



STATE OF WASHINGTON  
**DEPARTMENT OF COMMUNITY, TRADE AND ECONOMIC DEVELOPMENT**  
ENERGY POLICY DIVISION

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December 15, 2008

John Courtis  
California Air Resources Board  
Headquarters Building  
1001 "I" Street  
Sacramento, CA 95812

**Subject:** Comments on CARB's Draft Regulation for the California Low Carbon Fuel Standard of October 2008.

Dear John,

The Department of Community, Trade, and Economic Development (CTED) of the State of Washington appreciates the opportunity to submit comments on the October, 2008 Draft Regulation for the California Low Carbon Fuel Standard (LCFS).

As you know, the State of Washington is a member of the Western Climate Initiative, which makes us partners with the State of California in the crucial task of mitigating emissions of greenhouse gases in our region and showing leadership to the rest of the world. Governor Gregoire has also created the Climate Action Team (CAT), vesting it with the responsibility to seek strategies to reduce carbon emissions in the State. As part of the CAT's work, we are considering adopting a low-carbon fuel standard for the State. For these and other potential synergies between California and Washington in the area of climate policy (with their impact on the region's environment and economy), we hope you give consideration to these comments.

**1. Interaction of the California LCFS with other regional climate policies**

Like California, the State of Washington is committed to take bold action to reduce the emission of greenhouse gases (GHG), both at the state and regional levels. In this context, we are interested in understanding what California's plans are to address possible conflicts between the LCFS and policies adopted by other states. For example, a fuel producer in the State of Washington may be subject to a regional cap-and-trade program or to a State low-carbon fuel standard (if adopted). If such producer were to supply the California market, it would face the requirements of the California LCFS. How would CARB account for the price that the producer may have already paid in its home state for her/his carbon emissions?

## **2. Track in-state vs. out-of-state emission reductions**

The LCFS regulation will take a lifecycle approach to estimate the emissions of some greenhouse gases. As such, the regulation will account for emissions regardless of where they occur. A significant proportion of them will most likely occur outside California. We would like to suggest that a methodology be adopted to discriminate emissions from within and from outside California. This could be important if emissions reductions should count toward regionally adopted emission targets.

## **3. Effects on supply and technology innovation**

The idea of a LCFS came about in a time when the carbon intensity of biofuels was less understood. In the beginning, it was thought that the standard could be more easily met by blending corn ethanol into gasoline and biodiesel into diesel. The current state of scientific knowledge, however, seems to indicate that the carbon intensity of such biofuels is much higher than initially thought.

We understand that CARB has proposed four scenarios describing how the standard could potentially be met over the time frame of the regulation (Section III. D, Supporting Documentation for the Draft Regulation for the California Low Carbon Fuel Standard, October, 2008). These scenarios would include low-carbon biofuels and advanced vehicle/fuel technologies contemplated in the California Zero Emission Vehicle program. Given the uncertainties with technology development it is possible that these technologies will not be sufficiently mature within the time frames proposed by this regulation. It is indeed in the interest of all states working toward effectively reducing carbon emissions, such as Washington, that CARB’s LCFS do not rush new technologies to the market, jeopardizing their success and damaging consumer acceptance. We are therefore encourage CARB’s to clearly define what its strategy would be to accommodate possible delays in technology development.

## **4. Policy efficiency and regulatory complexity**

Given the level of uncertainty that still exists related to the estimates of carbon emissions, we have some concerns about CARB’s LCFS becoming an extremely complex regulation, as it is refined to incorporate new information. We would urge CARB to consider any available means to minimize the complexity of this regulation. This is in the interest of the State of Washington as we are considering adopting a form of a low-carbon fuel standard. Simplicity, all else equal, is a virtue of policy. At this particular point in time, to the State of Washington, simplicity has the appeal of optimizing public expenditures on policy implementation and enforcement. We believe a simpler LCFS will better enable California and other states such as Washington to make their respective fuel standards more compatible, thus working more efficiently as a region in the fight against climate disruption.

## **5. Policy efficiency and the transfer of compliance obligation**

This comment is on Section 95423 (a)(1)(B) and related sections. We would recommend that CARB considers placing the compliance obligation directly on the final distribution facility (13 CCR § 2260(a)(11)), releasing obligations on any upstream parties other than the documentation on carbon intensity of the fuel they trade. We even wonder if CARB explored the possibility of placing the compliance obligation on the refueling station owner. In the current regulation, this is already contemplated for the case of onsite-produced hydrogen (Section 95423 (a)(6)(A)). We think the more upstream the compliance obligation is placed, the less economically-efficient meeting the policy goals is likely to be.

We think that the objective of the regulation should be to reduce the carbon intensity of the fuels sold for transportation use, rather than the carbon intensity of the fuel supplied by every and each provider. As an example, we choose the case of E85. If some of the E85 comes from a final distribution facility that supplies E85 with carbon intensity below the standard, why couldn’t some of the E85 come from a different final distribution facility whose E85 is more carbon intensive, insofar as the total (annually, per Section 95423 (b)(2)) E85 sold in the station meets the standard? Under the current version of the regulation, both final distribution facilities would have to independently meet the standard, potentially precluding the most efficient pathway to meet the standard to be realized.

We understand that placing the compliance obligation at the dispensing point entails some complexities for the case of home refueling, as is expected to take place with electricity and even with hydrogen. However, such complexities still need to be dealt with in the current form of the regulation (Sections 95423 (c)(3)(C) and (D)).

## **6. Policy efficiency and the calculation of credits and deficit**

The calculation of credits as provided by Equation (1) in Section 95424 (a)(2) may have unintended consequences in the behavior of the regulated party. If the adjusted average fuel carbon intensity value is bigger than the unadjusted average fuel carbon intensity of the gasoline (or diesel, as applicable), the term in parentheses will be negative. In such case, the regulated party will be better off by minimizing the total amount of gasoline (or diesel) displaced.

The calculation of credits also involves the estimation of Energy Economy Ratios (EER) for each fuel-powertrain combination. This means that a given fuel may be assigned different carbon intensities depending on what type of vehicle uses it (Table 7 and Appendix A). One question we have on this issue is why the EER of electricity is different depending on whether it is used to charge a battery electric vehicle (BEV) or to charge a plug-in electric vehicle (PHEV), while the EER of hydrogen is the same regardless of whether it is used in a fuel cell vehicle (FCV) or in an internal combustion engine (ICE). If the electricity used for BEV and PHEV will be assigned different EER, we would be interested in better understanding how the electricity used for one vehicle type or the other will be tracked for the purposes of credit calculation.

## **7. Method 2 for estimation of carbon intensity**

Section 95425 (b)(2) is somewhat unclear and we would recommend that CARB undertakes a revision, to provide the regulated parties with rules that are easier to follow. First, Method 2 is, as defined by the draft, the same as Method 1. What varies would not be the method of estimation but rather the methodology to obtain the data used to modified part of the data included in Method 1. With this in mind, we would like to comment on the requirements for approval of Method 2 (Section 95425 (c)). It is required that Method 2 be “as valid and robust as Method 1 for calculating the fuel’s carbon intensity” and that proof should be provided that Method 2 is scientifically defensible, as demonstrated by, for example, publication “in a major, well-established and peer-reviewed scientific journal.” We feel that the scientific validity of a proposed Method 2 should be assessed on its own merits and not by comparing it to Method 1. The reason for this is that while applications of Method 1 have undergone peer-review, not all the methodologies to obtain the data used in Method 1 have. Therefore, not all the data and assumptions employed in the application of Method 1 have been thoroughly tested for validity and/or robustness.

We also have some questions on the extent to which “scientific defensibility” represents a warranty that the actual application will reflect the proposed methodology. The current version of the regulation may provide incentives to a party with invested economic interests to misuse data to support the development of a document to be submitted for peer review. Peer review by a scientific journal is mostly concerned with ascertaining that scientific methods are employed, but it is generally not concerned with verifying the validity of data.

## **8. 10-10 substantiality requirement**

We think that the requirement in Section 95425 (c)(2) that a proposed Method 2 should yield a carbon intensity that is more than 10% lower than that estimated using Method 1 should be revised or eliminated. This requirement poses undue constraints to technology innovation and is unfair given the uncertainties that affect Method 1.

Please feel free to contact me to discuss these comments in further detail.

Sincerely,

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cc: Dan Sperling  
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