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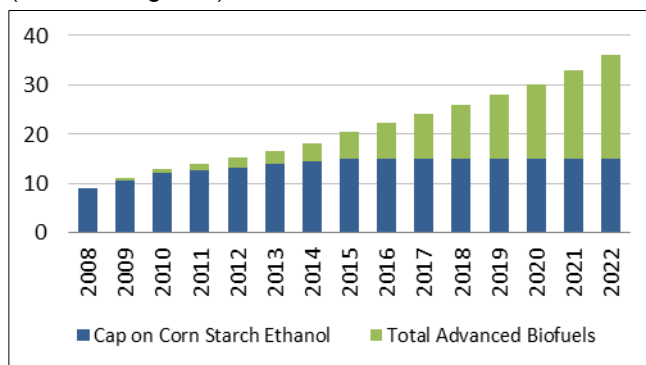
# The Renewable Fuel Standard (RFS): Compliance and Penalties

## Background

The Renewable Fuel Standard (RFS) requires that renewable fuel be blended into the nation’s transportation fuel supply. However, it does not explicitly require the production of biofuels. The mandate—based on volume (in billions of gallons)—increases annually from 9.0 billion gallons in 2008 to 36.0 billion gallons in 2022 (see **Figure 1**). Within the overall RFS mandate, there is a smaller mandate to use advanced biofuels, which include fuels other than cornstarch ethanol that meet greenhouse gas emission reduction requirements relative to gasoline. Two subcategories of the advanced biofuel category specifically identified in the Energy Independence and Security Act (EISA; P.L. 110-140) are cellulosic biofuels and biomass-based diesel. The advanced biofuel category also includes other fuels, such as biogas and butanol. Outside of the advanced biofuel requirement, the remainder of the RFS generally is met using ethanol produced from cornstarch.

Responsibility for administering the RFS lies with the U.S. Environmental Protection Agency (EPA). The agency approves fuels that are eligible for the RFS, establishes annual standards for the various categories given certain conditions (i.e., reducing the volume amounts set in statute), and ensures industry compliance, among other things.

**Figure 1. Renewable Fuel Standard (RFS) Mandate**  
(in billions of gallons)



**Source:** Energy Independence and Security Act (EISA; P.L. 110-140), §202.

**Notes:** Volume requirements for years following 2022 are to be determined by the Environmental Protection Agency (EPA) in future rulemaking.

## How Is Compliance Measured?

Annual RFS compliance is accounted for using an EPA credit system that tracks the movement of renewable fuel from production (or importation) to the blending stage. The foundation of the system is the credit—the Renewable Identification Number (RIN) assigned to each gallon of

renewable fuel. Every year, EPA sets the annual standard, in volume and in percentage, for the various renewable fuel categories. For instance, EPA set the 2013 cellulosic biofuel standard at 810,185 ethanol-equivalent gallons and calculated the percentage standard to be 0.0005% of total U.S. transportation fuel use. The obligated parties—those that refine or import gasoline or diesel fuel—must submit credits to EPA indicating they have met their annual renewable volume obligation to confirm RFS compliance. This annual obligation is calculated by multiplying the annual percentage standard announced by EPA by the total gasoline and diesel sales of the obligated party.

## How Is Compliance Measured When the Amount of Renewable Fuel Required Does Not Exist?

Compliance necessitates that renewable fuels be supplied at the levels specified in the annual standard. To date, compliance has not been an issue for the overall mandate (it is largely met using cornstarch ethanol). However, insufficient supplies of cellulosic biofuel have obligated EPA to lower the cellulosic portion of the RFS each year. Conventional biofuel, which constituted approximately 83% of the RFS for 2013 (13.8 billion gallons), is being produced at levels needed to meet the annual standards. In addition, biomass-based diesel—which constituted close to 8% of the RFS for 2013 (1.28 billion gallons)—has been produced at the levels needed to meet the annual standards. Cellulosic biofuels would have constituted nearly 6% of the RFS for 2013 (1 billion gallons) under the schedule in the statute.

## Cellulosic Biofuel Waiver Credits

Congress gave EPA authority to reduce or waive the cellulosic biofuel mandate under certain conditions, mainly if EPA concludes there will be insufficient supply to meet the level set in statute. EPA reduced the cellulosic biofuel standard for four consecutive years starting in 2010 and proposes to do so again for 2014, 2015, and 2016 (see **Table 1**). If EPA reduces the cellulosic biofuel mandate, statute requires it to set the new required volume by November 30 of the preceding year, and it must issue cellulosic biofuel waiver credits for obligated parties to purchase for that compliance year. The per-gallon waiver credits provided by EPA must equal the reduced cellulosic biofuel volume requirement set for that year. Obligated parties can use only the waiver credits to meet their cellulosic biofuel annual obligation. The cellulosic biofuel waiver credit price (set in statute) has decreased over time from \$1.56 per credit in 2010 to \$0.42 per credit in 2013.

A legal challenge of EPA’s methodology for estimating actual cellulosic biofuel production volumes led to the 2012 standard being vacated by the court and EPA proposing to

rescind the 2011 standard. In such cases, EPA has refunded or proposed to refund the money paid by obligated parties to purchase cellulosic biofuel waiver credits.

**Table 1. RFS Cellulosic Biofuel Requirements, 2008-2016**

(in billions of gallons)

Year	Cellulosic Biofuel (RFS Mandate)	Cellulosic Biofuel (EPA Reduced Standard)
2008	0	—
2009	0	—
2010	0.1	0.0065
2011	0.25	0.006
2012	0.5	0.0105
2013	1	0.0008
2014	1.75	0.033
2015	3	0.106
2016	4.25	0.206

**Source:** EISA, §202 and various EPA rulemakings.

**Notes:** In its latest proposed rule, EPA proposes to rescind the 2011 standard and to reduce the 2014, 2015, and 2016 cellulosic biofuel mandates to 33, 106, and 206 million ethanol-equivalent gallons, respectively. The 2012 standard was vacated in response to a legal challenge.

## Penalties

There are penalties for RFS violations. Those subject to a penalty include any party that violates the RFS, any party that fails to meet its annual volume obligation, and any party that causes another party to fail to meet its annual volume obligation. The actual penalty varies (e.g., civil penalties can be up to \$37,500 per day for each violation, plus the economic benefit of not complying with the standards). EPA reports a party could be subject to a civil penalty “as specified in sections 205 and 211(d) of the Clean Air Act, for every day of each such violation and the amount of economic benefit or savings resulting from each violation.” Thus far, the only penalties issued have been for parties involved in fraudulent biomass-based diesel RIN activity.

## Why Do Some Stakeholders State That They Are Being Fined Due to the RFS?

EPA typically associates the term *fine* with enforcement of civil or criminal violations of the Clean Air Act, but it more often uses the term *penalty*. The complexity of the RFS, the interrelated aspects of other EPA biofuel efforts (e.g., E15 waiver request), and the fierce protection of market share by some stakeholders can make it difficult to understand RFS enforcement. However, an obligated party can incur a civil penalty only when an RFS violation as described in the “Penalties” section above occurs. Thus far, the notices of

violations issued by EPA for the RFS have been limited to relatively few cases.

Certain stakeholders and members of the media have used the term *fine* when referring to different aspects of the RFS. For example, the American Automobile Association (AAA) stated that the amount of ethanol EPA proposes to be blended into gasoline for 2014 exceeds what is actually possible (given infrastructure and market limitations) and could subject obligated parties to fines. It is possible that a potential lack of biofuel supply could lead to a lack of RINs, and obligated parties could potentially face penalties. However, when this scenario seemed possible for 2014, EPA proposed lowering the 2014 standard, in part, so that obligated parties would not violate the RFS. Further, the American Petroleum Institute (API) has mentioned *fine* when referring to cellulosic biofuel waiver credits, which are an alternative compliance mechanism. API stated that by being required to purchase cellulosic biofuel waiver credits, they were paying for a product that does not exist. Because EPA in some years did not void the cellulosic biofuels standard, the cellulosic biofuel waiver credit has become the only compliance mechanism. Obligated parties do pay a fee to purchase the waiver credits, but doing so protects them from much larger civil penalties. Additionally, the waiver credits are likely a significantly cheaper compliance mechanism than if obligated parties had to pay for the actual fuel.

## What’s Next?

RFS compliance for 2014 can be determined only once EPA issues the 2014 final rule, which was due November 30, 2013. EPA reports it intends to finalize the standards for 2014, 2015, and 2016 by November 30, 2015.

The RFS is one of several policies about which stakeholders disagree regarding the policy’s impact on other stakeholders. For instance, some in the biofuel industry rarely acknowledge that there is a limit to how much ethanol can be blended into the nation’s transportation fuel supply, among other things. Further, the petroleum industry’s call for reform or repeal of the RFS could lead to the effective loss of multiple years of financial and technical support for the biofuel industry from the government, academia, and the private sector because, without the RFS, biofuel would not be economically competitive with gasoline. Thus far, many of the stakeholders have looked to Congress, the Administration—specifically the EPA—and the courts to remedy what they perceive as faults with the RFS, including cellulosic biofuel waiver credits and penalties.

## More Information

For more information, see CRS Report R43325, *The Renewable Fuel Standard (RFS): In Brief*; CRS Report R42824, *Analysis of Renewable Identification Numbers (RINs) in the Renewable Fuel Standard (RFS)*; CRS Report R41106, *The Renewable Fuel Standard (RFS): Cellulosic Biofuels*; and CRS Report RS22870, *Waiver Authority Under the Renewable Fuel Standard (RFS)*.

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