RFA RENEWABLE FUELS ASSOCIATION

30 Years of Leadership

September 12, 2011

Richard Corey
Michelle Buffington
Co-Chairs, LCFS Program Review Advisory Panel
California Air Resources Board
1001 "I" Street
Sacramento, California 95814

Dear Mr. Corey and Ms. Buffington,

Thank you for the opportunity to provide further comments in regard to the draft outlines and other issues discussed during the Aug. 25-26 meetings of the LCFS advisory panel. This letter offers RFA's remarks on four key issues discussed during the meeting.

Topic 3: Advanced in Lifecycle Assessment (LCA)

The draft outline appears to omit discussion of several important questions related to Topic 3 that are outlined in the current version of the work plan. We believe the chapter should attempt to address each of the questions in the work plan, which were identified by advisory panel members and CARB staff as being critical issues for inclusion in the final report to the Board. The current outline suggests the chapter will be more of a summary of CARB's current activities related to lifecycle analysis, rather than discussion of the work plan questions. We believe simply summarizing current activities rather than addressing the questions does a disservice to both the Board and stakeholders. We encourage CARB staff to revisit the work plan as it drafts the chapter on this topic. Further, while useful, the discussion of proposed changes to the Method 2A/2B process seems out of place in this chapter, as it doesn't represent advancement in lifecycle analysis, per se, and is more an issue of regulatory design. Some of the key questions from the work plan are reproduced below, followed by our comments related to each.

- *Since the adoption of the LCFS have there been advances in fuel-lifecycle analysis? If so, how does staff plan to address these advances?*

Regarding analysis of direct emissions, the chapter outline appears to only restate the original approach CARB took to estimating direct emissions (i.e., use of CA-GREET 1.8b). The outline omits any discussion of advances in analysis of direct emissions that have occurred since adoption of the LCFS. The question in the work plan clearly compels CARB to examine what advances have occurred in its own analysis, but also what advances have occurred more broadly in the field of lifecycle analysis. The question also compels CARB to address how advances in the science are being addressed by the agency.

An important advancement in direct emissions analysis occurring since adoption of the LCFS is the publication of a new version of the Department of Energy's GREET model. The new version of the model, GREET 1.8d1, updated numerous key variables related to corn ethanol production. The

result of these updates was a reduction in direct emissions related to producing corn ethanol. While the GREET model framework itself is unchanged with the new version, the underlying data are more current and more robust. The updated GREET model was used in conjunction with updated GTAP results to conduct a new full lifecycle analysis of corn and cellulosic ethanol. The results of this analysis were published recently in *Biomass & Bioenergy*.[1] We strongly encourage CARB staff to discuss the new version of GREET and the recent GREET/GTAP publication in this chapter, as it represents a significant advancement in lifecycle analysis occurring since the LCFS was adopted. In keeping with the spirit of the work plan question, we further encourage CARB to discuss how or whether it plans to address this advancement in lifecycle analysis.

- *What are the criteria for determining whether new studies merit considering adjustments to the program?*

We see no intent to address this important question in the chapter outline. New studies and lifecycle analyses will most certainly become available over the next several years and stakeholders would benefit from knowing CARB's criteria for determining whether these studies will be considered by the agency.

- *How do we balance the need for market certainty with the need for timely integration of advancements in lifecycle analysis?*

There was broad agreement among advisory panel members that this is an important question that warranted discussion by the panel and explicit coverage in the final report. However, there is no indication in the outline that staff intends to address this question. Ideally, the chapter would outline potential mechanisms or timelines for integrating advancements in lifecycle analysis into the LCFS regulation, while also discussing how to maintain certainty for regulated parties and fuel providers. For example, CARB could establish that advances in lifecycle analysis, and possible regulatory amendments stemming from those advances, will be considered every two years. We strongly encourage CARB to ensure this question is thoughtfully addressed in the chapter.

Topics 1/2: Meeting the Targets and Assessment of Need to Adjust Compliance Schedule

As you work on updating the compliance scenarios, we encourage CARB to pay particular attention to projections of Brazilian sugarcane ethanol import availability. It is our belief that most recent projections exaggerate likely sugarcane ethanol imports in the near term. While EIA is one source of sugarcane ethanol import projections, there are others that offer a starkly different outlook. Because large volumes of sugarcane ethanol imports were critical to achieving compliance in CARB's previous scenarios, it is important that the agency strive for the most realistic assessments of likely import volumes.

Topic 15: Harmonization

Under outline item E ("Discussion of priority areas for possible harmonization"), we recommend adding discussion of the baseline used in each of the state, regional, federal or international

[1] See Wang et al. Energy and greenhouse gas emission effects of corn and cellulosic ethanol with technology improvements and land use changes. *Biomass & Bioenergy* 35 (2011): 1885-1896.

policies/regulations addressed in the chapter. It may be CARB's intent to address the various approaches to establishing a baseline under "fossil fuel/HCICO treatment," but we believe it is an important enough issue to justify explicit discussion in the chapter. The baselines against which regulated fuels are compared in the existing policies/regulations mentioned in the outline (and the methods used for developing the baselines) are highly variable. The chapter should examine why different policies/regulations use different baselines, and discuss the importance of this issue in regard to harmonization.

Under outline item D ("Background on Other Countries' Programs"), we believe CARB should explicitly acknowledge the EU's recent decision to postpone inclusion of indirect land use change (ILUC) adder factors in the Renewable Energy Directive. This is important because it demonstrates there continues to be lack of harmonization and agreement on whether the quality of the science on ILUC is suitable for introduction into regulatory frameworks.

First quarter LRT data

We were pleased that CARB made available a summary of the first quarter LRT data and believe this type of information is highly useful to regulated parties, out-of-state fuel providers, and other stakeholders. We understand and appreciate CARB's sensitivity to the confidentiality of data submitted by individual companies via the LRT, but we believe the quarterly data made available to the public would be more useful if it provided a little more detail. For instance, the Q1 summary used a category for ethanol of 90<CI<95. This category includes both ethanol that would generate enough credits to offset a regulated party's base deficit on a gallon of E10, as well as ethanol that would not. We encourage CARB to consider offering data based on 2-3 g/MJ increments, as opposed to 5 g/MJ increments. Further, there was no category for ethanol in the 86-90 g/MJ range in the Q1 summary; does that mean there was no ethanol sold into California with a CI score in that range in Q1? It would also be useful to summarize actual volumes of fuels (in gallons) per CI grouping or per pathway. Finally, it would also be useful to break out how much fuel utilized a default (i.e. original look-up table pathway) versus how much fuel utilized a new (i.e. Method 2A/B) pathway.

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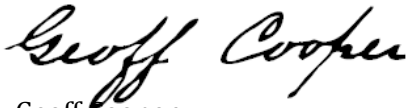
Thank you for the opportunity to share our comments on the June 30-July 1 advisory panel meetings. I look forward to discussing these issues at future panel meetings.

Sincerely,



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