CE2 Carbon Capital

September 27, 2011

Mary Nichols
Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95812

RE: Comments to Air Resources Board Cap-and-Trade Regulation Second 15-day Change Proposal from CE2 Capital Submitted on-line

Dear Chair Nichols,

Thank you for the opportunity to comment on ARB's cap and trade regulation second 15 day change proposal. We appreciate you and your staff's willingness to discuss changes to the regulation and look forward to working with you in the future to create a credible cap and trade program with integrity. Below are our comments on the existing regulation.

1. Offset Invalidation (Section §95985)

CE2 appreciates the adjustments and clarifications that ARB has made regarding offset invalidation. However, we reiterate our proposal that ARB develop and manage a separate "Invalidation Buffer Account."

The Problem

Unfortunately, requiring regulated entities to replace invalidated credits will unnecessarily restrict the supply of high quality offsets without real net environmental gains. The problem lies in the assumed benefits of this system. Buyers (regulated entities) are assumed to be protected from receiving bad credits through use of insurance mechanisms, trained offset verifiers, innovative contracting, and extensive due diligence. It is also assumed that ARB is more likely to recover an invalidated offset credit if a regulated entity is held liable for its replacement. There are several fundamental problems with these assumptions:

a. <u>No private carbon offset insurance products currently exist</u>. Given the low overall number of potential offsets that can be used in the California market (up to 218 MMTCO2e) it is not practical to assume that a product will be actuarially viable or cost effective. If ARB believes this product is or could be available and cost effective, ARB should define the parameters of an acceptable policy and mandate its use.
b. <u>The private sector cannot mandate that all projects and offset holders purchase a common insurance policy or participate in a common buffer account</u>. Without a common policy or buffer account, economies of scale cannot be achieved and transaction costs will increase

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thereby decreasing the cost containment effectiveness of offsets and decreasing investment in emission reductions outside of the capped sectors.

c. If a voluntary insurance policy or buffer account were to exist, it would suffer from "adverse selection" as (1) project developers and sellers would be incentivized to submit only their riskiest projects to the voluntary insurance policy or buffer account; and (2) they would sell the least risky projects directly to large compliance entities via bilateral contract.

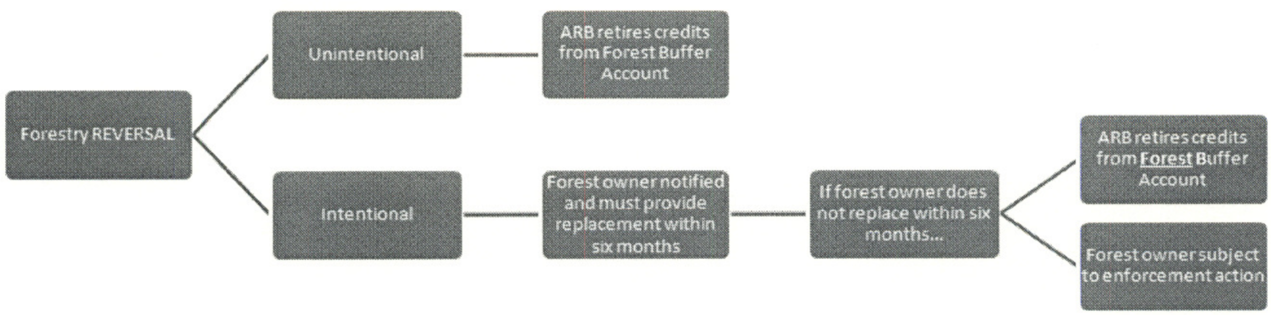
d. If only the riskiest projects trade on exchanges, transparency will be sacrificed and market oversight would be more difficult.

e. Smaller compliance entities would not have equal access to quality offsets. Larger entities are better able to diversify invalidation risk across multiple projects and counterparties and devote staff to evaluating the invalidation risk of individual offset projects.

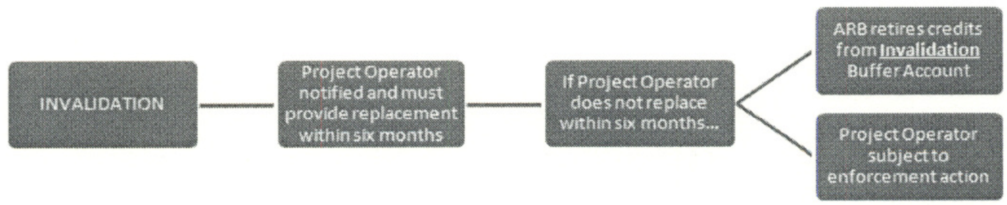
The Solution

The solution to addressing the problems associated with holding regulated entities responsible for replacing an invalidated offset credit is to mirror the current ARB Forest Buffer Account structure and procedures[1] to apply separately (and additionally) to all Compliance offset projects. A simple diagram of both the existing and proposed structure for developing a new "Invalidation Buffer Account" is below.

Current ARB Forestry **Reversal** Procedure:



Proposed **Invalidation** Procedure:



Once an offset is invalidated by ARB, the first step would be to notify the Offset Project Operator and allow them six months to replace the invalidated credits. If the Offset Project Operator does not replace the invalidated credits within six months, ARB would retire credits from the ARB Invalidation Buffer Account. If the credits are not replaced with six months of ARB's retirement, the Offset Project Operator would be subject to enforcement action. This system would reduce transaction costs while maintaining environmental integrity in the overall cap and trade system. This system would also align the incentives of Offset Project Operators, verifiers, buyers, sellers, and regulated entities, as well as result in a fungible, commoditized offset market which is equitable, accessible by all compliance entities, and would allow transparent trading and clearing via exchange.

Relying on the establishment of an Invalidation Buffer Account could be seen as increasing the risk of default to ARB and placing new administrative burdens on an already stressed ARB staff. However, the changes proposed herein are merely an extension of the buffer account management and enforcement action responsibilities already undertaken by ARB for forestry projects, and will actually reduce invalidation risk because the incentives of Offset Project Operators will be properly aligned to ensure the quality of their projects.

Whereas section §95985(h)(C)(1) states that the Offset Project Operator would be responsible for replacement in the event that the entity who retired the credits is no longer in business, the chain of responsibility should simply be reversed to first require that the Offset Project Operator replace, while the retiring entity is responsible only in the event that the Offset Project Operator is no longer in business.

2. Statute of Limitations on Offset Invalidation (Section §95985(b))

Again, we appreciate ARB's decision to provide the option to reduce the statute of limitations for offset invalidation from five to three years if the project is verified by a different verifier within three years, versus the requisite six years. We reiterate the regulation should also include two additional options:

a. <u>Eliminate the Statute of Limitations if the Offset Project Operator or Early Action offset holder elects to use two different verifiers at the time of verification</u> for Compliance projects or regulatory re-verification (i.e. desk review) for Early Action offsets; and
b. <u>Allow the Statute of Limitations to be reduced to one year if a project voluntarily uses a different verifier after one year</u>.

These options allow more flexibility and would continue, as stated in the regulation, to, "encourage a quicker verifier rotation so that any issues that may occur may be uncovered sooner, further enhancing the integrity of the offset program."

3. Additional Offset Protocols Required (Section §95990(c)(5)(E))

Offsets have been referred to as a small piece of a much larger program. While that may be accurate from a volume perspective, the pricing impact of inadequate offset supply as a cost containment measure cannot be understated. ARB's own analysis indicates that removing offsets from the program, "would almost double the price of compliance in the program through 2020."[1] Given the estimated <u>218 MMTCO2e</u> demand for offsets through 2020[2], the required investment in offset project development is very substantial. Using ARB's offset development cost estimates between <u>$5-10/TCO2e</u>[3]; offset investment would be required in the range of <u>$1.1-2.2 billion</u>.

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[1] Mulkern, A. "Offsets could make up 85% of Calif.'s cap and trade" Environment & Energy, August 8, 2011.
[2] The maximum 232 MMTCO2e from ARB's "Initial Statement of Reason" p.II-5 dated October 28, 2010, adjusted to exclude the 14 million tCO2e demand associated with 2012 compliance obligation that has since been excluded from the program.
[3] ARB Public Workshop, "ARB staff presentation on Offsets and Linkage" slide 27 dated June 22, 2010.

In addition to the three protocols that ARB indicated they would consider at the August 24, 2011 Board meeting (American Carbon Registry (ACR) pneumatics valves, ACR nitrogen fertilizer management, and rice cultivation) we encourage ARB to consider additional protocols which have significant issued credits to date that could address the immediate need for offsets in the first compliance period. Given the requirement that the 8% offsets limit be applied per compliance period rather than over the length of the program, it is crucial that significant offset supply be available in the first compliance period. To date, only 4.2 MMTCO2e of offsets have been issued for the four compliance protocols (net retirements)[4] which is just 16% of the first compliance period offset demand of 26 MMTCO2e estimated by ARB staff at the August 24, 2011 Board meeting. It is also not guaranteed that the entire 4.2 MMTCO2e will be willing to transition given the uncertainty, liability, and additional cost of transition.

ARB staff estimated at the August 24, 2011 Board meeting that there would be 15-20 MMTCO2e of available volumes from ACR pneumatic valve projects through 2014. To date there have been only 0.2 MMTCO2e of credits issued from this project type. The 15-20 MMTCO2e estimate is in excess of ACR's estimate of just 4-5 MMTCO2e[5]. Even ACR's estimate may be overly optimistic given the cost of device retrofit, the number of available devices, and the sensitivity of these projects to start date. We estimate that the cost of pneumatic projects become prohibitive if the offset project lifetime is less than two years. Assuming between 328,680 and 346,930 of high-bleed pneumatic devices nationwide based on the ACR methodology[6], with 80% of pneumatic devices eligible for retrofit or replacement per EPA Natural Gas STAR estimates as of March 2010, we estimate a maximum of 9.5 MMTCO2e/year. Therefore, the 15-20 MMTCO2e estimate provided by ARB would require 100% retrofit or replacement of all eligible devices by the end of 2012. For operational reasons alone, this is a highly unlikely scenario.

The ACR nitrogen fertilizer management protocol has no issued tons to date and the rice cultivation protocol(s) have yet to be finalized.

Offset projects take many months to develop and contract. Given the risk and uncertainty, it is unlikely that there will be substantial investment in the three proposed project types unless and until the Board approves these additional protocols. Additionally, the one year delay of the program compliance obligation combined with the uncertainty regarding both invalidation liability and Early Action offset transition to ARB offset process and costs have discouraged investment in the four approved protocols sufficient to meet offset demand in the first compliance period.

As such, we recommend evaluating additional Early Action protocols that, in addition to being real, additional, quantifiable, permanent, verifiable, and enforceable, have the potential to add immediate supply to the program. Specifically, we encourage ARB to consider:

- Early Action CAR US Landfill Gas: 4.9 MMTCO2e issued (net retirements)[7]
- VCS Coal Mine Methane: 1.2 MMTCO2e issued (net retirements)[8]

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[4] CAR registry accessed at https://thereserve1.apx.com/myModule/rpt/myrpt.asp?r=112
[5] Carbon Finance, "ARB mulls clearing ACR offsets for California emissions trading" August 25, 2010.
[6] ACR methodology, "Emission Reduction Measurement and Monitoring Methodology for the Conversion of High-Bleed Pneumatic Controllers in Oil and Natural Gas Systems v1.1" dated December 2010.
[7] CAR registry accessed at https://thereserve1.apx.com/myModule/rpt/myrpt.asp?r=112
[8] VCS registry accessed at https://vcsprojectdatabase1.apx.com/myModule/Interactive.asp?tc=1&Tab=VCUs&a=1

Regarding Early Action CAR US Landfill Gas in particular, we support that statements made by PG&E[9] and contend that Early Action ARB offset credits should be issued to US landfill operators that voluntarily reduced emissions in advance of California's Landfill Methane Control Measure that was approved on June 17, 2010 but allows landfills 18 months to install a collection system.

4. Auction Purchase Limits (Section §95911(c))

We reiterate that Purchase Limits should be waived or increase in the event that allowances would otherwise go unsold in an auction. This provision would preserve ARB's stated goal of ensuring "fair and equitable access to allowances sold at auction,"[10] but also allow for a more liquid and efficient market in the event that the auction would otherwise close undersubscribed.

Please do not hesitate to contact us if we can answer any questions for clarify any of our comments above.

Sincerely,

Harold Buchanan
Chief Executive Officer

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[9] PG&E's public comments p.13 submitted to ARB on December 12, 2010 accessible at http://www.arb.ca.gov/lists/capandtrade10/145-clean_00108649.pdf.

[10] ARB's "Initial Statement of Reason" p.II-38 dated October 28, 2010.