

# EPA Finalizes Regulations for a Renewable Fuel Standard (RFS) Program for 2007 and Beyond

**T**he U.S. Environmental Protection Agency (EPA) has established a national renewable fuel program (the Renewable Fuel Standard Program, or RFS program). The program is designed to encourage the blending of renewable fuels into our nation's motor vehicle fuel. This rule establishes the annual renewable fuel standards, responsibilities of refiners and other fuel producers, a trading system and other compliance mechanisms, and recordkeeping and reporting requirements. In addition to the rule, EPA has published a Regulatory Impact Analysis (RIA), which contains analyses of the economic and environmental impacts of the expanded use of renewable fuels under this program.

## Background and Definitions

The Energy Policy Act of 2005 amended the Clean Air Act to establish a Renewable Fuel Standard program. The U.S. Congress gave EPA the responsibility to coordinate with the U.S. Department of Energy, the U.S. Department of Agriculture, and stakeholders to design and implement this first-of-its-kind program. Three months after the Energy Policy Act of 2005 was signed, in December 2005, EPA set a statutory default standard that required that 2.78 percent of the gasoline sold or dispensed in calendar year 2006 be renewable fuel. Today's rulemaking establishes a comprehensive RFS program for 2007 through 2012 and beyond.

A renewable fuel is defined in the Energy Policy Act as a motor vehicle fuel that is produced from plant or animal products or wastes, as opposed to fossil fuel sources. Renewable fuels include ethanol, biodiesel and other motor vehicle fuels made from renewable sources. The program grants credit for both renewable fuels blended into conventional gasoline or diesel and those used in their neat (unblended) form as motor vehicle fuel.

Any party that produces gasoline for use in the U.S., including refiners, importers, and blenders (other than oxygenate blenders), is considered an obligated party

under the RFS program. All obligated parties are expected to meet the renewable fuel standard beginning in 2007, with two important exceptions. First, small refiners and small refineries are exempt from meeting the renewable fuel requirements through 2010. Second, all gasoline producers located in Alaska, Hawaii, and noncontiguous U.S. territories are exempt from the RFS program indefinitely. These states and territories may opt into the program, however, and all of the refiners (except for small refiners and refineries), importers, and blenders located therein will then be subject to the renewable fuel standard.

Due to the certainty provided to investors by the RFS program, production capacity for ethanol and other renewable fuels has significantly increased since the Energy Policy Act was signed, and the construction of new and expanded facilities is projected to continue. As a result, nationwide volumes of renewable fuel already greatly exceed the RFS requirements. By 2012, nationwide volumes are projected to reach over 11 billion gallons, compared to the 7.5 billion gallons required.

## **Trading Program and Compliance Provisions**

The trading program allows obligated parties to comply with the annual renewable fuel standard through the purchase of renewable identification numbers (RINs) even if they cannot or do not wish to blend renewable fuels into gasoline. It also permits renewable fuels that are not blended into gasoline, such as biodiesel and biogas, to participate in the RFS program. This rule specifies who can generate RINs and under what conditions, how RINs may be transferred from one party to another, and the appropriate value of RINs generated from different types of renewable fuel.

The RFS program specifies compliance and enforcement provisions, such as for facility registration, recordkeeping and reporting requirements, program enforcement, and various fuel tracking mechanisms. These provisions will enable the RIN trading program to function properly and will ensure an adequate foundation for Agency enforcement efforts.

## **Impacts**

The RIA provides an analysis of the energy, emissions, air quality, and economic impacts of expanding the use of renewable fuels in comparison to a reference case of 4 billion gallons of renewable fuel use which represents 2004 conditions projected out to 2012. Depending on the volume of renewable fuel anticipated to be used in 2012, EPA estimates that this transition to renewable fuels will reduce petroleum consumption between 2.0 and 3.9 billion gallons or roughly 0.8 to 1.6 percent of the petroleum that would otherwise be used by the transportation sector.

With regard to emissions impacts, carbon monoxide emissions from gasoline-powered vehicles and equipment will be reduced between 0.9 and 2.5 percent. Emissions of benzene (a mobile source air toxic) will be reduced between 1.8 and 4.0 percent. Further, the use of renewable fuel will reduce carbon dioxide equivalent greenhouse gas emissions between 8.0 and 13.1 million

metric tons, about 0.4 to 0.6 percent of the anticipated greenhouse gas emissions from the transportation sector in the United States in 2012.

At the same time, other vehicle emissions may increase as a result of greater renewable fuel use. Nationwide, EPA estimates an increase in total emissions of volatile organic compounds and nitrogen oxides (VOC + NO<sub>x</sub>) between 41,000 and 83,000 tons. However, the effects will vary significantly by region. Areas that already are using ethanol will experience little or no change in emissions or air quality. However, those areas that experience a substantial increase in ethanol may see an increase in VOC emissions between 4 and 5 percent and an increase in NO<sub>x</sub> emissions between 6 and 7 percent from gasoline powered vehicles and equipment.

The societal cost to produce a gallon of gasoline is estimated to rise between 0.5 cent and 1.1 cents, though the presence of the excise tax credit for ethanol will result in a net savings for fuel customers at the pump of 0.4 to 0.7 cents per gallon. Net U.S. farm income is estimated to increase by between \$2.6 and \$5.4 billion.

## **For More Information**

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