TESTIMONY OF

MS. EMILY SKOR

BEFORE THE

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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SUMMARY

THE RENEWABLE FUEL STANDARD IS KEY TO BIOFUELS INNOVATION

- Ethanol is a staple of the United States fuel supply and 10 percent is blended in 97 percent of fuel today.
- The RFS provides the stability to ensure that biofuels have access to the marketplace, save drivers' money, and support nearly 339,000 American jobs.
- The RFS is driving investment and innovation in next-generation biofuels.

MOVING TO HIGHER-LEVEL ETHANOL BLENDS

- For the RFS to work as intended, consumers must be given access to alternative, higher biofuel blends at the gas pump.
- In 2011, the EPA approved the sale of E15 for all vehicles model year 2001 and newer after extensive testing.
- Today, higher ethanol blends like E15 and E85 are available at thousands of gas stations throughout the U.S., where they save consumers between $0.50 and $1.50 per gallon.

REID VAPOR PRESSURE (RVP)

- RVP restrictions are the biggest hurdle that prevents retailers from selling higher ethanol blends.
- Unlike E10, E15 does not receive a 1 psi RVP waiver in the summer months due to an outdated regulation, meaning retailers cannot offer it to consumers in conventional gasoline markets during the summer driving season from June 1 to September 15.
- Growth Energy supports bipartisan, bicameral legislation to simply extend the same RVP waiver to E15 that E10 receives.

IMPROVING THE ENVIRONMENT

- Corn ethanol reduces greenhouse gas emissions by an average of 43 percent.
- Ethanol displaces toxic chemicals in gasoline which have been proven to cause cancer and smog.
- Next-generation advanced biofuels like cellulosic ethanol can reduce greenhouse gas emissions by more than 100 percent.

BIOFUELS DRIVING FUEL EFFICIENCY

- Fuel economy standards are becoming increasingly stringent, and automakers need to move toward higher efficiency engines that require more octane in their fuel.
- Growth Energy has submitted data to the EPA and the California Air Resources Board demonstrating the clear benefits of moving to high-octane, midlevel ethanol blends, such as E30, to improve fuel efficiency and lower tailpipe emissions.

FOOD PRICE IMPACTS

- Ethanol helps balance the U.S. corn supply and does not use the type of corn that humans eat.
- Corn prices are down nearly a full dollar per bushel, and efforts to eliminate the RFS could cause a catastrophic rural recession.

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Emily Skor

CEO, Growth Energy

Chairman Weber, Chairman Biggs, Ranking Member Veasey, and Ranking Member Bonamici:

Thank you for the opportunity to appear today to discuss the importance of advancement in biofuels. My name is Emily Skor, and I am the CEO of Growth Energy. Growth Energy is the leading trade association for the ethanol industry, and we are proud to represent 87 producers, 83 companies involved in the ethanol supply chain, and tens of thousands of ethanol supporters around the country. We are working to bring consumers better choices at the fuel pump, grow America's economy and improve the environment for future generations. Our growing membership base now represents nearly half of all American ethanol plants, along with many of the largest and most prominent fuel retailers in the country. In 2016 alone, our industry contributed over $42.1 billion to the nation's GDP and supported more than 339,000 American jobs.

Ethanol is a homegrown biofuel that is now blended into 97 percent of our fuel supply, meeting more than 10 percent of our motor fuel needs. And, because ethanol blended fuels have the highest octane of any available liquid alternatives, it allows for better performing engines that have greater fuel efficiency. Furthermore, our industry today produces over 15 billion gallons of renewable fuel and over 44 million tons of animal feed, which helps meet our nation's need for fuel and food.

Every gallon of clean-burning ethanol decreases our dependence on foreign oil. One truckload of American ethanol displaces more than 60 barrels of imported oil. In fact, since 2005 – the year the RFS was enacted – we have helped cut our oil imports by more than half. But gasoline consumption has increased over the last five years and ethanol can help meet that growing demand. In 2016 alone, biofuels displaced 510 million barrels of oil. Overall, American ethanol has increased our energy security, reduced our dangerous dependence on foreign oil, created American jobs, and improved our nation's environment.

The American biofuels industry stands ready to move America forward. With a stable policy and access to drivers, we believe we can deliver low-carbon, low-cost, high-performing, sustainable vehicle fuel solutions. This will save consumers money at the pump, increase vehicle performance and improve our environment.

Today, I plan to cover a number of federal policy areas that we feel are key to delivering on the promise that biofuels can make our country more energy independent and help us improve the environment.

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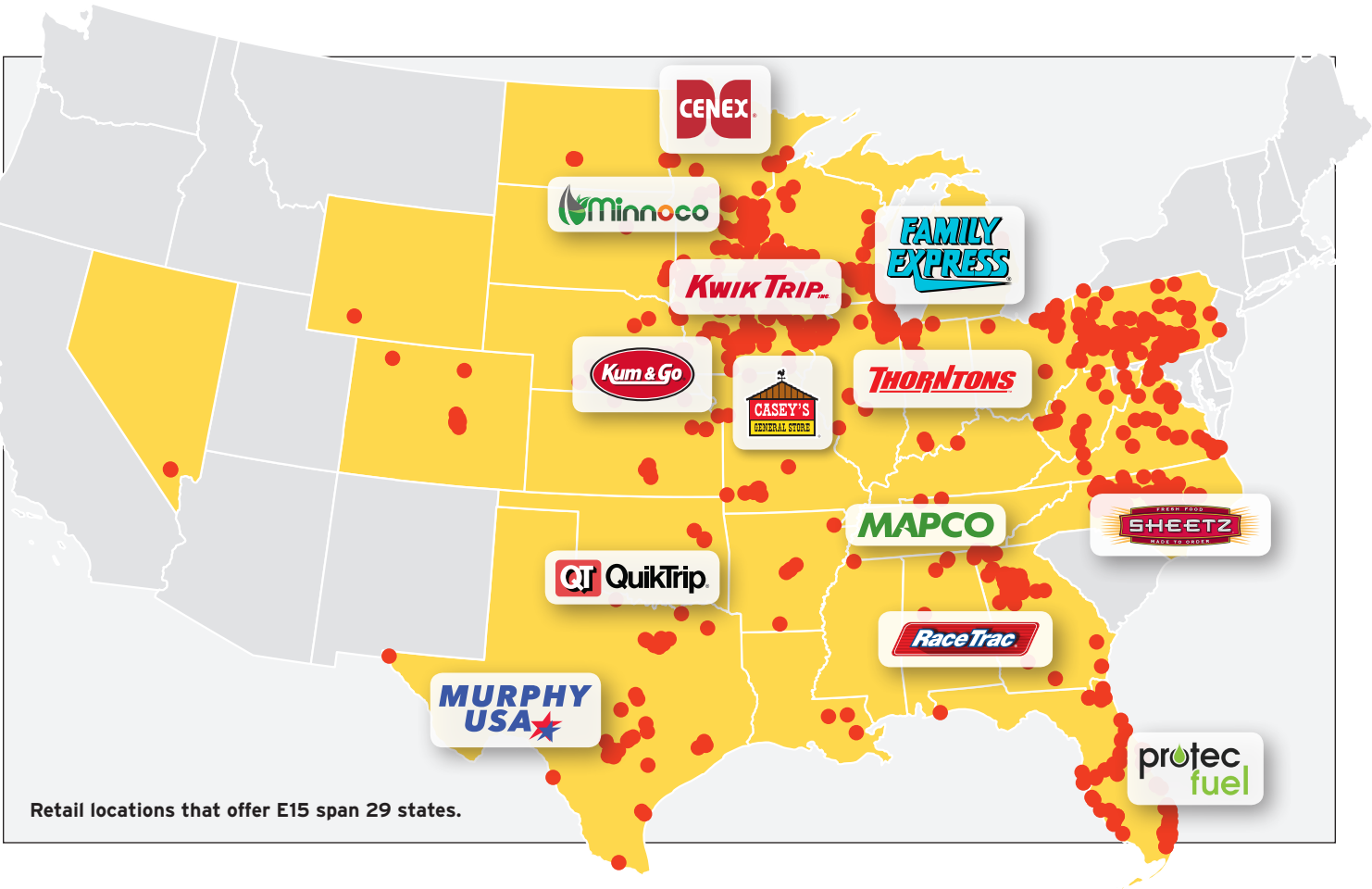

Retail locations that offer E15 span 29 states.

THE RENEWABLE FUEL STANDARD IS KEY TO BIOFUELS INNOVATION

In years past, consumers had limited choices when it came to alternative transportation fuels. Congress recognized the importance of having a more diverse and stable fuel supply and enacted the Renewable Fuel Standard (RFS) in 2005. Congress then revised it further in 2007 to specifically drive innovation and investment in biofuels of all kinds. The RFS set forth a long-term predictable energy strategy to blend 36 billion gallons of renewable fuel into our transportation fuel supply by 2022. With the stability provided by the RFS, our industry is now successfully producing more than 15 billion gallons of ethanol. In addition, the biodiesel industry produced 1.6 billion gallons in 2016.

The RFS is lowering our dependence on foreign oil, keeping our air clean, and providing consumers with more affordable fuel options that are also good for engine performance. The RFS is a critical component to the success of our nation's agriculture and rural economy. The policy supports nearly 339,000 U.S. jobs while saving taxpayers billions of dollars in farm program payments. In fact, moving to higher blends such as E15 will create an additional 136,000 jobs. It is obvious that ethanol production has provided an essential market for our nation's grain farmers and has revitalized rural communities around the country.

The RFS program is also driving considerable investment in the next generation of advanced biofuels, like cellulosic ethanol. These advanced biofuels can reduce emissions by 100 percent, and we are now seeing the first commercial-scale cellulosic ethanol plants bringing advanced biofuels to the market. These next generation biofuels are made today by turning corn kernel fiber, corn stover, and other leftovers into high-value

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energy. In the past, rulemaking delays by the EPA to enforce statutory targets set by the RFS have led to a halt in investment in advanced biofuels. Cellulosic ethanol production is now a reality, and it is vital that the RFS be implemented as Congress intended in order to reach the statutory goals set by the program.

MOVING TO HIGHER-LEVEL ETHANOL BLENDS

For the RFS to succeed as Congress intended, which included a continuous increase in both volume and percentage of renewable fuels into our transportation fuel supply, U.S. consumers need to be given an alternative fueling choice at the pump. In 2011 the EPA approved the sale of E15 for all 2001 and newer vehicles. Since that time, Growth Energy has been working with fuel retailers to build the marketplace for higher levels of biofuels, such as E15 and E85. Today, these higher ethanol blends are available at thousands of gas stations around the country, and they are saving consumers between $0.50 and $1.50 per gallon. In total, these renewable blended fuels cut consumer costs between $700 billion and $2.6 trillion in 2013. And, major retailers such as Sheetz, Kum and Go, RaceTrac, Kwiktrip, Quiktrip, Thorntons, Family Express, Murphy USA, Cenex, and Minnoco are making these cost-competitive ethanol blends available to more and more consumers by offering them at hundreds of high-volume fuel locations in states like North Carolina, Pennsylvania, Texas, Colorado, and Illinois.

E15 is approved for all 2001 and newer automobiles, representing roughly 90 percent of the vehicles on the road today. More testing was performed on E15 than any other fuel ever approved under the Clean Air Act. The U.S. Department of Energy's Oak Ridge National Laboratory tested 86 vehicles for more than 6 million miles before EPA approved E15 for use in 2001 and newer vehicles. That testing found no issues with emissions equipment and engine durability. In addition, consumers have driven more than 1 billion miles using E15 with no fuel-related problems. And NASCAR has logged more than 10 million miles of competition racing with E15 since adopting the fuel blend in 2011.

E15 is illegal to use in non-vehicle engines. In June, Growth Energy released a survey showing that U.S. small engine owners are pleased with the performance of their fuel and find it easy to pick the best option, including regular unleaded blends of E10. Biofuel critics like to claim that competition at the pump leads to confusion, but they obviously haven't checked with American consumers. Not only is picking the right fuel easy and worry-free, nearly every single respondent was satisfied with the performance of their fuel, including those using a standard 10 percent blend. Motorcyclists and boaters echo this confidence in their fuel choice. A poll of 500 motorcyclists found that 96 percent of motorcyclists find it easy to figure out the type of gasoline to put in their engine; 98 percent were satisfied with the gasoline they used; and 90 percent thought it was important to have a choice at the pump. A third survey conducted with CK Motorsports found that 94 percent of U.S. boat owners find it easy to pick the right fuel and are confident in their selection.

FLAWED STUDY

An oil industry funded study of E15 by the Coordinating Research Council is significantly flawed:

- CRC's engine durability testing was very limited – only testing eight vehicles, **while the DOE tested 86 vehicles.**
- CRC also **failed to test the engines on E10** – the standard consumer gasoline found throughout the United States.
- CRC testing put **undue pressure** on engine valves.
- CRC only tested three of the eight vehicles on ethanol-free gasoline – **and even one of those vehicles failed.**
- CRC chose two engines that already had durability issues – **one of which had even been recalled.**

REID VAPOR PRESSURE (RVP)

Reid Vapor Pressure, or RVP, is the term used to measure the evaporative emissions of a fuel. In 1990, Congress limited RVP to 9 psi as part of a larger effort to combat smog during the summer fueling season, which lasts from June 1 until September 15. Under this provision, fuel blended with 10 percent ethanol (E10) would be granted a 1 pound per square inch (psi) waiver from RVP requirements, allowing E10 to be the sold year-round nationwide.

This 1 psi waiver was extended in part because ethanol blended fuels reduce other types of emissions,

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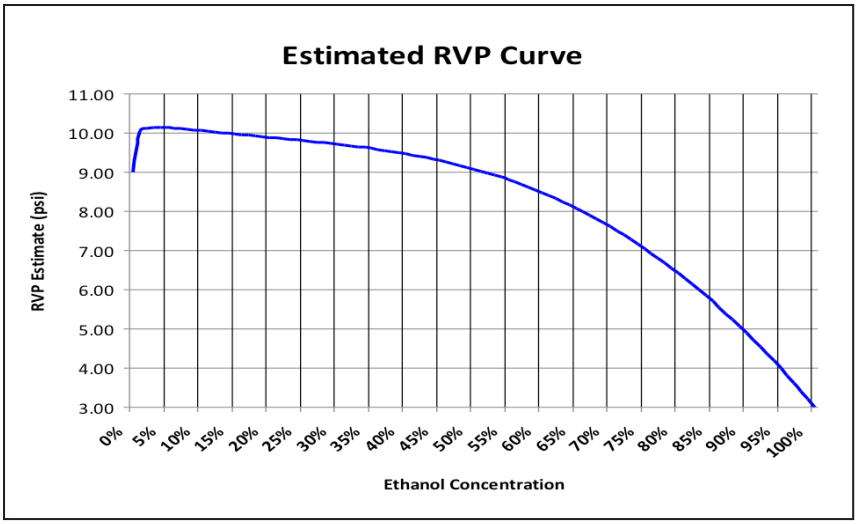

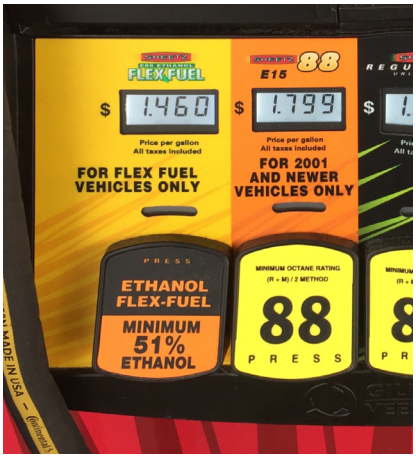

E15 labeling most of the year.

E15 labeling during summer months.

including carbon monoxide, tailpipe and particulate emissions. The waiver applied only to ethanol fuel blends E10 and lower and excluded ethanol blends above 10 percent, even though the overall RVP decreases as the percentage of ethanol blends increases. Therefore, when E15 was approved as gasoline for 2001 and newer vehicles, it did not receive the same 1 lb psi waiver that was extended to E10, and E15 cannot currently be sold year-round nationwide.

No other fuel product on the market is treated like E15. Every other large-scale, commercially available liquid fuel can be sold the same way year-round. However, in the case of E15, without the technical regulatory fix in H.R. 1311, fuel retailers are forced to change fuels or re-label E15 as flex-fuel only during the summer fueling season (June 1 – September 15).

The number of stations selling E15 is rapidly growing, resulting in more pumps that need to be re-labeled twice a year, at an approximate annual cost of $200 to switch labels at the beginning and end of the summer fueling season – on every single dispenser. With 917 retail stations in 29 states currently selling E15, it is estimated that roughly 11,000 fuel pumps sell E15. For 2017, this switching cost is almost $2.2 million. That is more than $2 million in lost revenue for other store upgrades. And that $2 million nets the U.S. zero additional environmental benefit. Given that there could be 2,000 active E15 stations next year, the switching cost alone in 2018 could be almost $5 million.

IMPROVING THE ENVIRONMENT

Biofuels provide a readily available, commercialized solution to decarbonizing the U.S. transportation sector. The United States Department of Agriculture (USDA) released a peer-reviewed report examining the lifecycle of greenhouse gas emissions from corn-based ethanol. The report found that corn ethanol reduces greenhouse gas emissions by 43 percent compared to conventional gasoline today, would further reduce greenhouse gas emissions by 50 percent by 2022, and has the potential to reduce emissions by as much as 76 percent.

Advanced biofuels can even reduce emissions by 100 percent or more over gasoline. Already, ethanol fuel use is estimated to reduce greenhouse gas emissions by 110 million metric tons annually – which is the equivalent of taking nearly 20 million vehicles off the road each year. Ethanol displaces gasoline's toxic chemicals that have been proven to cause cancer and smog by replacing harmful carcinogens and toxic additives, like MTBE and benzene, that can be found in petroleum-based fuels.

A review of real-world data over the last several decades shows significant decreases in emissions while ethanol blending has increased dramatically. Just in the last 15 years, ozone has decreased 17 percent while ethanol blending is above 10 percent, according to EPA data. Additional data from the Universi-

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ty of Illinois-Chicago show substantial reduction in particulate matter (PM) and benzene with the addition of ethanol. EPA and USDA conclude ethanol has not contributed to farmland expansion.

The RFS has also driven technological advancements and created further efficiency in the ethanol process. Our industry is now using less water and land than ever before while producing record-breaking higher yields.

According to EPA's Greenhouse Gas Inventory, there is no indication that native grassland has been converted to cropland since 2005, the year the RFS was enacted. Furthermore, ethanol production results in a coproduct (DDGs) that is used to feed livestock and reduce the amount of land used for feed.

In January 2017, the USDA issued a study based on direct evidence from the past 10 years — not projections — and found that between 2004 and 2012, at the same time U.S. corn ethanol production increased more than 200 percent, deforestation in Brazil's Amazon decreased from 10,200 to 2,400 square miles per year. Any recent reduction in U.S. acreage of Conservation Reserve Program land is the direct result of legislation — not ethanol production. The 2008 Farm Bill removed funding for roughly 7 million acres of CRP land. Based on this law, the number of enrolled acres has decreased to fit within the program's new, smaller budget. The 2014 Farm Bill additionally reduced the acreage of CRP land by another 8 million.

Lastly, oil development has had a negative impact on wildlife habitat. The University of Montana found that the extraction and production of fossil fuels destroyed 7.4 million acres of vegetation from 2000 to 2013 and severely jeopardized wildlife habitats. Surface mining is also responsible for the destruction of ecosystems and water pollution, harming fish and other wildlife.

BIOFUELS DRIVING FUEL EFFICIENCY

Worldwide fuel economy standards for vehicles are increasingly becoming more and more stringent. Automobile manufacturers are being forced to move toward higher efficiency engines that require high octane fuels to operate effectively, meet fuel economy standards, and lower greenhouse gases. Ethanol continues to be the most valuable and competitive source of octane in the world, and because it is also lower in greenhouse gas emissions, it would provide substantial benefits to automobile manufacturers.

Growth Energy has submitted data to the EPA and the California Air Resources Board demonstrating the clear benefits of moving to a high octane, midlevel ethanol blend, such as E30, including vehicle efficiency, lower tailpipe emissions, and increased use of renewable fuel. We believe that the use of midlevel ethanol blends will continue to drive investment in more efficient vehicles, as well as more advanced biofuels, such as cellulosic ethanol.

FOOD PRICE IMPACTS

Ethanol helps balance the U.S. corn supply, and to clarify, the corn used for ethanol production is feed corn — not the kind we eat. Corn is down nearly a full dollar per bushel and farmers are producing corn at near breakeven prices, but efforts to eliminate the RFS and market for biofuels could cause the worst rural recession since the Great Depression. The RFS provides sustainability for corn prices, and sustainable crop prices are vital to the success of an agricultural market. Additionally, a third of every bushel of grain used for ethanol is left over as coproducts heavy in protein and fat, and those coproducts are America's second largest source of animal feed. The ethanol industry is creating more coproducts, such as distiller grains for animal feed and corn oil for the feed market, and is even capturing carbon dioxide for use in beverage carbonation and frozen foods.

CONCLUSION

In just over a decade, the American ethanol industry has made tremendous technological advances and is at the forefront of breaking the competitive barrier in the transportation liquid fuel market.

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We are producing more than 10 percent of our nation's fuel supply, providing 339,000 American jobs and reducing our dependence on foreign oil. Under the RFS, ethanol production continues to become more efficient while advancing more toward second generation biofuels and increased sustainability, and we continue to find new, innovative ways to increase our product mix. Now is the time to give biofuels more access to the marketplace, so that we can compete and provide additional fuel certainty and stability. It is the wrong time to back away from the RFS, one of our country's most successful energy programs.

Doing so would only harm further investment, jeopardize the market for American farmers and producers, and potentially threaten the significant environmental progress that has been made with the introduction of ethanol and renewable fuels. The RFS policy works, and the development of our nation's renewable fuel industry has been a resounding success. This policy continues to deliver a clean, secure and affordable energy source to every American, and it is a crucial component to the future of transportation fuels in America.

I thank you for the opportunity to testify and welcome your questions.

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