

***Principles for a Low Carbon Fuel Standard
In the Northeast and Mid-Atlantic Region***

I. Overview: Why a timely low carbon fuel standard (LCFS) is an essential element of a comprehensive approach to climate mitigation and energy policy

Petroleum-based transportation fuels account for one third of total greenhouse gas (GHG) emissions in the Mid-Atlantic and Northeastern United States, and the high-carbon intensity of these fuels makes the transportation sector the region's largest and fastest growing source of climate pollution. Strategies to reduce these emissions must include: 1) stringent motor vehicle fuel emission standards; 2) reductions in vehicle miles traveled; and 3) a transition to non-petroleum fuels that deliver tangible GHG reduction benefits. Reduction of fossil fuel use is a regional necessity to mitigate climate change, increase energy independence, and create an economically competitive economy.

To ensure that alternative fuels result in real GHG emission reductions, the region must devise and implement an effective low carbon fuel standard (LCFS). A carefully designed LCFS will require all transportation fuels sold in the region to meet standards embracing declining limits for GHG emissions over time, measured by the carbon intensity of the fuel on a life-cycle basis. The standard must incorporate all direct and indirect emissions, including land use changes. Complementary measures must also be developed to mitigate the impacts of alternative fuels, including potential unintended impacts on forests, wildlife and human health.

The LCFS is essential to overcome market barriers to low carbon fuel alternatives in the transportation sector. As we learned in the energy sector through RGGI, energy efficiency and renewable energy face market barriers that an emissions cap alone does not overcome. The price signal the cap delivers will not drive investment in cost effective solutions without support and reinforcement by complementary policies such as mandatory efficiency programs and renewable energy portfolio standards. Similarly in the transportation sector, we need targeted policies to overcome market barriers that prevent the development of advanced vehicles, low carbon fuels and transit-oriented development. The low carbon fuel standard will create market incentives to develop low carbon fuels in a technology-neutral way that rewards the low carbon outcome rather than favoring specific fuels or technologies.

The LCFS is also essential to discourage the development of high carbon fuels in the rush to replace foreign oil, such as liquid coal, tar sands, oil shale, and high-carbon biofuels.

A timely LCFS will benefit the region economically as "first-mover" states can then export green technology and products to other states. A timely LCFS will also help set the pace and direction for the national debate. In January of this year, the ten RGGI states and Pennsylvania signed a Letter of Intent committing to an LCFS to be set out in a more detailed memorandum of understanding by this December. An LCFS is also being developed in California, and the Obama administration has committed to a federal LCFS as part of its comprehensive climate strategy. In order to participate effectively in the federal LCFS discussion and ensure that this standard is robust enough to serve the Northeast/Mid-Atlantic region, it will be important to craft detailed regional LCFS principles well before the end of the year. Following are the principles that are pivotal to both a regional and national LCFS.

II. Principles for a Low Carbon Fuel Standard and Complementary Policies

LCFS:

- ***Focus on carbon intensity:*** require all refiners and importers of refined product to meet, on average, a specified and declining carbon intensity (grams CO₂ equiv/MJ of fuel). A 10% reduction in carbon intensity over ten years would be consistent with the goal established through Executive Order in California. The LCFS framework, at the highest level, should be technology-neutral and based on performance.
- ***Learn from California's LCFS experience:*** the rule should be broadly compatible with CA's rule and indirect land use (ILUC) accounting protocols, with the level and timing of reduction appropriate for the Northeast.
- ***Two compliance tracks:*** LCFS should use the incentive for carbon reductions to drive both full fuel system emissions reduction and low-carbon feedstock practices by creating a two-track system in the rule for assigning the fuels a carbon intensity:
 - (1) The default approach should apply refinery-specific GHG emissions with regional average GHG emissions (direct and indirect) associated with the feedstocks. This is the basic approach that CARB is adopting at this point.
 - (2) The alternative track should combine refinery-specific GHG emissions with feedstock-specific emissions (direct and indirect) as long as the feedstock is certified as being cultivated and harvested in ways that are scientifically proven to reduce the GHG emissions with the feedstock stage of the fuel's lifecycle.

Complementary Policies:

- ***Do no harm:*** implement backstop policies that discourage and/or prohibit the development and deployment of high carbon fuels (e.g., liquid coal, tar sands, oil shale, and high carbon biofuels). Develop compliance standards that do not lead to increased localized health risks (e.g., toxic pollutants).
- ***Encourage low carbon electrification:*** develop policies to address barriers to the deployment of electric vehicles using electricity generated from low or zero carbon resources, including encouraging utilities to deploy charging infrastructure and advanced metering infrastructure that can help minimize the impact of additional electric demand on the grid and addressing transmission and distribution implications of increased electric vehicle use.
- ***Usher in low carbon biofuels:*** develop production pathways for low-carbon biofuels, protect agricultural lands from urbanization, exploit degraded and abandoned land, promote innovative integration of biomass and food cultivation, and ensure that biomass cultivation provides improved ecological services on appropriate lands rather than diminished ecological health on habitat better suited for other ecological purposes.
- ***Address concerns over toxics:*** protect public health by setting emissions limits for toxic air pollutants from the refining of and/or use of new low carbon fuels. Emissions limits can be implemented through both state and federal regulatory authority, including the permitting and regulation of stationary sources and regulation of tailpipe emissions through fuels provisions in Clean Air Act State Implementation Plans.