

March 16, 2018

Ms. Rajinder Sahota  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Submitted electronically via: [www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm](http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm)

**RE: Public Workshop on Cap-and-Trade Regulation Post-2020 and AB 398 Implementation held March 2, 2018**

Dear Ms. Sahota:

Thank you for the informative workshops and materials presented on March 2 and this opportunity to comment. Environmental Defense Fund has been privileged to participate as a stakeholder in cap-and-trade design since the first discussions began and we look forward to continuing to engage at this important juncture.

The comments that follow first address program design questions specifically raised at the March 2 workshop, followed by additional items for further consideration by ARB.

**Price Ceiling**

ARB has identified an appropriate price ceiling range:

We believe that ARB has identified a reasonable range for the price ceiling and that there are strong justifications for having a price ceiling that is significantly above the reserve price currently in regulation. The current regulation does not include a firm price ceiling but rather relies on a soft price ceiling created by an allowance reserve. It is reasonable to expect that with a firm price ceiling and the greater price certainty that goes along with it, the actual price should be higher.

A higher price ceiling also means additional benefits for the environment by providing stronger incentives for mitigation opportunities like carbon capture and sequestration that might not be economic at lower prices. A higher price ceiling provides more market flexibility to allow the

market to set the appropriate price for incentivizing abatement. A higher price ceiling also means more revenue will be available to secure high-quality reductions outside the cap, perhaps allowing the state to exceed the critical ton-for-ton requirement in statute. We recognize that these benefits must be balanced with other interests that lead the state to adopt a firm price ceiling in the first place. However, we do urge ARB to adopt a price ceiling that is significantly above the current planned reserve price of \$81 (2105 dollars) in 2030, and preliminarily discussed as the low end of a range of potential ceiling prices. This position anticipates that the price ceiling will escalate from 2021 either based on the fixed amount above the price floor as in current regulation or based on the previous escalation of five percent plus inflation seen in the pre-2020 APCR.

It is important the ARB is considering the full range of the social cost of carbon:

It is important that ARB is considering the social cost of carbon (SCC) values as estimated by the Social Cost of Carbon Interagency Working Group as well as additional robust and peer-reviewed analyses that suggest the costs could be significantly higher. The SCC is not directly tied to a price point of either the floor or ceiling in California but is nevertheless an important reference point. EDF urges policy makers around the country to consider and incorporate the costs of carbon pollution to strengthen and inform their decision making. California is setting an important example by doing so. Particularly given the Trump Administration's attempts to justify the rollback of crucial environmental and health protections by vastly undervaluing the costs of climate change, it is especially important that ARB is considering SCC values as estimated by the Interagency Working Group – which were developed by experts across a dozen federal agencies through a rigorous process based on the latest peer-reviewed science and economics, and with input from the public and the National Academy of Sciences. In addition, it is important that ARB is considering studies like the one referenced in workshop materials that find the SCC could be significantly higher than currently accepted values, as much as \$220 a ton.

Program success should be judged based on whether reductions are achieved, not solely on whether California reaches the price ceiling:

When demand was low in 2016, EDF focused on judging the success of the program based on whether emissions were being reduced and whether the design elements of the program that kept prices stable even as demand fluctuated were working. Similarly, we would like to note that since a price ceiling is now a part of the cap-and-trade program, reaching the price ceiling itself will not mean the program is failing. Rather it would mean that California needs to utilize a feature of the program that was designed for that purpose. If the price ceiling was reached, EDF would judge success of the program based on whether additional abatement was occurring at higher prices and whether the state was able to secure reductions as required by AB 398 to make the atmosphere whole. Therefore, in making design choices such as setting the price ceiling and making a cap adjustment, we believe it is more important to consider the impact on emissions and the environment than to focus specifically on whether it is more or less likely that the price ceiling will be reached.

## Opportunity for Cap Adjustment

At a minimum, EDF believes a cap adjustment of 52,400,000 is appropriate post-2020:

ARB is seeking feedback on how to treat the 52,400,000 allowances that are currently slated to go into the post-2020 price containment reserve. These allowances exist because the current regulation sets the 2021-2030 cap based on a straight-line reduction between 2020 and 2030. Emissions are expected to be below capped levels in 2020, however, and EDF has consistently supported setting the post-2020 cap based on a step-down to expected emissions in 2021 rather than a straight-line.

EDF believes there are a number of strong justifications for making this cap adjustment in the current regulation as a way to take advantage of the opportunity to increase program ambition, especially now that the program includes a firm price ceiling.

- The most important reason for making this adjustment from EDF's perspective is that the program now contains a firm price ceiling with environmental integrity protection. Before AB 398 these additional allowances could perhaps be justified as providing additional price protection given the soft price ceiling. However, the new hard price ceiling will provide absolute price protection. Pre-2020 APCR allowances will provide a buffer before ARB needs to begin issuing new instruments above the cap. If the price ceiling is triggered and reductions are sold above the cap, AB 398 requires ARB to use the resulting revenue to secure reductions that meet standards similar to those for offsets on at least a ton-for-ton basis. If these 52,400,000 tons are placed in the APCR instead of removed from the annual budgets that will mean a delay in triggering that environmental integrity mechanism and will represent 52,400,000 fewer reductions for the atmosphere.
- It is important to emphasize that our recommendation to make a cap adjustment is not based on a desire to achieve a specific carbon price. Therefore, we do not focus on cost projections in making our recommendations. Rather, this is an important opportunity for increasing ambition. Statute has set a 2030 target that guides ARB in setting annual budgets. But ARB retains significant authority in deciding the trajectory the state will take to meet those targets. We simply want to see ARB set a trajectory for reaching the 2030 target based on where emissions are expected to be in 2021.
- This method for setting the cap would be consistent with the method ARB used to set the 2013-2020 cap. It would mean setting the cap based on a trajectory from expected emissions (in 2013 and 2021) and the statutory target.
- Adjusting the cap would not violate long-term expectations from market participants about the availability of allowances. Before July 2017 ARB had not set a post-2020 budget and during workshops throughout 2016 and 2017 ARB acknowledged that there were multiple methods (including this one) that could be used to set a budget based on the 2030 target of reducing emissions forty percent below 1990 levels by 2030.

EDF does not believe there is an issue with “overallocation”:

From EDF’s perspective there is not “overallocation” in the cap-and-trade program, meaning we do not believe that the pre-2020 cap was set too high. It is true that emissions are below the cap and are expected to remain below the cap through 2020 but this is distinct from “overallocation”. EDF sees this as evidence of the success of California’s suite of climate policies, including cap and trade. ARB has significant discretion in setting annual carbon budgets based on the ambitious goals set in statute for 2020 and now for 2030. ARB reasonably set annual budgets based on expected emissions in 2013 with annual budgets declining towards the 2020 limit.

Cumulative emissions are what matter to the atmosphere so a more stringent set of annual budgets represents a more ambitious climate reduction trajectory for the state. In recommending above that ARB reset post-2020 caps based on the trajectory between expected emissions in 2021 and the 2030 target, we are identifying an opportunity that California has for this increased ambition. We also recognize that other stakeholders can reasonably identify other potential ways for measuring the opportunity California may have for increasing ambition in these post-2020 budgets and EDF would be happy to consider the benefits and tradeoffs of such proposals. We focus our comments here specifically on the opportunity for adjusting the cap based on the 52,400,000 difference between the two methods of cap-setting because we think the opportunity for increased ambition is particularly pronounced for that adjustment amount.

There has been an active conversation on this topic among several experts that has informed our thinking and might provide helpful additions to the record:

- **Chris Busch of Energy Innovation** – wrote a [paper](#) advocating for a RGGI style cap adjustment and estimating the size of what he terms the “oversupply” in 20202.
- **Severin Bornstein and Jim Bushnell** – responded in a [blog](#). They used their own economic models to evaluate Busch’s proposal. They note that retiring the “overhang” as they term it would significantly increase the chances of reaching the price ceiling and that the actual resulting emissions reductions due to increased economic incentives of higher prices would be much less than the number of tons retired.
- **Dallas Burtraw of RFF** – also weighed in with a [blog](#) exploring the opportunity for California and educating readers on the benefits of banking. Burtraw does not advocate for a specific policy update but notes several possibilities that decision makers could consider.
- **The California Legislative Analyst’s Office** - put out a [cap-and-trade report](#) at the end of 2017 that dealt with the banking and “oversupply” issue in detail and explaining updates that California will need to make to cap and trade based on requirements in AB 398.

## **Other Post-2020 Price Containment Elements**

### Support using a percentage of post-2020 budget for further price containment:

Experience from the pre-2020 program has shown the benefits of setting aside a percentage of allowances from under the cap for price containment. This provides an initial tightening of the cap but makes allowances available if prices reach designated levels. The current success of cap and trade in reducing emissions below the cap has demonstrated the opportunity to continue this strategy of cap tightening post-2020. There is also a logical connection to the level of the offsets limit. Offsets are beneficial instruments that reduce costs and allow an opportunity to achieve hard to reach reductions outside the cap. Offsets also increase the number of instruments available for compliance. Thus, it is reasonable to set aside allowances from under the cap in relation to the number of offsets allowed for compliance.

### Support an even spread of statutorily mandated price tiers:

The current statutorily mandated price tiers seem intended to function differently than the price tiers within the pre-2020 APCR that EDF also supported. Given this intent, it seems appropriate to evenly space the price tier between the floor and ceiling. Research from academic economists has suggested that the cost curve between the price floor and the price ceiling could actually be quite steep. Evenly spread out price tiers could essentially create steps, mitigating the potential steepness of that curve and providing additional notice to the market that new abatement strategies might be cost-effective.

### Support retaining current banking rules:

We agree with the ARB summary of the benefits of banking and see banking as an important feature of California's program. In addition, banking can create incentives for earlier emissions reductions, creating a benefit for the atmosphere. We therefore believe that ARB's current rules on banking should remain in place and we would not support any restrictions banking beyond the current holding limits.

## **Other Items Considered at this Workshop**

### Support providing additional clarification to EDUs and natural gas suppliers on use of allowance value:

California's current use of allowance value by IOUs has been quite successful. According to the [UCLA Luskin Center](#), it provides a strong incentive for energy efficiency while also progressively compensating most Californians, especially low-income Californians, for any increases in electricity rates. EDF sees this current proposal as an important step towards broadening the coverage of this successful strategy among EDUs in California.

### Offsets and Direct Environmental Benefits:

EDF believes that offsets play an important role in the cap-and-trade program. They provide opportunities to uncapped sectors to participate in emission reductions, provide pathways for lowering compliance costs and therefore opportunities for increasing ambition, and importantly the cost-containment they provide can also help California avoid triggering its new hard price ceiling post-2020. Therefore we urge ARB to continue considering new offset protocols as we approach 2020.

EDF also believes ARB has laid out a reasonable way to identify the Direct Environmental Benefits that must apply to some offsets. This approach follows closely the statutory approach. It also makes clear that California will be careful to fully consider the environmental benefits rather than focusing specifically on geographic metrics.

### **Items for Further Consideration or Workshopping**

#### Create a pathway for international, sector-based offsets from tropical forests:

EDF continues to strongly support incorporating credits from high-quality, state, provincial, or national-level programs in international jurisdictions into California's cap-and-trade program to reduce deforestation. This opportunity has been contemplated and vetted for many years in California. ARB has done extensive work in this area including holding many informative workshops and seeking stakeholder input, and we urge ARB to move into the regulatory development phase this year. Establishing a regulatory standard for crediting programs that meets the high bar for environmental integrity and social safeguards recommended by world-renowned experts on tropical forests and climate change would have a transformational effect for forests and climate within and beyond the state's borders.

We believe that ARB's consideration of recommendations ensuring that environmental and social safeguards meet the highest standards has been both extensive and thorough, so that international sector-based programs that could be credited by the state benefit both forest communities and the climate. EDF thinks it is critical that the regulatory process that codifies these standards be completed as soon as possible to amplify its impact, by setting a global gold standard for compliance-based systems considering tropical forest credits. Reducing emissions from deforestation is a critical and significant contributor to global emissions and California is uniquely positioned to both set a very high bar for the quality of programs aimed at reducing forest emissions and particularly to develop a model that can drive large-scale emissions reductions far beyond those within the state's borders.

An additional consideration for including international sector-based offsets is the potential need for high-integrity emission reductions if the price ceiling were to be triggered. EDF supported the AB 398 requirements that any allowances sold at the price ceiling be matched on at least a ton-for-ton basis by real, permanent, quantifiable, verifiable, enforceable emission reductions to maintain environmental integrity of the program. However, there is a limited supply of these reductions currently available, and the state could potentially need a significant

number of reductions if that price ceiling is reached. International sector-based offsets are a source of these high-integrity reductions California would need.

EDF would also like to reiterate its support of California's consideration of a link between California's program and the extensive and well-established effort in Acre, Brazil to further the social justice movement rooted in the nexus of community rights and the sustainable and rational use and management of tropical forests. Because of California's long relationship with Acre and extensive work in collaboration with tropical forest stakeholders and jurisdictions, California is best positioned to develop the standards for this type of international reduction credit. A careful and transparent process, such as the one that California and Acre can undertake, will provide a model for others to emulate on both the supply and demand sides of tropical forest carbon crediting mechanisms.

Work with the Legislature to consider a "rainy day" fund that could be used at the price ceiling:

EDF would like to recognize this is likely an issue that ARB will want to address after the current regulatory process. However, we do want to flag it as an important future consideration. Given that California must implement a hard price ceiling per the direction in AB 398, the ideal would be to have a pool of reductions available ahead of time to meet the ton-for-ton reduction requirement in 398. AB 398 provides ARB with the authority to purchase reductions with revenue raised for instruments sold above the price ceiling but is silent on any earlier expenditures. Therefore ARB would likely have to work closely with the Legislature to fully implement a "rainy day fund" for reductions. A number of questions would have to be addressed with the Legislature including: when should California begin to develop a rainy day fund? How could revenue best be used so that developing a rainy day fund does not interfere with the other important expected investments from the Greenhouse Gas Reduction Fund, especially investments in disadvantaged communities?

However, there are a number of steps ARB could take in order to facilitate this discussion with the Legislature. It is important that ARB clearly identify potential sources of reductions that could be used to back up instruments sold at the price ceiling. This includes developing a clear process for how the agency will consider and approve these reductions ahead of time in order to send a signal to those markets. ARB could also compile relevant information on these approved sources of reductions including current supply and time required for new project development. ARB may also be able to utilize the expertise of the new Compliance Offsets Protocol Task Force to help answer these questions as well. Armed with this information, ARB could make recommendations to the Legislature through regular cap-and-trade reporting or presentations to the relevant committees, recommending how much advance time the state might need in order to secure a pipeline of reductions that would be able to protect the environmental integrity of the price ceiling. This would allow the Legislature to consider important questions including whether or not a percentage of the revenue from the price containment points be used to secure reductions in advance.

Thank you for your consideration of these comments and we look forward to discussing them further with you throughout this year's regulatory process.

Sincerely,

A handwritten signature in black ink that reads "Erica Morehouse". The signature is written in a cursive, flowing style.

Erica Morehouse  
Senior Attorney, U.S. Climate Policy and Analysis