CRS center for resource solutions

June 7, 2010

Mr. Kevin Kennedy
Office of Climate Change
California Air Resources Board
1001 "I" Street
Sacramento, CA 95812

RE: Allowance distribution

Dear Mr. Kennedy,

We very much appreciate the dedicated efforts of the CARB staff. Thank you for all your hard work.

This comment letter offers the Center for Resource Solutions' view on the question of how to distribute allowances under a California cap-and-trade program in response to the proposal presented at the allocation workshop May 17, 2010.

We have also led the development of a sign-on letter on the topic of how voluntary renewable energy purchases should be treated by a California cap-and-trade program that will also be submitted today. As explained in more detail in our June 12, 2009, comment letter to CARB, which we append to this letter, ***we strongly support the off-the-top approach to voluntary renewable energy purchases*** that was pioneered in the Regional Greenhouse Gas Initiative. CRS and the Union of Concerned Scientists led those arguing for the inclusion of such an approach in that program.

In this letter, we discuss other allocation issues. Our view is that ***the proposed approach would be an overreaction to leakage concerns***, and would allocate too many allowances to carbon emitting entities. We recognize that the issue of leakage deserves attention. No one wants to simply drive jobs and the emissions associated with them to locations outside of California. We all want real emission reductions. The persistence of high levels of unemployment in the California economy is unacceptable. That said, the clean energy economy has been a bright spot and overcompensation of carbon emitters would result in ***a lost opportunity to bolster the emerging clean energy economy that will contribute badly needed new jobs*** and can form the basis for sustainable prosperity for Californians.

We recognize that some allocation to counter leakage could be warranted. However, the large scale free allocation contemplated would go much too far. As stated by the EAAC: "addressing leakage through free allocation would require a ***very small share*** of allowance value," (emphasis added, pg. 64).

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The Scoping Plan included the statement of an intention to achieve 100% auction, yet this objective has disappeared from view. CARB should make it clear that free allocations, to the extent these occur, are not entitlements in perpetuity. We align ourselves with the EAAC, which states that CARB should, "rely principally, and perhaps exclusively, on auctioning," pg. 63.

Better analysis is needed. Additional technical work is needed to more accurately assess leakage and also the implications of different potential approaches to allocation. Different approaches to allocation will affect the achievement of co-benefits, the distribution of economic impacts across households at different income levels, and the cost effectiveness of the program. CARB needs to redouble its effort to establish which sectors are likely to be able to pass through the costs to consumers. There is an existing body of work that identifies those sectors most likely to pass along to consumers the cost of auctioned permits that CARB can build upon to more accurately assess leakage.

Further thoughts on opportunity costs of excess allocation to carbon emitters. Doing more than what is necessary to counter leakage would come at the expense of other potential uses of the allowance value that lead to greater and more broadly shared public value. Put differently, overreaction to competitiveness concerns carries an opportunity cost, not the least of which is the capture of allowance value by corporate shareholders, a not insignificant number of whom will live outside of California or in other countries. Dallas Burtraw has estimated at the national level that 100% free allocation results in 10% of allowance value going to foreign shareholders.

Overcompensation of carbon emitters would lead to less money in the pockets of California consumers, which in turn would hurt small businesses.

Overcompensation of carbon emitters would result in lost opportunities to make other public investments that could:

- yield additional reductions in greenhouse gas emissions and other air pollutants, which would in turn offer valuable public health benefits, or;

- capture low cost reductions that that carbon pricing alone would not produce. These additional low cost reductions would in turn contribute to the cost effectiveness of the program, or;

- help speed innovation and bolster emerging clean tech firms. Clean energy and related clean tech firms have been standouts in recent years, contributing job growth above and beyond the average for the economy as a whole. The new joint venture between Tesla and Toyota that will build the vehicles of the future in Fremont, California is a reminder of this. These growing bright spots in the California economy remain less organized on the lobbying front.

As a California-based nonprofit institution with a mission of promoting sustainable energy, CRS asks you to resist aggressive lobbying by deep-pocketed carbon emitting industries. This is a principal lesson from the allocation experience that is most directly relevant, that of the European Union's Emission Trading Scheme (EU ETS). The report *Climate Policy and Industrial Competitiveness* includes this recommendation amongst its key lessons learned: "Resist inevitable pressures from industry to maximize free allocation, but engage companies more constructively in designing and understanding the full implications of the system," p. 4.[1] *Climate Policy and Industrial Competitiveness* also documents windfall profits across a range of industries.

New research using a different econometric approach has also found evidence that energy-intensive industry has enjoyed windfalls from free allocation. These results suggest that "for products of the refineries sector full cost-past-through rates are likely," and they find close to 100% cost pass through in the case of iron and steel.[2] "[T]here is ample evidence that energy intensive industry has passed through the prices of their freely obtained allowances during Phase 1 and Phase 2 of the EU ETS. This has generated windfall profits in these sectors."

The allowance value generated through the introduction of access permits to the public resources that is the sky should go to the investments that return the greater public benefits, and not to create windfalls for the companies that have not thus far faced no cost to emit greenhouse gas emissions.

Thank you for considering our views.

Sincerely,

Chris Busch, Ph.D.
Policy Director
Center for Resource Solutions.

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[1] Michael Grubb, Thomas Brewer, Misato Sato, Robert Heilmayr, Dora Fazekas, 2009, "Climate Policy and Industrial Competitiveness: Ten Insights from Europe on the Emission Trading System," Climate & Energy Paper Series 09: German Marshall Fund of the United States.

[2] Sander de Bryun, Agnieszka Markowska, Femke de Jon, Marta Bles, "Does the energy intensive industry obtain windfall profits through the EU ETS?" Research Commissioned by the European Climate Foundation.

Appendix – previously submitted comments on voluntary renewable energy purchases.

June 12, 2009

Claudia Orlando
California Air Resources Board
1001 "I" Street
Sacramento, CA 95812

Via email: ccworkshops@arb.ca.gov

Dear Ms. Orlando,

CRS is in agreement with and supports the comments calling for the set aside and retirement of allowances for voluntary renewable energy purchases (also known as an off-the-top approach to voluntary renewable energy purchases) submitted separately by the coalition of public interest nonprofit groups and renewable energy industry stakeholders. This impressive coalition deserves some unpacking and illuminating. Endorsers of the set-aside and retirement approach are not limited to but include:

- An array of **nonprofit public interest groups** including environmental, public health, science and faith groups as well as a publicly owned utility.
- A broad collection of **renewable energy industry stakeholders**, including major associations of solar energy and wind energy firms as well as the broad Renewable Energy Marketers Association that includes both types.

We are also in agreement with the supportive comments of the San Francisco Carbon Coalition.

With this letter we wish to expand on two particular points discussed in the coalition letter.

1. **Allowance price neutrality**. We expect that an off-the-top approach to voluntary renewable energy will reduce both the supply of and demand for allowances, meaning the price of allowances will be mostly unaffected.
2. **Implications for corporate purchases of clean energy**. Corporate purchases have been an important driver of the voluntary market, and these savvy consumers will pull back from voluntary investments in clean energy if they are not able to make clear, irrefutable claims about making an impact in the effort to fight global warming. As an appendix to this letter, we offer a list of major voluntary purchasers of green power.

Allowance price neutrality and other environmental and economic benefits

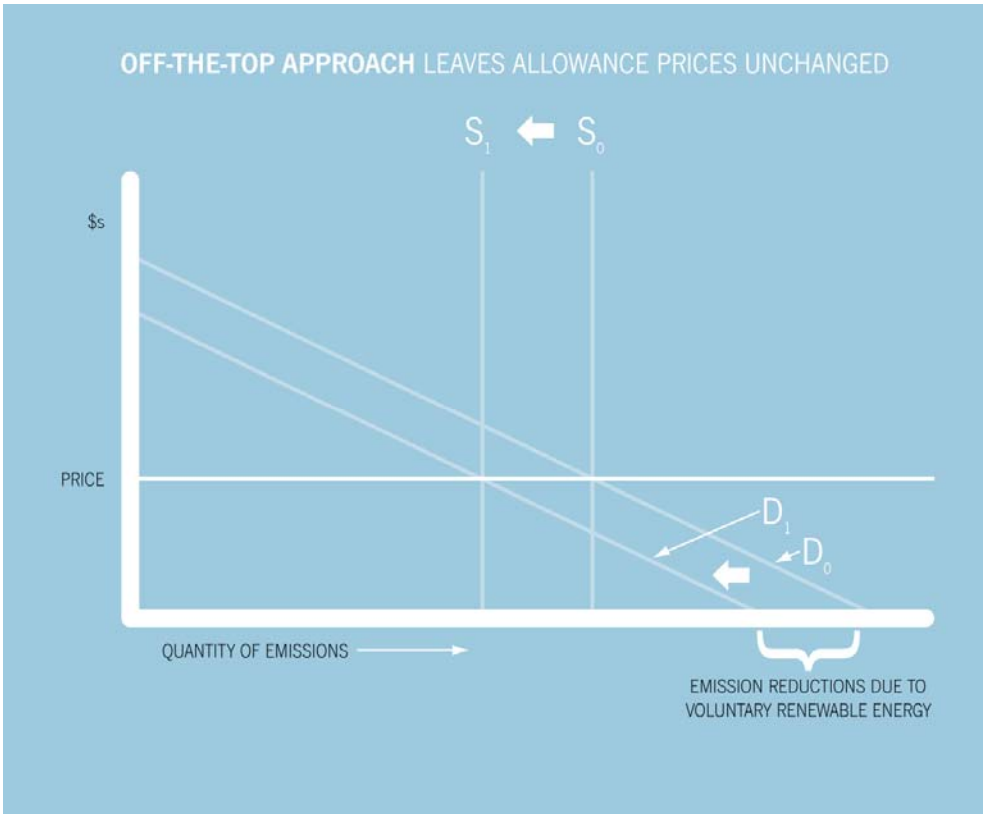
First we observe that allowance (tradable permit) prices are not a measure of the overall societal impact of an off-the-top approach, so when we talk about cost neutrality in terms of allowances prices this actually implies benefits to society due to the well known benefits of clean energy development: (1) decreases in air pollutants besides those that cause global warming that produce related improvements in public health, decreases in health care costs, improvements in productivity and student performance, (2) increased energy security due to increased use of free domestic fuels like the sun and the wind and decreased reliance on imported fossil fuels, which often impose price spikes and induce increased military spending to protect international supply routes, and (3) local economic development and job

creation. These benefits are not reflected in our graphical analysis, which is narrowly focused on greenhouse gas emission and allowance price effects.

Furthermore, the increased clean energy development that an off-the-top approach would produce would put the state in a better position to meet our more ambitious long term goals. A greater stock of clean energy generation capacity will lower long term allowances prices.

The reasoning behind our expectation that allowance prices will be mostly unaffected is not complicated, though it requires the recognition that an off-the-top approach affects both the supply of and the demand for allowances. Here are the dynamics at work. We use the example of someone installing rooftop solar panels on their home to stand in for all new voluntary renewable energy purchases. When a homeowner chooses to install rooftop solar panels, the emissions that the household would have caused from its electricity consumption is reduced by the amount of electricity produced by the solar array. The emission reductions caused by the investment in solar energy means that fewer reductions are need than would be the case otherwise. Put differently, capped entities are faced with finding fewer reductions than would be the case if the investment in solar energy had not been made. This reduces the demand for allowances at the same time that the off-the-top approach reduces their supply.

Below is a graphical representation of the economic dynamics. In this example, the off-the-top mechanism is designed to leave allowance prices unchanged.



Definitions

S_0 = the initial supply of allowances, before accounting for voluntary renewables
S_1 = the supply of allowances, after the off-the-top adjustment
D_0 = the initial demand for allowances without reductions from voluntary renewables
D_1 = the demand for allowances with reductions from voluntary renewables
PRICE = price of allowances

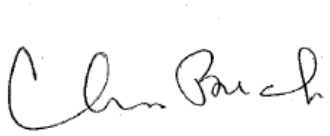
Some notes on the graphical analysis

The graph shows that the price of an allowance (PRICE) under a cap-and-trade program is the same in both cases, with and without off-the-top after accounting for reduced demand due to additional voluntary renewable energy purchases.

The supply curve is vertical (in economic terms, it is inelastic) because the analysis is static and the x-axis reflects the quantity of emissions (i.e. tons of carbon dioxide equivalent). Put differently, the analysis considers a single time period in which the supply of allowances is given. Such a simplifying assumption is necessary for a graphical analysis. The demand curve is reflective of the price capped entities would be willing to pay for permits at different levels of emissions, which in turn will be a function of the amount of reductions implied at different emission levels and the marginal abatement cost curve that reflects the cost of the marginal ton reduced. The demand curve hits zero at business as usual emissions (no willingness to pay because no reductions are being required of polluters). One caveat has to do with the reason why we say that the reduction in demand will be roughly commensurate with the reduction in supply. In some instances, without an off-the-top approach, even though the voluntary renewable energy action would produce no additional emission reductions, the action might occur anyway. While we recognize this possibility, our experience and knowledge of the voluntary market suggests that there would likely be a very significant drop off in voluntary action if cap-and-trade proceeds without an off-the-top approach. In part this is due to the importance of sophisticated corporate buyers that have largely driven the market. Below we provide a list of the buyers that comprise this important segment of the voluntary renewable energy market below.

In conclusion, we strongly support the set aside and retirement of allowances for voluntary renewable energy purchases. Thank you for considering our views.

Sincerely,



Chris Busch, Ph.D.
CRS Policy Director