Mr. Chuck Shulock  
Assistant Executive Officer  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Dear Mr. Shulock:

Thank you for meeting with us recently to discuss the low carbon fuel standard. As representatives of the business community and driving public our objective is to see that the low carbon fuel standard’s emission reduction goals are met while at the same time assuring adequate, reliable and affordable fuel supplies.

As we mentioned during the meeting we are very concerned about a number of very serious unresolved questions about the low carbon fuel standard.

**Will corn-based ethanol required to meet the LCFS actually increase greenhouse gas emissions?**  
First, we commend staff and the agency for bringing some of the best scientific minds in the country into developing a life cycle analysis for the low carbon fuels standard. Staff is well aware of the peer-reviewed study in Science (Searchinger), and the University of California’s research showing that corn-based ethanol is likely to produce far greater greenhouse gas emissions than gasoline. These studies raise some important questions about how to achieve the low carbon fuel standard in the near-term since increasing corn-based ethanol in California gasoline was considered one of the means of achieving the LCFS.

**What is the impact of not having commercially viable cellulosic ethanol available in the foreseeable future?**  
In past major fuel formulations, CARB started with a fuel that had been proven in the laboratory and/or in the marketplace. RFG2 (cleaner-burning gasoline), for example, had been tested in the Auto/Oil Research project and one company was selling it at the pump before CARB required its use. In contrast, even though many companies are investing billions of dollars to make cellulosic ethanol, the product has yet to be proven in the laboratory, and there is no reliable estimate of when cellulosic ethanol will be commercially viable, whether there will be enough to supply the marketplace and at what cost. Nevertheless, the agency seems to be moving forward with implementation of the LCFS without having a product either in the near or short term. We understand the need to continue forcing innovation in this area. However, we’d like to know how CARB staff plans to balance the competing needs of maintaining reliable and affordable fuel supply.
If biofuels increase CO2 emissions or are not commercially available in the foreseeable future, how will the LCFS be implemented?

There may be an unprecedented amount of uncertainty regarding some of the near and long term biofuels that may or may not be commercially viable. What kind of process does the staff have in mind for managing this uncertainty? Will there be an adequate assessment of scientific research? Will there be milestones for program review to ensure there will be sufficient fuel supplies and opportunities for mid-course review and mid-course corrections, if necessary? Does it make sense for CARB to start simply with passenger vehicles before tackling diesel and other fuels?

To what extent will more fuel efficient vehicles be encouraged under LCFS?

GHG intensity isn’t about fuel alone. It’s the combination of fuels and engines that run on it. Europe is headed in the direction of encouraging more fuel efficient vehicles such as light-duty diesel-powered vehicles to help reduce greenhouse gas emissions. How does the CARB staff plan to encourage all the different options for more fuel efficient cars including light-duty diesel as part of its strategy to reduce transportation related emissions? How will CARB enable automakers to comply with state and federal fuel efficiency standards? Will credits be given to fuel producers to use sales of low carbon diesel for compliance with the LCFS?

What kind of credit trading program is CARB contemplating?

We understand CARB is planning an alternative compliance system that involves credit trading. Will that system allow trading between fuels? What kind of conditions to such a trading system is CARB staff contemplating?

We are very concerned about the level of uncertainty surrounding this project. We are further concerned about the agency’s understandable urgency to meet its stated timelines. Unless these serious questions are answered there could be some very major consequences. The LCFS would likely fail to reduce GHG intensity. It could frustrate or fail to drive innovation. It could harm the state economy. It could introduce uncertainty into state fuel supplies with very negative impacts on prices and consumers.

The LCFS can be done right with results that would produce real greenhouse gas reductions. If accomplished correctly it also would drive technological innovation and produce reliable fuel supplies. We respectfully suggest the following principles to guide the process:

- A transparent, technically sound rulemaking
- Fuel neutral
- Starts simple and ramps up to meet 2020 goal
- Prevents leakage of emissions out-of-state
- Contains regular milestone reviews to assure program is on track
- Relies on markets and assures fair competition for at-risk investments
Again, thanks for the opportunity to meet with you. We look forward to continuing this dialogue.

Sincerely,

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Vice President
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