

DRAFT DATA AND ASSUMPTIONS FOR NESCAUM LCFS ANALYSIS

COMMENTS OF THE CENTER FOR NORTH AMERICAN ENERGY SECURITY

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The Center for North American Energy Security ("the Center") is an organization dedicated to environmentally sound development of oil sands, oil shale and similar so-called "non-conventional" resources in North America. The Center submits the following comments on the April 2010 Draft Data and Assumptions for the NESCAUM low carbon fuel standard (LCFS).

1. <u>Scope of analysis</u>. The entire analysis appears devoted to alternative or renewable fuel options. Apparently there would be no effort to model the costs and benefits of a future market that relies on petroleum-based fuels with additional GHG controls, either with or without augmentation by other fuels, tailpipe controls, etc. For example, why is NESCAUM omitting analysis of the effects of a market that increasingly relies on fuels derived from North American sources of sands and shale produced by new, cleaner technologies? Such an analysis would not be any more uncertain than those for some of the other fuels, which NESCAUM admits are subject to great uncertainty. Yet it is essential to understand how the costs and benefits of other options would compare to reliance on petroleum-based fuels.

2. <u>LCFS contributions to GHG emissions</u>. The draft assumes that the NESCAUM region is "closed" and that the LCFS would reduce greenhouse gas (GHG) emissions through a "technology-forcing" role for renewable technologies. However, little evidence is offered to show that the LCFS is in fact likely to play a such a role. Further, even if regional emissions are reduced, crude oil or refined fuels displaced from the region by the LCFS will find markets in other regions. The LCFS will contribute to worldwide GHG emissions to the extent that they are transported to more distant markets. The analysis also does not appear to consider that crude oil, unlike manufactured goods, cannot be branded or traced. If heavier hydrocarbons are diverted to other markets, which convert them to fuels and export them to the U.S., there is no way to identify the associated emissions.

3. <u>Electric vehicle contributions</u>. The analysis considers electric vehicles as a key contributor to emission reductions. However, prior NESCAUM reports have noted that fuels produced in carbon-intensive ways, such as from coal combustion without carbon capture and storage, could increase GHG emissions from transportation. Little evidence is offered that the additional power required by electric vehicles will be generated by energy sources that are less carbon intensive.

4. <u>Data sources</u>. NESCAUM has indicated that the data on which they will rely will be based on published and peer-reviewed sources. However, NREL is then listed as a key data source. In our experience, NREL studies use a wide range of data sources, some of which are outdated or otherwise questionable. We urge NESCAUM to thoroughly evaluate all sources of data used in NREL and other studies on which primary reliance may be placed.

5. <u>Technology targets</u>. As discussed above, NESCAUM has not offered evidence establishing a causal link between emission reductions and the technology that the LCFS seeks to force. But even if such a connection were established, massive levels of investment would be required for development, demonstration and deployment of such technologies. For example, earlier NESCAUM reports have found that if the LCFS is achieved solely with advanced biofuels, approximately 4 billion gallons would be required to achieve a 10% emission reduction by 2020. Similarly, if the LCFS is attained with electric vehicles, approximately 3 million would be needed by 2020. How attainable are these targets, what emission reductions are expected and what would be the cost per ton of emissions reduced? It is likely to be substantial and considerably higher than reliance on CCS and other initiatives for petroleum-based fuels. Yet it appears that these will not be analyzed, as discussed above.

6. <u>Methodologies</u>. The two "reference scenarios" apparently are based on the DOE Annual Energy Outlook 2010, which uses the NEMS model to make projections of U.S. energy supply and demand. However, it appears that the NE-GREET and NE-VISION models would be used for the LCFS cases. The same or compatible models should be used consistently in the analysis. It is also unclear how benefit categories will be quantified and monetized, and what data or analyses will be used for that purpose.

We applaud the stated NESCAUM goal of "maximum clarity and transparency" in conducting this analysis. At this early stage, we do not believe this goal has been attained. We urge NESCAUM to continue to refine its analysis and to consider the comments we have provided above.

Respectfully submitted,

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