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DATE	MAR 23 2007
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James Boyd, Vice Chair; Presiding Member, Transportation Committee
Jeffrey Byron, Commissioner; Associate Member, Transportation Committee
Robert Sawyer, Chairman, CARB
California Energy Commission
Docket Unit
Attn: Docket No. 06-AFP-1
1516 Ninth Street
Sacramento, CA 95814-5512

RE: 06-AFP-1 Joint Workshop on the AB 1007 Full Fuel Cycle Analysis

Dear Commissioners,

On behalf of the groups listed above, we would like to commend the California Energy Commission and the California Air Resources Board for their accomplishments to date in planning California's alternative fuel future. We appreciate the opportunity to comment on the Full Fuel Cycle Analysis draft presented by CEC contractor TIAX at the March 2 workshop on the state's Alternative Fuels Plan pursuant to AB 1007. We also appreciate the efforts of CEC and CARB staff to ensure a much improved and transparent process and encourage the state to continue to ensure a fully transparent process as we move forward.

This letter focuses on three overarching issues of concern to the environmental and health community:

- An expanded scope of the Full Fuel Cycle Analysis
- Inclusion of environmental sustainability criteria in policy recommendations
- Continued transparency and capacity building for future assessments and recommendations

Alternative transportation fuels, while offering the benefits of reduced reliance on petroleum-based fuel, also present new challenges and a range of potential negative impacts. The draft Full Fuel Cycle Analysis is an important first step, but it fails to assess and quantify the full range of potential upstream impacts associated with alternative fuel use in California. We request that the state develop a plan for expanding its analysis to improve our understanding and quantification of upstream impacts as detailed in the comments below.

Life Cycle Assessment of Alternative Fuels: Expand Scope

AB 1007 defines "full fuel-cycle assessment" as an evaluation and comparison of "the full environmental and health impacts of each step in the life cycle of a fuel." (*Scoping Notice 2006*). We request that the Energy Commission and the California Air Resources Board expand the scope of the Fuel Cycle Assessment to identify and, where possible, quantify a wider range of impacts associated with the production of alternative fuels, wherever those impacts occur. This "field-to-tank" analytical approach will allow stakeholders and decision-makers to more

meaningfully compare different alternative fuels, as well as compare alternative fuels to petroleum-based fuels.

Greenhouse Gas Emissions

Even for a specific fuel, greenhouse gas emissions can vary widely depending on the how the fuel or feedstock is produced. Some fuels may even result in an overall increase in greenhouse gas emissions depending on their methods of production. For example, greenhouse gas emissions from biofuels will vary depending upon land use changes, fertilizer inputs, irrigation systems, tillage and other agricultural practices. The report should recognize that this wide range of potential emissions can exist.

In addition, we request that for each fuel or feedstock the report provide information on the reliability of the data on upstream emissions and identify where data gaps exist.

Air Pollution Emissions

The report must include an assessment of the potential out-of-state air quality and public health impacts for each alternative fuel option and the assumptions this assessment is based on, or at least identify the data currently available and additional data and analysis needed to complete this assessment.

Environmental Impacts

The State should also quantify the full range of other environmental impacts of biofuel production, including: land conversion, soil erosion and compaction, increased use of monoculture crops, loss of biodiversity, nutrient leaching, chemical pollution, competition with food stocks, and increased water use. This analysis must be conducted whether the impacts occur inside or outside of California. Potential methodologies may include GIS and agronomic modeling systems that assess the impacts of agricultural practices. We look forward to working with CEC and CARB to explore and further develop these measures, and to develop new quantification methods where necessary.

Finally, we recognize that a comprehensive expansion of the Fuel Cycle Assessment is not possible by June 30, 2007. We therefore ask that the state develop a concrete timeline for updating the Full Fuel Cycle Assessment to include this wider range of environmental metrics.

Include Sustainability Criteria in Policy Recommendations

California is leading the way in promoting alternative and low carbon fuels -- which is critically important in the race against global warming. But as a leader in this arena, it is incumbent upon us to also lead the way in ensuring that this does not create unforeseen consequences or simply shift California's transportation impacts elsewhere.

As the California Energy Commission takes an active role in encouraging the emerging non-petroleum fuels market, it must also recommend a range of incentives or policy options to

encourage demand for and production of sustainably grown and produced alternative fuels. Support of all potential alternative fuel options, regardless of upstream impacts, may result in new environmental, economic, and social problems both inside and outside of California.

We ask that the California Energy Commission and California Air Resources Board use information from the Full Fuel Cycle Assessment, as further expanded, to develop incentives, standards, regulations or other mechanisms to drive the developing alternative fuels markets in California to the most environmentally sound alternative fuels and the best methods of producing them.

Transparency and Capacity Building for Continued Assessments

We appreciate the effort TIAX and the staff at both the California Energy Commission and the California Air Resources Board have made to involve the public and allow meaningful input into the Fuel Cycle Analysis process. We would like to emphasize the importance of continued full transparency as the State alternative fuel planning process moves forward, especially in the scenario analysis phase.

One specific area we request further transparency in is the full range of assumptions on which the fuel cycle assessment is based. As we have noted previously, it does not appear that the full range of assumptions and inputs are currently provided. In particular, data sources must be fully divulged and a discussion of the limitations of the data sources is requested.

Finally, we request that a process be developed to regularly refine this initial fuel cycle assessment as new technologies, feedstocks, and more efficient processes come online.

Conclusion

The widespread introduction of alternative fuels in California presents undeniable opportunities to improve the state's environmental health and economic security, and creates opportunities for the development of new markets and technologies in California. At the same time, we emphasize the need to ensure that policies are in place to help lead California's markets to use and produce those alternative fuels with the greatest benefits for the least environmental and social cost.

Thank you for considering these comments.

Sincerely,



Danielle R. Fugere
Regional Program Director
Friends of the Earth – Bluewater



Kate Horner
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Friends of the Earth – Bluewater