

State Ethanol Blending Laws

This paper examines the recently passed ethanol blending laws in North Carolina, South Carolina (both currently under litigation), and Missouri. These blending laws effectively require suppliers to sell or make available at terminals gasoline that has not been blended with ethanol and that is suitable for subsequent blending with ethanol. These unnecessary laws hinder compliance with the federal Renewable Fuel Standard, may violate the U.S. Constitution, create inefficiencies in the supply chain, create potential harm to the consumer and the environment, and raise safety concerns.

Overview

Renewable Fuel Standard

In 2005, Congress enacted a Renewable Fuel Standard (RFS), as part of the Energy Policy Act of 2005 (EPACT), to increase the use of biofuels in the U.S. In 2007, Congress revised and expanded the RFS as part of the Energy Independence and Security Act (EISA). Under EPACT, the Administrator of the U.S. Environmental Protection Agency (EPA) must annually determine a RFS which is applicable to refiners, importers, and certain blenders of gasoline, and publish it in the *Federal Register*. On the basis of this standard, each obligated party (explained in a later section) determines the volume of renewable fuel that it must ensure is used as transportation fuel. The RFS is then calculated as a percentage, by dividing the amount of renewable fuel that the EISA requires to be blended for a given year by the amount of gasoline expected to be used during that year, including certain adjustments specified by the EPACT.

On November 21, 2008, the EPA stated in the *Federal Register*, "In this notice we are publishing an RFS of 10.21% for 2009. This standard is intended to lead to the use of 11.1 billion gallons of renewable fuel in 2009, as required by the Energy Independence and Security Act of 2007 (EISA). ...[W]e expect the 11.1 billion gallons of renewable fuel required in 2009 to include approximately 0.5 billion gallons of biodiesel and renewable diesel."¹

Eventually, renewable fuels are likely to consist of corn-, sugar-, and cellulosic-based ethanol, hydrocarbons made from renewables, and biodiesel. However, practically speaking, until renewable fuel technology is developed and commercialized, the EISA mandates will be met almost entirely using ethanol.

¹ Renewable Fuel Standard for 2009, Issued Pursuant to Section 211(o) of the Clean Air Act, Federal Register: November 21, 2008 (Volume 73, Number 226), Page 70643-70645, From the Federal Register Online via GPO Access, www.wais.access.gpo.gov, Environmental Protection Agency

Obligated Parties

The RFS mandates that U.S. gasoline refiners and importers blend a specified minimum amount of renewable fuel into the transportation fuels they supply. The minimum can be met through actual blending or by obtaining the adequate number of RINs. Regardless, **gasoline suppliers (refiners and importers) have the sole obligation to meet the EISA mandates** and are thus known as “obligated parties.” This paper will use the terms supplier and obligated parties interchangeably.

In contrast, the RFS does not include a mandate for the jobbers/wholesalers (i.e., the companies that buy gasoline from the supplier and transport it to retailers and/or sell it directly to the consumer); they have no obligation to blend renewable fuels, and consequently, they do not face fines for noncompliance.

Renewable Fuel Credits

To demonstrate compliance with the EPA rules, gasoline suppliers must acquire renewable fuel credits called Renewable Identification Numbers (RINs). A RIN is a unique number generated to represent a volume of renewable fuel. The RIN tracking system allows EPA to monitor whether a supplier (the obligated party) has met its renewable fuel obligation. If a party fails to obtain an adequate number of RINs to satisfy its volume obligation, that company is subject to a \$32,500 penalty per day. An obligated party can obtain RINs by either purchasing and blending ethanol with gasoline or by purchasing RINs from another party that has purchased and blended the ethanol and made the RINs available for sale.

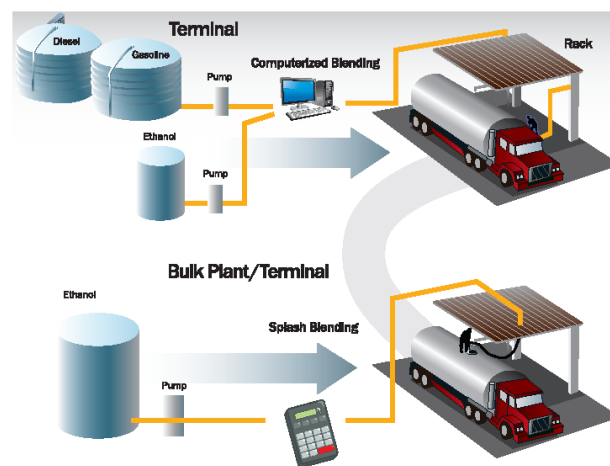
Ethanol blending procedures

Ethanol is typically blended using one of two different procedures: splash blending and computerized blending.

Where suppliers only sometimes use splash blending, jobbers and wholesalers nearly always use splash blending, which

is done in two distinct loading steps. Splash blending requires the driver to connect, load, and disconnect at the gasoline loading rack, then drive to a separate area in the terminal **or** drive to a separate ethanol bulk plant in another location where the tank truck is again connected, loaded, and disconnected from the ethanol loading system. Splash blending requires the truck driver to properly read the invoice

showing the amount of gasoline purchased at a terminal, perform the right calculation, and then add the right amount of ethanol to the proper compartment of the tank truck.



Gasoline suppliers typically use computerized blending, which is done in a single loading process where the driver connects to the loading rack, the computer calculates how much ethanol must be blended with the gasoline, and that fuel is blended either in the piping system before it gets to the tank truck compartment or by being injected into the tank truck compartment after the gasoline is loaded. Regardless, when ethanol is loaded using a computerized process, the driver only connects and disconnects from the terminal rack once.

Ethanol use in vehicles

Two types of vehicles can run on gasoline. The first is a gasoline-only vehicle that can burn straight gasoline or a blend of up to 10% ethanol and gasoline. Today, gasoline-only vehicles account for roughly 97% of the vehicle fleet in the U.S. The second type is a Flex Fuel Vehicle (FFV) which can run on any mixture of ethanol and gasoline including straight gasoline, gasoline blended with 10% ethanol, and the alternative fuel E85. E85 is 70% to 85% ethanol, with the remainder being gasoline. Though significant studies are being conducted to determine if higher quantities of ethanol can be used in gasoline-only vehicles, it is currently illegal to sell gasoline at retail stations with more than a 10% blend of ethanol if it is not intended for FFVs.

Gasoline blended with up to 10% ethanol has altered combustion characteristics and can reduce some vehicular emissions while increasing others. However, an ethanol-blended gasoline that is over-blended (i.e. more than 10% ethanol) will fail to meet the EPA gasoline “substantially similar”² rules and may cause damage to gasoline-only vehicle emission control systems and/or engines resulting in increased air pollution.

EPA is concerned about gasoline over-blended with ethanol (i.e. more than 10%) as it explained in a letter to API:

“Gasoline containing more than 10% ethanol may cause damage to certain emissions control devices and systems and increased emissions from gasoline-only vehicles and engines. For this reason, the Clean Air Act prohibits retail gasoline stations from selling gasoline blended with more than 10% ethanol for use in gasoline-only vehicles and engines.

“To date, no person has registered a fuel containing more than 10% ethanol for use in gasoline-only vehicles and EPA has not allowed the introduction of such a fuel into commerce.”³

In Iowa, lawsuits have been filed claiming that jobbers/wholesalers over-blended ethanol into gasoline or sold E85 as a gasoline intended for non-FFV’s, instead of as an alternative fuel.⁴

² The “substantially similar” rule effectively states that a fuel is determined to be substantially similar to the fuel that the vehicle was certified on and can thus be sold as such.

³ Letter to Bob Greco, API, regarding Gasoline Ethanol Blends, from Adam M. Kushner, Director, Air Enforcement Division, U.S. EPA, Office of Enforcement and Compliance Assurance, July 31, 2008

⁴ “Iowa Station Allegedly Sold E85 to Motorists Without Notice,” OPIS Ethanol, August 19, 2008 10:48 AM

API Positions

Ethanol blending laws are unnecessary and unconstitutional.

Missouri (2006) and South Carolina and North Carolina (mid-2008) enacted laws that require suppliers to sell a non-ethanol blended gasoline⁵ to the jobber/wholesalers. It is anticipated that other states may consider similar measures in the near future.

The ethanol blending statute in North Carolina is currently under review in federal court because suppliers believe it conflicts with at least three federal statutes, and, therefore, is preempted by federal law.

- The North Carolina statute is contrary to the federal renewable fuel program created by EPACT and amended by EISA, which expressly leaves to suppliers the choice of whether and how to blend gasoline with ethanol.
- The statute is also contrary to federal trademark law because it forces suppliers to cede control over the manufacturing of their trademarked products to distributors and retailers.
- The statute conflicts with the Petroleum Marketing Practices Act (PMPA) because it removes a valid basis – product adulteration – for terminating or non-renewing a franchise agreement.
- The ethanol blending statute also violates the Commerce Clause of the U.S. Constitution. The statute does not require all “supplier[s]” – as that term is defined by the statute – to offer unblended gasoline for sale. Instead, it imposes this obligation only on suppliers that participate in interstate commerce by importing gasoline into the state. Suppliers that acquire gasoline within the state are free to sell ethanol-blended or unblended gasoline as they see fit. By imposing obligations only on suppliers engaged in interstate commerce, the statute impermissibly discriminates against interstate commerce and, thus, violates the Commerce Clause.

Suppliers are in the business of distributing finished gasoline. They stake their reputation on the quality of their product and ethanol blending laws inhibit their ability to ensure a quality supply.

- In 2009 obligated parties will need to have nearly one RIN for every ten gallons of gasoline they refine or import in the United States.
- Suppliers use their extensive knowledge of the gasoline transportation infrastructure to provide the consumer in each market with a product that ensures his/her vehicle performs at the highest level. The fuel that meets this need is a high-quality finished gasoline that, if it contains ethanol, is properly blended with ethanol. This fuel must meet all applicable national and state specifications.

⁵ Non-ethanol blended fuel can be any one of the following: conventional, RFG blend stock for oxygenate blending (RBOB), or conventional blend stock for oxygenate blending (CBOB). Note, the Missouri law does not apply to the sale of RFG blend stock.

- Ensuring that a given market has an adequate supply of finished gasoline appears to happen with ease and simplicity, but it is in fact the supplier's expertise that ensures the markets are adequately supplied with high quality, on-spec fuel.
- Suppliers must have the flexibility to determine what fuel products they sell at the terminal. The ethanol-blending laws passed in Missouri, North Carolina, and South Carolina, do not allow this flexibility and could cause inefficiency in the gasoline distribution system.
- Each supplier must predict, as much as a month or two in advance, how much gasoline and ethanol will be needed in a given market. Thus, gasoline suppliers may have difficulty maintaining supply reliability if jobbers/wholesalers have the option of buying gasoline with or without ethanol. Since ethanol is often transported long distances from where it is produced, gasoline suppliers must be able to predict accurately how much gasoline and ethanol they will need if they are to ensure availability of their gasoline/ethanol blends. Should demand fluctuate and a supplier run short of ethanol or gasoline at a terminal, it is possible that no gasoline will be available for the jobber/wholesaler, whether they splash blend or not.
- Significant capital is being spent by gasoline suppliers to install computerized ethanol blending equipment and to bring ethanol to the market, in order to blend it with gasoline at a pace that will meet the legal requirements of EISA, and ensure a reliable supply of high-quality fuel.
- Laws should not be passed that add even more complexity to the existing process and create requirements which may result in new supply disruptions.

State ethanol blending laws create inefficiency and possibly a barrier to compliance with congressional mandate.

- The new state laws in South Carolina, North Carolina, and Missouri appear to address a market condition where ethanol costs less than gasoline. This effectively allows the blender to extend the gasoline with a less expensive product and get a better price for the same basic performance.
- If ethanol remains more expensive than gasoline, jobbers/wholesalers may decide not to sell ethanol-blended fuel but only straight gasoline. If this happens, the RINs which would have come from blending may be unavailable for purchase by the supplier, rendering the congressional mandate unobtainable, especially in light of other states considering legislation similar to the three states previously mentioned.
- The supplier, the obligated party, is forced to attempt to meet the federal law based on the actions of the jobber/wholesaler and may be responsible for unnecessary fines caused by the jobber's/wholesaler's actions.

Blending laws may harm consumers and the environment.

- Jobbers, wholesalers, and suppliers may use splash blending to mix ethanol and gasoline but the process can result in over- or under-blending if the process is not done right. Splash blending is inherently less accurate than computerized blending.
- If too much ethanol is blended into the gasoline, the product may not meet EPA and state volatility specifications, thus causing **excess air pollution**.
- Over-blending also may **void vehicle manufacturers' warranties**.
- If the ethanol content in blended gasoline is below the specified amount, the octane may be too low and the product may not meet the EPA or Federal Trade Commission requirements for labeling the octane value of the fuel.

Loading gasoline is a safe operation but blending laws may increase safety concerns.

- Each time the tank truck is connected and disconnected there is an opportunity for a **spill or overfill**. The most effective and consistent method of blending ethanol is to use computerized blending at the terminal. When ethanol is loaded through a single computerized process, the driver only connects and disconnects from the rack one time, cutting the opportunity for a spill or overfill in half.
- Splash blending by the jobber/wholesaler may expose the public to additional traffic as the trucker adds the extra step of driving from the terminal to the bulk plant before delivering the fuel to the retail gasoline station.

Conclusion

New laws that require suppliers to offer a petroleum product that has not been blended with ethanol and that is suitable for subsequent blending with ethanol are unnecessary and may violate the U.S. Constitution, add inefficiency to the gasoline supply chain, may harm the consumers and the environment, and increase safety concerns.

With the EPA's implementation of the Energy Independence and Security Act of 2007, the ability to supply fuel has become a significant challenge. This is a challenge that suppliers are working hard to meet, and they need a level playing field to ensure they can provide consumers with the fuel they need at the time they need it.

Protect the consumer and say "no" to new state ethanol blending legislation.