

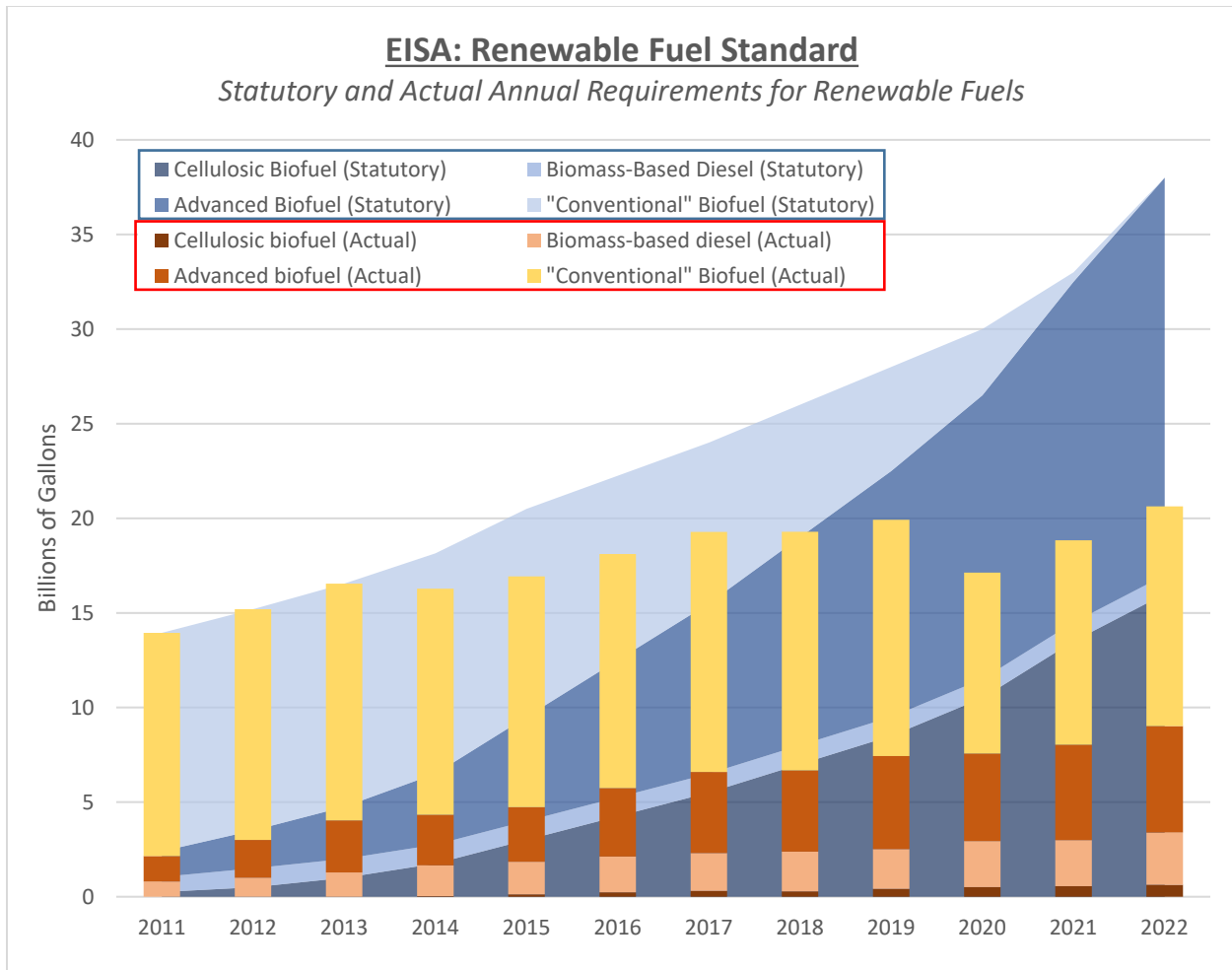
The Renewable Fuel Standard

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When George W. Bush signed the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007, ethanol was hardly a household name, even though it had been used as a fuel since the early 1800s. The Renewable Fuel Standard (“RFS”) established by the Acts required that domestically produced renewable fuels, like ethanol, be blended into U.S. transportation fuel. While the RFS was originally intended to increase U.S. energy security by substituting ethanol for imported petroleum, in recent years it has come to be viewed as a tool to help reduce carbon emissions through the substitution of fossil fuel based fuels with fuels produced from renewable sources.

Under the RFS, transportation fuels sold or introduced into commerce must contain a certain percentage of certain categories of renewable fuels. RFS compliance obligations fall on fuel refiners and importers. Compliance is certified by tracking renewable identification numbers, known as RINs. Producing a gallon of renewable fuel generates a RIN, which can then either be retired by its producer to comply with that year’s requirements or sold to another party on the open market. RINs are categorized by their generation year and renewable fuel category (“D-Code”). Each year, the amount required to be produced in each category ratchets up. Refiners and importers that do not produce renewable fuels must purchase RINs to meet their individual renewable volume obligations determined pursuant to the RFS. Since 2013, actual final obligations published by the EPA have lagged the statutory requirements.

The EPA published the final obligations for 2020, 2021, and 2022 on June 3, 2022. While higher than any prior obligations, they were slightly lower than the proposed targets published in December 2021. (See chart below.)



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RIN Generation and Pricing

To generate a RIN, a fuel must be produced pursuant to an approved “pathway” and must achieve a reduction in greenhouse gas emissions compared to a 2005 baseline. A pathway is a combination of the feedstock used as a base, the production process, and the final, generated fuel. A failure to comply with a pre-approved fuel pathway invalidates the RIN. Each pathway is assigned a D-Code, and each D-Code has different compliance requirements. For example, a gallon of corn ethanol, must reduce lifecycle greenhouse gas emissions by 20% over a gallon of fossil fuel to be certified as a D-6 RIN. Conversely, a gallon of cellulosic biofuel, which is made from cellulose (inedible stringy fibers of plants), must reduce lifecycle greenhouse gas emissions

¹ There is no statutory requirement for gallons of conventional biofuel. The number shown here for both actual and statutory is the total amount of biofuel required minus the amount required of more advanced biofuels. Further, while the Energy Independence and Security Act of 2007 requires one billion gallons of bio-mass based diesel, the EPA can raise this requirement. EPA, Renewable Fuel Annual Standards, online at <https://www.epa.gov/renewable-fuel-standard-program/overview-renewable-fuel-standard>; <https://www.epa.gov/renewable-fuel-standard-program/renewable-fuel-annual-standards>; <https://www.epa.gov/renewable-fuel-standard-program/final-volume-standards-2020-2021-and-2022>.



by 60% over a gallon of fossil fuel to be certified as a D-3 RIN. RINs generated through a more advanced fuel pathway can be used to satisfy RIN requirements from a less advanced fuel pathway, and command a correspondingly higher price.

D-#	Description		Emission Reduction	2022 Required Volume	Can Be Used To Replace	2022 RIN Last Price ²
D-3	Cellulosic biofuel	Made from cellulose (the stringy fiber of a plant), which can be grown where food crops cannot	60%	16.0 billion gallons	D-5, D-6	\$3.12
D-7	Cellulosic diesel					
D-4	Biomass-based diesel (made from animal fat, vegetable oil or other biomass)		50%	1 billion gallons (min)	D-5, D-6	\$1.51
D-5	Advanced Biofuel (typically made from non-food based feedstocks)		50%	21.0 billion gallons	D-6	\$1.28
D-6	Renewable fuel (non-advanced / conventional biofuel, e.g. corn ethanol)		20%	No requirement	N/A	\$1.13

Initially, small refineries were exempt from compliance with the RFS. Since 2013, they could petition the EPA on an annual basis for an exemption if the refinery would suffer “disproportionate economic hardship” as a result of compliance. Such exemptions were frequently granted between 2017 and 2020. However, in January 2020 the Tenth Circuit’s decision in *Renewable Fuels Association et al. v. EPA* changed the playing field. Specifically, small refineries which had not previously received an exemption were disqualified from receiving any exemption in the future. The court held that any “disproportionate economic hardship” must be “caused by” RFS compliance, and not due to increases in product cost that would be passed through to customers.

While the U.S. Supreme Court subsequently overruled the Tenth Circuit’s holding imposing a continuity requirement on small refinery exemptions, the decision did not preclude the EPA from imposing other criteria with respect to such exemptions. Subsequently, in April 2022, the EPA denied 36 small refinery exemption petitions, primarily on the basis that they had not demonstrated disproportionate economic hardship” that was “caused by” compliance with the RFS. The EPA has since determined that in order for an entity to be eligible for the small refinery exemption, it must have originally applied for and received the exemption the first year it was available under the RFS.

This change to EPA policy combined with increasing RIN volume requirements has created increased volatility in the RIN market. Prices for D-4 RINs reported by the EPA for April 2022 are three times higher than in April 2019 and 2020. This has caused businesses to begin to think through how to manage their RIN exposure. To date, only a few generators, investment

² Price from April 21, 2022. <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information>

banks, and traders have negotiated a RIN hedge, but appetite for novel products in this space is growing.

RIN Hedges

Derivatives have historically been used to control participants' exposure to market fluctuations. From farmers in the mid-1800s entering forwards at sowing to control their exposure to grain price fluctuations in the following harvest season, to complex modern structures like interest rate swaps and equity derivatives, traders have worked out solutions to take risks from parties who do not want them and sell those risks to parties who do. This has not always been without unintended negative consequences (consider the 2007 financial crisis, caused in part by large-scale mispricing of complex derivatives like collateralized debt obligations). However, the general benefits of derivatives remain. Fuel refiners and importers need to be able to plan their annual businesses, and unpredictable fluctuations in RIN prices creates problems both for RIN producers (who are unsure of the return for growing their business) and RIN purchasers (who cannot forecast what their exposure will be).

Enter the nascent industry of RIN hedges.

To date, RIN hedges follow a back-to-the-basics approach. Complex synthetic hedges are nowhere to be seen. Deals are typically structured as commodity forward agreements requiring physical delivery without the option of cash settlement. A RIN generator will often be on one side of the hedge, with a financial counterparty or a RIN consumer on the other side. And certain policy driven constraints apply—e.g., a RIN generated in a particular compliance year is only good for satisfying obligations for that compliance year or the following compliance year.

For example, 2021 RINs can only be used for 2021 and 2022 compliance years but could not be applied to the 2023 compliance year. This means a 2022 RIN is not fully fungible against a 2021 RIN, and any multi-year forward will need to account for delivery of different product year over year. Further, a long term hedge with a RIN generator relies on that generator continuing to successfully operate their renewable fuel facility at the contracted volume levels. Because advanced biofuel generators often live in a more risky developing technology space, this leads to potential bankruptcy and liquidation risk for the party on the other side. Finally, buyers with limited knowledge of RINs and the differing “pathways” may risk an improperly produced RIN being invalidated by the government long after the RIN sale.

RIN transfers—and RIN hedges—require a fair amount of compliance. When a party transfers ownership of renewable fuels, the transferor must provide documents to the transferee that meet the requirements of the applicable regulation and include specific RIN-related information. Producers and importers of renewable fuels are required to report and track RIN transactions under the RFS Program using the EPA's Moderated Transaction System (“EMTS”). Following these specialized requirements, documentation for derivatives in this space tend to be bespoke. Typically, parties negotiate a master agreement that provides for the entry of individual confirmations of sales of specified quantities in future months/quarters/years at an agreed price. However, no agreed master form exists to specifically address RIN hedges. While industry partnerships in the space such as Energy LEAP have developed a form to address the spot market

purchase and sale of RINs, which includes appropriate RIN specific representations and covenants, this form is not meant to handle derivative transactions. Existing hedge documentation, like the ISDA forms, conversely, does not contain necessary RIN specific language. The NAESB form is too hardwired to the delivery of natural gas to be readily suited to RIN transactions.

While none of the above-mentioned forms are an exact fit for a RIN hedge, work to document RIN hedges has included various elements of all of the above forms, as well as bespoke provisions unique to the characteristics of RINs. Parties should consider whether the RINs at issue are Specified RINs (from a Generator, Facility or Batch Number) or just RINs for a specific vintage and/or D-code. Parties will also need general contractual protection around each party's compliance with the RFS and specifically ensuring (i) each party's registration on the EMTS, (ii) validity of RINs under the RFS, and (iii) that the RINs are issued pursuant to an approved pathway.

Commercially speaking, the RIN generator should consider how it will address situations in which delivered RINs may be found to be invalid. Holding some RIN inventory in reserve or purchasing replacement RINs from third parties are two options. The parties should also consider the delivery schedule. Execution of multiple confirmations each with a quarterly transfer period and quarterly amount of RINs would work within the architecture of some of the form agreements described above. Alternatively, a master agreement with a pre-agreed schedule setting forth the same would also be workable. Finally, the RIN generator will need to determine what credit support is required from the hedge counterparty, such as a deposit, letter of credit or a parent guaranty. The above considerations could be considered fundamental to a RIN hedging agreement; however, they are by no means exhaustive of all that the parties will need to consider when entering into a RIN hedge.

While there has been a steady increase in the number of participants in the renewable fuels industry in the United States, there are currently fewer counterparties that are willing to enter into long-term transactions with RIN generators to hedge their price exposure. However, the increase of participants in the renewable fuels industry in the United States should ultimately increase demand for RIN hedges. It seems likely then that the number of counterparties willing to enter into long term, forward sale agreements, or perhaps even other more exotic instruments, with RIN generators will grow in the coming years. This could spur standardization in documentation for RIN hedges, but until it does, counterparties and their advisors with experience working with hedges, derivatives, and forward sales across various commodity and financial markets will be best positioned to navigate this emerging space.