

RENEWABLE FUEL STANDARD ASSESSMENT WHITE PAPER

Implementation Issues

The Committee on Energy and Commerce is issuing a series of white papers as the first step in reviewing the renewable fuel standard (RFS). The RFS is a provision of the Clean Air Act that was added by the Energy Policy Act of 2005 (EPAct) and greatly expanded under the Energy Independence and Security Act of 2007 (EISA). It sets targets and timetables for four categories of biofuels to be added into the nation's transportation fuel supply. The categories include (1) a total renewable fuel target, which includes both conventional (corn-derived ethanol) and advanced biofuel; (2) an advanced biofuel target; (3) a cellulosic biofuel target; and (4) a biomass-based diesel target. Because cellulosic biofuel and biomass-based diesel are types of advanced biofuels, they are included in both their individual targets and the overall advanced biofuels targets. The targets for the four categories total 16.55 billion gallons for 2013, of which not more than 13.8 billion gallons can be corn ethanol. Corn ethanol is capped at 15 billion gallons from 2015 on, while the other categories of renewable fuel continue to rise until the total RFS reaches 36 billion gallons by 2022.

It has been more than five years since the RFS was last revised, and there is now a wealth of actual implementation experience with it. In some respects, the RFS has unfolded as expected, but in others it has not. Several implementation challenges have emerged that received little if any consideration prior to passage of EISA. Furthermore, the overall energy landscape has changed since 2007. It is time to undertake an assessment of the RFS.

For this reason, the committee initiated a series of white papers setting out a number of emerging issues with the RFS. Each white paper has provided an overview of an issue and solicited input from interested stakeholders in the form of answers to questions posed. This, the fifth and final white paper, will address the implementation by EPA of the RFS. Along with this last whitepaper, the committee is offering an opportunity for all interested parties to comment on any aspect of the RFS.

Implementation of the RFS

The RFS is administered by the Environmental Protection Agency (EPA), with technical assistance from the Energy Information Administration (EIA) and U.S. Department of Agriculture (USDA). To implement the RFS, EPA promulgates the program rules, promulgates annual volume requirements, administers the compliance system, and enforces the requirements. The rules, which are adopted after public notice and comment, specify the obligated parties, their compliance obligations, the types of fuel that qualify as renewable fuel, the registration system for renewable fuel producers, the credit-trading system that allows compliance flexibility, and other program elements.

Setting the Annual Targets Under the RFS

EISA specifies annual volumetric targets for each of the four categories of biofuels but also directs EPA to waive or adjust the statutory volumes under specified circumstances and to

set volume targets for later years where the targets are not specified by statute. As a practical matter, EPA has generally established the enforceable volumes required to be used each year through an annual rulemaking process. EPA also must translate these volumes into percentages of the fuel supply. These renewable volume obligations (RVOs) are applicable to obligated parties, mostly refiners and importers of transportation fuel. For renewable fuel, advanced biofuel, and cellulosic biofuel, the rule is to be finalized no later than November 30 for the following year. For biomass-based diesel, the rule is to be finalized 14 months prior to the applicable year. As of this writing, EPA has set the biomass-based diesel volumes for 2013¹ and issued a proposed rule for the other categories but has not yet finalized that rule.²

Several distinct provisions apply to cellulosic biofuel, the only category for which no commercial quantities were being produced at the time EISA was enacted. Based on estimates provided by EIA, EPA is to determine the volume of cellulosic biofuel projected to be available in the following year.³ If the projected volume for cellulosic biofuel is lower than the statutory volume, the EPA administrator must reduce the target to the projected volume.⁴ Under this provision, EPA reduced the 2012 target from the original 500 million ethanol-equivalent gallons to 10.45 million ethanol-equivalent gallons (which translates to 8.65 million actual gallons). The statutory target rises to 1 billion ethanol-equivalent gallons for 2013, but EPA has proposed reducing it to 14 million ethanol-equivalent gallons.

In addition, EPA is required to set an annual price for waiver credits that may be used by obligated parties in lieu of actually blending cellulosic biofuels.⁵ This approach provides a compliance mechanism for obligated parties if the actual volume of cellulosic biofuel does not reach the projected volume level, while maintaining an incentive to produce as much cellulosic biofuel as possible by guaranteeing market demand as long as prices do not exceed the cost of the waiver credits.

EPA's downwardly revised cellulosic volume for 2012 still proved to be well in excess of actual production. A trade association representing refiners challenged EPA's implementation of these provisions as being biased on the side of overstating the availability of cellulosic biofuels and thus in violation of the statute. On January 25, 2013, the Court of Appeals for the District of Columbia Circuit vacated the agency's 2012 cellulosic biofuel volume.⁶

Cellulosic biofuels are a subset of advanced biofuels, which are in turn a subset of total renewable fuels. When EPA reduces the applicable volume of cellulosic biofuels, EISA also authorizes, but does not require, EPA to lower the advanced and total renewable volumes by the same or a lesser amount.⁷ Thus, if EPA finalizes the proposed 14 million gallons of cellulosic biofuels, well below the original 1 billion gallons, it may lower these other categories by up to

¹ 77 Fed. Reg. 59,458, September 27, 2012, at <http://www.gpo.gov/fdsys/pkg/FR-2012-09-27/pdf/2012-23344.pdf>.

² 78 Fed. Reg. 9,283, February 7, 2013, at <http://www.gpo.gov/fdsys/pkg/FR-2013-02-07/pdf/2013-02794.pdf>.

³ Clean Air Act, sections 211(o)(3)(A) and section 211(o)(7)(D)(i).

⁴ Clean Air Act, section 211(o)(7)(D)(i).

⁵ Clean Air Act, section 211(o)(D)(ii).

⁶ *American Petroleum Institute v. Environmental Protection Agency*, United States Court of Appeals for the District of Columbia Circuit, January 24, 2013, at [http://www.cadc.uscourts.gov/internet/opinions.nsf/A57AB46B228054BD85257AFE00556B45/\\$file/12-1139-1417101.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/A57AB46B228054BD85257AFE00556B45/$file/12-1139-1417101.pdf).

⁷ Clean Air Act, section 211(o)(7)(D)(i).

986 million gallons. Doing so would reduce the RFS targets, while not doing so would require that the shortfall in cellulosic biofuels be made up with other advanced biofuels such as additional biomass-based biodiesel or ethanol produced from sugar. The agency has thus far declined to reduce the advanced and renewable targets and did not propose to do so for 2013. EPA stated in the proposed rule that it believes that non-cellulosic advanced biofuels will be available in sufficient quantities to meet the statutory target and that the greenhouse gas and energy security benefits of using those fuels outweigh the benefits of lowering the target.⁸ EPA explicitly requested comment on these points in the proposed rule.⁹

The provisions for biomass-based biodiesel also have some unique features. The applicable volumes set out in statute only extend through 2012, rather than through 2022 as for the other three categories. After 2012, EPA is required, based on a number of listed criteria, to set the volumes for 2013 and beyond, but the volumes must be no less than the 1 billion gallons set out for 2012.¹⁰ EPA opted to increase the required volume to 1.28 billion gallons for 2013, 0.28 billion gallons above the minimum, based in part on a finding that “the biodiesel industry is already producing at a rate consistent with an annual volume of about 1.3 billion gallons.”¹¹

Compliance and Enforcement

Each gallon of qualifying renewable fuels produced or imported is assigned a renewable identification number (RIN). These RINs are separated from the actual renewable fuel when it is blended into gasoline or diesel fuel, after which they become tradable credits. There are RINs for each of the categories of biofuels under the RFS.

Obligated parties must comply with their annual RVO for each category of biofuel through a credit trading system. They do this by submitting to EPA the required number of RINs, acquired either by blending the fuel and separating the RINs and/or by purchasing RINs from others (either directly from obligated parties who have over-complied with the RFS and have excess RINs to sell, or from third-party traders who participate in RIN markets). Some obligated parties are refiners that have limited or no capacity to blend the fuel and generate RINs themselves, and thus are dependent on RIN purchases for compliance.

Some credit trading systems require all credits to be pre-approved and verified by a regulatory authority. In that case, once a credit is issued, a purchaser is not liable if the credit turns out to be invalid. Alternatively, a credit trading system may minimize regulatory burden on credit generators by leaving much of the verification responsibility to the market and relying on parties to allocate liability for invalid credits through contractual arrangements. The latter approach is termed a “buyer beware” system because obligated parties are responsible for verifying the validity of the credits that they use for compliance.

EISA required EPA to set up a credit system to facilitate flexible compliance but left many of the details to be determined by EPA through a notice and comment rulemaking process. After consultation with the stakeholders and notice and public comment, EPA established the

⁸ 78 Fed. Reg. 9300, February 7, 2013, at <http://www.gpo.gov/fdsys/pkg/FR-2013-02-07/pdf/2013-02794.pdf>.

⁹ *Id.*

¹⁰ Clean Air Act, sections 211(o)(2)(B)(ii) and (v).

¹¹ 77 Fed. Reg. 59,458-59, September 27, 2012, at <http://www.gpo.gov/fdsys/pkg/FR-2012-09-27/pdf/2012-23344.pdf>.

RIN credit trading program as a “buyer beware” program. EPA’s regulations specify that “invalid RINs cannot be used to achieve compliance with the Renewable Volume Obligations of an obligated party or exporter, regardless of the party’s good faith belief that the RINs were valid at the time they were acquired.”¹² EPA stated that allowing the use of invalid RINs, which may not even represent actual fuel, “would undermine the volume requirements set by Congress.”¹³

Renewable fuel producers must be registered with EPA in order to produce and sell qualifying fuels. This process requires documentation, approval of the type of fuel by the agency, an engineer’s review of the facility, and an annual independent auditor’s report. Further, all RIN transactions must take place on the EPA Moderated Transaction System (EMTS). EPA does not, however, certify or validate RINs.¹⁴ Once the renewable fuel producer is registered, the producer can generate RINs without obtaining EPA approval of the RINs or verification of the quantities produced. The EMTS is structured to allow the market to police itself. For example, obligated parties and other RIN purchasers can block a biofuel producer in the EMTS if they believe that the RINs generated by the producer are invalid. In its rulemaking, EPA explained the reasoning for including this function in the EMTS as follows: “Because of the ‘buyer beware’ aspect, we will offer the option for a buyer to accept or reject RINs from specific RIN generators or from classes of RIN generators.”¹⁵

Since 2011, several instances of RIN fraud have come to light in which companies registered with EPA were creating and selling RINs but not actually producing the underlying renewable fuel (particularly biomass-based biodiesel). The first of these involved the company Clean Green Fuels that had no biofuel production facilities whatsoever but generated and sold over \$9 million in fraudulent RINs. A federal criminal enforcement action was taken against the company’s owner, and subsequent actions have been taken against two other companies, Absolute Fuels and Green Diesel.¹⁶ The possibility of additional RINs turning out to be fraudulent has created marketplace uncertainty, and many small biofuels producers in particular have had trouble selling their RINs to obligated parties.¹⁷

On November 7, 2011, EPA issued 24 notices of violation (NOVs) against refiners and others who had purchased and used invalid RINs that originated with Clean Green Fuels.¹⁸ Many of these entities asserted that Clean Green Fuels was registered with EPA, that its RINs were

¹² 40 CFR § 80.1431

¹³ Testimony of Byron Bunker, Acting Director, Compliance Division, Office of Transportation and Air Quality, Office of Air and Radiation, and Phillip Brooks, Director, Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, Before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, 112th Cong. (July 11, 2012).

¹⁴ Environmental Protection Agency, *Renewable Fuels: EPA Moderated Transaction System (EMTS)*, at <http://www.epa.gov/otaq/fuels/renewablefuels/epamts.htm>.

¹⁵ U.S. EPA, *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*, 75 Fed. Reg. 14733 (Mar. 26, 2010) (final rule).

¹⁶ Environmental Protection Agency, *Enforcement of the Renewable Fuel Standard Program*, at <http://www.epa.gov/enforcement/air/renewable-fuels/fuel-novs.html>

¹⁷ See Committee on Energy and Commerce, Subcommittee on Oversight and Investigations hearing: “RIN Fraud: EPA’s Efforts to Ensure Market Integrity in the Renewable Fuels Program,” July 11, 2012, at <http://energycommerce.house.gov/hearing/rin-fraud-epa%E2%80%99s-efforts-ensure-market-integrity-renewable-fuels-program>.

¹⁸ Environmental Protection Agency, *Enforcement of the Renewable Fuel Standard Program*, at <http://www.epa.gov/enforcement/air/renewable-fuels/fuel-novs.html>.

seemingly approved by the agency, and that there was no indication to the contrary from EPA prior to receiving the NOVs.¹⁹ EPA reiterated that obligated parties that submitted invalid RINs to meet their RVOs were in violation of the regulations, which do not provide EPA pre-approval of RINs and specifically preclude the use of invalid RINs for compliance purposes.²⁰

In response to stakeholder concerns about RIN fraud, EPA has proposed a rule that would create a voluntary third-party quality assurance program (QAP) to verify RINs.²¹ Under this proposal, RINs can be validated by an independent auditor that follows EPA's requirements under its QAP. These verified RINs would provide purchasers with an affirmative defense against certain penalties should they turn out to be invalid and, in some cases, would obviate the obligation to purchase replacement RINs. The proposed program would be voluntary, allowing obligated parties the option of purchasing RINs under the current scheme or choosing these independently verified RINs with added protections.

RIN affordability has also emerged as an issue. Until 2013, ethanol RIN prices were low, but prices have risen dramatically since the beginning of the year.²² A variety of explanations have been offered for the increase. Some attribute the increase to perceived flaws in RIN markets such as potential hoarding by speculators and the lack of sufficient regulatory oversight. Others argue that rising ethanol RIN prices are simply a function of a market that is tightening as a consequence of the expected blend wall and increasing RVO requirements.

RINs can be carried over from one year to the next, meaning that "banked" RINs from over-compliance in the previous year can facilitate compliance in the current year. At the start of 2013, EIA estimated that there were 2.1 billion gallons of banked corn ethanol RINs and 2.7 billion gallons of banked RINs overall (i.e., including biomass-based diesel and advanced biofuels) available to be used for compliance with the 2013 RVO requirements.²³ However, EIA projects that the banked supply of corn ethanol RINs could disappear in 2014 if poor corn harvests, and therefore reduced corn ethanol production, continue beyond 2012 into this year and if the blend wall imposes constraints on total ethanol volumes that cannot be alleviated.²⁴

Questions for Stakeholder Comment

1. Does EPA's annual RVO-setting process work well or are there concerns? If there are problems, are they correctable by EPA? Are any statutory changes needed?

¹⁹ See, Testimony of Charles Drevna, president of the American Fuel & Petrochemical Manufacturers, Before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce 112th Cong. (July 11, 2012), at <http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/Hearings/OI/20120711/HHRG-112-IF02-WState-DrevnaC-20120711.pdf>

²⁰ Testimony of Byron Bunker, Acting Director, Compliance Division, Office of Transportation and Air Quality, Office of Air and Radiation, and Phillip Brooks, Director, Air Enforcement Division, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, Before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, 112th Cong. (July 11, 2012).

²¹ Environmental Protection Agency, Regulatory Announcement, *EPA Issues Notice of Proposed Rulemaking to Establish a Voluntary Quality Assurance Program for Verifying the Validity of Renewable Identification Numbers Under the RFS Program*, January 2013, at <http://www.epa.gov/otaq/fuels/renewablefuels/documents/420f13005.pdf>.

²² Energy Information Administration, Today In Energy, *What caused the run-up in ethanol RIN prices during early 2013?*, June 13, 2013, at <http://www.eia.gov/todayinenergy/detail.cfm?id=11671>.

²³ *Id.*

²⁴ Energy Information Administration, Today in Energy, *U.S. ethanol production and the Renewable Fuel Standard RIN bank*, June 5, 2013, at <http://www.eia.gov/todayinenergy/detail.cfm?id=11551>.

2. Are the cellulosic biofuel provisions in the RFS working well or do they need to be changed? Has EPA modified its cellulosic biofuel standard-setting process for 2013 and future years appropriately, following the DC Circuit's decision to vacate EPA's 2012 standard? If not, what further changes are needed? Should EPA be required to reduce the advanced biofuel and total renewable fuel volumes when it lowers the cellulosic biofuel volume? What would be the consequences of such a change?
3. How can EPA improve its enforcement of the RIN credit trading program? Does EPA have the resources that would be required to oversee RIN production and enforce against production of invalid RINs? What role should obligated parties have in verifying the integrity of RINs and what additional information do they need to exercise due diligence? Will EPA's proposed voluntary third-party quality assurance program address the concerns of all RIN market participants? If not, what else is needed?
4. What is responsible for the rise in ethanol RIN prices in 2013? Can future increases in RFS compliance costs be avoided, and if so, how? If the government takes action to limit increases in RFS compliance costs, how might such action affect this market-based program?
5. Are increases in RIN prices likely to affect the production or marketing of renewable fuels? If so, how might this affect implementation of the RFS and RIN prices moving forward?
6. Should the provisions applicable to obligated parties be modified to provide relief for entities unable to generate sufficient RINs? Would such an approach apply different compliance requirements for refiners that blend ethanol and refiners that do not blend ethanol? What would be the justification for and potential consequences of such a change, including the potential for market distortions?
7. Is the RFS incentivizing refiners to make less gasoline available to the American market, either through increased exports or reduced refinery production? If so, can anything be done to address this?

This completes the white paper series, but given the breadth of issues raised by the RFS, the committee recognizes that not all concerns have been addressed. For this reason, the committee will also accept stakeholder comments on any aspect of the RFS. Please respond by July 26, 2013, to RFS@mail.house.gov. Should you have any questions, you may contact Majority staff Ben Lieberman at (202) 225-2927, or Minority staff Alexandra Teitz at (202) 225-4409.