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Via electronic mail

November 10, 2009

Mr. Arthur Marin
Executive Director
NESCAUM
89 South Street, Suite 602
Boston, MA 02111

Subject: Northeast/Mid Atlantic Low Carbon Fuel Standard

Dear Mr. Marin:

NPRA, the National Petrochemical and Refiners Association, is pleased to provide comments on the concept for a Northeast/Mid Atlantic regional Low Carbon Fuel Standard (LCFS). NPRA's members comprise nearly 500 companies, including virtually all U.S. refiners and petrochemical manufacturers. Our members supply consumers with a wide variety of products and services that are used daily in homes and businesses. These products include gasoline, diesel fuel, home heating oil, jet fuel, asphalt products, and the chemicals that serve as "building blocks" in making plastics, clothing, medicine and computers.

NPRA appreciates the outreach efforts for input from many stakeholders. The stakeholder meetings conducted last month in Boston and Newark were productive and provided opportunities to exchange concerns. These early discussions and the ensuing open and transparent comment process will inform policymakers and potentially avoid unintended consequences.

A regional LCFS fails to deal with many of the fundamental legal, scientific, and policy issues associated with setting a standard for fuels today. First, not all sectors are in the same position. Under the federal Energy Independence and Security Act of 2007 (EISA), the fuels sector is already facing mandates that may not be achievable. Specific greenhouse gas (GHG) emissions reductions are required under these mandates. It is ill-advised to regulate further when serious questions remain about what is possible even under existing mandates. Second, significantly more scientific research needs to be conducted before a state government can consider creating an LCFS. As discussed below, there is serious concern in the scientific community over what tools are even available or obtainable to achieve such a standard. Third, even if the science were available today, such a standard cannot and should not be implemented in isolation from other significant technical issues and without consideration of fundamental

national concerns. Energy security, a stable energy supply, and the fundamental health of the American economy must be considered, and the LCFS fails to adequately address these factors. In particular, the stability of our energy supply is dependent on full use of all available supply options. Any approach that restricts these options is unwarranted, would jeopardize energy security and could have serious economic consequences, both regionally and nationally. These points are elaborated upon below and demonstrate that it is simply premature to frame a new fuels program until these issues are thoroughly assessed and a serious dialogue takes place on the costs and benefits of further greenhouse gas emissions reductions in the motor fuels sector.

A number of the alternative fuel options identified in the proposed LCFS regulations by the California Air Resources Board (CARB) have not been proven to be technically feasible. Even if some technical breakthroughs make them technically feasible in the near future, it is still unlikely that these very capital-intensive technologies will be considered economically feasible or worthy of capital investment by the financial community, particularly given the recent uncertainty of prices in the energy markets. In addition, these alternative fuels and alternative vehicles have not been demonstrated to be reliable, safe or acceptable by consumers who must risk purchasing these more expensive vehicles and fuels. Unfortunately, none of the above factors is within the control of refiners, who are the obligated parties in California and must purchase LCFS credits created and supplied from these unlikely alternative fuel markets in the future. Given these risk factors for the LCFS standard options, NPRA fails to understand how this regional LCFS can be considered a sound fuel policy at this time.

A. Do No Harm.

A key principle to follow in developing policy recommendations is first "do no harm." Policymakers should carefully consider the potential impact of policies on the environment, energy security, and consumers. Unfortunately, well-intentioned regulations or legislation, especially involving energy and environmental policies, can and do have significant unintended negative consequences. An example of such consequences can be seen with biofuels mandates that are being rethought across the globe amid serious economic and environmental concerns. States would do well to exercise caution before imposing any new requirements.

To ensure energy security, legislatures and regulators should consider all potential impacts of new policy changes prior to imposing them on the refining sector, which already faces significant operational challenges. This is particularly the case as states seek to implement a low-carbon performance standard. Policymakers must recognize existing federal motor fuels policy, and work to prevent duplicative, costly and potentially conflicting new regulations while addressing fuels in climate regulation or legislation. They must also look to avoid the pitfalls of regulatory policies of the past, many of which indicate that any type of LCFS could either be unachievable or carry significant, adverse consequences for consumers and our nation's energy security as well as our water and food supplies.

One need only look at the federal Renewable Fuels Standard (RFS) – which was dramatically expanded by EISA – to see the potential pitfalls of advancing regulation without fully understanding the consequences. EPA limits the amount of ethanol in gasoline to 10

percent by volume. Most of our automobile fleet is not designed to use fuel blends containing more than 10 percent ethanol. Flexible-fuel vehicles (FFVs) can use E85 (a mixture of 85 percent ethanol and 15 percent gasoline), but only about five percent of all vehicles on the road today are FFVs. Because of the large relative fuel price distortions needed in the marketplace to economically justify E85 purchases by the consumer, there is serious concern about consumer misfueling (using higher ethanol blends in vehicles and small equipment not so designed) and vehicle warranties with fuel blends containing more than 10 percent ethanol. There are many concerns about consumer safety and engine reliability, especially for small and marine engines using fuel blends containing more than 10 percent ethanol. Further, ethanol has a lower energy content by volume than gasoline; therefore, FFVs get 25-30 percent fewer miles per gallon, which creates higher cost per mile traveled and increased inconvenience for the consumer through more frequent refills.

Dramatically increased ethanol use has also given rise to a global food-versus-fuel debate, because food prices have increased as crops (such as corn and soybeans) are used as biofuel feedstocks. Compared to producing fossil fuels, the production of biofuels require orders of magnitude more land and fresh water resources which compete for food production. The resource sustainability of this process will be evaluated by the NE/MA LCFS Sustainability workgroup.

In addition, several challenges remain regarding unintended environmental consequences of significantly increased biofuels use and production. Numerous groups have raised concerns with impacts on water quantity and quality, as well as runoff of nutrients and agricultural chemicals from an aggressive expansion of biofuels production. Others have raised air quality concerns, such as the fact that biodiesel may increase NOx emissions (a ground-level ozone precursor) and ethanol increases hydrocarbon emissions (another ground-level ozone precursor). There are also concerns as to whether biofuels can meet the lifecycle greenhouse gas emissions reductions requirements in EISA, which explicitly directs the government to consider indirect land use impacts of biofuels when determining what fuels meet compliance criteria. Many project these impacts to be substantial.

B. An Additional Regulatory Program Aimed at Reducing GHG Emissions from the Use of Petroleum Fuels Is Not Feasible.

Refiners could comply with this LCFS by ensuring the use of alternative and/or renewable fuels that have lower lifecycle GHG emissions than the gasoline and diesel they displace. However, the carbon content of petroleum-based fuels cannot be lowered significantly. Therefore, the only compliance path available under an LCFS is fuel substitution, with all of the associated problems and increased costs. Any major reductions in fossil carbon used in transportation fuels will have to be almost wholly dependent on consumers purchasing new types of vehicles with low-carbon alternative fuel capabilities, and then purchasing and using low-carbon alternative fuels in those vehicles, with precautions taken to prevent misfueling of non-FFVs. These low-carbon alternative fuels and vehicles currently are not available in commercial quantities and would likely take decades to develop and deploy.

CARB has identified a number of 'low carbon' biofuels that will be needed to achieve the average 10 percent carbon intensity reductions by 2020. However, most of these low carbon alternative fuels require process technologies that have not yet been commercially proven, or shown to be technically or economically viable by the commercial marketplace and able to deliver the huge volumes required to meet transportation demand. These speculative and economically unproven 'low carbon intensity' biofuels referenced in the LCFS analysis include Advanced Renewable Diesel derived from waste, FT Diesel derived from cellulose, Advanced Renewable Ethanol derived from waste, ethanol derived from cellulose, biodiesel derived from algal oil, and biomethane for use as CNG for heavy duty vehicles. In addition, using large volumes of biodiesel in diesel fuel would require the use of B20 blends for which performance has not been proven with the existing heavy-duty fleet. This regulatory approach is equivalent to 'putting the cart before the horse.' All prior successful fuel programs driven by the government always had well-defined fuel technology and cost established prior to implementing a clean fuel program with suitable lead time for implementation.

In addition, the LCFS essentially assumes that most 'low carbon' alternative fuels, along with the required new vehicles and new fuel distribution infrastructure, are more economical (lower cost) than existing fossil fuel supplies. This assumption appears to be inconsistent with real-world commercial market experiences since the establishment of the DOE. During that time period, DOE reporting of alternative fuels markets and analysis shows that most alternative fuels are not commercially competitive and require government mandates and/or subsidies for market penetration.

C. A Low Carbon Fuel Standard Would Have Significant Negative Impacts.

There are many problems simply with defining an LCFS. How to define lifecycle and determine the points of measurement are questions critical to determining the effectiveness of any program. To date, policymakers wrestling with this issue have yet to develop any workable consensus on definitions. Such determinations would also create overly complex – and costly – regulations. Imposing such a standard on petroleum refiners places the compliance obligation squarely on an industry that has no ability to control the most critical factors necessary for the achievement of the program: alternative fuels, vehicle and infrastructure production. Petroleum refiners have no method of ensuring the use of alternative and/or renewable fuels that have lower lifecycle GHG emissions than gasoline and diesel. Gasoline is carbon by nature. The only ways to significantly reduce carbon emissions from gasoline use are to blend gasoline with another "low carbon" product that petroleum refiners don't produce, or to have vehicles on the road capable of running on lower-carbon sources of energy (*i.e.*, alternative fuel vehicles).

Some observers have suggested hydrogen, electric or natural gas vehicles as options for meeting an LCFS, but even if those were widely available in the marketplace (they currently are not), electric cars would have to run on electricity from low-carbon sources, hydrogen still would most likely be produced from fossil fuels or nuclear power, and natural gas production would have to increase through opening up more areas to exploration and production. With significant opposition to both nuclear and expanded domestic energy production, it is unlikely that low-

carbon fuel sources needed to power alternative vehicles would be available to meet an LCFS along the lines of the proposals we've seen to date.

The one study to date that has developed economic impacts of an LCFS concluded that the tools to meet such a standard do not exist and it could only be met by consumer price increases large enough to dramatically reduce demand. In this study, CRA International concluded: "Motor fuel prices increase to extraordinary levels in 2015 and 2020 due to the high price associated with low carbon fuel credits in response to the infeasibility of meeting near term LCFS requirements without large reductions in total fuel demand." Under CRA's analysis of meeting a national 5 percent and 8 percent GHG reduction through an LCFS by 2015 and 2020 respectively, gasoline prices would increase by more than 140 percent by 2015. Increases lower over time as lower-carbon fuel sources become available, but still create price increases in excess of 80 percent by 2050.[1]

Finally, all of these factors might be compounded further due to the fact that an LCFS or GHG performance standard for fuels could be used to discriminate against Canadian crude produced from oil sands. Canada is currently the largest exporter of oil into the United States and serves most refineries in the northern part of this country. The use of Canadian oil sands has increased exponentially so that many refiners in the southern part of the United States are utilizing economical, heavier crudes to make their finished products. Several environmental groups have initiated efforts to block Canadian crude deliveries to the United States using arguments centered on "lifecycle" emissions. If an LCFS were used to discriminate against or otherwise impede Canadian crude imports into the United States, it would have several adverse impacts for American energy security and refinery production. Assuming the artificial unavailability of Canadian oil sands, American refiners would be forced to find crude supplies elsewhere – most likely from foreign, state-owned oil companies in unstable regions of the world. The ensuing shift in crude supply ("crude shuffle") would likely have additional unintended consequences by actually increasing GHG emissions globally due to incremental transportation of crudes into and out of the U.S. The proposed use of lifecycle analysis against Canadian oil sands does not take into account Canadian regulations and ongoing energy use reductions in oil sands production, nor the offsetting increases in CO_2 emissions that would occur due to shuffling if the oil sands products' destination were altered due to U.S. regulations. In addition, at a time when American refiners are already seeing huge margin decreases – and even posting losses in some cases – forcing them to purchase more crude from unstable regions may have the effect of raising the price of such crude slates. High crude oil prices, combined with high LCFS credit prices, could have an adverse impact on refining capacity in the United States, likely increasing our reliance on finished petroleum products from overseas and creating supply problems for the driving and flying public.

The evolution of Canadian oil sands, both in terms of extraction, production, and ultimate use by U.S. refiners, is a tremendous net positive for the American consumer that contributes significantly to North American energy independence and security. From a societal, environmental and economic basis, Canadian oil sands are a sound component of an energy solution for the United States. For these and the reasons articulated previously, an ill-defined

[1] *See* http://www.nma.org/pdf/040808_crai_presentation.pdf.

and poorly-crafted LCFS has the very real potential to inflict substantial harm on consumers and North American energy security. Moreover, the lack of available tools to meet such a standard for a decade or more places the compliance burden on the domestic refining industry while doing nothing to incentivize the creation of the vehicles, fuels, infrastructure and other means that would be needed to meet such regulation. Moving forward with an unrealistically stringent standard could prove devastating to the American economy.

During a February 17, 2009 interview, President Obama said that the U.S. should not tackle the issue of Canadian oil sands in isolation. States shouldn't either.

> "Q: So are you drawing a link, then, in terms of the future of tar sands oil coming into the U.S. contingent on a sense of a continental environment policy on cap and trade?
>
> THE PRESIDENT: Well, I think what I'm suggesting is, is that no country in isolation is going to be able to solve this problem. So Canada, the United States, China, India, the European Union, all of us are going to have to work together in an effective way to figure out how do we balance the imperatives of economic growth with very real concerns about the effect we're having on our planet. And ultimately I think this can be solved by technology.
>
> I think that it is possible for us to create a set of clean energy mechanisms that allow us to use things not just like oil sands, but also coal. The United States is the Saudi Arabia of coal, but we have our own homegrown problems in terms of dealing with a cheap energy source that creates a big carbon footprint.
>
> And so we're not going to be able to deal with any of these issues in isolation. The more that we can develop technologies that tap alternative sources of energy but also contain the environmental damage of fossil fuels, the better off we're going to be."

Alternative fuel/vehicle programs with lower carbon emissions should be <u>both</u> technically and economically feasible for the ultimate fuel consumers. Being economically feasible requires that the alternative fuels have favorable consumer economics and have addressed inconveniences that limit their appeal to consumers. A regional LCFS structure should place the compliance obligation on parties that have direct control over alternative fuels or alternative vehicles, not the petroleum industry.

Given the scope of the challenges associated with developing an LCFS, NPRA questions the assumption that a new low-carbon alternative fuel/vehicle system will become available for a mandated LCFS program without the new fuel/vehicle systems first being commercially proven. NPRA also believes the challenges facing any sort of LCFS program are so great that attempts to try to force the technology through a precipitous regulation of GHGs in the fuel supply would only lead to significantly higher industry and consumer costs, while potentially creating fuel supply shortages.

D. The Result of Any Regulations Should Augment, and Not Imperil, the Nation's Fuel Supply and the Distribution of Fuels.

Legislative and regulatory certainty is necessary to conduct reliable project feasibility analyses and to drive future investment opportunities. If policymakers fail to fully consider the fuel supply impacts of implementing regulations, then this situation will not improve. Refiners support and encourage continued environmental progress. However, if policymakers overlook and/or take for granted the supply side of the environmental-energy equation, then we are destined for more of the same. It is imperative, in our opinion, that determining the impact on supply must be fully embedded in the policy-making process. In working with policymakers on improvements to fuels and facilities, NPRA has often commented that industry needs time, flexibility or more realistic standards to minimize negative impacts on fuel supply. Policymakers, however, often opt to promulgate regulations that are technology forcing, constructed with limited and often theoretical margins of safety, and requiring implementation in the shortest time possible — all without adequate attention to fuel supply impacts.

Based on these unfavorable past experiences with consumers, states should avoid considering the imposition of any fuel control program regulations that involve consumers voluntarily making purchase decisions unless the fuel program design has been successfully used or demonstrated at a smaller scale for an adequate length of time. Without such a successful program demonstration, the uncertainty of future voluntary consumer purchases will undermine any confidence in the LCFS program being successful.

E. A Regional LCFS Will Likely Result in Little or No Net GHG Emissions Reductions Nationwide.

In the Energy Independence and Security Act of 2007 (EISA), Congress for the first time imposed requirements for GHG reductions that account for factors such as direct and indirect land use when determining the "lifecycle" GHG emissions associated with biofuels. This first-time linkage between biofuels production and their resulting GHG "footprint" reveals an inherent contradiction between a policy encouraging greater reliance and use of these alternative fuels and another policy that begins to try to control global GHG emissions. This inherent contradiction, not to mention the challenges posed by simply trying to conduct lifecycle analysis ("LCA") for GHG emissions, provides a perfect illustration of the hazards created through hastily developed public policy. Concurrently, it exposes the underlying weakness behind the premise of any sort of LCFS.

Despite the LCA mandate in EISA, Congress remarkably exempted or "grandfathered" renewable fuel produced from facilities either in existence or under construction on the date of enactment (December 17, 2007) from the federal LCA requirement. Many of these facilities are coal-fired. This exemption has the effect of making more than 13 billion gallons annually of crop-based ethanol and biodiesel exempt from any lifecycle GHG emissions reduction requirement. Several recent studies since EISA's enactment have concluded the quantified GHG impacts of first-generation biofuels create an exponentially larger "carbon footprint" than conventional gasoline. As a result, it now appears that there will be billions of gallons of ethanol

and biodiesel produced over the next decade that ***must*** be blended into our nation's fuel supply and that will dramatically ***increase*** GHG emissions.

Ethanol and biodiesel are not carbon-free – they are hydrocarbons. Biofuels are often perceived as carbon-neutral because the carbon released when combusted is recycled as the biomass feedstock is grown. However, many scientists are concerned that the GHG emissions resulting from biofuel production and associated agricultural practices could effectively negate or even reverse any reduction in emissions that could be achieved by significantly expanding the use of ethanol as a transportation fuel. Nobel Prize winner Paul Crutzen concluded that increased biofuels production is accompanied by a dramatic increase in emissions of N_2O, which is estimated to have nearly 300 times greater warming potential as a greenhouse gas than CO_2.[2] This would offset all GHG emissions reductions from the displaced petroleum fuels and actually result in a net increase in total GHGs. In fact, the European Union recently passed a law that may essentially ban certain biofuels due to their alleged adverse environmental impacts.[3]

A large increase in the production of biofuels could lead to further deforestation and land clearing to grow crops as a feedstock for biofuels, which can increase GHG emissions. Carbon in the soil and plants is released during these processes and can be higher than the reduction in carbon releases obtained through replacing fossil fuel combustion with biofuel combustion. It would take many years for these increased GHG emissions to be offset by the decreased GHG emissions from the replacement of fossil fuel with biofuel combustion – a biofuel carbon debt. This biofuel carbon debt is substantial and is projected to take decades or centuries from which to recover.

Several analyses outline the land-use impacts from biofuels production. The following are excerpts from two studies published in 2008:

> Ethanol from corn produced on newly converted U.S. central grasslands results in a biofuel carbon debt repayment time of ~93 years. ... At least for current or developing biofuel technologies, any strategy to reduce GHG emissions that causes land conversion from native ecosystems to cropland is likely to be counterproductive. ... Our results demonstrate that the net effect of biofuel production via clearing of carbon rich habitats is to increase CO2 emissions for decades or centuries relative to the emissions caused by fossil fuel use.[4]
>
> We calculated that GHG savings from corn ethanol would equalize and therefore "pay back" carbon emissions from land-use change in 167 years,

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[2] P. J. Crutzen, A. R. Mosier, K. A. Smith, and W. Winiwarter, "N_2O Release from Agro-Biofuel Production Negates Global Warming Reduction by Replacing Fossil Fuels," Atmospheric Chemistry and Physics Discussions, August 1, 2007.

[3] John W. Miller, "EU is Planning Measures to Protect Biofuels Industry," January 23, 2008, P. A11.

[4] "Land Clearing and the Biofuel Carbon Debt;" Joseph Fargione, *et al.*; *Science* 319, 1235 (2008); DOI: 10.1126/science.1152747.

> meaning GHGs increase until the end of that period. Over a 30-year period, counting land-use change, GHG emissions from corn ethanol nearly double those from gasoline for each km driven. ... As part of our sensitivity analysis, we found that, even if corn ethanol caused no emissions except those from land-use change, overall GHGs would still increase over a 30-year period.[5]

In addition, a recent University of California, Berkeley memo to the California Air Resources Board affirms these earlier studies. This memo states that estimates of greenhouse gas emissions from indirect land use changes are very large and are much larger than the emissions associated with the fuel itself because there are large amounts of carbon stored in ecosystems of all sorts.[6]

The biofuel carbon debt summarized in these studies refutes the perception that biofuels are part of the solution to quickly reduce lifecycle greenhouse gas emissions. There is extensive scientific opinion on the record today supporting the conclusion that first-generation biofuels are not less carbon-intensive than gasoline on a lifecycle basis that includes indirect impacts.

If states promulgate an LCFS regulation, then the mix of types of biofuels could change as some are promoted and others are discouraged. For example, an efficient fuels marketplace will reallocate a higher percentage of the national cellulosic biofuels required for the federal Renewable Fuels Standard to be consumed in the Northeast/Mid Atlantic market so as to also satisfy both federal and state programs at the same time and at the least cost on a national basis (i.e., a rational and competitive marketplace). This movement would result in additional GHG emissions, especially if these biofuels are not transported by efficient pipelines. As a result, the anticipated net national GHG emissions reductions will be low or nonexistent.

F. NPRA Strongly Supports the Use of Indirect Land Use Change in Lifecycle GHG Emissions Analysis.

We strongly support inclusion of indirect land use change (ILUC) in biofuel GHG lifecycle analysis to address the biofuel carbon debt concerns summarized above. The projected magnitude of ILUC emissions is large and therefore, notwithstanding the technical uncertainty, should be part of both near- and long-term quantification of biofuel GHG emissions.

Carbon stocks in natural ecosystems are much larger than the volume of carbon in the atmosphere. Tropical ecosystems alone store much more than the annual anthropogenic carbon emissions from fossil fuel combustion. Conversion of natural lands, particularly forest, to

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[5] "Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change;" Timothy Searchinger, *et al. Science* 319, 1238 (2008); DOI: 10.1126/science.1151861.

[6] Memo from Alex Farrell and Michael O'Hare (U. of California Berkeley professors) to the California Air Resources Board, "Greenhouse gas (GHG) emissions from indirect land use change (LUC)," January 12, 2008.

productive cropland releases large amounts of CO_2 into the atmosphere due to burning, clearing, and decomposition of plant biomass leading to a loss of soil carbon.

We were reminded this year of the importance of including indirect GHG emissions: "Exempting emissions from bioenergy use is improper for greenhouse gas regulations if land-use emissions are not included."[7]

Many scientists are concerned that the GHG emissions resulting from biofuel production and associated agricultural practices could effectively negate or even reverse any reduction in emissions that could be achieved by significantly expanding the use of biofuels as transportation fuels. As stated earlier, Nobel Prize winner Paul Crutzen concluded that increased biofuels production is accompanied with a dramatic increase in emissions of N_2O, which has nearly 300 times greater warming potential than CO_2.[8] This would offset much of the GHG emissions reductions from the displaced petroleum fuels. The Crutzen, et al., paper clearly shows that N_2O emissions must be considered in lifecycle analyses of biofuel production, especially for biodiesel from rapeseed and corn ethanol. Crops with less nitrogen demand, such as grasses, have more favorable climate impacts.

G. Cellulosic Biofuels Are Not Yet Available in Commercial Quantities.

According to the U.S. EPA:

> The cellulosic biofuel industry is essentially in its infancy. With the exception of a 20-million gallon-per-year cellulosic diesel plant recently opened by Cello Energy in Bay Minette, AL, the majority of facilities in operation today are small pilot- or demonstration level plants. … Although more and more plants are being announced, most are limited in size and contingent upon technology breakthroughs and efficiency improvements at the pilot or demonstration level. Additionally, *because cellulosic biofuel production has not been proven on the commercial level*, financing of these projects has primarily been through venture capital and similar funding mechanisms, as opposed to conventional banks.[9]

A federal jury on June 29, 2009 found Cello Energy liable for breach of contract. Therefore, future biofuel production from this facility should not be relied on.[10]

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[7] T.D. Searchinger *et al.*, "Fixing a Critical Climate Accounting Error," Vol. 326, October 23, 2009, DOIA: 10, 1126/*Science*. 1178797.

[8] P. J. Crutzen, A. R. Mosier, K. A. Smith, and W. Winiwarter, "N_2O Release from Agro-Biofuel Production Negates Global Warming Reduction by Replacing Fossil Fuels," Atmos. Chem. Phys., 8, 389-395, 2008.

[9] 74 FR 24988, 24989 (May 26, 2009) (emphasis added).

[10] For more information:

http://earth2tech.com/2009/07/02/lessons-from-the-cello-energy-biofuel-fraud-case-do-your-homework/

It would be prudent for states to postpone implementation of an LCFS until such time as the production of cellulosic biofuel reaches commercial volumes.

H. Electric Cars May Increase Lifecycle GHG Emissions.

NESCAUM's staff presentation showed that total lifecycle GHG emissions for an electric car recharged from a 100% coal-fired power plant are higher than from a conventional gasoline-powered vehicle (see slide 13 from the Oct. 22 and 27 NE/MA LCFS stakeholder meetings). This could occur during recharging at night when power is generated by a baseload coal-fired facility. States should consider postponing an LCFS until low-carbon electricity generation is prevalent.

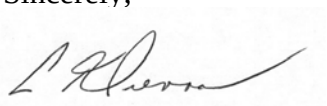
Conclusions

NPRA recommends that the Northeast and Mid Atlantic states thoroughly address each of these key assumptions in workgroup discussions in 2010.

A regional LCFS, if implemented, should include periodic regulatory review every three years. The entire LCFS program should be evaluated periodically to make adjustments based on new technology, fuel supply issues, and economic or environmental concerns. Should such reviews yield significant modifications to the program, impacted parties must be provided adequate time to comply.

Because of our association's strong expertise in transportation fuel markets and processing, NPRA feels it is necessary to point out these potential problems before an LCFS is implemented by the state. As always, NPRA welcomes the opportunity to further discuss these issues with states and NESCAUM.

Sincerely,



Charles T. Drevna
President, NPRA

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http://www.morelaw.com/verdicts/case.asp?n=1:07-cv-00743-CG-B&s=AL&d=40517

http://www.scientificamerican.com/article.cfm?id=cello-biofuel-fraud-case

http://analabamalawyer.blogspot.com/2009/07/104-million-jury-verdict-returned-in.html