August 30, 2019

Administrator Andrew Wheeler
Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

RE: Docket ID EPA-HQ-OAR-2019-0136

Dear Administrator Wheeler:

On behalf of 40,000 dues-paying corn farmers nationwide and more than 300,000 corn growers who contribute to corn checkoff programs in their states, the National Corn Growers Association (NCGA) appreciates the opportunity to comment on the proposed rule for the 2020 volume standards under the Renewable Fuel Standard (RFS) program.

In the 12 years since Congress expanded the RFS, corn farmers have responded to the growing ethanol market by increasing production efficiency and sustainability to meet the RFS goals of expanding renewable fuels that reduce greenhouse gas (GHG) emissions and lower prices for consumers.

NCGA appreciates that the Environmental Protection Agency (EPA) proposed an implied volume of 15 billion gallons for conventional renewable fuel and an increase in total renewable fuel volumes, although small. However, EPA renders these proposed volumes meaningless by failing to account for refinery waivers after the agency has greatly expanded the use of retroactive RFS waivers.

Following EPA's approval of 85 retroactive RFS exemptions for refineries, totaling 4.04 billion ethanol-equivalent gallons for the 2016 through 2018 compliance years, NCGA has no confidence in the volumes EPA proposes for 2020. These RFS waivers have significantly outpaced annual increases in RFS volume requirements, taking RFS volume requirements backward.

NCGA also disagrees with EPA's proposal to retain the 2016 RFS volume, which the D.C. Circuit Court remanded to the agency after finding EPA had improperly reduced it by 500 million gallons. We believe EPA is obligated to restore these gallons in the final 2020 volume rule.

EPA must use the 2020 volume rule to keep the RFS whole. Doing so will deliver the full clean air, cost savings, energy security and rural economic benefits consumers and farmers receive from the RFS. Thank you for considering NCGA's full comments that follow.

Sincerely,

Lynn E Chrisp

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The RFS and Agriculture

Maintaining a meaningful implied volume requirement for conventional renewable fuel at 15 billion gallons, consistent with the target for 2020, provides a firm base of support for ethanol production and corn prices. A strong RFS is a market-based solution for sustaining the agriculture economy.

On the heels of consecutive years of low prices that cut net farm income in half between 2013 and 2018, farmers across the corn belt this spring experienced significant flooding that delayed or prevented planting for many. The U.S. Department of Agriculture (USDA) projects net farm income of $69.4 billion for 2019, 40 percent below 2013 net farm income and well below the historical average of $90 billion between 2000 and 2017. Furthermore, USDA projects farm sector debt to continue to increase this year, with the farm sector's risk of insolvency forecast to be at its highest level since 2002.

Corn prices averaged $4.70 per bushel between 2006 and 2013, a time of positive net income for many grain farmers. Since then, corn prices declined to $3.70 per bushel in 2014 and are expected to remain at $3.60 for the 2018/2019 marketing year, well below average and below the average cost of production of $4.24 estimated by USDA.

Since the RFS was enacted in 2005, corn farmers have responded with increased productivity. Corn production has improved on all measures of resource efficiency, further fortifying ethanol as a sustainable, low-carbon renewable fuel. While meeting new demand for ethanol, corn has kept up with demand across sectors. This includes our largest market, livestock feed, as well as food and industrial uses and international demand from exports.

Corn production has primarily increased because crop yields have increased from an average of 150.7 bushels per acre in 2007 to 176.4 bushels in 2018. Productivity growth is a long-term trend; production in 1980 averaged 91 bushels per acre.

Ethanol production has not had a significant impact on total agricultural land use, even as ethanol production has increased. Projections for land use changes made in the early stages of the RFS have not materialized when direct production experience is evaluated. According to USDA data, the 90 million acres planted to corn in 2019 is less than the 93.5 million acres planted in 2007, the year the RFS expanded, and the 97.2 million acres planted in 2012, the highest number of planted acres since the RFS was enacted.

The RFS has had a strong, positive impact on corn production and agriculture, adding value to the commodity we produce. The implied conventional biofuel requirement would continue RFS benefits for agriculture. A growing total biofuel requirement also increases benefits to the U.S. farm economy at a time when farmers need new markets to increase demand. However, if EPA continues to issue expansive retroactive refinery exemptions without accounting for those waivers in this rule, farmers cannot rely on these volumes and the entire rural economy will continue to suffer.

RFS Refinery Exemptions

The RFS statute requires EPA to determine and publish annual renewable fuel obligations that ensure transportation fuel sold or introduced into commerce in the United States, on an annual average basis,

contains at least the applicable volume of renewable fuel determined in accordance with the volume tables.[1] For EPA to follow through on its charge to set renewable fuel volumes that ensure the obligations of the RFS are met, EPA must account for the impact of agency actions that affect renewable fuel volume in U.S. transportation fuel.

The most significant recent agency actions impacting the annual volume obligations have been EPA's approval of large volumes of small refinery exemption extensions, eliminating these refineries' obligation to blend renewable fuel. The EPA has failed to redistribute these exempted obligations to other obligated parties. Since early 2018, EPA has granted 85 RFS exemptions to refineries for the 2016, 2017 and 2018 RFS compliance years, totaling 4.04 billion ethanol-equivalent gallons of renewable fuel**.** Under the previous Administration's last three RFS compliance years, refinery exemptions totaled 690 million gallons. RFS exemptions are more than five times higher under the current Administration.

These retroactive exemptions effectively reduce EPA's annual volume requirements, making the RFS volumes meaningless. Rather than a 19.29 billion gallon total renewable fuel volume requirement for 2018, for example, the effective volume requirement after the 2018 waivers became 17.86 billion gallons, with most of the decrease coming out of the largest category of renewable fuel, conventional biofuel. The 2018 waivers represent 9 percent of the total volume requirement for the year, following retroactive exemptions that waived nearly 10 percent of the 2017 RFS volume requirement.

In addition to undermining the law's requirement to blend increasing amounts of renewable fuels, this significant expansion of retroactive RFS refinery waivers is impacting biofuel use and feedstock producers such as corn farmers.

Before information about EPA's expansion of refinery waivers became public in early 2018, the U.S. Energy Information Administration (EIA) projected a record domestic consumption of 14.66 billion gallons of ethanol and a record ethanol blend rate of 10.26 percent for 2018. As a result of the waivers, both actual ethanol consumption and the ethanol blend rate experienced a first ever year-over-year decline from 2017 to 2018, even as gasoline consumption increased. Prior to this 2018 decline, domestic ethanol use had increased every year for nearly 20 years and the blend rate had been steadily rising since the RFS was enacted.

USDA's August 2019 World Agriculture Supply and Demand Estimates (WASDE) report shows a 180 million-bushel decline in corn used to produce ethanol for the 2018/2019 marketing year compared to the 2017/2018 marketing year. This total represents a 225 million-bushel decline from last fall's projections for the year, when USDA expected corn use for ethanol would rise. In the last 12 months, ethanol producers have idled or shuttered 15 ethanol plants, which affects annual demand for 300 million bushels of corn and 2,700 direct and indirect jobs in rural communities.

Refinery waivers effectively hold ethanol blending at 10 percent, destroying demand for higher blends such as E15 that increase corn demand. Waivers benefit refiners who seek to cap ethanol use to 10 percent of the fuel supply. Even with EPA providing parity for year-round E15, continued waivers will ensure that the full benefits won't be realized. EIA's July outlook for ethanol use notes that "growth in higher-level ethanol blends is limited" by recent refinery exemptions that reduced volumes of renewable fuel required under the RFS. Due to the large increase in carryover RIN compliance credits resulting from waivers, ethanol RIN values fell to 11 cents in August, down from the 20-cent range of the

[1] Clean Air Act § 211 (o)(3)(B)(i)

past six months, a stronger incentive for refiners to buy surplus RINs for RFS compliance rather than blend more biofuels.

2020 Volume Requirements

The RFS statute and regulations give EPA tools to ensure that retroactive refinery exemptions do not reduce 2020 volume obligations set through this rulemaking. EPA, however, has again failed to use these tools, leaving the door open for the agency to lower requirements after finalizing this rule by granting more waivers. Indiscriminately waiving substantial volumes after issuing final standards adds another layer of market uncertainty for farmers who expect to have confidence in the volumes set by EPA.

To uphold the statute's directive that the final 2020 renewable fuel obligations ensure the requirements of the RFS are met, EPA must project an exempted small refinery volume in this rule, even if EPA has not yet received petitions for exemptions. The standards formula in the proposed rule projects zero gallons of gasoline and zero gallons of diesel will be exempted for small refineries. When EPA has exempted 7.8, 17 and 13.4 billion gallons of gasoline and diesel from renewable fuel blending for the 2016, 2017 and 2018 compliance years, respectively, it is unreasonable for EPA to use zero as the projected exempted gallons in 2020.

By proposing that, "any exemptions for 2020 that are granted after the final rule is released will not be reflected in the percentage standards that apply to all gasoline and diesel produced or imported in 2020," EPA sets this volume rule up to fail.[2] EPA prioritizes the statutory authority to grant refinery waivers over its statutory obligation to ensure RFS volumes are met.

Prior to the 2016 compliance year, EPA had historically granted limited small refinery hardship exemptions, and EPA intended that the need for small refinery exemptions would decrease over time as obligated parties adjusted to the requirements of the law, which has been in place since 2010. Similar to recent annual RFS volume rulemakings, EPA once again finds that, "there is not net cost to small refiners resulting from the RFS program."[3] EPA has long held that obligated parties are able to recover any compliance costs through sales prices of their products, but even using extreme assumptions with no cost recovery, EPA finds that any costs would be less than 1 percent of sales, even for small refiners.[4]

Despite EPA's consistent findings that the RFS will not have a significant economic impact on small refineries, refinery exemptions have exploded to 4.04 billion ethanol-equivalent gallons for the three most recent compliance years. Given the magnitude of exemptions granted since early 2018, it is not credible for EPA to project 2020 exemptions for refineries will be zero gallons.

The equation for calculating the annual renewable fuel percentage standards specifically includes entries for the "amount of gasoline" and "amount of diesel projected to be produced by exempt small refineries and small refiners" for the year, in gallons in any year they are exempt.[5] By including the variables of projected gallons of gasoline and projected gallons of diesel for exempt small refiners, the regulation provides EPA with a means to ensure that retroactive refinery exemptions are estimated in

[2] 84 Federal Register 36797 (July 29, 2019)
[3] Burkholder, Dallas and Parsons, Nick, Memorandum to EPA Docket EPA-HQ-OAR-2019-0136, *Screening Analysis for the Proposed Renewable Fuel Standards for 2020*, May 15, 2019
[4] *Screening Analysis* Memorandum to the Docket, Page 10
[5] 40 CFR 80.1405(c) (GE^i and DE^i)

the 2020 volume standards, even if refiners will not petition for exemptions until after this standard rule is final in November or until the close of the compliance year. EPA has the means to meet the agency's statutory requirements under the RFS – both for ensuring the RFS volumes are met and for ensuring refineries may petition for exemptions.

Last year, EPA evaluated its responsibilities under the law and its regulations in drafts of the 2019 standards proposal, according to inter-agency documents posted to the docket. This year, EPA appears to have made no attempt to reconcile its obligation to ensure RFS volumes are met with the obligation to consider refinery petitions for exemption, despite interagency commenters urging EPA to do so. Interagency commenters recommended that EPA project refinery waivers for 2020 based on expected conditions of small refineries and historic issuance of exemptions. We agree with their recommendation. Instead of ensuring the 2020 volume rule keeps the RFS whole, EPA's response to interagency commenters that this issue remains under review is inadequate. EPA must address this issue in the volume rule.

As proposed, EPA may continue to grant refineries retroactive exemptions for 2020, and these volumes will disappear from the volume requirements. Just like for 2018 and 2019, EPA's process again ensures the year's volume obligations will not be met, violating EPA's statutory responsibility to meet volume obligations.

NCGA urges EPA to maintain the integrity of the RFS volumes established in this rulemaking process. EPA must redistribute waived gallons to keep the final RFS volumes whole, and this rulemaking provides EPA with the means to ensure retroactive waivers do not lower volumes. Purposefully excluding small refinery exemptions from the standards equation will always result in a reduction in required renewable fuel usage. With this lapse, the agency is willfully allowing for continued market uncertainty for corn farmers, as well as the greater rural economy.

EPA states that any comments regarding how exemptions are accounted for in the percentage standards formula are beyond the scope of this rulemaking. We strongly disagree. The process for accounting for RFS volumes and keeping the requirements set in this rulemaking whole is central to the integrity and purpose of the RFS. EPA is no longer setting meaningful volume requirements but merely offering volume suggestions.

Response to Remand of the 2016 Rulemaking

In *Americans for Clean Energy v. EPA (ACE)* in 2017, the United States Court of Appeals for the District of Columbia Circuit found that EPA improperly used the RFS general waiver authority in setting the 2014-2016 volume requirements, specifically vacating the 2016 volume requirements and remanding that rule to EPA. In last year's volume standards rule, EPA stated intent to address the *ACE* remand in a separate rulemaking. In this year's proposed rule, EPA now proposes the agency take no action to respond to the remand. As part of Americans for Clean Energy, NCGA strongly disagrees with EPA's proposal and urges EPA to restore the 500 million gallons the Court determined EPA improperly waived.

In *ACE*, the D.C. Circuit Court determined that EPA incorrectly used demand-side considerations to justify use of its general waiver authority based on inadequate domestic supply and reduce the total renewable fuel requirement by 500 million gallons in 2016. It has taken EPA nearly two years to propose a response to the Court's remand, a significant delay considering the Court's finding that EPA does not

have the authority to amend the law to suit how the agency thinks the statute should work. Had EPA responded to the Court the same way the agency has stated it needed to respond to a separate court decision involving refinery waivers, EPA could have reduced or avoided several of the supposed "burdens" outlined in the proposed rule.

NCGA believes EPA must add an additional obligation of 500 million gallons on the 2020 volume standards in response to the Court's remand. According to EPA's estimates of the current RIN bank, enough RINs are available for compliance with an additional 500 million gallon standard if needed. EPA estimates that 2.19 billion carryover RINs were available at the time the proposed rule was issued, 11 percent of the total proposed volume requirement. This estimate was made prior to EPA issuing RFS refinery exemptions totaling 1.43 billion RINs for the 2018 compliance year, further increasing the RIN bank, which may now approach the 20 percent maximum limit for carryover RINs.

Even with a large surplus of RINs available, EPA states that adding an additional 500 million gallon requirement would place a "significant burden" on obligated parties.[6] We disagree. EPA also states that there are "very limited opportunities to use biofuels beyond the volumes we are proposing for 2020," as a further reason not to restore the gallons improperly waived.[7] We disagree. EPA's line of reasoning today is the same faulty reasoning EPA used in 2016, which the Court found conflicts with the intent of the RFS. From the Court's decision in *ACE:*

> *"The central problem with EPA's "supply equals demand" argument (in addition to the text of the statute, of course) is that it runs contrary to how the Renewable Fuel Program is supposed to work. By setting annual renewable fuel volume requirements that increase progressively each year, Congress adopted a "market forcing policy" intended to "overcome constraints in the market" by creating "demand pressure to increase consumption" of renewable fuels…. In other words, the Renewable Fuel Program's increasing requirements are designed to force the market to create ways to produce and use greater and greater volumes of renewable fuel each year. EPA's interpretation of the "inadequate domestic supply" provision flouts that statutory design: Instead of the statute's volume requirements forcing demand up, the lack of demand allows EPA to bring the volume requirements down."*[8]

EPA is once again incorrectly weighing demand-side factors and ignoring how the RFS works - setting strong standards that help create demand pressure. By proposing to take no action to restore the 500 million gallons, EPA both ignores the Court's remand instruction as well as the Court's core findings in *ACE.* To comply with *ACE*, EPA must add a 500 million gallon obligation to the 2020 standards.

Carryover RIN Bank Size

As EPA states, the carryover RIN bank includes millions of RINs that were not required to be retired by refineries that were granted RFS exemptions in recent years.[9] Since issuing this proposed rule, EPA has granted a further 31 refinery waivers, bringing the total RINs waived for the 2016 through 2018 compliance years to 4.04 billion. The 2.19 billion estimated carryover RINs in this proposed rule does not include these further 1.43 billion RINs waived for the 2018 compliance year, which would push the carryover RIN bank near the maximum of 20 percent of the total renewable fuel volume requirement proposed. Likewise, the waivers EPA granted last year added nearly 1 billion RINs to the carryover.

[6] 84 Federal Register 36788 (July 29, 2019)
[7] 84 Federal Register 36789 (July 29, 2019)
[8] *Americans for Clean Energy v. EPA.* No. 16-1005 (D.C. Cir., 2017)
[9] 84 Federal Register 36787 (July 29, 2019)

This massive increase in carryover RINs blunts the power of the RIN market as a mechanism to drive biofuels blending and, ultimately, to support the intent of the RFS to increase the volume of renewable fuel blended into transportation fuel. The current high level of carryover RINs following the most recent waivers means more than 3 billion gallons of the 2020 volume requirement could be met with these RINs rather than through actual biofuels blending. With the most recent waivers, the carryover RIN bank will be very near 20 percent of the volume requirement, if not exceed 20 percent, resulting in carryover RINs that expire without ever being used and a RIN value near 0. EPA's retroactive refinery waivers have distorted the RIN market and diluted its market signal.

A carryover RIN bank approaching the maximum underlines the necessity of EPA's timeliness in addressing the DC Circuit Court's remand of the 2016 volume rule and redistributing retroactive refinery exemptions now, while still providing a buffer for compliance flexibility and to meet uncertainties in the market.

2016-2018 Refinery Exemptions

EPA does not propose a means to offset the significant reductions in volume requirements from refinery waivers. NCGA urges EPA to incorporate additional exempted volumes into the 2020 obligations to mitigate damage done to biofuel and corn demand from the decline in ethanol blending from 2017 to 2018 and to remedy this retroactive improper waiver of RFS volume requirements.

Because EPA's exemptions retroactively reduced the renewable fuel obligation for select refineries, which shrank the total requirement to blend, EPA failed to ensure volumes of renewable fuels are blended in accordance with the volumes set through the annual standards rulemakings. In short, EPA, to remain within the statutory requirements of the law, must make the RFS whole after its decision to retroactively waive volumes.

NCGA believes EPA could use the opportunity presented by the 2020 volume rule to ensure RFS volumes set for 2016, 2017 and 2018 are achieved despite exemptions that have been granted. The annual rulemaking process for the RFS enables EPA to send a strong signal of market certainty that helps all parties. Using this rulemaking to equitably redistribute exempted volumes from past compliance years provides certainty not only for the 2020 standards, but also for standards EPA set for past years.

Congress granted EPA authority to issue exemptions to small refineries that demonstrate a disproportionate economic hardship. However, Congress did not grant EPA unlimited authority to waive RFS volumes. EPA may be within its authority to issue exemptions, but EPA is not exempt from its statutory duty to ensure final volume requirements are met. Because of the retroactive exemptions EPA issued, the required renewable fuel volumes for 2016, 2017 and 2018 have not been met.

Failure to address these retroactive exemptions equates to EPA exercising RFS waiver authority not specifically granted by Congress. Congress provided specific procedures for reducing the overall RFS volume requirements, such as the general waiver authority based on inadequate domestic supply or severe economic harm. Small refinery exemption authority is not general waiver authority and cannot be used to accomplish the same result by another means.

Amendments to RFS Program Regulations

NCGA support's EPA's proposal to finalize portions of the previously proposed Renewables Enhancement and Growth Support (REGS) rule along with the 2020 RFS volumes. In particular, NCGA strongly supports finalizing the REGS proposal for Public Access to Information from Section VIII.O because we agree that basic information regarding petitions for small refinery exemptions should not be considered confidential business information (CBI).

Under this proposal, EPA would release the name of the refinery, facility location, the nature of the relief requested, the time period for which the relief was requested and the extent to which EPA granted or denied the requested relief. EPA also proposes that basic information related to a small refinery exemption petition be made publicly available after EPA accepts the petition for processing and the petition becomes part of EPAs' workload. NCGA agrees this basic information is not CBI and making this information public will bring much-needed transparency to the refinery exemption process.

Until last year, EPA provided almost no information regarding refinery exemptions, depriving all market participants other than the waiver recipient of important RIN market information and contributing to RIN market volatility. The aggregate information EPA began posting online later in 2018 as exemption petitions were received and granted provides a widow into total numbers of petitions, petition status and total exempted gallons, but still does not disclose which refineries petition for exemptions and the extent of the exemptions EPA grants or denies. While release of the aggregate information was a step in the right direction, the further step of releasing individual refinery basic information ensures reasonable transparency and protection of CBI. We strongly support finalizing this proposal from the REGS rule along with the 2020 RFS volumes.

NCGA also believes an important proposal from the REGS rule that would help support RFS implementation and increasing biofuels use is missing from the REGS provisions under consideration for finalization in this rule. NCGA recommends EPA also finalize the REGS proposal related to E15 made at blender pumps. This would help improve and add flexibility to the sound and beneficial final rule EPA issued in May to remove unnecessary and outdated barriers to year-round sales of E15.

Under the approach from REGS, which EPA acknowledged in the proposed E15 rule, EPA proposed to allow entities who manufacture E15 at blender pumps to use product transfer documents to demonstrate compliance with applicable sulfur, benzene and volatility requirements in lieu of performing batch testing.[10] EPA correctly recognized that the existing regulatory regime for a "fuel manufacturer," which was promulgated before the rise in blender pumps, is unwieldy and outdated. NCGA believes the method proposed in the REGS package is a reasonable approach that preserves flexibility for blenders. NCGA encourages the agency to adopt the REGS approach for E15 produced at blender pumps and allow such blenders the opportunity to demonstrate compliance.[11] This action will help ensure that corn growers' investments in expanding biofuels infrastructure are not stranded and will ensure greater access to E15 as intended by the final RVP rule.

[10] 81 Fed. Reg. 80828, 80862-80870 (Nov. 16, 2016) ("EFF Blender Pump-Refiner Certification Option").
[11] 84 Fed. Reg. at 10595.

General Waiver Authority

EPA states that, "At this time, we do not believe that the circumstances exist that would justify further reduction in the volumes using the general waiver authority."[12] NCGA agrees with EPA's assessment and believes adjustments to the volume requirements using the general waiver authority are not justified.

Domestic Supply

NCGA, as one of the petitioners in *ACE*, challenged EPA's use of the general waiver authority based on inadequate domestic supply in the rule setting volume requirements for 2014-2016. In its July 28, 2017 opinion, the U.S. Court of Appeals for the District of Columbia Circuit vacated EPA's decision to reduce the total renewable fuel requirements for 2016 through use of its "inadequate domestic supply" waiver authority and remanded the rule to EPA.

The Court held that, "EPA erred in how it interpreted the 'inadequate domestic supply' waiver provision. We hold that the 'inadequate domestic supply provision' authorizes EPA to consider *supply-side* factors affecting the volume of renewable fuel that is available to *refiners, blenders and importers* to meet the statutory volume requirements. It does not allow EPA to consider the volume of renewable fuel that is available to ultimate *consumers* or the *demand-side* constraints that affect the consumption of renewable fuel by consumers."[13]

Given the plentiful supply of feedstocks and supply of renewable fuel to refiners, blenders and importers, as well as stable projections for 2020 supply, NCGA concludes that EPA's general waiver authority based on "inadequate domestic supply," as interpreted by the D.C. Circuit Court, would not apply when setting 2020 volume requirements.

Corn-based ethanol remains the primary biofuel produced to meet the volume requirements under the RFS. The August 12, 2019 World Agriculture Supply and Demand Estimates (WASDE) report from USDA shows ample corn production to continue to meet and expand the current level of domestic ethanol production in the coming year, even with delayed planting and poor planting conditions this spring. USDA projects a 2019/2020 corn crop of 13.9 billion bushels. USDA, while forecasting a small decline from the prior year's corn crop due to lower yield projections, is still estimating a high 2.1 billion bushel carry-out for the coming marketing year. Corn farmers have produced, and will continue to produce, an ample supply of corn to achieve, and expand, current ethanol production levels.

Severe Economic Harm

The threshold indicating severe economic harm is justifiably high. NCGA believes EPA's interpretation of severe economic harm waiver authority made through denials of waiver petitions in 2008 and 2012 is entirely appropriate and consistent with the statute. EPA should continue to rely on this thorough and well-documented interpretation.

When EPA declined petitions to waive volume requirements in 2012 based on economic harm, the agency specifically noted that the question of severe harm is a high statutory threshold. When

[12] 84 Federal Register 36767 (July 29, 2019)
[13] *Americans for Clean Energy v. EPA.* No. 16-1005 (D.C. Cir., 2017)

evaluating use of the waiver authority, it is not enough for EPA to determine that implementation of the RFS would *contribute* to economic harm. EPA's interpretation of the statute has been that implementation of the RFS must be the *cause* of the economic harm.[14]

EPA undertook significant analysis in evaluating the 2008 and 2012 waiver petitions to determine whether the RFS would cause severe harm to the economy of a state, region or the nation. In the agency's 2012 petition denial, EPA acknowledged the many impacts of reduced crop production due to drought. However, EPA concluded the evidence did not support a determination that implementation of the RFS would cause severe economic harm and that RFS implementation was likely to have no impact on corn, food and fuel prices.[15]

Furthermore, and critically important, EPA has held that severe harm must affect more than one sector of the economy and that EPA must evaluate the entire spectrum of impacts of the RFS, from negative to positive, when assessing total economic harm to a state, region or the nation.

While the refining sector has expressed concern about RFS impacts and price stability in the RIN market, EPA concluded in 2017 that RIN prices do not cause economic harm to refiners. In the 2018 volume standards rule, the agency stated, "EPA has invested significant resources evaluating the impact of high RIN prices on refiners. After reviewing the available data, EPA has concluded that refiners are generally able to recover the cost of RINs in the prices they receive for their refined products, and therefore high RIN prices do not cause significant harm to refiners."[16] In the proposed 2020 rule, EPA again states that obligated parties remain able to recover any cost of acquiring RINs.

Conventional biofuel D6 RIN values are currently near 15 cents, compared with values of nearly 90 cents when EPA published its 2017 conclusion on the impact of RIN values. The significant decline in RIN values, combined with strong refiner profits, provide no evidence that the RFS is causing economic harm to refiners. NCGA agrees with EPA's assessment that RIN prices do not affect refiners.

In a November 30, 2017 memorandum to the 2018 volume standards docket, *Assessment of Waivers for Severe Economic Harm or BBD Prices for 2018,* EPA further assessed waivers based on severe economic harm. Not only did EPA state that stakeholders did not provide any evidence of severe economic harm occurring or projected to occur, EPA's own investigation of broad economic indicators concluded that no waiver based on severe economic harm was warranted.[17]

NCGA does not believe circumstances reviewed by EPA have changed significantly to indicate evidence of economic harm caused by the RFS. Rather, a finding of economic harm would be more improbable today given changes in fuel supply and prices, strong refinery profits and crop prices. The RFS provides clear economic benefits to consumers and farmers. In 2019, ethanol continues to have a price advantage over gasoline, with ethanol prices ranging between 30 to 40 cents less per gallon. As previously discussed, with USDA's most recent U.S. corn production estimate of 13.9 billion bushels for 2019, coupled with the high carry-out of the 2018 crop, the overall corn supply is expected to remain

[14] 77 Federal Register 70773
[15] 77 Federal Register 70752
[16] Environmental Protection Agency, Standards for 2018 and Biomass-Based Diesel Standards for 2019: Responses to Comments, Page 198
[17] Korotney, David, Memorandum to EPA Air Docket EPA-HQ-OAR-2017-0091, *Assessment of Waivers for Severe Economic Harm or BBD Prices for 2018*, November 30, 2018

large with prices declining. EPA's use of general waiver authority in the 2020 volume requirements would have significant negative impacts on an already-hobbled rural economy.

Severe Environmental Harm

NCGA believes the RFS also provides significant environmental benefits, particularly when renewable fuels are compared with the petroleum-based products that biofuels replace. We see no evidence for use of waiver authority based on environmental factors.

The RFS requires renewable fuels to meet lifecycle greenhouse gas (GHG) emission reduction thresholds. Models used to predict RFS impacts in 2010 projected that use of conventional ethanol would reduce GHG emissions by 21 percent compared to gasoline by 2022. However, more recent analysis, based on actual corn and ethanol production, shows much greater GHG reductions than EPA previously projected. As a result, corn-based ethanol is delivering more GHG reductions today than anticipated under the RFS.

For example, a 2018 USDA peer-reviewed analysis found GHG emissions for conventional ethanol are currently 43 percent less than for gasoline when produced at a natural gas powered biorefinery, today's standard.[18] The Department of Energy's Argonne National Lab GREET model measures lifecycle emissions of transportation fuels and is updated annually. The 2018 GREET model shows corn-based ethanol's carbon intensity is 41 percent below the carbon intensity of baseline gasoline. Environmental impacts from fossil fuel production, refining and use are far greater than those from biofuels. When evaluating the environmental impact of biofuels, the environmental impact of the fuels replaced must also be considered.

Significant improvements in sustainability and productivity have taken place both in agriculture and in biofuels production since the RFS was enacted. For example, for the last seven years, planted corn acres have been lower than planted corn acres in 2012, and planted corn acres have exceeded the amount in 2007, the year the RFS was expanded, in only three crop years out of the following 10.[19] As corn productivity has increased, farmers are producing larger crops, using less land and fewer inputs per bushel. In 2007, crop yields averaged 150.7 bushels per acre; the 2018 average was 176.4 bushels.

The RFS also requires EPA to assess whether new cropland has been brought into production since 2007 to support biofuel production. EPA's 2007 baseline for agriculture land is 402 million acres. EPA concluded that U.S. agriculture land reached 381 million acres in 2018 and did not exceed the 2007 baseline.[20] Based on EPA's assessment, the RFS is not causing aggregate land use change.

Corn farmers are proud of our leadership in expanding conservation and best management practices. For example, NCGA's Soil Health Partnership engages a growing network of corn growers representing 220 farms in 15 states. These farmers are following established research protocols to measure the environmental and economic benefits of soil health strategies. Through data collection and analysis, the partnership is producing data-driven recommendations that farmers can use to improve sustainability and productivity, resulting in more carbon sequestration, erosion protection, drought tolerance and nutrient storage, among other benefits.

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[18] Published USDA analysis, "*The Greenhouse Gas Benefits of Corn Ethanol - Assessing Recent Evidence,*" March 25, 2019

[19] USDA, NASS, Crop Production 2017 Summary, January 12, 2018

[20] 83 Federal Register 63741 (December 11, 2018)

The most recent Census of Agriculture completed by USDA and released this spring demonstrates how farmers continue to reduce tillage and adopt conservation practices such as cover crops. According to Census data, farmers have increasingly moved to reduced tillage practices or no-till practices, and away from conventional tillage, reducing tillage on millions of acres of farmland. These changes in tillage practices help the soil retain nutrients and water, as well as sequester and store more carbon in the soil. These changes, supported by crop production technology, also reduce tractor passes through fields, lowering energy use. In addition, the Census shows an increase in land planted to cover crops. This practice also reduces soil erosion, improves nutrient management and helps soils hold more carbon.

In recent environmental reviews of biofuels, EPA did not provide a comprehensive assessment of biofuels' environmental impact benefits. Unfortunately, this incomplete analysis is erroneously used by some to conclude the RFS is causing environmental harm. By issuing a report that only tells part of the story and draws conclusions based on limited data from past years, EPA has not fully captured the environmental benefits of biofuels. As such, as EPA evaluates use of general waiver authority, NCGA believes a comparative assessment to other transportation fuels must be part of that process, as well as an updated and rigorous assessment of biofuels' environmental benefits.

Because the Circuit Court decision clarified "inadequate domestic supply" waiver authority and because the RFS is providing benefits rather than severe economic or severe environmental harm, NCGA finds no justification for EPA to use its general waiver authority to reduce required volumes of renewable fuel in a final rule.

Cellulosic Biofuel Volume

EPA proposes to increase the cellulosic biofuel volume for 2020, following the RFS intent to require increasing amounts of renewable fuel blended into transportation fuel. For 2020, EPA proposes a volume of 540 million gallons, an increase of 120 million gallons from 2018. EPA uses the cellulosic waiver authority to reduce the statutory volume of 10.5 billion gallons based on projected production.

Although most cellulosic biofuel comes in the form of compressed natural gas (CNG) and liquified natural gas (LNG) derived from biogas, liquid cellulosic biofuel is largely derived from corn-based feedstocks, corn kernel fiber or corn stover. As biofuels producers make capital investments to add corn kernel fiber processing to their systems, NCGA urges EPA to ensure an efficient and effective registration process supports a return on these investments. Many registration applications have been pending for more than a year, and many of those pending are for corn kernel fiber producers. EPA's delay in approving these registrations is holding back growth in the cellulosic biofuel production and cellulosic biofuel volume requirements.

NCGA notes that EPA continues to use the methodology first used in the 2018 rule to project liquid cellulosic production. While NCGA agrees with EPA that there is "inherent difficulty" in projecting cellulosic biofuel production, particularly as existing ethanol producers adopt new technologies and new producers gradually increase production, we believe EPA should assess how the methodology is projecting volumes based on 2019 production data that will be available before EPA sets final 2020 volumes.

EPA's methodology gives equal weight to production from 2016-2018, tying projections for future production to production from two to three years earlier. EPA's backward-looking methodology does not account for growth as cellulosic producers mature and continue improving on their technologies and does not support EPA providing more efficient processing of registrations for new producers. NCGA believes EPA should look forward, rather than backward, when setting cellulosic volumes to more accurately capture current cellulosic market activity.

Total Renewable Fuel

The RFS law requires an increasing amount of renewable fuel to be introduced into the nation's transportation fuel supply each year. EPA follows the statutory intent by proposing to increase the total renewable fuel volume from 19.92 billion gallons to 20.04 billion gallons, with the only increase due to the 120 million gallon increase for cellulosic biofuel.

While EPA may be operating within the law to use the cellulosic waiver authority to its fullest extent, reducing both the advanced biofuel and total renewable fuel volumes by the same amount as the cellulosic volume reduction, NCGA urges EPA to reconsider this decision in the final rule. The cellulosic waiver authority does not require EPA to make an equal reduction to both advanced biofuel and total renewable fuel.

Increasing the amount of renewable fuel blended into the nation's transportation fuel supply increases U.S. energy security and independence by diversifying transportation fuel sources. Diversifying our fuel sources also strengthens additional sectors of our economy, creates new jobs and investment and lowers prices for consumers. In addition, all renewable fuels required under the RFS reduce GHG emissions compared to the fossil fuels they replace.

While cellulosic production is not yet sufficient to meet statutory requirements and EPA must use the cellulosic waiver authority, EPA may also allow other renewable fuels to backfill a portion of the cellulosic volume waived, resulting in higher total renewable fuel use. Regardless of whether EPA allows advanced biofuel or conventional biofuel to backfill for these volumes, the RFS goals of energy independence, GHG emission reductions and rural economic development would all be better achieved through additional renewable fuel use rather than additional fossil fuel use. Conventional ethanol also costs less per gallon than gasoline.

Additional supplies of advanced biofuels and conventional biofuels are available to meet a higher standard that would result from backfilling a portion of the cellulosic volume waived. Further, the rapid growth in the carryover RIN bank resulting from the most recent round of RFS refinery waivers provides additional flexibility in meeting higher standards in 2020

As EPA notes, increasing amounts of distillers corn oil and vegetable oils are expected to be produced in 2020 marketing year, supporting additional biodiesel production and a higher biomass-based diesel volume requirement. Over the last several years, most dry mill ethanol plants have made investments to allow for the extraction of a portion of corn oil from the distiller's dried grains (DDGs) that are a co-product of ethanol production, and improved technologies are increasing corn oil extraction rates. While EPA expresses concerns about displacing products from the food market into the biodiesel market, we believe these concerns are misplaced.

In the case of corn oil from DDGs, this product was never destined for the food market, and, in all but the rarest cases, is not considered "food grade" oil. Instead, extracting a portion of the corn oil during ethanol production increases the energy balance of corn and adds more value to our commodity. Removing some of the fat content of DDGs by extracting corn oil only changes the nutritional profile of this co-product, and, depending upon the livestock species fed, also increases the digestibility and feed value of the DDGs. In this way, the ethanol value chain continues to provide greater returns to producers and more products from a kernel of corn.

If EPA remains concerned about preserving enough "space" in the advanced biofuel volume for advanced biofuels that are not biomass-based diesel, the better solution for EPA would be to increase the advanced biofuel volume along with the biomass-based diesel volume. Increasing these volume requirements would accommodate the growing production and RIN generation from biomass-based diesel while ensuring space in for non-BBD fuels to grow in the advanced biofuel category.

Renewable Fuels in the Marketplace

In the proposed rule, EPA correctly states that the D.C. Circuit Court's 2017 decision in *ACE* means the agency's assessment of demand-side issues is not relevant for determining supply of renewable fuel. Although the proposed rule does not include demand considerations, the memorandum to the docket, *Market Impacts of Biofuels in 2020*, discusses projections for renewable fuel consumption and constraints on consumption. EPA states that assessing these demand-side considerations and ways the marketplace could meet the volume standards may be relevant to how EPA considers use of other waiver authority, such as the waiver for severe economic harm.

Although not included in the proposed rule, NCGA cautions EPA against weighing these ethanol consumption and usage factors, which may undermine the purpose of the RFS and use of the volume requirements to help force demand up, an objective emphasized by the D.C. Circuit Court.[21] The RFS provided renewable fuels with access to a previously closed marketplace, but the market-forcing policy of the RFS relies on EPA to set, and uphold, high standards in order to support increased demand. NCGA further encourages EPA to affirmatively acknowledge that the agency shall only consider factors affecting supply to refiners, blenders and importers, such as the availability of feedstocks, the production capacity of renewable fuel producers and imports from foreign producers, when setting volume requirements.

EPA identifies "constraints on the ability of the market to significantly exceed an average nationwide ethanol content of more than 10 percent," including consumption-related factors such as gasoline use and the volume of ethanol needed to blend at a 10 percent level, retail locations offering higher blends, relative pricing of higher blends and use of gasoline without ethanol.[22] NCGA believes the agency's continued fabrication of a false E10 blend wall does not account for the ample time the petroleum and fuel retail industries have had to prepare to accommodate the higher ethanol blends they knew the expanded RFS would require.

[21] *Americans for Clean Energy v. EPA*. No. 16-1005 (D.C. Cir., 2017)
[22] Korotney, David, Memorandum to EPA Docket EPA-HQ-OAR-2019-0136, *Market Impacts of Biofuels in 2020*, July 3, 2019

EPA also fails to assess the impact of refinery waivers on the use of renewable fuels. The *Memorandum to the Docket* states that average ethanol concentration in 2018 was 10.07 percent, lower than the 2017 record concentration of 10.13 percent. EPA states that the market can reach an ethanol concentration in 2020 that is at least as high as the 2017 record. As retroactive refinery waivers continue to reduce the effective volume requirements and distort the RIN market, biofuels blending will continue to be impacted.

NCGA is grateful for EPA completing action to remove an outdated and unnecessary regulatory barrier to E15 earlier this year. As a result of EPA's action, E15 now has Reid Vapor Pressure (RVP) parity with 10 percent ethanol blends and can be sold year-round. Additional retailers are offering their customers the choice of a lower price, higher octane, lower emissions 15 percent ethanol blend. Continued retroactive refinery waivers, however, threaten to undo the benefits of year-round E15.

In 2011, EPA approved the use of E15 in 2001 and newer light-duty vehicles. Today, more than 90 percent of the vehicles on the road can use E15. E15 compatibility is the standard for new vehicles, and new E15-capable vehicles are added to the fleet each year while older vehicles, which are less likely to be E15 compatible, are retired. In addition, there are currently 20 million flexible fuel vehicles (FFVs) on the road, capable of using ethanol blends up to E85. There are more FFVs on the road today than cars and light trucks running on diesel and E0.

Because all vehicles on the road can run on regular gasoline, which is primarily E10, when retailers add E15 and other higher ethanol blends to their inventory, they retain all previous customers while doing more to service the nearly 90 percent of vehicles capable of using E15. More than 1,800 retailers across 31 states currently offer E15, more than triple the number of locations offering E15 in 2016.

The financial barrier to such additions for retailers is often exaggerated, partly due to the complex nature of fuel requirements. According to audits by the U.S. Department of Energy's National Renewable Energy Lab (NREL), nearly all underground storage tanks and systems can safely store up to 100 percent ethanol. This limits the transition to above ground equipment, which, for E15, is quite reasonable. According to both the Petroleum Equipment Institute and the USDA, most stations can upgrade their hanging hardware and dispensers adding E15 capability for as little as $1,000. Converting current fuel positions costs even less.

For our part, NCGA continues to work with our partners to expand the ability of fuel retailers to offer higher ethanol blends despite contractual hurdles erected by oil companies. An increase in compatible vehicles and upgraded fuel dispenser infrastructure continues to drive market penetration of higher blends of ethanol at U.S. fueling stations, illustrating that the fabricated 10 percent "blend wall" is not a legitimate barrier.