

# Allowance Overallocation (Managing Allowance Supply)

by Danny Cullenward  
September 10, 2018

I would like to thank my subcommittee colleague and IEMAC Chair, Dr. Dallas Burtraw, for his thoughtful engagement over the past few months. While I endorse our subcommittee report in full and believe its recommendations identify the most practical opportunities to improve the effectiveness of California's cap-and-trade program, I respectfully dissent from the subcommittee's decision not to address the validity of ARB's justification for inaction on allowance overallocation.

## 1. The IEMAC should have reviewed ARB's analysis of allowance overallocation

Cap-and-trade program design is an inherently complex topic. That is why it is especially important for expert advisory bodies, such as the IEMAC, to address critical disputes over key market parameters in plain and accessible language.

In extending the cap-and-trade program through 2030, the California Legislature indicated its concern about allowance overallocation, which multiple independent studies have suggested may put the state's 2030 climate target at risk.<sup>1</sup> AB 398 specifically requires ARB to evaluate whether the program has too many allowances.<sup>2</sup> ARB has since provided its response to AB 398's instruction to analyze allowance overallocation and concluded that no change to allowance budgets is warranted.<sup>3</sup> In particular, the proposed regulation rests on the findings of a disputed April 2018 staff report that are repeated in Appendix D to the Initial Statement of Reasons.<sup>4</sup>

Given the jurisdiction of this subcommittee and the critical importance of the April 2018 staff report to a clear statutory direction, I believe the subcommittee should have expressed its views on the technical validity of the Board's analysis. In my opinion, there is no more significant analytical question in the proposed regulation. If the cap-and-trade program has too many allowances, it will fail to reduce emissions in line with the 2017 Scoping Plan and may put the state's 2030 climate target at risk.

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<sup>1</sup> See, e.g., Environmental Commissioner of Ontario, Ontario's Climate Act: From Plan to Progress – Appendix G: Technical Aspects of Oversupply in the WCI Market (Jan. 2018), <https://eco.on.ca/reports/2017-from-plan-to-progress/>; Chris Busch, Oversupply Grows in the Western Climate Initiative Carbon Market, Energy Innovation Report (Dec. 2017), <http://energyinnovation.org/wp-content/uploads/2018/02/WCI-oversupply-grows-February-update.pdf>; Legislative Analyst's Office, Cap-and-Trade Extension: Issues for Legislative Oversight (Dec. 2017), <http://lao.ca.gov/Publications/Report/3719>.

<sup>2</sup> Cal. Health & Safety Code § 38562(c)(2)(D).

<sup>3</sup> ARB, Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation, Staff Report: Initial Statement of Reasons, Appendix D: AB 398: Evaluation of Allowance Budgets 2021 through 2030 (Sept. 4, 2018) at 15-16.

<sup>4</sup> *Id.* at 9-11 (citing ARB, Supporting Material for Assessment of Post-2020 Caps (Apr. 2018)).

## 2. ARB’s analysis of allowance oversupply is technically deficient

Had the subcommittee reached this question, I would have encouraged my colleague to join me in expressing concern about the Board’s analysis of allowance overallocation. In my opinion, the Board has offered no analysis that shows how the proposed market design will achieve the role ARB designated for cap-and-trade in the 2017 Scoping Plan. The proposed regulation purports to demonstrate the adequacy of current allowance budgets via two different arguments—one focused on supporting a “steadily rising carbon price signal” and the other on the number of allowances in the program—but neither analysis provides a sufficient technical basis for determining the proposed regulation has resolved concerns related to overallocation.

Historically, the cap-and-trade program has operated as a “backstop” or “insurance” policy designed to “close the gap” between the effect of regulatory efforts and any remaining mitigation needed to achieve statewide climate targets.<sup>5</sup> This language is found in every scoping plan to date—including the 2017 Scoping Plan, which contains multiple references to this functional role.<sup>6</sup> Now, however, ARB appears to refer to the program as having the primary goal of supporting a “steadily increasing carbon price signal.”<sup>7</sup> This shift in emphasis is profound and calls for a distinct kind of economic analysis.

While I agree with ARB that price-induced mitigation effects are perfectly capable of delivering greenhouse gas emission reductions, nowhere in the proposed regulations does ARB provide an empirical or model-based analysis of what carbon prices might be necessary to achieve the state’s climate goals. Without a basis for determining what prices are necessary to achieve state climate goals and what prices might be expected from the proposed market design, I do not believe this line of inquiry responds to concerns about allowance overallocation.

The question, then, is whether the number of allowances in the program is sufficient to contain 2030 emissions at a level consistent with the legally binding limit set by SB 32. The only analysis

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<sup>5</sup> Guri Bang, David G. Victor, and Steinar Andresen (2017), California’s Cap-and-Trade System: Diffusion and Lessons, *Global Environmental Politics* 17(3): 12-30; Michael Wara (2014), California’s Energy and Climate Policy: A Full Plate but Perhaps Not a Model, *Bulletin of the Atomic Scientists* 70(5): 26–34.

<sup>6</sup> ARB, California’s 2017 Climate Change Scoping Plan (Nov. 2017) at 25 (stating the Final Scoping Plan’s strategy to “Continue the existing Cap-and-Trade Program with declining program caps to ensure the State’s 2030 target is achieved”); *id.* at 26 (describing the cap-and-trade program’s capability to deliver additional reductions if planned measures are delayed or ineffective, “to ensure the 2030 target is achieved”); *id.* at 30 (describing the final Scoping Plan Scenario and cap-and-trade’s projected backstop role to “ensure the 2030 target is achieved”); *id.* at 34 (Table 4) (noting under the criterion “Ensure the State Achieves the 2030 Target” that the cap-and-trade program “scales to ensure reductions are achieved,” despite uncertainty in projected emissions and emission reductions); *id.* at 52 (“Flexibility allows the Cap-and-Trade allowance price to adjust to changes in supply and demand while a firm cap ensures GHG reductions are achieved”); *id.* 53 (“The aggregate emissions cap of the Cap-and-Trade Program ensures that the 2030 target will be met—irrespective of the GHG emissions realized through prescriptive measures”); *see also* ARB, Responses to questions at the Joint Hearing of the Senate Environmental Quality Committee and Senate Budget and Fiscal Review Subcommittee No. 2 (Jan. 17, 2018) at 2-3 (describing the cap-and-trade program as a program that will achieve certain reductions with prices determined by the market), [http://senv.senate.ca.gov/sites/senv.senate.ca.gov/files/arb\\_responses.pdf](http://senv.senate.ca.gov/sites/senv.senate.ca.gov/files/arb_responses.pdf).

<sup>7</sup> ARB, ISOR Appendix D, *supra* note 3 at 3.

of these quantity effects comes from an April 2018 staff report.<sup>8</sup> As the subcommittee report notes, however, not only does this staff report project a much smaller number of extra allowances than do credible independent reports, but its factual accuracy is in dispute.

My colleagues at the non-profit research organization Near Zero and I have claimed that ARB made a significant modeling error in its April 2018 staff report. We published our step-by-step criticism in May,<sup>9</sup> included our analysis in a comment letter to ARB,<sup>10</sup> discussed it in testimony before a legislative oversight hearing where ARB leadership also testified,<sup>11</sup> responded to ARB's testimony in a follow-up letter to the same legislative committee with a courtesy copy to ARB,<sup>12</sup> and addressed the matter again in a second comment letter to ARB.<sup>13</sup>

Despite this extensive engagement, ARB has never addressed the criticism head-on. Here is the full extent of how Board staff responded in the proposed regulations:

In response to the initial staff analysis, one commenter stated there was an error in the CARB analysis. Staff evaluated the assertion and found that no error existed. The proposed adjustment by the commenter would have actually introduced an error.<sup>14</sup>

In fact, even now staff admit the error Near Zero identified by acknowledging their projections of covered emissions included "fugitive emissions" that are not actually subject to the cap-and-trade program.<sup>15</sup> If staff believe the size of the error is not as large as Near Zero found using ARB's own data, they should show their calculations and not merely assert their conclusion.

Because the debate over ARB's April 2018 staff report concerns a key technical question related to the core jurisdiction of this subcommittee, and because the April 2018 staff report is at the center of ARB's response to AB 398's instruction to evaluate concerns related to overallocation, I would have preferred that the subcommittee evaluate ARB's response to the criticism and make a substantive finding about the staff report's technical validity.

Nevertheless, my sincere hope is that the analysis and metrics recommended by the subcommittee will provide policymakers with an evidence-based framework for evaluating whether adjustments to the current supply of allowances are warranted. I look forward to working with my fellow IEMAC members, Board staff, and program stakeholders to that end.

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<sup>8</sup> ARB, Post-2020 Caps Report, *supra* note 4.

<sup>9</sup> Mason Inman, Danny Cullenward, and Michael Mastrandrea, Ready, fire, aim: ARB's overallocation report misses its target. Near Zero Research Note (May 7, 2018), <http://www.nearzero.org/wp/reports/>.

<sup>10</sup> Comment letter from Near Zero to ARB (May 10, 2018), <https://www.arb.ca.gov/lists/com-attach/1200-ct-4-26-18-wkshp-ws-Uz1RMLw8BSQKU1Qu.pdf>.

<sup>11</sup> Testimony of Dr. Danny Cullenward before the Joint Legislative Committee on Climate Change Policies (May 24, 2018), <https://www.ghgpolicy.org/s/2018-05-24-Cullenward-testimony.pdf>.

<sup>12</sup> Letter from Dr. Danny Cullenward to Hon. Eduardo Garcia and Sen. Henry Stern (May 30, 2018), <https://www.ghgpolicy.org/s/2018-05-30-Cullenward-letter-to-JLCCCP.pdf>.

<sup>13</sup> Comment letter from Near Zero to ARB (July 5, 2018), <https://www.arb.ca.gov/lists/com-attach/29-ct-6-21-18-wkshp-ws-WzUHZFc3ACEFXFlo.pdf>.

<sup>14</sup> ARB, ISOR Appendix D, *supra* note 3 at 10-11 (see footnote 11).

<sup>15</sup> *Id.*