



The Center for North American Energy Security
Our Fuels. Our Future.

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NESCAUM PUBLIC MEETINGS LOW CARBON FUEL STANDARD

OCTOBER 2009

COMMENTS OF THE CENTER FOR NORTH AMERICAN ENERGY SECURITY

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 for the consideration of NESCAUM regarding a potential low carbon fuel standard (LCFS) for NESCAUM states.

If NESCAUM decides to proceed with a LCFS, the Center urges adoption of the same carbon intensity value for all petroleum-based fuels, including fuels derived from non-conventional sources. Discrimination among petroleum-based fuels is not necessary to achieve the purposes of a LCFS, and would in fact be counter-productive. It is not needed to control development of unconventional resources in NESCAUM states, as they are controlled directly by applicable state and federal laws and regulations. The primary effect would be to discourage imports to NESCAUM states of fuels derived from other unconventional resources in North America, such as oil sands in Canada or oil shale in the Western U.S. This would have an inflationary effect on fuel prices, as these cost effective North American fuels would not be available on the Northeast market, which depends heavily on imported fuels.

A discriminatory LCFS would not contribute to reduction of North American or worldwide greenhouse gas emissions. Fuels barred from NESCAUM states would simply be sold elsewhere, to other states or foreign countries where controls may be more lax and emissions from fuel transportation increased. The NESCAUM state economies would suffer, but worldwide emissions would not be reduced and in some cases would be increased.

Further, an arbitrary distinction between conventional and unconventional categories is an over-simplification of the suite of petroleum-based refinery feedstocks currently available. The global reality is that feedstocks in general are becoming heavier and sourer regardless of whether they are derived from so-called conventional or nonconventional sources. The past decade has seen significant changes in this regard

that can be expected to continue even more markedly over the period when a LCFS would take effect. Many refineries currently are undergoing substantial modification to process these heavier feedstocks.

A primary concept underlying the proposal of discriminatory standards in other states is the notion that fuels derived from unconventional sources are inherently “dirtier” than fuels derived from conventional sources. This appears to be based on analyses that do not consider promising new technologies or application of mitigation measures or carbon credits or offsets to unconventional fuels operations. The current scientific literature indicates that emission rates from production of unconventional fuels are extremely uncertain, but can be reduced to levels the same as or lower than conventional fuels when such measures are considered.¹

Yet another reason to avoid a discriminatory LCFS is that it would be extremely difficult to administer fairly and effectively. As a result of the regional reliance on imported fuels, NESCAUM states would have great difficulty enforcing such limits on most fuels, as reliance on fungible or imported product makes such a restriction very difficult to monitor or enforce. Many refinery feedstocks are produced, transported, stored, blended and otherwise altered in ways that may not be readily apparent to those conducting the assessments or auditing the work of producers, brokers and other types of vendors. In this system, domestic producers and those from countries with comprehensive reporting systems would be disadvantaged. Similarly, the focus on the carbon footprint alone would work to the disadvantage of feedstocks with low sulfur content or other environmental advantages but higher emissions of greenhouse gases. These issues are likely to result in undesirable outcomes such as discrimination in favor of products from foreign countries with substandard environmental or human rights policies, and against products that have other desirable environmental attributes or emanate from countries with highly developed reporting systems.

It is also apparent that the costs of discrimination against non-conventional fuels would far outweigh the potential benefits, if any. The potential GHG reduction benefits of a discriminatory provision would be negligible. The Department of Energy’s National Energy Technology Laboratory (NETL) recently found that “well-to-tank” (WTT) releases of GHGs contribute only about 20% or less to the total life cycle GHG emissions for each fuel type.² Emissions associated with production of non-conventional crudes are

¹ See Robert H. Williams, Eric D. Larson, and Haiming Jin, *Synthetic fuels in a world with high oil and carbon prices*, prepared for the 8th International Conference on Greenhouse Gas Control Technologies, Trondheim, Norway (June 19-22, 2006); Adam R. Brandt and Alexander E. Farrell, *Scraping the Bottom of the Barrel: Greenhouse gas emission consequences of a transition to low-quality and synthetic petroleum resources*, forthcoming in *Climatic Change*. A recent analysis of the measures currently under consideration in Canada is provided in “Green Bitumen: The Role of Nuclear, Gasification and CCS in Alberta’s Oil Sands,” Canadian Energy Research Institute (February 2009).

² NETL, “Development of Baseline Data and Analyses of Life Cycle Greenhouse Gas Emissions of Petroleum Based Fuels,” p. ES-2 (November 26, 2008).

only a small subset of this category for petroleum-based fuels. Further, the NETL Report concludes that other measures for reducing GHG emissions from transportation fuels would be more effective:

Opportunities for lowering the life cycle GHG emissions from transportation-related fuels will best be achieved through improved vehicle efficiency (e.g., gallons of fuel consumed per mile traveled) or alternative sources of transportation fuels. For example, improving the average gasoline-powered light-duty passenger vehicle efficiency from 21.6 miles per gallon (MPG) to 28.6 MPG, a 7 MPG increase, reduces the life cycle GHG emissions by 20%—equal to the total upstream GHG emissions from well-to-tank. Opportunities for reducing emissions from refining operations are very limited. Petroleum refining operations are one of the most energy efficient chemical conversion processes in the country— averaging around 90% energy efficiency

While the potential benefits of the proposed discrimination against non-conventional fuels would be small, the costs would be substantial. Even if compliance with the proposed LCFS were feasible, the costs likely would cause fuel producers to shift sales to other markets. This would do nothing to address regional or global GHG issues, but is likely to cause a significant increase in fuel costs. A recent study by the John Marshall Institute draws the following conclusions:

Our works shows the LCFS to be prohibitively costly, a highly inefficient means to reduce GHG emissions, likely to produce reactions in the global market that offset its intended environmental benefits, and weakens U.S. energy security by throwing barriers in the way of the exploitation of readily available and secure sources of energy. Simply stated, a national LCFS is bad public policy.³

As discussed above, a substantial and growing portion of U.S. fuel imports are derived from “heavier” petroleum resources or processes in Canada, Venezuela, Ecuador, Mexico and other foreign producers. For example, about 18% of the crude oil, gasoline and diesel fuel imported into the U.S. now comes from Canada. This market share is expected to grow as Canadian oil sands production increases, and Canadian imports supply substantial and growing portions of the fuel demand in some of our northern states, over 50% in some cases. U.S. companies are spending billions to modify their facilities to refine and transport Canadian and other heavier crude oil products. A discriminatory LCFS would severely restrict sales of these fuels. The consequences would include more dependence on oil imports from unstable regions, higher fuel prices and a slap in the face to our Canadian neighbors and other valued trading partners. In addition, this approach could cause a net environmental detriment.

³ John Marshall Institute Policy Outlook, "Economic, Environmental, and Energy Security Consequences of a National Low Carbon Fuel Standard," pp. 5-6 (April 2009). Similar conclusions are drawn in Stephen P. Holland, Jonathan E. Hughes, and Christopher R. Knittel. "Greenhouse Gas Reductions under Low Carbon Fuel Standards?" American Economic Journal: Economic Policy, pp. 106–46 (February, 2009).

Foreign production removed from markets as a result of the LCFS would be shipped to less regulated markets in other states or countries, as discussed above.

For these reasons, the Center urges NESCAUM not to consider a LCFS that discriminates between conventional and non-conventional fuels in the calculation of carbon intensity values, and to adopt a single set of default values that applies to all petroleum-based fuels.

Respectfully submitted,

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