U.S. House of Representatives Energy and Commerce Committee, Subcommittee on Environment Hearing

"Background on Renewable Identification
Numbers under the Renewable Fuel Standard."

Testimony of
Corey Lavinsky
Global Biofuels Analytics
S&P Global Platts

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Chairman Shimkus and Ranking Member Tonko, thank you for inviting me to speak today. I'm grateful for the opportunity to share information for this hearing: "Background on Renewable Identification Numbers under the Renewable Fuel Standard."

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Since 2016, I have been the Director of Global Biofuels Analytics at S&P Global Platts, following its acquisition of PIRA Energy Group. I have been analyzing biofuels markets for nearly ten years, during which I have seen conventional biofuel RINs rise from pennies a piece to as much as \$1.40. RINs, which are currently hovering around five-year lows, are of great interest to our clients and to the agricultural, biofuels and petroleum industries in general.

RINs are the currency of the federally-mandated Renewable Fuel Standard (RFS). Refiners and importers that are subject to the RFS prove compliance with their Renewable Volume Obligations (RVOs) by retiring RINs at the end of each compliance year. Obligated parties can obtain RINs by physical blending or by purchasing them on the open market.

Each obligated party must comply with four mandates: total renewable fuels, advanced biofuels, biomass-based diesel and cellulosic biofuels. Some RINs are more versatile than others and can be used to satisfy multiple mandates. For instance, a D4 RIN generated with the production of biodiesel can be used to satisfy three of the four mandates (total renewable fuels, advanced biofuels, and biomass-based diesel). The most common RIN, a D6 RIN generated from corn ethanol, can only be used toward the total renewable fuel mandate. Adding to flexibility, all RINs have a two calendar-year lifespan. Unused RINs can be carried over to the next year, with some limitations.

RINs That Can Be Used To Meet Each Mandate	
<u>Mandate</u>	Allowable D codes
Cellulosic biofuels	D3 and D7
Biomass-based diesel	D4 and D7
Advanced biofuels	D3, D4, D5, and D7
Total renewable fuels	D3, D4, D5, D6, and D7

Over time, RINs have become tradeable instruments, typically traded on a bilateral basis and off exchange. Independent price reporting organizations, like S&P Global Platts and other entities have shined lights on the opaque markets by publishing RINs price assessments.

As in most commodity markets, RINs prices are generated by the interaction between RINs' supply and demand. However, some specific characteristics make the RINs price mechanism slightly more complicated to analyze: for instance, RINs may be subject to exemptions, are vulnerable to court cases, are typically traded Over-the –Counter, i.e. off the Commodity Exchanges, and present variances. As a result, RINs lack the degree of transparency typical of other commodities such as oil and gas futures contracts.

While data is available, it isn't as complete as some would prefer. The Environmental Protection Agency (EPA) publishes extensive aggregated monthly data on RIN transactions and renewable fuel production. The EPA is also responsible for making decisions on Exemptions. Exemptions lower the number of RINs needed to satisfy the annual mandates. Currently, the EPA's small-refinery-hardship exemptions are not currently public information, but fall under 'confidential' business information. This makes analyzing RIN supply and demand more challenging for the marketplace.

Also, in the Exemption process, upon deciding that a waiver is warranted, the EPA has the power to reinstate previously-retired RINs, which allows the obligated party to use them or sell them.

Earlier this year, S&P Global Platts and other news organizations broke news as to how many EPA small-refinery exemptions were issued. In a letter to Senator Grassley, the EPA confirmed that it granted 19 out of 20 waivers from small refineries for 2016. Further, for 2017, 29 of 33

petitioners were granted exemptions, with the remaining 4 still pending. In total, 48 exemptions have been granted over the past two years, with a total exempted renewable fuel volume obligation of approximately 2.25 billion RINs. Only 1 waiver request was denied.

Recent court decisions have also had an effect on RIN supply. A few cases, including one that was decided by the 4th Circuit Court of Appeals last Friday, have overturned denials of waiver petitions. In *Ergon-West Virginia v. EPA*, issued last week, the Court vacated the EPA's denial of a small refinery exemption, saying it was "arbitrary and capricious." If this decision were to open the door to future lawsuits that lead to reinstatement of retired RINs, supply, demand and prices would be affected.

Policymakers, including Secretary of Agriculture Sonny Perdue, have called on the CME Group and ICE exchanges for ideas as to how to make the market more transparent. Policymakers also put emphasis on market safeguards. While the Commodity Exchange Act authorizes the U.S. Commodities Futures Trading Commission to set speculative position limits, RINs are not currently subject to such speculative position restrictions.

The RINs market shares both similarities and differences with other policy-driven environmental commodity markets (i.e. for SO₂, CO₂ emissions, for renewable electricity generation). A key distinguishing characteristic of the Renewable Fuel Standard (RFS) is a "floor and trade" system, rather than a "cap and trade" system. This ensures that a minimum volume of biofuels is blended into the transportation pool. Cap and trade sets a cap for behavior that the government seeks to limit, and penalizes companies that exceed the cap. On the other hand, under the RFS, the government sets the floor and companies are penalized if they do not blend enough to meet their RVOs or do not acquire a sufficient amount of RINs in lieu of blending.

The federal SO₂ Title IV Acid Rain program, established by the 1990 Clean Air Act amendments, was the first national cap and trade market, covering emissions from power plants. Covered emitters are required to submit an allowance for every ton of SO₂ emitted, and the fixed supply of allowances (the cap) limits total emissions. Quarterly data releases from the EPA indicate detailed emissions (and thus compliance obligations) of every covered power plant. Public reports in the program's Allowance Tracking System include snapshots of allowance holdings by individual account, allowance transfers between accounts and compliance and banking. Helping with pricing, formation, the EPS holds annual auctions of SO₂ allowances, both spot and 7-year advance, and publishes auction results and resulting clearing prices.

Among the key current U.S. environmental commodity markets are two cap-and-trade programs to regulate greenhouse gas emissions: 1) the California/WCI economy-wide cap and trade program (linked to Quebec) and 2) the nine-state power sector Regional Greenhouse Gas Initiative (RGGI). Both have been designed and administered at regional rather than federal level. Both include quarterly allowance auctions and have policy design elements to provide both a floor and various ceilings to allowance prices. The California program has implemented allowance holding limits on market entities.

RINs are mostly traded in bilateral transactions through brokers. In June, the EPA reported that around 1.6 billion RINs were generated, even as the ICE Exchange reported only 10 lots. By comparison, 68 thousand lots of California Carbon Allowances (CCA), 34 thousand lots of Renewable Energy Certificates (RECs) and 23 thousand lots of RGGI allowances were traded. While RINs are not available at auction, California cap and trade as well as RGGI allowances are regularly made available at quarterly auctions as part of the programs' designs.

RINs of the same year and category are priced the same anywhere in the country. RINs do not have the same complications across state lines that RECs often have. Unlike the RINs market, Renewable Energy Certificates policies are set by individual states and require electricity suppliers to account for a certain percentage of their final sales to customers with particular kinds of renewable power. Renewable electricity generation creates RECs, which are tracked through regional tracking systems. Individual states decide targets and which types of RECs can be used for compliance.

As with any commodity, transparency goes a long way to properly functioning markets – be it policy transparency, pricing transparency and or policy application and exemptions transparency. RIN fraud was a headline-grabber several years ago when several individuals and companies were charged with fraud for claiming credits for biodiesel they never produced. However, since then safeguards, such as the third-party quality assurance program, have been put in place to underpin proper functioning of the marketplace and market participants.

Thank you for the opportunity to provide this statement at such an important time. I welcome any questions you might have.