Renewable Identification Numbers

The U.S. Environmental Protection Agency (EPA) uses Renewable Identification Numbers (RINs) to track renewable transportation fuels. The RIN system allows EPA to monitor compliance with the Renewable Fuel Standard (https://www.afdc.energy.gov/laws/RFS) (RFS), a federal program that requires transportation fuels sold in the United States to contain minimum volumes of renewable fuels.

RIN Format
EPA uses the following format to determine RINs for each physical gallon of renewable fuel produced in or imported into the United States.

RIN Format: KYYYYCCCCFFFFFBBBBBRRDSSSSSSSSEEEEEEEE

- K: Identifies whether the RIN is assigned to a gallon or detached
- YYYY: Year of production
- CCCC: Company ID
- FFFFF: Plant/facility ID
- BBBBB: Batch number
- RR: Biofuels equivalence value
- D: Renewable fuel category
- SSSSSSSS: Start number for the batch of biofuel
- EEEEEEEE: End number for the batch of biofuel

The RFS program assigns obligated parties (fuel refiners, blenders, and importers) a renewable volume obligation (RVO). The RVO for each party is the volume of renewable fuels it is obligated to sell, based on a percentage of the company's total fuel sales.

The EPA created the RIN system to track RFS compliance of obligated parties. A RIN is a 38-character number assigned to each physical gallon of renewable fuel produced or imported. Obligated parties that produce or own RINs must register with EPA and comply with RIN record and reporting guidelines on a quarterly basis. RIN generation and transaction data is available from the EPA Moderated Transaction System (EMTS (http://www.epa.gov/fuels-registration-reporting-and-compliance-help/how-use-emts-report-transactions-fuel-programs)).

The RIN is attached to the physical gallon of renewable fuel as it is transferred to a fuel blender. After blending, RINs are separated from the blended gallon and are used by obligated parties (blenders, refiners, or importers) as proof that they have sold renewable fuels to meet their RFS mandated volumes. RINs may be used to satisfy volume requirements.

Selling RINs

Any entity blending ethanol and gasoline may sell RINs to one another. As a hypothetical example, Refiner A has already fulfilled its annual RFS requirement, but continues to buy and blend renewable fuels and, therefore, has excess RINs. Refiner A can sell the excess RINs to Importer B, who has not purchased sufficient renewable fuels to meet its RFS requirement. RIN prices are determined by market factors typical of other commodities.

Due to the low availability of cellulosic ethanol, EPA sets waiver credit prices for cellulosic ethanol in order to allow obligated parties to meet their required volumes. Cellulosic waiver credit prices were $1.33, $2.00, and $1.96 per gallon in 2016, 2017, and 2018, respectively.