

August 11, 2011

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

Re: Comments on Proposed (15-day) Revisions to AB 32 Cap-and-Trade Regulations – Industrial allocations, greenhouse gas (GHG) benchmarks and specific refinery benchmark

Dear Chair Nichols and CARB Board Members,

We, representatives of the undersigned groups and associations, submit the following comments on the revised Cap-and-Trade regulation under AB 32. Specifically we offer recommendations on necessary features of a GHG performance benchmark, recommend a re-assessment of the leakage analysis taking into account transportation costs and competitiveness of non-Californian products and finally describe why the Western States Petroleum Association (WSPA) proposal to use the Solomon Energy Intensity Index (EII) for a refinery benchmark is fundamentally flawed.

**Necessary characteristics of a GHG performance benchmark**

We recommend the following features for the adopted GHG performance benchmarks.

- a. The benchmarks should be transparent and based on publicly available information.
- b. The benchmark should be output (product) based, to maximize production in California.
- c. The benchmark should be best in class to maximize carbon reductions and minimize associated criteria pollutants.

Recommendation: Use these criteria to evaluate the GHG performance benchmarks.

**Stringency of benchmarks**

The GHG performance benchmarks are metrics used to evaluate and compare carbon emission intensity performance across firms in an industry. In the cap-and-trade program these benchmarks provide key incentives to maximize carbon reductions if allocation rules reflect this performance. We are very concerned, however, over the mixed approach based on 90% of average in some cases and best-in-class in other cases. We urge ARB to adopt a consistent best-in-class approach based on national and international data where possible.

For the refining sector, CARB has proposed an output based benchmark of 0.0465 allowances per barrel of primary product. The rationale for this proposal is that it is 90% of the value of the average emissions per unit of primary product among California refineries. The supposition is that this percentage reflects a 'best practice' assessment of carbon intensity performance in the refining sector. Under this proposal nearly half (7/15) of refineries lie below the proposed benchmark indicating that almost 50% of refineries will have surplus allowances to sell. This windfall occurs as a direct result of the proposed weak benchmark standards. The proposal, if adopted, would be a missed opportunity to promote refinery best practices and compares poorly with the EU ETS performance benchmarks in which only the top 10% of refineries are deemed 'good' performers and get all their allowances for free.

Another major and well documented problem of using averages is that this metric is heavily influenced by outliers. This is clearly evident in Figure 3 (Appendix B) where the first 14 facilities have emissions intensities with a range of high 20s to low 60s, and the outlier has an emission intensity of nearly 90 - almost 3 times the level of the lowest intensity. This outlier significantly alters the average metric upward and considerably weakens the stringency of the proposed benchmark.

### **Refinery benchmarks should be based on national or world class performance**

Many of the benchmarks proposed are based on the historical GHG intensity performance of California producers. In some cases these data restrictions will result in weaker performance benchmarks. For example, California refineries have the highest emissions intensities in the US, (Karras, 2010,2011)<sup>1</sup>. California refineries have emissions intensities that are around 30% higher than the East Coast and the Midwest. Calculations show that if the CARB methodology was used with national rather than California data, the refinery GHG benchmarks would be around twenty percent lower (approximately 0.0385 allowances per primary product), rather than the CARB proposed value of 0.0465 allowances per primary product<sup>2</sup>.

Recommendation: The refinery emission intensity benchmark should be based on best-in-class performers at the national rather than the California level.

### **Reassessment of leakage risk**

We are concerned that CARB is overestimating the likelihood of leakage risk and this is resulting in the subsidization (via free allocations) of carbon intensive industries. There are also significant costs from the free allocation of valuable allowances since these public monies could instead be spent on lowering the costs of the cap-and-trade program. A reassessment of leakage risk should be undertaken to take into account transportation costs and the ability of non-Californian companies to compete with California producers.

Recommendation: Leakage risk analysis should be re-evaluated before the second compliance period.

### **Flaws of WSPA's proposed use of the Solomon EII index as a performance benchmark for refineries**

The WSPA proposal to use the Solomon EII index to rank the refineries' GHG performance is flawed since the proposed ranking is based on energy rather than carbon efficiency. This can encourage use of high carbon feedstocks which would undermine the carbon reduction objectives of AB 32. In addition this index is an industry sponsored and funded benchmarking service which is proprietary. The black box rankings lack public accountability since they are both non-transparent and the information is confidential. The WSPA allocation proposal is not based on California production and so does not maximize production in California. Finally, the proposal dilutes incentives for carbon reductions by compressing the range of the distribution of allowances. In effect poor performers are not 'penalized' and will obtain significant subsidies to continue carbon intensive production. This payment for poor performance will dilute the incentives for improving performance.

Recommendation: Do not use the WSPA proposed Solomon EII index as the refinery GHG performance benchmark.

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<sup>1</sup> 'Oil Refinery CO2 Performance Measurement', Report prepared for the Union of Concerned Scientists, Greg Karras, Communities for a Better Environment, August 2011

<sup>2</sup> Op cite

### **Cement manufacturing**

We strongly support the cement benchmark that is based on best-in-class for clinker production with mineral additives. This will incentivize the use of supplementary cementitious materials added directly to cement (*in addition* to the additives that can be used in concrete) as well as process and fuel efficiency improvements to the kilns. We fail to find a suitable explanation, however, for the greatly diminished emission reduction obligations for the cement sector compared to all other sectors, as reflected in the Cap Adjustment Factors in Table 9-2 of the regulation (p. A-120).

### **Crude petroleum extraction**

We recognize the wide spread in carbon intensities of various crude oil extractions. However, we are unconvinced that heavy and light crudes are fundamentally different products and therefore oppose the more than six times higher benchmark for heavy crude extraction. This is an unnecessary subsidy of high carbon crude, which results in higher GHG and criteria pollutant emissions in the field and at the refinery. It creates a perverse incentive to increase the use of heavy crude feedstocks in California. We recommend a flat benchmark and the potential to award bonuses for implementation of efficiency measures identified by CARB and for demonstrating renewable technologies (e.g. renewable energy for steam and electricity production). This will give larger emitters the opportunity to close the gap in both directions (by cutting emissions and earning bonus allowances).

Recommendation: Adopt a flat benchmark for crude petroleum extraction rather than allocate more allowances for heavy crude.

We appreciate this opportunity to provide comments and thank CARB staff for their dedication and effort in this very important milestone for California. We look forward to working with staff on these issues.

Sincerely,

Bonnie Holmes-Gen  
American Lung Association in California

Andy Katz  
Breathe California

Betsy Reifsnider  
Catholic Charities, Diocese of Stockton

Nidia Bautista  
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