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April 15, 2009

Mary D. Nichols, Chairman
California Air Resources Board
Headquarters Building
1001 "I" Street
Sacramento, CA 95812

Dear Chairman Nichols,

The undersigned endorse the California Air Resource Board's (CARB's) March 5, 2009 proposal for the Low Carbon Fuel Standard because of its prioritization of an environmentally responsible approach to the LCFS and indirect land use change (ILUC). Our shared goal is the development of highly productive biomass generation with maximized co-benefits, including the avoidance of conflicts with food production, minimization of adverse environmental impacts, enhanced local economic development, and the promotion of suitable animal feed.[1]

We agree with CARB's stance that a policy that defers regulation of ILUC is not aligned with the long-term interests of the biofuels industry or that of the greater private and public stakeholder communities concerned. In short, we support CARB's decision to act now in motivating market activity that heeds both LCFS and ILUC concerns, and view a "zero" policy approach to be one that mistakenly offers inadequate direction for the market. Even if indirect land use effects are difficult to precisely predict, the regulation can be designed to encourage the right behaviors by the industry.

However, we do believe the proposal should be strengthened in the following ways to ensure that our shared goals are met. In particular, the program should provide clear incentives for producers to invest in techniques that result in additional carbon reductions. In general, such techniques will require a higher upfront capital investment in exchange for a higher return-on-investment than the value of the fuel alone. The program should also provide a clearer statement about preferred approaches to land use. We believe that even the current corn ethanol industry would benefit from this approach by being rewarded for improved corn production practices. This would help their ability to raise funds with current and prospective investors by sending a clear market signal that value will be created by advancing their current practices towards these goals. Specifically, we recommend the following:

1. CARB Should Expeditiously Approve Pathways for Advanced Biofuels

[1] See "Rethinking Biofuels" at http://www.e2.org/jsp/controller?docId=16033&section=biofuellanduse

We support an LCFS that creates economic signals that will result in better feedstocks, agronomic practices, and conversion processes being developed over time. To help accomplish this, CARB should work with advanced biofuel producers to ensure timely certification of specific processes under Method 2B (Section 95486(d) of the proposed regulations.

CARB's pathways need to ensure that 2nd generation biofuel producers receive fair and accurate carbon accounting for their feedstocks on a timely basis. These pathways will help promote investment in environmentally sustainable energy solutions while correctly managing both unseen and foreseen externalities accompanying the growth of the biofuels industry. We believe that the industry requires a level of certainty and direction even at this early stage.

Critically, the default pathways for advanced biofuels should quantify the benefits of advanced biofuels by including the following:

1. Feedstock specific ILUC impacts – Advanced biofuels should not simply be assigned the same ILUC factor as corn ethanol. The ILUC factor should be specific to the feedstock source and how it was grown. In general, advanced biofuels should have much lower ILUC impacts than corn ethanol. In some cases, a zero impact should be credited for, if, for example, a biofuel is derived from waste materials.
2. Higher productivity of biofuel per acre of land utilized – The ILUC values should reflect the impact of what is likely to be higher productivity for advanced biofuels due to a combination of higher yielding dedicated crops and advanced processing techniques.
3. Efficiency of water use – Reward the use of non-irrigated land and water reduction below prior use. We recognize that this may create a need to equate water usage and GHG production. Fortunately, in California, there are models for the embedded GHG effects of water utilization, and we assume that these or comparable models can be applied in the rest of the country where irrigation is used.
4. Low carbon agricultural practices– Recognize practices that improve the carbon sequestration in soil, including non-till practices and biomass systems, and include appropriate credits in the lifecycle analysis.
5. Creation of protein as well as other feed products such as forage materials and electricity co-products – Recognize the creation of protein/animal feed and electricity, and include appropriate credits in the lifecycle analysis.

2. CARB Should Ensure Biofuel Pathways in CA-GREET Model Allow for Easy Modification of Key Inputs

CARB should ensure that the flexibility exists under Method 2A ("Customized Lookup Table") to easily modify key factors so that producers have a clear understanding of how improvements can benefit their carbon score. This can be done by ensuring that under Method 2A (Section 95486(c) of proposed regulations) input factors exist for key

variables for the CA-GREET model used to generate the carbon intensity values in the Customized Lookup Table. The key input variables should mirror the above:

1. Feedstock specific ILUC impacts.
2. Pathway specific productivity of biofuel per acre of land (e.g., gallons of biofuel produced per acre of land).
3. Efficiency of water use (e.g., water per gallon of biofuel produced).
4. Low carbon agricultural practices that improve the carbon sequestration in soil (e.g., carbon credits for low-till practices).
5. Creation of protein and electricity co-products (e.g., appropriate crediting for co-production of protein/animal feed and electricity.)

3. CARB Should Identify Feedstocks with Zero Indirect Land Use Impacts

As CARB staff has repeatedly pointed out, there are many feedstocks with zero indirect land use impacts. We believe the industry would benefit from an early CARB signal and commitment to treat such feedstocks as zero for ILUC. This can be done by adopting a list of feedstocks that have zero or near-zero ILUC that includes but is not limited to those biofuels that:

- Derive from municipal or agricultural waste.
- Do not require arable land.
- Derive from crops grown on marginal agricultural lands or otherwise fallow farmlands, such as rotational and/or cover crops that are grown contra-seasonally to the primary crop.

Summary

We believe that CARB can encourage clean energy solutions for the medium- and long-term within a transparent market framework through (1) expeditiously developing advanced biofuel specific carbon certification pathways; (2) allowing fuel producers to easily modify key input parameters to receive an improved GHG score under the Customized Lookup Table method; and (3) clearly identifying in regulation which feedstocks have zero or near-zero ILUC emissions.

Thank you for your consideration. We look forward to working with your staff in the near future on our recommendations.

Sincerely,

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