April 22, 2009

Mary D. Nichols, Chairman

California Air Resources Board

1001 "I" Street,

Sacramento, CA 95812

RE: Low Carbon Fuel Standard

Dear Chairman Nichols,

Energy Independence Now (EIN) would like to thank you for the opportunity to comment on the proposed Low Carbon Fuel Standard. The following reiterates our previous support for the LCFS, with additional suggested resolutions we urge CARB to adopt

As previously stated, our support recognizes three areas we believe the LCFS helps to advance:

1. **LCFS will lead to better biofuels for low level blending.**
   The structure of the regulation is well designed to ensure that the best biofuels are blended into our gasoline and diesel, and to promote the development of a new generation of lower-carbon ethanol and renewable diesel production.
2. **LCFS advances Life Cycle Analysis, including incorporating indirect land use impacts**. We commend CARB staff on its work in setting standards for life cycle analysis of fuels. We also support CARB's decision to incorporate the indirect land use effects of fuel production, a key LCA component that will ensure we achieve true global GHG reductions, and send a clear signal to investors that California is seeking a new generation of biofuels that do not compete with land suitable for food crops. However we urge CARB to re-evaluate its decision to use economic discounting of emissions: a method that is based on the physical science of how GHGs decay over time in the atmosphere is more likely to achieve the environmental objective of the LCFS, and gain acceptance as a worldwide standard.
3. **LCFS provides basis for Environmental Reporting for fuels**. We believe the LCFS requirements for feedstock reporting, and CARB's commitment to continue developing sustainability and environmental safeguards is a critical element of the LCFS, and look forward to continued progress on those fronts.

However we believe the LCFS has some important shortcomings, and ask the Board to adopt resolutions on the following issues, with our rationale:

I) Resolution to strengthen the incentive for non-liquid, ultra-low carbon fuels.
II) Resolution to evaluate complementary measures for the LCFS.
III) Resolution to ensure a streamlined process for new fuel pathway approval.
IV) Resolution to clarify the processes in the case of a change in Carbon Intensity numbers.

I) Resolution to strengthen the incentives for *non-liquid*, ultra-low carbon fuels.

The Board should direct staff to evaluate a broad range of options that would ensure this regulation results in significant investment in ultra-low carbon fuels, with specific attention to *non-liquid* fuels, and should direct Staff return to the Board by December 2009 with recommended modifications to the regulation, as appropriate.

Rationale for the resolution:

There is widespread acknowledgement, among observers, petroleum companies and ARB staff, that gasoline and diesel producers intend to comply with the standard by blending lower carbon intensity ethanol and renewable diesels into their fuels, and that **they have no intention of buying credits** from competing fuels such as electricity, natural gas or hydrogen. This would make the LCFS credits worthless to those producers, who would understandably choose not to opt into the program.

As it stands, the LCFS therefore provides **no guarantee of fuel diversification in California**. Although it sends a good signal to improve the biofuels we blend into our traditional fuels, it is likely to do little to incentivize the range of non-liquid alternative fuels we need at commercial scale by 2020 to achieve our 2050 State goals.

We strongly urge the Board to publicly acknowledge this problem, and to direct staff to address it in the April to December 2009 timeframe, as stated in the resolution above.

At a minimum, staff should examine the following to make the LCFS more effective as an incentive for non-liquid, ultra-low carbon fuels like electricity, hydrogen, and biogas:

- **Creating a ULC credit price floor**. CARB, or a designated entity like a Carbon Trust, could act as a default buyer for fuels which have a carbon intensity below a specified threshold. We believe this could be an extremely powerful signal to non-liquid fuel investors, and strongly urge CARB to explore a variety of mechanism to fund and administer such a program.
- **Link a ULC credit price floor to oil prices.** Given that the price of oil is one of the most significant risks to investment in alternative fuels, a mechanism that guaranteed a credit price purchase, only applicable to ultra-low carbon fuels and only under certain low oil price conditions, could be a more limited version of the above-mentioned credit-price guarantee.
- **Exploring preferential terms** for ultra-low carbon credits. Like preferential shares, credits from ultra low carbon fuels could be assigned special rights, to increase their value to holders. This could be in the form of preferential trading or banking terms.
- **Increasing the stringency** of the LCFS reduction requirements. If there is no credit trading, this may indicate that the 10% target is not aggressive enough, and may need to be tightened.
- **Market design issues.** CARB should outline how the options it considers in the design of the market for credits will specifically affect ULC producers, who will face different requirements than the gasoline and diesel producers.
- **Reconsider the ULC carve-out**. CARB has proposed and withdrawn the idea of requiring a percentage of fuels for LCFS compliance to be ultra-low carbon fuels. While we believe some of the above measures are more effective than a carve-out, CARB should retain the percentage carve-out as a backstop option.

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II) Resolution to evaluate complementary measures for the LCFS

The Board should direct Staff to identify and analyze measures that are necessary to *complement* this regulation, which alone cannot ensure that we have the sufficient diversity and quantity of ultra low carbon fuels to meet 2020 goals, and should direct Staff return to the Board by December 2009 with an assessment of and recommendation on these measures.

Rationale for this resolution

The LCFS is an effective platform to help drive reductions in GHG emissions from the California fuel supply. However this regulation cannot achieve this alone. As EIN, other stakeholders, and Staff have often observed, there exist a range of barriers outside the realm of the LCFS which will slow or prevent the transition to alternative fuels.

We urge CARB to acknowledge the limitations of the LCFS, and direct resources to measures that need to be undertaken to complement it. Such measure should include the following:

i) Consider using the Clean Fuels Outlet to support infrastructure through 2014.

CARB should explore using its existing authority under the Clean Fuels Outlet to ensure a basic level of investment in infrastructure for ultra low carbon fuels. This would

- Recognize that the barrier of infrastructure may be the biggest market entry barrier for alternatives to gasoline and diesel, not the production of the fuel itself.
- Recognize that fuel providers currently have no obligation to build that infrastructure to serve the vehicles being produced under ZEV, Pavley II and LEVIII.
- Set the stage for a more coordinated vehicle/fuel/infrastructure policy for beyond 2015, in line with the current revisioning of the ZEV program.

ii) Review transport-related regulatory barriers.

A cross-agency regulatory review is needed to document and address the non-financial barriers to ULC fuels. CARB could explore doing this jointly with the CEC, as part of the AB118 Alternative Fuels and Vehicles Program's "non-GHG" funding category.

- Non-liquid fuel barriers. The review should assess the regulatory barriers that limit the delivery of non-liquid fuels, such as fire and safety codes, standards and certifications.
- Electricity / Transport alignment: A joint CARB/CPUC review to ensure that utility regulations and incentives are aligned with the objective of growth in electric transport.
- Waste / Transport alignment**.** A joint CARB/CIWMB review to ensure the waste sector regulations and permitting will allow for waste-based fuel production.

If well coordinated, the above two initiatives could help get the non-liquid transport industries off the ground in the period until 2014. After that, with the transportation sector under a cap, a better regulatory alignment with the electricity and waste sectors, and some basic supporting infrastructure on the ground, non liquid fuels might stand a chance of natural growth, with less need for command-and-control policies.

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III. Resolution to ensure a streamlined process for new fuel pathway approval

The Board should directs Staff to review the Executive Approval procedure under section 95486 to ensure an efficient and fair process that does not inadvertently hinder new fuel technology developments, and should direct Staff to return to the Board by December 2009 with recommended modifications to the regulation, as appropriate.

Rationale for resolution

In Section 95486 of the proposed LCFS, CARB outlines how new fuel pathways will require an Executive Approval to receive a carbon intensity number under Methods 2A and 2B..

While we support the intent of these methods, and recognize it provides the flexibility that CARB needs to work with rapidly evolving technologies, we are concerned that this process could create an unintended bottleneck to the commercialization of promising new technologies.

This concern is based on EIN's experience working with companies and State agencies on the Multimedia Analysis. Like the Multimedia analysis, the LCFS Executive Approval process could potentially include multiple State agencies as well as external peer reviewers. If the process and the timeframes for managing these multiple parties are not well defined, they create a serious risk of stalling the approval of new technologies for use in California.

In general, we urge CARB to model the LCFS approval procedures on the Diesel Verification Procedure, which generally works well, and to carefully avoid the pitfalls that have plagued the Multimedia process. The following are some more detailed observation of aspects of section 95486(e) & (f) that may need some further attention.

- **Timing of Regulated Party approval to use 2B**. The regulation states that the Executive officer must approve the initial request to begin a Method 2B application. CARB should set a maximum timeframe that a regulated party must expect to get this initial approval. (e.g. 15 days).
- **Timing on GTAP analysis.** (d)(5) This section states that the Executive Officer must conduct analysis using GTAP. It is not clear in which phase of the application this should take place (before the application is complete, or during the Executive Officer review period). Greater clarity is needed, and CARB should place some timeframe around this significant requirement.
- **Scientific defensibility and Burden of Proof**. (e) The stipulation that a method be *"at least as valid and robust as*" as Method 1 could be difficult to meet for new emerging pathways given that Method 1 is based on well established technologies. The science analyzing emerging technologies may be *defensible*, yet the scientific methods may not be "*at least as robust"* as those commonly used for Method 1. CARB should consider language such as "*best available science*", rather than comparing these emerging technologies better to the well established ones.
- **Review Periods.** (f)(4)&(5). The 30 day public review and the subsequent 45 day Executive Officer review seem reasonable. However, CARB should specify what happens if the Executive Officer review raises an objection to a specific item, methodology or dataset in the application. As it stands, it is not clear if the process would have to return to the beginning, with a new public review and executive officer approval. We would urge CARB to specific that the process will <u>not</u> return to the beginning, but that the regulated party would have an opportunity to address the specific parts of the application that have been contested, and be assured that the remainder now

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had implicit approval. This is critical to avoid a potentially endless cycle of public and executive officer review, in which a new issue is raised as a barrier in each case. This endless review cycle has plagued the Multimedia analysis.

- **Non-approval**. The regulation does not appear to specify what happens if the Executive Officer does not approve the proposed pathway. Will another CI number be assigned to that fuel from a similar, approved pathway, or will it be banned from sale in California until approved?
- **Other agency input**. Like the multimedia analysis, the approval of a new pathway may require input from agencies other than CARB (agriculture, forestry, etc), and experience shows that this input can be a lengthy and complicated process. In the proposed regulation, it is unclear how such input will be incorporated into the application process, and during which phase this would take place. We urge great care in managing the timeframes associated with the input of other agencies, and especially any external peer review processes, who.
- **Sustainability requirements**. CARB has indicated that it plans to use the Executive Approval process to screen for environmental safeguards and sustainability. We recognize that this has not been formalized, but urge great attention to how this would be done in conjunction with the new pathways proposed under 2B. For example, CARB should ensure that a producer who is trying to get credit for having made advances in one part of a fuel pathway does not have to subject his entire pathway for sustainability approval if competitors using a default Method 1 number do not have that same requirement.

IV Resolution to clarify process in the case of a change in Carbon Intensity numbers.

The Board should direct Staff to study the possibility of future changes in carbon intensity numbers for any fuel, the implications of CARB's options in such cases, and to return to the Board by December 2009 with recommended modifications to the regulation, as appropriate.

Rationale for this resolution

We continue to be concerned by the possible chilling effect that uncertain Carbon Intensity numbers may have on alternative fuel investments. EIN was pleased to hear in the March 27th, 2009 workshop that CARB is planning on looking into how it will address the situation in which a fuel's CI value is changed. Given what we have seen in the last year alone, the possibility of revised science for these numbers is very real, and we believe CARB should do everything it can to reduce that regulatory risk.

We therefore urge the Board to direct staff to outline, as clear as possible, how the LCFS mechanism will balance the needs for regulatory certainty with the need to incorporate evolving science. The questions of whether to revalue existing plants or grandfather them, and how to address the value of banked credits needs to be spelled out as best possible to attract investors into these technologies.

We hope that the above comments are of some help, and once again voice our support for an immediate adoption of the LCFS by the Board.

Sincerely,

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