



September 9, 2009

Senator Barbara Boxer
United States Senate
112 Hart Senate Office Building
Washington, D.C. 20510

Senator John F. Kerry
United States Senate
218 Russell Building
Washington, D.C. 20510

RE: Indirect Land Use Change & Fair Carbon Accounting Under the Federal RFS

Dear Senator Boxer and Senator Kerry,

As leading Massachusetts and California-affiliated companies in the advanced biofuel sector, we are writing to clarify our position regarding the enforcement of indirect land use change (iLUC) penalties against biofuels under the amended Renewable Fuel Standard (RFS). As you know, this issue was at the center of negotiations between Chairman Waxman and Chairman Peterson pursuant to the American Clean Energy & Security Act, and was discussed in recent Senate committee hearings.

The Energy Independence and Security Act of 2007 expanded the federal RFS so that by 2022, the United States will use 36 billion gallons of renewable fuels each year. The intent was to reduce foreign oil dependence, create jobs and stimulate advanced biofuel commercialization. The Act contains aggressive greenhouse gas (GHG) requirements for newly produced biofuel gallons, ranging from 20-60 percent reductions in comparison to a 2005 gasoline or diesel baseline. In establishing the GHG thresholds, Congress clearly intended for EPA to conduct a fair, science-based comparison between a gallon of biofuel and a gallon of petroleum-derived fuel.

The science of carbon accounting is complex. However, it is clear that a valid comparison of two types of fuel depends on a common set of system boundaries so that one fuel is not debited for a category of emissions not enforced against the other fuel. Symmetrical and dependable carbon accounting is particularly important for advanced biofuel companies, which rely on investments made in response to, but executed well in advance of, a regulation like the RFS. Inconsistent carbon accounting methodologies will chill critical investments in the advanced biofuel sector, which in turn will put the RFS at risk.

Unfortunately, the legitimate concern about land use and forest protection that has emerged over the last two years has complicated the science of carbon accounting and made well-intentioned efforts to improve U.S. fuel policy more controversial. EPA's recently proposed RFS rule offers case in point. While we commend EPA for its preliminary efforts to consider all possible carbon impacts from transportation fuels, their current methodology treats biofuels and petroleum-derived fuel inconsistently. The point of controversy is EPA's preliminary decision to enforce "indirect land use change" penalties against biofuels. This is problematic for three

reasons: (1) biofuels are being penalized for indirect carbon effects while petroleum is not, setting up an inconsistent system boundary and an asymmetrical comparison between the fuels; (2) indirect effects are incredibly difficult to predict with any precision, especially using economic models not designed for direct regulation; and (3) there are public policy questions related to the fact that indirect land use change is not the land cultivated to produce biofuel feedstock, but rather is the land expansion theoretically occurring on the margins of the agricultural sector for food, feed and fiber production, allegedly driven there by higher biofuel demand; as such, indirect land use penalties on biofuels amount to shifting the direct land use impacts of food, feed and fiber production to the biofuels carbon score without clearly establishing cause and effect.¹ Carbon shifting also confounds the underlying regulatory principle of “polluter pays” and raises major carbon accounting problems within the context of a carbon cap and trade program.

It is also clear that “land use change” is not the only significant indirect carbon effect of using more biofuels. For example, using more biofuel replaces demand for the next gallon of petroleum introduced into the system (i.e. the marginal oil gallon), which will be produced using far more carbon-intensive practices (e.g. tar sands, thermally-enhanced oil recovery, heavy crude, etc.). Crediting biofuels for this real world indirect benefit also corrects the asymmetry of comparing marginal biofuel gallons to average 2005 gasoline or diesel, which is a mythical baseline that will get much dirtier over time. Even Saudi Arabia, home to the largest light crude reserves in the world, is beginning to move away from light sweet to sour fossil crude oil.

Proponents of assessing indirect effects penalties against biofuels often argue that they only impact traditional biofuels like grain ethanol, and actually help advanced biofuels. It is true that conventional biofuels bear the brunt of iLUC penalties to date. However, selective enforcement of indirect effects also threatens the advanced biofuels sector. For example, some environmental groups would like to see a Low Carbon Fuel Standard (LCFS) eventually replace the federal RFS. However, preliminary numbers released as part of the California LCFS rulemaking indicate that selective enforcement of indirect effects increases the carbon score of some advanced biofuels by more than 200 percent. This selective penalty erases or greatly reduces the carbon-advantage advanced biofuels have over electricity, hydrogen and natural gas, which are not being debited for indirect carbon effects of any kind. To be clear, we strongly support “full lifecycle carbon accounting” for all fuels (including the land used to produce biofuel feedstock) and oppose efforts to shield biofuels from legitimate sources of emissions. However, the definition of “full carbon lifecycle” must be the same for all fuels, and indirect carbon effects should not be enforced selectively or prematurely on a temporary or permanent basis. Asymmetrical carbon accounting will only undermine promising new fuel policies and weaken capital investments in advanced biofuels.

As an emerging fuel sector, we are eager to compete in the marketplace and generally support policies that properly account for the carbon impacts of bio- and petroleum-based fuels. Indirect effects need not be ignored, but the misapplication of indirect effects will result in serious and unintended consequences. For example, attempting to protect undisturbed lands by adding the direct land conversion emissions of the food, feed and fiber industry to the biofuels carbon score (via indirect land use change penalty) will not change the behavior of these industries or

¹ A direct carbon effect is the carbon emitted during the production and use of the particular fuel, from cradle to grave, including land conversion for biofuel feedstock (direct land use). The cumulative score is the fuel’s full lifecycle carbon score. An indirect carbon effect is an economically-derived market-mediated ripple effect in the marketplace, isolated by economic models for analytical purposes but actually occurring as a result of a confluence of worldwide economic and behavioral variables.

dissuade illegal logging and cattle ranching, which are the direct cause of rainforest degradation, but will destabilize a promising new, low-carbon renewable fuel industry. A better way to prevent indirect land use change is with dynamic treatment of *direct* land use, so that biofuel feedstock producers have policy incentives to use marginal or idle land, crop rotations, and less carbon-intensive farming, which will in turn minimize the land footprint (and indirect effects) of future biofuel gallons. With regard to the world's most important and diverse ecosystems, these resources should be protected directly from the practices that threaten their existence.

As you know, an agreement between Chairmen Waxman and Peterson would prohibit EPA from considering GHG emissions from international indirect land use changes when implementing RFS II for at least 5 years. The agreement calls on the National Academy of Sciences to lead a comprehensive study of indirect carbon effects. The issue of indirect land use change has already surfaced in Senate deliberations about climate change legislation. It is critical to the advanced biofuel industry that any climate or energy bill coming out of the U.S. Senate protects the advanced biofuels industry from asymmetrical carbon accounting and embodies a steadfast commitment to a level regulatory playing field.

The advanced biofuel sector looks forward to meeting the challenge set forth by the federal RFS and playing a central role in the Obama Administration's clean energy agenda. We hope you will support our efforts and look forward to working with you.

Sincerely,

Brooke Coleman

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