



BY OVERNIGHT DELIVERY

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June 13, 2016

Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave., NW  
Washington, D.C. 20460

Re: Petition for Rulemaking: Renewable Fuel Standard Definition of Obligated Party –  
40 C.F.R § 80.1406

Dear Administrator McCarthy:

The Valero Energy Corporation and its subsidiaries (“Valero”) hereby petition EPA to propose and take final action on a rule in 2016 to address a flaw in the Renewable Fuel Standard (“RFS”) program, 40 C.F.R. Part 80 Subpart M. Valero petitions EPA to align the obligation to blend increasing volumes of renewable fuels into transportation fuel with the ability to do so by defining “obligated party” as

the entity that holds title to the gasoline or diesel fuel, immediately prior to the sale from the bulk transfer/terminal system (as defined by IRS regulations in 40 CFR §48.4081-1) to a wholesaler, retailer or ultimate consumer and is required to report federal excise tax liability for the gasoline or diesel on its Form 720 – Quarterly Federal Excise Tax Return, within the 48 contiguous states or Hawaii, during a compliance period or the entity that is the enterer (as defined by IRS Regulations in 40 CFR §48.4081-1) of the gasoline or diesel fuel into the 48 contiguous states or Hawaii outside of the bulk transfer/terminal system and is required to report federal excise tax liability for the gasoline or diesel on its Form 720, during a compliance period.<sup>1</sup>

Currently, the obligation for the RFS is placed on refiners and importers — the Point of Obligation is the refinery gate and the entity that imports — regardless whether the refiner or importer have the ability to affect the amount of renewable fuels blended and sold to consumers. This placement has created multiple problems that impair the RFS program’s proper functioning and prevent it from ensuring that renewables enter the transportation fuel market. The inefficiencies of the Point of Obligation’s current placement harm renewable fuel producers, independent refiners, retailers and U.S. consumers. Among the most significant is that, because it prevents the value of Renewable Identification Numbers (“RINs”) from being passed through to consumers, it only minimally encourages renewable fuel consumption.

Precisely because Congress wanted EPA to be able to identify and resolve these sorts of problems as quickly as possible, the Clean Air Act (“CAA” or “Act”) compels EPA to consider

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<sup>1</sup> The current definition excludes Alaska and territories from the RFS. We propose no change in that regard.

adjustments to the RFS program to ensure that (1) it promotes renewable fuels in the U.S. transportation fuel system and (2) the renewable fuel market operates efficiently without irrational and disproportionate burdens. EPA is bound by the Act to undertake rulemaking to change the Point of Obligation so that this flaw in the RFS program does not constrain the renewable fuel market. This Petition is one of several independent actions that Valero has initiated regarding the RFS Point of Obligation, each of which has a separate and distinct legal basis. A 2016 rulemaking to move the Point of Obligation as Valero recommends, however, could resolve all these actions related to the Point of Obligation.

With the recommended change, EPA would regulate a subset of “blenders” —the entities that actually control the hydrocarbon at the primary point of blending. These entities own petroleum fuel at the bulk terminal or truck loading terminal, also referred to as “the rack,” and control the blending decision. Hereinafter, this Petition refers to fuel owners at this blending point as “Rack Sellers.”

The change will relieve supply constraints on renewable fuel in the transportation fuel market and facilitate the market’s ability to respond to renewable fuel volume mandates. The change will thus (1) enable the market to more readily respond to the annual renewable volume obligation (“RVO”) standards; (2) begin to address the structural constraints that EPA identified in the 2015 Renewable Fuel Volume Rule;<sup>2</sup> and (3) eliminate barriers that prevent the RIN value from being passed through to consumers.

Valero is uniquely situated to raise issues associated with the Point of Obligation in the RFS program, due to its direct experience with the rules from several perspectives. As a refiner, Valero is an obligated party under the RFS rules and must comply with the RFS volume mandates. Valero owns and operates 13 petroleum refineries located in the United States. With a combined throughput capacity of approximately 2.9 million barrels per day, Valero is the world’s largest independent refiner. Valero is a fuel importer with refineries in Canada and the United Kingdom. Valero is a major fuel wholesaler. Approximately one-third of its fuel goes into Valero-branded, rack contract, or wholesale markets. Valero was the first traditional petroleum refiner to enter large-scale ethanol production and now has 11 state of-the-art plants located throughout the Midwest, including in Iowa, Nebraska, South Dakota, Ohio, Indiana, Wisconsin, and Minnesota. This makes Valero the third largest ethanol producer in the United States. Valero has further diversified its renewable investments into Diamond Green Diesel, a 12,000 barrel-per-day renewable diesel plant next to the Valero St. Charles Refinery, making Valero the largest renewable diesel producer in the U.S.

As a renewable fuel producer, Valero is directly harmed by EPA’s failure to ensure that the RFS program does not impede growth in the renewable fuel market. As the largest independent refiner and a major renewable fuel consumer, Valero’s business is harmed by an inefficient renewable fuel market that artificially increases the price of RINs and the risks associated with RIN acquisition. Because of its uniquely diversified position, Valero engages

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<sup>2</sup> Final Rule Setting Renewable Fuel Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017 (“2015 RVO Rule”), 80 Fed. Reg. 77,420, 77,423 (Dec. 14, 2015).

with and must balance the interests and concerns of different stakeholders involved in the RFS program. Valero’s business interests thus reflect concerns of a broad spectrum of market participants that EPA must consider to ensure that the RFS program functions as Congress intended and to properly implement the terms of the CAA RFS provisions.

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| <b>I.</b>    | <b>Introduction and Summary: Moving the Point of Obligation will improve the RFS program by eliminating market distortions and disincentives that constrain renewable fuel consumption.</b> |           |

The Clean Air Act charges EPA with designing the RFS to maximize renewable fuels in the U.S. fuels market, yet the current RFS structure hampers the growth of renewable fuels. That impairment is attributable to the misplacement of the current compliance obligation point. Because the obligation is not placed at the natural compliance point, it has generated competing incentives that prevent RIN value pass-through to consumers and preclude the installation (or expansion) of blending infrastructure. As a result, the misplacement hampers the penetration of renewable fuels at higher levels. These developments cut to the heart of the legislatively mandated program, because the statute mandates that EPA annually review the appropriateness of the regulation precisely to prevent such problems. Moreover, special statutory alarm bells go off when EPA uses the statutory waiver authority to address supply constraints; when it does, the agency must review and reconsider the appropriateness of the current regulatory structure in satisfying the goals of the RFS. Through these statutory requirements, Congress expects EPA to quickly respond if the regulatory structure itself has become a constraint.

EPA has repeatedly recognized that the RFS program is not functioning as Congress intended and that the supply of renewable fuel to the transportation fuel market is constrained by a number of factors.<sup>3</sup> EPA identified lack of infrastructure as the leading constraint on renewable fuel supply. In comments on the 2015 RVO Rule, Valero demonstrated how obligating the appropriate party in the RFS program will directly incentivize investment in needed infrastructure to bring more renewable fuel to market. Thus, the point of obligation is not a standalone issue EPA may address sometime in the future, but is at the root of the infrastructure supply constraint. And EPA’s failure to consider the point of obligation virtually ensures that the infrastructure constraint will continue unabated.

EPA, like economists and experts, recognizes that the current RFS structure causes market disparity and distortions that keep consumers from benefiting from better renewable fuel prices

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<sup>3</sup> See 80 Fed. Reg. at 77,452.

and availability.<sup>4</sup> Despite EPA's denial that this flaw substantially harms some refiners over others, the very flaw that EPA acknowledges (and the resulting disparate impacts on refiners) is what prevents the RFS program from creating incentives to blend renewable fuel as Congress intended. As structured, the system inhibits capital investments needed for renewable fuel infrastructure. Based on the comments submitted during past RFS rulemakings and in the 2015 RVO rulemaking, renewable fuel producers clearly have not felt the full market support that the RFS program intended to provide. In short, the very structure of the current RFS program is the source of supply constraint—and that is a problem of EPA's own making that EPA must eliminate.

Unlike various challenges EPA faces implementing the RFS, EPA can easily resolve this defect by shifting the RFS compliance obligation to Rack Sellers, ensuring that all parties would have an equal incentive to maximize the generation of RINs, thus eliminating current structural constraints on that generation. As EPA identified in the 2015 RVO Rule, the infrastructure needed to increase renewable-fuel market penetration is located downstream of refiners.<sup>5</sup> Rack Sellers are not only downstream of refiners, but possess the ability and market power to invest in infrastructure for additional renewable fuel blending and marketing. As long as Rack Sellers lack compliance obligations, however, there will not be adequate market motivation to invest in downstream infrastructure. By moving the obligation from the point of refining to the place where blending actually occurs and where renewable fuel is purchased and delivered, EPA would incentivize Rack Sellers to maximize blending and marketing of renewable fuel. The parties with the greatest market power would then be fully compelled by the obligation to promote increased use of renewable fuel. No party would have a surplus of RINs by virtue of their downstream position alone, while all parties would be equally obligated and, most importantly, all parties' incentives would fully align with the Act's goal of pushing renewable fuels into the market.

The change will not only improve the RFS and resolve serious harms and prevent further harm in the fuel sector, it will also benefit small retailers, biofuel producers, and consumers. Contrary to views expressed by some opponents, the change will not harm market participants. As further described in this petition, where some parties once advocated for the proper placement of the RFS obligation, several now profit from the very dysfunction they once decried. Thus, they no longer support (and in some cases, vehemently oppose) a change. Other parties have discovered the revenue potential of the program dysfunction and now seek to preserve the

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<sup>4</sup> EPA "acknowledge[s] that there is a theoretical possibility that parties that accumulate RINs through their own blending activities could decide to bank the maximum quantity of RINs for their own future use or for future sale, and that if this practice were widespread that there could be a shortfall in available RINs for parties who do not engage in renewable fuel blending activities themselves and have not entered into sufficient contracts with blenders or other parties to acquire sufficient RINs." 80 Fed. Reg. at 77,430. In the final rule, EPA also relied on "An Assessment of the Impact of RIN Prices on the Retail Price of E85", which states "In reviewing the available data we conclude that E85 wholesalers and/or retail station operators appear to be seeking to maximize their profits from E85 sales, rather than seeking to maximize E85 sales volumes." Dallas Burkholder, U.S. EPA, Office of Transportation and Air Quality, *An Assessment of the Impact of RIN Prices on the Retail Price of E85* at 1 (Nov. 2015) [hereinafter the "Burkholder Memo"]; see also *id.* at 10.

<sup>5</sup> EPA's list of constraints on the use of renewable fuel includes various constraints on the market that are downstream of refiners, including market-based and infrastructure constraints associated with distribution and retail infrastructure. See 80 Fed. Reg. at 77,452.

economic gains. EPA must pay careful attention to the motives of any opponents to the change; none are motivated to improve the efficiency and power of the RFS to promote renewable fuel.

No substantial obstacles could block the regulatory change necessary to correct the program's flaw. To the contrary, the fix is simple—moving the Point of Obligation to the owners of the fuel immediately prior to blending at the rack (Rack Seller) is a straightforward edit to the definition of obligated party. No administrative burden justifies any delay in revising the RFS program. Nor is the fix speculative, as California's program has already demonstrated the effectiveness and efficiency of the regulatory management of fuels through market mechanisms at the terminal rack-level.

While Valero's suggested regulatory change faces neither serious impediments nor any valid basis for inaction, its advantages are massive. Redefining "obligated party" would

- increase penetration of biofuels into the market, helping to effectively overcome the supply constraints associated with the blend wall;
- remove the market distortion that harms independent refiners, small retailers and small renewable fuel producers;
- create a level playing field in all fuel-market sectors, thus generating greater competition for renewable fuels on all levels;
- substantially reduce the opportunity for RIN fraud and RIN speculation because the parties with RFS obligations would be those who generate RINs; and
- lead to reliable, third-party verification for the obligated parties' RVO and most RIN-generation, using federal excise tax documents, a remarkably simple solution to the major challenges to verification today.

All this and more can be achieved without radically restructuring the transportation fuel market, which has been trending away from vertical integration.

Valero has attached to this Petition a report<sup>6</sup> produced by National Economic Research Associates ("NERA") Economic Consulting (hereinafter the "NERA Report"), which is part of the administrative record for the 2015 RVO Rule. The report's authors include economists with substantial experience and expertise in the energy and environmental markets as well as an expert on antitrust and market competition. After completing an analysis of the RFS program and EPA's 2015 proposed rule, NERA concluded that

If [EPA] leaves the RFS2 program as currently designed, it must accept the fact that there will be little potential for increasing renewable fuel use in the transportation sector. Therefore, if EPA wants RFS2 to have any chance of meeting its original goals, it must consider changes to its design.<sup>7</sup>

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<sup>6</sup> Paul Bernstein, et al., NERA Economic Consulting, EFFECTS OF MOVING THE COMPLIANCE OBLIGATION UNDER RFS2 TO SUPPLIERS OF FINISHED PRODUCTS (July 27, 2015) [hereinafter "NERA Report"], provided here as Attachment A.

<sup>7</sup> *Id.* at 16.

As recently as April 2016, an industry analyst warned of the potential for a repeat of the 2013 RIN crisis.<sup>8</sup> In that crisis, high levels of use of banked RINs would be driven by limited market penetration of renewable fuels, limited pass-through of RIN value, and limited and distorted incentives for renewable fuel infrastructure investments. EPA can prevent another RIN crisis by moving the Point of Obligation before the end of 2016 to those at the natural compliance point—Rack Sellers.

In particular, Valero recommends the following revision to § 80.1406 (Obligated Party):

(a)(1) *An obligated party is ~~any refiner that produces gasoline or diesel fuel~~ the entity that holds title to the gasoline or diesel fuel, immediately prior to the sale from the bulk transfer/terminal system (as defined by IRS regulations in 40 CFR §48.4081-1) to a wholesaler, retailer or ultimate consumer and is required to report any federal excise tax liability for gasoline or diesel on its Form 720 – Quarterly Federal Excise Tax Return, within the 48 contiguous states or Hawaii, during a compliance period or the entity that is the enterer (as defined by IRS Regulations in 40 CFR §48.4081-1) of the gasoline or diesel fuel into the 48 contiguous states or Hawaii outside of the bulk transfer/terminal system and is required to report any federal excise tax liability for gasoline or diesel on its Form 720, during a compliance period., any importer that imports gasoline or diesel fuel . A party that simply blends renewable fuel into gasoline or diesel fuel, as defined in § 80.1407(e) or (e), is not an obligated party.*

We recommend that EPA also adopt the following IRS definitions:

*Bulk transfer/terminal system* means the taxable fuel distribution system consisting of refineries, pipelines, vessels, and terminals. Thus, taxable fuel in a refinery, pipeline, vessel, or terminal is in the bulk transfer/terminal system.

*Enterer* generally means the importer of record (under customs law) with respect to the taxable fuel, except that—

(1) If the importer of record is a customs broker engaged by the owner of the taxable fuel, the person for whom the broker is acting is the enterer; and

(2) If there is no importer of record for taxable fuel entered into the United States, the owner of the taxable fuel at the time it is brought into the United States is the enterer.<sup>9</sup>

<sup>8</sup> E-mail from Tom Kloza, OPIS, to [opisethanol@announce.opisnet.com](mailto:opisethanol@announce.opisnet.com), *BIOFUELS UPDATE: Rinsanity Sequel? Top Analyst Sees Problems with Calculating RIN Bank*, (Apr. 13, 2015, 4:42 PM).

<sup>9</sup> 26 C.F.R. § 48.4081-1(b).

## II. Relevant market structure and participants.

Both the current problems and Valero's proposed solution require a brief overview of how the market functions. As described by the GAO:

The U.S. petroleum refining industry consists of firms of varying sizes that, in addition to operating refineries, may also have operations in other related industry segments: (1) the upstream segment, which consists of the exploration for and production of crude oil; (2) the midstream segment, which consists of pipelines and other infrastructure used to transport crude oil and refined products; (3) the downstream segment, which consists of the refining and marketing of petroleum products such as gasoline and heating oil; and (4) the renewable fuels segment, where biorefineries produce renewable fuels that are blended with petroleum products at wholesale terminals before being distributed to consumers. To varying degrees, refiners may primarily operate refineries—these are called merchant refiners—or may be integrated, participating in various other related industry segments. HollyFrontier Corporation is an example of a merchant refiner that purchases crude oil from unaffiliated producers and sells refined products to other companies operating retail fuel outlets, while Chevron is an example of a fully integrated company, a refiner that also produces crude oil and operates pipelines and retail fueling outlets across the United States.<sup>10</sup>

For the purposes of this Petition, the relevant market participants are (1) the refiner, who refines petroleum crude into the blendstocks for gasoline and diesel; (2) terminal owners and operators of blending infrastructure and terminals, where gasoline and diesel are sent for sale and distribution and where renewable fuel blending decisions are made; (3) wholesale purchasers, marketers or distributors who may purchase from refiners before or after blending at the terminals and distribute the fuel to retail stations; and (4) retailers who own retail fuel stations, where there may be a decision to blend additional renewable fuels. Thus, the refiner is at one end of the system, and the retailer is at the other end. The bulk terminal or truck loading terminal, where refiners and others sell to marketers and distributors, is the middle of the system. *This middle point* (and downstream) is where renewable fuels are blended,<sup>11</sup> and where compliance with the RFS is largely achieved. It is thus the natural point of compliance with RFS volume mandates.

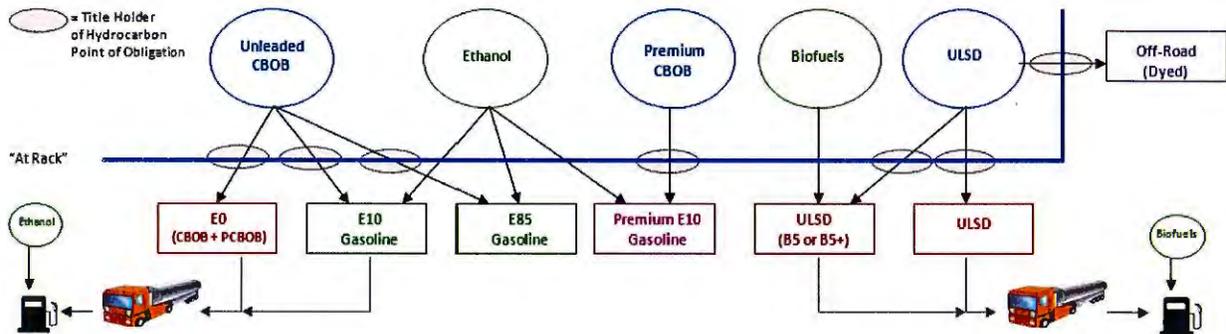
This middle point—the loading terminal—is known as “the rack.” The actual blending takes place as the gasoline and diesel are loaded for the buyer of the fuel at the rack. Thus, the “Rack Seller” is both (1) the owner of the gasoline and diesel as the fuel is blended and (2) the party that pays the federal excise tax for the gasoline or diesel. The “Rack Buyer” is the party that receives the already-blended fuel. Rack Buyers can choose not to buy gasoline or diesel blended with renewable fuel, but Rack Sellers always retain control over what is offered for sale across

<sup>10</sup> GAO, GAO-14-249, PETROLEUM REFINING: INDUSTRY'S OUTLOOK DEPENDS ON MARKET CHANGES AND KEY ENVIRONMENTAL REGULATIONS 8-10 (Mar. 2014), available at <http://www.gao.gov/assets/670/661710.pdf>.

<sup>11</sup> Renewable fuels cannot be blended upstream of the rack because renewable fuels cannot be transported in pipelines; thus, renewable fuels are not blended into fuel at the refinery by the refiner before the fuel is delivered to the rack.

the rack and the price for the various fuel blends for sale. All four categories of market participants can be Rack Sellers. However, for any specific volume of fuel, the primary control over blending of that volume is in the hands of the Rack Seller of that fuel. In other words, the market participant that controls the fuel at the rack has primary control over blending.

## Rack Detail



Integrated refiners participate in all four segments: as refiner, terminal owner/operator, marketer or distributor, and retailer. Merchant refiners or independent refiners typically lack market power in the three segments other than refining. Both integrated refiners and merchant refiners sell at the rack and thus are Rack Sellers. Integrated refiners, however, sell more at the rack than they refine, while merchant refiners typically sell far less at the rack than they refine. This is because integrated refiners and others buy fuel from merchant refiners to sell from the rack. Unlike integrated refiners, most merchant refiners have little or no market power in the distribution and retail segments; some have no retail shares at all.

On the other hand, Rack Sellers include retailers and other parties that have no refining at all. Over 20% of retail stations are owned by large company retailers or mega-retailers. These large retailers have access to more infrastructure than small retailers. Due to their downstream positions, some of these large company retailers have acquired positions at the Rack at the blending point. In other words, some large retailers, with no RFS obligation, own the gasoline or diesel before the blending decision is made and have control over blending renewable fuels into gasoline and diesel where refiners have no control. Access to RIN revenues have given these large retailers a competitive advantage over small retailers that threatens the future of small retail stations and could undermine retail competition and harm the consumer.

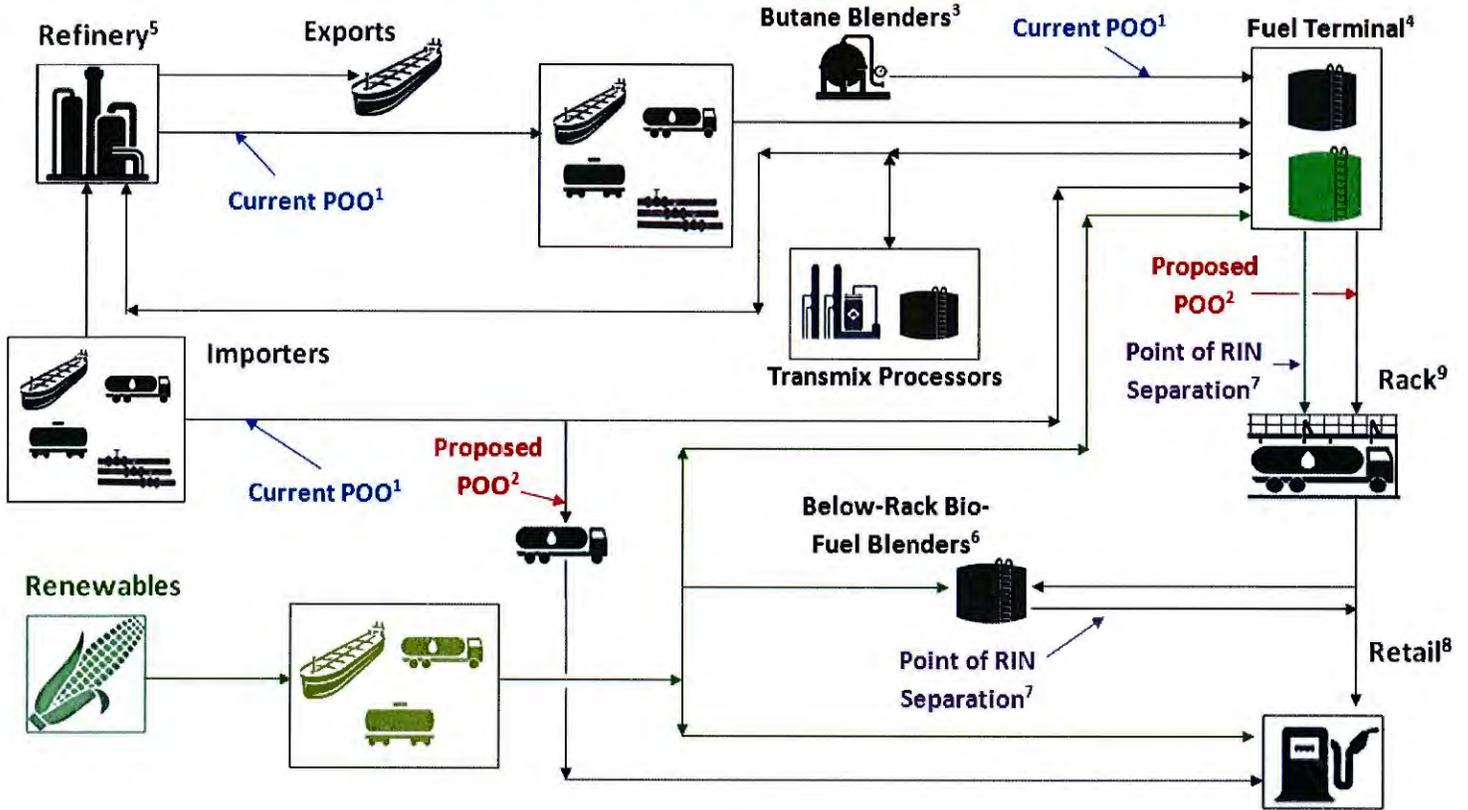
The statute gives EPA authority to regulate “blenders” as appropriate, but the term “blender” may reference: (1) the owner of the gasoline or diesel that can make the blending decision when selling the fuel at the rack, i.e., Rack Sellers; (2) the owner and operator of the rack or terminals and blending equipment; and/or (3) buyers of gasoline or diesel who blend renewable fuel below the rack (“Rack Buyers”). EPA can regulate any of these parties but need not set mandates for all.

Rack Sellers are blenders that include refiners and others that hold or have contracted for positions above the rack. Valero provides in Attachment D to this Petition a list of current Rack Sellers. Of the Rack Sellers on the list, those that are also refiners are currently obligated parties. Others include large retailers that have taken positions as Rack Sellers primarily to take advantage of the RIN value. These Retailer-Rack Sellers control blending decisions but currently have no corresponding RFS compliance obligation whatsoever. Thus, these Retailer-Rack Sellers generate RINs only to sell them to obligated parties for a profit. Although a few might generate some RINs below the rack, their position at the rack creates neither additional volumes of RINs nor additional blending of renewable fuel. These Retailer-Rack Sellers are not incentivized by an obligation to blend the most renewable fuels or to keep RIN prices low but may be affirmatively incentivized *not* to do so; they are using their resources to wrestle control over existing RINs and are motivated to keep the value of the RIN high by limiting the number of RINs available.

Blenders that are not Rack Sellers need not be obligated parties to achieve the benefits of the change proposed by Valero. Owners and operators of the rack or terminal and blending equipment that are not Rack Sellers are unlikely to be able to control decisions regarding changes necessary to increase renewable fuel blending. Some operate as service providers via contract with the fuel owners, have contracts with multiple parties, and cannot make infrastructure investments without agreement from these rack customers, *i.e.* Rack Sellers. Moving the Point of Obligation would make all rack customers equally motivated to blend renewable fuel and service providers at the rack would be able to make infrastructure investments for additional blending of renewable fuel.

Blenders that are Rack Buyers that blend renewable fuel below the rack can benefit from a change in the point of obligation. These include marketers, distributors and retailers that take advantage of renewable fuel blending tax credits for higher level blends and other below the rack blending opportunities which generate incremental RINs and additional revenue. With the proposed change to the Point of Obligation, downstream blenders would not be obligated parties. Nonetheless, all downstream blending would continue to be beneficial to the RFS program and is likely to be encouraged by Rack Sellers to increase the volume of RINs for compliance, particularly where downstream blending is more efficient. The proper placement of the Point of Obligation would eliminate the competitive disadvantage that small retailers have simply due to RIN revenue generation capability of large retailers. With the change, all retailers would be able to compete for RIN revenue downstream of the rack. In addition, to encourage downstream consumption, Rack Sellers would pass the RIN value to the retail level. Thus, retailers could realize additional price benefits from rack level blending as well as additional revenue generation from RINs created through additional downstream blending. Ultimately, consumers will benefit.

## RFS2 and the Point of Obligation



<sup>1</sup> Current Point of Obligation are the refiners and importers.

<sup>2</sup> The obligated party is the entity that holds title to the gasoline or diesel fuel, immediately prior to the sale from the bulk transfer/terminal system (as defined by IRS regulations) to a wholesaler, retailer or ultimate consumer and is required to report federal excise tax liability for the gasoline or diesel on its Form 720 – Quarterly Federal Excise Tax Return. An obligated party also includes the entity that is the enterer (as defined by IRS Regulations) of the gasoline or diesel fuel into the U.S. outside of the bulk transfer/terminal system and is required to report federal excise tax liability for the gasoline or diesel on its Form 720. Moving the POO equitably impacts all providers of gasoline and diesel in the distribution system. It will also eliminate double counting of refinery-processed transmix and eliminates the need for the transmix exemption.

<sup>3</sup> Under the proposed changes to the POO, butane blenders are no longer obligated parties. Volume increases from butane blending are captured at the new Point of Obligation

<sup>4</sup> Fuel Terminal includes bulk terminals, truck terminals, wholesale purchases, etc.

<sup>5</sup> Small Refiner Exemption can be eliminated.

<sup>6</sup> Below-the-rack blenders will not be impacted. Retail is unaffected.

<sup>7</sup> The points of RIN separation are unchanged with the new point of obligation.

<sup>8</sup> "Retail" also includes those wholesale purchaser and other, ultimate consumers which may receive fuels after the POO but not through the typical retail market.

<sup>9</sup> See page 9 for Rack detail.

**III. The current Point of Obligation inhibits the RIN market from increasing renewable fuels, but placing the obligation on Rack Sellers would correct this problem.**

In 2010, EPA acknowledged factors favoring moving the compliance obligation, but nonetheless chose to make no change. Serious problems plague the current system and no other resolution for these problems is likely. Since 2010, the factors that EPA said justified a change have become more pronounced. The CAA and EPA's regulations require higher volumes of renewable fuels in the market, which results in volumes that push up against (and beyond) the blend wall. Achieving those volumes is made even more difficult by the decline in petroleum consumption. "With structural disincentives stemming from the current Point of Obligation, meeting EPA's goal of increasing renewable fuels consumption is unlikely."<sup>12</sup>

- A. Under the current Point of Obligation, RIN value is not passed through to consumers to lower renewable fuel prices and stimulate demand.

Increased consumer demand for renewable fuel (and the corresponding incentives to invest in renewable fuel infrastructure) requires as an initial step that RIN prices pass-through to consumers, because this will make high-ethanol fuels or biofuels less expensive and encourage consumption. Experts have concurred: "If the RIN price savings inherent in blends with high biofuels content are not passed on to the consumer, then this key mechanism of the RFS is not functioning properly."<sup>13</sup> But under the current definition of obligated party, this pass-through is not encouraged,<sup>14</sup> as NERA economists observed:

The lack of response in the fuel price spread means that RIN economics do not affect the blender's decision process about the relative pricing of finished fuels. In other words, the blender is not passing through the value of the RIN to the retailer in order to encourage greater E85 sales, and RIN profits are being retained by the blender.<sup>15</sup>

The RIN system, in other words, is not promoting full investment in renewable fuel infrastructure. Rather, because the value of the RIN is not passing through to consumers but is largely being retained by Rack Sellers, the RIN system disincentivizes infrastructure investment and renewable fuel blending. This disincentive alone justifies changing the RFS structure. Although EPA has identified several structural barriers in the renewable fuel market and hypothesizes that obligated parties might find incentives over time to overcome the market barriers by investing in renewable fuel infrastructure, EPA fails to recognize its own role in removing artificial market barriers now. The current structure of the RFS prevents the market from realizing the opportunities to invest in renewable fuel infrastructure.

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<sup>12</sup> NERA Report, *supra* note 6, at 10.

<sup>13</sup> See Christopher Knittel, et al., THE PASS-THROUGH OF RIN PRICES TO WHOLESALE AND RETAIL FUELS UNDER THE RENEWABLE FUEL STANDARD 20 (June 2015) [hereinafter "Knittel Report"].

<sup>14</sup> Burkholder Memo, *supra* note 4 at 12.

<sup>15</sup> NERA Report, *supra* note 6, at 19 (citing Burkholder Memo at 12).

In his comment letter on the 2015 Proposal, Former Special Assistant to the President for Energy and Environment on the staff of the National Economic Council at the White House Ron Minsk illustrates the failure of the RIN market to promote renewable fuel:

[W]ith the challenges that began in late 2012 and early 2013 as the market recognized that the fuel supply could not accommodate the statutory obligations without breaching the blend wall, the question of how this system was working to incentivize the use of higher ethanol blends increasingly animated the interagency review process. If the market was functioning as expected, and RIN prices were rising—making higher ethanol blends more valuable—why were we not seeing the expected rise in E85 market penetration?<sup>16</sup>

In short, while the RFS program is supposed to facilitate the development of the renewable fuel market, the current design of the RIN system undermines that statutory goal.

- B. While the current system creates disparities in RIN-access that highly prejudice merchant refiners, create windfalls for others, and foster RIN speculation (not creation), the proposed definition would eliminate those perverse market effects.

EPA has set the RFS Point of Obligation at the refining point even though compliance is achieved not at refining, but downstream, primarily at the truck loading rack and even further downstream at retail. Unsurprisingly, this obligation/compliance disconnect has prevented the RFS from working properly. First, while almost all refiners have sales across the rack and they generate some RINs, few are balanced. Several historically integrated or dominant branded refiners market more fuel than they produce. Their RIN generation potential thus exceeds their refining obligation, making them RIN-long refiners. On the other hand, there is a rising class of independent merchant refiners, who often have no significant rack sales and may not even know where their bulk spot fuel sales will be marketed. These refiners often lack meaningful control over where or how their fuel will be blended. They largely must purchase RINs in the secondary market. They are RIN-short refiners who are dependent on the market working. As obligated parties that cannot respond to higher prices by generating RINs from increased volumes of renewable fuels, RIN-short refiners are highly vulnerable to inflated RIN prices and they are in direct competition with the RIN-long refiners.

The trend in the market has been for refiners to become less integrated. Yet the market disparities created by the current Point of Obligation heavily favor integrated refiners at a demonstrable cost to merchant refiners and, ultimately, consumers. NERA, recognizing that integrated refiners are more likely to hold banked RINs, described the expected long-term detrimental consequences of the current system:

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<sup>16</sup> Letter from Ronald E. Minsk to Janet McCabe, Acting EPA Assistant Admin. for Air and Radiation at 3 (July 24, 2015) (Docket ID No. EPA-HQ-OAR-2015-0111-1307) [hereinafter “Minsk Letter”], provided here as Attachment B.

The most likely outcome of continuing a regulatory system that systematically raises the cash operating costs of Merchant Refiners relative to Integrated Refiner/[Rack Sellers] is that *the structure of the industry will change and merchant refiners could disappear*. If merchant refiners do reduce supply of gasoline blendstock at existing prices, the resulting gap in supply and demand caused by exiting Merchant Refiners would likely be filled by other Integrated Refiner/[Rack Sellers] and/or Importers, but at higher costs, and increasing prices to consumers may ensue.<sup>17</sup>

In 2014, various news sources reported on RIN windfalls and the clear disparity among obligated parties.<sup>18</sup> Reports described that some obligated parties and a number of non-obligated parties gained huge windfalls while some refiners bore massive and inequitable RIN costs.<sup>19</sup> Notably, these windfalls are not generated by heroic blending of renewable fuels but are generated by virtue of the advantaged position of fuel ownership at the rack.

From 2012 through mid-January 2013, RINs traded for less than ten cents. RIN prices then rapidly rose tenfold to over \$1.00. The impact of the price spike and continued high price of RINs fell disproportionately on merchant refiners. Yet the higher prices did not aid renewable fuel producers,<sup>20</sup> much less improve E85 or E15 prices for consumers. Higher prices, therefore, neither generated investment in renewable fuel infrastructure nor increased renewable fuel sales.<sup>21</sup>

The price spike controversy revealed “a major weakness in the system:”

Importantly, the E10 blend wall and current high prices of D6 RINs may be revealing a significant flaw in the way EPA designates obligated parties for RFS2. In 2010, EPA considered, but rejected, the alternative of moving all RVOs downstream of refineries and importers to those who supply finished gasoline at the retail level. This change would have resulted in a more homogenous group of obligated parties and better aligned an obligated party’s RVO with access to RINs. Such realignment may have precluded some of the current diverse impacts of high RINs prices on obligated parties and minimized the cost of RFS2 compliance.<sup>22</sup>

The RFS program was not intended to reduce competition among refiners or create windfalls for one type of obligated party or refinery at the expense of other obligated parties or refiners. Nor was it intended to create new revenue generation for non-obligated parties such as large retailers or commodity traders at the expense of independent refiners and consumers. Yet,

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<sup>17</sup> David Montgomery, et al., NERA Economic Consulting, ANALYSIS OF RFS2 RIN MARKETS 45 (Oct. 15, 2013) (emphasis in original) [hereinafter “NERA Oct. 2013 Report”].

<sup>18</sup> See, e.g., Cezary Podkul, *The Tally is In: Ethanol ‘Blend Wall’ Cost Refiners at Least \$1.35 Billion*, REUTERS, (Mar. 31, 2014 8:22 AM), <http://www.reuters.com/article/us-rins-spike-costs-analysis-idUSBREA2U0PT20140331>.

<sup>19</sup> See, e.g., NERA Oct. 2013 Report, *supra* note 17, at 20, 35, 43;

<sup>20</sup> NERA Report, *supra* note 6, at 23.

<sup>21</sup> *Id.* at 15-18; Knittel Report, *supra* note 13, at 20.

<sup>22</sup> Susanne Retka Schill, *Ethanol RINs Market Explodes*, ETHANOL PRODUCER MAGAZINE (Apr. 16, 2013), <http://www.ethanolproducer.com/articles/9753/ethanol-rins-market-explodes> (citations omitted).

these are among the significant unintended consequences that the current rule has on the industry. But the fact that the RIN system has resulted in windfalls<sup>23</sup> to parties controlling the blending should be a telltale sign for EPA about where market power lies—and where the Point of Obligation should be.

An RFA article<sup>24</sup> includes quotes from obligated parties that enjoyed windfalls from selling RINs:

Our retail and terminal networks generate more renewable credits than we require to meet our supply needs. We're generating around \$20-million/month of excess RINs. [For the third quarter] if you were to take the current pricing in place right now and say you sold all the RINs at that price, you could expect us to record an after-tax benefit of \$35-40 million.

[Increase in refining income was] primarily due to better results [i.e., higher sales prices] for ethanol renewable identification numbers (RINs) in the current period... Profit from ethanol RIN sales was higher in 2013 due to significantly stronger sales prices for these credits.

A dysfunctional RFS system not only undermines the goals of the CAA but if left unchecked, it also threatens to reduce competition in the market for transportation fuel, further harming the fuel consumer. The structure of the RFS threatens the future viability of merchant refiners, threatens competition in the transportation fuel sector, has the perverse effect of discouraging higher level blends of renewable fuel and ultimately hurts consumers.

The dysfunction has already begun to change the marketing and retail segments of the fuel market and threatens the future of small retailers. Over 50% of transportation fuel stations are owned by small retailers but over 20% are owned by large companies.<sup>25</sup> Murphy USA Inc. is one of these large companies.<sup>26</sup> Murphy reported that RIN revenues increased \$91 million in 2013 to

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<sup>23</sup> Sabina Zawadzki, *BP Wins as U.S. Refiners Suffer Under Biofuel Mandate*, REUTERS (Jul. 30, 2013 5:46 PM), <http://www.reuters.com/article/bp-rins-idUSL1N0G011120130730> (“BP Plc said on Tuesday it did ‘quite well’ during a recent spike in the price of U.S. ethanol credits that is costing some U.S. refiners hundreds of millions of dollars.”).

<sup>24</sup> Geoff Cooper, *What do Big Oil's Quarterly Earnings Say About the Real Impact of RINs on U.S. Gas Prices?*, RENEWABLE FUELS ASSOCIATION (Aug. 1, 2013 12:04 PM), <http://www.ethanolrfa.org/exchange/entry/what-do-big-oils-quarterly-earnings-say-about-the-real-impact-of-rins-on-u/> (citations omitted).

<sup>25</sup> Mike Nichols, *Small gas retailers thrive across the country*, in WPRI SPECIAL REPORT 2016: REAL-WORLD IMPACTS OF WISCONSIN'S MINIMUM MARKUP LAW at 22-23, available at [http://www.wpri.org/WPRI-Files/Special-Reports/Minimum\\_Markup\\_SpecialReport\\_2016.pdf](http://www.wpri.org/WPRI-Files/Special-Reports/Minimum_Markup_SpecialReport_2016.pdf).

<sup>26</sup> Murphy USA retail stations have been part of Walmart. In 2016, Walmart and Murphy announced that they will develop retail gas independent of each other. See News Release, *Murphy USA Announces Independent Growth Plan and Share Repurchase Program* (Jan. 25, 2016), available at <http://ir.corporate.murphyusa.com/phoenix.zhtml?c=251856&p=irol-newsArticle&ID=2132039>; Ashlee Kieler, *Walmart Ditching Murphy USA After 20 Years; Will Run Its Own Gas Stations Going Forward*, CONSUMERIST (Feb. 4, 2016), <https://consumerist.com/2016/02/04/walmart-ditching-murphy-usa-after-20-years-will-run-its-own-gas-stations-going-forward/>.

\$118 million in 2015.<sup>27</sup> Murphy, a formerly integrated refining company with blending assets, described the revenues from its RIN business as follows:

By participating in the broader fuel supply chain, we believe our business model provides additional upside exposure to opportunities to enhance margins and volume. For example, incremental revenue is generated by capturing and selling Renewable Identification Numbers (RINs) via our capability to source bulk fuel and subsequently blend ethanol and bio-diesel at the terminal level.<sup>28</sup>

Our revenues are impacted by our ability to generate revenues from activities such as blending bulk fuel with ethanol and bio-diesel to capture and subsequently sell Renewable Identification Numbers ("RINs"). The market price for RINs fluctuates based on a variety of factors, including but not limited to governmental and regulatory action and market dynamics. In recent years, we have benefited by our ability to attain RINs and sell them at favorable prices in the market....<sup>29</sup>

Like Murphy, other marketers with blending assets and retail companies that have acquired positions or contracted for positions above the rack have realized the revenue potential of RINs under the current RFS.<sup>30</sup> The RIN revenue potential is very significant – Murphy reported \$117 million in RIN sales compared to the total net revenue from operations for 2015 was \$159 million; 85% of its net revenue was from RINs.<sup>31</sup> The ability of large companies with access to blending to obtain free RINs to sell to obligated parties places the large companies at a significant competitive advantage over small retail fuel stations by providing the large companies an additional revenue stream that small retailers cannot obtain. The RFS should not be designed to increase the disparity between large retailers and small retailers as the disparity does not promote the goals of the RFS —ironically, no additional RINs are created by this disparity and no additional renewable fuel is blended. This is largely about position at the point of compliance to capture the RINs when renewable fuel is blended into the finished product for distribution.

The current structure has created a new revenue stream and thus, a competitive advantage to large retailers who have or can take positions above the rack. Yet, the RFS in no way has made it easier or possible for large or small independent refiners to move to the rack. EPA has suggested that RIN-short obligated parties (independent refiners) can resolve their compliance obligations and help resolve the infrastructure issues by reversing the industry trend away from integration and becoming more integrated by acquiring more assets further downstream in the fuel sector to gain more blending capabilities.<sup>32</sup> This suggestion only highlights that the *true* point

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<sup>27</sup> Murphy USA, Inc., U.S. SEC Form 10-K for the fiscal year ended December 31, 2015 at 33, provided here as Attachment C.

<sup>28</sup> *Id.* at 3.

<sup>29</sup> *Id.* at 14.

<sup>30</sup> The Master List of Rack Sellers, Attachment D, includes several large retailers and commodity traders that are not obligated parties.

<sup>31</sup> Murphy USA, Inc. Form 10-K at 33-34.

<sup>32</sup> Dallas Burkholder, U.S. EPA, Office of Transportation & Air Quality, *A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects* at 30 (May 14, 2015) [hereinafter "Burkholder Preliminary Assessment"].

of compliance is downstream of refining and that the power over compliance is at the blending, not refining, point. Changing the Point of Obligation to the natural point of compliance is a far simpler, more effective, and less disruptive solution than a major restructuring of the transportation fuel sector. Among many obstacles to acquiring downstream positions to increase blending capabilities, the necessity of taking market share held by others that are already competing in the downstream segment of the fuel market alone demonstrates the futility of EPA's suggestion. Again, Murphy provides a good example of the importance of shipper status on major pipeline systems as well as access to terminal locations and bulk markets:

We source fuel at very competitive industry benchmark prices due to the diversity of fuel options available to us in the bulk and rack product markets, our shipper's status on major pipeline systems, and our access to numerous terminal locations. In addition, we have a strong distribution system in which we analyze intra-day supply options and dispatch third-party tanker trucks to the most favorably priced terminal to load products for each Murphy site, further reducing our fuel product costs....It would take substantial time and investment, both in expertise and assets, for a competitor to try and replicate our existing position and we believe this continues to be a significant barrier to any attempt to emulate our business model.<sup>33</sup>

As observed in the NERA report:

The current design of the regulatory enforcement of RFS2 is analogous to placing the burden of meeting fuel economy standards on the parts suppliers to automobile manufacturing companies, rather than on the automobile manufacturers themselves who decide the final vehicle design including its miles per gallon. Just as CAFE standards place the burden on the manufacturers of the product responsible for meeting the standards – the vehicle – the RFS2 policy should place the RVOs on the parties that produce, price, and sell the different finished fuels that contain the product being regulated (i.e., the renewable fuel). In order to correct this misspecification with RFS2, EPA should change the obligated party from the refiners and importers to the [Rack Sellers] who mix petroleum blend stocks with renewable fuels to produce the finished product and are the party authorized to separate the RINs from the renewable fuel.<sup>34</sup>

Having Rack Sellers obligated for renewable fuel blending would improve competition among refiners, Rack Sellers, and retailers. Competition among refiners would no longer be impacted by RIN prices. Refiners will still obtain the RINs they need to meet their obligations, as their obligation will be directly proportional to the volumes they sell over the rack. Integrated refiners would no longer have an automatic supply of extra RINs nor will they be disadvantaged. Refiners and blenders would no longer have incentives conflicting with the intent of the RFS. Instead, Rack Sellers would increase the volume and types of renewable fuels they blend in order to ensure compliance with the RFS and to have carry-over credit for future compliance. They will be naturally neither long nor short; they will want as many RINs as they can get, and will want

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<sup>33</sup> Murphy USA, Inc., Form 10-K at 3.

<sup>34</sup> NERA Report, *supra* note 6, at 31-32.

them to be affordable. They will have control over their physical blending so if RIN prices are too high, they can direct their own blending. If someone else can blend more cheaply, they can choose to buy RINs instead of blending themselves. The RFS program would no longer adversely affect competition in the refining or fuel market. Competition along the fuel chain will improve, from the refiner, the renewable fuel producer and the marketers to the retailer and consumer. Rack Sellers would necessarily be pushing renewables, not playing the RIN market.

C. Far from facilitating consumer access, the current system has the perverse effect of raising consumer prices for renewable fuels.

Part of how the current rule impedes the statutory goal is its tendency to raise gasoline prices for consumers. Merchant refiners must purchase RINs in the secondary market, while integrated refiners pay only for the ethanol that they blend,<sup>35</sup> and get the associated RIN at no extra cost. According to NERA's analysis, nothing indicates that increased RIN prices affected the cost of ethanol to Rack Sellers,<sup>36</sup> including to integrated refiners/Rack Sellers. Merchant refiners must attempt to anticipatorily recover the extra RIN cost to them in the base price of the fuel. In doing so, the merchant refiners inadvertently raise the spot price for *all* gasoline. Because they feel no pressure and are the dominant market party, the RIN-long refiners pass the higher gasoline price along to consumers while retaining the additional RIN value, thus gaining high base prices and a RIN windfall. Nothing will change this outcome—bad for the RFS goals and bad for consumers—until EPA adjusts the Point of Obligation. Further, nothing about this is rewarding the blending of renewable fuels.

EPA has speculated that high RIN prices would encourage investment in renewable fuel infrastructure.<sup>37</sup> Under the current RFS structure, however, high RIN prices cannot overcome the Point of Obligation placement that impedes investment in renewable fuel because the RIN value does not pass through to the consumer in the form of discounted renewable fuel blends. The RIN system, after all, is supposed to increase *consumption* of renewable fuel, like E85, by decreasing the relative price of such fuel. But there is a “near absence of pass-through of RIN prices to retail E85 prices,”<sup>38</sup> like other renewable fuels.<sup>39</sup> [T]he disconnect between fluctuations in RIN prices and pump E85 pricing is an important question for understanding how to achieve efficiently the goals for the RFS.<sup>40</sup> This dysfunction directly and adversely affects fuel consumers. And it also illustrates why the RFS system must be fixed:

While RIN prices might be passed through at some retail outlets at some times, this is not the case on average using national prices. The goal of the RFS program is to expand the

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<sup>35</sup> Burkholder Preliminary Assessment, *supra* note 32, at 28 (“For these merchant refiners there is a direct and obvious cost of purchasing RINs to satisfy their obligations. Integrated refiners generally obtain RINs by purchasing renewable fuels with attached RINs. As a result, integrated refiners are not paying a separate price for the RINs they acquire, but rather simultaneously purchasing both the renewable fuel and the associated RINs.”).

<sup>36</sup> NERA Oct. 2013 Report, *supra* note 17, at 35.

<sup>37</sup> 80 Fed. Reg. at 77,486.

<sup>38</sup> Knittel Report, *supra* note 13, at 20.

<sup>39</sup> *Id.*; see also Burkholder Memo, *supra* note 4, at 10; 80 Fed. Reg. at 77,459.

<sup>40</sup> Knittel Report, *supra* note 13, at 20.

use of low-carbon domestic biofuels, and the key economic mechanism to induce consumers to purchase high-renewables blends is the incentives provided by RIN prices. If the RIN price savings inherent in blends with high biofuels content are not passed on to the consumer, then this key mechanism of the RFS is not functioning properly.<sup>41</sup>

Valero's experience with its own pricing of E-85 indicates that the RFS is not working to promote renewable fuel or increase consumption of E-85. The current demand for E-85 is limited and very inelastic; as a result, one company's pricing has no impact on consumption. Valero has evaluated different pricing for E-85 and Valero's sales of E-85. For some time periods, Valero priced E-85 well below the market price and below the price of E-10. Valero also responded to changes in the market price of E-85 but continued to price E-85 below the market price but above the price for E-10. Valero found that there was little difference in sales of E-85 no matter how Valero priced E-85 compared to E-10, even though Valero strived to price below the market for E-85. Retail prices of E-85 remained high because Rack Sellers kept the RIN value rather than pass it to the retailer and consumer to promote consumption of E-85.

Based on statements in the proposed and final 2015 RVO rule and elsewhere, EPA does not doubt that prices for RINs and fuel will increase.<sup>42</sup> The impacts of high RIN prices and price volatility for RINs and ethanol were observed in 2013 and 2014. EPA should consider the potential impact that a dysfunctional RFS system might have on future fuel prices for the consumer.

Valero's proposal directly addresses these pricing problems. If "obligated party" is defined as Rack Sellers, those parties could respond to rising RIN prices by discounting fuels with higher renewable fuel content. Rack Sellers would meet their RVO obligation by selling increased volumes of renewable fuel rather than being forced to purchase RINs on a secondary market and to increase prices to do so. Retailers would enjoy the ability to compete in the retail market by passing price savings to customers. A retailer who benefits from favorable prices for higher renewable fuel gasoline or diesel would want to sell that gasoline or diesel in order to continue to purchase and benefit from the lower prices of the fuel offered by Rack Sellers. Because Rack Sellers are closer to the end users, they are in the best position to react to consumer usage and consumer reaction to prices while also ensuring that renewable fuel is included in fuel decisions.<sup>43</sup>

D. The current Point of Obligation disincentivizes the infrastructure investment that is indispensable for increasing renewable fuels; the proposed definition does the opposite.

Corresponding to EPA's recognition that RIN prices have failed to incentivize E85 marketing is the disincentivization of infrastructure investment that is essential if renewable fuels

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<sup>41</sup> Burkholder Memo, *supra* note 4, at 14-15 (citing Knittel Report, *supra* note 13, at 20).

<sup>42</sup> *Id.* at 1, 2, 4, 8, 12, 13, 15, 18, 22, 29, 31.

<sup>43</sup> James H. Stock, Columbia University SIPA Center on Global Energy Policy, *THE RENEWABLE FUEL STANDARD: A PATH FORWARD* at 29 (Apr. 2015).

are to be as widely available as Congress intended. Valero has found, for example, that RIN-long obligated parties under the current RFS are not posting prices for E85 with OPIS.<sup>44</sup> If obligated parties under the current RFS are not posting prices for E85, the current RFS is not promoting E85 through infrastructure development. Mr. Minsk further described the problem as follows:

Another data point used to evaluate the functionality of the current system is to look at whether the high RIN prices in early 2013 did indeed incentivize any additional build-out of E85 infrastructure in those areas of the country—where E85 is most readily available. Tellingly, what happened in Minnesota, the state with most stations selling E85, tracked Knittel et al.'s findings—as RIN prices rose in early 2013, the number of stations selling E-85 declined. Reviewing this data leads me to concur with Knittel et al.'s conclusion that the RINs market is simply not functioning as it should.<sup>45</sup>

Mr. Minsk points out the structural disincentive to expand terminal blending infrastructure created by the current Point of Obligation:

The current Point of Obligation is a significant factor inhibiting greater amounts of E85, and perhaps biodiesel, from reaching the market due primarily to the lack of properly aligned incentives and the resulting shortfall in blending infrastructure expansion. Reaching this conclusion only requires extending the reasoning acknowledged above by EPA in 2009, namely: a portion of obligated parties, refiners with large marketing operations, are almost immediately long on RINs at the beginning of every compliance period, a position that occurs because when they market more fuel than they refine, they generate more RINs through blending than they need for their own compliance obligations. Blending ethanol at wholesale distribution facilities at scale often requires modifications to the infrastructure. At many distribution facilities, however, obligated parties long on RINs are the largest customers, and in a position to effectively block installation of infrastructure to promote large scale E85 blending. Once the RIN-long party has met its own RVO, it has little incentive to participate financially in the expansion of blending infrastructure to allow for higher level blends (E85 and E15) or additional advanced renewable fuels (B5-B20) because they already have the RINs they need and do not want additional blending to lower the value of their excess RINs.

Under the current program structure, these parties also may not even have an incentive to blend to the blendwall. Because they have the RINs that they need, and the availability of fewer RINs can keep RIN prices higher, generation of fewer RINs could help them maximize their return on existing blending (E10) and, contrarily, have a direct disincentive to facilitate expansion of infrastructure and blending (B5, E85), as meeting the mandate level decreases RIN profits generated from being a RIN-long party.<sup>46</sup>

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<sup>44</sup> Supplement to Valero Comments on Proposed Renewable Fuel Standards for 2014, 2015 and 2016 and Biomass-Based Diesel Volume at 3 (Oct. 16, 2015) (Docket ID No. EPA-HQ-OAR-2015-0111-3530), provided here as Attachment E.

<sup>45</sup> Minsk Letter, *supra* note 16, at 3 (citing Department of Energy, Alternative Fuel Data Center, E85 Fueling Station Locations by State, *available at* <http://www.afdc.energy.gov/data/10367>).

<sup>46</sup> *Id.* at 6-7.

The issue of properly aligned incentives and the need for infrastructure is not limited to E85, of course. To blend biodiesel, a terminal must add significant infrastructure, including receipt and offloading equipment, dedicated storage tanks, heat traced transfer lines, rack injection meters, and rack automation control systems.<sup>47</sup> The installation of terminal injection infrastructure can cost millions of dollars,<sup>48</sup> and terminal owner/operators need the support and long-term financial commitment of all rack customers to proceed with the necessary capital investments.

While the NERA reports uses the term “blender,” NERA clearly defines it as the owner of the hydrocarbon when the blending occurs—that is, it has the same meaning as “Rack Seller” in this Petition. The NERA Report describes how the current RFS program discourages blending higher volumes of renewable fuel because the Rack Seller is not obligated.

The party who owns the petroleum blendstock when the blending occurs is called the blender. The blender can choose to hold, exchange, or sell the RIN. There is no requirement as to when the blender must make a transaction. The blender has no obligation to EPA to turn in any RINs as a result of its activity of mixing petroleum blendstocks with renewable fuels. It is the blender who sells the finished transportation fuel (E0, E10, E15 and E85 or ULSD B0 and B5-B20) and has the capability of stimulating the greater use of high renewable content fuels by consumers by adjusting the relative prices of the different types of finished gasoline.

Further, as the blender carries no exposure to the RFS obligation, it has less incentive to expand its blending infrastructure to allow for higher level blends (E85 and E15) or additional advanced renewable fuels (B5-B20). In fact, doing so would be contrary to the blenders’ financial interest, as the more renewable fuel the blender purchases and blends, the more RINs will be created and those excess RINs will decrease the value of RINs. Adding incremental renewable fuel blending requires the installation of infrastructure at third-party terminals where non-obligated blenders are the terminal operator’s primary customers....

If the third-party owner requires all parties holding capacity to contribute to such expansions, there will be high transaction costs to expanding the fueling infrastructure needed for high-ethanol or high-biodiesel blends. This is especially problematic when the industry confronts the blend wall and additional capital or marketing is required to generate RINs that would be necessary to achieve renewable fuel levels set in the statute. There are greatly asymmetric losses between an obligated party that needs new

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<sup>47</sup> See, e.g., Michael Leister, Fuels Technology Manager, Marathon, *Biofuels Blending Infrastructure*, SAE Government and Industry Conference at 1, (May 13, 2008); EN Engineering, *Terminal Biodiesel Infrastructure Upgrade*, (May 15, 2014), available at <http://www.enengineering.com/projects/terminal-biodiesel-infrastructure-upgrade>.

<sup>48</sup> See, e.g., CALIFORNIA ENERGY COMMISSION, 2011-2012 INVESTMENT PLAN FOR THE ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE TECHNOLOGY PROGRAM at 116 (Report CEC-600-2011-006-CTF) (Aug. 2011), available at <http://www.energy.ca.gov/2011publications/CEC-600-2011-006/CEC-600-2011-006-CMF.pdf>.

infrastructure to be in position to comply if EPA sets tighter requirements and a non-obligated party that is taking a risk on investing in infrastructure that might or might not be useful depending on EPA's decisions.<sup>49</sup>

The RFS structure incentivizes market behavior that does not improve renewable fuel market penetration in multiple ways. Illustrative is the number of retailers that, while traditionally not owning gasoline or diesel at the rack, have taken positions above the rack (where renewable fuel is blended and RINs are separated) to obtain RINs.<sup>50</sup> Importantly, these positional moves result in *no* additional volumes of renewable fuel in the market, nor do they generate any additional RINs. Instead, merely the technical ownership of RINs changes. Since EPA has not corrected the system, several parties have become vested in the distorted program and now oppose any correction to the RFS that would remove the economic and competitive advantage of RIN revenue at the rack.

To be clear, for many of these companies, ownership of fuel at the rack is not critical to their business—these retailers' choice to own fuel at the rack is purely artificial, driven solely by the incentive structure of the current Point of Obligation definition.<sup>51</sup> The primary advantage of their ownership at the rack is the ability to separate RINs<sup>52</sup> and have the value of the RIN *without* the compliance obligation. Retailers in this position recognize that shifting the Point of Obligation will take away the windfall that they have found in this newly acquired revenue stream:

In recent months, independent refiners have filed litigation to change the way the Renewable Fuel Standard (RFS) is administered in an attempt to shift the burden for compliance from the refiners to blenders. Under the RFS, which requires an annually increasing amount of biofuels to be blended into the fuels used by U.S. drivers, refiners are obligated to obtain RINs either by blending biofuels into gasoline or through purchase on the open market. This litigation is attempting to shift that burden of having the RINs to the blender rather than the refiner. If this burden were to be shifted, the Company would potentially have to utilize the RINs it obtains through its blending activities to satisfy a new obligation and would be unable to sell the RINs to other obligated parties.<sup>53</sup>

If Rack Sellers (including retailers that have voluntarily taken ownership of fuel at the rack) were obligated parties, the incentive to promote new renewable fuel at the retail level would be clear. These retailers would not be distracted from new blending by temptation to capture obligation-free existing RINs. Rather than treat RINs as commodities, they would be motivated to

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<sup>49</sup> NERA Report, *supra* note 6, at 18-19.

<sup>50</sup> Valero has compiled a list of "rack sellers" identified from five sources, as of April 2016: (1) OPIS Terminal Price Posting; (2) OPIS Active Supplier List; (3) Valero's Market research on bulk and rack activity; (4) Review of federal excise tax forms (637S) obtained by Valero; and (5) Market information received in the course of discussing the RFS issues with others in the business. This "Master List of Rack Sellers" is provided here as Attachment D.

<sup>51</sup> *Cf* Murphy USA, Inc., Form 10-K.

<sup>52</sup> Andrew Clyde, President and CEO, Murphy USA, Presentation at Macquarie Consumer Focus Forum 10 (Mar. 21, 2016).

<sup>53</sup> Murphy USA, Inc., Form 10-K at 14.

blend renewable fuel to create RINs for their own compliance purposes. Further, the nested structure of the obligation would encourage Rack Sellers to further penetrate the blending of renewable fuel, increasing E85 and E15 or B5-B20 blends respectively, as they look to create excess RINs that can be sold to cover the cost of buying the other nested classes within the obligation. Accordingly, Mr. Minsk and the NERA authors suggest that moving the Point of Obligation would help achieve the statutory goals for advanced biofuels.<sup>54</sup>

[I]f the obligation falls on the [Rack Seller], then regulators provide a direct incentive to produce higher level blends (E15 and E85) or additional advanced renewable fuel blends (B5-B20) as these fuels generate more RINs for the obligated party, namely the [Rack Sellers].<sup>55</sup>

As a consequence of being invested in the promotion of renewable fuels as obligated parties, Rack Sellers will help resistant markets open up. For example, refiners are producing and selling bulk CBOB for distribution into Oklahoma markets expecting that it will be blended with ethanol. However, Rack Sellers are blending the CBOB with premium and selling clear regular gasoline to avoid ethanol. Because there is no obligation on the Rack Seller, there is no direct compliance obligation to add even the base 10% ethanol. In fact, they are making a premium on clear gasoline with no regulatory compliance pressure and increasing the shortage of RIN supply to increase the value of their surplus RINs. But if Rack Sellers were obligated, they would need to find offsetting RINs and would likely conform by blending ethanol wherever they could. The market, therefore, would not remain so resistant. With Rack Sellers promoting renewable fuels with favorable pricing and infrastructure investment, resistant markets would open up to renewable fuels. In turn, renewable fuel producers would have greater certainty about demand, allowing them to plan, invest, and market to a more receptive customer base.

Similar incentives would be created for blending additional biodiesel. Currently, because Rack Sellers are not obligated parties, there is not sufficient infrastructure for biodiesel blending at terminals. Biodiesel blending, thus, takes place largely downstream of the rack and RINs are generated by downstream blenders, who enjoy the RIN revenue, but this limits the amount of biodiesel that can be blended. Making Rack Sellers obligated would incentivize infrastructure at the terminals and increase the amount of biodiesel blended in all diesel sold in the U.S. Downstream blenders would still be able to benefit from RIN-generating downstream blending but biodiesel blending and consumption would increase overall. This will also result in more customers for biodiesel and advanced fuels and thus more competition and better pricing for their products.

- E. The current Point of Obligation facilitates RIN speculation and fraud, while the proposed definition would eliminate many opportunities for fraud.

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<sup>54</sup> *Oversight of the Renewable Fuel Standard, Hearing before the Sen. Comm. on Envt. and Public Works, 114th Cong. 10 (Feb. 24, 2016) (written statement of Ronald E. Minsk), available at [http://www.epw.senate.gov/public/\\_cache/files/a4545f2f-52df-4f3f-8a08-e5802950d8e5/rem-rfs-written-testimony.pdf](http://www.epw.senate.gov/public/_cache/files/a4545f2f-52df-4f3f-8a08-e5802950d8e5/rem-rfs-written-testimony.pdf) [hereinafter "Minsk Testimony"].*

<sup>55</sup> NERA Report, *supra* note 6. at 33.

Even more sinister than the current system's failure to promote renewable fuels is its facilitation of speculation and fraud—features that affirmatively undermine the RFS program's core. As described above, the disparity between the Point of Obligation and the compliance point has led to RIN distribution that creates windfalls for some and extraordinary costs for others, resulting in huge wealth transfers—almost none of which helps biofuel producers or consumers. The system allows non-obligated parties to hold, buy, and sell RINs. Coupled with the previously identified perverse incentives, the lack of regulation and oversight of the RIN trading market has made the situation even worse—speculation has flourished and the system has become vulnerable to fraud. Both fraud and speculation have exacerbated the additional costs imposed on obligated parties, and operate as a deadweight loss for the system—they actually undercut biofuel producer pricing and increase consumer costs. NERA explains this trading system failure:

The purpose of environmental markets is not to promote trading *per se* but rather to achieve the environmental objective in the most cost-effective way.<sup>56</sup> The natural way to do this is to endow each of the parties responsible for the activity being regulated, in this case the sale of fuels containing a mixture of ethanol and gasoline, with credits equal to the physical requirement it must meet. Each party that meets the physical requirement will have no need to trade. Trading occurs only when it is more costly for one regulated party to comply than another, but each regulated party has control over the means of compliance. Thus even if the allowance market breaks down or is highly inefficient, the outcome is no worse than a uniform regulation without trading. This is an important safeguard.

The RIN system eliminates this safeguard, by necessitating trading by any regulated entity (obligated party in the RIN idiom) that does not also blend ethanol into gasoline. Data presented in this report demonstrate that a large percentage of obligated parties fall into this category. They have no physical capacity to comply with the requirement, and therefore must trade no matter how thin or distorted the market becomes. The problem of the blend wall that was not anticipated at the time the RIN system was devised has made the market dysfunctional, for the reasons we describe. Returning to the natural system of allocating allowances to the party with actual control of the compliance method removes these problems.<sup>57</sup>

Since the parties that EPA requires to *have* RINs are often parties that cannot *create* RINs, a large volume of RINs is necessarily traded and attracts a trading business involving RIN speculation. The RIN market is one of the largest commodity markets in the nation. Because EPA opted to keep the RIN trading market open to third-parties who are neither renewable fuel producers nor obligated parties under the RFS program,<sup>58</sup> a significant number of third-party

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<sup>56</sup> *Id.* at 35 (citing W. David Montgomery, MARKETS IN LICENSES AND EFFICIENT POLLUTION CONTROL PROGRAMS, 5 JOURNAL OF ECONOMIC THEORY 395-418 (1971), available at <http://www2.econ.iastate.edu/classes/econ581/herriges/Readings/Montgomery.pdf>).

<sup>57</sup> *Id.*

<sup>58</sup> 40 C.F.R. § 80.1450(e).

firms and individuals<sup>59</sup> with no market role *other than extracting profit from RIN trading* are registered on the list of entities that hold RINs and participate in speculative RIN purchasing. “There is a RINs trading desk at any major brokerage now.... There are people who are not refiners who are buying and selling RINs like a commodity. They treat it like something to be traded, to be day-traded.”<sup>60</sup> With the size of the RIN market, EPA should not take lightly its responsibility for creating disparities that lead to high levels of speculation, fraud and price volatility.

Unlike real commodities, which have value in and of themselves, RINs are a regulatory creation and have value only when those who own them can exploit the regulatory framework. Worse, unlike trading for most genuine commodities, the RIN market lacks conventional trading safeguards because it remains unregulated. The *New York Times* reported that “rules that apply to almost every other market—on transparency, disclosure and position limits, for example—are not imposed on the trade of RINs” and that “because the E.P.A. declines to disclose who actively trades the credits, or how much they trade, citing the confidentiality of refiners and other participants,” the market cannot function like other public trading markets.<sup>61</sup>

Indeed, conduct that would present serious civil and even criminal questions for any other commodity is openly tolerated so long as the trader is dealing in RINs. Fuel industry insiders who possess insider information, for example, can freely trade RINs. And unlike with traditional markets, no checks or safeguards prevent rank speculation, leaving RIN prices essentially “unbridled.”<sup>62</sup> The lack of such safeguards breeds fraud in any industry, which is why those protections are needed. But such anti-fraud safeguards, deemed critical to the American economy for ordinary commodities, have oddly been regarded as dispensable for RINs—even though RINs were created for the crucial purpose of maximizing renewable fuels—a vital national energy and environmental interest. The lack of those safeguards, unsurprisingly, has caused the industry to incur additional compliance costs. These consequences appear unlikely to diminish, and in no way contribute to the RFS goals. They are yet another deadweight loss.

Fraud in the RIN market is no imaginary worry. As one example, several individuals responded to the systemic deficiencies by creating hundreds of millions of fraudulent RINs and sold them to obligated parties—both merchant and integrated refining companies (who purchased them solely to comply with EPA mandates). Moreover, despite being victims of fraud, EPA required affected obligated parties to purchase new valid RINs and pay penalties for their

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<sup>59</sup> Mike Lux, *Wall Street Market Manipulation Example 3,78 : Ethanol*, HUFFINGTON POST (June 1, 2014), <http://www.huffingtonpost.com/mike-lux/wall-street-market-manipulation-example-378-ethanol>.

<sup>60</sup> Gretchen Morgenson and Robert Gebeloff, *Wall St. Exploits Ethanol Credits, and Prices Spike*, N.Y. TIMES, Sept. 14, 2013 at A1, available at <http://www.nytimes.com/2013/09/15/business/wall-st-exploits-ethanol-credits-and-prices-spike.html> (quoting Paul Niznik, Bio-fuels Manager, Hart Energy).

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

unknowing use of fake RINs. Thus, obligated parties paid twice for the RINs to fulfill their compliance obligation and in some cases paid a penalty as well.<sup>63</sup>

Changing the Point of Obligation would greatly diminish the opportunity for these harmful consequences. It would reduce the program's dependence on purchasing separated RINs and thereby help stabilize RIN prices. Without price spikes, RIN speculation becomes less attractive for non-obligated third parties (like investment bankers) and creates a true environmental credit trading market which achieves the *environmental* objective in the most cost-effective way.<sup>64</sup> The revised RIN system, unburdened by price spikes, would likewise reduce the opportunity for extreme windfalls created by EPA's implementation of the program for some obligated and non-obligated parties within the fuel business.

Defining obligated party as Valero recommends by linking the Point of Obligation to the federal excise tax obligation would allow effective use of the federal excise tax records to curtail RIN fraud. This is also the answer to another current challenge facing the system—the difficulty in verification. Moving the Point of Obligation to the rack instantly eliminates that serious problem by giving EPA a cost-free, independent, third-party verification of obligated volumes. All parties engaged in the sale of fuels subject to the federal excise tax for gasoline and diesel would be subject to the RFS obligations in proportion to their federal excise tax obligations. The federal excise tax system is a robust, reliable, and time-tested system that has been in place since 1932. If EPA adjusts the Point of Obligation, it could readily use that system to verify the volumes of fuel that would be subject to the RVOs and even ensure that RINs separated by entities who blend fuels are actually owners of specific volumes of fuel at the time of blending.

Moving the Point of Obligation would not only achieve the primary benefits discussed above, therefore, but would also play a key role in reducing RIN fraud and speculation:

- Rack Sellers, as direct purchasers of the renewable fuel that comes with RINs, are more likely than refiners—especially merchant refiners—to be able to detect fraud.
- Aligning the obligation with the party that directly purchases and receives the renewable fuel for blending reduces the need for the spot purchase of separated RINs (where the greatest risk currently arises) as RINs would be created by the obligated parties' own blending activities.
- Prudent Rack Sellers would hold RINs for compliance rather than risk losing them in speculative trades.
- Fewer RINs in the market for speculation would reduce the effect of price spikes or the potential for sustained artificially high values because Rack Sellers could acquire more RINs by blending more renewable fuel, thereby eliminating or reducing the need to buy separated RINs.

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<sup>63</sup> See Bryan Sims, *Biodiesel RIN fraud causes industry, obligated parties anxiety*, BIODIESEL MAGAZINE (Nov. 29, 2011), <http://www.biodieselmagazine.com/articles/8210/biodiesel-rin-fraud-causes-industry-obligated-parties-anxiety>.

<sup>64</sup> Montgomery, *MARKETS IN LICENSES AND EFFICIENT POLLUTION CONTROL PROGRAMS*, *supra* note 56.

- Lower RIN prices, less speculative RINs trading, and direct purchases of renewable fuel for blending activity will reduce the opportunity for RIN fraud.
- Finally, by using the federal excise tax definitions and records, the RFS program would also employ a robust system that would serve as independent verification.

The current system creates substantial risks for speculation and fraud, both of which undermine the underlying goals of the RFS program. Valero's proposal reduces those threats, which is another and independent basis for EPA to adopt it.

- F. The current Point of Obligation subsidizes non-renewable exports, while the proposed definition eliminates that unintended incentive.

Another flaw caused by the current Point of Obligation is that it "leads to this unintended consequence of subsidizing exports."<sup>65</sup> To reduce its compliance obligation, a refiner could opt to reduce its production of fuel or, alternatively, opt to export fuel. When faced with the structural disincentive created by the Point of Obligation and its direct limitation on the expansion and installation of blending infrastructure, investment in *export* infrastructure becomes desirable. The NERA Report describes how RIN subsidization of gasoline exports could increase gasoline costs to U.S. consumers, without achieving any environmental benefits.<sup>66</sup> In addition, RIN subsidization of exports impacts infrastructure investment, which in turn impacts economic growth.

Not only are diesel and gasoline exports affected by the current design of RFS2, but so is the investment of capital. New infrastructure is being built in order to support the export of gasoline and diesel. To the extent that these capital investments are driven by the U.S. competitive advantage in supplying gasoline and diesel to foreign markets, these investments are good for U.S. economic growth. However, to the extent that these investments are made to support the exports of gasoline and diesel that are made to avoid RIN requirements of the RFS2 program, capital is being redirected away from its optimal mix resulting in a less efficient use of capital, which retards economic growth. So perverse is it that RIN-long parties may be importing fuel from abroad subsidized by their RIN-long positions and RIN-short parties will be exporting to avoid the obligation.

Some in-land refineries, with no access to the coasts, may not have the export option. Faced with high RIN prices, these refineries could have no choice but to curtail production or even shutdown. This is an example of one of the anti-competitive consequences of the current RFS.

With the suggested change to the Point of Obligation, refiners would not be driven to export or cut production to avoid the RIN obligation. In-land refiners will not face shutting down simply due to an inability to meet RFS obligations. Consumers will not be harmed by a reduction in competition among refiners.

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<sup>65</sup> NERA Report, *supra* note 6, at 22.

<sup>66</sup> *Id.*

**IV. Other markets participants are in accord with and will not be harmed by the proposed change.**

- A. Renewable fuel producers and refiners have expressed support for placing the Point of Obligation at the rack.

In the past, renewable fuel producers and refiners have advocated for placing the Point of Obligation on the entity with control over blending. Due to misplaced fear, some entities simultaneously were concerned that placing the Point of Obligation on blenders would generate additional regulatory burden and discourage renewable fuel blending. Over time, unfortunately, some parties have exploited the market's dysfunction and have come to depend on it for revenue generation that is entirely disconnected from any RFS goal. True, the RFS system as currently structured has incentivized some income generating activities—but businesses that rely on these market distortions are not necessarily motivated or designed to increase renewable fuels in the market. They instead depend on the system's weaknesses to extract profits that are divorced from RFS advances. Thus, EPA should expect to hear opposition from some parties that might have initially preferred the placement of the Point of Obligation at the rack. In considering those views, EPA should account for the role of purely economic self-interests of those parties undermining the goals of the RFS.

In addition to comments submitted by small and independent refiners, comments supporting placing the Point of Obligation on the entity that controls blending at the rack include the following:

- While Poet Ethanol Products and the Renewable Fuel Producers we market for are not Obligated Parties, we would still like to take this opportunity to endorse altering the definition of an Obligated Party/Renewable Volume Obligations to say that the RVO is placed upon the party blending the finished gasoline or diesel. This modification would correct a fundamental weakness in the alignment of incentives for how RVO's were calculated under RFS1. This change would allow the RVO to rest on the shoulders of the party determining what type of transportation fuel is delivered to the consumer.<sup>67</sup>
- Imposing the obligation on refiners and importers is unworkable due to the complicated four mandate structure of EISA. EPA should shift the obligation downstream to the parties that have the ability to choose which, and how much, of the various renewable fuels to blend.<sup>68</sup>

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<sup>67</sup> Bob White, CEO, Poet Ethanol Products, LLC, Comments on Notice of Proposed Rulemaking for RFS2 – Docket ID No. EPA-HQ-OAR-2005-0161 at 3 (Jul. 21, 2009), (Docket ID No. EPA-HQ-OAR-2005-0161-1033).

<sup>68</sup> John E. Reese, Fuels Product Management Advisor, US, Shell Oil Products US, Comments on The U.S. Environmental Protection Agency's Proposed Rule on Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program 74 Fed. Reg. 24904 (May 26, 2009) at 2 (Sep. 25, 2009) (Docket ID No. EPA-HQ-OAR-2005-0161-2505).

- In the absence of such a change, it will become increasingly difficult for refiners and importers to secure the requisite number of RINs to demonstrate compliance, particularly if their refinery production levels of gasoline or diesel exceed their downstream marketing volumes.<sup>69</sup>
- To the extent the Agency does not believe the other options for regulatory flexibility under the RFS are substantial enough to maintain the statutory levels of biofuel volumes while addressing the challenges associated with the blendwall and infrastructure, it should consider extending the obligations for all gasoline and diesel to parties who supply finished transportation fuels to retail outlets or to wholesale purchaser-consumer facilities.<sup>70</sup>
- Modifying the RFS to ensure across the board blending at all bulk fuel terminals would not require a fundamental change to the regulations. Rather, EPA would merely be changing the way the RFS is implemented to a structure where blending is taking place at each terminal, and thus all owners of petroleum based fuels at the terminals are positioned equally at the rack. We believe strongly that this creates the greatest potential for maximizing renewable fuel use while avoiding excessive RIN price spikes, and moves all of us closer to the market scenarios EPA envisioned.<sup>71</sup>

Valero agrees with these comments. It is interesting to note that when it was unclear who would be winners or losers, virtually all stakeholders supported putting the obligation at the blending point. Each year that goes by results in further market force distortion as the parties clamor to move into the Rack Seller position to control the ownership of the RINs. After all, it is natural for businesses to take advantage of legal revenue generating opportunities, even if they are created by a malfunction in a regulatory program. Unfortunately, this means that some parties naturally inclined to support changing the Point of Obligation have become compromised by new positions that extract benefit from the system's dysfunction but have nothing to do with—and indeed undermine—promoting renewable fuel.

Parties that are taking advantage of the market distortions to generate revenues that do not fully advance the goals of the RFS include: large retailers that are generating RIN revenues; formerly integrated refiners that have sold most of their refining capacity but maintain rack positions and retail positions and thus benefit from RIN generation and sales; and renewable fuel producers that leverage into the RIN market. For each party that exploits the revenue-generating capacity of the system dysfunction, there are additional parties that are significantly harmed.

<sup>69</sup> Steve P. Hart, Vice Pres., Planning and Project Execution, ExxonMobil Refining & Supply, Re: 40 CFR Part 80; Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Proposed Rule, 74 Fed. Reg. 24,904, May 26, 2009 at 1 (Sept. 24, 2009) (Docket ID No. EPA-HQ-OAR-2005-0161-2427).

<sup>70</sup> Letter from Brent Erickson, Exec. Vice Pres., Biotechnology Industry Organization to U.S. EPA, App'x 1 at 45 (Jan. 28, 2014) (Docket ID No. EPA-HQ-OAR-2013-0747-0093).

<sup>71</sup> Harry Simpson, Pres., Crimson Renewable Energy, LP, Re: EPA-HQ-OAR-2015-0111, Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017; 80 Fed. Reg. 33,100 (June 10, 2015) at 6 (July 25, 2015) (Docket ID No. EPA-HQ-OAR-2015-0111-1823) [hereinafter "Crimson Renewable Energy Comments"].

Advanced biofuel and biodiesel producers have fewer customers and markets that can take their products under the current structure; small retailers will be harmed as the market distortions grow; and the consumer will be harmed by reducing competition among refiners, renewable fuel producers and retailers and the higher prices that necessarily follow. In the RFS rulemaking to date, no trade association that hasn't been heavily influenced by those that are dominant at the rack have represented these interests of small retailers, biofuel producers that are not major ethanol producers or commodity traders, and the consumer.

B. Making blenders obligated parties will not disrupt the renewable fuels market.

Many parties have asked EPA to place the Point of Obligation on blenders because it is the most appropriate point for blending decisions. Yet, some object to changing the Point of Obligation on the ground that “making blenders obligated parties would inject substantial disruptions into the renewable fuels market and impose significant burdens on its participants.”<sup>72</sup> These “significant burdens” are a perceived potential increase in the number of obligated parties and smaller entities’ limited ability to absorb compliance costs. These concerns are misplaced. Rack Sellers are a sub-category of blenders, and placing the RFS obligation on them would mean only that (1) existing refiners that control blending and (2) other very large companies that choose to take Rack Seller positions would be subject to the obligation. True wholesale purchasers-consumers and retailers would not become obligated parties, as the change would not include below-the-rack and retail-level blenders. Indeed, as described further below, the number of obligated parties will not increase, and the change will not disrupt the renewable fuels market. Parties that have asked EPA to place the Point of Obligation on blenders recognized the distinction between the broad category of blenders and the more narrow category of blenders that control the blending decision above the rack.

Comments asking EPA to place the obligation on this small category of blenders were submitted by the Independent Fuel Terminal Operators Association (“IFTOA”), an association of independent marketers who own and/or operate deepwater terminals; its members import, blend, and market refined petroleum products, and as such are obligated parties (or hold RINs) under the current RFS. IFTOA urged EPA to implement the RFS “in a manner that facilitates greater availability of RINs and assists obligated parties to obtain a sufficient number to meet their obligations.”<sup>73</sup> IFTOA advocated changing the obligated party to the entity that owns the petroleum product immediately prior to blending above the rack, thus making only blenders operating above the rack obligated parties. It stated that such a change would be consistent with the federal excise tax program for petroleum products.<sup>74</sup>

Valero’s proposed definition of “obligated party” addresses EPA’s previous concern about the administration of the RFS program and increasing the number of obligated parties. To

<sup>72</sup> Mark S. Morgan, Regulatory Counsel, Petroleum Marketers Association of America, Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017 at 3 (July 27, 2015) (EPA Docket ID # EPA-HQ-OAR-2015-0111-1921).

<sup>73</sup> Andrea Grant, Counsel, IFTOA, Comments on Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program at 1 (Sep. 25, 2009) (Docket ID No. EPA-HQ-OAR-2005-0161-2345).

<sup>74</sup> *Id.* at 1-2.

be clear, Valero does not support moving the Point of Obligation to Rack Buyers. Valero's proposed revision would only make entities obligated parties if they are Rack Sellers. EPA previously and accurately predicted that such parties (and others) would become regulated parties subject to recordkeeping and reporting—meaning demonstrating compliance after becoming an obligated party would impose only a small burden. Indeed, by making only Rack Sellers obligated parties (and not entities that might touch blending in lesser ways, whether as terminal service providers or blending below the rack), any added burden is vanishingly small. Valero analysis, describe further below, indicates that there will not be an increase in the administrative burden of the RFS; this is reflected in the fact that the number of obligated parties will not increase. EPA estimated that there are currently 200 obligated parties under the RFS. Valero evaluated the number of parties that would be obligated with the proposed change and found that there would not be more than 200.<sup>75</sup>

- C. While small retailers will not become obligated parties under Valero's proposal, they will be harmed if RFS remains unchanged.

Retailers become obligated parties only if they have acquired or contracted for positions *above the rack* and have thus become Rack Sellers. Marketers, wholesalers, jobbers, and retailers sometimes blend renewable fuel below the rack. But if they are not Rack Sellers, they will *not* become obligated parties merely by blending renewables at their retail store. EPA should be encouraging that kind of activity, after all, and moving the current Point of Obligation to the Rack Sellers in no way diminishes the incentives for blending downstream of the rack. Entities that only own fuel below the rack, or Rack Buyers, would, in short, not become obligated parties.

On the other hand, some large retailers with sufficiently large market power to acquire positions above the rack have done so, including to gain control of RINs that are being separated from the fuel they are distributing. Currently, larger retail and wholesale operators have been able to use their size to move up in the rack to capture existing RINs and competitive advantage. Smaller and independent retailers lack the scale and financial resources to undertake this effort; they, therefore, are competitively disadvantaged. Over time, with higher RIN prices or simply more revenue from RIN sales as large retailers acquire greater volumes at the rack, smaller independent retailers could be driven from the market—another negative and unintended consequence of the current RFS system that the change to the Point of Obligation can correct.

EPA should also recognize that large retailers tend to have larger facilities, a very large number of retail outlets, and thus, are the most capable of directly offering higher renewable fuel blends. Given their control over blending at the rack and below the rack, having large retailers that are Rack Sellers obligated under the RFS cannot hurt the goals of the RFS.

- D. Currently exempt small blenders will not become obligated parties; biodiesel producers will benefit from increased blending even if below the rack blenders see a reduction in RIN generation.

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<sup>75</sup> See Attachment D.

Small renewable fuel blenders that have been exempt because they are blending downstream of the rack will continue to be exempt. The recommended Point of Obligation is at the rack *where the federal excise tax for gasoline or diesel is paid*. Small renewable fuel blenders that are only Rack Buyers and blend downstream of the rack would not be obligated parties. EPA currently allows renewable fuel blenders who handle and blend less than 125,000 gallons of renewable fuel per year to delegate their RIN-related responsibilities to the party directly upstream from them who supplied the renewable fuel for blending.<sup>76</sup> The change to the Point of Obligation and the definition of obligated party will not change this small blender provision.

Valero has learned that a few renewable fuel blenders — not producers — that blend downstream of the rack oppose moving the Point of Obligation because the change would likely lead to more rack blending which might decrease the volume of RINs that the downstream blenders could generate and might devalue the RINs they generate. These blenders include commodity traders and logistics and supply companies. In the same way that large retailers have benefited from creating RINs above the rack and below the rack, biodiesel blenders that blend below the rack have generated RIN revenue by maximizing blending of biodiesel below the rack. If Rack Sellers become obligated, Rack Sellers might begin or increase blending for their own compliance before the diesel reaches the downstream blenders. In such instances, those downstream blenders might have less incremental blending that would generate RINs. Valero understands that this is a market participant that will experience a loss in revenue from moving the Point of Obligation. To be clear, a biodiesel blender that takes ownership of fuel below the rack and blends additional biodiesel could continue to do so and would benefit from the creation of additional RINs. However, because Rack Sellers will also be motivated to blend renewable fuel, the amount of renewable fuel that can be blended downstream might decrease because Rack Sellers will want some control over blending for their own compliance. Downstream blenders that are efficient would still be able to buy diesel, blend biodiesel, and sell competitively in the market. Biodiesel *producers*, however, will realize *increased* sales because of the competition among Rack Sellers and downstream blenders that want to take advantage of any available RIN generation and the continued renewable fuel blending tax credit. However, the key result is that there will be an increase in renewable fuels in the market and more competition for renewable fuels.

**V. Adjusting the Point of Obligation would bring additional incidental positive effects.**

In addition to resolving the RFS' core structural flaw, moving the Point of Obligation would also resolve issues with the small refiner exemption, transmix, and butane blending. Each of these current fuel system anomalies creates a need for a separate regulatory fix under the current RFS structure. Each such fix would bring additional potential burdens and administrative complications. Moving the Point of Obligation, however, would resolve each problem *without* additional complications.

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<sup>76</sup> 40 C.F.R. § 80.1440.

First, by making the renewable fuel obligation proportional to the volume of petroleum fuel sold across the rack, small refiners will find their obligation to be far more reasonable, as it would be based only on the volume that the refiner owns at the rack. This change would eliminate the need for any small refiner exemption.

Second, under the current Point of Obligation, transmix processing at refineries results in a double RVO on the same gallon of transportation fuel. The fuel incurs the first RVO as it leaves the refinery, moving into the fuels distribution network of pipelines and terminal. As the various grades of transportation fuels move through these systems, the point at which one grade or fuel type contacts another creates “transmix,” a mixture of the two fuels. Transmix is often returned to refineries for reprocessing, where it is separated back into its original components and incurs a second RVO when sent back out as transportation fuel. EPA has also had to create special transmix exemptions for non-refined transmix blenders.<sup>77</sup> By measuring the obligation at the rack just before it is loaded and sold to the wholesale customer, however, the obligation point is after the transmix point, and transmix is therefore not included in the obligation volumes. Moving the Point of Obligation renders the previously intractable transmix issue moot.

Third, butane blending into gasoline is a common practice to increase the volume of gasoline at a low cost. Pipeline companies and terminal owners and operators are taking advantage of the low cost of butane to increase the volume of gasoline. By doing so, the volumes of gasoline at terminals are greater than the volumes of gasoline leaving the refinery gate. To account for these additional volumes, butane blending is treated as refining and the compliance obligation is placed on the pipeline companies or terminal owners and operators for the increased volumes. If the Point of Obligation is moved to the rack, the RFS obligation will apply to all volumes of gasoline and diesel at the rack, including the incremental volume created by butane blending, without making pipeline companies and terminal owners obligated parties. Changing the Point of Obligation would ensure that all volumes of butane blended into finished transportation fuels receive an accurate and appropriate RVO.

## **VI. Other objections against the change have no merit.**

After discussing its proposal to move the Point of Obligation with various parties, Valero has encountered several common objections but remains unaware of any valid objection to doing so. The following points are those most frequently raised. Among the objections are: (1) refiners, not blenders, control the product; (2) blenders will stop blending and avoid the RFS undermining the RFS; (3) refiners will stop selling blends compatible with renewable fuel blending; and (4) the change is a major change that will increase the burden of the rule. Valero addresses each objection below.

### **A. Rack Sellers, as blenders, control blending decisions.**

Some opponents to changing the Point of Obligation have stated that “it is appropriate to make refiners and importers obligated parties because those entities control how product is

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<sup>77</sup> 40 C.F.R. §80.1407(f)

introduced into commerce. Blenders, conversely, do not have such control because they are fundamentally buyers of refined products.” This statement does not describe reality. Compliance under the RFS is only achieved through blending renewable fuel into a product. Blenders, specifically Rack Sellers, are fundamentally refiners and buyers of product; as such, *they* control whether they buy refined petroleum product or renewable product. Refiners produce petroleum product and renewable fuel producers produce renewable product—but the Rack Seller alone decides how much of each is to be blended and sold as fuel. Yet Rack Sellers currently have no obligation to blend renewable products. Most refiners are also Rack Sellers, but under Valero’s proposal, their obligation would be directly proportional to whatever volume of fuel they introduce into commerce, not simply the volume of fuel refined.

B. The proposed definition eliminates any loopholes.

Some have argued that if EPA makes blenders the obligated parties, they could avoid the RFS obligation simply by avoiding blending. Among the deficiencies of this argument is that it mischaracterizes Valero’s proposed definition, which does not use the term “blender” and does not make all blenders as a group obligated parties; indeed, it does not even make actual blending critical. Instead, to focus on the single appropriate group of blenders (Rack Sellers), the definition refers to ownership of gasoline or diesel at the rack. This is the blending *opportunity point*. The obligation attaches whether a party actually blends or not, and thus there is no loophole here either.

Further, as discussed above, federal excise tax definitions are well established. The definition in this petition captures all gasoline and diesel going to consumers in the U.S., including additional volumes created by added butane. In addition, the federal excise tax would serve as a method of verification on the obligation. EPA need not rely on the IRS for federal excise tax records; it would simply mandate that obligated parties confirm volumes by demonstrating consistency with federal excise tax records. Federal law already requires that parties retain such federal excise tax records, which EPA can use as part of the annual attestation procedures to verify the obligation volumes and the RINs acquired.

Accordingly, Valero’s proposal will not *create* loopholes, but will *close* them. This verification system will improve compliance because, unlike the present system, it is backstopped by enforcement from at least two federal agencies.<sup>78</sup>

C. Refiners will not stop selling blends compatible with blending renewable fuel.

Some opponents have argued that if blenders become obligated parties, refiners will stop providing blendstocks that are compatible with blending renewable fuel and thus, undermine the RFS program.<sup>79</sup> If refiners are no longer obligated parties merely because of their status as

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<sup>78</sup> Different tax treatment for the various fuels for excise tax purposes does not change the obligation. The renewables mandate would apply to offroad diesel just as it does to regular ultralow sulfur diesel (“ULSD”).

<sup>79</sup> This concern has been raised by several parties but is reflected in one of the questions presented by Senator Deb Fischer (R-NE) to Ronald E. Minsk for the record as part of a recent hearing on the RFS. *Questions for the Record*

refiners, they would still have the same incentives to produce the necessary blendstocks. Contending that they would suddenly not need to do so is a complete red herring at odds with basic economics.

Refiners' entire business, after all, is producing and selling fuel. In the current fuel market, refiners have insufficient access to distribution systems and retail to sell product from the refinery directly without going through the wholesale market. It is far easier for retailers and distributors to move up to the rack than for refiners to move to the rack. Refiners can only stay in business if they continue to supply fuel blends that wholesale and retailers want and need so that they can produce the finished fuel that meets the octane requirements of today's vehicles and the requirements of the RFS. Refiners will continue to meet the needs of the market.

Nor would it even be possible, much less legal given the comprehensive regulation of fuel formulation, for refiners to simply "reformulate" gasoline and diesel as to be incompatible with renewable fuels. Nor would there be a market for this type of fuel, as the Rack Sellers are the refiners or the refiners' customers and would only purchase fuels suitable for blending to meet the state and federal specifications.

Refiners would continue to produce Blendstocks for Oxygenate Blending ("BOBs") that can be blended with ethanol to get the required octane, because ethanol is the most economical source of octane, and blending ethanol and BOBs is the most economical way to produce finished fuel. Ethanol is expected to remain the most economical source of octane well into the future.

Moreover, refiners will need BOBs for their own use as well. Because almost all refiners blend some fuel, if only to sell at distribution racks at refineries, they will need BOBs to blend with ethanol for the fuel that they sell themselves. Refiners will also continue to produce BOBs because the gasoline distribution system infrastructure is not capable of handling both BOB's and full octane (E0) gasoline, as shown by entire markets shifting from full octane (E0) to BOB's produced for E10 blending due to infrastructure limitations.

Finally, even if blending BOBs with ethanol was not the lowest cost approach to producing finished fuel that meets the octane specifications for today's fuels, it would still be needed for compliance with the RFS, both for refiners' wholesales customers and refiners themselves. Ultimately, refiners respond to basic economic incentives, and will have to produce the fuel that their customers need, that meets state and federal specifications and is thus compatible with renewables.

D. The proposed action is neither burdensome nor complicated.

Although EPA can expect those who stand to lose from a change to the current dysfunctional system to assert that any change would be difficult, such objections are meritless. The ease of administering this change has been described as follows:

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*for Ronald Minsk, Oversight of the Renewable Fuel Standard, Hearing before the Sen. Env't. and Public Works Comm. 114th Cong. at #4 (Feb. 24, 2016).*

EPA is already regulating [Rack Sellers] under the RFS program. All RIN related transactions must be executed via the EPA Moderated Transaction System (“EMTS”), which requires transactional, quarterly, and annual reports for all registered users. As such, moving the Point of Obligation to the rack does not introduce any new parties to the system. According to EPA’s recently released EMTS data, the great majority of RINs are separated by currently obligated parties. By moving the obligation to the rack, refiners will still be the predominant obligated parties....<sup>80</sup>

According to EPA’s recently released EMTS data, over 80% of RINs are separated by currently obligated parties<sup>81</sup>—these obligated parties are also Rack Sellers. The administrative burden will be inconsequential to these already-obligated parties; far more importantly, however, the incentives to blend and invest in renewable fuel infrastructure will radically change. This minor language change to the regulation would bring the substantial benefits described earlier in this Petition, including eliminating the adverse impacts of the current Point of Obligation, reducing RIN speculation and market disparity, and reversing a disincentive for infrastructure investment.

Valero and others have completed extensive analysis to better estimate whether moving the Point of Obligation as proposed herein would increase the number of obligated parties. No analysis has found that moving the Point of Obligation as Valero suggests would increase the number of obligated parties at all, and certainly not in any significant way. More likely, even with some new obligated parties and others dropping off, the total number of obligated parties would decrease.

In October 2015, for example, Valero provided EPA with analysis of the number of obligated parties under the current RFS structure compared to the number of obligated parties under a RFS revised as recommended.<sup>82</sup> This analysis concludes that the number of obligated parties will decrease with a revision to the Point of Obligation, directly contrary to EPA’s 2010 speculation that thousands of additional parties would be drawn into the program. Valero completed additional analysis utilizing available federal excise tax registration and found that the federal excise tax point does not include more entities than the current Point of Obligation.<sup>83</sup> Thus, contrary to the 2010 expectation of ballooning numbers, changing the Point of Obligation to the Rack Seller will not increase the administrative burden.<sup>84</sup> Regardless, EPA can propose a

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<sup>80</sup> Minsk Letter, *supra* note 16, at 8.

<sup>81</sup> Minsk Testimony, *supra* note 54, at 17.

<sup>82</sup> See Attachment E.

<sup>83</sup> See Attachment D. Valero identified less than 200 entities registered for federal excise tax purposes conducting RFS relevant transportation fuels related business with Valero. Although Valero recognizes that their transactional activity is a proxy for the market and assumes that there are some entities that might not have been captured in this count, the number of entities registered for federal excise tax on RFS relevant transportation fuels at the rack cannot be substantially more than 200. The Master List of Rack Sellers in this attachment was compiled from several sources as described in the attachment. EPA can obtain more accurate information from public comment to confirm Valero’s findings.

<sup>84</sup>“When the RFS1 regulations were drafted, the obligations were placed on the relatively small number of refiners

rule for public comment and seek input from regulated and interested parties to obtain information to verify the potential change in the number of obligated parties and the potential burden on any new parties.

Nor does the suggested change—a simple adjustment to the language and the compliance burden—require additional lead time. If this change is made, there would be no adverse impact to the RIN system itself, as there will be a clear demarcation for RINs (and how they are used) for compliance under the rule in 2015 versus the form of the rule in 2016. No transitional issues associated with RIN generation or trading associated with a change of the obligated parties to the rack are likely. RINs banked by obligated parties in prior years may be retained and used in 2016 without impact to the overall program, thus preserving market liquidity. Finally, Valero is aware of no plausible adverse downstream (i.e., below the rack) impacts from the implementation of its proposal that could prevent or delay the expeditious implementation of these revisions for calendar year 2016.

#### **VII. EPA has acknowledged the problem, and the statute imposes a duty on EPA to act.**

In mandating the RFS program, Congress gave EPA statutory authority to regulate refiners, blenders, distributors, and importers. But EPA's implementing regulations must further—not impede—the goals Congress established. EPA acknowledges that under the RFS's current structure, the market has structural limitations that have resulted in the inadequate supply of domestic renewable fuel to consumers.<sup>85</sup> As a result, EPA utilized its general waiver authority in the 2015 RVO Rule to revise the 2014, 2015, and 2016 RVOs, and now proposes for 2017 volumes, to account for current market constraints but also ostensibly to push the market forward.<sup>86</sup> The CAA directs EPA to design a program to *ensure* that renewable fuel enters the market by regulating the entities *as appropriate*. Where EPA has determined that the RFS program is not functioning to maximize incentives necessary for renewable fuels to penetrate the fuel market, EPA must evaluate its regulations and undertake rulemaking to remove artificial barriers created by the structure of the rule. EPA must not ignore a market constraint created by the design of its own regulations.

Indeed, EPA concluded that consideration of the scope of “inadequate domestic supply of renewable fuel” should include “the full range of constraints that could result in an inadequate supply of renewable fuel to the ultimate consumers, including fuel infrastructure and other constraints.”<sup>87</sup> Considering “the full range of constraints” necessarily includes the Point of Obligation in the RFS program. EPA has stated that the “supply of renewable fuel can reasonably be judged in terms of availability for use by the ultimate consumer, including consideration of the

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and importers rather than on the relatively large number of downstream blenders and terminals.” 75 Fed. Reg. 14,670, 14,722 (Mar. 26, 2010).

<sup>85</sup> See, e.g., 80 Fed. Reg. at 77,433, 77,435, 77,437, 77,449, 77,450.

<sup>86</sup> “The fundamental objective of the RFS provisions under the Clean Air Act is clear: To increase the use of renewable fuels in the U.S. transportation system every year through at least 2022. . . .” *Id.* at 77,421.

<sup>87</sup> *Id.* at 77,435.

capacity to distribute the product to the ultimate consumer.”<sup>88</sup> The current RFS Point of Obligation deters investment in critical infrastructure needed to distribute and blend renewable fuels and thus limits the market’s capacity to deliver renewable fuel to consumers.

Valero supports the use of EPA’s waiver authority for 2014, 2015, and 2016 and as proposed for 2017, but EPA must move the RFS Point of Obligation so that supply constraints are lifted, enabling the fuel market to comply with the increased volume mandates. In the 2015 RVO Rule, EPA said:

While economic theory and the illustrations above [in the final rule preamble] support the idea that RINs can serve as a mechanism to increase the production, distribution, and consumption of renewable fuels, it is important to note that this result is dependent on the marketplace working both efficiently and quickly.<sup>89</sup>

With the current Point of Obligation continuing as a market constraint, the marketplace cannot work efficiently and quickly to respond to the increased mandates. Rather, the current Point of Obligation is a barrier to renewable fuels penetrating the market in the quantities included in the final rule for 2016 or any increased volumes in rules for 2017 and beyond.

A. The CAA requires that EPA regulate entities as appropriate to ensure renewable fuel penetrates the market.

CAA §211(o)(2)(A)(iii) requires EPA to issue regulations for the renewable fuel volumes set forth under section 211(o) and the regulation “shall contain compliance provisions applicable to refineries, blenders, distributors and importers, *as appropriate*, to ensure that the requirements” of the section are met.<sup>90</sup> The section mandates that EPA issue “regulations to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B)” of CAA § 211(o)(2).

The Act directs that “the renewable fuel obligation determined for a calendar year under clause (i) shall—(I) be applicable to refineries, blenders, and importers, *as appropriate*....”<sup>91</sup> Thus, for each regulation setting forth the RFS obligation volumes for the year, EPA must determine which obligated parties are “appropriate.” The Act does not mandate that EPA impose the obligation on refiners and importers. Instead, it requires EPA to regulate entities “as appropriate” to ensure that the applicable volumes are met.

The U.S. Supreme Court recently expressed its view of the term “appropriate”:

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<sup>88</sup> *Id.* at 77,437.

<sup>89</sup> *Id.* at 77,459.

<sup>90</sup> CAA § 211(o)(2)(A)(iii) (emphasis added).

<sup>91</sup> CAA § 211(o)(3)(B)(ii) (emphasis added).

One does not need to open up a dictionary in order to realize the capaciousness of this phrase. In particular, “appropriate” is “the classic broad and all-encompassing term that naturally and traditionally includes consideration of all the relevant factors.” Although this term leaves agencies with flexibility, an agency may not “entirely fail[] to consider an important aspect of the problem” when deciding whether regulation is appropriate.<sup>92</sup>

Regardless whether previous definitions of obligated party were appropriate when setting earlier RVOs, now that EPA has used its statutory waiver authority, it must consider whether a regulatory change to the Point of Obligation could improve incentives and increase the probability of meeting statutory volume mandates.

B. EPA committed to revisiting the Point of Obligation if the RIN market was not operating as intended.

In the final RFS rule published on March 26, 2010, EPA committed to reconsidering the Point of Obligation in future rulemaking if “the RIN market is not operating as intended.”<sup>93</sup> At that time, EPA justified not changing the Point of Obligation because “a change in the designation of obligated parties would result in a significant change in the number of obligated parties and the movement of RINs, changes that could disrupt the operation of the RFS program during the transition from RFS1 to RFS2.”<sup>94</sup> In that rulemaking, EPA considered two options for changing the Point of Obligation: (1) to place the obligation on parties that made finished gasoline or diesel, including all parties that blended ethanol into gasoline or (2) to place the obligation on “parties that supply finished transportation fuels to retail outlets or to wholesale purchaser-consumer facilities.”<sup>95</sup> Despite recognizing that the second option would mean that “these blenders would become directly responsible for ensuring that the volume requirements of the RFS program are met, and the cost of meeting the standard would be more evenly distributed,” with the result that “overall market prices for RINs may be lowered and consequently the cost of the program to consumers may be reduced,” EPA declined to make the change.<sup>96</sup> When EPA made this decision, EPA assumed incorrectly that a change under either option would significantly increase the number of obligated parties and disrupt the transition from RFS1 to RFS2. The transition from RFS1 to RFS2, however, is now accomplished. The RIN market has not been operating as intended<sup>97</sup> and a change to the Point of Obligation will not disrupt the operation of the RFS program. Rather, this change will improve the program’s operation.

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<sup>92</sup> *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (quoting *Motor Vehicle Mfrs. Assn. of United States, Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 43 (1983) (internal citation omitted)).

<sup>93</sup> 75 Fed. Reg. at 14,722.

<sup>94</sup> *Id.*

<sup>95</sup> 74 Fed. Reg. at 24,963.

<sup>96</sup> *Id.* at 24,964.

<sup>97</sup> Numerous reports and studies have concluded that the RFS system is not performing as intended. See, e.g., Stock, *supra* note 43.

EPA acknowledged in the 2015 RVO Rule that the renewable fuel market is very different now than it was in the early part of the RFS program. EPA contends that in the early stages of the RFS program, compliance with the volume mandates was readily achievable by increased blending of renewable fuel.<sup>98</sup> But over the last several years, structural market constraints have been impeding renewable fuel market penetration. EPA used its waiver authority to address these market constraints but EPA must also revisit the Point of Obligation to eliminate the programmatic dysfunction. EPA's failure to do so now will have long term consequences, as EPA has already issued a waiver that impacts 2016 volumes, proposes to use it for 2017 and will likely use it in the future.

C. Use of the waiver authority must be considered together with “appropriate” regulations.

EPA acknowledged in the 2015 RVO Rule that “the statutory volumes cannot be met according to the schedule reflected in the statute.”<sup>99</sup> In the 2015 RVO Rule, EPA claimed to be “using the waiver authorities only to the extent necessary” to set volumes that “reflect the maximum supply that can reasonably expected to be produced and consumed by a market that is responsive to the RFS standards.”<sup>100</sup> EPA also stated that

the current constraints on growth in supply mean that each additional supply increment is likely to be more difficult to achieve than previous increments, and likely require more time to overcome than past constraints.<sup>101</sup>

While recognizing that the market can respond to the standards by increasing supply, EPA also conceded that “the market is not unlimited in its ability to respond.”<sup>102</sup> Thus, it is apparent that EPA intends to adjust volume mandates for future years, using the waiver authority. In light of these facts and the statutory mandates, EPA must ensure that the rule itself does not reduce the market's ability to supply renewable fuel and respond to the RFS standards. To accomplish EPA's stated goal of setting regulations that reflect the “power of the market to respond to the standards,”<sup>103</sup> EPA must also consider the improvements that can come from changing the structure of the regulation itself, and specifically changing the Point of Obligation. In a rulemaking proceeding, EPA would explore options, including Valero's suggestion that Rack Sellers are the appropriate obligated party. Rack Sellers ultimately decide if renewable fuels will be blended, are closer to and more responsive to market signals, and thus define the market. Only after correcting the RFS by eliminating the constraint imposed by the current placement of the Point of Obligation can EPA accurately base any further use of its waiver authority on market power and use the waiver only to the extent necessary based on real market conditions rather than artificial market barriers.

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<sup>98</sup> See 80 Fed. Reg. at 77,423.

<sup>99</sup> *Id.* at 77,456.

<sup>100</sup> *Id.* at 77,426.

<sup>101</sup> *Id.* at 77,481.

<sup>102</sup> *Id.*

<sup>103</sup> *Id.* at 77,449.

This situation is similar to the one the Supreme Court addressed in *UARG*, when it cautioned that “[a]gencies are not free to ‘adopt . . . unreasonable interpretations of statutory provisions and then edit other statutory provisions to mitigate the unreasonableness.’”<sup>104</sup> In *UARG*, the Court ruled that a long-standing interpretation of the Act for stationary sources was neither compelled by the statute nor reasonable as it applied to new regulation of greenhouse gas emissions, particularly when EPA turned to extraordinary legal doctrines to resolve problems created by the long-standing interpretation. In other words, when EPA has a statutory mandate, writes a rule to meet the mandate and then finds that the rule is an obstacle to meeting the mandate, EPA must not waive the statutory mandate instead of fixing the rule. Precisely applied to the RFS mandates, EPA cannot misplace the point of obligation, and acknowledge it is an issue, and then elect to waive the mandates but not address the structural impediments of its own creation. EPA must address market constraints created by EPA regulations in order to properly rely on extraordinary legal measures such as waiving statutory volumes.

D. The effectiveness of the proper placement of the obligation is demonstrated by the California Greenhouse Gas Regulations.

EPA should consider the experience of the California Air Resources Board (“CARB”) in implementing two distinct regulatory programs designed to reduce greenhouse gas emissions in the state to 1990 levels by 2020.<sup>105</sup> The CARB Cap-and-Trade program is designed to use market mechanisms to allocate the cost of carbon through trading of compliance instruments that reflect reductions in carbon emissions, while the CARB Low Carbon Fuel Standard (“LCFS”) promotes use of fuels and blend stocks with lower lifecycle carbon intensity. Both programs have recognized the key role played by Rack Sellers in affecting the changes necessary to drive reductions.

Under CARB’s Cap-and-Trade program,<sup>106</sup> fuel suppliers are required to surrender allowances or offsets for CO2 emissions attributable to the regulated fuels<sup>107</sup> they sell into the California market. Specifically, CARB imposes this obligation on the entity that owns title to the product at the rack.<sup>108</sup> In explaining its rationale for establishing the reporting and compliance obligation at the rack rather than with refiners and importers, CARB staff noted that “the refinery is not a workable point of regulation for purpose of fuel supplier reporting for cap-and-trade for

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<sup>104</sup> *UARG v. EPA*, 134 S. Ct. 2427, 2446 (2014).

<sup>105</sup> See California Global Warming Solutions Act of 2006 (Assembly Bill 32); Governor’s Executive Order S-01-07 (Jan. 18, 2007).

<sup>106</sup> 17 C.C.R. §§ 95800 *et seq.*

<sup>107</sup> Fuels subject to cap-and-trade obligations include liquefied petroleum gas and natural gas, as well as gasoline and diesel. 17 C.C.F. § 95811(e), (g).

<sup>108</sup> The “covered entity” subject to cap-and-trade obligations for gasoline and distillate fuels is the “Position Holder,” defined as “an entity that holds an inventory position in motor vehicle fuel or diesel fuel in its terminal. ‘Position Holder’ does not include inventory held outside of a terminal, fuel jobbers (unless directly holding inventory at the terminal), retail establishments, or other fuel suppliers not holding inventory at a fuel terminal.” 17 C.C.R. §§ 95802(a)(277), 95811(d).

most of the fuel delivered, since refineries are often not aware of the final destination of fuels they produce.”<sup>109</sup>

These regulations are a successful example of how the marketing aspects of regulating fuels are best managed from the rack level. These regulations apply to the majority of stationary emitters and transportation fuels, requiring that all volumes of transportation fuels (gasoline and diesel) be converted into “carbon equivalent” CO<sub>2</sub> emission rates and reported to the state. This information forms the basis of the GHG obligation under the cap-and-trade regulations, where carbon allowances must be purchased to cover each ton of carbon emitted from the combustion of transportation fuels.

CARB supported the decision to regulate at the rack as follows:

In the U.S. EPA [greenhouse gas mandatory reporting rule], the reporter is the fuel refiner. After consultation with refiners and other industry stakeholders, staff determined the refinery is not a workable point of regulation for purposes of fuel supplier reporting for cap-and-trade for most of the fuel delivered, since refineries are often not aware of the final destination of fuels they produce. After consultation with position holders and California Board of Equalization (BOE) staff we determined that BOE already requires reporting for taxation purposes of most of the needed data, including volumes of fuel imported below the terminal rack and delivered across the rack (CA BOE 2010c). We consulted with position holders and enterers (the majority of which are subsidiaries of or related to companies that own or are related to refineries), and determined that emissions reporting would not be a significant additional burden for them. Therefore, we chose position holders at the terminal rack and enterers importing below the rack as appropriate reporters for the proposed revised regulation.<sup>110</sup>

The LCFS<sup>111</sup> similarly illustrates that placing the obligation at the rack effectively incentivizes market penetration of renewable fuels. Although the LCFS regulation initially designates producers and importers of gasoline, diesel, and liquid blend stocks as “regulated parties” responsible for demonstrating compliance with the rule,<sup>112</sup> the regulation provides flexibility for that burden to be transferred to owners of the fuel at the rack by contractual agreements. In practice, compliance at the rack, rather than the refinery, has become the rule, as it has become the ubiquitous practice for purchasers of blend stocks to assume the LCFS obligation corresponding to the product they purchase.

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<sup>109</sup> California Air Resources Board, INITIAL STATEMENT OF REASONS FOR RULEMAKING: REVISIONS TO THE REGULATION FOR MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS PURSUANT TO THE CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006 at 69 (Oct. 28, 2010).

<sup>110</sup> *Id.*

<sup>111</sup> 17 C.C.R. §§ 95480 *et seq.* The LCFS program is designed to reduce the carbon intensity of transportation fuels sold in the state by requiring providers to demonstrate that the mix of fuels they supply meet the applicable LCFS carbon intensity standards for each compliance period, based on a lifecycle analysis of the carbon emission associated with both the production and the consumption of the fuel.

<sup>112</sup> 17 C.C.R. § 95484(a).

These programs predictably have created a powerful incentive to invest in and expand the infrastructure for blending renewable fuels. As evidence of the incentive created by the obligation at the rack, reporting parties generated a net total of 3.5 million metric tons of excess LCFS credits through the end of the second quarter of 2014. The Point of Obligation has been central to allowing renewable fuels to gain early and wide access to these racks. Crimson Renewable Energy submitted comments to EPA in July 2015 describing the incentives created by California's structure compared to the RFS:

[T]he requirement for blending at the bulk fuel terminals has created an environment that has allowed our biodiesel to gain wide access to these terminals. In fact, Crimson has had an easier time marketing our renewable fuels and optimizing our fuel price and usage in California than would be possible in other states due to how LCFS is implemented at the bulk fuel terminals. We would contrast that to the RFS program, where we, and the industry, still find difficulty penetrating several markets.

To summarize, EPA has repeatedly stated on the record that one of the primary goals of the RFS program is to increase the production and consumption of renewable fuels. Yet the current structure of the RFS has not led to maximization infrastructure investment and renewable fuel penetration, and indeed in some ways (i.e. how the RFS obligation is structured) may actually be an obstacle to achieving the stated goals.<sup>113</sup>

## VIII. Conclusion

### A. The current system is no longer appropriate.

The circumstances around the RFS have changed considerably since 2010 when EPA deferred a change to the Point of Obligation. It is now time for EPA to change the RFS structure to ensure the viability of the program. EPA's acknowledgement of supply constraints to justify use of the statutory waiver compels EPA to correct the structural flaw in the RFS program that itself is a supply constraint.

### B. Placing the obligation on Rack Sellers is appropriate and necessary to ensure the statutory requirements for renewable fuels are met.

The CAA requires EPA to develop appropriate regulations to ensure that renewable fuels are available in the market for consumers. EPA's current RFS structure is not appropriate. To comply with its statutory duties, EPA must modify the RFS program by placing the obligation at the rack to ensure that EPA's rules do not continue to create an EPA-induced barrier to renewable fuel market penetration.

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<sup>113</sup> Crimson Renewable Energy Comments, *supra* note 71, at 5-6.

- C. Changing the Point of Obligation will improve renewable fuel supply to consumers by increasing investment in needed infrastructure.

As numerous parties have reported to EPA and as EPA has recognized, greater market penetration is needed to meet the statutory volume mandates. To ensure greater market penetration, EPA must move the RFS obligation downstream to Rack Sellers, who then become more responsive to pricing and better able to respond to and push consumer demand for renewable fuel. Moving the obligation to Rack Sellers would have multiple benefits.

1. Improves Market Competition and Elimination of Market Disparities.

A better alignment between the obligation and the RIN system will reduce the market disparity that the RFS created and will ensure ongoing competition in the transportation fuel market. Many refiners, including Valero, will continue to be obligated parties, but that obligation will be proportional to that party's rack sales.

2. Reduces Opportunities for RIN Fraud and Speculation.

Better alignment between the RFS obligation and the RIN system will reduce opportunities for RIN fraud and speculation. RIN fraud and speculation resulted in unnecessary costs to the industry and did not benefit consumers or increase renewable fuel. Moving the obligation to the point of RIN generation minimizes the risks created by the under-regulated RIN market and better enables diligence over the integrity of RIN generation.

3. Eliminates Disincentives from Installation of Renewable Fuels Blending Infrastructure.

Moving the Point of Obligation will improve market penetration of renewable fuels via the installation and expansion of terminal blending infrastructure. By aligning the incentive to blend renewable fuels with the obligation to blend renewable fuels (at the point of blending), all terminal customers will be incentivized to support terminal blending infrastructure capital projects. The alignment of its customers will provide the necessary consensus for terminal owners/service providers to invest in the required terminal infrastructure. This will only occur if all of the terminal customers (Rack Sellers) are proportionally obligated for the volumes they sell, enabling the terminal owner to recognize uniform demand for investment in blending infrastructure, ensuring access to project economy of scale, and improving market competition by leveling the playing field at the terminal.

4. Long-Term Investment in Infrastructure Will No Longer Depend on RIN Prices.

RIN prices are more likely to track renewable fuel prices if Rack Sellers make decisions about blending based on renewable fuel prices and their renewable fuel obligations. Rather than depending on RIN prices to motivate unobligated parties to make long-term investments in renewable fuels, the RFS can motivate Rack Sellers to invest as obligated parties; they would invest based on transportation fuel prices and would include renewable fuel blending as a component of the transportation fuel business. Subsequently, Rack Sellers would use excess RINs

as protection against renewable fuel price increases rather than as a means for windfall profits. Downstream blenders would continue to have opportunities to generate revenue from RINs by performing additional or more efficient blending downstream of the rack.

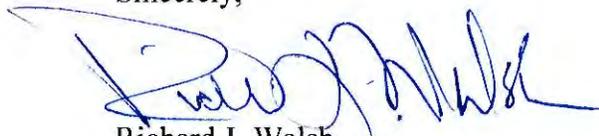
D. With this change to the Point of Obligation, the RFS will more closely achieve EPA's goals.

As EPA recognized in 2009, moving the Point of Obligation to the rack creates better alignment between the regulatory obligation and the actual ability to blend. As Former White House Advisor Ron Minsk pointed out in his comments on the 2015 proposed rule, "by moving the Point of Obligation to the rack, refiners will still be the predominant obligated parties, however the proportionality of the obligation will correspond to their blending capability and thus incentivize them to push as much renewable fuel as possible."<sup>114</sup> EPA's goal is to promote the production and consumption of renewable fuel. The statutory mandates drive EPA's goal. Yet various market barriers—including those based on technology, such as the blend wall and inadequate blending infrastructure—impede the ease of renewable fuel market penetration.<sup>115</sup> By removing the barrier created by EPA's regulations, EPA can reduce the degree to which other barriers impede market penetration of renewable fuels.

The regulatory change to improve the RFS structure will stabilize the RIN system by stabilizing prices and increasing transparency. A stable RFS program will result in investment in infrastructure and increased quantities and types of renewable fuel products for consumers. "Obligated parties would now be able to compete on an even playing field as the RFS drafters envisioned. With all of the major parties competing for E85 market share, consumer prices have the best opportunity to be competitive with E10 and gain penetration into the market."<sup>116</sup>

Valero is committed to working with EPA in a constructive way that will further the goals of the RFS program. We look forward to your response. I am available at your convenience to discuss this Petition for Rulemaking. Please contact me at (210) 345-2000 should you have any questions.

Sincerely,



Richard J. Walsh  
Senior Vice President and Deputy General Counsel  
Valero Energy Corporation

<sup>114</sup> Minsk Letter, *supra* note 16, at 8.

<sup>115</sup> See Burkholder Memo, *supra* note 4 at 12.

<sup>116</sup> *Oversight of the Renewable Fuel Standard, Hearing before the Sen. Comm. on Envt. and Public Works*, 114th Cong. 2 (Feb. 24, 2016) (Key Points from the Written Testimony of Ronald E. Minsk).

cc: Janet McCabe  
Chris Grundler  
Ben Hengst

### **Attachment List**

- Attachment A Paul Bernstein, et al., NERA Economic Consulting, Effects of Moving the Compliance Obligation under RFS2 to Suppliers of Finished Products (July 27, 2015)
- Attachment B Letter from Ronald E. Minsk to Janet McCabe, Acting EPA Assistant Admin. for Air and Radiation (July 24, 2015) (Docket ID No. EPA-HQ-OAR-2015-0111-1307)
- Attachment C Murphy USA, Inc., U.S. SEC Form 10-K for the fiscal year ended December 31, 2015
- Attachment D Master List of Rack Sellers
- Attachment E Supplement to Valero Comments on Proposed Renewable Fuel Standards for 2014, 2015 and 2016 and Biomass-Based Diesel Volume (Oct. 16, 2015) (Docket ID No. EPA-HQ-OAR-2015-0111-3530)

# Attachment A

# **Effects of Moving the Compliance Obligation under RFS2 to Suppliers of Finished Products**



Prepared for:

**Valero Energy Corporation**

Final Report

July 27, 2015

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The findings contained in this report may contain predictions based on current data and historical trends. Any such predictions are subject to inherent risks and uncertainties. In particular, actual results could be impacted by future events that cannot be predicted or controlled, including, without limitation, changes in business strategies, the development of future products and services, changes in market and industry conditions, the outcome of contingencies, changes in management, and changes in law or regulations. Neither Valero Energy Corporation nor NERA accept responsibility for actual results or future events.

The opinions expressed herein are those of the authors and do not necessarily represent the views of NERA Economic Consulting or any other NERA consultant.

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## EXECUTIVE SUMMARY

The Renewable Fuels Standard (RFS2) is not achieving its original targets for greater renewable fuel use. Supplies of cellulosic biofuels have been one to two orders of magnitude lower than the RFS2 statutory targets. As a result, U.S. Environmental Protection Agency (EPA) has had to reduce the cellulosic biofuel target almost every year. There have also been shortfalls in other RFS2 biofuel categories. As a result, EPA is proposing to set the 2014 renewable fuel standards at the levels actually produced and used. Furthermore, EPA arrives at its proposed renewable fuel standards for 2015 and 2016 by invoking its two waiver authorities<sup>1</sup> to reduce required volumes of not only cellulosic biofuel but also of advanced biofuel and total renewable fuel as well. EPA cites the much lower than expected penetration of E85 (gasoline with up to 85% ethanol by volume) as a key reason for lowering the required RFS2 volumes from those of the original statutes.

The statutory standards for renewable fuels in 2014 and beyond require sales of transportation fuel containing more than 10% ethanol, which cannot be used in most existing vehicles, at volumes far greater than have been achieved to date. Without growing sales of fuels like E15 and E85, this limit to the penetration of ethanol, known as the blend wall, restricts total renewable fuel sales. It has been impossible to bypass the blend wall because E85 prices are not declining relative to E10 prices. As a result, there is no growing economic incentive for consumers to purchase E85.

The failure of the RFS2 program to bring about the needed supplies of E85 is due in part to a fundamental flaw in the policy's current design. Namely, the parties responsible for complying with RFS2 (the "obligated parties") often differ from the ones (the "blenders") that produce the finished products that contain the biofuels. Refiners and importers of gasoline blendstocks and diesel fuel are responsible for compliance with RFS2's renewable fuels requirements, even though many never interact directly with renewable fuels (i.e., do not blend these products with renewable fuels). Blenders, many of which are independent of refiners, determine the amount of E0, E10, E15, and E85 to produce and how they will be priced. It was expected that as the price of compliance rose and drove increases in the price of renewable identification numbers (RINs) that refiners and importers must submit to comply with RFS2, blenders would effectively cross-subsidize the differential between the price of E10 and E85 in order to sell more E85 and obtain additional RINs to sell. This cross subsidization is not happening, as E85 prices remain above E10 prices on an energy equivalent basis. Moving the obligation to blenders would locate it at the point where decisions about production and pricing are made. This alignment of incentives

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<sup>1</sup> The two waivers are the cellulosic biofuel waiver and the general waiver authorities.

with control should move the market toward the intended cross-subsidization and induce an increase in E85 sales that would in turn increase the penetration of biofuels.

In addition to failing to induce the needed level of E85 sales, the current system has the perverse effect of subsidizing exports and raising U.S. gasoline and diesel prices. Refiners producing petroleum blendstock for oxygenate blending (BOB)<sup>2</sup> or diesel for export are not subject to the requirement to surrender a RIN; but given current pricing methods in Latin American markets, they can receive the same price for exports as domestic sales. Therefore, a refiner can escape the RFS2 system by exporting and still capture the value of the RIN that a recent paper by researchers from MIT, Michigan, and Harvard (Knittel et al.)<sup>3</sup> find is included in the price of BOB. The increased exports will be some combination of diverted domestic BOB and diesel sales and increased crude runs. These changes shift the balance of supply and demand in the U.S. and may put upward pressure on domestic fuel prices.

Blenders would not be subject to the transaction costs and timing risks<sup>4</sup> now imposed on refiners, who are short RINs. Many refiners must rely on RIN purchases to meet their current obligations because they do not blend enough petroleum blendstocks (BOB and diesel) with renewable fuels to satisfy their RIN obligations. These transaction costs cannot be eliminated efficiently by means of forward integration into blending, as EPA and Burkholder seem to suggest.<sup>5</sup> In fact, the trend in the market has been to become less integrated. This trend suggests that integration is costly and inefficient. In addition, some refiners would likely face antitrust concerns if they were to integrate with blenders.

Moving the obligation from refiners downstream to suppliers of finished gasoline and diesel will eliminate the subsidy to exports from refineries since they will no longer have a RIN obligation to avoid. With no RIN obligation for refiners, the marginal cost of production for refiners will fall by the amount of the RIN price, as will the price of petroleum blendstocks, based on the assumption that there is a 100% pass through of the RIN price into petroleum blendstock prices. Blenders will purchase petroleum blendstocks at this reduced price and incur the RIN obligation as a result. The blender can then either purchase biofuels and obtain RINs or purchase RINs,

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<sup>2</sup> BOB is produced in different forms. The two principal forms are reformulated blendstock for oxygenate blending (RBOB) and conventional blendstock for oxygenate blending (CBOB).

<sup>3</sup> The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard June 2015, Christopher R. Knittel, Ben S. Meiselman, and James H. Stock, p. 20.

<sup>4</sup> Knittel et al., p. 20.

<sup>5</sup> Dallas Burkholder "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects" Office of Transportation and Air Quality, US EPA (May 14, 2015).

thus assuring that the RIN price equilibrates with the cost of biofuels. As long as the price of finished fuel products equals the cost of their respective feedstocks plus a normal blender margin, the blender has no additional incentive to export. It would receive the same market price for the petroleum blendstock as it purchased it for, and the RIN it receives for blending compensates for the cost of biofuel and enables pass-through to retail.

## **I. INTRODUCTION**

### **A. Assignment**

NERA Economic Consulting was retained by Valero Energy Corporation to analyze the effects that assigning to refiners the obligation to blend renewable fuels has on the ability of the Renewable Fuel Standard's (RFS) program to achieve its goals of promoting renewable fuel use at minimum cost to consumers. As part of this analysis, NERA discusses how moving the obligation from refiners to producers of finished transportation fuels (blenders) would remove structural impediments to the program's success and improve the likelihood of the RFS program achieving its goals.

### **B. Background on RFS2 and RINs**

Congress first established a Renewable Fuel Standard in 2005 with the enactment of the Energy Policy Act of 2005 (EPACT). Two years later, Congress passed the Energy Independence and Security Act of 2007 (EISA 2007) which superseded and greatly expanded the biofuels blending mandate. This expanded RFS is referred to as RFS2, which applies to all transportation fuel used in the United States—including diesel fuel intended for use in highway motor vehicles, non-road, locomotive, and marine diesel.<sup>6</sup> RFS2 subdivides the total renewable fuel requirement into four separate but nested categories—total renewable fuels, advanced biofuels, biomass-based diesel, and cellulosic biofuel—each with its own volume requirement or standard.

#### **1. Renewable Volume Obligations**

Congress mandated annual renewable fuel volumes for each renewable fuel category and for each year through 2022 in EISA 2007. These targets are referred to as renewable volume obligations (RVOs). The EPA translates the RVOs for each biofuel category into blending percentage standards that are used by obligated parties to determine their individual RVOs.

More specifically, each year, EPA calculates the annual total renewable fuel volume mandate by biofuel category as a percentage of the nation's total projected fuel consumption (which the Department of Energy's Energy Information Administration (EIA) provides) less EIA's projected volume of biofuels that will be consumed in the upcoming year. EPA makes some adjustments for small refinery exemptions. The renewable fuel volume obligation for each obligated party (refiners and importers of transportation fuel) is calculated by applying these ratios, which are referred to as blending percentage standards, to the total volume of gasoline and

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<sup>6</sup> Heating oil, jet fuel, and fuels for ocean-going vessels are excluded from RFS2's national transportation fuel supply; however, renewable fuels used for these purposes may count towards the RFS2 mandates.

diesel that the obligated party produces or imports for the year. Obligated parties submit “Renewable Identification Numbers” RINs, which are attached to every gallon of renewable fuel produced or imported, as evidence of meeting their annual RVOs.

The forecasts for gasoline and diesel demand that were used originally to determine statutory volume requirements for renewable fuels have significantly exceeded actual gasoline demand in recent years, due in part to increasing CAFE standards and the 2009 recession. As a result of lower than expected gasoline demand and other factors related to the availability and cost of certain renewable fuels, EPA has found it necessary to reduce the volume requirements for cellulosic, advanced, and total renewable fuel below statutory levels using its two waiver authorities.<sup>7</sup>

## **2. Simple Structure of Vertical Market**

This section discusses the market in terms of gasoline and how it is produced, blended, and delivered to retail outlets as an example of how the industry is structured. Although not discussed in detail here, this structure is also applicable to diesel fuel used in the transportation sector.

The refined petroleum product used in gasoline prior to it being blended with ethanol is referred to as “blendstock.” There are two principal types of blendstocks: a “Conventional Blendstock for Oxygenate Blending” (CBOB) which is used in conventional gasoline that is used in ozone attainment areas of the U.S.; or “Reformulated Blendstock for Oxygenate Blending” (RBOB), which is used to make reformulated gasoline that is required in ozone non-attainment areas of the country.<sup>8</sup> Gasoline blendstocks are fungible and may be traded between many entities before reaching the terminal at which finished gasoline is produced. Finished gasoline is produced at a terminal by blending ethanol and the proprietary additives that differentiate individual brands of gasoline.<sup>9</sup> Non-branded suppliers do not necessarily use their own unique fuel additives but may use those of the supplier of branded products. More importantly, ethanol can only be added to gasoline at the terminal from where it is distributed to retail outlets. The mixture of blendstock,

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<sup>7</sup> Cellulosic Waiver Authority: If the EPA determines that the projected volume of cellulosic biofuel production for the following year is less than the applicable volume provided in the statute, then the EPA must reduce the applicable volume. General Waiver Authority: The EPA Administrator may reduce the applicable volume if it is determined that implementation of the requirement would severely harm the economy or the environment of a State, regions or the United States; or there is an inadequate domestic supply, Clean Air Act section 211(o)(7)(A)(i).

<sup>8</sup> CARBOB is another type of blendstock that complies with California Air Resource Board requirements.

<sup>9</sup> These additives are only added when producing finished gasoline.

ethanol, and additives that constitutes finished gasoline cannot be transported long distances by pipeline or barge because ethanol can absorb water and contaminate the product.

The last party to own the BOB before mixing with ethanol is called the blender. Thus in the simplest terms, BOB flows from a refiner (or importer) to a blender to a retail outlet. Ethanol flows to the blender that mixes BOB and ethanol together in the proper proportions and delivers finished products with different ratios of ethanol to BOB to retail outlets. Finished gasoline is referred to as E0 if it contains no ethanol, E10 if it contains 10% ethanol by volume, and E85 if it contains between 51% and 83% ethanol by volume.

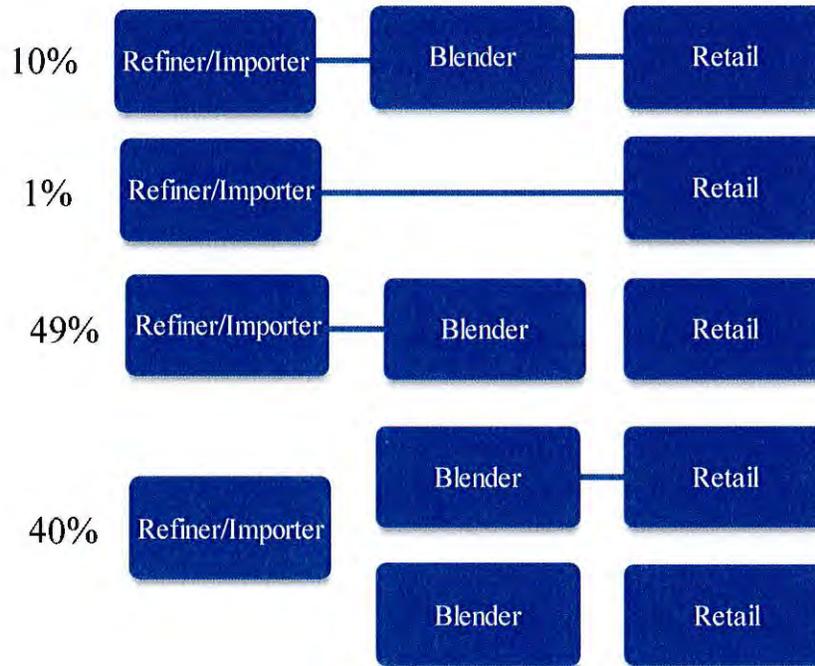
There are four different ways in which refiners can be integrated with the other downstream segments of the industry (see Figure 1). All three levels could be under one ownership (as denoted by the first line of Figure 1 with the lines connecting each level to show all levels are under the same ownership), two of the three under one ownership, or each separately owned. An integrated refiner could be integrated into blending and retail, into only blending, or into only retail. In addition, it could have one organization for one geographic area or product and an entirely different one in another. All these forms are common, as is a refiner with no downstream activities. The shares of obligated refiners or importers with each type of organization are indicated by the values to the left.<sup>10</sup>

The lines connecting refiner/importers with blenders and/or retailers represent common ownership. If we also indicated how gasoline or diesel flows from refiners to blenders or retailers, we would have arrows pointing from each refiner/importer box to each blender box and to each retailer box. That is, any given refiner sells gasoline or diesel to independent blenders, to affiliated blenders, and to blenders owned by other refiners. Relatively little physical product flows directly from a refinery to a wholly owned blender or retail outlet.

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<sup>10</sup> EPA provides a list of all registered participants in the Renewable Fuels Program. From this data and information on the named companies, we made a count of the number of companies that were active in refining or importing, blending and retail, in refining or importing and retail only, in refining or importing and blending only, or in refining only. The numbers in the left hand column represent the number of companies in that category divided by the total number of companies in all four categories.

**Figure 1: Integration of Three Levels: Obligated Party, Blender, and Retail**



Note: Percentages are based on the number of obligated parties.

Sources: EPA Fuels Programs Registered Company/Facility ID List; EIA Refinery Capacity Data; OPIS Retail Market Share Data.

Our interest is in how obligated parties are related to non-obligated parties further downstream. In the aggregate, about 60% of U.S. refiners and importers (obligated parties)<sup>11</sup> also perform blending. However, for each obligated party that also does blending, the relative size of the refining and blending operations varies. For example, gasoline blended by Valero is about 30% of what Valero refines.

These shares show that a very substantial percentage of obligated parties do not generate RINs within their own companies and do not sell E10, E85, or other finished products that contain renewable fuel. Major oil companies have divested many of their company owned and operated stations. Only about one percent of retail outlets are owned and operated by major oil companies, about fifty-two percent are operated by independent business owners who sell fuel under a major oil company brand name, and the remaining retail outlets are owned by independent business

<sup>11</sup> 60% is based on the number of refiners and importers and not on their volume throughput.

owners who provide unbranded gasoline.<sup>12</sup> Therefore as a whole refiners lack the wide spread ability to promote renewable fuel sales.

### 3. Obligation versus Generation of RINs

Renewable fuel producers or importers generate RINs when they produce or import a gallon of renewable fuel. One gallon of ethanol generates one RIN, while one gallon of biomass-based diesel generates between 1.5 to 1.7 RINs depending on its energy content per gallon relative to that of ethanol. Renewable fuel producers and importers must register with the EPA and report to the EPA RINs that they generate.

The RIN remains with the renewable fuel until it is blended with a petroleum blendstock. At that point, the blender can separate the RIN from the fuel. The party owning the petroleum blendstock at the point of blending has ownership of the RIN and is free to sell it to any third party, including an obligated party.

Obligated parties are producers of transportation fuel, i.e., refiners and importers.<sup>13</sup> They produce and/or import biofuel-free gasoline and/or petroleum diesel fuel that must be blended with ethanol or biomass-based diesel, respectively, to produce a finished gasoline or diesel product. They must submit RINs to EPA each year to demonstrate that they have met their annual RVOs. These obligated parties are made responsible for incorporating certain volumes and categories of renewable fuels into their fuel supply each year in correspondence with their individual RVOs, but many do not carry out that blending step themselves.

EPA itself recognized in its notice of proposed rulemaking for RFS2 in 2009 that this assignment detached responsibility from control:

By eliminating RBOB and CBOB from the list of obligated fuels, these blenders would become directly responsible for ensuring that the volume requirements of the RFS program are met, and the cost of meeting the standard would be more evenly distributed among parties that blend renewable fuel into gasoline. With obligations placed more closely to the points in the distribution system where RINs are made available, the overall

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<sup>12</sup> Government Accountability Office, "Biofuels: Challenges to the Transportation, Sale, and Use of Intermediate Ethanol Blends," June 2011, available at <http://www.gao.gov/assets/320/319297.pdf>.

<sup>13</sup> An *obligated party* is any entity that holds title to gasoline or diesel fuel prior to transfer across the rack to retail outlets or wholesale purchasers/consumers for distribution within the 48 contiguous states or Hawaii during a compliance period.

market prices for RINs may be lowered and consequently the cost of the program to consumers may be reduced.

While eliminating the categories of RBOB and CBOB from the list of obligated fuels would result in a significant change in the distribution of obligations among transportation fuel producers, it could help to ensure that the RIN market functions as we originally intended. As a result, RINs would more directly be made available to the parties that need them for compliance.<sup>14</sup>

#### **4. RIN Short and RIN Long Parties**

Within the market, there is a continuum from entities that are naturally short RINs to those that are naturally long RINs. Parties that are short RINs are importers and refiners that blend less than 100% of their gasoline and diesel output with ethanol or biodiesel, and there is continuum from 100% short (i.e., merchant refiners) to long depending on the ratio of gasoline and diesel output to blended output. Merchant blenders are naturally long RINs as they have no obligations. Integrated refiners have the potential to be long RINs. To do so, their blending operations must be such that they create more RINs than their obligation. An example of such an integrated refiner would be one who blends more E10 than the BOB that it refines and imports.

For 2014, 2015, and 2016, the EPA's 2015 Notice of Proposed Rulemaking (NPRM) proposes fuels percentage standards of 9.02%, 9.04%, and 9.63%. Once accounting for real market conditions, such as the demand for E0, blending infrastructure and market access limits on the amount of biomass-based diesel that can be blended, and the mix of diesel and gasoline sales, the renewable fuel percentage for the market as a whole is about 9% ignoring all E85 sales.

Therefore, the industry as a whole would be naturally short RINs during these compliance periods if it produced no E85. Thus the ability of the industry as a whole to meet the total RIN obligation depends on sales of E85 and certain other biofuels that provide additional RINs. Inability to meet the industry-wide percentage requirement is equivalent to demand for RINs greater than the supply.

In its NPRM for the 2015 RVO, EPA states that "Our proposal includes volumes of renewable fuel that will require either ethanol use at levels significantly beyond the level of the E10 blend wall, or significantly greater use of non-ethanol renewable fuels than has occurred to date, depending on how the market responds to the standards we set."<sup>15</sup> Consequently it remains to be determined whether the total market will or will not be short of RINs in 2015, however.

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<sup>14</sup> 24964 Federal Register/Vol. 74, No. 99/Tuesday, May 26, 2009/Proposed Rules.

<sup>15</sup> 33102 Federal Register/Vol. 80, No. 111/Wednesday, June 10, 2015/Proposed Rules.

However with structural disincentives stemming from the current point of obligation, meeting EPA's goal of increasing renewable fuels consumption is unlikely.

## **5. Regulatory Uncertainty**

Regulatory uncertainty regarding the annual renewable fuel standards has persisted throughout the enforcement of RFS2 becoming an even more acute problem in 2014 and 2015.

As called for in EISA 2007, by November of each year, EPA is supposed to finalize the four renewable fuel standards for the following year. But problems have persisted in meeting these deadlines. Technical reasons and inability to gain agreement between stakeholders has contributed to the difficulty. Stakeholders, such as biofuel producers, oil companies, human rights groups and cattle companies, have competing interests and therefore prefer very different outcomes for renewable fuel regulations.

Problems with building capacity to produce cellulosic biofuel illustrate the technology problems. Figure 2 shows the statute requirements, actual volumes produced for cellulosic biofuels, and the percentage of the obligation that EPA waived through the last six years. Actual volumes produced have been no more than 7% of that called for in the statute and in some years less than 1%.

**Figure 2: Cellulosic Biofuel Volume Standards (Million Ethanol Equivalent Gallons)**

|      | Statutory Volume Requirement | EPA's Volume Requirement | % Waived | Notes  |
|------|------------------------------|--------------------------|----------|--|
| 2010 | 100                          | 6.5                      | 93.5%    | EPA revised downwards to 6.5 m ethanol equivalent gallons in its February 2010 finalized standards.  |
| 2011 | 250                          | 6                        | 97.6%    | EPA revised downwards to 6 m ethanol equivalent gallons in its November 2010 finalized standards.  |
| 2012 | 500                          | 10.45                    | 97.9%    | EPA revised downwards to 10.45 m ethanol equivalent gallons in its December 2011 finalized standards. The U.S. Court of Appeals for D.C. vacated EPA's initial cellulosic mandate for 2012 in January 2013 and remanded EPA to issue a revised mandate. EPA dropped its 2012 RFS for cellulosic biofuels to zero on February 28, 2013. |
| 2013 | 1,000                        | 0.811                    | 99.9%    | EPA proposed a standard of 14 m ethanol equivalent gallons in January 2013. EPA revised the mandate to 6 m ethanol equivalent gallons in its August 2013 finalized rule. EPA issued a direct final rule for the 2013 cellulosic standard of 810,185 ethanol equivalent gallons in April 2014.  |
| 2014 | 1,750                        | 33                       | 98.1%    | In November 2013, EPA proposed a standard of 17 m ethanol equivalent gallons for 2014. EPA proposed 33 m ethanol equivalent gallons for 2014 in its June 2015 NPRM.  |
| 2015 | 3,000                        | 106                      | 96.5%    | EPA proposed 106 m ethanol equivalent gallons in its June 2015 NPRM.   |
| 2016 | 4,250                        | 206                      | 95.2%    | EPA proposed 206 m ethanol equivalent gallons in its June 2015 NPRM.   |

Notes: 2014, 2015, and 2016 levels include biogas. Source: EPA.

EPA's constant revising of the 2013 cellulosic target provides a good example of the regulatory uncertainty. EPA proposed a standard of 14 million ethanol equivalent gallons for 2013 in January 2013. EPA revised the mandate to 6 million ethanol equivalent gallons in August 2013 and issued a final order for 0.8 million gallons in April 2014.

Furthermore, EPA first released its proposed rule for 2014 percentage standards in November 2013. In May 2015, it issued a revised proposed rule. As of July, 2015, no final rule has been issued. This delay has contributed to market uncertainty and reflects the challenge that EPA faces in setting standards that balance the interests of the competing parties. It further remains unclear how EPA will proceed beyond 2016.

There is an inverse relationship between regulatory uncertainty and investment. High levels of regulatory uncertainty have contributed to lower investment in terminal blending and retail infrastructure and in new technology for advanced biofuels that are needed to meet the original RVOs.

## **6. Decision Makers about Production and Sale of Blended Fuel**

The RFS lays the responsibility for putting biofuels into blendstocks on refiners and importers (obligated parties), not the blenders that actually mix petroleum based blendstocks and biofuels and supply the finished products to retail markets. This assignment of responsibility continues to be rationalized by supporters of renewable fuels as necessary to force major oil companies to stop being obstacles to the economic use of renewable fuels and to compel them to develop advanced renewable fuels.<sup>16</sup> These supporters believe that if only oil companies would put pumps for E85 into enough retail stations and sold E85 at a low enough price, the public would flock to buy ethanol-rich gasoline. This whole notion seems to be based on the belief that the U.S. gasoline market is 100% integrated, with refiners owning the entire wholesale and retail distribution network for their branded products.<sup>17</sup> In fact, there has been a rapid movement away from this model, and gasoline is often sold unblended by refiners to independent blenders. Since these independents do the actual blending, they make the decisions about how much renewable content is blended into the finished fuels they sell and how to promote and price them. Since the refiner does not produce the finished products (i.e., E0, E10, E85 and B5 – B20 blends), it cannot influence the price differential among them, nor what portion of the RIN value is extended to consumers to incent demand for renewable fuels. Furthermore, the refiner rarely owns the retailer<sup>18</sup> and for many does not even lease the station; thus it has little influence over pump selection. This effectively takes away any ability refiners have to control the sale of E85.

A similar situation exists for diesel. In this case, blenders decide how much biomass-based diesel to mix with petroleum diesel. An expansion of these facilities is necessary to create additional capacity, but blenders do not necessarily have the financial incentives in the current system to make these investments.

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<sup>16</sup> Protecting the Monopoly: How Big Oil Covertly Blocks the Sale of Renewable Fuels Renewable Fuels Association March 2014

<sup>17</sup> See, for example, EPA statement that in Final Rule “while gasoline refiners [sic] and markets will always have a greater profit margin selling ethanol in low-level blends to consumers based on volume, they should be able to maintain a profit selling it as E85 based on energy content in the future.” 14762 Federal Register/Vol. 75, No. 58/Friday, March 26, 2010/Rules and Regulations.

<sup>18</sup> According to EIA, in 2014 refiners sales through company owned retail outlets amounted to 6.4% of total gasoline sales.

## 7. Blend Wall

As RFS2 targets increase, it becomes impossible to incorporate sufficient ethanol volumes into the fuel supply to meet these targets without exceeding the 10% ethanol concentration limit. In 2013, EPA acknowledged that this constraint, called the blend wall, had been reached.<sup>19</sup> If gasoline demand continues to decline as forecasts predict, then incorporating more ethanol into the fuel supply would require increased use of higher ethanol blend fuels such as E15 and E85. The only class of vehicles certified to use high content ethanol gasoline such as E85 is termed Flexible Fuel Vehicles (FFVs). Although flexible fuel vehicles can use blends up to E85, the market potential for high ethanol content fuels remains constrained by terminal blending infrastructure, retail infrastructure and limited consumer demand. In particular, only about 3,000 of the 150,000 refueling stations have an E85 pump.

## 8. RIN Prices

RIN prices exhibit considerable volatility, as seen below. This introduces an additional source of risk for refiners in that a significant new source of uncertainty in their production costs is established by the requirement to procure RINs to cover all gasoline and diesel they produce. Managing this risk will add to the cost of marketing, as additional staff and expertise will be required to make decisions about when and at what price to purchase RINs to cover their RIN shortfall.

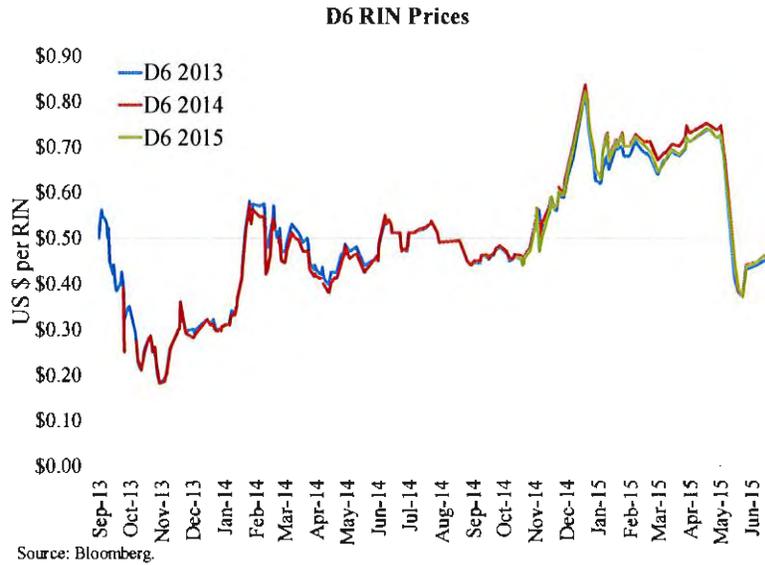
Even a company that normally followed a strategy of minimizing exposure by purchasing RINs simultaneously with production would, according to a recent study done for EPA, face significant timing risks. Knittel et al. find that although on average 100% of changes in the price of RINs are passed through into RBOB prices, it takes several days for this to occur. Moreover, this happens on average. In some time periods or areas pass through may be higher or lower than 100%, which is an additional source of risk. In the real time of petroleum marketing, this introduces a risk that RINs will be purchased on days in which their change in price is not yet reflected in gasoline prices. As Knittel et al. state: “Even with full pass-through, however, an obligated party could face RIN price risk because of timing differences between when the RIN obligation is incurred and when RINs are acquired.”<sup>20</sup>

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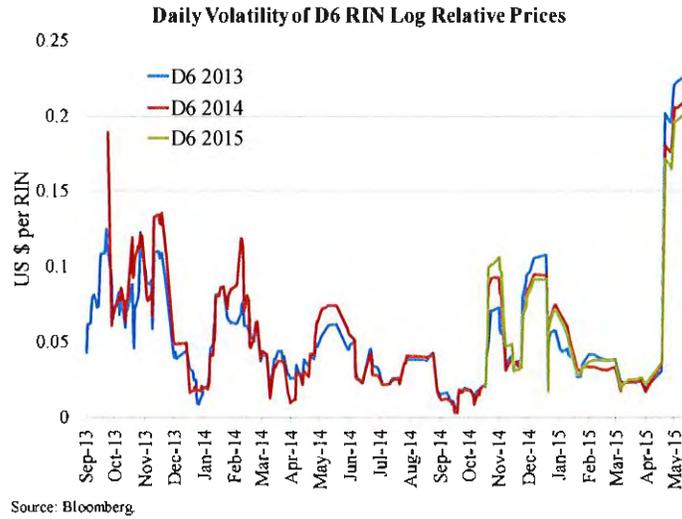
<sup>19</sup> A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects, Dallas Burkholder, Office of Transportation and Air Quality, US EPA May 14, 2015, p. 7.

<sup>20</sup> Knittel et al., p. 20.

**Figure 3: Historic D6 RIN Prices**



**Figure 4: Volatility of D6 RIN Prices**



### 9. Low Demand and High Price for E85

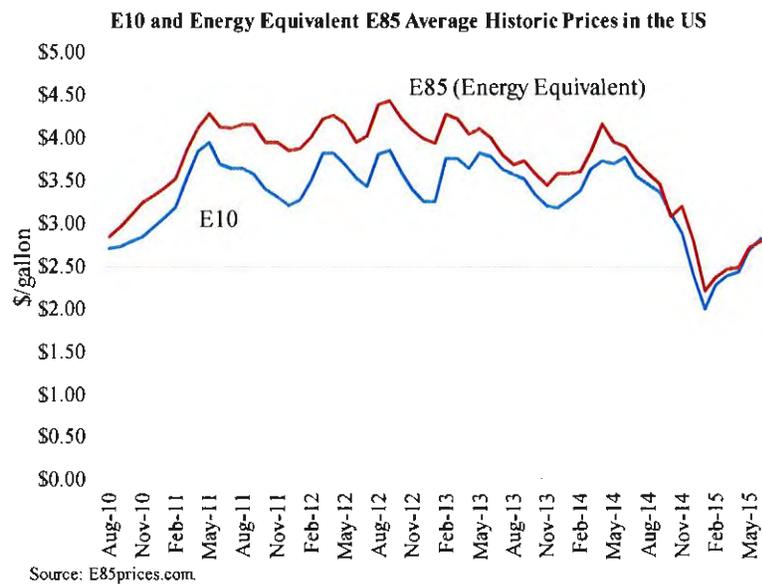
Figure 5 shows how E85 is consistently priced above E10 on an energy equivalent basis regardless of the prevailing RIN prices. Knittel et al. comment on this market failure:

“To us, the most intriguing and challenging finding here is the near absence of pass-through of RIN prices to retail E85 prices. While RIN prices might be passed through at some retail outlets at some times, this is not the case on average using national prices.

The goal of the RFS program is to expand the use of low-carbon domestic biofuels, and the key economic mechanism to induce consumers to purchase high-renewables blends is the incentives provided by RIN prices. If the RIN price savings inherent in blends with high biofuels content are not passed on to the consumer, then this key mechanism of the RFS is not functioning properly.”<sup>21</sup>

This is not the price relationship that EPA intended or expected in forecasting that the RIN program would incentivize use of E85. EPA commented in 2010 on the future price relationship it expected to see: “Overall, we estimate that E85 would need to be priced about 25% lower than E10 at retail in 2022 in order for it to make sense to consumers.”<sup>22</sup>

**Figure 5: E10 and Energy Equivalent E85 Historic Prices in U.S. (\$/gallon)**



<sup>21</sup> Knittel et al., p. 20.

<sup>22</sup> 14762 Federal Register/Vol. 75, No. 58/Friday, March 26, 2010/Rules and Regulations.

## **II. BREAKDOWN OF RFS2 MARKET: EVIDENCE AND UNDESIRABLE CONSEQUENCES**

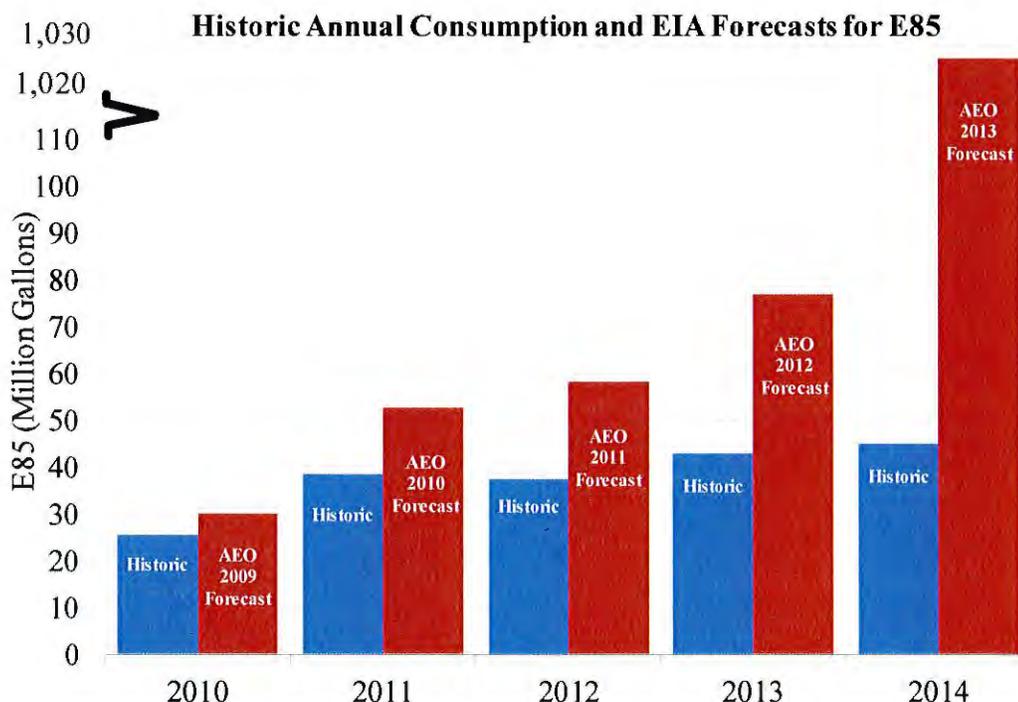
RFS2 is not achieving its original quantitative goals for greater use of renewable fuels in the transportation sector. In particular, actual volumes of renewable fuels sold in the past two years have been less than the original statute targets. Because of these shortfalls, EPA has proposed a total renewable fuel requirement for 2015 of 16.30 billion gallons, which is 4.2 billion gallons lower than the original statute requirement of 20.5 billion gallons.

In doing so, EPA recognizes the challenges to producing large quantities of these fuels at competitive prices and the inability of the market to produce cost-competitive volumes at a commercial scale. The blend wall, which EPA has acknowledged as one reason for proposing standards below the original statutes for 2015 and 2016, represents a major factor in limiting any increase in the concentration of renewable fuels in transportation fuels. Due to increasing CAFE standards for new cars and other factors, EIA forecasts declining consumer demand for gasoline. Given this, the blend wall restriction will continue to limit total renewable fuel demand in the future.

A major obstacle to absorbing more biofuels in the market is the lack of consumer demand for high ethanol content gasoline, such as E85. As shown in Figure 6, consumer demand for E85 has historically remained relatively flat, consistently underachieving EIA's expectations for increased use of E85.

EPA is faced with a difficult choice. If it leaves the RFS2 program as currently designed it must accept the fact that there will be little potential for increasing renewable fuel use in the transportation sector. Therefore if EPA wants RFS2 to have any chance of meeting its original goals, it must consider changes to its design.

**Figure 6: Historic versus Projected E85 Consumption**



Sources: AEO 2009, 2010, 2011, 2012, and 2013 Reference Case Forecasts, EIA U.S. Refinery and Blender Production of Motor Gasoline, Finished, Greater Than Ed55.

There is little if anything that EPA can do to increase consumer demand for gasoline but there are steps that EPA can undertake that will provide more effective economic incentives for consumers to use higher ethanol content gasoline such as E85.

As the total renewable fuel standard became more severe, RIN prices should have increased. It was thought that as the RVO was raised and RIN prices increased, the price of RINs would provide an incentive for producers to develop and market greater quantities of renewable fuel and simultaneously cause the price of E85 to fall relative to that of E10, so that motorists would have an increasing incentive to purchase E85. This change in relative prices has not happened.<sup>23</sup>

**A. Misplaced Incentives to Induce Production and Consumption of Renewable Fuel**

The key question then is what in the structure of the RFS2 program is causing this lack of response in the E10-E85 price spread to higher RIN prices and the lack of investment in blending infrastructure. There are several categories of participants in the program that should be

<sup>23</sup> Knittel et al., p. 20.

examined: renewable fuel producers, blenders, obligated parties, and retailers. When a renewable fuel producer creates a gallon of renewable fuel, they also create a RIN (1.0 RINs per gallon of ethanol and 1.5-1.7 RINs per gallon of bio-mass based diesel). This RIN cannot be separated from the renewable fuel even though the renewable fuel may be bought and sold multiple times. When an obligated party, produces or imports a gallon of petroleum blendstock (BOB or diesel), they incur a RIN obligation based on the RFS blending percentage obligation. At year's end, an obligated party must turn in to EPA sufficient number of RINs in order to satisfy its renewable volume obligation (RVO). Its RVO is the product of the gallons of petroleum blendstocks it produced times the blending percentage standard.

However, refiners and importers as a category do not purchase renewable fuels for blending, and thus do not receive RINs as part of their BOB or diesel production activity. These obligated parties must obtain RINs from others. A RIN is separated from the renewable fuel when the renewable fuel is mixed with the petroleum blendstock in order to produce finished gasoline or diesel. The party who owns the petroleum blendstock when the blending occurs is called the blender. The blender can choose to hold, exchange, or sell the RIN. There is no requirement as to when the blender must make a transaction. The blender has no obligation to EPA to turn in any RINs as a result of its activity of mixing petroleum blendstocks with renewable fuels. It is the blender who sells the finished transportation fuel (E0, E10, E15 and E85 or ULSD B0 and B5-B20) and has the capability of stimulating the greater use of high renewable content fuels by consumers by adjusting the relative prices of the different types of finished gasoline.

Further, as the blender carries no exposure to the RFS obligation, it has less incentive to expand its blending infrastructure to allow for higher level blends (E85 and E15) or additional advanced renewable fuels (B5-B20). In fact, doing so would be contrary to the blenders' financial interest, as the more renewable fuel the blender purchases and blends, the more RINs will be created and those excess RINs will decrease the value of RINs. Adding incremental renewable fuel blending requires the installation of infrastructure at third-party terminals where non-obligated blenders are the terminal operator's primary customers. Whereas obligated parties (i.e. refiners) have a direct incentive to expand infrastructure and blending (E15, E85 and B5-B20) in order to meet their renewable fuel obligations, non-obligated parties using the same terminal may be less willing to make such investments to gain some potential additional RINs. For both, the profitability of such investment depends on how EPA uses its waiver authority to set the renewable fuel standard. The obligated party faces both RIN price risks and potentially large penalties for missing its RVO that could justify such investments even if their long-term profitability is risky due to uncertainty about how much EPA will adjust future requirements. For the non-obligated party, the expansion would be no more than a normal business investment made quite risky by the same uncertainty.

If the third-party owner requires all parties holding capacity to contribute to such expansions, there will be high transaction costs to expanding the fueling infrastructure needed for high-

ethanol or high-biodiesel blends. This is especially problematic when the industry confronts the blend wall and additional capital or marketing is required to generate RINs that would be necessary to achieve renewable fuel levels set in the statute. There are greatly asymmetric losses between an obligated party that needs new infrastructure to be in position to comply if EPA sets tighter requirements and a non-obligated party that is taking a risk on investing in infrastructure that might or might not be useful depending on EPA's decisions.

The source of the problem with adding blending infrastructure being the existence of both obligated and non-obligated parties as terminal users, moving the point of obligation to final suppliers of fuels for resale would turn all terminal users into obligated parties. This would greatly reduce the difficulties of reaching agreement on adding blending capacity.

Specific to E85, there are a number of factors that affect the choice between E10 and E85 beyond the blender including, terminal blending infrastructure, retail capacity to accept additional volumes, number of local FFVs that can use E85, and consumer awareness of the performance characteristics of E85 versus E10.

The evidence that the E10-E85 price spread does not respond to changes in RIN prices implies that the blender, the party that actually sells E10, E85, or other blends to retailers or wholesalers, is not responding to the financial incentive of obtaining additional RINs from E85 sales when the RIN price rises. The lack of response in the fuel price spread means that RIN economics do not affect the blender's decision process about the relative pricing of finished fuels. In other words, the blender is not passing through the value of the RIN to the retailer in order to encourage greater E85 sales, and RIN profits are being retained by the blender.<sup>24</sup>

No obligated party, unless it is also a blender, has any ability to increase the renewable fuel content in sales of finished gasoline that generates more RINs than E10 or in finished diesel with biodiesel content in response to RIN price signals. Nor can it increase such sales in order to work its way out of a short position in RINs when the deadline for submitting RINs to EPA approaches. Nor are obligated parties in a position to change the terminal blending infrastructure to enable blending E85 at the rack for sale to retailers, or to add pumps or operating hours for sale of E85 in more locations so as to attract owners of FFVs to E85. Only a small fraction of refiners own retail outlets, as discussed below, in which they could make those changes. At least 50% of the gasoline produced by obligated parties moves through unaffiliated blenders, so that a very substantial portion of obligated parties have no way to increase production or promote sales of E85. Whereas an obligated party that is long RINs under the current assignment of obligations would see a clear advantage in installing terminal blending infrastructure and subsequently discounting E85 in order to increase sales and RIN acquisition, non-obligated

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<sup>24</sup> Burkholder, p. 12, second paragraph.

parties have not responded to the incentive of rising RIN prices by increasing their blending activity, remaining satisfied with RIN-price driven profits on existing sales of high-biofuel blends. The result is to block blending infrastructure investment at terminals for both obligated and non-obligated parties.

It could well be that blenders perceive that the cost of promoting E85 sales in their affiliated retail outlets, of which there are many, or by discounting E85, would be high enough to offset the gains they would achieve in RIN sale revenues. In particular, the different motivations of obligated and non-obligated parties that share space at third-party terminals makes coordination on the expansion of capacity to blend fuels with higher renewables content difficult. In other words, the transaction costs for blenders to promote additional E85 sales could be responsible for their lack of response to RIN price signals.

The result is a market in which the number of RINs is affected by total fuel sales but not by RIN prices, which is the basic mechanism in RFS2 to increase renewable fuel demand. As a result, RINs are in tight supply relative to the RFS volume standards, which can cause greater RIN price volatility and RIN price spikes. Unless the E85 pricing problem is cured, reductions in the obligation below statutory volumes will be required for the foreseeable future. As a consequence, the incentive of a growing market to stimulate future investment in advanced biofuels or R&D to develop biofuels compatible with existing vehicles and fueling infrastructure will be nonexistent.

#### **B. Impact of RINs on Ethanol Production**

U.S. corn ethanol producers currently provide product to both domestic and international clients. The exporting of corn ethanol implies that there is more corn ethanol supply available for the U.S. market than there is demand. Consequently, it is reasonable to assume that there is no need for the blender to pass through the RIN value in the form of a higher price paid for corn ethanol in order to encourage additional production because the domestic market for corn ethanol to be mixed into fuels is saturated. As such, producers of ethanol do not benefit from high RIN prices. The blend wall which restricts the share of ethanol in motor gasoline to 10% and is the majority of gasoline sold in the U.S. is one limiting factor. The other limiting factor is the lack of growth in gasoline demand.

#### **C. Excess Burdens on Refiners that Do Not Blend**

The limited supply of RINs particularly impacts refiners and importers, the current obligated parties, because they are ultimately responsible for turning RINs in to the EPA in order to comply with their RVO obligations. Obligated parties that both produce/import petroleum

blendstock and blend their petroleum blendstock with renewable fuels to produce finished gasoline or diesel are shielded from this if they are at minimum balanced.<sup>25</sup> Those refineries that are not balanced, often referred to as merchant refiners, are exposed to various types of market uncertainty, including the uncertainty of future RVOs and the price volatility of RINs.

Merchant refiners who purchase RINs also incur transaction costs and portfolio management costs related to their RIN acquisition operation.

#### **D. Incentive to Export**

With the EPA's NPRM proposed percentage standard set below 11% for total renewable fuels, E10 generates more RINs per gallon than required under this percentage standard. However, biomass based diesel, especially B5, does not. As a result, RINs generated from E10 effectively subsidize the RIN deficit incurred when producing petroleum diesel blendstock. This deficit also creates an incentive for obligated parties to export their petroleum diesel. Since the RVO obligation does not apply to petroleum diesel when it is exported, obligated parties can reduce their RVO by exporting a greater share of the petroleum diesel that they produce from refining. As renewable fuel standards increase with time, the greater incentive to export diesel rather than sell it into the domestic market will create upward pressure on diesel prices as it results in less domestic diesel supply.

A similar incentive exists in the gasoline market for exports. U.S. refiners enjoy a cost competitive advantage relative to Latin America refiners due to several cost related factors. For one, U.S. refineries have historically higher operating factors (utilization rates) than their Latin America counterparts. In the U.S. the hydrogen and energy consumed in a refinery during the production of refined products is supplied by relatively inexpensive natural gas. In Latin America refineries, the hydrogen and energy needed is often produced from petroleum. Finally, the U.S.'s crude oil export ban means that certain U.S. refineries can utilize advantaged domestic crude oil versus Latin American refineries that process crude oil that can be traded on the global market.

We understand that gasoline blendstock sold into Latin America is priced based on U.S. Gulf Coast price indices plus transportation plus any quality adjustments.<sup>26</sup> If the value of the RIN is

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<sup>25</sup> Balanced means that the integrated company generates sufficient RINs from its blending operations to meet the RVO created by its refining and importing operations.

<sup>26</sup> Gulf coast indexes are widely used; there are no comparable pricing indexes available in Latin America. Marylone Montoyatorres Facultad de Minas, Universidad Nacional de Colombia, Adriana Martínez Castro Facultad de Minas, Universidad Nacional de Colombia, Giovanni Franco Sepúlveda Universidad Nacional de Colombia, Analysis Of The Gasoline Price In Colombia: Approximation Dyna, year 77, Nro. 163, pp. 282-283. Medellín, September, 2010.

captured in the pricing of blendstock as reported,<sup>27</sup> then selling into the Latin American market has two advantages for a merchant refiner. First, the merchant refiner does not have an RVO for fuel exported outside the U.S, and does not need to purchase a RIN from a blender or third party (financial trader). Second, the sale price to Latin America includes the value of the RIN which now becomes profit to the gasoline exporter.

A similar situation exists for the integrated refiner. The integrated refiner captures the RIN value as profit when he sells production into the Latin America market, but no longer has need for the RIN generated from the integrated blending operation. Moreover, under the current point of obligation, the integrated refiner will now purchase non-obligated blendstock on the spot bulk fuel market to meet his downstream blending needs. That refiner is now free to sell the unneeded RIN on the domestic RIN market and capture the RIN value a second time.

This flaw in the policy leads to this unintended consequence of subsidizing exports. Making the blender the obligated party should eliminate this flaw because the RIN value would no longer be included in the price of the petroleum blendstock. With no RIN obligation, the marginal cost of production for refiners will fall by the amount of the RIN price, and the Gulf Coast price of BOB gasoline, based on the assumption that there is a 100% passthrough of the RIN price into BOB prices, will also fall by the amount of the RIN price. Blenders will purchase gasoline at this reduced price and incur the RIN obligation as a result. The blender can then either purchase ethanol and obtain a RIN or purchase a RIN, thus assuring that the RIN price equilibrates with the cost of ethanol. As long as the price of finished gasoline equals the cost of BOB plus the cost of ethanol plus a normal blender margin, the blender has no additional incentive to export. It would receive the same Gulf Coast price for BOB as it purchased it for, and the RIN it receives for blending compensates for the cost of ethanol, which is below the cost of gasoline. Thus the blender is incentivized to maximize renewable fuel content and able to pass on the benefits to the consumer, increasing demand.

Exports to Central and Latin American countries will likely be supplied by PADD 3 refiners who otherwise would provide refined product to PADD 2 and PADD 1. When their refined products are redirected to Latin American exports, they are likely to be replaced by additional imports to the U.S., most likely into PADD 1 and possibly PADD 2. If the marginal cost of the new refiner is greater than that of the current incremental refiner, then the cost of gasoline to U.S. consumers will increase. If not, the cost of gasoline to U.S. consumers will remain the same.

Not only are diesel and gasoline exports affected by the current design of RFS2, but so is the investment of capital. New infrastructure is being built in order to support the export of gasoline and diesel. To the extent that these capital investments are driven by the U.S. competitive

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<sup>27</sup> Knittel et al., p.19.

advantage in supplying gasoline and diesel to foreign markets, these investments are good for U.S. economic growth. However, to the extent that these investments are made to support the exports of gasoline and diesel that are made to avoid RIN requirements of the RFS2 program, capital is being redirected away from its optimal mix resulting in a less efficient use of capital, which retards economic growth.

### III. WHY DOWNSTREAM INTEGRATION IS NOT A SOLUTION

In theory merchant refiners could eliminate their exposure to the secondary market for RINs by integrating downstream into blending.<sup>28</sup> If refiners blend motor gasoline and biodiesel in sufficient quantities, they can cover their RVOs without having to purchase RINs on the open market. Increased integration between refining and blending, however, is not without challenges.

Refiners who seek to increase their degree of downstream integration must swim across the long-term industry current of increasing separation between refining, distribution, and retailing. The changing supply chain economics that underlie this trend make integration between refining and marketing/retailing less attractive than it was in decades past. Aside from these trends, refiners cannot enter (or expand their activities in) the next link in the supply chain without bearing substantial costs, including capital expenditures, logistical costs, and customer acquisition costs. Antitrust regulations create another hurdle for downstream integration, as competition authorities may limit refiners' ability to acquire the needed assets. Finally, all of these concerns must be considered not in the light of a single merchant refiner seeking to integrate downstream, but as a structural change at the industry level where all refiners seek to blend at least enough fuel to cover their RVOs.

#### A. Integration into Marketing is No Longer Industry Norm

Broadly speaking, the petroleum supply chain can be broken up into exploration and production, feedstock transportation, refining, products distribution, wholesale marketing, and retail marketing. Blenders belong to the wholesale marketing segment of the supply chain, and they may also be integrated into refining and further upstream segments as well as downstream into retail marketing. However, over the past decades, all segments of the petroleum supply chain have become increasingly vertically disintegrated. For example, in 2008 Conoco-Phillips sold 600 company owned retail stations, and Exxon Mobil sold 2,220 retail stations.<sup>29</sup> Valero divested most of its former retail assets in 2013. Refiners have exited retail marketing in part because it is a low-margin part of the supply chain.

As a result of these changes, retailers obtain only a small portion of fuel from refiners. In 2014, the share of gasoline sold by stations that are owned or directly supplied by refiners was less than 14%.<sup>30</sup> The largest part of refiner sales (79%) is "rack" sales, which are sold at terminals and

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<sup>28</sup> The same applies to integrated refiners that do not blend enough fuel to cover their RVO internally.

<sup>29</sup> <http://www.reuters.com/article/2008/08/27/us-conocophillips-idUSWNAB840420080827>.

<sup>30</sup> Energy Information Administration, "Refiner Motor Gasoline Sales Volumes," [http://www.eia.gov/dnav/pet/pet\\_cons\\_refmg\\_c\\_nus\\_EPM0\\_mgalpd\\_a.htm](http://www.eia.gov/dnav/pet/pet_cons_refmg_c_nus_EPM0_mgalpd_a.htm).

may be blended by the refiner that manufactured the blendstock or another refiner that acquired the blendstock in bulk from the producing refiner. Bulk sales, which are sales of volumes that are not blended by the refiner, account for the remaining 7% of the volume. These numbers reflect the disposition of refinery sales in aggregate, and specific refiners may blend significantly higher or lower portions of their production than is suggested by the aggregate numbers.

## **B. Integration into Marketing is Costly**

This trend toward disintegration suggests that integration is costly. As discussed above, finished motor gasoline products that contain renewable fuels, such as E10 or E85, are created by a process known as inline blending. This occurs at light petroleum products terminals that store gasoline blendstock and ethanol in separate tanks. The blendstock and ethanol are mixed together – or blended – only when they are loaded on a tanker truck that will deliver the finished fuel to retail outlets. Thus downstream integration into blending requires integration into marketing. Refiners can integrate into blending by acquiring existing blenders or starting up their own blending operations. Each of these options involves significant costs. First, to the extent that blending reduces refiners' costs of complying with RFS, the price of acquiring a blender should include a premium that reflects this cost savings. In an efficient acquisition market, buying a blender will not make merchant refiners better off because they must pay for cost savings in advance.

De novo entry into marketing and blending is also costly. Such entry requires (1) access to terminal services, (2) reliable bulk supplies of fuel at the terminal and (3) a reliable outlet for product. Each of these requirements may pose a challenge to non-integrated refiners. In order to obtain access to terminal services, refiners would need either to contract for use of open access terminal facilities, acquire existing terminals, or build new terminals. Open access terminals are owned and operated by companies such as Kinder Morgan or Buckeye that are not integrated into refining or marketing and earn money by charging storage and throughput fees for use of their terminals. While obtaining services at open-access facilities typically requires the least investment, this is not an option in all areas. Some areas are only served by proprietary terminals. In other areas, all capacity at open-access terminals may be dedicated to existing blenders under long-term contracts.

When open-access terminals are not available, acquiring or building terminals can be expensive. In 2014, CorEnergy recently paid \$40 million for a single petroleum products terminal in Portland, OR.<sup>31</sup> In 2013, Buckeye acquired 20 LPP terminals from Hess for \$850 million.<sup>32</sup>

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<sup>31</sup> <http://www.businesswire.com/news/home/20140114006688/en/CorEnergy-Acquire-Portland-Terminal-Facility-40-Million#.VbFtjmNH744>.

Building terminals requires similar expenditure and more time than acquiring terminals. An FTC report notes that terminals have large sunk costs relative to total costs.<sup>33</sup> Local zoning requirements and environmental permits may increase costs of de novo entry.

Acquiring a terminal alone does not solve the merchant refiner's short RIN position. In some instances, terminal operators and blenders may be one and the same; often the terminal owner has title to the terminal hardware but rents/leases storage and rack capacity to other parties who own biofuel and petroleum blendstock. The blenders are the owners of the biofuel and petroleum blendstock who actually perform the blending to produce finished gasoline and diesel. Renting/leasing space at a terminal may be costly or not possible for a merchant refiner. There is an already existing structure of supply for refined products in the industry. Displacing an existing market participant through acquisition of their contracts could be costly. But even acquiring capacity to blend at a terminal may be insufficient because it is necessary to transport the biofuel and petroleum blendstock to the terminal by pipeline in some cases and barges or ships in others. Capacity on pipelines is already owned so this means additional cost to acquire capacity from an existing shipper. Therefore the cost to become a blender can be much greater than just acquiring an existing terminal.

Arranging reliable bulk supply at terminals can also pose a challenge. This requires ensuring access to allocated pipeline space (e.g., Colonial Pipeline Company, Magellan Midstream Partners, L.P) or marine deliveries of gasoline or diesel blendstock as well as deliveries of ethanol and biodiesel (typically by rail). If the blending location is remote from the refinery operations, the refiner may need to negotiate exchange agreements with another refiner that is located closer to the blending location.

Blenders must have an outlet for their fuel. The FTC has recognized that in certain areas, markets require a critical mass of retail stations to compete.<sup>34</sup> In some areas, many retailers may be under contracts with current wholesalers, and acquiring these customers will require buying out their contractual obligations as well as other more typical customer acquisition costs.

### **C. Antitrust Regulations Prevent Some Forms of Integration**

In the United States the Clayton Act and related laws allow regulatory agencies, the Department of Justice (DOJ) and the Federal Trade Commission (FTC), to review mergers and acquisitions.

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<sup>32</sup> <http://www.buckeye.com/LinkClick.aspx?fileticket=idzFY8SvuAA%3D&tabid=84>.

<sup>33</sup> Federal Trade Commission, Bureau of Economics, "The Petroleum Industry: Mergers, Structural Change, and Antitrust Enforcement," August 2004, 224.

<sup>34</sup> See FTC "The Petroleum Industry: Mergers, Structural Change, and Antitrust Enforcement," 41.

If the agencies deem that a proposed transaction would harm competition, they can file suit to block the transaction. Historically the FTC has reviewed mergers in the refining and marketing segments of the petroleum industry.

Mergers and acquisitions can be classified as horizontal (if the parties belong to the same segment of the same industry), vertical (if the parties belong to different segments of the same industry), or conglomerate (if the parties belong to different industries). Refinery acquisitions of blending assets necessarily entail a vertical component because they combine two stages of the supply chain under common control. These acquisitions may also have horizontal components to the extent that they affect the concentration of ownership of blending assets.

The FTC recognizes that vertical mergers are typically competitively benign or even procompetitive to the extent that they reduce costs, for example by eliminating double margins. Even so, the FTC reviews vertical transactions for potential anticompetitive effects. The main channels of anticompetitive vertical effects that the FTC identifies are raising rivals' costs, evading price regulation, facilitating coordination, and making entry more difficult. The FTC has taken enforcement actions to prevent vertical combinations of assets in the oil and gas industry. These actions include required divestitures of ethanol terminals in California in the Valero/Kaneb (2005) transaction on the grounds that the transaction otherwise would have allowed Valero to make it more difficult for its competitors to access ethanol terminaling services. The FTC also required divestiture of a significant amount of assets in the Shell/Texaco (1997) transaction on the grounds that the transaction otherwise would have allowed Shell to make it harder for its competitors to obtain inputs for asphalt. Finally in the Exxon-Mobil (1999) transaction, the FTC required a commitment that ExxonMobil would continue to offer access to a wharf because of vertical concerns that it otherwise may use its control of the wharf to prevent competitors from receiving gasoline shipments. Notably, each of these transactions also raised horizontal concerns that required additional divestitures to obtain the FTC's approval.

Transactions could raise horizontal concerns if they increase concentration in terminaling or wholesale marketing. For example, suppose that a refiner wants to acquire multiple blenders in an area. This transaction would reduce the number of suppliers of blending services, making the market for blending more concentrated. The Horizontal Merger Guidelines describe a measure of supplier concentration known as the Herfindahl-Hirschman Index ("HHI") that is calculated as the sum of squared supplier market shares.<sup>35</sup> For example, if a market is supplied by four suppliers of the same size, the HHI would be calculated as  $25^2 + 25^2 + 25^2 + 25^2 = 2,500$ . The Guidelines also set forth thresholds for post-transaction HHI levels and changes in HHIs that may indicate competitive problems.

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<sup>35</sup> U.S. Department of Justice and Federal Trade Commission, "Horizontal Merger Guidelines," August 19, 2010.

These thresholds classify markets with HHIs below 1,500 as unconcentrated, those with HHIs between 1,500 and 2,500 as moderately concentrated, and those with HHIs above 2,500 as highly concentrated. Mergers that result in highly concentrated markets and an increase in the HHI of more than 200 points “will be presumed to be likely to enhance market power,” and those that result in highly concentrated markets and an increase in the HHI between 100 and 200 points or those that result in a moderately concentrated market with an increase in HHI greater than 100 points “potentially raise significant competitive concerns and often warrant scrutiny.”<sup>36</sup>

The table below illustrates potential downstream acquisitions that would receive scrutiny according to these standards. In the first example, a market is served by five blenders, each with a 20 percent share. If the refiner needs to buy two blenders to integrate downstream, the HHI would increase by 800 points from 2,000 to 2,800. Based on these concentration statistics, the FTC would find the merger anticompetitive unless the refiner could offer “persuasive evidence showing that the merger is unlikely to enhance market power.” In the second example, a market is served by six blenders whose shares range between 16 and 18 percent. If a refiner acquired two of the smaller blenders, the HHI would increase from 1,672 to 2,184, meaning that it would warrant scrutiny according to the Guidelines standard and potentially be challenged by the FTC.

Here net costs savings may not be available because many blenders are integrated with retailers. If the refiner buys the blender but not the retailer (refiners are prohibited from owning retail outlets in some states), then the refiner eliminates double margins at the refining and wholesale stage, but creates a new double margin at the wholesale to retail stage.

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<sup>36</sup> “Horizontal Merger Guidelines,” § 5.3.

**Figure 7: Changes in Blender Concentration for Hypothetical Downstream Integrations**

| Market A   |                                    |                                   | Market B   |                                    |                                   |
|------------|------------------------------------|-----------------------------------|------------|------------------------------------|-----------------------------------|
|            | Blending Shares Before Integration | Blending Shares After Integration |            | Blending Shares Before Integration | Blending Shares After Integration |
| Blender A  | 20%                                | 20%                               | Blender A  | 18%                                | 18%                               |
| Blender B  | 20%                                | 20%                               | Blender B  | 18%                                | 18%                               |
| Blender C  | 20%                                | 20%                               | Blender C  | 16%                                | 16%                               |
| Blender D  | 20%                                | 0%                                | Blender D  | 16%                                | 0%                                |
| Blender E  | 20%                                | 0%                                | Blender E  | 16%                                | 0%                                |
| Refiner    | 0%                                 | 40%                               | Blender F  | 16%                                | 0%                                |
|            |                                    |                                   | Refiner    | 0%                                 | 32%                               |
| <b>HHI</b> | <b>2,000</b>                       | <b>2,800</b>                      | <b>HHI</b> | <b>1,672</b>                       | <b>2,184</b>                      |

The FTC has taken many enforcement actions in the terminaling and marketing segments due to increases in concentration. Since 1981, the FTC has required divestitures of terminals or required other remedies related to terminaling in at least 12 transactions.<sup>37</sup> Notably, the FTC appears to use a lower threshold for HHIs when evaluating mergers in the oil industry compared to other industries. From 1996 – 2011, the FTC took enforcement actions in oil industry mergers for 56 markets with post-merger HHIs below 1,800 and for 34 markets with post-merger HHIs

<sup>37</sup> Terminal divestitures were required in the Sun/Atlantic (1988), Shell/Texaco (1997), BP/Amoco (1998), Exxon/Mobil (1999), Chevron/Texaco (2001), Phillips/Conoco(2002), Magellan/Shell(2004), Valero/Kaneb (2005), Irving/Exxon Mobil (2011), and Tesoro/Chevron (2013) transactions. The FTC obtained a preliminary injunction to block the PRI/Shell (1987) transaction involving terminals in Hawaii and in the Kinder Morgan/Carlyle Group and Riverstone Holdings (2007) transaction involving terminals in the Southeast. See “FTC Merger Enforcement Actions in the Petroleum Industry since 1981,” FTC.

between 1,800 and 2,000. In all other industries, the FTC took no enforcement actions for markets with post-merger HHIs below 2,000.<sup>38</sup>

The FTC has also taken enforcement actions related to marketing of light petroleum products. For example, the Shell/Texaco transaction would have increased the HHI for marketing in San Diego by 250 points to 1,815 and the FTC required a divestiture of retail outlets.

According to a GAO report, wholesale gasoline suppliers were highly concentrated in eight states as of 2007: Alaska, Hawaii, Indiana, Kentucky, Michigan, North Dakota, Ohio and Pennsylvania.<sup>39</sup> This high level of concentration would make it difficult for any downstream integration that would further consolidate wholesale supply in these areas.

If the FTC had serious vertical or horizontal concerns, it would not hesitate to challenge a merger even if the merger helped meet some other policy objective, such as compliance with RFS. The FTC's actions in the health care industry provide a good example. The sweeping changes brought about by the Affordable Care Act and other initiatives have brought about a wave of restructuring, including acquisitions, in order to reduce costs and better meet health care policy mandates. The FTC has not accepted these motivations as a defense for reducing competition. In fact, in 2013 the FTC filed a federal lawsuit challenging the acquisition of a physician's group by St. Luke's health system (an Idaho-based operator of hospitals and other healthcare facilities).<sup>40</sup> The court ruled that the acquisition violated federal and state antitrust rules, despite St. Luke's arguments that the transaction would allow it to better meet the goals of the Affordable Care Act.

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<sup>38</sup> "Horizontal Merger Investigation Data: Fiscal Years 1996 – 2001," Federal Trade Commission, January 2013, <https://www.ftc.gov/sites/default/files/documents/reports/horizontal-merger-investigation-data-fiscal-years-1996-2011/130104horizontalmergerreport.pdf>.

<sup>39</sup> GAO, "Energy Markets: Analysis of More Past Mergers Could Enhance Federal Trade Commission's Efforts to Maintain Competition in the Petroleum Industry," GAO-08-1082, September 2008, page 29.

<sup>40</sup> FTC v. St. Luke's Health Sys., Case No. 01:12-cv-00560-BLW-REB (D. Idaho) (compl. filed Mar. 12, 2013).

## IV. HOW MOVING THE RVO TO BLENDERS SOLVES PROBLEMS

In its 2010 Final Rule, EPA recognized the need to reconsider which entities should be the obligated party:

“When the RFS1 regulations were drafted, the obligations were placed on the relatively small number of refiners and importers rather than on the relatively large number of downstream blenders and terminals in order to minimize the number of regulated parties and keep the program simple. However, with the expanded RFS2 mandates, essentially all downstream blenders and terminals are now regulated parties under RFS2 since essentially all gasoline will be blended with ethanol. Thus the rationale in RFS1 for placing the obligation on just the upstream refiners and importers is no longer valid...

We will continue to evaluate the functionality of the RIN market. Should we determine that the RIN market is not operating as intended, driving up prices for obligated parties and fuel prices for consumers, we will consider revisiting this provision in future regulatory efforts.”<sup>41</sup>

Moving the obligated party from the refiner and importer to the owner of gasoline or diesel fuel at the rack would improve the market efficiency by creating a situation whereby the obligated party has greater control over the type of fuel that is produced and sold in the market and thus can influence the number of RINs created. It would also create a situation where incentives of the RFS2 program become closely aligned with those of the obligated party.

### A. Policy Misspecification

The RFS2 program directly influences only the behavior of the obligated party, which frequently is not the party that decides whether to sell E0, E10, or E85. Currently RFS2 requires each year that refiners and importers, the obligated parties, show evidence that a specified volume of renewable fuels are incorporated into their petroleum blendstock to produce finished gasoline and diesel even though the refiners and importers do not necessarily blend the renewable and petroleum blendstocks. RINs are used as evidence of compliance to meet the obligated party's RVOs after being separated from the renewable fuel. So the party being regulated does not control the production of the product - RINs - that demonstrates compliance.

The current design of the regulatory enforcement of RFS2 is analogous to placing the burden of meeting fuel economy standards on the parts suppliers to automobile manufacturing companies, rather than on the automobile manufacturers themselves who decide the final vehicle design including its miles per gallon. Just as CAFE standards place the burden on the manufacturers of

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<sup>41</sup> 14722 Federal Register/Vol. 75, No. 58/Friday, March 26, 2010/Rules and Regulations.

the product responsible for meeting the standards – the vehicle – the RFS2 policy should place the RVOs on the parties that produce, price, and sell the different finished fuels that contain the product being regulated (i.e., the renewable fuel). In order to correct this misspecification with RFS2, regulators should change the obligated party from the refiners and importers to the blenders who mix petroleum blendstocks with renewable fuels to produce the finished product and are the party authorized to separate the RINs from the renewable fuel.

## **B. Incentives and E85 Infrastructure**

Meeting increasing percentage standards for total renewable fuels requires greater levels of E85 sales, which requires new infrastructure investment by terminals and retailers. Terminals need to add or dedicate tanks and injection equipment to blend ethanol with the BOB used for E85. Retailers would need to add storage tanks and E85 pumps. Under the current regulatory design, blenders and retailers have little incentive to make the necessary level of investment because under RFS2 they do not have any obligation to blend fuels with higher concentrations of renewable fuels. As a result investment in E85 infrastructure has not been occurring. Because blenders have little incentive to produce E85, terminals have little incentive to invest in E85 blending infrastructure and retailers have little incentive to invest in E85 retailing infrastructure to dispense E85 to consumers.

## **C. Volatility of RIN Prices as a Reason for Under Investment**

It was envisioned that the additional revenues that blenders would receive for the sale of RINs would stimulate blenders to reduce the price of high ethanol content gasoline to increase the sales of high ethanol content fuel relative to low ethanol content fuels. But that has not happened. Uncertainty in future RIN prices creates doubts among investors whether or not investments with high front end commitments will be successful. Uncertainty is highly correlated with volatility so the high volatility of RIN prices means that there is great uncertainty around RIN prices (see Figure 4). All else being equal, the level of investment is inversely proportional to risk or uncertainty.

If the blender is made the obligated party, RIN price volatility is likely to be smaller because blenders in contrast to refiners and importers have direct control over the number of RINs produced through the mix of different types of finished fuel (E0, E10, E15, E85 and B5-B20) that they choose to produce and sell.

The farther removed the obligated party is from the party that faces the capital investment decision and hence handles the uncertainty; the less likely the capital investment will be made. Thus, changing the obligated party from the refiner and importer to the blender reduces RIN price volatility and hence lowers the barriers to invest in the needed infrastructure for higher content renewable fuel blends (E15, E85 and B5-B20). Since increased sales of higher

renewable fuel blends are needed, a policy that directly incentivizes the sale of higher blends is better than a policy that has a diffuse incentive for renewable fuels to be blended.

#### **D. Aligning Incentives in the Industry for Decision Maker on Blending and Sales**

When the obligated party is the refiner or importer, the policy is rather blunt as the obligated parties are essentially demanding gallons of renewable fuels to be blended. Thus, they have no control over whether these RINs come from the production of E10, E85, or B5-B20. But if the obligation falls on the blenders, then regulators provide a direct incentive to produce higher level blends (E15 and E85) or additional advanced renewable fuel blends (B5-B20) as these fuels generate more RINs for the obligated party, namely the blender.

Put differently, when the obligation falls on the refiner/importer, there is a separation between the party needing RINs and the party producing the RINs. Changing the regulatory structure so the obligated party and the party that obtains RINs as it blends fuels are the same can only increase the incentive to generate RINs and improve the efficiency of the regulation. Therefore, regulators could increase the incentive to generate RINs by changing the obligated party to be the blender.

#### **E. Removing Discriminatory Burden on One Class of Refiner**

The merchant refiner is at a disadvantage because it has no facilities that produce RINs so it must go to the market to purchase all its RINs. Thus it must pay a bid-ask spread and commission on every RIN it purchases, which puts the merchant at a strategic disadvantage to the integrated refiners.

#### **F. Removing Disincentives from the Installation of Blending Infrastructure**

Moving the obligated party from the refiner and importer to the blender will improve market penetration of renewable fuels, via the installation and expansion of terminal blending infrastructure. Under the current point of obligation, the blender, who is by definition the terminal owner-operators customer, directly impacts the operator's capital projects, including the expansion and installation of renewable fuels infrastructure. The upgrade and installation of renewable fuel blending projects can cost millions of dollars and terminal owner-operators need the financial commitment of blenders to proceed with capital investments. However, because not all blenders are obligated parties under the RFS, critical consensus for investing may never mature. This can delay or foreclose the necessary investments in renewable fuels blending infrastructure. This would not happen if all of the terminal customers were equally obligated to blend renewable fuels, as the terminal would recognize uniform demand for the investment in blending infrastructure, access to project economy of scale, and improve market competition by leveling the playing field at the terminal. Improving the market conditions for biofuels is especially critical for the viability of RFS2 as the industry confronts the blend wall and increased

biomass based diesel obligations and additional capital or marketing is required to generate the RINs necessary to meet EPA's goals of increasing renewable fuels consumption.

### **G. Increasing Liquidity of the RIN Market**

There could be an issue with the purchasing of RINs if the market is thin, which is increasingly the case based on EPA's latest NPRM and its forward looking statements regarding surpassing the blend wall. A thin market will force the uncovered obligated parties to pay significantly more for RINs to cover the larger bid-ask spread. But if the obligated party were to move to the blender, then fewer transactions would be required, and the blenders who are short RINs would have two options for compliance: purchase RINs or blend more biofuels. Thus, there would be a natural arbitrage that would likely tighten the bid-ask spread and hence lower costs of compliance. Thus blenders would not be at the mercy of the RIN market.

### **H. Eliminating an Unintended Export Subsidy**

Under the current policy, a refiner must acquire RINs for all gallons of fuel that are sold domestically, but not for fuels that are exported. Since exported fuels command the same price in the Gulf Coast as fuels sold domestically, the refiner can clearly make more by exporting than by selling domestically. The transaction costs associated with RINs portfolio management are also avoided by exports, thus increasing the incentive. The blender, on the other hand, would gain no advantage from selling gasoline for export at the same price it purchased it from a refiner. Thus moving the RIN obligation downstream would eliminate the incentive to export.

### **I. Concern about Lack of Blendstocks Unwarranted**

Arguments have been made that moving the obligation from the manufacturers and importers to blenders will remove all incentives for producing the necessary blendstocks (e.g., correctly specified BOBs) that can be blended with renewable fuels to produce a product that can be sold lawfully. This issue would be resolved by making those entities that produce finished products into obligated parties, for example by defining an obligated party to be any entity that holds title to gasoline or diesel fuel prior to transfer across the rack to retail outlets or wholesale purchasers/consumers for distribution.

Defining obligated parties this way means that importers and refiners will have the same incentive as under the current system to produce blendstocks that can be blended with renewable fuel to produce a product that can be sold lawfully. For generating a fuel that cannot be blended means generating a finished product that has no biofuels. Doing so will leave the refiner or importer with a financial obligation to purchase RINs. Therefore, the RINs will induce the refiners and importers to produce blendstocks rather than finished products.

## **J. Allowing for Increasing RVOs**

Moving the obligated party from the refiner and importer to the blender would improve the market efficiency by creating a situation whereby the obligated party has greater control over the renewable fuels blending infrastructure and therefore, the type of fuel that is produced and sold in the market and thus can influence the number of RINs created. It would also create a situation where incentives of the RFS2 program become closely aligned with those of the obligated party.

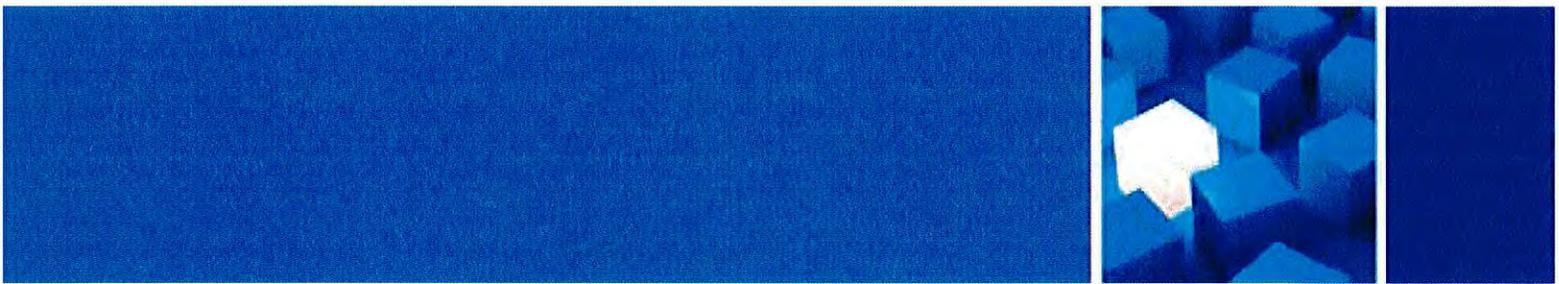
## **K. Returning design of RINs Market to the Standard Form for Emission Trading**

The purpose of environmental markets is not to promote trading *per se* but rather to achieve the environmental objective in the most cost-effective way.<sup>42</sup> The natural way to do this is to endow each of the parties responsible for the activity being regulated, in this case the sale of fuels containing a mixture of ethanol and gasoline, with credits equal to the physical requirement it must meet. Each party that meets the physical requirement will have no need to trade. Trading occurs only when it is more costly for one regulated party to comply than another, but each regulated party has control over the means of compliance. Thus even if the allowance market breaks down or is highly inefficient, the outcome is no worse than a uniform regulation without trading. This is an important safeguard.

The RIN system eliminates this safeguard, by necessitating trading by any regulated entity (obligated party in the RIN idiom) that does not also blend ethanol into gasoline. Data presented in this report demonstrate that a large percentage of obligated parties fall into this category. They have no physical capacity to comply with the requirement, and therefore must trade no matter how thin or distorted the market becomes. The problem of the blend wall that was not anticipated at the time the RIN system was devised has made the market dysfunctional, for the reasons we describe. Returning to the natural system of allocating allowances to the party with actual control of the compliance method removes these problems.

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<sup>42</sup> W. D. Montgomery, "Markets in Licenses and Efficient Pollution Control Programs" *Journal of Economic Theory*, 1971.



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# Attachment B

July 24, 2015

The Honorable Janet McCabe  
Acting Assistant Administrator for Air and Radiation  
Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Mail Code 6101A  
Washington, DC 20460

RE: EPA Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017: Docket ID No. EPA-HQ-OAR-2015-0111

Dear Ms. McCabe:

From 2013 until 2015, I was privileged to serve as Special Assistant to the President for Energy and Environment on the staff of the National Economic Council at the White House. In that capacity, I participated in the interagency review process for the Environmental Protection Agency's (EPA or the "Agency") Renewable Fuel Standard (RFS) program. Since leaving the White House, I have had the opportunity to reflect upon the difficult challenges confronting policymakers faced with the task of implementing a RFS statute in a world and energy sector that has radically changed since it was last amended in 2007.

There is no doubt that developing the RFS obligations for the last two years of the program presented you and your extraordinary team, along with those of us who participated in the interagency process, with intricate, and often intractable, policy decisions. How you resolve these issues will ultimately dictate the future viability of this program and, by extension, impact the future of alternative fuels in the United States, the health of major sections of the U.S. economy, and the level of benefits to our nation's energy security and environment envisioned by Congress when the statute was enacted.

Given these stakes, I want to take this opportunity to share with you some of the conclusions I have reached after careful reflection on the last two years of the interagency review process, the current state of the transportation fuels market, EPA's current proposed rule, and the limitations of a clearly imperfect statute.

**1. BRINGING MORE RENEWABLE FUEL TO MARKET**

While the original supporters of the RFS may have had varied motivations—from energy security to environmental stewardship—the goal of the RFS today remains the same as it was in 2005: to substantially increase the volume of renewable fuel blended into the transportation pool. This was the fundamental purpose of the statute and it remains its most pressing challenge. It is true that the RFS has been in place since 2005 and functioned (more or less depending on your point of view) in its current form since 2007. However, for the majority of that time, renewable

fuel producers and obligated parties were part of a system that had manageable mandates and ample room within the fuel supply to grow.

As has been ably and more thoroughly discussed in other papers, and in the EPA's current proposal, the real test of the program's functionality began in late 2012 and early 2013 as the combination of reduced demand for fuel, the effective limit on ethanol blend rates, and limited infrastructure for higher ethanol blends shocked the market for Renewable Identification Numbers ("RINs")—the primary means of compliance with the RFS.

Whereas the price of RINs had been de minimis through 2012, the RIN price rose to nearly \$1 by March, 2013 and well over \$1 by that summer. With the statute mandating a continued rise in renewable volumes, it was not at all clear that these challenges to compliance would abate absent fundamental changes to the program or without a more rapid increase in the ability of higher ethanol blends (e.g., E85) to break into the market.

Faced with this transformative shift in the market, EPA issued in late 2013 a proposed rule establishing renewable volumetric obligations (RVOs) for 2014 that, for the first time in the program's history, acknowledged the difficult problem of the ethanol blend wall by proposing to lower the total renewable fuel mandate.<sup>1</sup> Predictably, this decision generated significant debate amongst stakeholders and resulted in a significant delay prior to the issuance of the current proposal.

Like the 2013 proposal, the crux of the current proposal attempts to resolve how best to use the program's capabilities and/or market forces to break through the blend wall and bring more renewable fuel into the market. Addressing this problem, EPA has asserted its view that increases in the price of RINs—rather than being indicative of a market failure—actually can function to incentivize the type of infrastructure investment necessary to make higher ethanol blends available in a cost-competitive way to consumers. As I discuss in the next section in greater detail, however, I believe that a far more cost-effective method exists to address this problem.

## **2. PROBLEMS IN E-85 AND BIODIESEL MARKET PENETRATION**

Before focusing on potential solutions, I would like to explain what informs my thinking on the issue of E85 and biodiesel market penetration. As others have pointed out, in the simplest of terms, the RFS is designed to increase the cost of fuel with little to no renewable content and use that incremental cost to reduce the cost of renewable fuels, with a preference for renewable fuels with a low-carbon content. Thus, as EPA describes in the current proposed rule, a functional market system for the program would be designed to pass the benefits of generating RIN credits from the renewable fuel producer, to the blender, and then to the customer.<sup>2</sup> As Christopher Knittel, Ben Meiselman, and James Stock state in their June 2015 paper on this topic, "[i]n

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<sup>1</sup> *2014 Standards for the Renewable Fuel Standard Program*, 78 Fed. Reg. 71732 (Nov. 29, 2013).

<sup>2</sup> *Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017, Proposed Rule*, 80 Fed. Reg. 33100, 33119 (June 10, 2015) (hereinafter, the "2015 Proposed Rule").

theory, RIN prices provide incentives to consumers to use fuels with a high renewable content and to biofuels producers to produce those fuels[.]”<sup>3</sup>

As I stated previously, the early years of the RFS are not especially instructive in evaluating the functionality and effectiveness of this system because there was ample room in the fuel supply to blend the RFS’s RVOs without breaching the blendwall. However, with the challenges that began in late 2012 and early 2013 as the market recognized that the fuel supply could not accommodate the statutory obligations without breaching the blendwall, the question of how this system was working to incentivize the use of higher ethanol blends increasingly animated the interagency review process. If the market was functioning as expected, and RIN prices were rising—making higher ethanol blends more valuable—why were we not seeing the expected rise in E85 market penetration?

In their June 2015 paper, Knittel et al. analyzed the behavior of the RINs market from January 2013 to March 2015 and described their most troubling finding as follows:

To us, the most intriguing and challenging finding here is the near absence of pass-through of RIN prices to retail E85 prices. While RIN prices might be passed through at some retail outlets at some times, this is not the case on average using national prices. The goal of the RFS program is to expand the use of low-carbon domestic biofuels, and the key economic mechanism to induce consumers to purchase high-renewables blends is the incentives provided by RIN prices. If the RIN price savings inherent in blends with high biofuels content are not passed on to the consumer, then this key mechanism of the RFS is not functioning properly.<sup>4</sup>

Another data point used to evaluate the functionality of the current system is to look at whether the high RIN prices in early 2013 did indeed incentivize any additional build-out of E85 infrastructure in those areas of the country—where E85 is most readily available. Tellingly, what happened in Minnesota, the state with most stations selling E85,<sup>5</sup> tracked Knittel et al.’s findings—as RIN prices rose in early 2013, the number of stations selling E-85 declined.<sup>6</sup> Reviewing this data leads me to concur with Knittel et al.’s conclusion that the RINs market is simply not functioning as it should.

The issue of properly aligned incentives and the need for infrastructure also exists for biodiesel blending. In order to blend biodiesel, a terminal needs to add significant infrastructure, including: receipt and offloading equipment, dedicated storage tanks, heat traced transfer lines,

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<sup>3</sup> See Christopher R. Knittel, Ben S. Meiselman, and James H. Stock, *The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard*, National Bureau of Economic Research (June 2015), available at: <http://www.nber.org/papers/w21343>.

<sup>4</sup> See *id.*

<sup>5</sup> Department of Energy, Alternative Fuel Data Center, *E85 Fueling Station Locations by State*, available at <http://www.afdc.energy.gov/data/10367>.

<sup>6</sup> The number of stations carrying E85 in Minnesota declined from 350 in 2013 to 293 at the end of 2014, and has declined by another 8 stations since then. *2015 Minnesota E85 + Mid-B lends Station Report*, Minnesota Department of Commerce, June, 2015, available at <http://mn.gov/commerce/energy/images/2015-05may-e85.pdf>.

rack injection meters, and rack automation control systems.<sup>7</sup> The installation of terminal injection projects can cost millions of dollars,<sup>8</sup> and terminal owner-operators need the support and long-term financial commitment of all rack customers to proceed with the necessary capital investments. Because not all customers are in need of RIN generation, critical consensus for investing may never mature. This can delay or foreclose the necessary investments in biodiesel infrastructure. This would not happen if all of the users of the terminal were equally obligated. Importantly, I believe one of the underlying reasons that the program has failed to work as intended also presents a potential solution.

### **3. CHANGING THE POINT OF OBLIGATION**

#### ***a. Background***

The issue of the appropriate point of obligation has been understood as a critical choice in the structure of the RFS since the inception of the program. Where the compliance obligation falls within the fuel supply chain has a tremendous impact on the RFS' ability to allocate costs, award benefits, incentivize changes in the market, and achieve the goals set out by Congress in the statute. Before discussing why this issue is critically important moving forward, it is important to review the history of EPA's deliberations on this subject and understand how EPA arrived at placing the point of obligation on refiners and importers (*i.e.*, the parties who produce and supply fuel to the rack at fuel terminals) versus blenders (*i.e.*, those parties actually blending the renewable fuel into gasoline and diesel).

In the initial phase of the RFS—from 2005-2007—EPA largely based its decision on point of obligation on ease of administration. As EPA stated, “[w]hen the RFS1 regulations were drafted, the obligations were placed on the relatively small number of refiners and importers rather than on the relatively large number of downstream blenders and terminals in order to minimize the number of regulated parties and keep the program simple.”<sup>9</sup>

In 2007, with the amended program placing increased renewable mandates onto the system, EPA once again considered the issue of whether to place the point of obligation on refiners who provide fuels to the market for further distribution at the rack or on the blenders who actually put the renewable fuel into the system. In doing so, EPA considered a new issue—the disparity in compliance burden between major integrated refiners who possess blending operations (which generate RINs) and refiners who are primarily focused on refining and do not generate their own RINs. EPA framed the issue in its 2009 proposed rule as follows:

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<sup>7</sup> See, e.g., Michael Leister, *Biofuels Blending Infrastructure*, SAE Government and Industry Conference, May 13, 2008; Robert Jagunich, *Biofuels Mid-Stream Infrastructure Requirements*, California Energy Commission Apr. 14, 2009; Biodiesel Magazine, *Infrastructure to Market*, Sept. 10, 2010; EN Engineering, *Terminal Biodiesel Infrastructure Upgrade*, May 15, 2014, available at <http://www.enengineering.com/projects/terminal-biodiesel-infrastructure-upgrade/>.

<sup>8</sup> See, e.g., California Energy Commission Report, 2011-2012 Investment Plan For the Alternative and Renewable Fuel and Vehicle Technology Program (Report CEC-600-2011-006-CTF), at 116, Aug. 2011; Biodiesel Magazine, *Infrastructure to Market*, Sept. 10, 2010.

<sup>9</sup> *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Final Rule*, 75 Fed. Reg. 14670, 14722 (March 26, 2010) (hereinafter, the “RFS2 Final Rule”).

The result is that in some cases there are significant disparities between obligated parties in terms of opportunities to acquire RINs. If those that have excess RINs are reluctant to sell them, those who are seeking RINs may be forced to market a disproportionate share of E85 in order to gain access to the RINs they need for compliance. If obligated parties seeking RINs cannot acquire a sufficient number, they can only carry a deficit into the following year, after which they would be in noncompliance if they could not acquire sufficient RINs. The result might be a much higher price for RINs (and fuel) in the marketplace than would be expected under a more liquid market. Given the change in circumstances brought about through EISA, it may be appropriate to consider a change in the way that obligated parties are defined to more evenly align a party's access to RINs with that party's obligations under the RFS2 program.<sup>10</sup>

In addition to describing the problem, EPA also considered a potential solution—moving the point of obligation from refiners to blenders—specifically recognizing the impact of the blendwall on the viability of the RFS. EPA described the issue as follows:

Given the change in circumstances brought about through EISA, it may be appropriate to consider a change in the way that obligated parties are defined to more evenly align a party's access to RINs with that party's obligations under the RFS2 program. The most straightforward approach would be to eliminate [unfinished gasoline] from the list of fuels that are subject to the standard, such that a party's RVO would be based only on the non-renewable volume of finished gasoline or diesel that he produces or imports. Parties that blend ethanol into [unfinished gasoline] to make finished gasoline would thus be obligated parties, and their RVOs would be based upon the volume of [unfinished gasoline] prior to ethanol blending. Traditional refiners that convert crude oil into transportation fuels would only have an RVO to the degree that they produced finished gasoline or diesel[.] Since essentially all gasoline is expected to be E10 within the next few years...this approach would effectively shift the obligation for all gasoline from refiners and importers to ethanol blenders (who in many cases are still the refiners)...a variation of this approach would be to move the obligations for all gasoline and diesel downstream to parties who supply finished transportation fuels to retail outlets or to wholesale purchaser-consumer facilities.

This variation would have the additional effect of more closely aligning obligations and access to RINs for parties that blend biodiesel and renewable diesel into petroleum-based diesel...it would have certain advantages. Currently, blenders that are not obligated parties are profiting from the sale of RINs they acquire through splash blending of ethanol. By eliminating [unfinished gasoline] from the list of obligated fuels, these blenders would become directly responsible for ensuring that the volume requirements of the RFS program are met, and the cost of meeting the standard would be more evenly distributed among parties that blend renewable fuel into gasoline. With obligations placed more closely to the points in the distribution system where RINs are made

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<sup>10</sup> *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Proposed Rule*, 74 Fed. Reg. 24904, 24963 (May 26, 2009) (hereinafter, the "RFS2 Proposed Rule").

available, the overall market prices for RINs may be lowered and consequently the cost of the program to consumers may be reduced.<sup>11</sup>

Despite its recognition of this issue, in the 2010 final rule, EPA elected not to change the point of obligation. Once again, EPA cited administrative considerations (“a change in the designation of obligated parties would result in a significant change in the number of obligated parties and the movement of RINs, changes that could disrupt the operation of the RFS program during the transition from RFS1 to RFS2.”) but the Agency did acknowledge that it remained concerned about this issue and that it would revisit the issue of point of obligation if necessary. As EPA stated, “[w]e will continue to evaluate the functionality of the RIN market. Should we determine that the RIN market is not operating as intended, driving up prices for obligated parties and fuel prices for consumers, we will consider revisiting this provision in future regulatory efforts.”<sup>12</sup>

***b. EPA Should Revisit the Point of Obligation***

Based on my review of the data and my experience and knowledge gleaned from meeting with a wide and diverse range of stakeholder groups, it is apparent to me that the current RIN market dictates EPA revisiting the RFS’ point of obligation. Before elaborating further on this point, it is important to state clearly my view that EPA has ample authority to address the point of obligation in the current rulemaking. The point of obligation was addressed in both the EPA’s proposed and final rules governing the program in 2009 and 2010 so the Agency unquestionably has the statutory authority to address the issue. Additionally, impacts associated with the point of obligation on the RINs market are explicitly discussed in EPA’s current proposed rule.<sup>13</sup>

The current point of obligation is a significant factor inhibiting greater amounts of E85, and perhaps biodiesel, from reaching the market due primarily to the lack of properly aligned incentives and the resulting shortfall in blending infrastructure expansion. Reaching this conclusion only requires extending the reasoning acknowledged above by EPA in 2009, namely: a portion of obligated parties, refiners with large marketing operations, are almost immediately long on RINs at the beginning of every compliance period, a position that occurs because when they market more fuel than they refine, they generate more RINs through blending than they need for their own compliance obligations. Blending ethanol at wholesale distribution facilities at scale often requires modifications to the infrastructure.<sup>14</sup> At many distribution facilities, however, obligated parties long on RINs are the largest customers, and in a position to effectively block installation of infrastructure to promote large scale E85 blending. Once the RIN-long party has met its own RVO, it has little incentive to participate financially in the expansion of blending infrastructure to allow for higher level blends (E85 and E15) or additional

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<sup>11</sup> *See id.*

<sup>12</sup> *See* RFS2 Final Rule at 14722.

<sup>13</sup> *Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017, Proposed Rule*, 80 Fed. Reg. 33100, 33108 and 33129 (June 10, 2015).

<sup>14</sup> *See, e.g.,* Michael Leister, *Biofuels Blending Infrastructure*, SAE Government and Industry Conference, May 13, 2008; *Daniel Measurement and Control Application Guide, An Introduction to Blending Ethanol*, available at [http://www2.emersonprocess.com/siteadmincenter/PM%20Daniel%20Documents/Ethanol\\_Blending.pdf](http://www2.emersonprocess.com/siteadmincenter/PM%20Daniel%20Documents/Ethanol_Blending.pdf); Robert Jagunich, *Biofuels Mid-Stream Infrastructure Requirements*, California Energy Commission, Apr. 14, 2009.

advanced renewable fuels (B5-B20) because they already have the RINs they need and do not want additional blending to lower the value of their excess RINs.

Under the current program structure, these parties also may not even have an incentive to blend to the blendwall. Because they have the RINs that they need, and the availability of fewer RINs can keep RIN prices higher, generation of fewer RINs could help them maximize their return on existing blending (E10) and, contrarily, have a direct disincentive to facilitate expansion of infrastructure and blending (B5, E85), as meeting the mandate level decreases RIN profits generated from being a RIN-long party. This is especially clear when the industry confronts the blend wall and additional capital or marketing is required to generate the RINs necessary to meet EPA's goals of increasing renewable fuels consumption and making the RFS program successful. Conversely, the RIN-short refiners supply fuels to the market, but do not market fuel and therefore do not participate in any significant way in blending of renewable fuels, thus lacking access to, or control over, RIN generating blending infrastructure.

Ironically, the current structure, which puts the point of obligation on refiners instead of where the actual compliance is achieved at the point of blending, provides the least incentive to those who are best situated to undertake the blending that the RFS seeks to motivate and imposes the greatest obligation on the parties who are most poorly situated to increasing the volumes of renewable fuel that is blended into the fuel supply. Whether RIN-long refiners sell these RINs or bank them these parties are not incentivized to invest significantly in biodiesel, advanced fuels or E-85 infrastructure that would enable more renewable fuel to reach the market. They can remain relatively content to hold their long position. They are so competitively advantaged that they do not have to discount fuels to incentivize higher-level blends and thus protect their RIN windfall. In fact, they are actually incentivized to forestall more renewable fuel from entering the market, thus protecting hydrocarbon volumes being sold and keeping the RIN price as high as possible.

Other obligated parties, in turn, are inherently short on RINs—*i.e.*, they do not have blending operations and therefore have no direct access to RINs—and are faced with ever-increasing compliance costs. EPA's current view is that the parties facing ever increasing costs for RINs will be incentivized to build new infrastructure or to invest in blending operations. To me, it is inappropriate to presume this as a path to compliance. This is akin to telling a product's manufacturer that it also must become its distributor. Stated differently, EPA expects that RIN pricing will become so severe, that it will reverse the last 20 years of de-integration in the refinery industry. EPA aims to have a RIN price that substantially alters the current market to force disadvantaged parties to enter into new business models, whereby they would participate in the entire fuel supply chain from production to bulk distribution, through terminals and ultimately to the point of sale to the retail consumer, thus gaining access and control of the volumes of renewable fuels blended and sold to consumers. It is hard to envision how this is beneficial for the refining sector as a whole, renewable fuel producers, consumers, or the RFS. Additionally, the consolidation that EPA suggests as a means of compliance might even raise concerns at other agencies like the Federal Trade Commission and antitrust division of the Department of Justice.<sup>15</sup>

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<sup>15</sup> See, e.g., Edward B. Schwartz, *Toughened oversight raises antitrust hazards of oil industry collaboration*, Oil & Gas Journal (April 2013), available at: <http://www.ogj.com/articles/print/volume-111/issue-4/general-interest/toughened-oversight-raises-antitrust.html>.

EPA believes that the RIN-short parties can be incentivized by high RIN prices to force E85 into the market place. However, given the unbalanced market dynamics described above, pricing alone will be slow to achieve market penetration. Moreover, without pump-on-pump pricing competition for E85 at the retail level, the value of the RIN is, on average, not being passed through to the retail consumer, undermining the operation of the program by failing to use the value of RINs to lower the retail price of E85 making it more attractive to consumers and build demand for the fuel.

EPA also needs to consider the operating and export incentives created with a high RIN price. If a refiner cannot generate RINs, the only options the RIN-short refiners have other than paying high RIN prices to RIN-long parties who are disincentivized to meet the mandated volumes -- are curtailing production or exporting. If they do either, the fuel supply in the United States shrinks, and there is both less competition for the advantaged refiners and less opportunity for renewable blending. It will make meeting the RVO targets that much more difficult and likely increase the domestic cost of fuel without incentivizing the blending of renewable fuels to the degree that EPA seeks to require.

Ironically, we need not wreak havoc to realign the incentives in the market. We need only place the obligation where it will evenly apply the burden and let the market work. If EPA moves the point of obligation to the owner of the hydrocarbon fuel just before blending, it will assure that every person controlling the blending will be fully incentivized to maximize the blending of renewable fuels into the fuel supply because they will need RINs in proportion to the fuel they blend and not in proportion to the fuel that they produce.

*c. No Real Administrative Advantage to Refiners*

Finally, on the point of administrative ease, EPA is already regulating the blenders under the RFS program. All RIN related transactions must be executed via the EPA Moderated Transaction System (EMTS), which requires transactional, quarterly, and annual reports for all registered users.<sup>16</sup> As such, moving the point of obligation to the rack does not introduce any new parties to the system. According EPA's recently release EMTS data, the great majority of RINs are separated by currently obligated parties.<sup>17</sup> By moving the obligation to the rack, refiners will still be the predominant obligated parties, however the proportionality of the obligation will correspond to their blending capability and thus incentivize them to push as much renewable fuel as possible.

Under the current program structure, there is a misalignment between the parties obligated to ensure that blending occurs and the parties that are situated in the supply chain to blend. As EPA recognized in 2009, moving the point of obligation to blenders can better align the obligation and

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<sup>16</sup> See 40 CFR 80.1451.

<sup>17</sup> According to 2014 EPA EMTS data report on July 10, 2015: 11,536,302,607 of 14,052,892,893 total D6 RINs separated by obligated parties. 82.1% of all D6 RINs separated in 2014 were done by obligated parties. 84.3% when only considering blenders and obligated parties as described in the ideal EPA sequence. Greater than 11.5 billion RINs were separated by obligated parties as compared to just 2.1 billion by blenders.  
<http://www.epa.gov/otaq/fuels/rfsdata/2014emts.htm>.

the ability to blend. Moreover, moving the point of obligation to the blender more evenly distributes the cost of obligation across the obligated parties and likely reduces cost of the program to consumers. Rather than incentivizing major obligated parties to hoard RINs and withhold from infrastructure investments, obligated parties would now be able to compete on an even playing field as the RFS drafters envisioned. With all of the major parties competing for E85 market share, consumer prices have the best opportunity to be competitive with E10 and gain penetration into the market. Ultimately, this represents the best chance for policymakers to get past the difficult problems presented by the blend wall and to achieve the fundamental goal of the program—getting more renewable fuel into the market.

\* \* \*

Once again, having worked with you and your colleagues on this issue over the last two years, I have tremendous appreciation for the difficult decisions before you and admiration for your tireless devotion to crafting an effective program. Left unaddressed in my recommendations above is any prescription for amending the underlying statute which, under current circumstances, appears difficult and yet worthy of review and perhaps a future comment. Until then, I very much appreciate your invitation to comment on the proposal and I look forward to continuing to participate in the dialogue as the RFS moves forward.

Sincerely,

A handwritten signature in black ink that reads "Ron Minsk". The signature is written in a cursive style with a long, sweeping tail on the "M" that extends to the right.

Ronald E. Minsk

# Attachment C

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

(Mark one)  
 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)  
OF THE SECURITIES EXCHANGE ACT OF 1934  
**For the fiscal year ended December 31, 2015**

OR  
 TRANSITION REPORT PURSUANT TO SECTION 13 OR  
15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 001-35914

**MURPHY USA INC.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

46-2279221  
(I.R.S. Employer  
Identification No.)

200 Peach Street  
El Dorado, Arkansas  
(Address of principal executive offices)

71730-5836  
(Zip Code)

(870) 875-7600

(Registrant's telephone number, including area code)

**Securities registered pursuant to Section 12(b) of the Act:**

Title of each class  
Common Stock, \$0.01 Par Value

Name of each exchange on which registered  
New York Stock Exchange

**Securities registered pursuant to Section 12(g) of the Act:**  
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  Yes \_\_\_ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. \_\_\_ Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.  Yes \_\_\_ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).  Yes \_\_\_ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K \_\_\_\_\_

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange act.

Large accelerated filer  Accelerated filer \_\_\_ Non-accelerated filer \_\_\_ Smaller reporting company \_\_\_

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  
\_\_\_ Yes  No

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter (as of June 30, 2015), based on the closing price on that date of \$55.82 was \$2,391,694,000.

Number of shares of Common Stock, \$0.01 par value, outstanding at January 31, 2016 was 41,878,873.

**Documents incorporated by reference:**

Portions of the Registrant's definitive Proxy Statement relating to the Annual Meeting of Stockholders on May 5, 2016 will be incorporated by reference in Part III herein.

#### *Winning proposition with value-conscious consumers*

Our competitively priced fuel is a compelling offering for value-conscious consumers. Despite a flat long-term outlook in overall gasoline demand (vehicle miles traveled in a normal economy essentially offsetting increased fuel efficiency), we believe value-conscious consumers represent a growing demand segment. In combination with our high traffic locations, our competitive gasoline prices drive high fuel volumes and gross profit. In addition, we are an industry leader in per-site tobacco sales with our low-priced tobacco products and in total store sales per square foot as we also sell a growing assortment of single-serve/immediate consumption items that complement Walmart's larger take home product offering. We continue to provide value opportunities to our customers such as our popular cross promotions with soft drink, candy/snack and tobacco partners that offer a fuel discount if certain quantities of products are purchased.

#### *Low cost retail operating model*

We operate our retail gasoline stores with a strong emphasis on fuel sales complemented by a focused convenience offering that allows for a smaller store footprint than most of our competitors. A substantial majority of our new stores are standardized 1,200 square foot small store formats, which we believe have very low capital expenditure, maintenance and utility requirements relative to our competitors; we also develop standardized 208 square foot kiosks with external supercoolers when the available land or economics do not support the small store format. In addition, many of our stores require only one or two attendants to be present during business hours and the majority of our stores are located on Company-owned property and do not incur any rent expense. The combination of a focused convenience offering and standardized smaller footprint stores allows us to achieve lower overhead costs and on-site costs compared to competitors with a larger store format. According to the 2014 National Association of Convenience Stores' State of the Industry Survey, we operate at approximately 59% of the average monthly operating costs for top quartile performing stores in the industry. In addition, we operate among the highest industry safety standards and had a Total Recordable Incident Rate (TRIR) and Days Away from Work (DAW) rate that was substantially lower than the industry averages in 2014 using the most current published data by the Bureau of Labor Statistics. Our low cost operating model translates into a low cash fuel breakeven requirement that allows us to weather extended periods of low fuel margins.

#### *Distinctive fuel supply chain capabilities*

We source fuel at very competitive industry benchmark prices due to the diversity of fuel options available to us in the bulk and rack product markets, our shipper's status on major pipeline systems, and our access to numerous terminal locations. In addition, we have a strong distribution system in which we analyze intra-day supply options and dispatch third-party tanker trucks to the most favorably priced terminal to load products for each Murphy site, further reducing our fuel product costs. By participating in the broader fuel supply chain, we believe our business model provides additional upside exposure to opportunities to enhance margins and volume. For example, incremental revenue is generated by capturing and selling Renewable Identification Numbers (RINs) via our capability to source bulk fuel and subsequently blend ethanol and bio-diesel at the terminal level. We can also optimize the supply chain by shifting non-contractual wholesale volumes to protect retail fuel supply. These activities demonstrate our belief that participating in the broader fuel supply chain provides us with added flexibility to ensure reliable low-cost fuel supply in various market conditions especially during periods of significant price volatility. It would take substantial time and investment, both in expertise and assets, for a competitor to try and replicate our existing position and we believe this continues to be a significant barrier to any attempt to emulate our business model.

#### *Resilient financial profile and engaged team*

Our predominantly fee-simple asset base, ability to generate attractive gross margins through our low-price, high volume strategy, and our low overhead costs should help us endure prolonged periods of unfavorable commodity price movements and compressed fuel margins. We also believe our conservative financial structure further protects us from the inherently volatile fuel environment. In connection with the Separation, we entered into a new credit facility and issued \$500 million aggregate principal amount of 6% senior unsecured notes due 2023. We expect that our strong cash position and availability under our credit facility will continue to provide us with a significant level of liquidity to help maintain a disciplined capital expenditure program focused on growing ratably through periods of both high and low fuel margins. In addition, we have already completed \$300 million of share repurchases in a little more than two years of operation. We also have approximately 9,800 hardworking employees that are actively engaged to serve the customer, whether it is the external retail consumer or their

These factors can lead to sales declines in both gasoline and general merchandise, and in turn have an adverse impact on our business, financial condition, results of operations and cash flows.

**Walmart continues to be a key relationship with regard to our Murphy USA network.**

At December 31, 2015, our 1,335 Company stores were almost all located near Walmart Supercenter stores. Therefore, our relationship with Walmart, the continued goodwill of Walmart and the integrity of Walmart's brand name in the retail marketplace are all important drivers for our business. Any deterioration in our relationship with Walmart could have a material adverse effect on us, including operations of the existing 1,100 stores that are branded Murphy USA and participate in a discount. In addition, our competitive posture could be weakened by negative changes at Walmart. Many of our Company stores benefit from customer traffic generated by Walmart retail stores, and if the customer traffic through these host stores decreases due to the economy or for any other reason, our sales could be materially and adversely affected.

In addition, on December 21, 2012, we entered into an agreement with Walmart to purchase properties for the development of additional retail fueling stores, which we expect to complete in 2017. As a result, the foregoing risks impact our ability to achieve growth from these additional retail sites. We also rely upon Walmart's cooperation with us in order to complete the purchases of these additional sites, and our agreement with Walmart requires us to obtain their approval of our development plans before we may close on the purchase of these properties from them. See " – Walmart retains certain rights in its agreements with us, which may adversely impact our ability to conduct our business" below. If our relationship with Walmart deteriorates or Walmart experiences a slowdown in customer traffic or reputational harm, we may not be successful in developing these additional retail sites, and as a result, our financial condition, results of operations and cash flows could be materially and adversely affected.

**The current level of additional incremental revenue that is generated from RINs may not be sustainable.**

Our revenues are impacted by our ability to generate revenues from activities such as blending bulk fuel with ethanol and bio-diesel to capture and subsequently sell Renewable Identification Numbers ("RINs"). The market price for RINs fluctuates based on a variety of factors, including but not limited to governmental and regulatory action and market dynamics. In recent years, we have benefited by our ability to attain RINs and sell them at favorable prices in the market; these prices have remained relatively steady in 2015 due to significant uncertainty about how government standards could be modified as they impact RINs. In fact, once the new standard was announced late in 2015, RIN prices jumped in response and have held steady since that time frame. A significant decline in revenues from RINs in future periods could adversely affect our results of operations, and the impact could be material.

In recent months, independent refiners have filed litigation to change the way the Renewable Fuel Standard (RFS) is administered in an attempt to shift the burden for compliance from the refiners to blenders. Under the RFS, which requires an annually increasing amount of biofuels to be blended into the fuels used by U.S. drivers, refiners are obligated to obtain RINs either by blending biofuels into gasoline or through purchase on the open market. This litigation is attempting to shift that burden of having the RINs to the blender rather than the refiner. If this burden were to be shifted, the Company would potentially have to utilize the RINs it obtains through its blending activities to satisfy a new obligation and would be unable to sell the RINs to other obligated parties. This could have a significant impact on the profitability of our current business model should this change ever be implemented unless we were able to pass these costs along to consumers or other parties.

**We are exposed to risks associated with the interruption of supply and increased costs as a result of our reliance on third-party supply and transportation of refined products.**

We utilize key product supply and wholesale assets, including our pipeline positions and product distribution terminals, to supply our retail fueling stores. Much of our competitive advantage arises out of these proprietary arrangements which, if disrupted, could materially and adversely affect us. In addition to our own operational risks discussed above, we could experience interruptions of supply or increases in costs to deliver refined products to market if the ability of the pipelines or vessels to transport petroleum or refined products is disrupted because of weather events, accidents, governmental regulations or third-party actions. Furthermore, at some of our locations there are very few suppliers for fuel in that market.

increases on to its retail customers at the pump, which in turn squeezes the Company's sales margin. Also, rising prices tend to cause our customers to reduce discretionary fuel consumption, which tends to reduce our fuel sales volumes. Crude oil prices in 2015 started the year around \$50 per barrel and rose 20% by mid-year before beginning a nearly 40% fall to the upper \$30 per barrel range by December 2015. Margins in 2015 averaged the mid-point of our recent historical average of 12.5 cents per gallon due to this volatility.

In addition, our revenues are impacted by our ability to leverage our diverse supply infrastructure in pursuit of obtaining the lowest cost of fuel supply available; for example, activities such as blending bulk fuel with ethanol and bio-diesel to capture and subsequently sell Renewable Identification Numbers ("RINs"). Under the Energy Policy Act of 2005, the U.S. Environmental Protection Agency ("EPA") is authorized to set annual quotas establishing the percentage of motor fuels consumed in the United States that must be attributable to renewable fuels. Companies that blend fuels are required to demonstrate that they have met any applicable quotas by submitting a certain amount of RINs to the EPA. RINs in excess of the set quota (as well as RINs captured by companies such as ours that are not subject to quotas) can then be sold in a market for RINs at then-prevailing prices. The market price for RINs fluctuates based on a variety of factors, including but not limited to governmental and regulatory action. In recent historical periods, we have benefited by our ability to attain RINs and sell them at favorable prices in the market. RIN prices jumped late in 2015 as a result of governmental action related to standards for 2014-2016. Our business model does not depend on our ability to generate revenues from RINs. Revenue from the sales of RINs is included in "Other operating revenues" in the Consolidated and Combined Income Statements.

In August 2013, in connection with the Separation, we incurred \$650 million of new debt from the issuance of senior secured notes and borrowings under the credit facilities, which we used to finance a cash dividend to Murphy Oil immediately prior to the Separation. We have already repaid \$150 million of this debt, which was represented by a term loan. We believe that we will generate sufficient cash from operations to fund our ongoing operating requirements. We expect to use the credit facilities to provide us with available financing intended to meet any ongoing cash needs in excess of internally generated cash flows. To the extent necessary, we will borrow under these facilities to fund our ongoing operating requirements. At December 31, 2015, we have additional available capacity under the committed \$450 million credit facilities (subject to the borrowing base), together with capacity under a \$200 million incremental uncommitted facility. There can be no assurances, however, that we will generate sufficient cash from operations or be able to draw on the credit facilities, obtain commitments for our incremental facility and/or obtain and draw upon other credit facilities.

On December 21, 2012, we signed an agreement with Walmart providing for the potential purchase of land to develop new Company stores located adjacent to existing Walmart stores in Walmart's core market area covering the Southwest, Southeast, and Midwest United States. The construction program is expected to be completed in 2017 relative to these 2012 sites. In connection with this agreement, we expect to incur additional station operating and depreciation expenses due to the addition of new stores. However, we can provide no assurance that we will develop all or any of the sites as contemplated under the agreement. See "Risk Factors – Risk Relating to Our Business – Our ability to continue to generate revenue and operating income depends on our continued relationship with Walmart" in this Annual Report on Form 10-K. The Company currently anticipates total capital expenditures (including purchases of Walmart properties and other land for future development) for the full year 2016 to range from approximately \$250 million to \$300 million depending on how many new sites are completed. We intend to fund our capital program in 2016 primarily using operating cash flow, but will supplement funding where necessary using borrowings under available credit facilities.

We believe that our business will continue to grow in the future as we expect to build additional locations in close proximity to Walmart stores and other locations chosen by our real estate development team that have the characteristics we look for in a strong site. The pace of this growth is continually monitored by our management, and these plans can be altered based on operating cash flows generated and the availability of debt facilities.

#### ***Seasonality***

Our business has inherent seasonality due to the concentration of our retail sites in certain geographic areas, as well as customer behaviors during different seasons. In general, sales volumes and operating incomes are highest in the second and third quarters during the summer activity months and lowest during the winter months.

#### ***Business Segments***

Our business is organized into one reporting segment (Marketing). The Marketing segment includes our retail marketing sites and product supply and wholesale assets. Prior to December 2013, we also had an Ethanol

segment which consisted of our ethanol production facilities located in Hankinson, North Dakota and in Hereford, Texas. After the Hankinson facility was sold in December 2013, we reassessed our segments and due to its small size, we included the remainder of the former Ethanol segment in prior "Corporate" section which has been renamed "Corporate and other assets". Therefore, we have restated our segments for 2013 and all prior periods to reflect one remaining reporting segment, Marketing. The Hereford ethanol plant was sold in November 2015 and it was removed from the "Corporate and other assets" category and reclassified as Discontinued Operations for all periods presented.

For operating segment information, see Note 21 "Business Segments" in the accompanying audited consolidated and combined financial statements for the three-year period ended December 31, 2015.

## Results of Operations

### Consolidated and Combined Results

For the year ended December 31, 2015, the Company reported net income of \$176.3 million or \$4.02 per diluted share on revenue of \$12.70 billion. Net income was \$243.9 million for 2014 or \$5.26 per diluted share on \$16.99 billion in revenue.

A summary of the Company's earnings by business segment follows:

| <i>(thousands of dollars)</i> | Year ended December 31, |            |            |
|-------------------------------|-------------------------|------------|------------|
|                               | 2015                    | 2014       | 2013       |
| Marketing                     | \$ 159,796              | \$ 242,434 | \$ 164,013 |
| Corporate and other assets    | (22,205)                | (19,473)   | (9,878)    |
| Subtotal                      | 137,591                 | 222,961    | 154,135    |
| Discontinued operations       | 38,749                  | 20,902     | 80,898     |
| Net income                    | \$ 176,340              | \$ 243,863 | \$ 235,033 |

Net income for 2015 decreased compared to 2014 primarily due to:

- Lower retail fuel margins and per site volumes in the 2015 period;
- Lower contribution from Product Supply & Wholesale business (excluding RINs) in 2015 compared to 2014; and
- Higher SG&A expenses in the current year.

Net income for 2014 increased compared to 2013 primarily due to:

- Higher retail fuel margins in the 2014 period;
- Increased sales volumes in total and on a per site basis in 2014.
- Higher contribution from the Hereford ethanol facility recorded in Discontinued operations in 2014; and
- Improved merchandise margin dollars in 2014.

### 2015 versus 2014

Revenues for the year ended December 31, 2015 declined \$4.29 billion, or 25.2%, compared to 2014. Leading the decline was a decrease in retail fuel prices of 98 cents per gallon (cpg) for the full year combined with lower wholesale prices. Lower wholesale volumes for the year also played a part in the decline but were partially offset by increases in retail fuel volumes of 3.6% in total, partially due to increased store count.

Cost of sales on a combined basis declined \$4.19 billion, or 26.3%, compared to 2014. This decline was due to significantly lower wholesale prices of motor fuel for both retail and wholesale as a result of the large decline in crude oil prices in the latter half of the year.

Station and other operating expenses were higher in 2015 than in 2014 due primarily to the addition of 73 new stores in 2015 compared to 60 stores added in 2014. On an average per store month (APSM) basis, the expenses applicable to the retail marketing business decreased 4.1% in 2015. The largest area of decrease was in

## Segment Results

### Marketing

Net income in the Marketing segment for 2015 decreased \$82.6 million, or 34.1%, over 2014. The primary reason for this decrease was a significant decrease in results from retail marketing due to the higher retail margins experienced in 2014. These improved results were partially offset by lower performance from the product supply and wholesale operations of the Company.

The table below shows the results for the Marketing segment for the three years ended December 31, 2015 along with certain key metrics for the segment.

(Thousands of dollars, except volume per store month and margins)

| Marketing Segment                         | Years Ended December 31, |               |               |
|---|--------------------------|---------------|---------------|
|   | 2015                     | 2014          | 2013          |
| <b>Revenues</b>                           |                          |               |               |
| Petroleum product sales                   | \$ 10,304,689            | \$ 14,728,527 | \$ 15,560,317 |
| Merchandise sales                         | 2,273,888                | 2,161,378     | 2,159,466     |
| Other                                     | 120,547                  | 95,998        | 94,298        |
| Total revenues                            | \$ 12,699,124            | \$ 16,985,903 | \$ 17,814,081 |
| <b>Costs and operating expenses</b>       |                          |               |               |
| Petroleum product cost of goods sold      | 9,794,475                | 14,074,579    | 15,009,955    |
| Merchandise cost of goods sold            | 1,946,423                | 1,859,732     | 1,877,630     |
| Station and other operating expenses      | 486,383                  | 486,761       | 460,475       |
| Depreciation and amortization             | 81,348                   | 74,906        | 71,253        |
| Selling, general and administrative       | 129,277                  | 119,266       | 129,600       |
| Accretion of asset retirement obligations | 1,521                    | 1,200         | 1,096         |
| Total costs and operating expenses        | \$ 12,439,427            | \$ 16,616,444 | \$ 17,550,009 |
| Income from operations                    | 259,697                  | 369,459       | 264,072       |
| <b>Other income (expense)</b>             |                          |               |               |
| Interest expense                          | (20)                     | —             | —             |
| Gain (loss) on sale of assets             | (4,658)                  | 194           | 5,995         |
| Other nonoperating income                 | 434                      | 438           | 169           |
| Total other income (expense)              | \$ (4,244)               | \$ 632        | \$ 6,164      |
| Income from continuing operations         |                          |               |               |
| before income taxes                       | 255,453                  | 370,091       | 270,236       |
| Income tax expense                        | 95,657                   | 127,657       | 106,223       |
| Income from continuing operations         | \$ 159,796               | \$ 242,434    | \$ 164,013    |

| Key Operating Metrics                             | Twelve Months Ended December 31, |         |         |
|---|----------------------------------|---------|---------|
|   | 2015                             | 2014    | 2013    |
| Retail fuel volume - chain (Million gal per year) | 4,123.8                          | 3,980.8 | 3,800.3 |
| Retail fuel volume - per site (K gal APSM)        | 267.9                            | 270.4   | 268.5   |
| Retail fuel margin (cpg excl credit card fees)    | 12.5                             | 15.8    | 13.0    |
| Retail fuel contribution (\$K APSM)               | \$ 33.5                          | \$ 42.8 | \$ 35.0 |
| PS&W contribution (\$ Millions excl RINs)         | \$ (16.8)                        | \$ 13.4 | \$ 36.3 |
| RIN sales (\$ Millions)                           | \$ 117.5                         | \$ 92.9 | \$ 91.4 |

| Key Operating Metrics                        | Twelve Months Ended December 31, |            |            |
|--|----------------------------------|------------|------------|
|  | 2015                             | 2014       | 2013       |
| Total merchandise sales (\$ Millions)        | \$ 2,273.9                       | \$ 2,161.4 | \$ 2,159.5 |
| Total merchandise contribution (\$ Millions) | \$ 327.5                         | \$ 301.6   | \$ 281.8   |
| Total merchandise sales (\$K APSM)           | \$ 147.7                         | \$ 146.8   | \$ 152.5   |
| Merchandise unit margin (%)                  | 14.4%                            | 14.0%      | 13.1%      |
| Tobacco contribution (\$K APSM)              | \$ 12.53                         | \$ 12.45   | \$ 12.38   |
| Non-tobacco contribution (\$K APSM)          | \$ 8.74                          | \$ 8.04    | \$ 7.53    |
| Total merchandise contribution (\$K APSM)    | \$ 21.27                         | \$ 20.49   | \$ 19.91   |

#### 2015 versus 2014

Total fuel volumes for the years ended December 31, 2015 were up 3.6%. Retail fuel volumes in 2015 on an APSM basis were lower by 0.9% compared to 2014. The decline in retail volumes on an APSM basis was due to no repeat of the enhanced Walmart discount that ran during parts of 2014.

The Marketing segment had total revenues of \$12.7 billion in 2015 compared to approximately \$17.0 billion in 2014, a decrease of \$4.3 billion. Revenue amounts included excise taxes collected and remitted to government authorities of \$1.9 billion in 2015 and 2014. Total fuel sales volumes per station averaged 267,910 gallons per month in 2015, down 0.9% from 270,416 gallons per month in the prior year. Fuel margin decreased in 2015 to 12.5 cpg, compared to 15.8 cpg in the prior year. The lower fuel margins in the period were attributed to less volatility in 2015 compared to the record setting margins in late 2014. Total product supply and wholesale margin dollars excluding RINs declined substantially in the current year. These product supply and wholesale margin dollars do not include \$19.1 million and \$20.0 million of combined operating expense and SG&A costs for the years ended December 31, 2015 and 2014, respectively. Also impacting operating income positively in the year ended December 31, 2015 was sale of RINs of \$117.5 million compared to \$92.9 million in the prior year. During 2015, 218 million RINs were sold at an average selling price of \$0.54 per RIN compared to 2014 when 196 million RINs sold at an average price of \$0.48 each.

Merchandise sales were up 5.2% in 2015 to \$2.3 billion. Merchandise margins increased 0.4%, from 14.0% in the 2014 period to 14.4% in 2015. This improvement in margin was caused by increased sales of higher margin non-tobacco items that combined with higher margins on tobacco items other than cigarettes. Total non-tobacco sales revenues increased 13.3% and related margin dollars increased 13.6% year over year. Categories showing the most improvement in 2015 include dispensed beverages, beer, wine and liquor, and general merchandise. On an APSM basis, total merchandise sales were down 0.6% with tobacco products down 1.5%, partially offset by a 8.3% increase in non-tobacco sales. Total margins on an APSM basis for 2015 were up 3.8% with tobacco margins up 0.7%, combined with a 8.7% increase in non-tobacco margins.

Station and other operating expenses decreased \$0.4 million in 2015 compared to 2014 levels, a decrease of 0.1%. This decrease was due mainly to lower credit card expense in 2015 caused by lower retail prices. This decline was partially offset by higher store counts in the 2015 period. The largest area of increase within station and other operating expenses was related to maintenance expense in the 2015 period compared to the prior year. The 2015 contained higher charges for maintenance related to site upgrades and repairs. Excluding credit card fees on an APSM basis, station and other operating expenses at the retail level were essentially flat compared to 2014 levels.

Depreciation and amortization increased \$6.4 million in 2015, an increase of 8.6%. This increase was caused by more stores operating in the 2015 period compared to the prior year.

Selling, general and administrative expenses increased \$10.0 million in 2015 compared to 2014. The higher SG&A costs in 2015 reflect professional fees and other costs associated with the Company's business improvement initiatives.

### **2014 versus 2013**

Total fuel volumes for the years ended December 31, 2014 and 2013 were 3.98 billion gallons and 3.80 billion gallons, respectively. Retail fuel volumes in 2014 on an APSM basis were higher by 0.7% compared to 2013. The improvement in retail volumes on an APSM was due to decreasing retail prices in the last six months of 2014 combined with an increase of a partial month in the duration of the Walmart discount program year over year.

The Marketing segment had total revenues of \$17.0 billion in 2014 compared to approximately \$17.8 billion in 2013, a decrease of \$0.8 billion. Revenue amounts included excise taxes collected and remitted to government authorities of \$1.9 billion in 2014 and 2013. Total fuel sales volumes per station averaged 270,416 gallons per month in 2014, up 0.7% from 268,458 gallons per month in the prior year. Fuel margin increased in 2014 to 15.8 cpg, compared to 13.0 cpg in the prior year. The higher fuel margins in the period were attributed to decreasing wholesale prices in the latter half of 2014, which caused margins to expand from prior year levels. Total product supply and wholesale margin dollars excluding RINs were \$13.4 million in the year ended December 31, 2014 period compared to \$36.3 million in 2013. These product supply and wholesale margin dollars do not include \$19.1 million and \$20.0 million of combined operating expense and SG&A costs for the years ended December 31, 2014 and 2013, respectively. Also impacting operating income positively in the year ended December 31, 2014 was sale of RINs of \$92.9 million compared to \$91.4 million in the prior year. During 2014, 195 million RINs were sold at an average selling price of \$0.48 per RIN.

Merchandise sales were essentially flat in 2014 at \$2.2 billion, up \$1.9 million from 2013 levels. Merchandise margins increased 0.9%, from 13.1% in the 2013 period to 14.0% in 2014. This improvement in margin was caused by increased sales of higher margin non-tobacco items that combined with higher margins on tobacco items other than cigarettes. Total non-tobacco sales revenues increased 9.6% and related margin dollars increased 11.1% year over year. Categories showing the most improvement in 2014 include dispensed beverages, beer, wine and liquor, and general merchandise. On an APSM basis, total merchandise sales were down 3.8% with tobacco products down 6.0%, partially offset by a 5.4% increase in non-tobacco sales. Total margins on an APSM basis for 2014 were up 2.9% with tobacco margins up 0.5%, combined with a 6.9% increase in non-tobacco margins.

Station and other operating expenses increased \$26.3 million in 2014 compared to 2013 levels, an increase of 5.7%. This increase was due mainly to higher store counts in the 2014 period. The largest area of increase within station and other operating expenses was related to maintenance expense in the 2014 period compared to the prior year. The 2014 period contained higher charges for maintenance related to site upgrades and repairs to reinvest in our brand image. Excluding credit card fees on an APSM basis, station and other operating expenses at the retail level only increased 0.9% over 2013 levels.

Depreciation and amortization increased \$3.7 million in 2014, an increase of 5.1%. This increase was caused by more stores operating in the 2014 period compared to the prior year.

Selling, general and administrative expenses decreased \$10.3 million in 2014 compared to 2013. The 2013 period contained \$15.4 million of spin-related and other one-time, non-recurring costs. After considering the \$15.4 million of costs in the prior year, the 2014 period had higher costs of \$5.1 million which was primarily caused by higher employee benefit costs in 2014.

#### **Corporate and other assets**

### **2015 versus 2014**

After-tax net income for Corporate and other assets declined in 2015 to a loss of \$22.2 million compared to a loss of \$19.5 million in 2014. The 2015 year included interest expense of \$33.5 million compared to interest expense in 2014 of \$36.6 million. The reduction in interest expense in 2015 was due to the term loan that was repaid in May 2014 and no repeat of a write-off of deferred debt cost of \$1.9 million related to the term loan. The 2014 amounts included settlement of a legal case which did not recur in 2015.

### **2014 versus 2013**

After-tax net income for Corporate and other assets improved in 2014 to a loss of \$19.5 million compared to a loss of \$9.9 million in 2013. The 2014 year included income from settlement of a legal case which was nearly offset by the increased interest expense in the Corporate and other assets area due to a full year of outstanding debt. Also included in 2014 was a charge of \$1.9 million related to write-off of deferred debt costs for the term loan

valuation allowance, if any, that should be recorded against those deferred income tax assets. If our actual results of operations differ from such estimates or our estimates of future taxable income change, the valuation allowance may need to be revised. However, an estimate of the sensitivity to earnings that would result from changes in the assumptions and estimates used in determining our tax liabilities is not practicable due to the number of assumptions and tax laws involved, the various potential interpretations of the tax laws, and the wide range of possible outcomes. The Company is occasionally challenged by taxing authorities over the amount and/or timing of recognition of revenues and deductions in its various income tax returns. Although the Company believes it has adequate accruals for matters not resolved with various taxing authorities, gains or losses could occur in future years from changes in estimates or resolution of outstanding matters. See Note 12 "Income Taxes" in the accompanying audited consolidated and combined financial statements for the three-year period ended December 31, 2015 for a further discussion of our tax liabilities.

#### *Asset Retirement Obligations*

We operate above ground and underground storage tanks at our facilities. We recognize the estimated future cost to remove these underground storage tanks ("USTs") over their estimated useful lives. We record a discounted liability for the fair value of an asset retirement obligation with a corresponding increase to the carrying value of the related long-lived asset at the time a UST is installed. We depreciate the amount added to cost of the property and recognize accretion expense in connection with the discounted liability over the remaining life of the UST.

We have not made any material changes in the methodology used to estimate future costs for removal of a UST during the past three years. We base our estimates of such future costs on our prior experience with removal and normal and customary costs we expect to incur associated with UST removal. We compare our cost estimates with our actual removal cost experience, if any, on an annual basis, and if the actual costs we experience exceed our original estimates, we will recognize an additional liability for estimated future costs to remove the USTs. Because these estimates are subjective and are currently based on historical costs with adjustments for estimated future changes in the associated costs, the dollar amount of these obligations could change as more information is obtained. There were no material changes in our asset retirement obligation estimates during 2015, 2014 or 2013. See also Note 10 "Asset Retirement Obligation" in the accompanying audited consolidated and combined financial statements for the three-year period ended December 31, 2015.

### **FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements express management's current views concerning future events or results, including without limitation our anticipated growth strategy, particularly with respect to our Walmart relationship and plans to build additional sites, and our ability to generate revenues, including through the sale of RINs, which are subject to inherent risks and uncertainties. Factors that could cause one or more of these forecasted events not to occur include, but are not limited to, a deterioration in the business or prospects of the U.S. retail marketing business, adverse developments in the U.S. retail marketing business's markets or adverse developments in the U.S. or global capital markets, credit markets or economies generally the volatility and level of crude oil, corn and other commodity prices, the volatility and level of gasoline prices, customer demand for our products, disruptions in our relationship with Walmart, political and regulatory developments that may be adverse to us, and uncontrollable natural hazards or any of the other factors set forth under the caption "Risk Factors" in this Annual Report on Form 10-K. As a result you should not place undue reliance on forward-looking statements. If any of the forecasted events does not occur for any reason, our business, results of operation, cash flows and/or financial condition may be materially adversely affected.

#### **Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

##### ***Commodity Price Risk***

We are exposed to market risks related to the volatility in the price of crude oil, refined products (primarily gasoline and diesel) used in our operations. These fluctuations can affect our revenues and purchases, as well as the cost of operating, investing and financing activities. We make limited use of derivative instruments to manage certain risks related to commodity prices. The use of derivative instruments for risk management is

Murphy USA Inc.  
NOTES TO CONSOLIDATED AND COMBINED FINANCIAL STATEMENTS

| <i>(Thousands of dollars except per share amounts)</i>                        | Years ended December 31, |                   |                   |
|---|--------------------------|-------------------|-------------------|
|   | 2015                     | 2014              | 2013              |
| <b>Earnings per common share:</b>   |                          |                   |                   |
| Net income (loss) per share - basic   |                          |                   |                   |
| Income from continuing operations   | \$ 137,591               | \$ 222,960        | \$ 154,135        |
| Income from discontinued operations   | \$ 38,749                | \$ 20,903         | \$ 80,898         |
| Net income attributable to common stockholders                                | <u>\$ 176,340</u>        | <u>\$ 243,863</u> | <u>\$ 235,033</u> |
| Weighted average common shares outstanding (in thousands)                     | 43,434                   | 46,104            | 46,743            |
| Earnings per share:   |                          |                   |                   |
| Continuing operations   | \$ 3.17                  | \$ 4.84           | \$ 3.30           |
| Discontinued operations   | \$ 0.89                  | \$ 0.45           | \$ 1.73           |
| Total earnings per share  | <u>\$ 4.06</u>           | <u>\$ 5.29</u>    | <u>\$ 5.03</u>    |
| <b>Earnings per common share - assuming dilution:</b>                         |                          |                   |                   |
|   | 2015                     | 2014              | 2013              |
| Net income (loss) per share - diluted   |                          |                   |                   |
| Income from continuing operations   | \$ 137,591               | \$ 222,960        | \$ 154,135        |
| Income from discontinued operations   | \$ 38,749                | \$ 20,903         | \$ 80,898         |
| Net income attributable to common stockholders                                | <u>\$ 176,340</u>        | <u>\$ 243,863</u> | <u>\$ 235,033</u> |
| Weighted average common shares outstanding (in thousands)                     | 43,434                   | 46,104            | 46,743            |
| Common equivalent shares:   |                          |                   |                   |
| Dilutive options  | 360                      | 313               | 115               |
| Weighted average common shares outstanding - assuming dilution (in thousands) | 43,794                   | 46,417            | 46,858            |
| Earnings per share:   |                          |                   |                   |
| Continuing operations   | \$ 3.14                  | \$ 4.81           | \$ 3.29           |
| Discontinued operations   | \$ 0.88                  | \$ 0.45           | \$ 1.73           |
| Earnings per share - assuming dilution  | <u>\$ 4.02</u>           | <u>\$ 5.26</u>    | <u>\$ 5.02</u>    |

**Note 16 — Other Financial Information**

OTHER OPERATING REVENUES – Other operating revenues in the Consolidated and Combined Income Statements includes the following items:

| <i>(Thousands of dollars)</i>                 | 2015              |                  |                  | 2014 |      |      | 2013 |      |      |
|---|-------------------|------------------|------------------|------|------|------|------|------|------|
|   | 2015              | 2014             | 2013             | 2015 | 2014 | 2013 | 2015 | 2014 | 2013 |
| Renewable Identification Numbers (RINs) sales | \$ 117,513        | \$ 92,916        | \$ 91,391        |      |      |      |      |      |      |
| Other   | 3,321             | 3,193            | 2,907            |      |      |      |      |      |      |
| Total other operating revenue                 | <u>\$ 120,834</u> | <u>\$ 96,109</u> | <u>\$ 94,298</u> |      |      |      |      |      |      |

CASH FLOW DISCLOSURES — Cash income taxes paid (collected), net of refunds, were \$113,520,000, \$158,063,000 and \$47,757,000 for the three years ended December 31, 2015, 2014 and 2013, respectively. Interest paid was \$31,798,000, \$34,019,000 and \$1,647,000 for the years ended December 31, 2015, 2014 and 2013, respectively. Noncash reductions (additions) to net parent investment related primarily to settlement of income taxes were \$453,000 for the year ended December 31, 2013.

# Attachment D

## Master List of Rack Sellers

This list of entities represents "rack sellers" as Valero has identified from five sources, as of April 2016: (1) OPIS Terminal Price Posting; (2) OPIS Active Supplier List; (3) Valero's Market research on bulk and rack activity; (4) Review of federal excise tax forms (637S) obtained by Valero; and (5) Market information received in the course of discussing the RFS issues with others in the business. In compiling the list, duplicates of corporate entities that operate under different brands were consolidated. However, some corporations listed below also have wholly-owned subsidiaries or joint ventures listed because they have separate tax registrations. In those instances, both entities are listed. For example, Diamond Green is a separate joint venture of Valero and is listed separately. The total number below is 202; if the subsidiaries and joint ventures were combined, the number on the list would be well below 200. Given the breadth of the data, Valero does not believe that there are more than a few rack selling entities that would have escaped this list.

|                   |                   |                  |                    |
|-------------------|-------------------|------------------|--------------------|
| Acorn             | Coastal           | Growmark         | Maples             |
| Allied Energy     | Coffeyville       | Gulf Oil         | Maquarie           |
| Alon              | Colonial Oil      | Guttman          | Marathon           |
| American Refining | Countrymark       | Hartland         | McCall Oil         |
| Amerigreen        | Crouse            | Hartree          | Mercuria           |
| Apex Energy       | Cumberland Farm   | Hollyfrontier    | Merril Lynch       |
| Apex Oil          | Dakota Refining   | Houston Refining | Mers               |
| ARTCO             | Dansk WLS         | Huguenot         | Metroplex          |
| Astra             | Dead River        | Hunt Refining    | Mieco              |
| Atlas Oil         | Delek             | Husky            | Morgan Stanley     |
| ATMI              | Diamond Green     | HWRT             | Motiva             |
| Ayers Oil         | Direct Fuels      | Hy-Vee           | Murphy             |
| Bay Biodiesel     | DK Burke          | Idemitsu         | Musket             |
| Bayside           | Duck Island       | IFT              | Neste              |
| Benchmark         | ENI               | Imperial Oil     | New England        |
| Big West          | Enterprise        | IPC              | Petroleum          |
| BioUrja           | Ergon             | Irving           | NGL Energy         |
| BNSF              | Esso              | Jaco             | Partners           |
| Boyett Petroleum  | ExxonMobil        | JD Street        | Noble              |
| BP                | FC Stone          | JP Energy        | NOCO               |
| BTG               | Federal Express   | Jubitz           | North American     |
| Buckeye           | Fikes             | JW Stone         | Fuel Corporation   |
| Calumet           | Flint Hills       | KCS Railroad     | Northville         |
| Cargill           | Flyers            | Kern Oil         | NuStar             |
| Carson Oil        | Freepoint         | Kinder Morgan    | Oakboro Oil        |
| Castleton         | Commodities       | Koch             | Oakley Fuels       |
| CB Properties     | FutureFuel        | Kum and Go       | Paducah River Fuel |
| Center Oil        | GE Warren         | Kwik Trip        | Services           |
| Chemoil           | General Biodiesel | LE Belcher       | PAPCO              |
| Chevron           | Getty             | Lincoln Oil      | Parker Oil         |
| CHS               | Gladieux          | Lion Oil         | PBF                |
| Circle K          | Glencore          | Lukoil           | PES                |
| Citgo             | Global            | Lynkins Oil      | Petrobras          |
| Citigroup         | Golden Gate       | Mansfield Oil    | Petrochina         |

|                     |                     |
|---------------------|---------------------|
| Petrocom            | Suma                |
| Petro-Diamond       | Suncoast            |
| Petrogas            | Suncor              |
| Petroleum           | Sunoco              |
| Marketing Group     | Superior Plus       |
| Petroleum Traders   | Targa Sound         |
| Corp                | Tauber Oil          |
| Petrolube           | Tennessee Valley    |
| PFI                 | Tesoro              |
| Phillips 66         | TEXON               |
| Pilot               | Thomas Petroleum    |
| Placid Refining     | TOPCO               |
| Pro Petroleum       | Trafigura           |
| PRSI                | Transmontaigne      |
| Pyramid             | Tri Gas & Oil       |
| Quick-Trip          | Truman Arnold       |
| REG                 | United Energy       |
| Reliance            | Trading             |
| Renewable Fuel      | United Refining     |
| Corp                | UP Railroad         |
| Repsol              | UPS                 |
| River City          | US Oil              |
| Petroleum           | USA                 |
| Road Ranger         | Valero              |
| Robinson Oil        | Vitol               |
| Rolymus             | Waterford Oil       |
| Sapp Brothers       | Wawa                |
| SC Fuels            | Wesco               |
| SEI                 | Western Biodiesel   |
| Sequential Pacific  | Western Refining    |
| Biodiesel           | Westmore            |
| Sheetz              | Westport            |
| Shell               | Wilsons             |
| Sinclair            | World Fuel Services |
| SK Energy           | Woroco              |
| SO States           |                     |
| Soymet              |                     |
| Sprague             |                     |
| Springfield         |                     |
| St. Paul Park       |                     |
| Refining / Northern |                     |
| Tier Energy         |                     |
| Statoil             |                     |
| Stern Oil           |                     |

# Attachment E



**Richard J. Walsh**  
Senior Vice President  
and Deputy General Counsel  
Litigation and Regulatory Law

October 16, 2015

Via Federal Express No. 7747-5828-9186

EPA Docket Center  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave., NW  
Mail code 28221T  
Washington, DC 20460

Attn: Docket ID No. EPA- HQ-OAR-2015-0111

RE: Supplement to Valero Comments on Proposed Renewable Fuel Standards for 2014, 2015 and 2016  
and Biomass-Based Diesel Volume

On July 27, 2015, Valero submitted comments on the Proposed Renewable Fuel Standards (“RFS”) for 2014, 2015 and 2016 urging EPA to revise the RFS to move the point of obligation to the owner of the fuel at the wholesale rack. When EPA considered revising the structure of the RFS in 2010, EPA argued that at that time “a change in the designation of obligated parties would result in a significant change in the number of obligated parties and the movement of RINs, changes that could disrupt the operation of the RFS program during the transition from RFS1 to RFS2.” To address this concern in support of the submitted comments, Valero completed analysis regarding the administrative burden that might result from a change in the point of obligation. As described below, Valero’s analysis finds that the change will result in no additional administrative burden because the change will not increase the number of obligated parties under the RFS. An analysis of information available in the Oil Price Information Service (“OPIS”) and EPA’s list of RFS registered parties shows that the number of directly obligated parties is expected to decrease if the point of obligation is moved to the wholesale rack.

As background, Valero summarizes the comment submitted in July as follows:

The current problems with the RFS, as outlined below, can largely be resolved by shifting the RFS compliance obligation to the owner of the fuel immediately prior to blending at the rack, ensuring that all parties would have an equal incentive to maximize the generation of additional RINs. The infrastructure that is needed to increase market penetration of renewable fuels is downstream of refiners. As long as those downstream of refiners do not have compliance obligations, there will be few market opportunities for investments in downstream infrastructure. By moving the obligation closest to the place where blending occurs and where renewable fuel is purchased and delivered, EPA would incent blenders to maximize blending and marketing of renewable fuel. No party would have a surplus of RINs by virtue of their downstream position alone, while all parties would be equally obligated and, most importantly, fully incented to push renewable fuels into the market.

Valero’s comments explain that the action to correct the flaw in the RFS system is simple and will not create unreasonable additional administrative burden on regulated parties:

The regulatory change necessary to correct the flaw is simple. To move the point of obligation to the rack is a straightforward edit to the definition of obligated party. The change places insignificant additional administrative burden on regulated parties. Further, even if some degree of additional administrative effort is involved in moving the obligation to blenders, it is not reasonable to compromise a program design that will more effectively achieve the goals of the statute for the sake of administrative convenience.

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richard.walsh@valero.com

### Analysis of Potential Administrative Burden Based on Increase in Number of Obligated Parties

As a follow-up to the comments submitted in July, Valero completed analysis of the potential additional administrative burden that might be imposed on regulated parties by the recommended change in the point of obligation. Valero offers the results of this analysis for EPA consideration in the development of the final rule. Valero recognizes that this information is being submitted after the close of the comment period for the proposed rule. However, in light of the enormous benefits associated with a rule change, it is important for EPA to recognize the change will not create additional administrative burden for the agency nor industry. The information provided herein is information that EPA can obtain on its own and the analysis is well within EPA's ability to undertake for evaluating options to resolve the RFS structural flaws. Nonetheless, Valero offers the information to provide EPA support for making the appropriate changes to ensure the success of the RFS program.

The purpose of the analysis was to quantify the number of obligated parties under a revised RFS by identifying the entities that post wholesale rack prices for gasoline and diesel fuels at all terminals in the United States. In meetings with Valero, EPA indicated that there are approximately 200 obligated parties and raised a concern that moving the point of obligation to the owner of the hydrocarbon immediately prior to sale at the wholesale rack may significantly increase the number of obligated parties. Utilizing wholesale rack pricing data gathered from OPIS, Valero identified potential obligated parties by reviewing the entities who supply gasoline and diesel fuel for sale at wholesale rack terminals as reported in the OPIS Wholesale Rack Pricing Report. The analysis quantified the number of unique "Parties" posting wholesale rack prices at all US terminals and then cross-referenced the parties with EPA's most recent Title 40 CFR Part 80 registration.

The wholesale rack data set included all published finished product price information by posting party for both Branded and Unbranded products, excluding Avgas, Jet Fuel, and LPG's. The analysis consolidated posted products by product group and product type. The Product Groups included; "Gas or Diesel" and "Alternative Fuels". The product group "Gas or Diesel" included all gasoline's (E0 to E15) and all diesel fuels (Motor Vehicle, Non-road, Locomotive, or Marine (MV-NRLM)), including all blends containing biomass based diesel's (B0 to B98). As the purpose of the analysis was to quantify the number of obligated parties under a revised RFS, whereby the obligated party would be the owner of the hydrocarbon immediately prior to sale at the wholesale rack, the entities posting products for sale within the product group "Gas or Diesel" were considered obligated parties for this analysis.

#### Finding: Rule Revision Will Reduce Number of Obligated Parties

Based on the analysis of the OPIS data, Valero found 107 posting entities; 100 were registered with EPA under the RFS. For 7, direct registration was not found, however they might be exempt, registered under a parent company, or could potentially be RFS non-compliant. (See Appendix) This number is significantly fewer than the number assumed by EPA in its prior discussions. Thus, the analysis indicates that placing the compliance obligation on the owner of the gasoline or diesel fuel immediately before sale at the rack will result in fewer obligated parties than the current RFS structure.

| EPA Registration Status  | Est of Current Obligated Parties* (per EPA meetings) | Obligated Party at the Rack** (per OPIS rack posting detail) | Favorable Variance |
|--------------------------|--|--|--------------------|
| EPA Registered           | 200  | 100  | (100)              |
| EPA Registration Unknown | -  | 7  | 7                  |
| <b>Grand Total</b>       | <b>200</b>   | <b>107</b>   | <b>(93)</b>        |

\* Number of currently Obligated Parties as referenced during meetings with EPA

\*\* Obligated Party count based on the number of parties posting rack prices for all finished Gas and Diesel products as published by OPIS

- Finished Gas and Diesel products = Gasoline (includes E0-15), Diesel (includes all MV-NRLM and B0-98)

- Excluded materials = E85, Ethanol, and Biodiesel (B99 and B100)

Data Source: OPIS - All Published Terminals, All Published Finished Product Posting (excluding Avgas, JetFuel, and LPG)

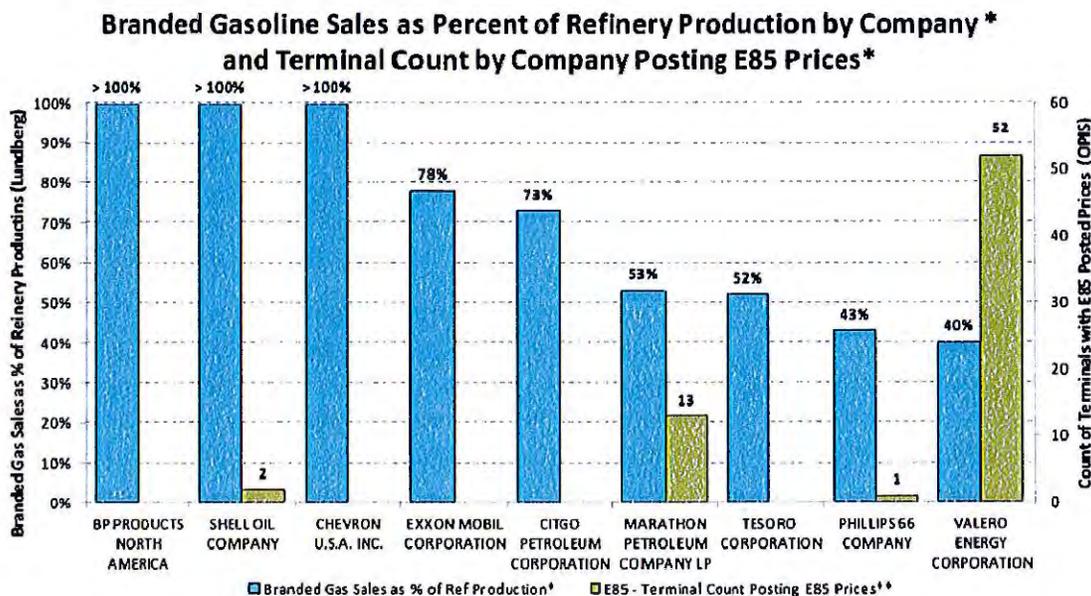
Due to the smaller than anticipated number of unique parties identified in the Rack Posting Analysis, Valero contacted OPIS to confirm the results. OPIS provided a list of 123 “Active Rack Suppliers” posting gas and diesel prices. OPIS refers to any entity posting a rack price as a “rack supplier.” After accounting for duplications created by suppliers posting both branded and unbranded prices, OPIS indicated the count of unique supplier’s was approximately 110.

When looking at the number of directly obligated parties resulting from moving the point of obligation to the owner of the hydrocarbon immediately prior to sale at the wholesale rack, both the posted price analysis and OPIS supplier validation methodologies yielded similar results and both reflected a significant decrease in the number of directly obligated parties.

**Finding: RIN-Long Obligated Parties are Not Offering E85**

The analysis yielded additional information regarding obligated parties under the current RFS that supports Valero’s comments submitted to EPA in July. Valero’s comments, and the comments of others, describe the fact that RIN-long obligated parties do not have any incentive to provide E85. The analysis of the OPIS data confirms that RIN-long obligated parties are not pricing E85.

The data described in the table below identifies the number of terminals at which each company posts E85 prices. EPA already knows that the companies shown below with branded sales that are greater than 70% of their refinery production are also companies that are RIN-long.



\* Lundberg Letter, Volume XLII Number 15 August 18, 2015

\*\*OPIS Wholesale Rack Pricing (September 3, 2015)

This finding confirms that the current point of obligation of the RFS does not incent RIN-long obligated parties to invest in infrastructure to blend additional biofuels, particularly those which would break the E10 blendwall. As can be seen above, the high RIN prices in 2013, 2014, and 2015 did not caused RIN-long obligated parties to offer E85. Further, most RIN-long obligated parties benefit from disproportional obligations under the RFS current point of obligation. In the short term, these parties have no need to make investments to meet increasing RVOs and they enjoy windfall profits from selling high priced RINs to structurally short parties. In the long term, this dysfunction in the RFS creates instability and risk to RFS program and results in failure of program to achieve its goals. The ultimate collapse of the RFS program will benefit RIN-long parties, particularly if it occurs after reducing competition in the market from RIN-short parties.

### Conclusion

The two findings from the analysis are important for EPA's consideration of how to remove the constraints on the RFS program. Contrary to EPA's assumptions in 2010, changing the point of obligation to the owner of the hydrocarbon immediately prior to sale at the wholesale rack will not increase the number of obligated parties. Thus, EPA's concern about the additional administrative burden is unfounded; there will be no additional administrative burden on the agency nor parties that are not already participating in the RFS program. Not only will a correction to the regulatory structural flaw allow better market penetration of renewable fuels by ensuring that all relevant parties have the incentive to push renewable fuels to the market, a correction is necessary to provide stability in the RFS program and to prevent the ultimate collapse of the RFS program. The findings support Valero's comments submitted in July. We urge EPA to consider these findings as further support for those comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard J. Walsh", written over a horizontal line.

Richard J. Walsh

cc: Benjamin Hengst  
Julia McAllister  
Janet McCabe  
Chris Grundler  
Gina McCarthy

**Appendix: EPA Registration Unknown – Detail by Product Type**

- 9 parties who posted a rack price could not be directly linked to an existing EPA registration
  - 7 parties posted Gas, Diesel, or both
  - 2 parties posted Ethanol, Biodiesel, or both
- Registration Unknown indicates no direct link to an EPA Company Name and EPA ID Number
- Parties may operate outside of the programs implementation jurisdiction (i.e. AK), are currently violating the regulations (i.e. posting ethanol with RINs), or are likely registered under parent company

| Registration Status  | EPA Company Name   | Product Type |     |     |     |
|----------------------|--|--------------|-----|-----|-----|
|                      |  | GAS          | DSL | ETH | BIO |
| Registration Unknown | 9987 - ACORN (UNKNOWN EPA ID - B20 posting - Fountain, CO)               |              | 1   |     |     |
|                      | 9989 - DANSK WLS (UNKNOWN EPA ID - ULSD & B20 posting - El Paso, TX)     |              | 1   |     |     |
|                      | 9991 - DEADRIVER (UNKNOWN EPA ID - ULSD & HSD posting - Bangor, ME)      |              | 3   |     |     |
|                      | 9992 - DWNTOERTH (UNKNOWN EPA ID - Bio posting ONLY - 3 locations in GA) |              |     |     | 3   |
|                      | 9993 - PERTOLUBE (UNKNOWN EPA ID - HSD posting - Philadelphia, PA)       |              | 1   |     |     |
|                      | 9994 - PFI (UNKNOWN EPA ID - Gas & Diesel posting - Albany, NY)          | 1            | 1   |     |     |
|                      | 9995 - PIASA (UNKNOWN EPA ID - Ethanol w/ RINs posting - Columbia, MO)   |              |     | 1   | 1   |
|                      | 9996 - USA (UNKNOWN EPA ID - Gas & Diesel posting Anchorage, AK)         | 1            | 1   |     |     |
|                      | 9997 - WESTMORE (UNKNOWN EPA ID - ULSD posting - Mt Vernon, NY)          |              | 1   |     |     |