



February 12, 2009

Dr. Manisha Singh, Air Pollution Specialist
California Air Resources Board
1001 I Street, PO Box 2815
Sacramento, CA 95812
Re: Low Carbon Fuel Standard

Dear Dr. Singh:

I am writing to comment on the Low Carbon Fuel Standard (LCFS) program on behalf of [Plug in America](http://pluginamerica.org), a non-profit organization that represents consumers in advocating for a shift to vehicles that run on clean, affordable, domestic electricity.

The State of California's LCFS will be a model for the rest of the United States, so it is especially important that the LCFS accurately and fairly assess *all* of the emissions associated with each fuel and its use. We have reviewed the current LCFS language and technical metrics, and determined that there are three key elements that are crucial to achieving a fair LCFS, and deserve emphasis.

Each of the following elements is essential to ensure that the LCFS is not biased in favor of some fuels to the detriment of others, and to make sure that we consider all of the associated emissions. We request that these be included in the final drafting of the Standard:

- **Upstream emissions:** Emissions from the production of fuels are a critical component of evaluating carbon emission standards to ensure a comprehensive "well to wheels" assessment.
- **Drive train efficiency:** Calculation of the carbon metric must include the drive train efficiency for each fuel type to fully estimate carbon emissions.
- **Land Use:** Despite the uncertainties in existing life-cycle analysis, estimates must incorporate both direct and (well-defined) indirect land usage. As this type of analysis evolves and scientific understanding increases in this area, the factor may be modified to incorporate more accurate estimates and reduce the error margin.

Plug In America supports the conceptual need for the LCFS. We urge you to provide an impartial analysis of, and impartial standards for, energy and fuel alternatives by incorporating the elements we've described above.

Feel free to call me if you'd like to discuss this. Thank you for your consideration.

Sincerely,

Jay Friedland
Legislative Director, Plug In America
jay@pluginamerica.org
(831) 420-1042