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Infrastructure

September 23, 2009

Mike Smith
Deputy Director
Fuels and Transportation Division
California Energy Commission
1516 Ninth Street, MS-27
Sacramento, CA 95814

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Dear Mr. Smith,

I write today regarding the California Energy Commission's Alternative and Renewable Fuel and Vehicle Technology Program under AB118, and the importance of supporting the development of more advanced renewable fuels distribution infrastructure.

## Transportation Refueling Infrastructure: Much more than retail infrastructure

The Energy Commission has been working diligently towards developing solicitations to support alternative/renewable fuels and vehicle technologies through AB118. Refueling and recharging infrastructure has been correctly identified as a sector in need of both private and public investment to meet regulatory requirements under AB32 and the Low Carbon Fuel Standard.

Unfortunately, the phrase 'refueling infrastructure' is too often defined in extremely narrow terms, to include only 'point of sale' infrastructure. In essence, the refueling/recharging station itself. This overtly narrow interpretation excludes other extremely critical elements of the fuel supply chain infrastructure that also require tremendous levels of investment in order to meet California's aggressive policy goals.

Primafuel is a California-based renewable fuels technology and infrastructure company focused on delivering verifiable low-carbon fuels to California fuel users. Primafuel is currently developing the first fully permitted marine fuel distribution terminal in California in nearly a quarter of a century.

We strongly believe that renewable fuels distribution infrastructure (bulk terminals) must be expanded in <u>capacity</u>, <u>logistical flexibility</u>, <u>and sophistication</u>, in order to satisfy the needs of consumers and regulators under AB32 and the Low Carbon Fuel Standard.

## Fuel Storage and Distribution Infrastructure

Allow me to call attention to the Energy Commission's Draft Transportation Forecasts and Analysis for the 2009 Integrated Energy Policy Report (IEPR 2009). This draft report highlights a number of important issues:

- 1. Today's renewable fuels storage and distribution infrastructure in California is almost entirely designed for importation of corn ethanol from the Midwest. 1
- 2. "LCFS will change the mix of ethanol types that will be used in California, namely cornbased ethanol from the Midwest will become increasingly difficult to use, while ethanol from Brazil... will become increasingly attractive."
- 3. LCFS will dramatically increase the volume of renewable fuels used in the state in the near term. This requires significant change to California's logistical infrastructure for the

<sup>&</sup>lt;sup>1</sup>California Energy Commission, <u>Transportation Energy Forecasts and Analysis for the 2009 Integrated Energy Policy Report (draft)</u>, 4, 14, 16, 76.

<sup>&</sup>lt;sup>2</sup>lbid 16

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redistribution of ethanol to enable both "greater quantity and flexibility...within the next 6 to 18 months."

- 4. Conversion of existing terminal infrastructure from petroleum to renewable fuels "would reduce the ability of individual marine facility operators to import other petroleum products, unless overall import capacity was to increase." 4
- 5. There are presently insufficient new-build or expansion projects underway to facilitate this change.
- 6. In reference to Primafuel's terminal project the CEC has stated that "the proposed... renewable fuels hub terminal would greatly increase the marine ethanol import capability... such that there should be sufficient capacity to receive Brazilian ethanol over the near to mid-term period."<sup>5</sup>

In short, California's bulk liquid terminal infrastructure must expand in both capacity and logistical flexibility in order to meet AB32 and LCFS requirements. Primafuel's West Sacramento project is designed to address these specific needs.

## Smarter Distribution Infrastructure to Verify Carbon Reductions and Sustainability

As pointed out in the April 2009 document CEC-600-2009-008-CMF, ""California will need strategic deployment of blending and storage terminals to increase the availability of biodiesel/renewable diesel to customers. A tracking method will be needed to verify environmental sustainability impacts of all feedstock sources and will be the subject of work under an AB 118 sustainability program." This comment is well stated, but the sentiment holds equally (if not more) true for ethanol and other renewable fuels, not just imported feedstocks.

The majority of California's bulk terminal infrastructure operators do not have systems in place that would allow for accurate and transparent reporting of chain-of-custody of individual loads of various low-carbon renewable fuels. In order for regulated parties under LCFS to meet ARB's requirements, these tracking systems must be both reliable and cost effective. These systems must fold seamlessly in parallel with or as part of a company's current business processes such as inventory, shipping, purchase orders, invoices, LCA performance, and other documentation, which also must tie into California's Physical Pathway and Volumetric Tracking system. As such, Primafuel has been in advanced discussions with a number of leaders in the supply chain including producers of low-carbon fuels, bulk terminal storage, blending, and distribution, and retail distribution of E85 and biodiesel blends across California. Primafuel is also strategically engaged with the national leader in chain-of-custody data management used in the enforcement of the National Renewable Fuel Standard.

California's Air Resources Board has done tremendous work on life-cycle GHG emissions assessment of various fuel pathways. However, there is still significant work to be done to demonstrate that these fuels can be produced or imported in the state, be blended, and ultimately used in California. In order to prove the viability of LCFS as an enforceable policy, there must be a demonstration of this physical pathway and data-management system. It is our view that a consortium of leaders across the low carbon fuels supply chain (producers, importation/storage, blending/distribution, and retail) should be engaged to execute such a demonstration. In fact with regards to Primafuel's advanced distribution terminal project, a senior Air Resources Board official wrote "the success of your project... is important to the successful implementation of the LCFS."

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<sup>&</sup>lt;sup>3</sup>lbid 4

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<sup>6</sup> lhid 23

<sup>&</sup>lt;sup>7</sup> Private correspondence with Dean C. Simeroth, Chief of Criteria Pollutants Branch, California Air Resources Board

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## Conclusion

California's bold moves towards creating a low-carbon economy will require strong leadership and significant investments. The ARB has invested significant resources to understand upstream impacts of various fuels from feedstock to production, and downstream impacts of various fuels including tail pipe emissions. It is the often-neglected fuel and energy infrastructure linking producers and users that will prove critical in determining the effectiveness of these new regulatory requirements. We therefore implore the Energy Commission to consider the use of AB118 funds to support the increased <u>capacity</u>, <u>logistical flexibility</u>, <u>and sophistication</u> of California's bulk transportation fuels infrastructure.

Please feel free to contact me with any questions or comments at (562) 683 3473 or rahul.iyer@primafuel.com

Very best regards,

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