Testimony before the U.S. Senate Committee on Agriculture, Nutrition, and Forestry

Subcommittee on Rural Development and Energy

"Renewable Energy – Growth and Opportunities for our Rural Economies"

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Chairwoman Smith, Ranking Member Ernst, and distinguished Members of the Subcommittee on Rural Development and Energy, it is my privilege to join you today to speak about the economic and environmental benefits of ethanol – a clean, low-carbon, homegrown renewable fuel.

My name is Emily Skor, and I am the CEO of Growth Energy, the nation's largest ethanol industry association that represents over half of all U.S. ethanol production, including 92 producer plants, 91 innovative businesses that support biofuels production, and tens of thousands of ethanol supporters around the country. We are committed to bringing environmentally friendly biofuels into our nation's transportation fuel supply, helping our country diversify our energy portfolio, growing the number of clean energy jobs, sustaining family farms and rural communities, and driving down fuel costs at the pump for consumers.

My comments today will focus on the outsized benefits of homegrown, renewable ethanol for our rural economy and our planet, as well as the means through which we can work together to accelerate its use at home and abroad. Specifically, I will explore the following:

- The biofuels value proposition
    - A key solution to climate change
    - The engine of our rural economy
- Policies needed to accelerate the use of biofuels
    - Invest in infrastructure for E15 and beyond
    - Optimize the Renewable Fuel Standard (RFS)
    - Ensure access to international markets
    - Support industry COVID recovery

Biofuels: A Key Solution to Climate Change

Addressing climate change is one of our nation's most pressing challenges, and the decisions we make now will have a lasting impact on future generations. There is no one-size-fits-all path toward decarbonization, so we must deploy all cleaner transportation solutions. Any national strategy aimed at addressing climate change must include biofuels, which can immediately lower greenhouse gas (GHG) emissions and help decarbonize our transportation sector.

Renewable biofuels like ethanol can accelerate our transition to a healthier, net-zero emission, 100% renewable energy future. Plant-based ethanol is low-carbon, can be used in our current auto fleet, and is affordable, keeping fuel prices lower for all drivers in all communities. Drivers today can choose fuel blended with ten-percent ethanol (E10), fifteen-percent ethanol (E15), or up to eighty-five percent ethanol (E85).

A recent January 2021 study by Environmental Health and Engineering, Inc. found that **ethanol reduces GHGs by 46%[1] compared to traditional gasoline**. Corn ethanol's relative carbon benefits could reach up to 70% by 2022, according to the U.S. Department of Agriculture (USDA)[2]. Biofuel use between 2008 and 2020 has already resulted in cumulative reductions of almost 1 billion metric tons of carbon dioxide-equivalent GHG emissions. Additionally, a nationwide transition from E10 to E15 would lower GHGs by 17.62 million tons annually, the equivalent of removing 3.85 million vehicles from the road[3].

Environmental Protection Agency (EPA) Administrator Michael Regan's response to a question about biofuels' role in addressing carbon emissions reflects the importance of biofuels in achieving our climate goals:

> "I think the President is very clear on this that agriculture is at the table, and that biofuels plays a role in reducing our carbon footprint, and so do many of the voluntary practices of our ag community to capture carbon, and to operate in a sustainable manner. So, again, I think the President's been very clear that agriculture is at the table and plays a significant role."
>
> Michael Regan, EPA Administrator, April 28, 2021
> U.S. Senate Committee on Environment and Public Works Hearing

We also have real world results on the use of biofuels to meet climate goals – California's Low Carbon Fuel Standard (LCFS).

California's LCFS

The goal of the LCFS is to, "encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector[4]."

[1] "Carbon Intensity of corn ethanol in the United States: State of the science," *Environmental Health & Engineering, Inc.* Melissa Scully, Gregory Norris, Tania Alarcon Falconi, and David MacIntosh (March 2021). https://iopscience.iop.org/article/10.1088/1748-9326/abde08

[2] "The greenhouse gas benefits of corn ethanol—assessing recent evidence," *Biofuels*. Jan Lewandrowski, Jeffrey Rosenfeld, Diana Pape, Tommy Hendrickson, Kirsten Jaglo, Katrin Moffroid (2020). 11:3, 361-375, DOI: 10.1080/17597269.2018.1546488.

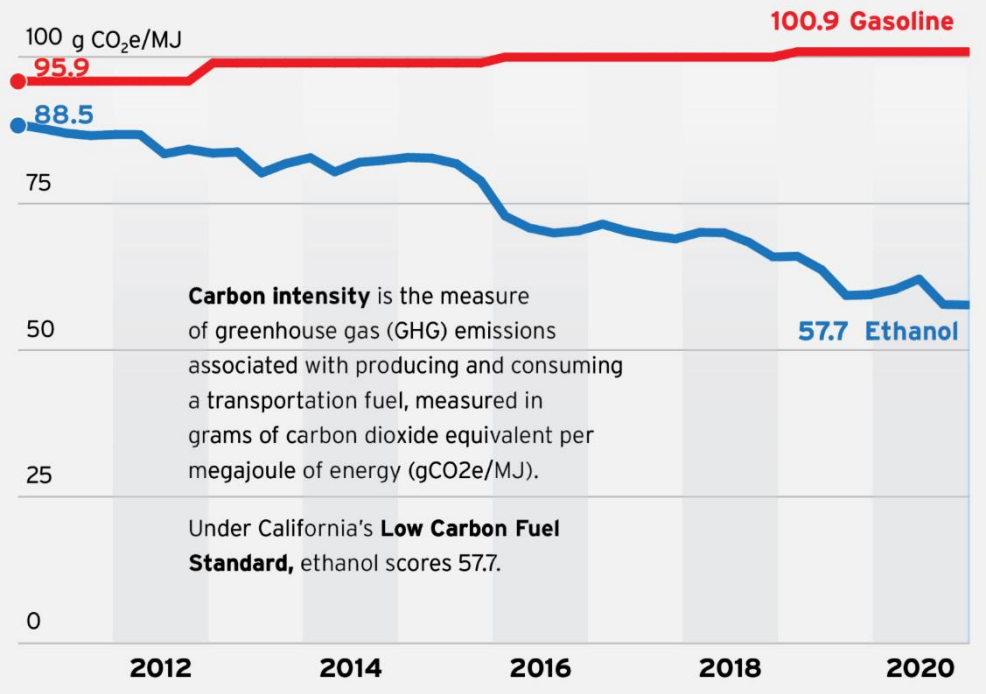
[3] "GHG Benefits of 15% Ethanol (E15) Use in the United States," Air Improvement Resources, Inc. http://www.airimprovement.com/reports/national-e15-analysis-final.pdf

[4] California Air Resources Board. Accessed 6/15/2021, https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about

According to data by the California Air Resources Board (CARB), biofuels are responsible for nearly 80% of all carbon reductions credited under the LCFS, with the recorded carbon intensity (CI) of ethanol declining 33% since 2011[5].

CARB tracks the CI of a variety of fuel options and has updated the CI scores annually since the state's LCFS was adopted in January 2011. Figure A shows the steady decline in CI score for ethanol and the uptick in CI score for gasoline over the same period.

Figure A: CARB's Carbon Intensity Scores of Ethanol and Gasoline



Source: California Air Resources Board

Improvements in ethanol's CI scores can be attributed to the biofuel industry's increased efficiencies in land use. America's corn growers are producing stronger yields with less acreage, and biorefineries can manufacture more gallons of ethanol per bushel of corn. Total cropland acreage has fallen from 470.8 million acres in 1978 to 391.9 million acres by 2012[6].

Moreover, yields of corn have increased dramatically over the last 50 years, increasing from 72.4 bushels per acre in 1970 to 172 bushels per acre in 2020. Over the last 10 years, corn yield has increased by 20%, while the amount of land planted for corn has remained steady.[7] Figure B demonstrates the improvements in corn yields over the last 150 years.

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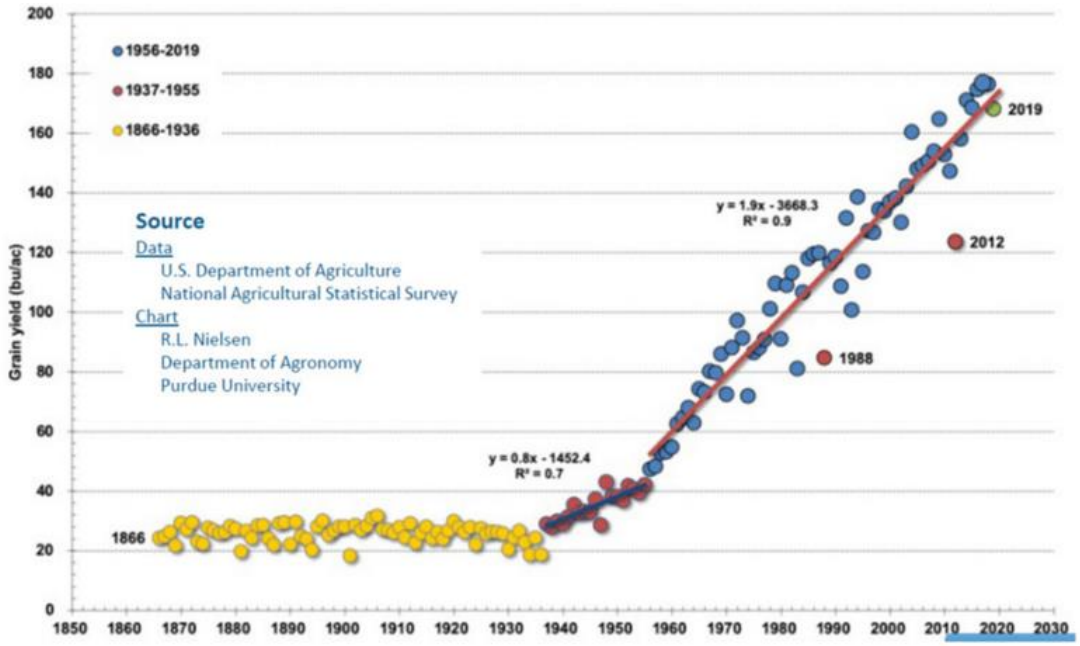
[5] "Data Dashboard: Low Carbon Fuel Standard," California Air Resources Board. May 2020, https://ww3.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm.

[6] "Cropland, 1945-2012, by State: The sum of cropland used for crops, cropland idled, and cropland used for pasture," U.S. Department of Agriculture's Economic Research Service. August 2017, https://www.ers.usda.gov/data-products/major-land-uses/

[7] "Crop Production Historical Track Records," National Agricultural Statistics Service. April 2021, https://www.nass.usda.gov/Publications/Todays_Reports/reports/croptr21.pdf

Figure B: U.S. Corn Grain Yield Trends since 1866



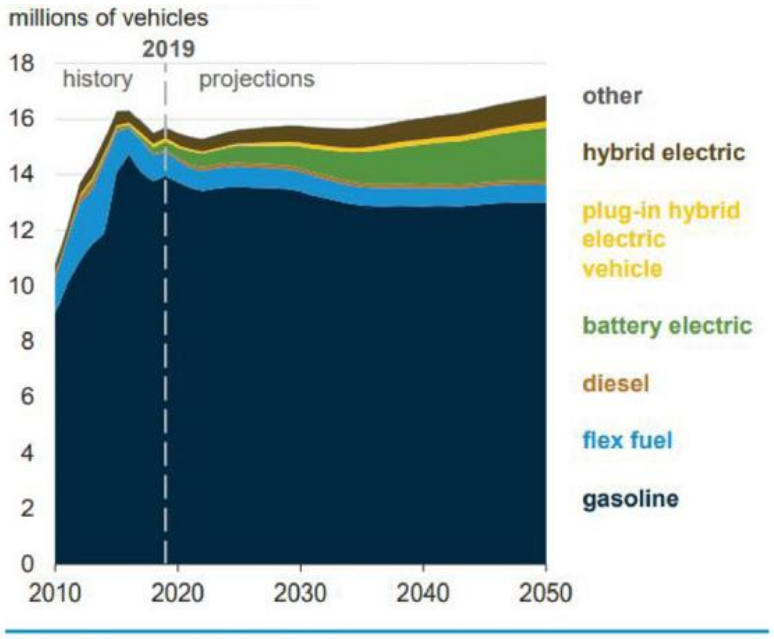
Source: USDA-NASS

Approximately 50 U.S. biorefineries already capture, clean, and condense carbon dioxide. Installation of carbon capture, utilization, and sequestration (CCUS) equipment at biorefineries also reduces ethanol's CI score. Adding this type of equipment can reduce ethanol's CI score by 25-30 gCO2e/MJ on average, a significant decrease. With a nationwide fleet of more than 200 biorefineries, there is room to expand even further on these benefits, which will be needed for decades to come.

The environmental advantages of ethanol are clear, and ethanol must continue to play a significant role in decarbonizing our vehicle fleet now and well into the future. According to the U.S. Energy Information Administration (EIA), as shown in Figure C, light-duty vehicle sales for gasoline-powered vehicles will continue to dominate the market for the next 30 years. While electric vehicles certainly have a role to play in our overall portfolio of options for reducing carbon emissions, the fact remains that internal-combustion engines will be around for decades.

We must continue to promote further adoption of biofuels like ethanol if we are to achieve meaningful results and accomplish President Biden's commitment to cut our nation's GHGs by 50% by 2030 and reach net-zero emissions by 2050.

Figure C: Light-duty Vehicle Sales by Fuel Type



Source: U.S. Energy Information Administration

It is also important that we use the most updated science when modeling the GHG benefits of renewable fuels including ethanol. Our agencies should be using models that are updated annually in order to more accurately reflect the GHG savings of ethanol.

For example, EPA currently uses outdated GHG emissions modeling. Updating EPA's data and modeling would provide a more accurate representation of the technological advancements made in ethanol production over the past decade, especially considering the CI score improvements recognized in California's LCFS (see Figure A). The Argonne National Laboratory's Greenhouse gases, Regulated Emissions, and Energy use in Technologies Model (GREET) is a more reliable analytical tool used by the Department of Energy that should also be adopted by the EPA. We appreciate congressional efforts to require EPA and other agencies to use the GREET Model when scoring biofuels.

Growth Energy supports Senator John Thune's (R-SD) *Adopt GREET Act* (S. 193) which requires EPA to updates its methodology by using the GREET Model for modeling the CI of ethanol.

Given the continuous improvement of ethanol's CI score and the need to decarbonize gasoline-powered vehicles for decades to come, the USDA and other agencies will play primary roles in promoting the success of low-carbon fuels like ethanol and supporting farmers along the way.

Biofuels: The Engine of our Rural Economy

Biofuels have long been an economic driver for our rural economies. The United States is home to 210 biorefineries across 27 states that have the capacity to produce more than 17 billion gallons of low-carbon, renewable liquid fuel while supporting more than 300,000 American jobs. Ethanol is also the second-largest customer to 300,000 U.S. corn growers with roughly one-third of the field corn crop used to produce fuel ethanol each year[8]. Biorefineries employ a skilled workforce in small, rural communities and are often the epicenter of the local economy. Accordingly, we have a strong interest in the future success of American agriculture.

In a February 2020 study, ABF Economics broke down the economic impact ethanol production brought to each state in 2019 which is shown in Figure D[9].

Figure D: Contribution of Ethanol Production to Individual State Economies, 2019*

	Production (Mil Gal)	Production Share	GDP ((Mil $)	Employment Jobs	Income (Mil $)
IA	4,126	26.0%	$9,096	82,294	$4,910
NE	2,176	13.7%	$4,797	43,401	$2,589
IL	1,833	11.5%	$4,041	36,560	$2,181
MN	1,315	8.3%	$2,900	26,232	$1,565
IN	1,083	6.8%	$2,388	21,601	$1,289
SD	1,002	6.3%	$2,209	19,985	$1,192
WI	648	4.1%	$1,429	12,924	$771
ND	487	3.1%	$1,074	9,713	$579
KS	518	3.3%	$1,142	10,332	$616
OH	408	2.6%	$900	8,138	$485
TX	335	2.1%	$739	6,682	$399
MI	283	1.8%	$624	5,644	$337
TN	230	1.4%	$507	4,587	$274
MO	165	1.0%	$364	3,291	$196
NY	165	1.0%	$364	3,291	$196
CA	158	1.0%	$348	3,151	$188
CO	125	0.8%	$276	2,493	$149
GA	120	0.8%	$265	2,393	$143
PA	110	0.7%	$243	2,194	$131

*Excludes construction, exports and R&D

Source: ABF Economics

[8] National Corn Growers Association. https://www.ncga.com/key-issues/current-priorities/ethanol

[9] "Contribution of the Ethanol Industry to the Economy of the United States in 2019," Urbanchuk, John M., Managing Partner. February 4, 2020. https://files.constantcontact.com/a8800d13601/9e769376-3aef-4699-b31f-3c6415b8fa63.pdf

Another ABF Economics study in June 2021[10] shows that moving to a nationwide E15 standard would offer even further economic benefits:

- Add $17.8 billion to the U.S. Gross Domestic Product
    - $27.9 billion would come from boosted corn production
- Support an additional 182,700 jobs
    - 76,000 of these would be in agriculture
- Generate $10.5 billion in new household income
- Save consumers $12.2 billion fuel costs
    - E15 is typically $0.05 to $0.10 cheaper than E10 due to the higher ethanol content

Agriculture jobs that would be supported by a nationwide E15 standard include farm advisors, producers, distributors of crop protection and fertilizer products, farm equipment, and other service providers. These jobs are typically located in rural parts of the United States and would greatly benefit from more biofuel production due to E15 expansion efforts.

Ethanol Production Co-Products

Biorefineries also produce several valuable co-products, which are integral to related supply chains. The industry produced an estimated 43.6 million short tons of distiller's grains and nearly 3.9 billion pounds of distiller's corn oil (DCO) in 2019 with an aggregate market value for these products at $7.5 billion[11]. Distiller's grains are a high-protein feed purchased by local livestock farmers and provide a steady stream of animal feed for their farms. Roughly half of all DCO is used in animal feed, while the other half is used by the biodiesel industry in their production process.

As stated above, about 50 biorefineries have the ability to capture a pure-stream of carbon dioxide, which has a wide variety of uses including water treatment at municipal water facilities, food and beverage preservation, and permanent sequestration into geological formations. During the peak of the COVID-19 pandemic, the ethanol industry also stepped up during a national hand-sanitizer shortage, converting ethanol production to produce high-quality, pharmaceutical-grade hand sanitizer for local hospitals and consumers. Captured carbon dioxide is also being used as dry ice for the safe transportation of COVID-19 vaccinations.

To build upon the economic successes of biofuels, the proper implementation of infrastructure programs directly impacts rural economies and the farmers that support them.

Invest in Biofuels Infrastructure for E15 and Beyond

USDA's 2015 Biofuel Infrastructure Partnership (BIP) and the 2020 Higher Blends Infrastructure Incentive Program (HBIIP) are prime examples how the department can support the productivity of our farmers and boost rural economies while decreasing GHG emissions.

[10] ABF Economics. "Economic Impact of Nationwide E15 Use," Urbanchuk, John M. June 10, 2021. https://growthenergy.org/wp-content/uploads/2021/06/Nationwide-E15-Use-Economic-Impact-Final.pdf

[11] "Contribution of the Ethanol Industry to the Economy of the United States in 2019," Urbanchuk, John M., Managing Partner. February 4, 2020. https://files.constantcontact.com/a8800d13601/9e769376-3aef-4699-b31f-3c6415b8fa63.pdf

Currently, more than 95% of cars on the road are compatible with E15[12], and consumers have driven more than 21 billion miles on E15. There is a significant market available today for higher blends of biofuels if consumers can access these products. The biofuels industry is ready to provide the fuel necessary to meet those demands; however, long-term infrastructure incentives for our retailers, like the competitive grant structure under BIP and HBIIP, must be available.

Demand for these grants exceeded funds available, demonstrating that retailers and the consumers they serve want a lower cost fuel and more choices at the pump. This gives retailers a competitive advantage in the market while providing our transportation sector a higher quality fuel that decreases GHG emissions.

Growth Energy's Prime the Pump initiative provides important historical perspectives to inform specific recommendations for future biofuel infrastructure programs under USDA.

Prime the Pump

The Prime the Pump (PtP) initiative was developed to help accelerate the adoption of E15 in the United States. Evaluating the limitations of previous grant programs, PtP established a set of grant guidelines that incentivized retail gas stations to accelerate E15 adoption. To qualify for a PtP grant, a retailer would agree to offer E15 at the majority of the dispensers on the property, follow all legal requirements for dispensing the fuel, promote the price of E15 on street signs, and offer E15 for at least five years.

In return, PtP would offer a grant that would either off-set the incremental cost of adding E15 to the retail site or provide the retailer with an incentive for selling E15. If offsetting costs, PtP grant dollars addressed a wide variety of needs including adding tanks, pipes, sump pumps, drop tubes, and new dispensers. This flexibility afforded PtP the ability to work constructively with retailers to meet their specific needs and maximize E15 sales.

Though managing the cost per grant is vital to PtP, maximizing the potential market growth of higher ethanol blends is its primary focus. To maximize growth, PtP evaluates grants based on the gasoline volume sold by each retailer. For example, if PtP were to target a $0.05 per gasoline gallon incentive for the average retailer that sells one million gallons of gasoline sales per year, this grant approach would provide them with an average grant of about $50,000. More importantly, the incentive would be paid based on increasing sales of E15.

Using this approach, PtP has worked to secure funding for more than 90% of the E15 stations to date. There are 5,100 total stations that sell higher-level ethanol blends, with 2,444 of them selling E15 and 4,545 sites selling E85. Our retail partners report that sales of E15 are as much as 60% of total fuel sales, validating that consumers value this engine smart, earth kind fuel.

Initiatives to increase consumer access to higher biofuel blends like E15 and beyond can build on biofuels' environmental progress and expand the market for American agriculture.

[12] Air Improvement Resources, Inc. "Analysis of Ethanol Compatible Fleet for Calendar Year 2021," November 9, 2020. https://growthenergy.org/wp-content/uploads/2020/11/Analysis-of-Ethanol-Compatible-Fleet-for-Calendar-Year-2021-Final.pdf

Biofuels Infrastructure Partnership
In 2015, U.S. Secretary of Agriculture Tom Vilsack announced the creation of BIP to drive further investment in biofuels infrastructure for E15 and E85. This generated even more momentum to expanding consumer access to higher blends of ethanol. Within 30 days of the announcement, more than 1,000 retail sites expressed interest, with an estimated grant cost of about $162 million. BIP was administered by the USDA Farm Service Agency through individual states.

Despite BIP's popularity, there were challenges in its implementation as each state was required to apply for BIP grant funds. Some states requested BIP funds above their retail commitments, and there was no mechanism that would allow funds to be reallocated to a state with higher retail demand. USDA required state-specific contracts state, and states varied in how they administered the program. Unfortunately, many larger retailers opted to pass on BIP due to the fact that they would have to manage too many contrasting contracts across different states.

But the program was an overall success and served as a foundation for another infrastructure program several years later.

Higher Blends Infrastructure Incentive Program
In May 2020, U.S. Secretary of Agriculture Sonny Perdue announced the HBIIP program with $100 million for infrastructure for higher biofuel blends, including $86 million for ethanol. HBIIP was administered through USDA Rural Development to allow grants to be provided directly between USDA and individual retailers rather than running it through the states.

Growth Energy's network of both large and small retail partners through PtP secured nearly $30 million from USDA's HBIIP program for over 290 sites selling 400 million gallons of gasoline annually. The public and private investments we have seen through HBIIP allowed retailers to continue upgrading infrastructure for higher blends of ethanol and expand consumer access to this cleaner-burning, more affordable fuel across the country.

However, certain limitations of the program were difficult to overcome. HBIIP grants were limited to $5 million per applicant. This cap limited the amount of infrastructure grants that could have been deployed to large-volume retailers with a multi-state footprint, and therefore limited the amount of throughput for higher biofuel blends. Unlike BIP, HBIIP grants were also limited to retailers and did not include wholesale entities were previously qualified under BIP. Few retailers had experience in the grant process and found it difficult to navigate the System for Award Management.

Recommendations for the Next Infrastructure Program
With hindsight on BIP and HBIIP, we have three different recommended approaches we encourage the Senate Agriculture Committee and USDA to consider for the next round of infrastructure incentives for higher blends:

1. **Use an equipment-focused approach and allow all fuel dispensing and underground storage equipment upgrades to be eligible under a future grant program.**

Historically, BIP and HBIIP have focused on dispenser replacement and underground storage tanks. However, there are more than 100 pieces of equipment needed to legally dispense fuels, so the cost per site can vary widely based on retailer needs. Based on PtP historical sales data provided by retailers, assuming a $100 million grant program, this program would generate about 850 million gallons of E15 sales. The program should also require that E15 is sold on a shared hose with other grades of fuel to make consumer access as easy as possible.

2. **Provide a sales incentive for retailers offering E15.**

Industry research by the National Association of Convenience Stores[13] found that consumers will drive five miles out of their way to save $0.05 per gallon. By providing a $0.05 per gallon of E15 incentive, a $100 million grant program has the potential to yield nearly 2 billion gallons of E15 sales. Offering retailers a performance incentive along with small bonus payments for installation targets has been the optimal method for PtP.

We appreciate congressional efforts by many of those on the Subcommittee to support a blending tax credit for E15 and beyond to encourage further adoption of higher blends.

3. **Eliminate grant caps and reduce the paperwork needed by a retailer.**

We have seen grant caps restrict access for additional funds for large-volume retailers. We recommend eliminating caps on larger retail chains who want to upgrade hundreds of stores and provide E15. For small retailers, reducing the amount of paperwork will help them access infrastructure grants. Lastly, we recommend that any future grant programs allow companies which aggregate fuel for several small retailers be eligible to participant in the program as well.

In the end, flexibility is the most important aspect for the next infrastructure program. Focusing the grants solely on dispensers and tanks, placing caps on grants, or issuing too many burdensome administrative hurdles limit overall access to the program. We encourage the subcommittee and USDA to leverage learnings from previous public and private grant programs and Growth Energy will lend our expertise to help in any way we can to ensure a future program is another success.

Other Infrastructure Opportunities

In President Biden's recently released budget proposal for FY2022, a line item allocated $1 billion to provide support for biofuels over a three-year period ($500 million in 2022, $250 million in 2023, and $250 million in 2024). We strongly believe these funds should be used for biofuels infrastructure investments. Any budget package agreed to by Congress must include biofuels infrastructure funding to expand consumer access to higher blends like E15.

We also strongly support efforts by those on this subcommittee to introduce legislation which provides infrastructure incentives for E15 and higher blends. For example, Senator Amy

[13] National Association of Convenience Stores. "2015 Retail Fuels Report," Page 12. https://www.convenience.org/

Klobuchar's *Renewable Fuel Infrastructure Investment and Market Expansion Act* (S. 227), which is co-led by Ranking Member Joni Ernst.

To build on our infrastructure successes, it is critical that Members of Congress support our efforts to optimize the RFS, a bedrock renewable energy policy which has congressional intent to increase the amount of biofuels blended into our transportation sector.

Optimize the RFS

The success of our agriculture communities is directly tied to the success of the biofuels industry, so it is critical to maintain the integrity of the RFS.

Despite the demonstrable economic, environmental, and energy security success of this renewable energy law, the Trump Administration repeatedly granted oil refiners an unprecedented number of small refinery exemptions (SREs), allowing them to avoid their obligations to blend biofuels into our national fuel supply. This resulted in 4.3 billion gallons of lost biofuel demand, as demonstrated in Figure E. Many on this subcommittee advocated on our behalf to the Trump Administration against this radical escalation of exemptions, and we thank you for those efforts.

Growth Energy also appreciates the recent bicameral letter sent by 16 Democrat Members of Congress to EPA and the White House. Following a *Reuters* news report[14] that the Biden Administration was considering providing relief to refineries that refuse to blend biofuels, our congressional champions stepped up to the plate on our behalf. We thank you for your advocacy efforts to this administration as well.

We strongly urge the Biden Administration to uphold the integrity of the RFS program by encouraging more renewable, low-carbon fuel blending. Furthermore, the administration should deny pending waiver requests from refiners and state governors, narrow the use of SREs in line with the decision in the 10th Circuit Court of Appeals, and not otherwise undercut the bipartisan commitment to more renewable fuel blending.

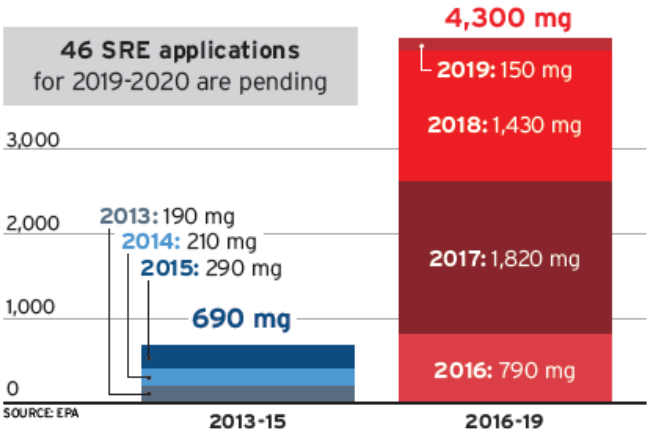
Small Refinery Exemptions

The SRE authority was included under the Clean Air Act to provide small refineries (those with a daily input capacity of less than 75,000 barrels of crude oil) with a temporary avenue to avoid blending obligations. But in the past few years, the number of SREs increased six-fold with no explanation or transparency in the process as to which refineries received an exemption and why.

As shown in Figure E, EPA granted 88 SREs over four years, which costed the industry 4.3 billion gallons of lost biofuel demand. Many of the SREs went to some of the largest, most profitable oil companies in the world.

[14] *Reuters*, June 11, 2021. https://www.reuters.com/business/energy/exclusive-biden-mulls-giving-refiners-relief-us-biofuel-laws-sources-2021-06-11/

Figure E: SREs by Administration



Source: EPA's SRE Dashboard

In January 2020, the 10th Circuit Court of Appeals issued a unanimous decision that invalidated SREs granted by EPA to three refineries for the 2016 and 2017 compliance years. The refineries petitioned the U.S. Supreme Court for review of the decision, and the case was argued before the Court on April 27, 2021. Following a change in EPA agency leadership, the Biden EPA now agrees with the 10th Circuit Court's ruling, and EPA defended the decision before the Supreme Court. The agency agrees that the SRE authority was intended to operate as a temporary measure, and it joined the biofuels industry in Supreme Court oral arguments.

We expect the Supreme Court to issue its opinion in the coming weeks.

RIN Prices

Renewable Identification Numbers (RINs) were included in the RFS to add flexibility to the compliance mechanism of the RFS. Obligated parties have the option to either blend biofuels and generate RINs or purchase RINs to meet their obligations under the RFS.

We are aware that some refiners that have chosen to purchase RINS in lieu of blending renewable fuels are seeking a waiver for their blending obligations, citing economic hardship as a result of high RIN prices. Some refineries claim this causes higher gasoline prices. To be clear, there is no relationship between RIN prices and refinery profits, as EPA has repeatedly stated:

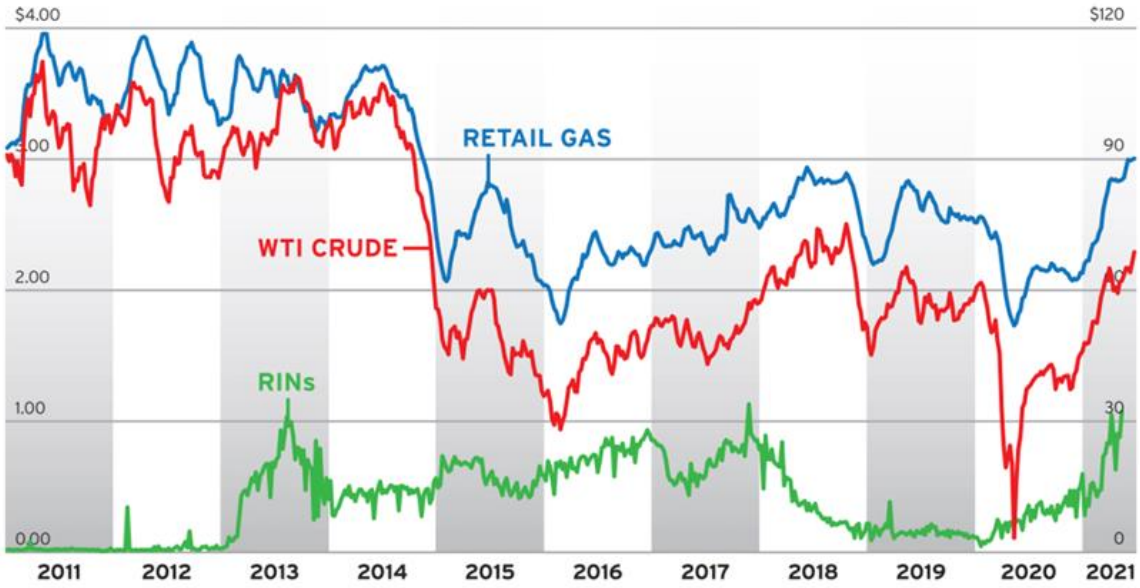
> "We do not believe that the price paid for RINs is a valid indicator of the economic impact of the RFS program on these entities [refiners], since a narrow focus on RIN price ignores the ability for these parties to recover the cost of RINs from the sale of their petroleum products."
>
> EPA, November 2017

First, as EPA wrote in November 2017, refiners recoup the cost of RIN purchases when they sell petroleum products on the market. Any RIN cost is incorporated into the sell price, so refineries account for this during their transactions.

Second, refineries have had more than 13 years to comply with the RFS, a law which was constructed to encourage an increasing scale of biofuel blending. Supply and demand ultimately dictate price, so more blending creates more RINs which in turn push RIN prices down. The easiest way to lower RIN prices is to blend more biofuels.

With respect to gas prices, as shown in Figure F, gas prices are directly correlated with the price of crude oil, not RINs. According to the EIA, crude oil is the most impactful contributor, accounting for 56% of the price of gasoline[15]. The RIN market is independent from gas prices and instead reflects the blending decisions by obligated parties.

Figure F: Price of Retail Gas, WTI Crude, and D6 RINs



Source: EPA, EIA

The RFS works best when it is implemented in accordance with congressional intent. We encourage members of this subcommittee and the administrative bodies it oversees to maintain the integrity of the RFS.

Ensure Access to International Markets for U.S. Ethanol

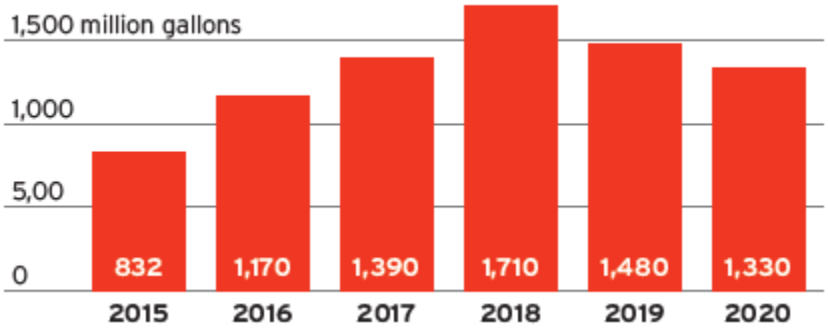
As nations around the globe are looking to achieve their carbon reduction goals, international markets are turning to biofuels as a solution. However, tariffs, technical trade barriers, and follow-through on trade agreements pose challenges to U.S. exporters looking to fulfill growing biofuel demand abroad.

The USDA designates an official trade representative who leads efforts on promoting U.S. agricultural products, including biofuels, abroad. USDA Secretary Vilsack has not yet selected a nominee to fill that position, but we encourage him to do so as soon as possible.

[15] U.S. Energy Information Administration. "Gasoline explained – Factors affecting gasoline prices," https://www.eia.gov/energyexplained/gasoline/factors-affecting-gasoline-prices.php

In 2020, U.S. ethanol exports totaled 1.33 billion gallons which fell 9.8% compared to 2019[16]. The decline is almost entirely due to COVID-19's downward impact on gasoline demand, as shown in Figure G. In Q1 2021, the U.S. exported 399.2 million gallons of ethanol. If extrapolated through the year, this is on pace to exceed 2019 exports.

Figure G: Total U.S. Ethanol Exports by Year



Source: USDA

Growth Energy has been working closely in key U.S. export markets such as Brazil, Canada, and China to encourage the adoption of biofuels as a displacement to petroleum products. Expanding ethanol use around the world will boost domestic production and help countries meet their carbon reduction and clean air commitments at the same time.

Support Industry COVID Recovery

On June 15, 2021, USDA updated its announcement that it will provide $700 million in aid to support biofuel producers recover from the wake of the COVID-19 pandemic. The funds will be distributed through USDA's Pandemic Assistance for Producers initiative to provide additional relief to the farmers that depend on a vibrant biofuels industry.

Although the details on how these funds will be distributed remain opaque, Growth Energy has provided USDA the following suggestions, which we urge you to support:

1. **Assistance should only be available to biorefineries that were in normal operation between Jan. 1 and March 1, 2020.**

As the emergency relief funding is intended to address only revenues lost as a direct result of COVID-19, ethanol biorefineries that were not operating normally prior to the pandemic should not qualify to receive assistance.

[16] U.S. Department of Agriculture, Foreign Agricultural Service. "Biofuels," https://www.fas.usda.gov/commodities/biofuels

2. **Assistance levels should be the same on a per gallon basis for each biorefinery who seeks assistance.**

Because each biorefinery in operation during COVID-19 suffered the same macroeconomic economic injury due to the pandemic, each biorefinery should receive the same per gallon level of assistance. We recommend providing assistance of 10 cents a gallon based on each qualifying biorefinery's production in 2019, the last full year before COVID demand destruction.

3. **Payments made to biorefineries should be made public.**

We support making available to the public information on which entities are receiving assistance and in what amount.

We are grateful for this support from USDA which reflects President Biden's repeated promises to support rural and clean energy jobs. We will monitor the details of this aid closely.

Conclusion

The biofuel industry stands ready to work with Congress and the Biden Administration to meet our national climate change needs while supporting rural development and energy. With forward-leaning policies that support innovation and access to markets, our industry will continue to reduce our carbon footprint, create more clean energy jobs, spur economic activity in rural and farming communities, and provide drivers across the country with affordable, clean fuel choices today.

Congress can help accelerate our transition to a clean energy future and a prosperous rural America. Infrastructure investments will expand consumer access to higher fuel blends of homegrown, plant-based biofuels like E15. Ensuring the RFS is administered as intended by Congress will guarantee that we blend more low-carbon renewable fuel in our transportation sector each year. Reducing trade barriers to U.S. ethanol allows greater access to foreign markets, boosts our domestic production, and assists other countries meet their carbon reduction commitments.

In short, we have ample opportunity to achieve our renewable energy goals while supporting an industry that has supported rural America for decades.

I appreciate the opportunity to participate in this important hearing on renewable energy's role for agriculture and rural economies.

Thank you and I look forward to answering your questions.

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