

CAPCO

RINS POSITION MANAGEMENT

THE EVOLUTION FROM COMPLIANCE TO OPPORTUNITY



“Warning! May contain up to 10% Ethanol!” – Ever wondered why you see this statement at the gas pump? The short answer is because of the Renewable Fuel Standard. This EPA-administered standard uses Renewable Identification Numbers (RINs) as the mechanism to track compliance with the required amount of renewable fuel that must be blended into the transportation fuel sold in the United States. In 2020, this meant that of the 123.49 billion gallons of motor gasoline consumed in the U.S., about 10% came from ethanol.

In the 15 years since the advent of the Renewable Fuel Standard, the RIN developed into a mature instrument that reshaped the way transport fuels are modeled and valued. Created as a mechanism to track compliance, the RIN became a valuable tool with a wide reach. Active RINs management can have a direct bottom-line effect for parties throughout the value chain, from renewable supply forecasting to achieving a margin edge at retail pumps. It is important to note the value of an RIN is fundamentally rooted in the cost of compliance. As the U.S. continues pushing toward a more renewable future, the cost of compliance will increase.

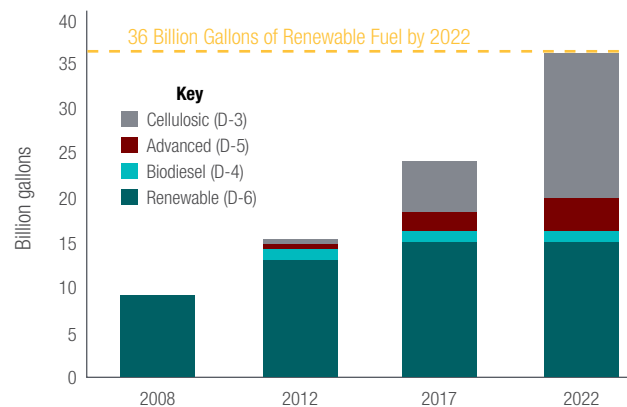
This paper discusses challenges various market participants face with their RIN position management, and how to evolve this capability from a compliance requirement into a P&L opportunity.

BACKGROUND

In 2005, the Energy Policy Act (EPA) was signed into law by George W. Bush to address the changing landscape of U.S. energy production and consumption. High energy prices, increasing dependencies on foreign supply chains, and growing concerns of long-term climate and environmental effects helped to pass one of the most sweeping policy amendments since the initial Clean Air Act was enacted in 1963. As part of a broad push for higher renewable fuel usage, the EPA created the Renewable Fuel Standard (RFS), which set forth new requirements on the amount of renewable fuel sources that must be blended with transportation fuel sold in the U.S.

Managed by the Environmental Protection Agency (EPA), the RFS program provides annual compliance targets for refiners or importers of nonrenewable fuels. Since the program’s inception, volumetric goals of renewable fuel production have steadily increased, from an initial target of 4 billion gallons in 2006 to 36 billion gallons by 2022.

CONGRESSIONAL VOLUME TARGET FOR RENEWABLE FUEL



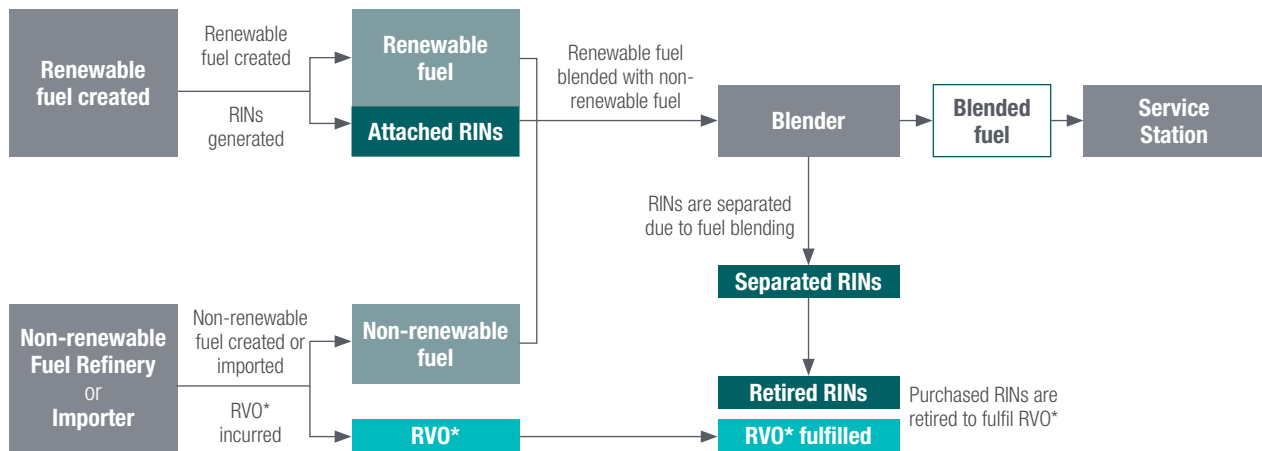
Note. This graph represents the volumetric goal of renewable transport fuels from 2008 to 2022. Copyright EPA.gov

WHAT IS A RIN?

Where there is a need for compliance, there is a need for a tracking mechanism. To track production of renewable fuel sources, refiners are provided credits, individually known as a Renewable Identification Number (RIN). These credits, or RINs, are associated to each gallon of renewable fuel produced. RINs are assigned a 'D-Code,' which differentiates the five categories of renewable fuel (D-3 through D-7). These credits stay attached to the renewable source until it is blended with nonrenewable gasoline or diesel. At the point of blend, the RIN becomes separated and is free to trade as an independent paper instrument. Refiners or importers of nonrenewable fuels

receive an annual, EPA-specified, obligation target, known as a Renewable Volume Obligation (RVO). RVO is calculated by dividing the RFS target by the total estimated yearly supply of gasoline and diesel fuel. Parties with RVOs must obtain RINs, either by production of a renewable fuel, purchase of renewable fuel with attached RINs, or by purchase of separated RINs at market. At the end of the compliance year, a percentage of total RINs are retired to the EPA moderated transaction system (EMTS), which completes the RVO requirement and demonstrates compliance to the Renewable Fuel Standard.

EXAMPLE LIFECYCLE OF A RENEWABLE IDENTIFICATION NUMBER (RIN)



*RVO = Renewable Volume Obligation

Note. This model depicts the lifecycle of a renewable identification number. Copyright EPA.gov

A LOOK AT THE INHERENT CHALLENGES AND OPPORTUNITIES

RINs pose several position reporting challenges in ETRM systems. They are dual-mode instruments that are fundamentally financial, yet are associated to, and move with, a physical product for a portion of the product lifecycle. Different market participants along the supply chain interact with RINs in different ways with different end objectives. This leads to potential gaps in both physical and financial position reporting as each participant may not sit perfectly within a one-size-fits-all solution.

A refiner of renewable fuels has a natural long position, as RINs are assigned to every gallon of fuel they produce. A refiner of a non-renewable fuel is naturally short, as they must purchase RINs, or the renewable product with associated RINs, to fulfill their RVO. A marketer or retailer could wear both hats. By purchasing transport fuel to be blended, a retailer subjects themselves to an RVO. By purchasing ethanol in transit, a retailer gains RINs which, in turn, offsets RVO. While the above scenarios sound straightforward, replicating these transactions in an ETRM system exposes several challenges including:

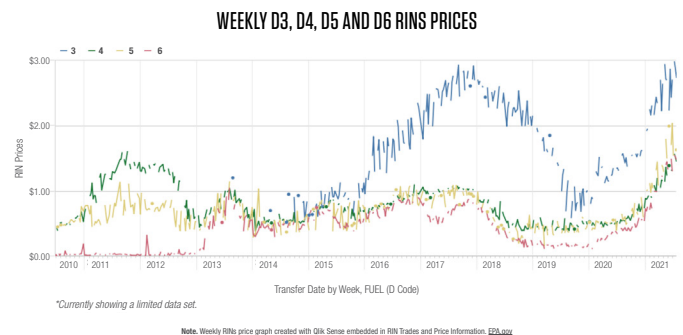
1. Maintaining a connection between financial modeled RINs and the physical product is a key function of accurate position reporting. When a trade is scheduled, there are typically slight variances between the trade forecast quantity and what is actually delivered. This presents an immediate synchronization issue between the physical fuel and the financial RIN. If the planned quantity of the ethanol purchase changes, the corresponding RIN trade needs to be updated, as well. Having an automated solution in place to update RIN quantities provides an efficient means for keeping physical and financial positions in sync.

2. Viewing RINs positions before title, as opposed to your actualized inventory, is the most accurate representation of a current position. In concert with the synchronization concept above, RINs without title and current inventory are two distinct statuses within your overall RINs inventory. If an ethanol

purchase is made in transit, inventory is not yet landed. Once the physical position is actualized, and sync occurs, then, RINs can be counted as inventory. Knowing what RINs are “in the pipeline” provide visibility of what an assumed inventory position will be before allocating the in-transit RINs. This allows a trader to make better informed decisions for RVO positioning.

3. Obligation reporting is a simple concept with a multi-faceted solution. Obligation reporting piggybacks on out-of-the-box physical position reporting, with additional layers, such as future buys and sells, RVO, and net exposure. By combining elements of both physical and financial reporting, culminating with a net RINs position, traders will have the best available data to manage their RINs portfolio. Obligation reporting is the confluence of synchronization, before title, current inventory, future inventory, and obligation that provides an accurate, and more importantly, complete view of your current RINs position.

4. Disaggregating RINs value is a crucial tool in a trader's arsenal. RINs are inherently part of the value of the renewable fuel to which they are attached. With the use of formula pricing, the system can be configured to provide on-the-fly valuation pricing that allows a trader to quickly visualize how RINs factor into a resolved Ethanol price. As the chart below shows, RIN pricing can be volatile. Being able to instantly view the value, or cost, of a RIN and ethanol separately, along with current inventory statuses, gives a trader a full suite of data to make timely and informed decisions.



CLOSING

While RINs have been the compliance mechanism of the Renewable Fuel Standard for quite some time, they still represent management challenges for market participants across the energy trading value-chain. Furthermore, few, if any, of the ETRM tools on the market are well suited to handle the nuances of RIN position management out-of-the box. Because of this, work arounds and/or configuration of the ETRM will be necessary to appropriately manage RIN positions and optimize value. It's important to work with a someone who understands this space well and is well positioned to address these challenges and capitalize on these opportunities to realize the full potential of these assets.

CITATIONS

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