



August 11, 2011

Chair Mary Nichols and Members of the Board
California Air Resources Board
1001 I Street
Sacramento, CA 95812

Re: Comments on Proposed 15-Day Changes to the AB 32 Cap-and-Trade Regulation

Dear Chair Nichols and Members of the Air Resources Board:

As an early and active supporter of the California Global Warming Solutions Act of 2006 (AB 32), Sierra Club California members have participated frequently in its implementation process. Throughout the process, we have consistently taken the position that we could support a well-designed cap-and-auction system. We think that it is important that the Board consider carefully how the 15 day changes will assure that implementation of a cap and trade program will result in additional, verifiable reductions in overall atmospheric greenhouse gasses which is essential to the environmental and economic health for the future of all Californians.

We have also submitted more detailed letters with other organizations on specific portions of the proposed 15 Day Changes. This letter will summarize the important improvements we still believe are necessary. As the actual launch date for enforcement of the program has been pushed back to 2013, we think it is important that the extra time in part be used to continue to improve the program to, not only assure we have actual reductions in atmospheric GHG levels, but that we also don't perpetuate unintended negative impacts on the environment or eliminate measures that have important co-benefits.

1. Limit Offsets

Offsets should be limited to assure the integrity of the emission reductions and fulfill the letter and spirit of the law. Excessive reliance on offsets could open up loopholes that undermine the very purposes of California's AB 32 cap on emissions. Curbing global warming will require a fundamental transformation of our energy economy, a task that cannot be outsourced to other countries. Requiring California's largest polluters to reduce their *own* emissions will spur technological advances that can be exported to the rest of the world, bringing green jobs to the Golden State. If polluters are allowed to outsource their emission reductions to other sectors and jurisdictions, the clean-energy revolution will be delayed.

Furthermore, excessive reliance on offsets could open up loopholes that undermine the very purposes of California's AB 32 cap on emissions. Curbing global warming will require a fundamental transformation of our energy economy, a task that cannot be outsourced to other countries. Requiring California's largest polluters to reduce their *own* emissions will spur technological advances that can be exported to the rest of the world, bringing green jobs to the Golden State. If polluters are allowed to outsource their emission reductions to other sectors and jurisdictions, the clean-energy revolution will be delayed. Research shows that out-of-state offsets will increase criteria pollution. (David Roland-Holst, "Carbon Emission Offsets and Criteria Pollutants: A California Assessment," March, 2009, University of California, Berkeley.) Air pollution is worst in low-income communities and communities of color, such as the neighborhoods downwind from oil refineries.

The staff proposal would allow polluters to offset almost half of the emission reductions required under this rule. That amount should be significantly reduced. (We supported the 10% limit in AB 1404, which was passed by the Legislature but vetoed by the Governor in 2009.)

In addition, the Board should close potential loopholes in the offset process by giving the Executive Officer explicit authority to deny any offset proposals that do not meet standards, and should ensure that the same offset project cannot be sold more than once through different registries.

2. Exclude Forest Clearcutting from the Offset Program

Forest clearcutting and the conversion of native forests to tree plantations pose great risk to the climate, while simultaneously degrading forest ecosystems, water quality, and wildlife habitat, and impairing the forest's resilience to the impacts of climate change. Forest projects eligible for offset credit should not include even-aged management (clearcutting), and should not become an incentive for the conversion of native forests to tree plantations. Furthermore, offset projects should account for changes in down and dead wood and soil carbon pools. We submitted several letters expressing our deep concern that by including clearcutting operations as a method to offset ongoing carbon emissions the Board would create a huge gap in the program's ability to assure additionality of carbon being sequestered.

On the same day, but after the ARB adopted the forest offset protocols developed by the Climate Action Reserve, the reserve issued two white papers demonstrating that our concerns over the carbon calculations have validity, and we believe emphasize the reason that the Board needs to withdraw clearcut projects from at least Phase I of the program implementation until the problems with accounting are fully examined, justified and a detailed protocol is developed and adopted for calculating gross and net carbon containment and verification processes. For example:

From Climate Action Reserve White Paper 1 – “Accounting for Carbon in Soils,” Alexander Gershenson, Ph.D., James Barsimantov, Ph.D. Executive Summary Page, 3

Soil carbon accounts for 50-75% of all forest carbon in temperate and boreal regions, so small changes in soil carbon can have significant influence on total ecosystem carbon storage. The Climate Action Reserve has heretofore assumed no major effects of management activities on soil carbon stocks if management activities do not include mechanical site disturbance of more than 25% or disturbance on contours. This white paper shows that forest management activities have the potential to significantly increase or decrease soil carbon, although direct quantitative monitoring remains elusive. The following bullets summarize key results:

There is a high amount of uncertainty regarding soil carbon dynamics in response to forest management since the results greatly depend on the dominant tree species, harvest type, soil type, site preparation techniques, time after disturbance, and multiple other factors. In many cases, the uncertainty associated with the effects of particular management techniques is large, and different studies offer conflicting information. This is largely due to the very heterogeneous spatial and temporal dynamics of soil carbon, and due to the fact that our understanding of belowground carbon processes is significantly weaker than our understanding of aboveground processes. [emphasis added].

And from Climate Action Reserve White Paper 2 – “Carbon Accounting and Management of Lying Deadwood,” Evans, A and ., Ducey, M., Executive Summary Page, 3

Conclusions

LDW is an important pool of carbon throughout the U.S., ranging from about 2 t/ac to 10 t/ac of biomass (3.2 to 16.9 MT of CO₂eq/ac). On average, LDW makes up from 1.7% to 4.6% of total forest carbon, though in individual stands the percentage can be higher. Both the quantity of LDW and the percentage of total forest carbon it represents vary significantly between regions and forest types, so LDW retention requirements should also vary by forest type. Though carbon storage in LDW is important, the other values that LDW provides, such as wildlife habitat, erosion protection, water storage, and nutrient cycling, may be even more important. While other forest structures (e.g., live trees) could sequester additional carbon in the absence of LDW, there are no replacements for these other values. [emphasis added].

Not all offsets are created equal. The Board should consider only programs that can reliably assure carbon sequestration and avoid those that introduce additional environmental risks. We cannot clearcut our way out of climate change. Rather than promoting the conversion of native forests to a patchwork of 40 acre clearcuts, California should use this opportunity to incentivize the best kinds and “green” forms of forest management, which can benefit both the climate and the forest. **The forest protocol offers many other options that meet these**

criteria: reforestation projects; preventing the conversion of forests to development; and the conservation of forest resources.

For all these reasons, we strongly urge the Board to uphold the vision and initial intentions of the forest carbon program and AB 32, by amending the forest protocol to protect forest ecosystems and resources.

1) First and foremost, do not include forest clearcutting as part of the California's cap-and-trade offset program.

2) In addition, the forest protocol should not be part of the proposed cap-and-trade rule unless, at the minimum, the following critical amendments are adopted:

a. Forest carbon offset projects may not include conversion of native forests to tree plantations.

A Forest Project may not include conversion of native forest stands comprised of multiple ages or mixed native species to even-age or monoculture management, and may not include even-age management of any stand that had been converted to even-age or monoculture management in the harvest cycle preceding the registration of the Forest Project.

b. Forest carbon offset projects must account for changes in down and dead wood and soil carbon pools.

Forest Projects that include timber harvesting are required to account for changes in the following forest carbon pools: lying dead wood, and soil carbon.

3) In addition, the 15 day rules for the forest protocol, as currently written, would allow shortfalls, whether unintentional or intentional to be replaced with offsets of any kind. It is inappropriate substitute offset credits that are being marketed as benefiting our forests to be replaced by other, unspecified credits that would not capture any of the co-benefits being lost with the forest offset.

Healthy forests are a critical component of California's environment, economy, and quality of life, providing jobs and recreational opportunities, wildlife habitat, clean air and clean water. Healthy and resilient forests are also an important component of California's effort to reduce statewide greenhouse gas emissions, and ARB should consider only programs that can both reliably assure the value of carbon offset projects and protect forest from additional environmental risks. The failure to fully account for the carbon consequences of harvest practices poses risks to the integrity of the entire program and increases the potential for unintended impacts to our forests.

3. Prevent Unwarranted Giveaways of Pollution Allowances to Industry

The proposed level of allocation to the industrial sector is much higher than is needed to combat leakage. Your own Economic and Allocations Advisory Committee found that the need for free allowances to address leakage is small. The biggest recipients of these free allowances in the staff proposal are the oil extraction and refining industries, which actually have a low susceptibility to leakage. We ask you to re-classify petroleum extraction and refining as low-leakage risks, and to reduce their free allocations accordingly.

Furthermore, we support requiring the industrial sector to base product benchmarks on best practices and allowing benchmarks to be dynamic over time, so that the rule provides additional incentives for using best practices to reduce emissions.

4. Direct Investments to Clean Energy, Low-Income Consumers, and Community Benefits

We urge the Board to include provisions in the regulation to initiate a Community Benefits Fund from the outset of the Cap and Trade Program, funded by a minimum 4 percent of allowances from the industrial and electricity sectors. Funds should be used for programs or projects in the most impacted and disadvantaged communities identified by ARB for:

- Air pollution and climate change mitigation measures;
- Community public health programs;
- Green-collar employment opportunities in these communities.

In the utility sector, every recipient of allowances should be required to invest their full value on AB 32-related purposes, including cost-effective energy efficiency, renewable electricity, and rebates to low-income consumers. ARB should provide guidance on how utilities spend the allowance value to assure that funded programs are additional and cost-effective, and should require specific and uniform reporting by the utilities.

5. Close the Biomass/Biofuels Loopholes

Emissions from bioenergy, whether from combustion to generate electricity or from liquid transportation fuels, should be under the cap and should not be exempted from compliance obligations. As ARB has recognized in its Low Carbon Fuel Standard, biofuels vary widely in their life-cycle greenhouse gas emissions. The cap-and-trade rule should provide incentives for the lowest-carbon fuels, rather than a blanket exemption for all bioenergy. The biomass exemption provides a perverse incentive to cut down forests, with all of their sequestered carbon, for energy purposes, which would actually make global warming worse.

6. Protect Public Health

In order to make sure that public health at the community level is safeguarded, ARB should require an ongoing review and update of the co-pollutant emissions assessment included in the Initial Statement of Reasons, and should continue to work with the Department of Public Health in ongoing review and evaluation of the impacts of the Cap-and-Trade program.

We understand that mitigation of environmental impacts resulting from the Cap and Trade rule is expected to rely on an adaptive management approach, which in turn will depend in part upon the information collected to assess impacts resulting from permitting offsets of ongoing emissions rather than modifications to reduce emissions at a given emitter. It is important that the ARB include a regular review of the data it collects to determine what exposures are being perpetuated, if any at local and regional scales. These reviews should also include new scientific information, findings or methods that could enhance the analysis and understanding of the impacts of emissions on surrounding communities. In addition, these reviews should be accompanied by an opportunity for review and input by outside experts and members of the public.

7. Emphasize Transparency and Enforcement

If California is going to establish a market in greenhouse gas emissions, strict transparency and enforcement requirements are absolutely essential. ARB must vigilantly use transparency and enforcement tools to make sure that the public interest is protected from the self-dealing, fraud, and windfall profits that have plagued other markets.

Respectfully Submitted,



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