these two analytical processes is critical because PATHWAYS does not model the emission reductions from cap-and-trade or other market-based measures.¹⁶ Rather, ARB infers the emission reductions needed from cap-and-trade based on the gap between (1) the annual PATHWAYS projections for the contribution of non-market-based measures and (2) an annual emissions scenario that is consistent with the SB 32 annual target for 2030.

For example, in the figure below, the cumulative gap between PATHWAYS and ARB's preferred scenario is indicated by the area described by the arrows between the solid green line and the dotted Proposed Scoping Plan Scenario line; the annual gap is the difference between these two lines in 2030.¹⁷ ARB assumes cap-and-trade will close these gaps.

¹⁶ Draft 2030 Scoping Plan, *supra* note 5, Table III-3 at 65-66 (citing California Air Resources Board, Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation, Staff Report: Initial Statement of Reasons, Appendix C: Revised Standardized Regulatory Impact Assessment (SRIA) (Aug. 2, 2017) at 11 (“PATHWAYS scenarios do not include the Cap-and-Trade Program, therefore, these scenarios provide information on reductions that may be achieved through other measures and the remaining emissions reductions that may be required to be achieved through the post-2020 Program.”), *available at* <https://www.arb.ca.gov/regact/2016/capandtrade16/appc.pdf>).

¹⁷ Draft 2030 Scoping Plan, *supra* note 5, Figure II-3 at 42. We note that this figure is from the January 2017 draft Scoping Plan and that the numbers released in the October 2017 workshop indicate that the complementary policies will play a reduced role relative to this figure.

Figure II-3. Proposed Scoping Plan Scenario GHG Reductions



In the final 2030 Scoping Plan, we anticipate that ARB will identify emission reductions in 2030 from various measures, including the cap-and-trade program. We also anticipate that the final 2030 Scoping Plan will quantify emission reductions from non-market-based measures using PATHWAYS model projections. However, it is impossible to say what the actual annual emission reductions from the cap-and-trade program will be until the market design is finalized, because the choices ARB will make in implementing AB 398 will control how the cumulative reductions delivered by the program are distributed on an annual basis.

To resolve this issue, we recommend that ARB directly and quantitatively evaluate how its cap-and-trade regulations under AB 398 will reduce emissions in 2030, above and beyond reductions from non-market-based measures identified in the final 2030 Scoping Plan and quantified using PATHWAYS. If ARB commits to providing such an analysis in the AB 398 rulemaking process, it would then be defensible to argue that the 2030 Scoping Plan need not identify the specific cap-and-trade market design that complies with SB 32's annual emissions target, because that design will be properly analyzed in the AB 398 implementation process using consistent analytical methods.

Fundamentally, we believe a commitment by ARB to integrate the environmental analyses in the 2030 Scoping Plan and AB 398 implementation processes would provide a rigorous and well-reasoned basis for argument that the final 2030 Scoping Plan will enable the state to achieve the SB 32 annual target.

Thank you for your consideration. Again, we appreciate the opportunity to comment and look forward to working with ARB staff and other stakeholders going forward.

Sincerely,



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