A 2nd Opinion, Inc.
Clean Fuels and Regulatory Issues
Cal Hodge, President

Date: September 27, 2011

To: John Courtis
California Air Resources Board
jcourtis@arb.ca.gov

cc: Jim Duffy
California Air Resources Board
jduffy@arb.ca.gov

From: Cal Hodge
A 2nd Opinion, Inc.

Subject: Comments re: LCFS LUC Workshop, September 14, 2011

Introduction

I monitored the LCFS LUC Workshop via the webcast. I want to thank CARB staff and the people around the world who have worked together on the new GTAP model. I am encouraged to see that the new model is predicting less land use change in hectares than the old model did for a similar demand shock. I am also encouraged that the carbon emissions per hectare are projected to be lower. I look forward to seeing the reduced carbon intensity (CI) contribution of indirect land use change (ILUC).

Discussion

I am concerned that the CARB staff work to date has not included rapeseed/canola and palm. These are proven global feedstocks. I strongly recommend that the GTAP model work be extended to include them because it will not be complete until it does.

I noticed that Indonesia and Malaysia are being singled out for separate treatment. It is good that you still working on that analysis because you can incorporate the latest changes and knowledge. But, all of us need the analysis to have been completed yesterday. There are indications that the situation in Southeast Asia is changing rapidly and the historical record is not a good basis upon which to set future policy. CARB staff needs to investigate this changing situation before creating a baseless economic disadvantage for those countries and to do it quickly.

I simply cannot formulate specific comments regarding the Southeast Asia issue and its implications on palm oil in time to meet the deadline for written comments. Therefore, I reserve the right to comment on this issue at a later date. The remainder of my comments today will focus on why the lower CIs are good for California.

1998 – 2011
Celebrating 13 Years of Making Difficult Decisions Easier
19 Serenade Pines Place ♦ The Woodlands, Texas 77382-2005
Phone: 281.844.4162 ♦ Fax: 281.966.6914 ♦ Email: A2ndOpinionInc@aol.com

The lower overall CI that should result from this work will make each gallon of renewable fuel more effective in helping motor fuel producers meet the LCFS standard and will lower the demand for renewable fuel. Hopefully, for the sake of producers who have invested in biofuel production facilities, CARB's work will be completed in time to discourage over-built production capacity and the increased value of renewable fuel as a more effective LCFS blendstock will offset some of the reduced market value caused by less demand.

Looking at the big picture long term, the possibility of lower CIs for each pathway is encouraging. Lower CIs will lower indirect carbon emissions. (I will explain how shortly.) Due to the myriad assumptions and data that go into the models, there will always be uncertainties concerning the models' output and about the range of correct answers. The people of California need CARB to select the correct answer. To do this, CARB needs to answer the following four questions:

1) What is best for California?
2) What is best for the world?
3) Is it better for the resultant CI to be too high or too low?
4) Can CARB make a science based case that the selected scenario is probable?

With the LCFS in place, CARB can minimize compliance costs, consumer costs, and the negative impact on California's economy and global competitiveness by maximizing the effectiveness of each gallon of biofuel. Doing so will decrease biofuel demand and market price because the market impact of decreased demand will probably outweigh the impact of increased effectiveness. Because CARB is now keeping score on an existing program, California benefits if the models support lower CIs for each pathway.

Globally, the models assume or imply that more biofuel consumption causes more land use change. There is also an underlying assumption that land use change increases carbon emissions. We would not be having this discussion if CARB staff believed either of those two assumptions were false. Therefore, a lower CI will result in less biofuel production and less global land use change carbon emissions because it will take less biofuel to satisfy the LCFS.

As we consider the above statements we must acknowledge that carbon emissions due to land use change are what they are. That is they are independent of a model's output. All models can do, even though they are based upon the best available science, is provide a framework for estimating the numbers. If the CIs produced by the models are too high, the result will be more biofuel production, more land use change and more land use change carbon emissions. If the resultant CIs are too low, there will be less biofuel production, less land use change and less land use change carbon emissions because each gallon of biofuel will be more effective in satisfying the LCFS.

Therefore, because there is a very strong belief that the CI contribution due to ILUC increases the overall CI of each biofuel's pathway, it is best to err on the low side rather

1998 – 2011
Celebrating 13 Years of Making Difficult Decisions Easier
19 Serenade Pines Place ♦ The Woodlands, Texas 77382-2005
Phone: 281.844.4162 ♦ Fax: 281.966.6914 ♦ Email: A2ndOpinionInc@aol.com

than on the high side. The sensitivity analyses indicate there is a lot of flexibility in selecting the final CIs. I urge you to make the realistic but safe choices that are best for California and the world.

If the goal is to maximize fossil fuel displacement regardless of cost to the California consumer – and to what appears to be a very fragile California economy – select high ILUC CIs. In the short term, it will increase the demand for low carbon fuels. But short-term gain often results in long-term pain.

If the goal is to eliminate a particulate feedstock from the biofuel slate regardless of cost to the California consumer – and to what appears to be a very fragile California economy select an ultra high ILUC CI for that feedstock. But never forget, the more biofuels that can compete for a share of the LCFS market the lower consumer costs, the lower compliance costs and the less damage to the California economy.

To provide a basis for avoiding long term pain by not maximizing ILUC CIs, we all need to remember the following two facts:

1) When the LCFS was adopted ILUC carbon emissions were not a part of the debate. The LCFS was based upon direct life cycle analyses (DLCA) not DLCA plus ILUC.
2) The California economy was much stronger. A strong California economy is better for low carbon fuel producers than a floundering California economy. Producers are better off with a smaller market than with no market. Producers are more likely to build capacity in California and create California jobs if the California economy is growing.

Summary

- I look forward to lower land use change CIs.
- The lower CIs that come out of this LUC work will be good for California.
- The GTAP model work needs to include rapeseed/canola and palm.
- It is good that you are still working on the Southeast Asia soil issue. It provides the opportunity to incorporate the rapidly changing situation in that area that causes the historical record to be a poor basis upon which to set future policy. But, the analysis needs to be completed quickly because the answer is long overdue.
- We reserve the right to make more comments at a later date.

Yours Sincerely,

A 2nd Opinion, Inc.

Cal Hodge
President

1998 – 2011
Celebrating 13 Years of Making Difficult Decisions Easier
19 Serenade Pines Place ♦ The Woodlands, Texas 77382-2005
Phone: 281.844.4162 ♦ Fax: 281.966.6914 ♦ Email: A2ndOpinionInc@aol.com