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FROM:

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SUBJECT:

White Paper Addressing Fraud in the Renewable Fuels Market and Regulatory

Approaches to Reducing this Risk in the Future¹

The findings and opinions within this report are based on my experience as a special agent and senior executive overseeing EPA's nationwide criminal investigation program, as well as additional review of relevant subject matter material. These insights have been developed over more than two decades in federal law enforcement and day-to-day execution of national environmental policy over that time frame.

Executive Summary

In response to national concerns about the United States' dependence on foreign oil, President George W. Bush signed the Energy Policy Act of 2005 and later the Energy Independence and Security Act of 2007. In addition to the energy security benefits, the acts were designed to bring about significant greenhouse gas reductions through their successful implementation. Both statutes established minimum thresholds for the production and use of renewable fuel and directed the Environmental Protection Agency (EPA) to establish the regulatory framework for the program, set volumetric renewable fuel targets and oversee participants in this new market. In an effort to further spur growth in the renewable fuels industry, the Department of Agriculture (USDA) was separately tasked with providing direct volume-based subsidies to qualified participants, and the Internal Revenue Service (IRS) was directed to provide volume-based tax incentives in the form of excise refunds to qualified participants in the program. Collectively, the program is referred to as the Renewable Fuel Standard (RFS) with earlier stages of the program known as "RFS-1" and the current iteration known as "RFS-2."

In the nearly ten years since the establishment of the RFS, the program has fallen short of its legislative goals and is in need of structural revision. As the former senior federal law enforcement officer who initiated and oversaw a nationwide effort aimed at investigating significant fraud in this program, I believe the existing regulatory and oversight framework will continue to provide opportunities for illegal exploitation and lead to competitive distortions in this sector. Additionally, maintaining the regulatory status quo in this program will deprive the American public of the full energy, consumer, and environmental benefits the founding statutes sought to provide while continuing to expose U.S. taxpayers to ongoing fraud.

¹ This report was prepared at the request of Valero Corporation to analyze the regulatory structure and related factors within the RFS that have significantly contributed to fraud within the renewable fuels sector.

However, focused regulatory changes, including redefining the point of obligation within the RFS, can help re-balance the risks and incentives within this program. This change, along with improving transparency within the renewable fuels sector and ensuring adequate oversight resources and capabilities by the EPA, can significantly diminish future fraud risk in the RFS.

Subject Matter Expertise in Environmental Crimes and Renewable Fuels Fraud

My previous role as the Director of EPA's Criminal Investigation Division (CID), the law enforcement arm of the agency, makes me uniquely familiar with the vulnerabilities within this program. During my tenure as the senior executive leading CID from 2012 until my retirement in 2016, I oversaw the initiation and execution of a nationwide law enforcement effort aimed at curbing the burgeoning fraud in the RFS program which to date has resulted in hundreds of millions of dollars in documented fraud identification and significant prison sentences for those prosecuted. Based on my experience, I believe the cost of these fraud schemes to victims and consumers, including taxpayers and obligated parties, is approaching \$1 billion.

As director I was tasked with overall responsibility for the nation's environmental crimes investigations, I set CID's programmatic direction in concert with the senior leadership of the EPA and the Department of Justice (DOJ), served as the principal law enforcement advisor to the agency's political leadership, briefed senior congressional staff on relevant matters, and directly oversaw the EPA's most significant ongoing criminal investigations. Among the cases I supervised as director was the investigation into the Deepwater Horizon disaster that killed 11 people and caused massive environmental and economic damage in the Gulf of Mexico; EPA's investigation into the West, Texas chemical explosion that killed 15 people; the recent Volkswagen "defeat device" fraud investigation; as well as numerous successful investigations into fraud in the renewable fuels market.

From 2008-2012, I was the Deputy Director of CID. In this capacity I served as the chief operating officer of the nationwide program, acted as the media spokesman for the criminal program, and coordinated national parallel proceeding matters with the agency's relevant civil enforcement and regulatory programs. From 2006-2008, I served as CID's Assistant Director for Investigations where I was responsible for oversight of all of EPA's criminal investigations, the development of nationwide criminal enforcement initiatives and coordination with the DOJ's Environment and Natural Resources Division as well as U.S. Attorneys on major cases. From 2001-2006, I served as a supervisory special agent in Michigan overseeing CID's Midwest operations, managing and directing several hundred criminal investigations and leading ongoing investigative initiatives while also providing post-9/11 homeland security support to the FBI, the Department of Homeland Security, and state law enforcement.

From 1993-2001, upon completion of comprehensive investigative training, I served as a special agent and later Resident Agent in Charge in CID's Baltimore Resident Office where I conducted and oversaw a variety of complex criminal investigations in the mid-Atlantic region. During this time, I was the affiant

on dozens of federal search warrants, testified in court proceedings routinely and worked jointly with DOJ on numerous successful prosecutions in the environmental and white collar arena.

The RFS in Brief

The underlying statutes passed in 2005 and 2007 require the EPA to set annual volume-based amounts of renewable fuel to be included in the nation's transportation fuel stream with an initial goal of 7.5 billion gallons of renewable fuel in 2012 growing annually to over 30 billion gallons by 2022. EPA maintains the ability to modify volumetric requirements, but in line with the statutes, the mandated volumes of renewable fuel have increased steadily since the inception of the program. Currently, approximately two billion gallons of biodiesel and over 14 billion gallons of ethanol are blended into the United States transportation fuel stream annually.

The Acts also seek to increase volumes of advanced biofuel and cellulosic biofuel, but these goals have not been reached thus far due to product development and market limitations. Under EPA regulations, refiners and importers of gasoline and diesel fuel (known as "obligated parties") are assigned a Renewable Volume Obligation (RVO) which represents the amount of renewable fuel that they are required to introduce into the non-renewable (fossil) fuel supply each year. Obligated parties that do not demonstrate their compliance with their RVO may incur civil penalties.

In an effort to build a more efficient compliance program, the EPA created a system of tradeable credits known as Renewable Identification Numbers (RINs) to reward and track renewable fuel production and use. A RIN is created with each discreet volume of renewable fuel that is manufactured in the United States, and is said to be "attached" to that volume of fuel. Each RIN has a unique number that corresponds to a specific volume of renewable fuel, and the existence of a RIN is required to be documented whenever the volume of fuel is transferred. A RIN can be "separated" from the renewable fuel once the renewable fuel has been legally blended into fossil-based motor vehicle fuel. At this point the goal of the renewable fuels program has been met, and the RIN is detached from the blended fuel. The separated RIN can then be traded or held for future compliance to satisfy an obligated party's RVO.

For example, a fuel blender or marketer may buy pure biodiesel (commonly referred to as "B100") from a biodiesel producer together with the assigned RINs. The fuel marketer/blender then blends the biodiesel with conventional diesel and sells the mix to retailers or other diesel users. By blending the fuel, the blender is able to separate the RINs. As biofuel producers and blenders have no RVO requirements they are able to sell the RINs. Eventually the RINs would be obtained by an obligated party, such as a refiner, which would submit the RINs to EPA in order to fulfill its RVO. When RINs are used to show compliance they are said to be "retired." It should be noted that the obligated parties, such as refiners, who are required to demonstrate compliance with the RFS (through the purchase of RINs or inclusion of actual renewable fuel in their operations) often have limited or no influence on the production, blending, and transfer of renewable fuel and RINs. Nonetheless, these entities are ultimately required to demonstrate compliance with the RFS.

The EPA, primarily through The Office of Transportation and Air Quality (OTAQ) within the Office of Air and Radiation, oversees the RFS. OTAQ is responsible for regulatory development and oversight and the establishment of annual volumetric standards, as well as the development and operation of the EPA Moderated Transaction System (EMTS), which is the electronic reporting system that was developed to screen and track all RINs generated under the RFS. Companies in this market provide their information and data directly to the EPA electronically through this system, and this is where buying and selling of RINs occurs. As the RFS program manager, OTAQ also specifies that market participants provide EPA with registration documents, reporting and recordkeeping documents, and various fuel tracking mechanisms. It should be noted that EPA neither provides direct financial incentives through the RFS nor does it directly manage the actual trades on EMTS. RIN values are market determined by speculation of supply and demand.

Duties related to enforcement of non-compliance or criminal conduct fall under EPA's Office of Enforcement and Compliance Assurance (OECA). Matters related to administrative or civil violations, such as an obligated party not meeting its RVO, are handled by OECA's Air Enforcement Division, while criminal investigations are the responsibility of CID in coordination with DOJ and other federal law enforcement partners. Expertise from OTAQ, particularly in relation to EMTS transactions and analysis, has been critical in the successful civil and criminal investigations to date.

It should be noted that within the EPA, the RFS is not a traditional regulatory program in that it is market based, and the EPA, unlike agencies such as the Securities and Exchange Commission (SEC) does not maintain significant staff expertise in the oversight of financial markets. This, along with significant resource cuts across the agency over the past several years, has made effective oversight of the RFS market particularly challenging for the EPA.

A Program Susceptible to Large Scale Fraud

In 2011, as a result of concerns about compliance within the RFS that were raised by civil enforcement colleagues, I convened a team of senior special agents, criminal analysts, attorneys, and regulatory experts to analyze the vulnerabilities of the RFS to criminal conduct. The results of this review were unequivocal: Structural vulnerabilities in the regulations, limited agency oversight, and a lack of market transparency within the RFS made this program a ripe target for massive fraud and illicit gain.

As a result of this determination, I convened a national team to formally analyze RFS data and build a task force approach to tackling this programmatic threat. The group reviewed industry data and EMTS transactions, conducted traditional external investigative work such as source interviews, and quickly developed a list of targets that appeared to be engaged in large-scale fraud in this sector. The CID team worked with civil enforcement colleagues, prosecutors from DOJ as well as special agents and financial analysts from the Secret Service, IRS, and FBI to investigate dozens of cases across the country. By 2013, I had allocated approximately ten percent of CID's time and personnel to investigating fraud in the RFS – an area of investigation that was essentially non-existent two years earlier.

Agents and prosecutors working these cases found typical patterns of illegal conduct that they had previously seen in other criminal sectors, from health care fraud to wildlife smuggling. They found that criminal elements were motivated by the chance to obtain large economic gains in a sector that provided opportunities for illicit profit as a result of financial incentives, market needs, and structural vulnerabilities. The establishment of the RFS, which was enacted for valid public policy reasons, provided the unintended framework for a new and persistent area of fraud. In this case the victims are taxpayers, consumers, and market participants.

The RFS provided financial incentives for violators by creating a new, multi-billion-dollar market that has grown substantially since its inception. From 2010 to the present, with moderate overall increases in renewable fuels integration, the RINs market has increased from less than \$1 billion to in the range of \$15 billion today – creating an exceptional new market opportunity for those seeking illegal profits.

The structure of the RINs market, which was designed to create a more efficient trading system, ultimately opened the door for misconduct. The regulatory configuration of the RFS essentially created an extended chain of custody for RINs: from the point where renewable fuel was created, through the point where it was blended, and then stretching to petroleum refiners or importers, the obligated parties where the ultimate responsibility for compliance occurs, while often passing through RIN brokers. This extended chain of responsibility mandates that obligated parties, refiners and importers (that have essentially no influence on the purchase and blending of renewable fuel) make large-scale, and often unverifiable, purchases of these credits to meet their regulatory mandates. In practical terms, those with no leverage to influence the blending of renewable fuel or to ensure its validity, are required to purchase vast quantities of RINs from entities who bear no responsibility to ensure the validity of the product and can profit from the process by separating RINs for later sale at the blending point. At the same time, the EPA has lacked adequate resources to inspect facilities and oversee the sector. This combination, along with the inherent lack of transparency of this market, laid the groundwork for large-scale fraud in the RFS.

RINs have essentially become commodities like any other that are traded on a daily basis for millions of dollars. But unlike traditional commodity markets with market oversight and participant limits, the RINs market is opaque and was enacted without appropriate safeguards. In trading commodities on a traditional exchange there are certain position limits as well as distinctions between producers and traders. There is also significant transparency in that members can identify the participants, their limits, and other relevant data as those involved seek to make rational decisions about their trades. This level of transparency and market regulation is not present in the RINs market, and the opaqueness of the market is a critical factor that allows criminal conduct to continue.

Due diligence for the current universe of obligated parties under this regulatory regime can most optimistically be characterized as "difficult." In fact, it is nearly unmanageable for the currently designated obligated parties to conduct appropriate oversight, and they simply do not have the investigative expertise or the leverage to conduct such oversight based on where they sit in the production chain.

The EPA has sought to address these shortcomings within the RINs market, in part, through the use of third party verification in different forms. Although these incremental changes were designed to provide a greater level of certainty to market participants, in my experience overseeing the law enforcement teams investigating these cases, the changes repeatedly fell short.

For example, under RFS 1 (the first iteration of the program), no third party engineering certifications were required of biodiesel producers. The market then saw the first major RINs fraud case involving "Clean Green," a bogus company that didn't even have a production facility, which concocted a multi-million-dollar scheme where not a single drop of biofuel was created. As requirements for third party engineering certification were enacted to deter this blatant fraud, the first case of an engineer colluding to falsify the capacity of a biodiesel plant was identified. As fraud within the RFS accelerated, the agency later enacted the Quality Assurance Program (QAP) in which third party auditors would evaluate producers of renewable fuels to certify they were in fact producing the required product in compliance with the regulations.

To date, there has already been evidence in a recent prosecution that the QAP program has not been successful in preventing fraud, and there are initial indications that there may even be collusion by auditors to conceal fraud in this sector. Clearly, the enhanced levels of third party oversight established by the QAP are simply not an effective substitute for structural change in the regulations that could dramatically limit fraud, stem taxpayer loss, and stabilize the market so that the RFS can meet its statutory goals.

Misaligned Incentives and Resource Constraints Contributing to Fraud Risk

Incentives and risk play a central role in any market-based system, and when these principles are misaligned, as they are in the RFS, opportunities for fraud and market disruption flourish. Within fuel production and distribution, the point at which renewable fuels and petroleum based fuels are blended is where decisions are made about where to buy both types of fuel and how to distribute it. Yet the blenders who occupy this critical decision point bear almost no risk if they make unwise decisions about who to partner with to purchase renewable fuel. In fact, the program structure itself incentivizes blenders *not* to conduct due diligence, by offering blenders the opportunity to blend and then separate RINs which they can sell to third parties without any legal obligation to "true up," because they are not themselves obligated parties subject to an RVO. The regulatory risk falls on refiners and importers, the obligated parties who have to obtain adequate RINs to meet their RVO, but who have no decision making authority at the point of blending – the point at which decisions are made on where renewable fuel is procured, analyzed, and blended.

This combination of misaligned incentives created by the regulations, the opaqueness of the market, and diminishing inspection and oversight resources, leaves the RFS persistently open to large-scale continuing misconduct.

Other Renewable Fuel Incentive Programs Subject to Fraud

In an effort to further incentivize renewable fuels production in the United States, both the USDA and IRS established payment and tax incentives tied to the production of renewable fuels. Those investigating criminal conduct in the RFS have consistently found misuse and outright fraud associated with these programs, in addition to the schemes to commit crimes through traditional sale of fraudulent RINs.

USDA

The Department of Agriculture enacted its Advanced Biofuel Producer Payment (ABPP) program as a financial incentive to encourage growth in advanced agri-bio fuels production. Many participants in EPA's RFS program also take advantage of USDA's ABPP by registering with them and providing information related to the qualifying types and quantities of biofuel produced (which also includes ethanol and wood pellets). The program began making direct payments to producers in 2009 and continues to do so today. From 2009 through 2014, USDA paid out some \$300 million in direct subsidies. Through 2014 approximately \$15 million of this went to companies that have been prosecuted for fraud in the RFS system. In my experience, I have seen minimal oversight engagement by USDA, so it remains another ripe area for exploitation by criminals.

IRS

Since 2009 the Internal Revenue Service has allowed renewable fuels producers to claim an excise tax credit against their potential fuel tax liability. This essentially equates to a dollar-per-gallon of creditable 100% biofuel produced (in certain instances it may be \$0.50 per gallon) when blended with petroleum-based fuels and sold. This is known as a "blender's tax credit." The aggregate amounts of these credits are not publicly known, but many of the RFS fraud cases investigated and prosecuted have had a substantial dollar amount of tax fraud related to the blender's tax credit. This figure likely far exceeds the amounts paid out by USDA.

Leading RFS Fraud Cases to Date

Thus far, these cases represent approximately \$271 million in documented fraud loss as well as an additional \$71 million in seizures of illicit profits by federal authorities. In my experience this represents a fraction of the actual overall fraud impact, and significantly larger losses will be formally identified in upcoming court filings. The charged criminal cases to date have been centered in the biodiesel market. In my view, this pattern is due in part to the dispersed nature of the sector (as opposed to the more centralized ethanol sector) as well as the structural weaknesses of the regulations which do not incentivize due diligence at the appropriate point in the production and blending process. That being said, the breach of the blend wall, which has led to higher RIN prices making fraud even more profitable, and ongoing regulatory weaknesses related to the point of obligation open the door to misconduct across the entire RFS.

Investigators and prosecutors are now also seeing evidence of more traditional organized criminal activity in this sector as the frauds have become larger and more complex. The criminal profile of those exploiting the RFS in a number of cases has moved beyond the individual fraudsters that were seen at the onset of the RFS to much more sophisticated organizations. The adaptation of the RFS regulations in response to this conduct, which incrementally enhanced third party verification of renewable fuel producers, has not adequately stemmed the flow of fraud in this market. This increase in sophistication of criminal schemes and the entry of more traditional organized crime, including some with potential international links, also tracks the growth of high RINs prices. Generally speaking, the higher the RIN price the more investigators and prosecutors are seeing the entry of highly organized criminal enterprises in the RINs market. When one looks at the recent criminal indictment of Thomas Davanzo and Robert Fedyna in Florida (see below), it is clear that much of their illicit conduct took place as the price of RINs soared in 2013. At the same time, the dramatic increases in RINs prices has not led to correspondingly large increases in renewable fuel penetration for the public.

In addition to the opaqueness of the market and relatively easy exploitation of tax credits driving criminal behavior in this sector, high RIN prices have hastened the entry of these sophisticated groups into this area. The continued misalignment of risk within the regulations and the higher price of RINs will likely encourage further large-scale illegal exploitation by this class of criminal enterprises. The increased proficiency of these enterprises also leads to greater challenges for investigators to identify and disrupt their schemes along with the corresponding increase in public resources it takes to accomplish this law enforcement mission.

Clean Green - Maryland

In 2010 Rodney Hailey was reported to the Baltimore County Police by suspicious neighbors after they observed numerous luxury vehicles parked on his front lawn as they suspected he may have been involved in narcotics trafficking. Subsequent investigation determined that Hailey – who had no background in the energy industry – established "Clean Green" a biodiesel production company based out of a rented storage shed. The investigation revealed that between March 2009 and December 2010, Hailey engaged in a systemic fraud scheme selling over 35 million RINs (representing 23 million gallons of biodiesel fuel) to brokers and oil companies, when in fact Clean Green produced no fuel at all and Hailey did not have a facility capable of producing a drop of biodiesel. Prior to being convicted he illegally received over \$9 million in profits and defrauded customers out of some \$42 million. He was ultimately sentenced to 12 years in prison.

Absolute Fuels, LLC - Texas

Jeffrey Gunselman was sentenced in March 2013 in Texas to 188 months in prison related to 51 counts of wire fraud, 24 counts of money laundering, and four counts of making false statements in violation of the Clean Air Act. He was ordered to pay nearly \$55 million in restitution. He devised a scheme to defraud the EPA by falsely representing that he was in the business of producing biodiesel fuel, but he did not have an operating biodiesel fuel-producing facility. His operations consisted of falsely generating renewable fuel credits and selling them to oil companies and brokers. Gunselman instructed purchasers to wire payments to a bank account he solely controlled, and as a result, approximately \$41 million was deposited into that account.

James Jariv, et.al. - Nevada and British Columbia, Canada

Jariv was sentenced in August 2015 for his role in illegal schemes to generate fraudulent biodiesel credits and to export biodiesel without providing biodiesel credits to the U.S. He was sentenced to ten years in prison for his role in the scheme and ordered to make restitution of over \$6 million and forfeit between \$4-\$6 million in cash and other assets. Beginning in September 2009, Jariv and his co-conspirators operated multiple front companies in the U.S. and Canada while, in reality, no biodiesel was produced, imported or sold as claimed. Jariv claimed to blend the biodiesel with petroleum diesel, allowing his company to sell the RINs separately from any actual biodiesel. Using this scheme, the defendants falsely claimed to import, purchase and blend more than 4.2 million gallons of biodiesel. They fraudulently generated more than \$7 million.

New Energy Fuels/Chieftain Bio Fuels - Texas and Ohio

In August 2015, four defendants, Dean Daniels, William Bradley, Richard Smith and Brenda Daniels, were sentenced to a total of 156 months of incarceration as a result of their scheme which spanned facilities in Texas and Ohio where they purchased low-grade feedstock and performed minimal processing to produce a low-grade fuel that was not biofuel. They represented to EPA that they had produced biodiesel and would then generate fraudulent biodiesel RINs which they sold to various third parties. They sold over \$15 million worth of fraudulent biodiesel RINs and claimed over \$7 million in false biodiesel tax credits. Additionally, the company's production processes were found to have generated substantial hazardous by-products, and Dean Daniels was found to have arranged for the hazardous waste to be transported off site at night and dumped in and around the city of Houston.

Greenworks Holdings, LLC- Pennsylvania

A 101-count indictment was handed down in December 2015 which charged David Dunham, Jr., and Ralph Tomasso of Pennsylvania with engaging in a multi-million-dollar conspiracy to defraud individuals and the U.S. government by falsely claiming to have produced and sold renewable fuel for which they misappropriated some \$50 million in payments, subsidies, and other benefits. They fraudulently represented these credits as tradable credits which they sold to unsuspecting third party purchasers. They were also charged with obstruction of an IRS audit and a USDA examination.

Green Diesel - Texas and Guatemala

Philip Rivkin operated and controlled several companies in the fuel and biodiesel industries, including Green Diesel LLC, Fuel Streamers Inc., and Petro Constructors LLC, all based in Houston. Rivkin claimed to produce millions of gallons of biodiesel at the Green Diesel's Houston facility and then generated and sold RINs based upon this claim. In reality, no biodiesel was ever produced at the Green Diesel facility. Before fleeing the country and attempting to change his identify, Rivkin generated approximately 45 million fraudulent RINs which were then sold to companies that needed to obtain them, and he netted millions of dollars in sales. He also received millions of dollars in fraudulent tax credits based on fictitious biodiesel production. Earlier this year he was sentenced to ten years in prison, forfeited \$15 million worth of art, luxury vehicles, and \$29 million in his financial accounts.

E-Bio Fuels – Indiana and New Jersey

The operators of E-Bio Fuels built a scheme where they operated a legitimate plant, albeit one that produced no renewable fuel. Rather, they conspired with Caravan Trading, a New Jersey-based fuel trading firm, to purchase renewable fuel that had the RINs previously separated and re-sold the fuel with RINs attached. (A RIN must be "retired" after being sold one time and E-Bio continued to re-sell the RINs without any new production of bio fuel). It is estimated that the company reaped over \$100 million in illegal profits, tax credits, and payments from USDA. According to Indiana's U.S. Attorney, this was the largest tax and securities fraud scheme in the state's history. The lead defendant, Joseph Furando, was sentenced to 20 years in prison in 2016 for his role as the scheme's leader. Additional defendants will be sentenced in this conspiracy that spanned the United States and parts of Canada

Gen-X Energy Group, et.al. - Florida, Georgia, and Washington

In June of 2016, Thomas Davanzo and Robert Fedyna pled guilty to multiple felonies in Florida for their participation in a multi-state scheme to defraud biodiesel buyers and U.S. taxpayers. The co-conspirators received at least \$42 million from the sale of these fraudulent RINs to third parties. In addition, Gen-X received approximately \$4.4 million in false tax credits for this fuel. As part of the scheme, Davanzo and Fedyna operated entities that purported to purchase renewable fuel produced by their co-conspirators at Gen-X Energy Group (Gen-X), headquartered in Pasco, Washington, and its subsidiary, Southern Resources and Commodities (SRC), located in Dublin, Georgia. The purchases were fraudulent as credits had already been claimed on this fuel. This cycle was repeated multiple times. The Gen-X operations were subjected to EPA's recent QAP regulations, but the fraud continued undetected in spite of these new audit provisions.

Future Fraud Risk in the RFS

Looking at the adaptability of these fraud schemes, along with the agency's regulatory response to them, provides an effective window into the upcoming state of compliance with this program. In moving from the "RFS 1 era" *Clean Green* prosecution to the most recent criminal pleas earlier this summer in the *Gen-X/Southern Resources* case, one can clearly see a dramatic expansion in the complexity of the schemes and the monetary impact of the conspiracies. In the initial case of *Clean Green*, the operator essentially established a bogus electronic storefront, did not even have a sham factory and sold millions of dollars in counterfeit RINs. From RFS 1 forward, third party engineering reports authenticating the actual production capabilities were required, and those investigating RIN fraud then found evidence of third party engineers criminally colluding with biofuel producers to fabricate such reports.

Fast forward to the recent *Gen-X/Southern Resources* criminal pleas and one sees a conspiracy involving complex schemes involving "ghost loads," the hoodwinking of auditors, and illegal profits that, when the prosecution is complete, will dwarf the sums from the *Clean Green* case. It should be noted also that the *Gen-X/Southern Resources* operations were subjected to the recent EPA QAP regulations, and that process did not deter or detect their illegal conduct. It was the efforts of the assigned law enforcement and prosecution team that independently identified the illegal conduct.

In addition to the inability of the new regulatory approaches to stem this fraud, market conditions are laying the groundwork for additional opportunities for illegal gain and the subsequent market disruption that could occur. When one looks at past prosecutions, they have been exclusively centered in the biodiesel market, and the ethanol market appears to be operating with more legitimacy. Today, there is demand in the range of 14.2 billion gallons of ethanol, and the EPA's coming RFS mandate for ethanol will soon rise to 15 billion gallons annually. This breaching of the "blend wall" can pose a variety of market issues, but in terms of compliance, the regulations permit the use of additional biodiesel ("D-4 RINS") as a means of meeting the RVO for "D-6 RINs"— (ethanol) of an obligated party. (However, this cannot be done in reverse.) Essentially, the potential scarcity of D-6 RINs (driven by the breach of the blend wall) could drive the expansion of the biodiesel market by an additional twenty-plus percent to meet the RFS requirements for ethanol. This lays the groundwork for an expanded playing field for fraud in the renewable fuels market segment that has been the most susceptible to illegal activity.

Solutions Moving Forward

Expecting a different level of compliance in the RFS without altering the structure and incentives within the program is an exercise in wishful thinking. But this does not have to be the way forward. With appropriate and non-disruptive changes in the regulations, fraud risk can be reduced, taxpayers can be better protected, and the important goals of the program can be strengthened.

In terms of the greenhouse gas reduction impacts of the program, it was estimated as early as 2011 that the existing fraud *at that time* was the environmental equivalent to the addition of two medium sized coal fired power plants to the country's air pollution. The anticipated environmental and public health benefits of the program will simply not be met absent regulatory change.

Among EPA's foundational enforcement principles is that the responsibility for compliance with environmental regulations is placed on the entities that have the ability to comply. This promotes responsibility and incentivizes the appropriate conduct. This principle is absent in the current RFS regulations. In traditional EPA programs, when a producer of raw product, "company A" sells material to "company B," and company B in turn processes that material and generates hazardous waste, that end user (company B) bears legal responsibility for the management of the waste. If somehow company A was required to bear the burden of legal responsibility for handling hazardous waste generated by company B, that would be an illogical system as company A cannot influence the production process or physically manage the waste at another facility. Additionally, company B would not be incentivized to manage the waste appropriately, as it would face no legal risk for mismanaging it.

Stated simply, power plants, and not their customers, are responsible for their own emissions; auto manufacturers, not drivers, are responsible building cars that meet EPA's auto emission standards; and water treatment facilities, not people who drink or otherwise consume water, are responsible for their discharges. In my experience, the appropriate alignment of incentive and risk is foundational to the effective operation of environmental regulatory programs and that is missing in the current structure of the RFS where the parties who are situated in the supply chain to undertake the act of blending, and are similarly situated to perform effective due diligence, are not designated as the legally obligated parties.

EPA has also increasingly applied the principle of transparency as an important lever to ensure compliance across multiple sectors. In the case of the agency's largely successful acid rain trading program, continuous emissions monitors (CEMs) provide real time, accessible data to gauge compliance. This level of transparency is non-existent in the RINs market. Under the current structure of the RFS, the misalignment of incentive and risk and lack of transparency continue to open the door to fraud. Changing the point of obligation to the location where actual decisions are made on blending conventional and renewable fuel would do what attempts at enhancing third party verification have not done – significantly enhance compliance and reduce opportunities for fraud. Similarly, publicly identifying market players, volumes, and trading information would enhance transparency in an otherwise unclear market and provide commensurate market and environmental benefits.

Modest regulatory changes can accomplish what different iterations of third party verification failed to accomplish – significantly reduce fraud in the RFS. Altering the RFS regulations – so that the obligated party moves from refiners and importers to those making the decisions on who to purchase and blend fuel from – will much better align risk and incentivize due diligence at the appropriate points across the renewable fuels sector. Absent structural changes in this portion of the RFS regulations, the current point of obligation will continue to contribute to large-scale fraud opportunities within the RFS.

Additionally, as in any market or community there needs to be a "cop on the beat" to ensure a level playing field. In the case of the RFS, that comes in the form of analysts, enforcement attorneys, inspectors, and special agents. As a result of EPA's internal budget decisions, there are now significantly fewer of these capable professionals to carry out these oversight responsibilities in this sector than there were at the program's outset, and this resource reduction further imperils the integrity of the program.

It should be noted that this reduction in government oversight resources, as well as the placement of the point of obligation with refiners and importers (and the lack of market transparency), have collectively led to an unworkable situation which is keeping the door open to further fraud. The currently designated obligated parties are in the business of refining and importing fuel. They do not have subpoena authority, or any of the appropriate tools that law enforcement routinely uses, to determine if they are being cheated by criminals taking advantage of the structure of the RFS. Yet, without any leverage over selecting renewable fuel producers, or the blending of that fuel, they are essentially being required to police the market and ensure the validity of RINs they must purchase under the current structure of the RFS.

Fraud thrives when opportunities for exploitation and large-scale illicit gain meet as they have done within the RFS. This illegal conduct doesn't just enrich criminals, but also undermines the primary policy principles that the program seeks to advance – energy security and greenhouse gas reduction. Realigning the requirement for compliance in the RFS to the point of blending can significantly reduce this opportunity and in turn bolster the goals of the program. If the point of obligation is moved to the point of blending, it would substantially reduce the size of the RINs market. Every blender would be an obligated party in proportion to the volume of fuel that they blend, and they would use all or nearly all of the RINs that they separate from renewable fuel when they blended it. This would dramatically reduce

the number of RINs that obligated parties have to purchase on the open market, leaving those who might seek to exploit the RFS with a much smaller playing field on which to operate due to the diminished demand for RINs. Moreover, because blenders would themselves become obligated parties, they would be incentivized to conduct far greater due diligence on those from whom they purchase renewable fuel. Moving the point of obligation to the blenders can also dramatically reduce prices in the RINs market by reducing demand. Quite simply, the more direct the relationship is between the party responsible for compliance and the ability to comply, the lesser the chance for fraud and misconduct in the marketplace. The longer and more indirect that chain of custody of the RIN is, the greater the opportunity for criminal conduct and market disruption as illustrated in the current RFS structure.

Requiring a more transparent market with more direct engagement and responsibility at the point of blending can limit fraud and lead to a significantly more effective program for the country. Absent such straightforward changes, one can expect a continuation of illegal conduct that will undermine the goals of the statutes and continue to reduce the benefits anticipated for the American public while also continuing to put taxpayers and consumers at greater risk. In the current situation, investigators, prosecutors, and inspectors are doing a noble job of capturing the "horses" that have escaped from the barn at an ever increasing rate. Adjusting the RFS regulations by changing the point of obligation to the blender would have the effect of helping to close the barn door to prevent any future escapes and would make rounding up future "horses" far less necessary.