CANADIAN ASSOCIATION
OF PETROLEUM PRODUCERS

December 16, 2008

SUBMITTED VIA EMAIL: mansingh@arb.ca.gov

Mary D. Nichols, Chairman
California Air Resources Board
1001 1 Street
P. O. Box 2815
Sacramento, California 95812

Dear Chairman Nichols,

On behalf of member companies of the Canadian Association of Petroleum Producers (CAPP), we are writing this response to the proposed California Low Carbon Fuel Standard Regulation (Draft – for discussion only; October 2008) as provided on your website, and presented at the workshop in Sacramento on December 2, 2008.

Economic Analysis

While it is laudable that California is attempting to incent the development of a robust renewable fuels market, the economic analysis provided to justify this is lacking in several fundamental fronts. The costs provided for some of the fuels, for example, $1. 43 per gallon for cellulosic ethanol, are currently unjustified. There is no such product available on a commercial scale at this point, and demonstration plants such as those that Iogen is running are not capable of producing at this low of a price point. All costs that are included in the economic analysis need to be transparently derived in order to withstand scrutiny.

Additionally, the infrastructure costs required for development of a distribution network for other (alternative) transportation fuels, such as hydrogen, have not been accounted for in the analysis. As well, the inclusion of the EISA standard (Section 526) in the base case to ensure development of the required amount of biofuels skews the results, given that the likelihood that this standard will be implemented is far from certain at this point in time, particularly implementation at the scale contemplated by CARB.

Finally, the final bullet on slide 10 of the provided deck "LCFS Net Cost" states "no impact on consumers". The reality of supply and demand should encourage the cost of fuels, particularly those that meet an LCFS standard, to increase, thereby reducing demand. If an overall reduction in consumption of energy is not an objective of CARB's, then it is difficult to determine how, in the

2100, 350 – 7 Avenue S.W.
Calgary, Alberta
Canada T2P 3N9
Tel (403) 267-1100
Fax (403) 261-4622

403, 235 Water Street
St. John's, Newfoundland and Labrador
Canada A1C 1B6
Tel (709) 724-4200
Fax (709) 724-4225

www.capp.ca • communication@capp.ca

long run, overall reductions in greenhouse gas emissions are going to occur. To that end, the economic analysis did not include any short or long term costs that independent citizens would be required to bear.

We would entreat CARB to re-evaluate the basis for their economic analysis on a more realistic set of (known) parameters.

Environmental Analysis

It is unclear to us why the inclusion of Light Duty Diesel is currently not an LCFS option; this brings into question the validity of the entire GREET model. This in turn brings into question how California will ensure an adequate fuel supply to meet the regulation if it is successfully enacted. As well, how does CARB ensure that the Renewable Portfolios Standard (RPS) does not allow for double counting of some initiatives (for example, plug in hybrids). We would encourage CARB to re evaluate the GREET modelling process, particularly how it handles different types of fuels, and ensuring that it maintains a consistent playing field.

Draft Regulation

Clearly, a well written regulation needs the foundation, particularly in law, of clear definitional terms, to ensure parity of treatment from one regulated party to the next. Unfortunately, this is severely lacking in the case of the Draft "The California Low Carbon Fuel Standard Regulation" of October 2008. Definitions for crude oil, in particular, are imprecise, allowing for definition of some by virtue of their method of production, versus their source. Clearly, instead of attempting to skew the regulation to a pre-determined answer (that being to exclude all products derived from Canada's Oil Sands), the regulation should one standard against which all crudes could be benchmarked. This would have to include all potential imports to California, as well as domestic California crudes, and including but not limited to Venezuelan and Nigerian crudes.

It is important to note that the SEC defines both Conventional and non-Conventional in its outline of how one must report production to the Commission. It would not be recommended, therefore for CARB to implement a different definition than that which is required by federal securities law (again, harmonization of regulations is required).

Life Cycle Analysis (LCA)

Clearly the analysis of the overall impact of greenhouse gas emissions on a product is a valuable outcome. However, in order to ensure that an LCA is conducted properly, all aspects must be included in the analysis. For example, in evaluating the LCA of a biofuel, the full cradle to grave implications must be included, from the water required to produce the crop, to the energy required to produce the fertilizer that the crop requires, to the fuel required to plant, reap, transport and transform the crop. The net energy balance of all alternatives must be evaluated equitably.

Similarly, in comparing the same end products, such as gasoline, the net LCA of all California imports, and potential imports, must be evaluated. This would include not only Canadian imports,

but also those from offshore Europe, Africa, the middle East, and South and central America. In the absence of this, the perverse outcome leads to shipment of crude geographically distant from markets that are in close proximity.

Additional Issues

Compliance paths for the various options to attain Low Carbon Fuel Standard are not clear. Harmonization of the California LCFS regulations with other California regulations is not clear (such as compliance with the Renewable Fuels Standard, CAFÉ standard, biofuel requirement); nor is harmonization with other State and Federal laws. We would strongly encourage CARB to work collaboratively with other state, provincial and federal jurisdictional bodies to ensure consistent and appropriate regulations are put in place to strengthen environmental initiatives instead of burying them in a complicated regulatory reporting process, whereby companies spend more time ensuring adherence to reporting than they do to developing innovative measures to reduce their emissions. CARB should also address or included in their analysis the measures that other (importing) jurisdictions have put in place to mitigate greenhouse gas emissions. It is inconsistent of California to ignore the regulations in other jurisdictions, given that they require adherence to those regulations in their jurisdiction. If those importing jurisdictions have greenhouse gas targets that must be met, or other compliance enforcements (such as strict regulations on minimal flaring and gas conservation), then these should be taken into account. The LCA for an Oil Sands operation would therefore have to take into account the current mandatory requirement by the Alberta government that all disturbed lands must be fully reclaimed prior to release of liability by the Crown.

California's low carbon fuel policy should focus on the development and deployment of truly low Life Cycle alternatives to petroleum, rather than attempting to discriminate amongst products from the various crude sources, including Canada's oil sands, which serve the North American markets. In particular, California's attempt to extend its policy reach back through the supply chain to influence the production, and regulatory requirements of oil sands production is no more appropriate than if Alberta were to implement a policy which discriminated among the markets supplied by its crude oil by imposing a limit on allowable transportation emissions per mile driven.

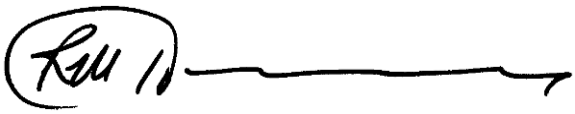
The GREET model has limitations, and those limitations should be clearly addressed in the overall analysis and final recommendation to the CARB executive board. For example, comparison of a 'regular' refined product to a synthetic crude refinery process, which is absent of bottoms, does not provide for an adequate, or equitable, comparison, as the synthetic crude is not credited with providing higher quality fuels only.

Going forward, we would hope that California would address the key issues of:

- harmonization between jurisdictions, particularly for those companies that operate in a multitude of North American states and provinces
- avoidance of disruption of energy flows (or perverse outcomes / leakage) to ensure appropriate allocation of crude supplies among refinery markets

- development of technological solutions to the long term reduction of greenhouse gas emissions, and ways to ensure incentivization of their development
- the availability of compliance options
- credit for actions taken in other jurisdictions to meet other regulatory requirements
- integrity of the system and equitable treatment of different crude sources
- security of energy supply

Sincerely,



Dr. Rick Hyndman
Senior Policy Advisor, Climate Change and Air Issues