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August 17, 2018

EPA-HQ- OAR-2018-0167

U.S. Environmental Protection Agency

Office of Air and Radiation

1200 Pennsylvania Avenue, NW

Washington, DC 20460

*Submitted via: [www.regulations.gov](http://www.regulations.gov)*

Re: **EPA-HQ- OAR-2018-0167**

**Proposed Rule: Renewable Fuel Standard Program: Standards for 2019 and Biomass-based Diesel Volume for 2020. 83 Fed. Reg. 32024 (July 10, 2018)**

The American Petroleum Institute (API) is the national trade association that represents all aspects of America's oil and natural gas industry. Our more than 625 corporate members - from the large major oil and gas companies to the small independents - come from all segments of the industry. These companies are producers, refiners, suppliers, marketers, pipeline operators and marine transporters as well as service and supply companies that support all segments of the industry, and they provide most of our Nation's energy. As refiners and importers of transportation fuels, our member companies are obligated parties under the Renewable Fuel Standard (RFS) program. The RFS mandate is unworkable, and API leads an alliance of diverse interests calling on Congress to repeal or significantly reform the program. We appreciate the opportunity to comment on these proposed 2019 RFS and 2020 Biomass-based Diesel standards.

API's primary concern with the RFS is the ethanol blendwall. The majority of light-duty vehicles on the road today were not designed and warranted for ethanol blends above 10%, and there remain serious vehicle and infrastructure compatibility issues with blends above 10%. The increases in gasoline

demand that were projected at the inception of the RFS have not materialized, nor has the commercialization of cellulosic biofuels progressed at the rate Congress envisioned in 2007. The statutory volumes set in the Energy Independence and Security Act of 2007 are unattainable and maintaining these mandated levels could result in fuel supply disruptions that harm our economy. Congress provided EPA with waiver authority that should be used to reduce the RFS volumes and avoid the potential negative impacts on America's fuel supply and prevent harm to American consumers.

#### RIN Market Operations

EPA explains that in last year's proposal, the Agency requested comment on potential changes to the RFS program to address concerns that have been expressed by some stakeholders regarding operation of the RIN market. In this year's proposal, EPA notes that it is not yet proposing to act to address such concerns but explained that there are several possible actions that EPA is considering for potential future action. API supports EPA's efforts to publish RFS program data in aggregated form with safeguards to ensure data are made available to all industry participants at the same time, and with protocols that protect confidential business information. Maintaining the confidentiality of competitive information contained in the EPA Moderated Transaction System ("EMTS") RIN generation data is necessary to ensure a level playing field. API does not support suggestions we have heard from others such as restricting RIN trading to just obligated parties. The RIN system was originally designed with an open trading market to maximize its liquidity and ensure a robust marketplace for RINs. API believes that purpose is best served by maintaining the existing program structure and resisting calls to restrict participation in the RIN markets.

#### EPA Response to Court Decision in *Americans for Clean Energy v. EPA*

The United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) remanded the rulemaking establishing 2014-2016 renewable fuel standards to EPA for further consideration. In this proposal, EPA states that additional consideration is necessary and that the issue will be handled in a separate rulemaking. The complex issues presented by the D.C. Circuit's decision are not discussed in the proposal and are beyond the scope of this annual rulemaking. When EPA is prepared to address these issues, API would appreciate the opportunity to provide input in the process.

#### Waiver Authority

- General Waiver Authority

EPA has waiver authority to further reduce the renewable fuel volume requirements below the levels proposed, and below the levels achieved by maximizing the use of EPA's Cellulosic waiver authority. General waiver authority was provided by Congress that allows EPA to waive the standards "in whole or in part" based on a determination that "implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States."<sup>1</sup> This determination can be made based on the renewable fuel volumes statutorily set by Congress, which for 2019 are a total of 28 billion gallons of biofuels. EPA has recognized that the statutory volume requirements are unattainable, and

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<sup>1</sup> CAA §211(o)(7)(A)

API agrees. NERA Economic Consulting studied the impact of implementing the statutory volume requirements and found that the negative economic impact was severe.<sup>2</sup> API continues to urge EPA to exercise its general waiver authority to reduce the volume requirements based on the severe economic harm rationale as we have articulated in detail to EPA, most recently in comments to the 2018 RVO rulemaking.<sup>3</sup>

- Cellulosic Waiver Authority

EPA proposes to use its cellulosic waiver authority to address the shortfalls in cellulosic biofuel availability. API supports EPA's use of the cellulosic waiver, and we support EPA's proposal to lower the Advanced biofuel volume by the full amount of the cellulosic biofuel reduction.

#### Treatment of Carryover RINs

EPA should ensure that carryover RINs are not intentionally drawn down and remain available to meet unforeseen events and facilitate market functionality. These important functions provided by carryover RINs have been recognized in previous annual RFS rulemakings, and again in the 2019 proposal. API supports EPA's decision to not rely on carryover RINs in setting renewable volume standards for 2019, though we remain concerned that the aggressive increase in the Advanced biofuels category may result in a drawdown of the RIN bank. It is inconsistent with congressional intent to rely on carryover RINs as the affect is to limit the life of available RINs to only the year in which they are generated, and not the subsequent year. EPA should set standards that ensure the lifespan of RINs are not cut short and preserve the inventory of available RINs by further reducing the Advanced and Total biofuel requirements.

#### Cellulosic Biofuel Volume for 2019

- EPA's Legal Obligations

EPA is required by statute to project the availability of cellulosic biofuel available in 2019. The D.C. Circuit clarified that EPA is obligated to take "neutral aim at accuracy" and reflect "on the success of earlier applications."<sup>4</sup> API supports EPA reviewing the methodology it uses in projecting volumes, and we continue to suggest that a durable methodology would be to use actual production volumes for at least three consecutive months. In the proposed rule EPA states "As an initial matter, it is useful to review the accuracy of EPA's past cellulosic biofuel projections." In fact, the D.C. Circuit made clear that reflecting on previous experience is an obligation EPA must fulfill.

- Projected Production of Cellulosic Biofuels

EPA notes in the proposal that projections are inherently difficult and points out that cellulosic production in 2015 exceeded EPA's estimate, while production fell short of EPA's estimate in 2016 and 2017. EPA does not discuss the degree to which the estimates are over or under actual RIN generation for each year. EPA's estimates differed from reality by 14%, 17% and 20% in 2015, 2016 and 2017

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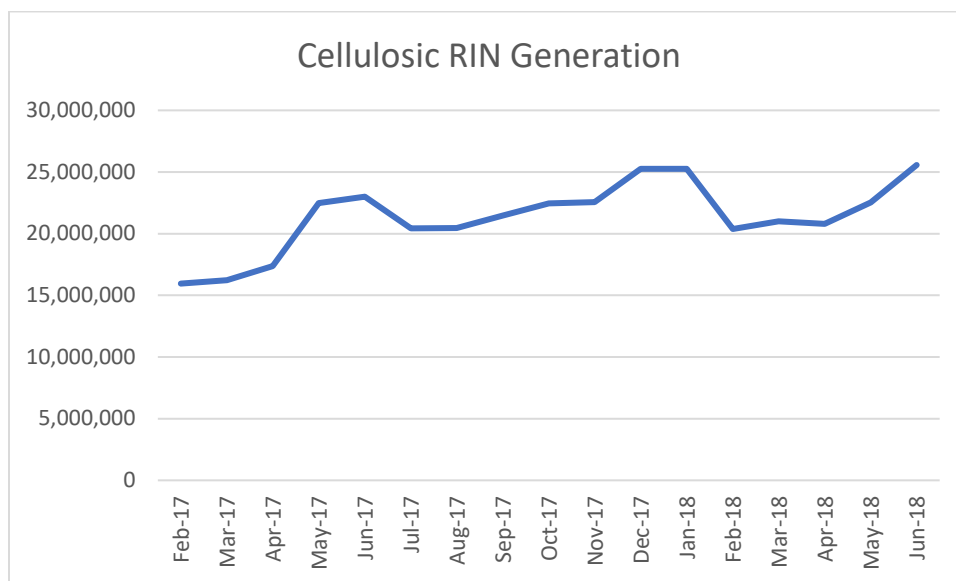
<sup>2</sup> NERA Economic Consulting, Economic Impacts Resulting from Implementation of the RFS2 Program (2012, 2015).

<sup>3</sup> EPA-HQ-OAR-2017-0091-3645

<sup>4</sup> *API v. EPA*, 706 F.3d 474, 746-477 (D.C. Cir. 2013).

respectively, making the 2015-year EPA’s most successful estimate from the perspective of taking a neutral aim at accuracy.

EPA is proposing to use a methodology similar to its methodology used for projecting cellulosic availability in 2018. Actual RIN generation data in EMTS for the first half of 2018 show that the accuracy of EPA’s estimate improved in 2018, but still errs to the side of overestimating production. Between 20.4 to 25.6 million Cellulosic RINs were generated each of the first six months in 2018.<sup>5</sup> The final Cellulosic biofuel requirement of 288 million gallons would require 24 million gallons per month, which falls in the range, though is on the higher end of the 2018 average. API recommends EPA continue to improve on its ability to project cellulosic biofuel availability by reviewing actual outcomes of the prior year and striving to reduce its error rate.



Source: EMTS Data, adjusted to show average production in Dec-Jan.

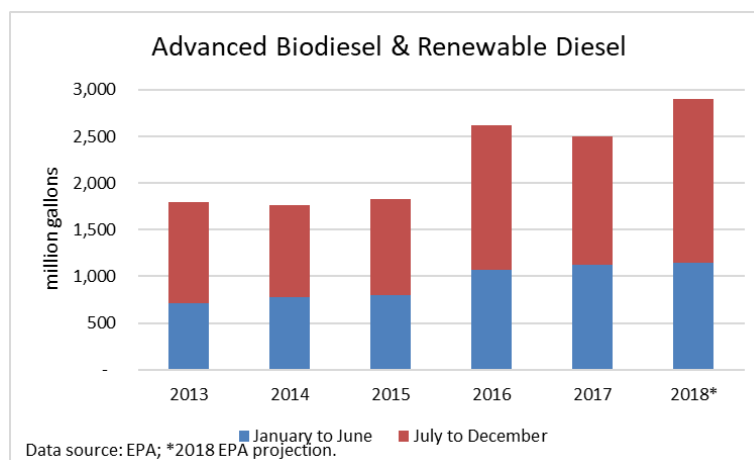
### Advanced and Total Renewable Fuel Volumes for 2019

As the consumer costs of the RFS program are a growing concern, API supports EPA’s proposal to place a greater emphasis on cost considerations in setting annual volume requirements. API also supports EPA’s proposal to maximize its application of the Cellulosic waiver to the Advanced biofuel category. Unfortunately, the Cellulosic waiver authority does not go far enough in reducing the Advanced biofuel requirement. The proposed mandate for Advanced biofuels increases by 590 million gallons in 2019, which is a 14% increase over an already ambitious 2018 volume requirement. In addition to increased reliance on biodiesel to meet the Advanced biofuel standard, the proposed requirement is likely to depend on the use of carryover RINs.

<sup>5</sup> RIN generation range assumes average production volume through December and January to account for producers demonstrated tendency to inflate December data, and does not include RIN error corrections, which have historically reduced RIN availability by about 1%.

EPA should structure the volume requirements to acknowledge the limitations of the ethanol blendwall. The implied conventional biofuel volume should not exceed the amount of ethanol expected to be supplied as E10 plus realistic estimates of ethanol demand from E15 and E85. EIA data show that E85 demand is only about one-tenth of one percent of gasoline demand,<sup>6</sup> and E15 is available at only about 1,400 stations nationwide.<sup>7</sup> API continues to support using 9.7% of expected gasoline demand to project the volume of ethanol supplied in E10. This small (0.3%) buffer is required to preserve a market for consumers that demand ethanol-free gasoline (e.g. boaters, motorcyclists, small-equipment and historic-vehicle owners) and maintain program flexibility.

The Total renewable fuel volume needs to be reduced because EPA’s reliance on biomass-based diesel and renewable diesel of 3.2 billion gallons is unrealistic. EPA characterizes the year-to-year increase to reach 3.2 billion gallons as “likely”, but this is based on achieving 2.9 billion gallons in 2018. A review of available data for 2018 indicates that the pace of production for Advanced biodiesel and renewable diesel, generating D4 RINs, is falling short in meeting EPA’s projection for 2018. Based on data for the first half of 2018, when 1.15 billion gallons were produced, a significant increase would be needed during the second half of the year to reach 2.9 billion gallons.



### Biomass-based Diesel Volume for 2020

EPA should reduce the biomass-based diesel (BBD) standard from the proposed volume of 2.43 billion gallons, and focus more closely on domestically produced biodiesel. Reducing the BBD volume is not inconsistent with statutory specifications that call for increasing volumes of Cellulosic, Advanced, and Total renewable fuel categories.

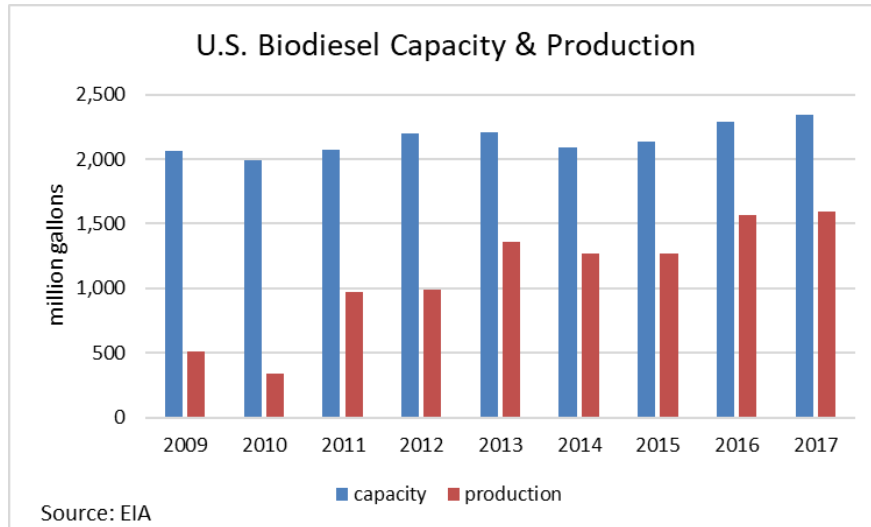
- Domestic biodiesel:

Production capacity, reported by EIA, has increased during the period of time covered by the RFS. Biodiesel production capacity recently reached a record of 2.4 billion gallons per year in April before declining in May. Historical monthly capacity utilization gyrates within a range of 45% to 75%. Actual

<sup>6</sup> U.S. Department of Energy, Energy Information Administration. Petroleum & Other Liquids Data: U.S. Refinery and Blender Production of Motor Gasoline, Finished, Conventional, Greater Than Ed55; U.S. Renewable Fuel & Oxygenate Plant Net Production of Finished Gasoline; U.S. Refinery and Blender Net Production of Finished Motor Gasoline; U.S. Product Supplied of Finished Motor Gasoline.

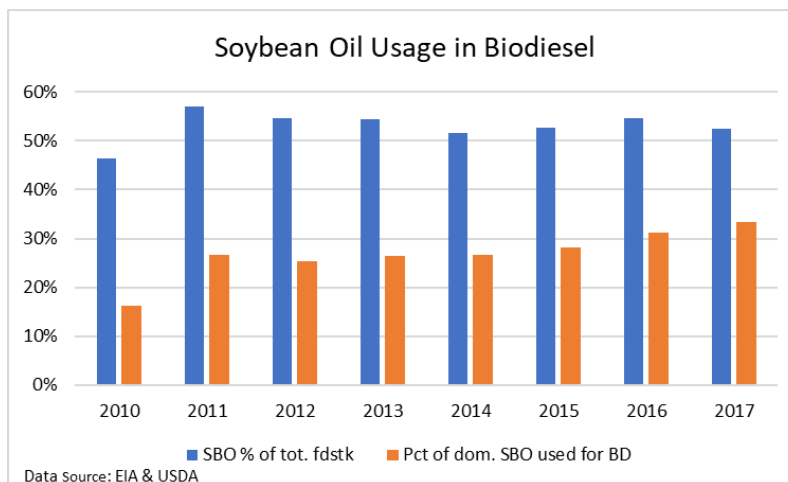
<sup>7</sup> [https://www.afdc.energy.gov/fuels/ethanol\\_e15.html](https://www.afdc.energy.gov/fuels/ethanol_e15.html)

domestic biodiesel production, reported by EIA, has not exceeded 1.6 billion gallons annually and the maximum rate of monthly production equates to an annualized volume of 1.8 billion gallons.



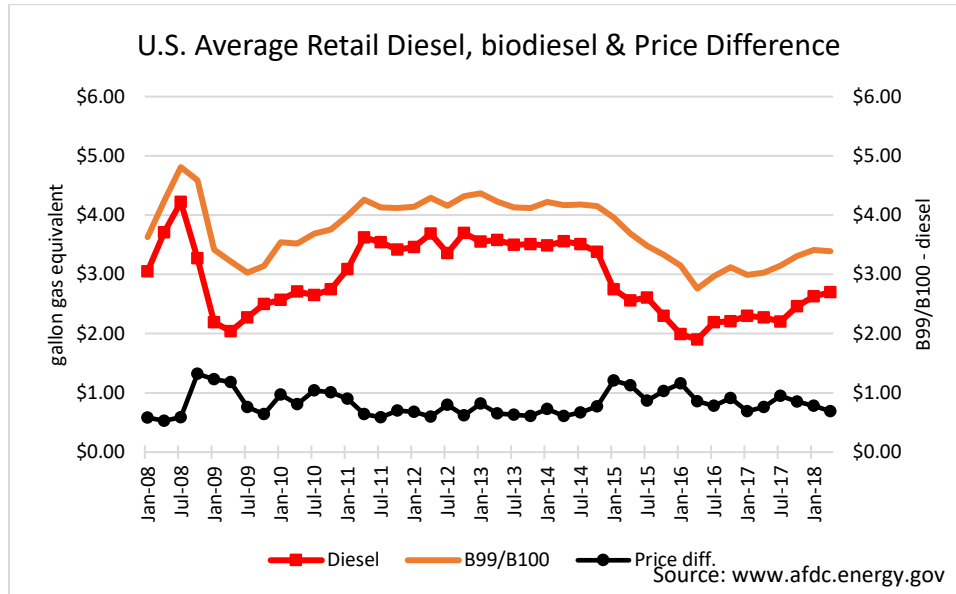
- Soybean biodiesel economics:

In the U.S., soybean oil has been the predominant feedstock used to produce biodiesel, and the portion of domestically produced soybean oil used for biodiesel production has increased significantly since inception of the RFS. For the 2018/19 marketing year, USDA projects 7.8 billion pounds of domestically produced soybean oil will be used for biodiesel production, which is more than 35% of domestic soybean oil usage. The chart below illustrates that soybean oil accounts for more than half of feedstock inputs used for biodiesel production and that an increasing share of domestically produced soybean oil is used for biodiesel.<sup>8</sup>



<sup>8</sup> Data Source: Various issues of EIA Monthly Biodiesel Production Report. Calculation does not include alcohol or catalyst. Various issues of USDA WASDE reports.

However, soybean oil is an expensive feedstock that represents 80% of the variable cost in producing biodiesel.<sup>9</sup> The U.S. Department of Agriculture (USDA) has estimated<sup>10</sup> the national average soybean oil price in 2017/18 will be 30 cents per pound.<sup>11</sup> Biodiesel is more expensive than petroleum diesel, and over the life of the RFS, biodiesel retail prices have exceeded petroleum diesel by an average of \$0.82 per gallon (gge), as illustrated in the chart below.



Increasing biodiesel volumes required to meet the RFS will depend on bringing idled production capacity on-line. Presuming the most economic gallons are produced first, idled capacity represents the costlier gallons that can be produced. If recent biodiesel market prices have not justified production up to registered capacity volumes, then higher market prices will be necessary to bring idled capacity on-line. This marginal price increase can affect the broader domestic biodiesel price, which ultimately increases costs for consumers.

According to the largest U.S. biodiesel producer, “the biodiesel industry relies substantially on federal programs requiring the consumption of biofuels. Biodiesel has historically been more expensive to produce than petroleum-based diesel, and governmental programs support a market for biodiesel that otherwise might not exist.”<sup>12</sup> EPA acknowledges that prior to reaching ethanol blending constraints (E10 blendwall), it was likely more economical to utilize Brazilian sugarcane ethanol to meet advanced renewable fuel blending requirements. Furthermore, EPA acknowledges that the 2020 advanced renewable fuel requirement will determine actual BBD volumes.<sup>13</sup>

<sup>9</sup> <https://farmdocdaily.illinois.edu/2018/03/a-pattern-change-for-biodiesel-production-profit.html>

<sup>10</sup> World Agricultural Supply and Demand Estimates. USDA. August 10, 2018.

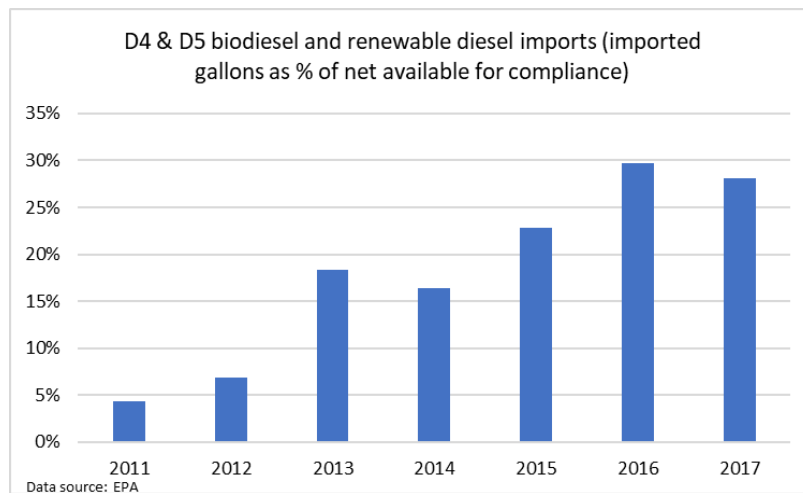
<sup>11</sup> <https://www.uaex.edu/publications/PDF/FSA-1050.pdf>

<sup>12</sup> Renewable Energy Group, 2016 form 10-K.

<sup>13</sup> “Draft Statutory Factors Assessment for the 2020 Biomass Based Diesel (BBD) Applicable Volume”. U.S. EPA, Office of Transportation and Air Quality memorandum to EPA Air Docket EPA-HQ-OAR-2018-0167.

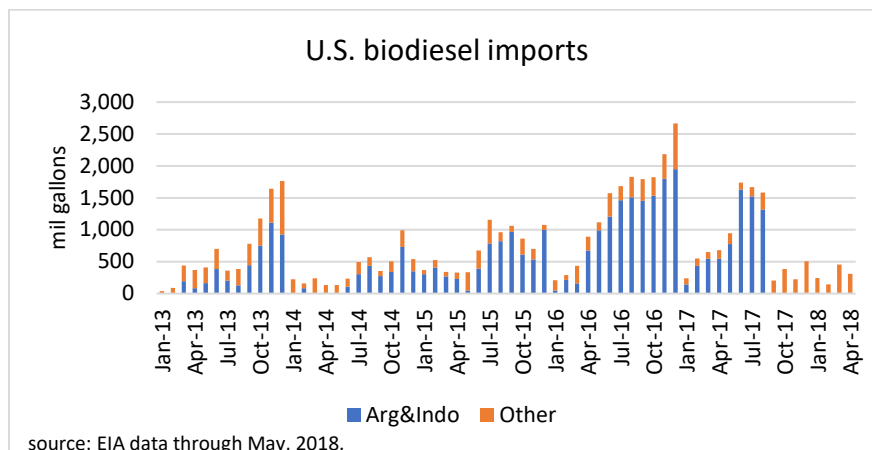
- **Energy Security:**

Improving energy security for the U.S. is a major goal of the RFS.<sup>14</sup> However, according to historical data in the NPRM, continued escalation of the RFS mandates is moving the U.S. in the opposite direction, as indicated by the significant volume of D4 and D5 renewable fuel imports as a share of net total supplies available for compliance.<sup>15</sup> Biodiesel and renewable diesel imports available for compliance increased from 44 million gallons in 2011 to 655 million gallons in 2017 and imports have accounted for an increased share of total D4 and D5 gallons available for compliance.<sup>16</sup>



- **Import duties and tax credit:**

Imports of biodiesel from Argentina and Indonesia since 2013 have accounted for the majority of total imports; exceeding 90% in some months. A seasonal pattern has appeared to develop where monthly imports begin slowly in January and then increase through December.



<sup>14</sup> Energy Independence and Security Act of 2007.

<sup>15</sup> 83 Fed. Reg. 32,024 (July 20, 2018).

<sup>16</sup> 83 Fed. Reg. 32,024 (July 20, 2018).



Beginning in 2017, this seasonal pattern and upward trend of increasing imports from Argentina and Indonesia was disrupted. Early in 2017, the U.S. International Trade Commission (USITC) began an investigation into alleged “dumping” of biodiesel, from Argentina and Indonesia, into the U.S. The USITC made a Preliminary Determination in May and a Final Determination in December that imports were improperly subsidized and subject to anti-dumping duties and countervailing duties. The USITC investigation and findings essentially halted a relatively stable supply of imports of biodiesel from Argentina and Indonesia.

The existence of the biodiesel tax credit since 2010 has been erratic, uncertain, and available prospectively only for 2013 and 2016, when production, imports, and consumption all increased from the previous year. Without a biodiesel tax credit prospectively in place for 2019, and potentially 2020, it may diminish the ability of BBD volumes to exceed blending requirements and could result in negative consumer impacts.

- Capacity and Feedstock:

EPA points out that production capacity at registered facilities and global feedstock supplies are not limiting factors for supplies of BBD. Not only are these points not relevant, they are misleading. According to EPA, registered facilities in the U.S. have a current annual capacity of 4.1 billion gallons.<sup>17</sup> Production capacity by itself does not cause the physical supply of biodiesel to increase. EPA has pointed to the following market place constraints for biodiesel availability to include, “...a combination of competing uses for feedstocks, international competition for biodiesel, the inconsistent nature of the biodiesel tax credit, limited investments to ensure quantity and quality of biodiesel product, limited infrastructure to distribute and blend biodiesel, and the limited ability of the market to consume biodiesel.”<sup>18</sup> It is also significant to note that, according to EPA, idled capacity may exist due to a lack of available “economically viable feedstocks” and that many facilities were built with “excess capacity” that has not been utilized.<sup>19</sup> EPA should recognize that increasing biodiesel volumes could result in increased capacity utilization but bringing idled capacity on-line could come from uneconomical plants with higher cost of production, which could increase consumer costs.

Registered capacity in the U.S. reportedly reached a peak of 4.2 billion gallons in 2016, when EPA<sup>20</sup> reported production of 1.72 billion gallons, equating to a 41% utilization rate. A comparison of domestically produced Advanced biodiesel and renewable diesel volume available for demonstrating compliance<sup>21</sup> with various estimates of registered capacity reported by EPA indicates capacity utilization and idled capacity is a chronic problem within the biodiesel industry.

In the discussion of 2019 renewable fuel volume standards, EPA cites global vegetable oil production to illustrate existence of feedstock supplies to sufficiently meet 2019 Advanced biodiesel and renewable diesel volume of 2.8 billion gallons. Similar to the capacity discussion, this data point is meaningless

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<sup>17</sup> 83 Fed. Reg. 32,024 (July 10, 2018).

<sup>18</sup> 80 Fed. Reg. 77,433 (December 14, 2015).

<sup>19</sup> 81 Fed. Reg. 34,792 (May 31, 2016).

<sup>20</sup> 82 Fed. Reg. 34,235 (July 21, 2017).

<sup>21</sup> 83 Fed. Reg. 32,024 (July 10, 2018).

because it is not practical for total global vegetable oil production to be diverted to biodiesel production and EPA does not adequately discuss negative impacts of such massive increases in BBD production.

- Uncertainty:

Even though BBD RINs available for compliance have exceeded annual requirements in some years, this does not necessarily mean that biodiesel volumes are driven by marketplace economic signals. Biodiesel volumes are a costlier outcome driven by RFS program-wide mandated blending requirements that exceed the ethanol blendwall, erratic existence of a tax credit, and availability of biodiesel imports. As a costly outcome, consumers of both biodiesel and food oils suffer negative impacts. In setting the Biomass-based Diesel standard for 2020, EPA should consider that it will potentially encroach on the period of time where EPA will be required to “reset” statutory volume targets when certain conditions are met.<sup>22</sup>

Because of uncertainty and negative impacts discussed above, EPA should reevaluate the 2020 biomass-based diesel standard and scale the volume back to a more reasonable and achievable volume.

#### Small Refinery Waivers

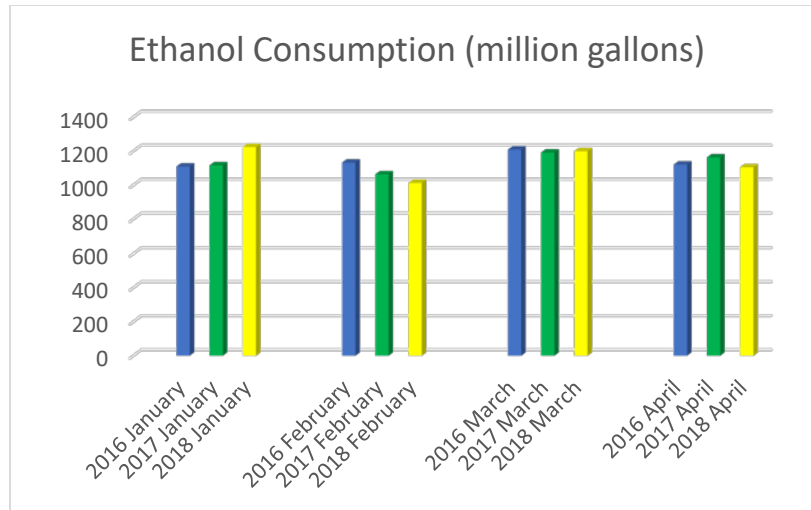
The RFS program is a burden on all refiners, regardless of size. As API articulated in a February 12 letter to EPA,<sup>23</sup> we oppose small refinery waivers that distort the competitive marketplace and we continue to urge EPA to maintain a level playing field. Any reallocation of exempted small refinery volumes to other refiners is an additional market distortion that exacerbates this unlevel playing field. Several biofuel advocates asked EPA at the July 18 Public Hearing to increase the 2019 volume requirements as a way to reallocate biofuel volumes exempted for small refineries from prior years. We urge EPA to disregard these requests that are outside EPA’s scope of authority. Biofuel advocates supporting this concept claimed that ethanol consumption was reduced in 2018, but EIA data show that ethanol consumption to date in 2018 remains consistent with prior years.<sup>24</sup>

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<sup>22</sup> 82 Fed. Reg. 34,206 (July 21, 2017).

<sup>23</sup> Macchiarola, Frank. “Renewable Fuel Standard Program: Requests for Waivers and Exemptions.” Letter to William Wehrum, 12 Feb. 2018.

<sup>24</sup> U.S. Energy Information Administration. July 2018 Monthly Energy Review. Released July 26, 2018.



Several studies have concluded that RIN costs are largely recovered by refineries, both large and small, through the increased value of gasoline and diesel fuel they supply to the market. Similarly, EPA’s [Denial of Petitions for Rulemaking to Change the RFS Point of Obligation](#),<sup>25</sup> found that “while a merchant refiner is directly paying for the RINs they buy on the market, they are passing that cost along.” This dynamic applies equally to small refineries as it does to merchant refiners and evidences the fact that the RFS program is not causing disproportionate harm on small refiners.

#### Conclusion

API believes that the RFS program is outdated and broken, and we support bipartisan efforts in Congress to repeal or significantly reform the program. Three key assumptions made in 2007 when the Energy Independence and Security Act (EISA) was enacted have since proven to be inaccurate. Congress expected 1) continued growth in fuel demand, 2) increased reliance on imported petroleum, and 3) rapid development of next-generation advanced and cellulosic biofuel technologies. These expectations have not been borne out by reality. Instead, because of technological advances by the domestic oil and natural gas industry, U.S. energy security has improved significantly, and petroleum imports have declined. Ethanol and other biofuels have only marginally contributed to these successes. According to the Department of Energy’s Energy Information Administration (EIA), the RFS “played only a small part in reducing projected net import dependence.”<sup>26</sup>

It is ultimately up to Congress to repeal or reform the RFS. Meanwhile, API seeks regulatory solutions that: are based on sound science; are achievable for regulated parties; are cost effective for the consumer; and, maintain a level playing field in the market. We urge EPA to use its waiver authority to establish annual volumes at or below 9.7% ethanol in gasoline, an amount that allows for E0 sales and recognizes the vehicle and infrastructure constraints that limit the sale of E15 and E85.

<sup>25</sup> Assessment and Standards Division Office of Transportation and Air Quality U.S. Environmental Protection Agency, Denial of Petitions for Rulemaking to Change the RFS Point of Obligation. EPA-420-R-17-008. November 2017.

<sup>26</sup> Howard Gruenspecht, Deputy Administrator, Energy Information Administration Before the Committee on Environment and Public Works. February 24, 2016

API and our member companies appreciate your attention to these issues. If you have any questions or concerns, please contact me at (202) 682-8192.

Sincerely,

A handwritten signature in blue ink that reads "Patrick Kelly". The signature is fluid and cursive, with a long horizontal stroke at the end.

Patrick Kelly  
Senior Policy Advisor