

December 7, 2010

Chairman Mary Nichols and Members of the Board  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95812

**RE: Recommendation to require fuel providers to hold allowances to cover the greenhouse gas emissions released as a consequence of the use of transportation biofuels.**

Dear Chairman Nichols and Members of the Board

The undersigned organizations appreciate the opportunity to provide comments to the Air Resources Board regarding the proposed treatment of transportation biofuels as “zero emissions” under the AB 32 cap and trade proposed rule. It is well understood, for example, that CO<sub>2</sub> emissions as a result of using ethanol varies dramatically depending on how the ethanol is produced. This is also the case for other types of biofuels. We strongly recommend that the ARB require fuel providers to hold CO<sub>2</sub> emission allowances to cover the GHG emissions released into the atmosphere as a consequence of the use of transportation biofuels.

We also note that under Section 95852.2, biodiesel and ethanol are the only biofuels addressed in the proposed regulation. Other types of biofuels already commercialized or soon to be commercialized – such as (non-esterified) renewable diesel and biobutanol, etc. – are not addressed by the proposed regulation. We further note that, under Sections 95852.2 (b) and (c) all “biodiesel” and “fuel ethanol” are fully exempt from compliance obligations. Ethanol made from cellulosic materials, corn starch or sugar cane are all treated as “zero” emissions even though it is well understood that ethanol from these different sources result in dramatically different impacts on GHG emissions. The same is true for biodiesel derived from virgin oils, tallow, or waste oils. According to ARB’s own analysis, ethanol made from corn starch can actually increase the amount of carbon dioxide released into the atmosphere.<sup>1</sup> While ARB’s analysis shows that both biodiesel and renewable diesel derived from soybeans provide small reductions in emissions, biomass-based diesel alternatives derived from sources such as palm oil grown on former tropical forest or peatland could substantially increase emissions.<sup>2</sup> As a consequence, exempting all ethanol and biodiesel from carbon allowance obligations could have the perverse effect of incentivizing the greater use of ethanol and biodiesel, regardless of whether they can contribute to reduced GHG emissions or not.

In addition, CARB’s projected baseline emissions inventories do not appear to account for the expected shift from petroleum transportation fuels to biofuels in the future (see ethanol line, [http://www.arb.ca.gov/cc/inventory/data/tables/2020\\_ghg\\_emissions\\_forecast\\_2010-10-28.pdf](http://www.arb.ca.gov/cc/inventory/data/tables/2020_ghg_emissions_forecast_2010-10-28.pdf)). While some of this increase may be accomplished with lower carbon biofuels, this shift would set back CARB’s efforts to achieve 2020 GHG goals unless transportation biofuels are included in cap and trade or the overall level of the cap and trade is reduced to account for leakage due to expected increasing levels of transportation biofuels.

Consequently, we strongly recommend that emissions from all transportation liquid fuels be treated equally and fuel providers should be held accountable under the cap for the carbon emissions of all biofuels. Suppliers of biofuels should be able to apply for credits for certain fuels using a emission crediting system

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<sup>1</sup> CARB, Carbon Intensity Lookup Table for Gasoline and Diesel, and their Fuel Substitutes, available at: [http://www.arb.ca.gov/fuels/lcfs/121409lcfs\\_lutables.pdf](http://www.arb.ca.gov/fuels/lcfs/121409lcfs_lutables.pdf), and Lifecycle Analysis - Fuel Pathways available at: <http://www.arb.ca.gov/fuels/lcfs/workgroups/workgroups.htm#pathways>

<sup>2</sup> Eg, Searchinger, 2010. Biofuels and the need for additional carbon., Environ. Res. Lett. 5 (April-June 2010) 024007 doi:10.1088/1748-9326/5/2/024007; Butler et al, 2009. REDD in the red: palm oil could undermine carbon payment schemes. Conservation Letters., 2(2):67–73; Wicke et al, 2008., Different palm oil production systems for energy purposes and their greenhouse gas implication., Biomass Bioenergy 32:1322–1337; Holly K Gibbs, et al, 2008. Carbon payback times for crop-based biofuel expansion in the tropics: the effects of changing yield and technology., Environ. Res. Lett. 3 034001; Beer et. al., 2007. The greenhouse and air quality emissions of biodiesel blends in Australia., CSIRO Report Number KS54C/1/F2.27. August 2007.

consistent with adopted emission factors, the best science, and verifiable methodologies. CARB's Low Carbon Fuel Standard is a good example of how credits for low-carbon fuels could be accounted for.

Treating all transportation biofuels as zero emissions is not supported by the best science and the ARB's own analysis. It is critical to the integrity of the AB 32 program that ARB not create an emissions loophole for transportation biofuels. Thank you for considering our comments.

Sincerely,

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Environmental Defense Fund

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