

API Comments on the Northeast States for Coordinated Air Use Management Low-Carbon Fuel Program

Overview

API opposes the implementation of a state or regional low-carbon fuel standard (LCFS) as unnecessary given existing federal requirements. A LCFS would lead to higher costs and greater bureaucracy without achieving any progress in cutting national greenhouse gas (GHG) emissions. API believes that it is unwise to use highly speculative and optimistic assumptions as the basis for important public policy decisions. Before recommending that governors sign a memorandum of understanding in support of a LCFS, Northeast States for Coordinated Air Use Management (NESCAUM) should assess the costs, benefits and feasibility of a LCFS. But perhaps more importantly, NESCAUM should take the time to learn from the RFS2 and California LCFS implementations and not further complicate these initiatives each of which is an unprecedented challenge to the dependable delivery of transportation fuels acceptable to consumers.

General Comments

Congress has already acted and expressed its preference with respect to setting fuel standards by including a renewable fuels standard (RFS) that will accomplish significant GHG reductions, through the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007 (EISA). Thus, API is opposed to the imposition of a low carbon fuel standard in addition to the existing RFS. The NESCAUM states should avoid the duplicative requirements of overlaying a LCFS on top of the existing RFS2 program.

A regional or state LCFS is unnecessary as the federal RFS2 program mandated by EISA already requires fuels that meet specified GHG emission reduction thresholds. The RFS2 program is designed to force the creation of technology that does not now exist commercially to produce 21 billion gallons of advanced biofuels by 2022. A state LCFS cannot force technology any faster so will not result in any more advanced biofuels than the very aggressive mandates in the RFS2 program.

A state LCFS will result in “fuel shuffling.” The program will simply compete with other regions for the same advanced biofuel volumes that are already required under the RFS2 program thus needlessly moving these supplies from one state to another. The LCFS may just incent that the lower carbon fuels that are produced elsewhere would come to the LCFS state at some expense and increase in net GHG emissions. Thus, this shuffling will add cost and CO2 emissions without achieving a net reduction in nationwide GHG emissions. Any additional state LCFS cannot make technology development go any faster than the existing federal RFS2 program. Additional state programs simply create more boutique fuels with all the consequent supply and distribution

problems, especially if life-cycle assessments are not harmonized with the federal estimates and other state/regional programs.

A state LCFS would likely conflict with and complicate the regulatory requirements under the RFS2 program. Some of the technical aspects likely to conflict include qualifying feedstocks and the treatment of compliance certificates (RINs), etc.

Both the California Air Resources Board (CARB) and Northeast States Center for a Clean Air Future (NESCCAF) have estimated that advanced biofuels associated with the RFS2 mandates (assuming full compliance) will reduce the average fuel carbon intensity of the gasoline fuel pool by 3% by 2020.¹ U.S. DOT has proposed new CAFE standards for 2012-2016 which they estimate will reduce emissions by 656 million metric tons CO₂ equivalent over the lifetime of the vehicles.² API estimates that, taken together, these programs could result in emissions reductions from the transportation sector of nearly 900 million metric tons CO₂ equivalent between 2010 and 2020 (See Figure 1).³ Emissions in 2020 alone would be about 9% lower than the EIA's Annual Energy Outlook 2009 projection.⁴

Figure 1. Transportation CO₂e Emissions (million metric tons)

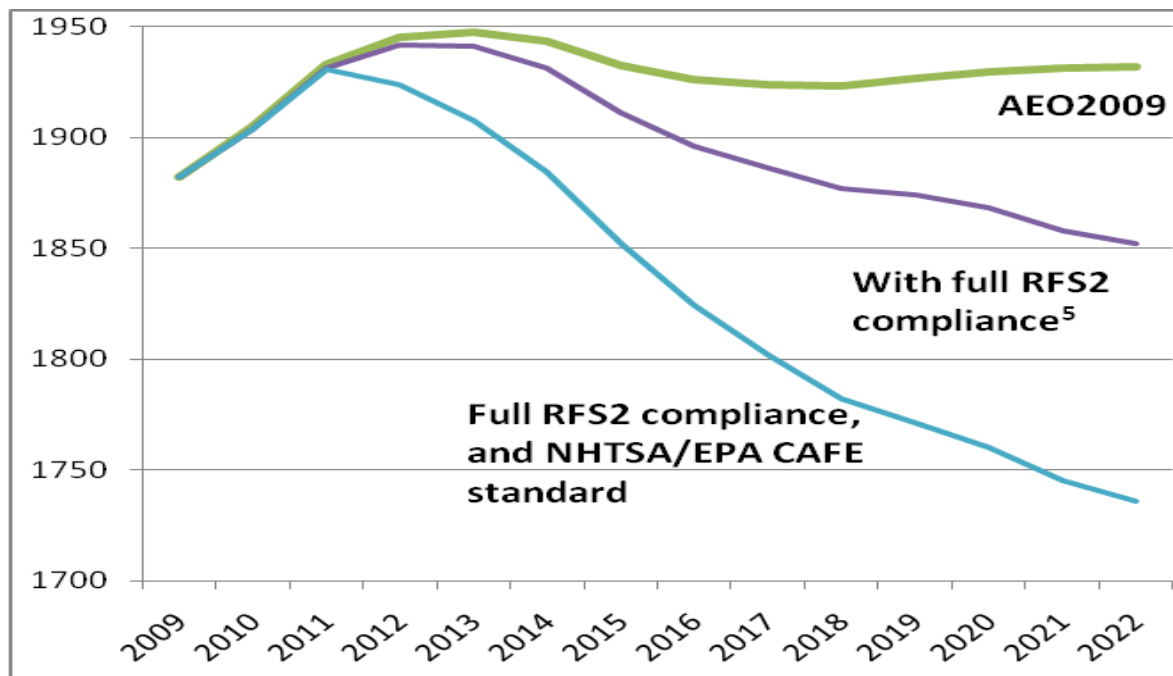
¹ NESCCAF, "Introducing a Low Carbon Fuel Standard in the Northeast." p. 3-7; CARB, "Proposed Regulation to Implement the Low Carbon Fuel Standard." p. ES-24 (or VII-1)

² NHTSA, "NHTSA and EPA propose new National program to improve fuel economy and reduce greenhouse gas emissions for passenger cars and light trucks." p. 5

³ Emissions projected from the implementation of the RFS2 assume full implementation and lifecycle analysis with a 30-year time horizon and 0% discount rate, as calculated by EPA.

⁴ EIA, AEO2009, Table 18. April, 2009

⁵ RFS2 compliance with EPA's proposed life cycle GHG values at a 30-year horizon and 0% discount rate



As noted above, the RFS2 is technology forcing and a state LCFS will not result in any more advanced biofuels than the very aggressive mandates in the RFS2. Since the RFS2 (assuming full compliance) will result in a 3% reduction in gasoline carbon intensity, the remainder of the reduction would have to come from reduced gasoline usage resulting from the purchase and operation of advanced vehicles such as plug-in hybrids (PHEVs) and electric-only vehicles (EVs). Thus, in reality, a LCFS is an electric vehicle mandate since there are no other available pathways.

As stated above, API believes that state LCFS programs are unnecessary. However, if NESCAUM decides to move forward to develop a model rule, the state LCFS program should be designed carefully:

- Avoid placing obligations on fuel suppliers for technology changes over which they have no control (electric vehicles, flexible fuel vehicles, second generation biofuel commercialization, etc.).
- Any LCFS (or GHG) program should be accompanied by periodic technology/feasibility reviews that would allow for appropriate regulatory adjustments.
- There should be adequate lead time for compliance. The program should be in place at least five (5) years before implementation of the standard or of any future revision that might increase the standard. Policies involving unrealistic near-term targets and timetables would likely needlessly damage the economy.

- A clearly drawn provision for a waiver of the standard should be included, in the event that supplies of the necessary fuels to meet the criteria are not available.
- Regulations should be consistent with federal RFS2 regulations and other state/regional programs in the same fuel distribution area.

Comments on NESCCAF Report

NESCCAF release a report titled, *“Introducing a Low Carbon Fuel Standard in the Northeast: Technical and Policy Considerations”* in July, 2009. The purpose of the report is to “help regulators and policy makers... understand what a low carbon fuel standard (LCFS) is and what key issues are likely to arise in the implementation of a LCFS in the Northeast.” The regions analyzed in the report are the Northeast and the mid-Atlantic: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, Delaware, Maryland and Pennsylvania. Though the report states its intent of increasing understanding, and notes the importance of balanced, policy-relevant research and analysis on the issue, it also states “reducing GHG emissions from vehicles and transportation fuels is an essential component of any broad-based effort to address climate change.”

The report, prepared by NESCCAF for NESCAUM, does little to truly examine the technical or policy issues of a LCFS. Though it provides an ample explanation of how a LCFS is designed to work, what it is, and what would be required to meet a 10 percent reduction by 2020, it makes no claims as to the ability to do so. Moreover, by explaining how this could be done without explicitly addressing the viability of the program, it misleads its reader into believing that a LCFS would be an easy program to run, and that it would work smoothly with the RFS2 program while putting no additional strain on the transportation fuel industry.

To meet the LCFS mandate, NESCCAF has “projected” that as many as 3 to 6 million EVs and PHEVs would have to be in use in the NESCAUM states by 2020, representing 9 to 17 percent of the total light-duty vehicle fleet. The NESCCAF compliance scenarios were developed to support the NESCAUM effort to promote an 11-state LCFS. API believes that the NESCCAF compliance scenarios, by their own acknowledgement, are very optimistic and highly uncertain. The NESCCAF report includes speculative analysis and bases compliance on unproven technologies. Also, a number of important issues related to low carbon fuels are not addressed in this report including the GHG impact of land-use changes, and the potential impacts to water, air quality or biodiversity.

The following quotes (emphasis added) from the report indicate the inadequacy of the NESCCAF computer projections:

- “Did not study the technical feasibility or market readiness of advanced or emerging biofuel technologies”
- “The scenarios presented in this report should not be interpreted as recommendations or even plausible projections”
- “The likelihood of achieving substantial CI reductions from either [gasoline or diesel] baseline by 2020 remains highly speculative”
- “Considering the pre-commercial status of these advanced biofuel technologies, the volumes envisioned in the compliance scenarios (and perhaps even the volumes called for under RFS2) are highly optimistic”
- “Scenarios assume penetration rates for both EVs and PHEVs that match or far exceed Toyota’s hybrid sales trajectory for the entire fleet (all manufacturers) by 2020”
- “Achieving these fleet penetration levels could require annual sales on the order of 12 to 36 percent of the total market by 2020”
- “Given that no grid-connected electric-drive vehicles are currently for sale in significant numbers, these market penetration rates are very optimistic”
- “Because the attractiveness of EV/PHEV technology as a LCFS compliance option depends heavily on technologies that have not matured commercially, and on consumer attitudes and behaviors that have not yet been tested, the results presented here are highly uncertain”

A July 2009 report from “clean technology” market intelligence firm Pike Research forecasts that by 2015 the U.S. will be the leading market for plug-in hybrid electric vehicles (PHEVs) in the world, with more than 610,000. The eleven states covered in the NESCAFF report represent 21% of U.S. cars. 21% of the Pike estimated 610,000 PHEVs is 128,000. This is far short of the number of PHEVs that would be needed to meet the LCFS in the eleven states. Also, there are no reliable estimates for EVs. As a point of comparison, hybrids – the precursor to the PHEV technology - currently comprise less than 1% of the vehicle fleet after 10 years of sales.

The NESCAFF report includes speculative analysis that relies on unproven technologies and associated undocumented cost estimates for the production of both biofuels and alternative fuel vehicles. Better analysis of costs, benefits and feasibility is needed to provide credible support for informed policymaking.