

**List of written comments submitted for April 8, 2010 EWG meeting:**

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1.	Tom Darlington	Air Improvement Resources	Question for elasticity group
2.	Tom Darlington	Air Improvement Resources	Coproducts group
3.	Tom Darlington	Air Improvement Resources	Land cover (1)
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6.	Tom Darlington	Air Improvement Resources	Carbon emission factors group
7.	Robert Winnson		Expert Working Group - LCFS Land Use Question
8.	R. Brooke Coleman	New Fuels Alliance	Question on Uncertainty
9.	R. Brooke Coleman	New Fuels Alliance	Question on Other Fuels
10.	Tom Darlington	Air Improvement Resources	Alternative modeling approaches group
11.	Dwight Stevenson	Tesoro Corp.	Question for EWG
12.	Paul Wilkoff		Expert Working Group - LCFS Longterm Timeframe
13.	Paul Wilkoff		Expert Working Group - LCFS of Petroleum
14.	Joe Irvin	California Ethanol Vehicle Coalition	CARB Expert Working Group - 4/8/10 - Public Comment
15.	David E. Bruderly	Bruderly Engineering Associates	Comment for Low Carbon Fuel Standard Expert Workgroup
16.	Dwight Stevenson	Tesoro Corp.	Kudos
17.	Chris Guay	Community Fuels	Comments from EWG Meeting, 8 April 2010

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From: Tom Darlington [tdarlington@airimprovement.com]  
Sent: Thursday, April 08, 2010 9:23 AM  
To: Coastal Hearing Room  
Subject: question for elasticity group

Do you plan to evaluate price/yield elasticities (impacts of a change in price of crop on yield) used in GTAP as well, and why or why not?

Tom Darlington

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From: Tom Darlington [tdarlington@airimprovement.com]  
Sent: Thursday, April 08, 2010 9:56 AM  
To: Coastal Hearing Room  
Subject: coproducts group

Does the workgroup plan to evaluate how coproducts are used internationally as well as domestically? A lot of dried distillers grains are being shipped outside of the U.S., i.e., to Mexico and China. The indirect land use effects of these could be different internationally than domestically, because of the lower crop yields in other countries.....

Tom Darlington

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From: Tom Darlington [tdarlington@airimprovement.com]  
Sent: Thursday, April 08, 2010 10:14 AM  
To: Coastal Hearing Room  
Subject: land cover

Since CARB is using GTAP, why isn't this group evaluating what land types are currently included or not included in GTAP? For example, GTAP does not currently include idle land, or CRP land. Not including these land cover types in GTAP impact the land use changes Will this be addressed by the group?

Tom Darlington

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From: Tom Darlington [tdarlington@airimprovement.com]  
Sent: Thursday, April 08, 2010 10:27 AM  
To: Coastal Hearing Room  
Subject: land cover

Please ask the GTAP folks what they are doing specifically about including idle land in the US and how that is handled in GTAP.....

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From: Tom Darlington [tdarlington@airimprovement.com]  
Sent: Thursday, April 08, 2010 10:37 AM  
To: Coastal Hearing Room  
Subject: land cover

Farzad did not answer the question about idle land. He did answer the question about CRP.

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From: Tom Darlington [tdarlington@airimprovement.com]  
Sent: Thursday, April 08, 2010 11:44 AM  
To: Coastal Hearing Room  
Subject: carbon emission factors group

Does this group plan to address disposition of forest in wood products or landfills?

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**From:** Robert Winnson [bobwinnson@gmail.com]  
**Sent:** Thursday, April 08, 2010 11:55 AM  
**To:** Coastal Hearing Room  
**Subject:** Expert Working Group - LCFS Land Use Question

California Air Resources Board (ARB) is a governmental agency tasked with protecting the taxpaying public's best interests. Corporations are owned by shareholders and tasked with providing a maximum profit for shareholders. According to published and public information, ARB Chairperson Mary Nichols is married to John Daum, counsel for Exxon in the Valdez oil spill case that saved them hundreds of millions of dollars in punitive damages in 2009 with a favorable ruling for Exxon. He received a Clay Award in 2009 for doing so, and his wife Mary Nichols received a Clay Award in 2009 for her work at ARB. According to ARB records, Mary Nichols owned millions of dollars of shares in oil and energy-related companies before and after becoming ARB chairperson. Though at one point after coming to ARB she was forced to sell the positions, she may or may not own oil company shares now and we do not know her future investment plans. ARB voting member and influential researcher Daniel Sperling is the head of the UC Davis Institute of Transportation Studies, which receives significant funding from domestic and foreign oil companies, according to the university's website. Sperling does not provide an unbiased viewpoint on biofuels, as he demonstrates in a biofuels chapter in his own book "Two Billion Cars." Timothy Searchinger is an environmental activist attorney who has worked for the Environmental Defense Fund, which receives significant funding from non-for-profit foundations that receive significant funds from oil companies as well as food companies. He was given the title "Research Scholar" by Princeton University. According to a report entitled "Big Oil U." provided by the Center for Science in the Public Interest, Princeton is one of the highest benefactors of hundreds of millions of oil company corporate donated funds. One such project is a \$20 million Carbon Mitigation Initiative with funds from BP. Numerous other projects with hundreds of millions of corporate oil company funds are underway at universities across the nation, and particularly at Stanford, UC Berkeley, and UC Davis. Numerous other environmental groups supportive of ARB's negative findings for biofuels also receive significant funding through these same oil company funded foundations, according to publicly available information. Searchinger also worked to remove a million acres of crop land from production through programs to protect the environment—perhaps a worthy cause but also an example of how Searchinger is not favorable towards domestic crop production. ARB and Daniel Sperling choose to use this attorney's cherry-picked findings that incorporate the most negative indirect land use change research that they can find, while ignoring the research and public statements of hundreds of other real scientists with decades of work in this field, such as Michael Wang of Argonne National Laboratory. I encourage the Working Group to strongly consider the updated research that will soon be available to them from Argonne. The pathway ARB chooses for petroleum uses today's best outcome, while petroleum is a worldwide commodity of declining supply and California's use of petroleum indirectly causes an increase in the use of higher polluting heavy petroleum sources such as Canadian tar sands and oil shale. Some biofuel pathways that oil companies may control in the future are given positive outcomes—the ones that oil companies are making very large investments in. What is the public to make of these publicly documented, significant conflicts of interest in light of ARB's negative findings directed towards domestic renewable corn ethanol and soy biodiesel (which the oil companies cannot easily control and make as much profit from), while ARB uses only 1 pathway for petroleum? Will the Working Group work to remove the influence that these conflicts present so that the taxpayers are correctly protected?

Thank you,

Bob Winnson

P.S. I am forwarding this e-mailed question also to an attorney and others who can document that it was sent and if it was presented, answered, and properly uploaded to ARB's website, as well as to not be deleted in the future from the website. I have listened in to the webcast and note that others are making statements that take several minutes and then ask their question and expect to receive the same treatment, especially as a California taxpayer who is to be protected by ARB.

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**From:** Brooke Coleman [bcoleman@newfuelsalliance.org]  
**Sent:** Thursday, April 08, 2010 1:27 PM  
**To:** Coastal Hearing Room  
**Subject:** Question on Uncertainty

Question for ARB staff and Professor O'Hare: the importance of understanding the uncertainty of the models themselves has been raised repeatedly over the last 12 months. ARB staff responded in the FSOR that it did not complete its uncertainty analysis. Can ARB staff and/or Professor O'Hare clarify exactly what work has been done internally, or by its contractors at EBI/UC-Berkeley, on uncertainty analysis, so that it is clear what gaps need to be filled by the group and stakeholders?

Thanks.

R. Brooke Coleman  
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**From:** Brooke Coleman [bcoleman@newfuelsalliance.org]  
**Sent:** Thursday, April 08, 2010 1:44 PM  
**To:** Coastal Hearing Room  
**Subject:** Question on Other Fuels

Question for ARB staff and Professor O'Hare: ARB has said that it has looked at some indirect effects for other fuels. Can ARB staff clarify exactly what work has been done already, or by its contractors at EBI/UC-Berkeley/ITS, on indirect effects of other fuels, so that it is clear what gaps need to be filled by the group and stakeholders? Thanks.

R. Brooke Coleman  
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**From:** Tom Darlington [tdarlington@airimprovement.com]  
**Sent:** Thursday, April 08, 2010 1:59 PM  
**To:** Coastal Hearing Room  
**Subject:** alternative modeling approaches group

When EPA evaluates a biofuel feedstock, it not only evaluates the feedstock, it also evaluates its impacts on other agriculture and livestock, for example, reductions in rice methane and livestock methane for an increase in corn. When CARB evaluates corn ethanol, it ignores changes in

"other agriculture" and livestock. The difference is in the boundary definition, rather than differences in "models." Will different boundary condition definitions be a part of this groups recommendations to CARB?

Tom Darlington

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**From:** Stevenson, Dwight [Dwight.D.Stevenson@tsocorp.com]  
**Sent:** Thursday, April 08, 2010 2:03 PM  
**To:** Coastal Hearing Room  
**Subject:** Question for EWG

I did not notice if any part of the work plan considered the effect that water has when it is a limiting reagent for carbon capture. For example, in an area where water is scarce or in limited supply, if a relatively water hungry corn crop takes up the available water, that would mean a larger number of acres would no longer be used for other crops. The net local effect would be that carbon sequestration would be shifted from other crops to corn with a net reduction in sequestration. The net global effect would be that the other crops would need to grown elsewhere and that would lead to net effects on land use to bring more land into crop production.

It appears that the incremental corn production and ethanol production has dramatically increased water use as witnessed by studies over the last few years. How is the high water use for the corn to ethanol pathway being factored into the indirect effects and is localized limited water supply being considered with respect to carbon capture?

Dwight Stevenson

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**From:** Paul Wikoff [mailto:prwikoff@yahoo.com]  
**Sent:** Thursday, April 08, 2010 2:06 PM  
**To:** coastalm@calepa.ca.gov  
**Cc:** LCFS Expert Workgroup@ARB  
**Subject:** Expert Working Group - LCFS Longterm Timeframe

Petroleum has been used as a motor fuel for over a hundred years, and biofuels for just as long (Otto's ethanol engine, Ford's Model A flex fuel vehicle, and Diesel's peanut oil engine). Therefore it seems that using a short term such as 30 years for indirect land use change impacts for biofuels has no real basis in scientific and historical precedence. Over the next hundred years as petroleum becomes more difficult to find and much more polluting (tar sands and oil shale), corn and soy, as well as other biofuels feedstocks, will become more available, plentiful, and even more environmentally advantageous. It is important that we think not only of our generation, but of the generations following ours (that's what I attempt to do as a new parent, and likely many of you do also). Will the Expert Working Group please consider using a long term, 100 year-plus timeframe for assessing the positives and negatives of all the fuels?

Thank you,

Paul Wikoff

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**From:** Paul Wikoff [mailto:prwikoff@yahoo.com]  
**Sent:** Thursday, April 08, 2010 2:07 PM  
**To:** coastalm@calepa.ca.gov  
**Cc:** LCFS Expert Workgroup@ARB  
**Subject:** Expert Working Group - LCFS of Petroleum

I am concerned that the petroleum pathway for the LCFS value is far lower than should be considered. Since petroleum is used throughout the world, our use of it spurs the demand for it to be drilled for everywhere. Each marginal increase in demand causes increased production not from Californian oilfields, but from much more distant and polluting sources such as tar sands and oil shale. The LCFS value for petroleum should not therefore be equal to that of California-only petroleum, but actually that of the marginal petroleum needed to supply our demand—that of other nations' oil fields and also tar sands and oil shale. Overlooking this very important aspect sets the LCFS value for petroleum dangerously far too low.

Thank you,

Paul Wikoff

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**From:** Joe Irvin [mailto:irvinjj@gmail.com]  
**Sent:** Thursday, April 08, 2010 2:28 PM  
**To:** LCFS Expert Workgroup@ARB  
**Cc:** Montoya, Val@ARB  
**Subject:** CARB Expert Working Group - 4/8/10 - Public Comment

(Hi Valarie, appreciate the opportunity to add this to the public record ... it is simply a comment - no question. JI)

Hello CARB Expert Working Group - please find below my comment:

We appreciate CARB's effort to bring a broad-based panel of experts together to help refine and improve the Low Carbon Fuel Standard approved last year. The California Ethanol Vehicle Coalition is particularly focused on your willingness to rethink and improve the land use and indirect effect analysis of transportation fuels employed to arrive at your initial conclusions.

CEVC believes the existing regulations cling too closely to discredited indirect land use change theories. There is now new scientific evidence that undermines the entire concept of ILUC -- and the shame is that CARB knew the science on ILUC was premature when they adopted the LCFS. In a sense, this rush to judgment threw quite a blanket on early efforts to launch a viable ethanol fuel infrastructure for Flex-Fuel Vehicles. Witness the recent, ill-advised decision by the Southern California Association of Governments to reject more than \$15 million in federal and state grants that would otherwise have funded E85 infrastructure, created more than 200 jobs, and displaced 7 million gallons of petroleum per year.

This is too important a regulation to get wrong. Therefore, we encourage CARB to work with the ethanol industry to allocate resources for a thorough research deployment plan that is capable of looking at the ILUC theory from all angles, across all fuel types, in as transparent a way as possible. We fully support a research deployment plan that plays out over a time period that is appropriate to answer the questions that still exist among the scientific community with regard to the ILUC and to achieve these vitally important goals for the betterment of the nation.

From what I'm hearing today, you seem to be aware of and receptive to these concerns. Thank you for the opportunity to comment.

Joe Irvin  
executive director,  
California Ethanol Vehicle Coalition  
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**From:** David E. Bruderly [Dave@wisegasinc.com]  
**Sent:** Thursday, April 08, 2010 2:29 PM  
**To:** ewg@ard.ca.gov; Coastal Hearing Room  
**Subject:** Comment for Low Carbon Fuel Standard Expert Workgroup

Indirect Effects and / or Modeling:

The plug-in hybrid electric vehicle has been touted as an ultra-low carbon vehicle. But it is very difficult to compare the carbon footprint of this type of vehicle with a conventional vehicle.

The lifecycle emissions of plug-in hybrid vehicles are determined by a combination of the carbon intensity of the electricity source and the emission from its onboard motor fuel that augments the initial battery charge. Does the group intend to evaluate and recommend a methodology that allows consumers to evaluate the carbon footprint of plug-in hybrids given the carbon intensity of source of electricity, the carbon intensity of the onboard motor fuel and the anticipated driving cycle?

David E. Bruderly PE  
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**From:** Stevenson, Dwight [Dwight.D.Stevenson@tsocorp.com]  
**Sent:** Thursday, April 08, 2010 2:52 PM  
**To:** Coastal Hearing Room  
**Subject:** Kudos

Bob and Jim,

I think my IQ increased by 5 numbers today just by listening to all the smart people. This is an impressive group. And they are a lot more interesting when the political noise dies down and the work of science holds the floor.

I think it was a smart move at the last meeting to quickly push the work into the groups. The work is bringing out a good spirit – and some very impressive intellectual horsepower.

Nice work today, guys.

Dwight Stevenson

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**From:** Chris Guay [mailto:chrsg@communityfuels.com]  
**Sent:** Friday, April 09, 2010 12:21 AM  
**To:** LCFS Expert Workgroup@ARB  
**Subject:** Comments from EWG Meeting, 8 April 2010

I am writing to summarize my statements given during the public comment period of the LCFS EWG meeting held on April 8, 2010:

As a California-based biodiesel producer, we foresee several possible scenarios under which we would supply LCFS regulated parties with fuel produced from feedstocks that do not currently have carbon intensity values listed in the ARB lookup tables. The LCFS regulations include provisions for determining carbon intensity values for alternative fuels/pathways (i.e., Methods 2A and 2B), and individual parties are encouraged to initiate a dialogue with ARB for assistance in determining carbon intensity values for the specific fuels that they intend to produce/supply.

While this general approach makes sense, I do not have a clear understanding of the specific steps that will be required to establish a custom carbon intensity value for a particular fuel – especially the determination of indirect land use change effects for biofuels derived from alternative crops (e.g., Camelina, jatropha, etc.) and/or next-generation feedstocks (e.g., algal bio-oils). What level of data will be considered sufficient to support indirect land use change calculations? What will be done in cases for which the GTAP model is not considered appropriate for assessing the indirect land use changes associated with the feedstock from which the fuel is produced? What kind of time frame is anticipated for the process of receiving ARB's official recognition of a custom carbon intensity value?

From a biofuel producer's perspective, there exists concern that establishing a custom carbon intensity value for an alternative fuel/pathway could evolve into a lengthy, costly, complicated process – particularly if ARB becomes inundated with requests to examine a large number of proposed alternative fuel pathways from various fuel producers and suppliers. If the process is inordinately burdensome, it could actually act as a disincentive to produce and use fuels derived from alternative feedstocks that have relatively low land use change effects but are not yet officially recognized by ARB. As the EWG continues its work, it would be very helpful if ARB can release further specific details about what will be expected from regulated parties concerning the incorporation of land use change effects into custom carbon intensity values for fuels derived from alternative feedstocks.

Thank You,  
Chris

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**Chris Guay, Ph.D.**  
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