Testimony of Neil Caskey
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Before the House Committee on Energy and Commerce
Subcommittee on Environment, Manufacturing and Critical Minerals

Regarding
"Driving Affordability: Preserving People's Freedom To Buy Affordable Vehicles And Fuel"

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Chairman Johnson and Ranking Member Tonko, thank you for the opportunity to testify today. I'm Neil Caskey, CEO of the National Corn Growers Association. NCGA represents nearly 40,000 member farmers nationwide and the interests of more than 300,000 farmers who contribute to corn promotion programs in their states. NCGA and its affiliated state organizations work together to support corn farmers' mission to feed and fuel a growing world.

As producers of the sustainable, primary feedstock for low carbon ethanol, corn farmers are committed to continuous improvement in corn production and agriculture's contribution to low-cost domestic energy. Farmers' production improvements have reduced ethanol's carbon intensity (CI), which is currently about half that of gasoline, and our continued progress will help achieve biofuels with net-zero greenhouse gas (GHG) emissions.

As the Subcommittee considers ways to increase consumers' choices and access to reliable, affordable transportation fuels and vehicles, biofuels like ethanol offer energy, environmental and economic solutions.

Today, ethanol is the low-cost component of a gasoline fuel gallon, priced less per gallon than unblended gasoline at wholesale. With access to higher ethanol blends, drivers save up to 20 cents or more per gallon with Unleaded 88/E15 and up to 70 cents or more with E85. Ethanol adds nearly 15 billion gallons to our fuel supply every year, lowering demand for higher-cost oil and reliance on imported energy, all while increasing the total fuel available to consumers.

Ethanol is a renewable energy source. Ethanol significantly lowers carbon emissions and other tailpipe emissions, improving air quality. Corn farmers' increased productivity and efficiency result in higher yields, using fewer resources to meet food, feed and fuel needs.

When it comes to reducing emissions, cleaner liquid fuels must be part of the solution, just like electric vehicles are part of the solution. With a level playing field, consumers benefit from greater choices and affordability, without sacrificing climate progress or energy security. When it comes to improved liquid fuels and vehicles, ethanol is available now, at a lower cost, to increase our domestic energy supply and reduce emissions.

We appreciate the Subcommittee asking NCGA's input on the bills for discussion at today's hearing.

H.R. 1435, The Preserving Choice in Vehicle Purchases Act

NCGA shares concerns regarding California's Advanced Clean Cars II (ACC II) standard reflected in H.R. 1435. We support uniform vehicle standards for both fuel economy and GHG emissions, relying on a full lifecycle analysis to ensure a level playing field for all types of fuels and vehicles. As we offered in our comments during California's rulemaking process, the state should not constrain its vision of a zero-emission future based on one technology but should instead focus on setting achievable targets and allowing innovation and more options to maximize emissions reductions in both current and new vehicles to improve equity.

Thanks partly to California's Low Carbon Fuel Standard, low carbon liquid fuels are expanding in California. From 2021 to 2022, E85 consumption in California increased by 40 percent, from 62 million gallons to 103 million gallons, as drivers saved more than $2 a gallon with the low-emission and low-cost

choice of E85 for flex-fuel vehicles. Under the state's standards for future vehicles, however, this cost-effective vehicle and fuel choice will no longer be available to consumers buying a new vehicle.

This is just one example of why focusing on technology neutral standards, based on full lifecycle analysis, results in more reliable and affordable consumer choices, rather than limiting low and zero emission solutions. NCGA will provide additional input to EPA when the agency opens comment on California's expected request for a waiver for ACC II under the Clean Air Act, and NCGA also urges California to complete approval of E15 as an immediate decarbonization opportunity.

H.R. 3337, The Fuels Parity Act

NCGA supports the Fuels Parity Act introduced by Congresswoman Miller-Meeks. This legislation makes common-sense updates to the Renewable Fuel Standard (RFS) to reflect the declining carbon intensity of biofuels like ethanol and ensures EPA uses the most accurate lifecycle emissions assessment for biofuels, the Department of Energy Argonne National Laboratory's Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET) model.

Argonne's GREET model is the federal government's most robust and transparent tool for measuring carbon intensity across transportation, updated annually and incorporating the most recent USDA data on feedstock yields and production practices. GREET offers a full cradle-to-grave lifecycle assessment of all fuels and transportation energy sources and includes both direct and indirect emissions, including indirect land use change. In EPA's most recent RFS volume proposal, the agency acknowledged that its 2010 lifecycle assessment for biofuels is old and that an update is needed. NCGA has long urged EPA to adopt GREET and supported legislation requiring EPA to use GREET.

According to Argonne's published research using GREET, corn ethanol's carbon intensity decreased 23 percent from 2005 to 2019 due to increased crop yields, reduced fertilizer intensity and improved ethanol production efficiency, with today's corn ethanol now between 44 and 52 percent lower in CI than the gasoline it replaces. Argonne's analysis is consistent with recent research from Environmental Health and Engineering, with contributors from Harvard and Tufts Universities, finding that today's ethanol is 46 percent lower in CI than gasoline, with the potential for further reductions from additional corn feedstock and production process improvements and pathways to net-zero emissions.

The RFS categorizes biofuels based on emissions reduction. Under the statute, "advanced" biofuels must deliver a 50 percent or greater reduction in GHG emissions compared to gasoline. When Congress passed the RFS, it prohibited only one biofuel – ethanol made from corn starch – from being classified as an advanced biofuel, even if ethanol met the performance standard for advanced biofuels. While ethanol may not have met the 50 percent GHG reduction threshold at that time, today's ethanol does, thanks to improvements both farmers and biofuels producers have made over the past 15 years. The Fuels Parity Act recognizes this progress and the lower CI of today's ethanol, allowing all fuels that meet the 50 percent lower GHG performance standard for an advanced biofuel to qualify as an advanced biofuel.

NCGA has long followed the principle of "do no harm" for the RFS because this law delivers significant environmental, economic and energy security benefits. The RFS has lessened our dependence on foreign energy sources, cut fuel prices, reduced harmful toxic aromatics in fuel, cut GHG emissions by more than 1 billion metric tons and spurred rural economic development and jobs. Therefore, any efforts to update the RFS must unite supporters of this successful policy and protect the underlying policy.

The Choice in Automobile Retail Sales Act of 2023

According to EPA's most recent Automotive Trends Report, emissions from light-duty internal combustion engine vehicles have decreased 25 percent since model year 2004. With transportation the top source of U.S. GHG emissions since 2016, there is room for additional progress. NCGA supports policies to further reduce emissions from vehicles and fuel, including through stringent standards.

However, we have serious concerns with EPA's proposed rule for multi-pollutant emission standards for model year 2027 through model year 2032 vehicles. Testifying in May during EPA's public hearing on the proposal, NCGA Chairman Chris Edgington urged EPA to address the serious limitations of its proposal, level the playing field for all vehicle solutions that reduce emissions and advance a needed rulemaking to improve fuel standards. NCGA is also preparing detailed comments on EPA's proposal to meet the July 5 comment deadline.

EPA's proposed multi-pollutant rule envisions only one solution to meet new standards: electric vehicles. EPA's proposal limits the ability of clean, low-carbon ethanol to contribute more significant emission reductions and support affordable options. Rather than endorse a single technology, we urge EPA to focus on outcomes and open pathways for all low-carbon fuels and technologies.

Standards should allow consumers to access a wide range of cleaner and cost-effective vehicle and fuel choices, including flex-fuel vehicles and future mid-level ethanol blends. Because EPA does not account for the full lifecycle emissions of electric vehicles, the proposal does not consider the added GHG emissions from electricity generation, mineral and battery production and other high-carbon sources. EPA also does not fully account for the higher costs of electric vehicles.

Along with our strong concerns with the proposed vehicle standards, we are also responding to EPA's request for input on fuel standards to help address emissions from the existing fleet and new vehicles that will be on the road for years to come. NCGA is urging EPA to set a clean, high-octane standard for fuel that takes advantage of higher ethanol blends to enable automakers to deploy advanced engine technologies that reduce GHG and criteria pollutants, including particulate matter (PM).

The No Fuel Credits for Batteries Act of 2023

In our February comments to EPA on the RFS volume proposed rule, NCGA strongly urged EPA to separate its proposal for renewable biomass electricity, or eRINs, from the RFS volumes. With the final RFS volume rule issued this week, we anticipate EPA will separate the eRIN proposal and not finalize it, and we appreciate EPA's decision.

As part of the 2023-2025 RFS volume proposed rule, EPA proposed a new regulatory program only for renewable electricity made from renewable biomass under the RFS. As proposed, NCGA believes this new program would be inconsistent with how the RFS functions for other renewable fuels. EPA's proposal would also impose significant new administrative and verification requirements and likely result in new transparency and integrity issues within the RFS, leading to new forms of RIN fraud.

For renewable fuels such as ethanol, a RIN is attached to the fuel at production and separated from the fuel for use in demonstrating RFS compliance when that renewable fuel is blended and used as a transportation fuel. RFS compliance is tied to the actual use of the renewable fuel in transportation, and the fuel producer generates the RIN. Under EPA's proposal, the new eRINs would not be generated by the renewable electricity producers or distributors of the renewable electricity, such as biogas electricity

producers or public access charging stations, but by manufacturers of the vehicles that use the renewable fuel. RIN generation would be based on estimated vehicle electricity use, not actual use.

NCGA supports innovation in renewable fuels and transportation, and biogas and renewable electricity from biogas are beneficial ways to use agricultural waste. However, EPA's proposal would create an unlevel playing field among renewable fuels and renewable energy sources used in transportation. Although now separate from the RFS volume rule, we urge EPA to maintain alignment with how the RFS functions for other renewable fuels, with RINs generated by the fuel producer and compliance tied to demonstrated use of the renewable fuel in transportation. If that consistency and transparency is not possible, that new renewable fuel or energy source is simply not eligible for the RFS.

Additional Measures to Increase Fuel and Vehicle Choice

The legislation listed in the hearing notice addresses issues important to consumers and our nation's energy security. However, two additional key pieces of legislation referred to this Subcommittee would also take further steps to ensure affordable, competitive, and cleaner vehicle and fuel choices.

NCGA agrees with the Chairs that we need to, "increase—not limit—people's choices and access to reliable, affordable transportation fuels and vehicles." As such, we believe these additional bills would help the Committee on Energy and Commerce deliver on the Chairs' commitment, and we urge consideration of these measures.

H.R. 1608, the Consumer and Fuel Retailer Choice Act

When expanding the choice of lower-cost and lower-emission fuels, E15, often marketed as Unleaded 88 is an immediate option. E15 is a blend of 85 percent gasoline and 15 percent ethanol that costs less than

regular fuel (a 10 percent ethanol blend) and is lower in emissions. Approved by EPA for all 2001 and newer vehicles, more than 95 percent of current vehicles can use E15, offering an immediate emission reduction opportunity from more than 200 million vehicles already on the road and cost savings for drivers.

In recent years, bipartisan efforts from Congress, EPA and states to permanently remove outdated and unnecessary barriers to full market access for this fuel choice have hit roadblocks and uncertainty. Last June, the House passed legislation to solve this problem, with the support of many Energy and Commerce members, including Ranking Member Tonko, Representative Miller-Meeks and Representative Craig. Still, the Senate did not take it up.

A 2019 EPA rule addressed this red tape, until an oil industry lawsuit restored it in 2021, threatening to end E15 market access last summer, just when drivers needed it most. The Biden Administration used existing emergency authority to allow continued sales of E15 in 2022, saving consumers at least 25 cents a gallon, and EPA recently made the right call to use this existing authority again to maintain E15 availability this summer.

Rather than count on just-in-time agency decisions, consumers need Congress to act and resolve this uncertainty once and for all.

Last year, a bloc of Midwest governors took matters into their own hands and plan to require only lower volatility gasoline be sold in their states, offering a state-based solution. The Clean Air Act gives governors the clear authority to look out for their states' consumers and air quality. EPA has proposed implementing the governors' plan effective April 28, 2024, which corn growers support.

The governors' state-by-state approach has generated renewed interest in a national solution. A broad range of biofuels, retail, agriculture – and even oil -- stakeholders now support permanently removing this barrier to consumer and retailer choice, without a piecemeal approach. With bipartisan support, H.R. 1608 provides a clean, national fix while suspending the governors' EPA notifications.

Enacting H.R. 1608 unlocks $20.6 billion in annual savings for consumers. H.R. 1608 ensures consumers and retailers can choose E15, but the legislation does not require any retailer to offer it.

H.R. 1608 also offers environmental benefits. E15 has lower evaporative emissions than standard E10 blends or "regular" at the pump. Blending additional ethanol to make E15 lowers the CI of this liquid fuel, and increasing ethanol blending from 10 to 15 percent would reduce transportation GHG emissions by 17.6 million metric tons per year, the equivalent of removing 3.8 million vehicles from the road. Blending that additional ethanol to make E15 also displaces more of the most toxic aromatic components in gasoline, reducing exhaust emissions for cleaner air. Recent peer-reviewed research from the University of California Riverside done for the California Air Resources Board (CARB) found E15 reduced total hydrocarbons, fine particulate matter (PM) and carbon monoxide compared to E10.

We urge the Subcommittee to move H.R. 1608 forward.

H.R. 2434, the Next Generation Fuels Act

As previously discussed, EPA's recent vehicle standards proposal focuses on a one-size solution. Consumers need more choices and affordability in the transition to cleaner vehicles and fuels in addition to EVs. Led by bipartisan Energy and Commerce Committee members, Representative Miller-Meeks and Representative Craig, and 21 cosponsors, the Next Generation Fuels Act provides another choice.

The Next Generation Fuels Act considers fuels and vehicles as a system, improving our nation's liquid fuel supply and transitioning new combustion vehicles to use advanced engines that take advantage of cleaner, low-carbon, high octane fuels. This transition to updated fuels and vehicles would cut fuel costs, reduce GHG and other transportation emissions, improve air quality, and increase fuel efficiency.

The Next Generation Fuels Act offers a pathway to keep cleaner liquid fuels and improved vehicle options available to consumers, providing a lower cost alternative. With better fuel, vehicles and fuels work together to reduce emissions across the board. The Next Generation Fuels Act would cut GHG emissions by 2 billion metric tons by 2040. With new low carbon, high octane fuel, automakers can use advanced engines that improve vehicle fuel efficiency by 5 to 7 percent, keeping a wider range of vehicle and fuel choices competitive.

Not all high-octane fuel is created equal. To cut emissions and fuel costs, the Next Generation Fuels Act would set a clean, high-octane standard, building on the progress already made to cut emissions. Capping toxic and costly aromatics in gasoline, and replacing those with cleaner renewables, will reduce aromatics-related mortalities by 1,400 cases by 2040, saving $12.7 billion in economic and monetized health damages. It also reduces the fuel cost.

For consumers, these advanced vehicles and fuels mean additional clean choices that are affordable for more drivers. For automakers, a better fuel in the marketplace allows deployment of advanced combustion engine technologies they know will be effective. A low carbon, high octane fuel standard also enables agriculture to do more to help decarbonize transportation.

The Department of Energy's recently concluded Co-Optima research validates the solution of pairing clean octane and optimized engines to deliver greater economic benefits on the path to a net-zero transportation future. According to DOE's findings, new fuel options can improve vehicle fuel economy by 10 percent with today's turbocharged engines, with an additional 15 percent improvement with advanced engines. Domestically sourced biobased fuels produce fewer GHG emissions than petroleum-based fuels. These optimized fuel and engine combinations also cut criteria pollutant emissions, the same objective EPA has for its proposed one-size vehicle standards, but at a lower cost and with more consumer choice.

NCGA urges the Subcommittee to advance the Next Generation Fuels Act to cut fuel costs, cut emissions and help shore up our energy security for the long run.

Biofuels and Agriculture Production

For 2022, the U.S. corn crop totaled 13.7 billion bushels. USDA projects corn ending stocks for the year at 1.45 billion bushels, in line with 2020 ending stocks, illustrating availability of feedstock to support renewable fuel production, while continuing to meet and exceed current demands for food, feed, and exports.

Since the RFS was expanded in 2007, corn farmers have increased corn production, not by bringing more land into production, but through higher yields that have resulted in more corn produced with less land and fewer resources. For example, planted corn acres in 2022, at 88.6 million acres, were less than planted acres in 2007, the year the RFS was expanded, at 93.5 million acres, yet corn production increased for 2022 compared to 2007. Planted corn acres most recently peaked at 96.4 million acres in 2012 and have not reached that level since. USDA expects farmers to plant 92 million corn acres in 2023.

USDA data also shows the area planted to all principal crops in the United States is not expanding overall. Planted acres totaled 328.6 million in 2000 and have not reached that level since. In 2021, planted acres totaled 317.2 million. Changes in corn acres come from changes in the mix of crops planted rather than an expansion of total cropland.

Corn production has increased primarily because crop yields increased from an average of 150.7 bushels per acre in 2007 to 173.3 bushels per acre in 2022. With the average yield in 1980 at just 91 bushels per acre, productivity growth is a long-term trend. Because of increased corn productivity, increases in feedstock supply to meet biofuel demand do not require conversion to cropland or other land use changes. As EPA noted in its analysis for the most recent RFS volume proposal, using USDA data, domestic corn production has grown steadily at a 25-year average rate of around 2 percent or 250 million bushels per year with no apparent correlation to ethanol production numbers.

NCGA's Sustainability Commitment

Corn is an abundant and environmentally and economically competitive feedstock. Thanks to technological advancements, corn farmers can produce more corn with less land fewer inputs than ever, increasing feedstock supply while reducing corn's CI.

Field to Market released an updated National Indicators Report in 2021. These science-based measurements of outcomes associated with commodity crop production from 1980-2020 show that farmers decreased the land required to produce a bushel of corn by 56 percent and reduced GHG emissions per bushel by 52 percent. Additionally, farmers reduced soil loss by 60 percent per acre, cut irrigation water use by 44 percent and reduced energy use by 45 percent. Looking ahead to 2030, NCGA's sustainability goals call for: an increase land use efficiency by 12 percent; reduce soil erosion by

13 percent; increase irrigation water use efficiency by 15 percent; an increase in energy use efficiency by 12 percent and reducing GHG emissions by a further 13 percent.

Corn-based ethanol can reach net zero emissions with continued on-farm improvements and soil carbon sequestration, along with carbon capture technology and new efficiencies in ethanol production. Corn farmers are proud of our leadership in adopting conservation and best management practices, planting cover crops, reducing tillage, and using GPS, variable rate application for inputs and other technologies to place inputs where they are needed, lowering emissions and energy use. In addition to reducing feedstock CI, these production practices protect and enhance soil and water quality.

Energy Security and Economic Benefits

Biofuels like ethanol contribute to the nation's energy security by reducing energy imports and diversifying the energy supply. EPA's most recent RFS volume proposal estimated the proposed renewable fuel volumes would reduce oil imports by more than 2.6 billion gallons each year, offering economic benefits of more than $200 million per year.

Fuel prices are set by the price of its primary input, oil. Oil prices are determined by global supply and demand, which can be influenced by OPEC supply decisions and geopolitical events such as Russia's invasion of Ukraine. Ethanol reduces gas prices in two ways: (1) by extending fuel supply and reducing tightness between supply and demand; and (2) displacing petroleum with a less expensive alternative. On June 20, the price of unblended gasoline was $2.65 per gallon (RBOB futures), while the ethanol futures price was $2.49 per gallon. That is, ethanol is currently trading at a $0.16 per gallon discount to unblended gasoline.

Summary of Major Points

- As producers of the sustainable, primary feedstock for low carbon ethanol, corn farmers are committed to continuous improvement in corn production and agriculture's contribution to low-cost domestic energy.
- As the Subcommittee considers ways to increase consumers' choices and access to reliable, affordable transportation fuels and vehicles, biofuels like ethanol offer energy, environmental and economic solutions.
- We support **uniform vehicle standards** for both fuel economy and GHG emissions, relying on a full lifecycle analysis to ensure a level playing field for all types of fuels and vehicles.
- NCGA supports H.R. 3337, **the Fuels Parity Act** introduced by Congresswoman Miller-Meeks.
- NCGA is urging EPA to address the serious limitations of its **proposal for future vehicle standards,** level the playing field for all vehicle solutions that reduce emissions and advance a needed rulemaking to improve fuel standards.
- NCGA strongly urged EPA to separate its proposal for renewable biomass electricity, or **eRINs,** from the RFS volumes. As proposed, this new program would be inconsistent with how the RFS functions for other renewable fuels.
- Two additional key pieces of legislation referred to this Subcommittee would also take further steps to ensure affordable, competitive, and cleaner vehicle and fuel choices, and we urge Subcommittee consideration of these measures.
    - **H.R. 1608, the Consumer and Fuel Retailer Choice Act:** H.R. 1608 unlocks $20.6 billion in annual fuel savings for consumers. H.R. 1608 ensures consumers and retailers can choose E15/Unleaded 88, but the legislation does not require any retailer to offer it.
    - **H.R. 2434, the Next Generation Fuels Act:** The Next Generation Fuels Act considers fuels and vehicles as a system, improving our nation's liquid fuel supply and transitioning new combustion vehicles to use advanced engines that take advantage of cleaner, low-carbon, high octane fuels to lower costs and cut emissions.

Supplemental Material: Recent Retail Fuel Prices and Cost Savings from Ethanol

Kwik Trip –6/10/23 in Lakeville, MN

Cenex – 6/14/24 in Alexandria, MN

Sheetz – 6/8/23 in Harrisburg, PA