



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

September 30, 2012

Mary Nichols, Chairperson
California Air Resources Board
1001 I St., P.O. Box 2815
Sacramento, CA 95812

Dear Chairperson Nichols and Members of the Board,

The Union of Concerned Scientists (UCS) applauds the California Air Resources Board (CARB) for developing a comprehensive plan to date for reducing the heat-trapping emissions that cause climate change. The CARB workshop held on August 28th 2012 was very informative and UCS looks forward to continued discussion and evaluation of these critical issues that affect the allocation of free allowances to California refineries.

The Ecofys report, which was the main topic of the workshop, will be a valuable resource for evaluating the efficiency of refineries. The comments below give requested feedback to CARB on the Ecofys draft work product on the Carbon Dioxide Weighted Tonne (CWT) proposed benchmark for refineries in compliance periods 2 and 3 of the cap and trade program.

General comments on free allocation to oil and gas companies.

- As a matter of social justice, California should make polluters pay for the environmental damage associated with their production. The California Air Resources Board instead plans to give away free allowances to a majority of the industrial sector during the first few years of the cap and trade program. Giving away free allowances amounts to giving away rights to pollute the “commons,” this rightfully belongs to all of society and not just the polluters. Oil and gas companies will gain the most from this giveaway since they produce most of the state’s industrial emissions. UCS estimates that the total value of this special handout will already be more than \$2 billion for the period 2013-2020. The \$2 billion giveaway represents a massive transfer of public wealth from consumers to highly profitable oil companies, who run the nation’s most polluting refineries in California and have made more than \$1 trillion in profits over the past decade.
- It is time for the oil refineries in California to do their part and join other California sectors that have committed to invest in serious emissions reductions for the low carbon future. Most of California’s major polluters have been preparing for the transition to a low carbon economy since 2006 when AB 32 was enacted. For example, the electricity sector has successfully invested in energy efficiency and renewable power generation resulting in significant emission reductions. This success is demonstrated by the fact that Californian utilities have one of the lowest carbon intensities in the nation.¹ In stark contrast, the refining sector over these six years appears to have made little progress in reducing carbon emissions. A recent report commissioned by UCS found that California oil refineries produce more carbon emissions per barrel than those in any other part of the nation,

¹ The carbon intensity of electricity produced in California is 0.66 lbs. CO₂/kwh as compared to the national average emission rate of 1.31lbs CO₂/kwh.”



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largely because the state's refineries rely on dirtier crude feedstocks.²

- The record profits of the California refining industry in the last decade present scant evidence that high profits lead to large investments in emissions reduction. Yet a central rationale for transition assistance in the form of free allowances is the belief that lower profitability resulting from paying for allowances through an auction would inhibit investments in emission reductions (slide 8 of workshop presentation).
- Subsidizing pollution through free allowances misdirects valuable auction revenues to financially benefit oil companies and potentially results in windfall profits. Instead, these revenues should be used to benefit **all** Californians through investments in energy efficiency, renewables and clean energy technologies. The electric utilities plan to sell their carbon allowances at the upcoming auction and use the revenues from these sales used to further the state's climate goals for the benefit of **all** Californians. The oil companies and other industrial sectors, on the other hand, expect special treatment.

Specific comments on the Ecofys report and the CWT benchmarking approach.

- The adoption of the CWT as the preferred benchmark methodology remains in our view premature for the following reasons.
 - It is unclear from the workshop if a Californian version of the CWT will be developed in consultation with Solomon. If this is done then the graph and results shown on slide 28 will change. Furthermore as slide 17 suggests the CA refineries are different from the 'typical' European refineries and so simple adoption of the EU methodology may introduce unknown biases.
 - The CWT is still in a development phase and is scheduled to be implemented in Europe starting in 2013. The allowances based off this methodology have yet to be announced. It may be better for CARB to re-assess this methodology once it has been shown to be an effective and fair benchmark in Europe.
 - The stringency of the European benchmark is tighter than CA since no compensation is given for electricity production. CARB should employ a stricter benchmark comparable to the European standards before the start of the second and third compliance periods.
- Alternatives to the CWT have not been fully explored other than the simple output-based approach. An alternative output-based approach with a different aggregation formula (e.g. revenue based weights of different outputs) should also be explored. These alternatives will be more transparent with a more easily understood methodology. The proprietary nature of the Solomon methodology and consequent non-transparency of the CWT is a major problem. Transparency is important both for public accountability and as it provides assurance of fairness in the allocation process. At a minimum these alternatives should be evaluated with the CWT methodology, with an added emphasis on transparency.
- A major problem of the CWT is that it compares efficiencies for a given refinery configuration,

² 'Oil Refinery CO2 Performance Measurement' Report prepared for the Union of Concerned Scientists, Greg Karras, Communities for a Better Environment, August 2011



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which provides reasonable short-term incentives for carbon emission reductions. However, in the longer-term we expect breakthrough technologies will result in totally different refinery configurations and structures. The CWT is incapable of rewarding such breakthroughs or encouraging them. In fact the opposite is true; the CWT rewards greater complexity of refineries and this in turn could perversely increase emissions through enabling the processing of lower quality crude feedstocks. As slide 12 explains, the CWT allows input differentiation, which gives credit for heavier, sourer crudes that require more processing, and increases the amount of CWT and free allowances for the refinery. A key criterion for the distribution of free allowances is whether it motivates the behavior you are seeking to influence. The use of the CWT may satisfy this criterion in the very short run but fails in the longer term³.

Diligent monitoring and reporting on the uses of free allowance revenues and tracking of carbon reduction progress by refineries may also be useful tools to assess the efficacy of the benchmarking process. We urge CARB to develop this capability and to develop an associated public reporting process for their findings.

UCS thanks CARB staff for the opportunity to comment on these preliminary findings of the Ecofys draft work product. We look forward to continuing to work with CARB staff and other stakeholders to address this issue.

Sincerely,

Jasmin Ansar, Ph.D.
Western States Climate Economist

³ This effect may be less significant if the overall market price of allowances is high enough to provide good overall financial incentives for carbon reductions.