The No CARB Diet: Should the California State Legislature Cut the California Air Resources Board Out of Its Emissions Reduction Regulatory Scheme?

INTRODUCTION

The Cap-and-Trade Program (the Program) is a crucial aspect of California’s climate agenda and one of the foremost carbon emissions reduction efforts in the world. But flaws in the design of the Program’s compliance instruments diminish its overall effectiveness by limiting the amount of net emissions reductions achieved. This In Brief argues that enabling covered entities to purchase nonadditional carbon offsets and bank emissions allowances creates loopholes that lead to increased emissions and deepened inequities.

The California Legislature (the Legislature) enacted the California Global Warming Solutions Act of 2006 (AB 32) to sharply reduce greenhouse gas emissions. AB 32 required California to reduce these emissions to 1990 levels by 2020. It also directed the California Air Resources Board (the Board) to implement the legislation. The Board established the Program in 2013. In 2016, California emissions fell below 1990 levels, meeting AB 32’s requirement four years early.

In 2017, the Program surpassed its largest legal obstacle when the California Supreme Court declined to review a California court of appeal decision that

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3. Id. § 38550.
4. Id. § 38510.
upheld the Program. The authority of the Program was initially set to expire in 2020, but after this decision, the California Legislature extended the Program for another ten years. Many environmentalists celebrate this decision as a win for climate change legislation in California, since it validates the constitutionality of the Program.

Despite the Program’s apparent success in reducing statewide emissions, it is flawed in two ways. First, it enables covered entities to replace their own direct emissions reduction efforts with carbon offset credits. Often, the emissions reductions that the credits represent would have happened regardless of the Program. As a result, greenhouse gas emissions increase because offsets are not sufficient to compensate for covered entities’ lack of meaningful emissions reductions. Second, the Program allows participants to bank allowances for future use. This creates an oversupply of allowances, which will lead to increased future emissions that exceed state limits. These two loopholes represent significant flaws in the Program that impede emissions reduction efforts in California. The flaws frustrate the legislative intent of AB 32 by unduly rewarding carbon emitters while harming California’s most vulnerable communities, thereby deepening environmental inequity and injustice in the state.

I. BACKGROUND

A. The California Global Warming Solutions Act (AB 32)

The Legislature passed AB 32 in 2006 in an effort to meet statewide climate goals. AB 32 designated authority to the Board to regulate greenhouse gas emissions...
levels in California by implementing emissions limits and monitoring the progress of reduction efforts. It gave the Board broad discretion to establish emissions reduction schemes, subject to several guidelines. These guidelines include ensuring equitable distributions of allowances, encouraging early action to reduce greenhouse gas emissions, and considering overarching societal benefits. To comply with AB 32, the Board must also achieve “the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions.”

B. The Cap-and-Trade Program

To meet AB 32’s emissions reduction targets, the Program sets an annually decreasing limit on aggregate greenhouse gas emissions in California. The Board imposes individual caps on large emitters, known as covered entities. These covered entities include electricity generators, fuel distributors, and other industrial facilities that emitted at least 25,000 metric tons of carbon dioxide equivalent per year before the Program began. Collectively, these covered entities generate roughly 85 percent of greenhouse gas emissions in California.

The Board distributes and sells emissions allowances. Each allowance is a license to emit one metric ton of carbon dioxide equivalent, and the total amount of allowances is equal to the cap on greenhouse gas emissions. The Board gives a set number of emissions allowances to each covered entity based on its historical emissions data, and the rest of the allowances are sold at quarterly auctions.

C. Compliance with the Cap-and-Trade Program

Covered entities must periodically report their emissions to the Board by submitting compliance instruments based on their emissions. These compliance instruments may be a mix of emissions allowances, which are either given to the emitter by the Board or purchased at auction, and offset credits. Each compliance instrument licenses the holder to emit one metric ton of carbon dioxide equivalent. The total amount of carbon dioxide equivalent represented

16. Id.
17. Id.
18. Id. § 38562.
19. Id.
20. Alcorn, supra note 10, at 100.
21. Carbon dioxide equivalent is a standardized measurement of greenhouse gas emissions based on global warming potential. Id.
22. Id. at 98.
23. Id.
24. Id.
25. Id. at 100.
26. Id.
27. Id.
28. Id. at 98.
by the number of compliance instruments that each covered entity submits to the
Board must equal the amount of emissions it produced during the prior
compliance period.29

D. California Chamber of Commerce v. State Air Resources Board

In 2012, the California Chamber of Commerce (the Chamber) challenged
the market-based nature of the Program.30 The Chamber based the suit on two
central issues. First, it challenged whether the Legislature, through AB 32, gave
the Board authority to create an auction system.31 Second, the Chamber
challenged whether the revenue generated by auctioning allowances constituted
a tax, which would make the validity of the Program subject to the two-thirds
supermajority vote requirement of California’s Proposition 13.32

The trial court ruled in favor of the Board and upheld the Program in 2013.
Regarding the first issue, the court decided that the auction system was within
the Board’s “broad scope of authority” granted by the Legislature.33 It further
held that the Legislature ratified the auction system by enacting statutes
following AB 32 that governed the use of auction proceeds.34 On the second
issue, the court held that the auction system more closely resembled a regulatory
fee than a tax, so it was not subject to the Proposition 13 requirements.35

California’s Third District Court of Appeal affirmed the trial court’s
decision in 2017.36 It held that the Legislature gave “broad discretion” to the
Board to create a system that fulfills the goals of AB 32, which may include a
revenue-positive auction.37 The court determined this legislative intent by
analyzing the language and context of AB 32.38

The court explained the two “hallmarks” of a tax: It must be compulsory,
and it must lack any specific benefit to the payor.39 Regarding the first factor,
the court reasoned that the auction was not compulsory because covered entities
have the option of not taking part in the auction by voluntarily reducing their
greenhouse gas emissions to the level of their free allowances.40 Regarding the
second factor, the court reasoned that the ability to pollute in excess of free
emissions allowances provides a direct benefit to those regulated by emissions

29. Id.
31. Id. at 614.
32. Id.
33. Id. at 615.
34. Id. at 614.
35. Id.
36. Id.
37. Id. at 615.
38. The court held that the “fact the Legislature did not explicitly refer to an auction of allowances
does not mean such an auction falls outside the scope of the delegation.” Id. at 619.
39. Id. at 639.
40. Id. at 642.
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The court emphasized that the ability to emit is not a right but rather a privilege conferred by the purchase of emissions allowances. As the emissions auction met neither criterion, the court held that it was not a tax and therefore did not violate Proposition 13.

Later in 2017, the California Supreme Court declined to review this appellate court decision—a key victory for the Board and the Program.

II. THE CAP-AND-TRADE PROGRAM IS FLAWED

The Program is inadequate as a long-term emissions reduction strategy because its carbon offset program and banking policy will lead to increased emissions in the future. These flawed features benefit large corporate emitters at the expense of vulnerable populations. Therefore, the Program frustrates the legislative intent of AB 32.

A. Carbon Offsets and Lack of Additionality

The carbon offset program allows covered entities to exceed their emissions caps without actually counteracting the excess emissions. Offset credits are voluntary emissions reductions from sources not directly regulated by the Program. Each offset credit represents one metric ton of carbon dioxide equivalent that is either sequestered (removed from the atmosphere and stored for at least 100 years) or reduced. Thus, for each offset credit a covered entity possesses, the entity may emit one metric ton of carbon dioxide equivalent. The Program allows covered participants to use offset credits from approved North American carbon offset programs to satisfy up to 8 percent of their compliance obligations.

There are four main approved North American offset programs: Livestock Projects, Ozone Depleting Substances, Urban Forest Projects, and U.S. Forest Projects. Within these categories are over 200 individual offset projects that are primarily run privately, with Board-accredited third-party verification of the offsets. Through the Compliance Offset Protocols, the Board mandates that

41. Id.
42. Id. at 639.
43. Id. at 650.
44. Id. at 671.
45. Id. at 615.
47. Id.
49. Smith, supra note 11, at 9.
50. Id. at 8.
each offsite reduction must be additional, meaning it would not have occurred but for a demand for carbon offset credits. 51

In reality, the additionality requirement for offset credits has little value because additionality is neither verified nor enforced. 52 In *Our Children’s Earth Foundation v. State Air Resources Board*, a California court of appeal held that there need not be “unequivocal proof” that an offset is additional to any reduction that would otherwise occur. 53 The court rejected an argument that offsets violate the additionality requirement, reasoning that “it is virtually impossible to know what otherwise would have occurred in most cases” and therefore, the offsets’ additionality cannot be proved or disproved. 54

This reasoning fails to address the true lack of additionality that pervades the Program. For example, the U.S. Forest Projects Protocol—the most productive of the offset projects—validates offset credits generated by refraining from harvesting trees that are part of “recreation-oriented” forests. 55 These are trees that would almost certainly not have been harvested otherwise, so the offset credits they generate do not represent any additional emissions reductions. 56 This issue is exacerbated by the Forest Offset Program’s failure to exclude landowners whose previously created credits were found to have lacked additionality. 57

As a result, the Forest Projects Protocol generated up to 115.6 million illegitimate offsets between 2013 and 2019, which comprised 79 percent of California’s total supply of offset credits. 58 Lack of additionality is pervasive among the other, less productive offset programs as well. 59

The leniency of the Compliance Offset Protocols, established by the Board and upheld in *Our Children’s Earth Foundation*, allows covered entities to purchase carbon offset credits that do not reliably represent one metric ton of carbon dioxide equivalent. 60 Rather than fulfilling AB 32’s requirement to decrease emissions and encourage early action, this loophole increases emissions by allowing nonadditional carbon offset credits to be used as compliance instruments, which enables covered entities to exceed their emissions caps under the Program.


54. *Id.* at 889.

55. Smith, *supra* note 11, at 47; T. Ruseva et al., *supra* note 46, at 286.

56. *Id.*

57. *Id.*

58. Smith, *supra* note 11, at II.

59. *Id.* at 74. The Livestock Protocol, Urban Forest Projects Protocol, and Ozone Depleting Substances Protocol all use the same highly subjective “performance standard” test as the Forest Projects Protocol does to assess additionality, and thus allow for non-additional offsets in the market. *Id.*

60. See *id.*
B. Banking and Oversupply

The banking policy of the Cap-and-Trade Program allows covered entities to sell their unused allowances to other covered entities to keep for future use, or “bank,” the allowances themselves at the end of each compliance period. Banking emissions allowances enable covered entities to purchase extra compliance instruments and use them to emit in excess of future emissions caps.

The yearly emissions caps set by the Board are overly generous due to participant lobbying and misinformation about historic emissions levels. This creates an excess of emissions allowances. Emissions reductions resulting from other California climate initiatives, such as increases in electric cars, renewable energy, building efficiency, and low-carbon fuel, drive aggregate emissions further below the regulatory caps without any actual reductions from covered entities. Most covered entities emit less than their designated allowances without significantly reducing their emissions, so they do not need to give the Board all of their allowances at the end of each compliance period.

Covered entities bank these extra emissions allowances for future use, subject to flexible holding limits. Banked allowances never expire, so the total number of banked allowances in California has steadily grown since the start of the Program in 2013. As a result, there is now an oversupply. The Legislative Analyst’s Office estimates that the oversupply represents 100 million to 300 million metric tons of carbon dioxide equivalent to be emitted after 2020, not counting the new allowances distributed and offset credits generated in the future.

Such an oversupply will allow covered entities to exceed emissions caps in the future.

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footnotes:

62. Id.
63. Id.
65. See, e.g., Busch, supra note 13, at 3.
66. Id. at 6.
67. Busch, supra note 13, at 4. A holding limit allows a covered entity to bank up to a certain amount of allowances proportionate to its emissions cap, as determined by the Board. However, the Board, at its discretion, distributes “limited exemptions” to the holding limit that allow emitters to bank more than their holding limit in each compliance period. California Cap-and-Trade Program: Facts About Limited Exemption from the Holding Limit, CALIFORNIA AIR RESOURCES BOARD (Dec. 1, 2017), https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/limited_exemption.pdf.
68. See Busch, supra note 13, at 4.
71. See Letter from Mac Taylor, supra note 69.
The banking policy allows covered entities to continue emitting at pre-AB 32 levels, take advantage of inflated caps, and avoid making more drastic reductions in the future. Rather than providing for equitable distributions of allowances, as AB 32 mandates, the Program allows wealthier covered entities to bank as many allowances as they can afford. Instead of encouraging early action to reduce greenhouse gas emissions, it incentivizes covered entities to continue polluting at or close to pre-AB 32 levels, purchase allowances from other participants, and bank them in order to continue polluting in the future when emissions caps lower. As a result, the banking policy will contribute to increased emissions in California.

C. Inequity of the Cap-and-Trade Program

These two loopholes in the Program frustrate the legislative intent of AB 32 by privileging large emitters at the expense of the public. The Legislature enacted AB 32 because it recognized that global warming imperils California’s “economic well-being, public health, natural resources, and environment.” The fundamental role of government is to protect its citizens; accordingly, the California government is responsible for safeguarding Californians from the economic and health burdens of global warming. To mitigate the harms associated with global warming, California must decrease aggregate carbon emissions to 80 percent below 1990 levels by 2050. If the Board continues to allow covered entities to skirt long-term compliance obligations, the state is unlikely to meet this target.

Marginalized Californians will suffer the most severe consequences of climate change. More than 9.3 million Californians live in communities where heavy pollution burdens converge with a vulnerable populace. According to California’s Fourth Climate Change Assessment Report in 2018, the climate crisis “disproportionately affect[s] the State’s most vulnerable residents and communities.” California crops like fruit and nut trees are particularly sensitive

73. See id.
74. See id.
75. Id. § 38501.
76. See CAL. PUB. RES. CODE § 21000 (West 1970); see also Union of Med. Marijuana Patients, Inc. v. City of San Diego, 7 Cal. 5th 1171, 1185 (2019) (recognizing that a “central state policy [is] to require state and local governmental entities to perform their duties ‘so that major consideration is given to preventing environmental damage.’”).
79. CALIFORNIA’S FOURTH CLIMATE CHANGE ASSESSMENT, supra note 77, at 16.
to climate change, so agricultural workers are likely to suffer due to a decrease in harvestable fruit and a subsequent decrease in demand for workers. Global warming will also disrupt the cultural traditions of Indigenous communities that depend on natural resources in the state. Climate change is not a distant threat: record-breaking wildfires continue to devastate people across the state.

In addition to inadequately addressing generalized effects of climate change, the Program worsens local air quality in disadvantaged communities in California. An environmental equity assessment of the Program found that localized emissions from covered entities actually increased after the Program’s implementation. The carbon offsets protocol and banking policy allow covered entities to outsource reduction efforts and continue to pollute at high levels from stationary sources. Copollutants produced alongside greenhouse gases at these facilities have direct negative health impacts on those living nearby, including higher rates of asthma, heart disease, and low-weight births. Moreover, these facilities are most likely to be located in poor communities of color that already bear heavy pollution burdens and public health costs. Thus, the Program perpetuates environmental injustice in California by allowing covered entities to worsen local air quality in disadvantaged communities.

The ever-increasing threats of climate change and pollution continue to endanger the well-being and safety of California communities. The leniency of the Program’s carbon offsets protocol and banking policy hinders emissions reduction efforts in California. The average resident receives no benefit from the carbon offsets protocol or the banking policy; rather, these loopholes solely benefit large emitters by allowing them to continue emitting and maximizing profits. This lopsided benefit is inconsistent with AB 32’s legislative intent to protect Californians from the severe effects of climate change and localized pollutants. Instead, it aids the industries that contribute most to climate change in the state.

80. Id. at 12.
81. Id. at 16.
84. Id. at 6. Stationary sources are fixed emitters of air pollutants, and include power plants, refineries, and factories. Stationary Sources of Air Pollution, U.S. EPA, https://www.epa.gov/stationary-sources-air-pollution.
86. Cushing, supra note 83, at 4.
87. See CALIFORNIA’S FOURTH CLIMATE CHANGE ASSESSMENT, supra note 77, at 10.
88. See Smith, supra note 11, at 51; Busch, supra note 13, at 6.
CONCLUSION

Environmentalists often celebrate California as a bastion of progressive environmental action, and the Program is viewed as the crown jewel of its climate agenda.89 However, Program loopholes that enable covered entities to purchase nonadditional carbon offset credits and bank emissions allowances lead to increased emission and fail to achieve “the maximum technologically feasible and cost-effective reductions” required by statute.90 These aspects of the Program are inconsistent with AB 32’s overarching legislative intent because they benefit large emitters in California and fail to prioritize the well-being of the people.

When the authority for the Program was set to expire in 2020, the Legislature and the Board had the opportunity to reassess the effectiveness of the Program and alter the regulatory scheme to better serve Californians. Instead, they renewed it with only minor adjustments.91 The Program will now expire in 2030, and after large emitters have cashed in their banks of emissions allowances, California’s 2050 reduction goals will remain out of reach. Time and again, the courts have given excessive deference to the Board’s Program design, and in turn, the Board has been alarmingly lenient in regulating the state’s largest emitters. Therefore, the Legislature must act to create a more effective emissions reduction scheme by implementing more stringent standards than those in AB 32 and limiting the Board’s unchecked authority to oversee emissions reduction efforts. In fact, California’s emissions reduction goals might fare better under the supervision of a new authority with a mandate to reduce emissions in an equitable manner.

Joya Manjur

91. O’Connor, supra note 8.

We welcome responses to this In Brief. If you are interested in submitting a response for our online journal, Ecology Law Currents, please contact cse.elq@law.berkeley.edu. Responses to articles may be viewed at our website, http://www.ecologylawquarterly.org.