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Regional Low Carbon Fuel Standard Program
An Overview of the Northeast and Mid-Atlantic States Initiative

What is a Low Carbon Fuel Standard?

Transportation fuels account for approximately 30% of greenhouse gas emissions from the Northeast and Mid-Atlantic states. A Low Carbon Fuel Standard (LCFS) is a program designed to reduce the greenhouse gas emissions from these fuels, and potentially fuels used for space heating as well. The LCFS is a market-based program to address the carbon content of fuels by lowering their carbon intensity through the use of low-carbon fuel alternatives. Carbon intensity is defined as the amount of greenhouse gases released per unit of energy produced by the fuels. By analyzing the amount of greenhouse gas emissions released during the fuels' full lifecycle, including production, transport, and consumption, the fuels can be measured and compared with respect to their carbon intensity.

To achieve meaningful greenhouse gas reductions from the transportation sector, an LCFS program must work in conjunction with other efforts to improve vehicle efficiency and reduce vehicle miles traveled. Efforts such as carpooling, vanpooling, and increasing vehicle fuel economy ratings, along with an LCFS, will result in lower overall greenhouse gas emissions from the transportation sector to address climate change.

Program Background:

Many Northeast and Mid-Atlantic states have statutory obligations or other commitments to achieve significant reductions in greenhouse gas emissions, or are otherwise taking steps to reduce emissions through energy efficiency, renewable energy, and transportation programs. Ten of these states are already working together to reduce greenhouse gas emissions from power plants through the Regional Greenhouse Gas Initiative (RGGI). A regional LCFS presents an opportunity to further this collaboration by addressing greenhouse gases from the transportation sector. The nation's first LCFS program was initiated by California in 2007, and similar programs are being considered in Oregon, Washington, and ten Midwestern states.

The timeline of Northeast and Mid-Atlantic LCFS initiative included:

- In July 2008, Governor Deval L. Patrick of Massachusetts invited the governors of the Northeast and Mid-Atlantic states to work together to evaluate the potential for implementing a LCFS on a regional basis.
- In response to Governor Patrick's invitation, a letter of intent was signed by environmental and energy agency commissioners in 11 states in December 2008, committing the states to examining low carbon fuel supply options and developing a framework for a regional LCFS. In addition to Massachusetts, participating states are New York, New Jersey, Vermont, New Hampshire, Maine, Connecticut, Rhode Island, Pennsylvania, Delaware, and Maryland.
- In July 2009, the Northeast States Center for a Clean Air Future (NESCCAF) completed a preliminary assessment on behalf of the states, exploring the possibility of implementing a regional LCFS.
- In December 2009, the Governors of the 11 states signed a Memorandum of Understanding, which affirms each state's commitment to continue working together to evaluate and develop a program framework by 2011.

How Would the LCFS Program Work?

The LCFS would require regional fuel suppliers to demonstrate that the average carbon intensity of fuels used in the region is reduced over time. A credit trading system could provide opportunities to control costs by allowing a supplier to purchase credits from low carbon fuel producers and average them with higher carbon fuels delivered to customers. Rather than imposing restrictions on specific fuel types, this approach allows fuel providers to choose among different fuels, based on cost effectiveness and environmental impact, in order to meet the carbon intensity reduction targets set by the program. This strategy would allow the fuel industry flexibility to determine when and where new infrastructure can be introduced most efficiently, such as use of electric vehicles or additional supplies of liquid low carbon fuels.

A regional LCFS program is prudent and efficient given the interconnected nature of the fuel distribution system in the Northeast and Mid-Atlantic region. The 11 participating states include all 10 member states of the Regional Greenhouse Gas Initiative (RGGI), plus Pennsylvania. These states have demonstrated the practicality of regional emissions reduction programs with RGGI, which limits greenhouse gas emissions from power plants. Over the course of 2010, the states will work together to analyze the economic and environmental effects of a LCFS program, resulting in a program framework by 2011. Development of this framework and subsequent model rule will include opportunities for stakeholders to review and comment as the effort proceeds. Each state will decide whether to adopt the model rule.

What are the Benefits of an LCFS Program?

In addition to reducing greenhouse gas emissions in the Northeast and Mid-Atlantic states, the LCFS program would provide opportunities for greater use of low-carbon fuels in the future. The program would create markets for new fuel technologies, encourage the development of infrastructure to produce and distribute low-carbon fuels, and support the use of more efficient vehicles. The development of alternative fuels has the potential to stimulate local economies, while reducing the impact of historically volatile conventional fuel prices and dependence on foreign oil.

Alternative fuels that have potential to reduce the carbon intensity of fuel include, but are not limited to, electricity (for plug-in hybrid and electric vehicles), natural gas, hydrogen and a variety of advanced biofuels, including those from non-food crops (such as cellulosic ethanol).

For More Information:

Commissioners' Letter of Intent: http://www.mass.gov/Eoeea/docs/pr_lcfs_attach.pdf
NESCAAF LCFS Report: <http://www.nescaum.org/documents/lcfs-report-final-200909-rev-final.pdf>
Governors' MOU: <http://www.nescaum.org/documents/lcfs-mou-govs-final.pdf>

Information on the regional LCFS initiative can be found at the Northeast States for Coordinated Air Use Management (NESCAUM) website:
<http://www.nescaum.org/topics/low-carbon-fuels>.

NESCAUM, a nonprofit association of air quality agencies in the Northeast, is providing technical and analytical support to the 11 states for this initiative.