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SHEETZ, INC.

**ON BEHALF OF THE NATIONAL
ASSOCIATION OF CONVENIENCE
STORES (NACS)**

BEFORE THE

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AGRICULTURE AND RURAL AMERICA”**

I. Summary of Testimony

The retail fuel industry is an indispensable asset to any alternative source of powering vehicles, including electricity and renewable fuels, that lower the carbon footprint of transportation fuel in the United States. Fuel retailers should be viewed as surrogates for the consumer in that we identify the most reliable, lowest cost transportation energy available, and deliver that energy to every community in the country. In so doing, we compete with one another on price, speed, and quality of facilities and service.

To be effective, policies designed to encourage private sector investment in alternative fuel infrastructure, including but not limited to electric vehicle (“EV”) charging stations, must be based upon clear policy signals that such alternatives create attractive economic propositions for our industry and for our customers.

This can be done. Not even two decades ago, Congress passed the Renewable Fuel Standard (“RFS”). Although the RFS is far from perfect, it created market incentives for fuel retailers to invest in new fuel dispensers and storage infrastructure to accommodate higher amounts of biofuel. Many fuel marketing companies have invested in the physical and intellectual capital necessary to participate in agriculture and commodities markets. Fuel retailers did this in order to efficiently incorporate those products into our fuel supply in a manner that improved fuels’ greenhouse gas (“GHG”) footprint while also enabling us to sell the alternative fuel to customers for less money at retail than purely petroleum-based fuels. This has caused more customers to gravitate toward those cleaner burning fuels and renewable fuels should not be abandoned in our collective effort to increase the availability of electricity as a vehicle fuel. Doing that would be harmful to the environment and to rural economies.

Our industry is eager to work with policymakers, such as the House Committee on Agriculture, to find market-driven ways to address concerns about carbon. To do that, federal policy should incentivize and leverage private investment in bringing to market a variety of alternatives. Equally important, federal policies should not undercut the incentives for retailers to invest in alternatives such as EV charging. There has to be a viable pathway to profitability for any alternative to gain any meaningful market share.

For any solution to work, it must promote competitive market dynamics and work with consumers’ existing behavior and the business infrastructure we have. If policy does that and ensures a functioning private market – then private dollars will make sure infrastructure is there to meet consumers’ needs. If that is not done, it is likely that any public dollars spent will be stranded and wasted in ways that do not serve an appreciable number of consumers and cost far more than any benefit they produce.

At the moment, there are several impediments that make it challenging for fuel retailers to find a pathway to profitability with respect to EV charging. Most of these impediments involve an electricity market structure that was not designed for – and is not surprisingly incompatible the competitive retail fuel market.

Foremost among these obstacles is the threat of regulated utilities making use of their status as monopolies to gain a competitive edge over private businesses. Throughout the country

today, for example, regulated utilities are seeking to convince public utility commissions that they should be able to charge all of their ratepayers – regardless of income – a higher dollar figure on their monthly electric bill in order to underwrite the utilities’ investment in EV charging stations. Private companies do not have access to such a pool of risk-free capital. What’s more, many regulated utilities want to bill EV charging station owners more money for electricity than their own cost to power their utility-owned chargers by adding extra tariffs or fees, such as demand charges. If these efforts persist, fuel retailers will not consider EV charging stations to be an attractive investment. No amount of grant money or tax incentives will change that fundamental reality.

On the flip side, if policymakers signal that there must be a productive partnership between utilities and fuel retailers, with each sector incentivized to concentrate on its core competencies, progress can be made faster and at a lower cost. For utilities, the focus should be on modernizing the power grid and ensuring a reliable and adequate supply of clean power to meet dramatic increases in demand that will come with enhanced EV penetration. At the same time, the market dynamics that govern the retail fuel industry today should be replicated to accommodate EVs. This will ensure that customers have multiple fueling options at locations where they travel every day that are competing for their business.

Simple, modest guardrails around how any federal money going to alternatives such as electric vehicle charging can be used to leverage rather than waste federal dollars, such as was included in the Infrastructure Investment and Jobs Act. Any future federal incentives for EV charging infrastructure should stipulate that businesses that are putting capital at risk in order to own and operate EV charging stations are prioritized over other potential funding recipients. This, in conjunction with other tax credits and incentives, can move us toward a viable business model, rather than exacerbating the various challenges that already exist.

Such guardrails have been crafted in a way that would impose no limitations on utilities’ ability to use ratepayer funds and access federal funds for any infrastructure development up to and until the point of owning and operating the chargers and allows utilities to compete with the private sector with no disadvantage if they are putting their own capital at risk and not increasing all of their customers’ electricity bills to pay for EV chargers.

Replacing the highly familiar, price competitive fuel market in place today with the opaque and monopolistic pricing of electricity would reduce efficiency, raise costs, and impose large regressive costs on lower income Americans. That is not an attractive solution.

Changes must also be made to electricity pricing related to EV charging. Retailers with EV chargers today are forced to pay retail prices for electricity that include very high demand charges. There is no business case for buying at retail prices and selling at retail prices. Regulated utilities that own and operate their own charging stations, on the other hand, are not subject to demand charges and thus have an insurmountable competitive advantage over anyone else in that market.

For the private market to work, there must be a pathway to retailers buying electricity at wholesale prices (like the internal transfer cost that utilities have to deliver electricity) without punitive demand charges. That would make the economics work not only for retailers but, more importantly, for consumers.

In addition, retailers must be allowed charge EV drivers for the cost of electricity by kilowatt/hour and not be regulated as a utility. Though many states are addressing this issue, there remain over a dozen states that have not addressed this impediment for private sector investment in EV charging.

The bottom line is that any changes to the transportation energy mix must make it work for American consumers – which means those changes must work for our industry. Fuel retailers already have the real estate that customers visit when they refuel. The industry offers the services and amenities that consumers have come to expect alongside the refueling network (such as foodservice facilities, restrooms, security, and the like). Until consumers see alternatives like electricity at the outlets where they currently refuel, they will not adopt those alternatives in large numbers.

Fuel retailers are surrogates for the consumer. If you ensure there are competitive market dynamics governing refueling – including alternatives like electricity – you will make the transition more affordable and attractive for the public. We are eager to work with you to ensure policy accounts for that reality.

II. Introduction

Chairman Scott, Ranking Member Thompson, and members of the Committee, my name is Trevor Walter. I am the Vice President of Petroleum Supply Management at Sheetz, Inc – a Pennsylvania-based marketing and retail company with locations primarily in the mid-Atlantic area of the country – and am testifying today on behalf of the National Association of Convenience Stores (NACS). The fuel retailers that currently provide transportation energy across the United States, including Sheetz, are well positioned to play an important role in the development of infrastructure to offer American motorists not only traditional liquid motor fuels but also a range of alternatives, including electricity to power their vehicles, so long as the policy framework and incentive regime established facilitates a competitive and level playing field. In fact, it is nearly impossible to effectively decarbonize the transportation sector without working with our industry to offer a range of alternatives to our nation's drivers.

III. Background

Sheetz operates 637 retail fuel and convenience stores across six states: Pennsylvania, Ohio, West Virginia, Maryland, Virginia and North Carolina. Sheetz employs around 23,000 individuals across its divisions and subsidiaries. More than half of our stores offer E15 and E85 fuels for our customers. In fact, our sales of E15 have grown 92 percent since 2019 and more than 300 percent since 2017.

With respect to electric vehicle charging, we were one of the first retailers in the nation to offer EV chargers more than a decade ago. We currently offer EV charging at 78 locations and plan to grow that offer. But, to date, charging electric vehicles has not been a financial winner for our company due to the market impediments that I describe in this testimony. We are eager to work with Congress to help ensure that these substantial investments can become beneficial for everyone.

The National Association of Convenience Stores (NACS) is an international trade association representing the convenience store industry with more than 1,500 retail and 1,600 supplier companies as members, the majority of whom are based in the United States. We are also a member of two other national trade associations representing our industry – the National Association of Truck Stop Operators (NATSO) and the Society of Independent Gasoline Marketers of America (SIGMA). NATSO currently represents more than 4,000 travel plazas and truck stops nationwide, comprised of both national chains and small, independent locations. SIGMA represents a diverse membership of approximately 260 independent chain retailers and marketers of motor fuel.

The industry as a whole represents approximately 90 percent of retail sales of motor fuel in the United States. The fuel wholesaling, fuel retailing and convenience industry employed about 2.34 million workers and generated more than \$548.2 billion in total sales in 2020, representing more than 3 percent of U.S. gross domestic product. Of those sales, approximately \$292.6 billion came from fuel sales alone.

Members of the industry process more than 160 million transactions every single day.

That means about half the U.S. population visits one of the industry's stores on a daily basis. In fact, ninety-three percent of Americans live within 10 minutes of one of our industry's locations. These businesses are particularly important in rural areas of the country that might not have as many large businesses. In these locations, the convenience store not only serves as the place to get fuel but is often the grocery store and center of a community.

The average time a customer spends in a convenience store is about three and one-half minutes and industry members compete to ensure the customer's needs are met as efficiently as possible – saving them time and money.

Our industry's sole objective is to sell legal products, in a lawful way, to customers who want to buy them. While agnostic as to what types of fuel they sell to satisfy consumer demand, industry members do have a bias: they believe it is best for the American consumer and America's industrial position in the world marketplace to have reasonably low and stable energy prices.

A. Environmental Transportation Policy Principles

The industry believes the most expeditious and economical way to achieve environmental advancements in transportation energy technology is through market-oriented, consumer-focused policies that encourage our industry to offer more alternatives. With the right alignment of policy incentives, the private sector is best equipped to facilitate a faster,

more widespread, and cost-effective transition to alternatives – including electricity – in the coming years.

Policies attempting to improve the environmental characteristics of transportation energy in the United States should adhere to the following principles:

- (1) Science should be the foundation for transportation climate policies – Any effort to improve transportation energy’s emissions characteristics requires an accurate accounting of the lifecycle carbon intensity associated with particular fuels and technologies. This analysis should include everything from acquisition of natural resources, engine and battery manufacturing, tailpipe emissions, and vehicle end-of-life consequences. It should also be regularly updated so that policy is nimble enough to adjust to efforts to innovate and improve the environmental characteristics of different alternatives. Additionally, every sector of the economy should assume a burden of reducing carbon emissions.
- (2) Establish performance goals without mandating specific technologies to allow for the benefits of innovation and technology development – Sound policy must recognize that the state of technology can change rapidly, and tie incentives to technologies’ lifecycle environmental attributes rather than the underlying technology itself. No one solution will decarbonize transportation energy and policies should incentivize multiple technologies. What policymakers think is the best solution today may be surpassed by subsequent ingenuity and innovation. Sound policy should not stifle innovation by mandating specific fuel solutions. Instead, policy should set performance goals and let the market – guided by consumers – innovate to find the best way to meet those goals.
- (3) Develop competitive market incentives to ensure a level playing field and provide long- term consumer benefits – As described in more detail below, fuel retailers today are best positioned to provide alternative sources of transportation energy – including EV charging stations – because we are fuel agnostic and have a keen understanding of consumer preferences and tendencies. Fuel retailers have strategically located themselves where refueling demand is greatest and they compete with one another on price, speed, and quality of service. Moreover, fuel retailers offer the security and amenities that consumers demand regardless of the type of fuel their vehicle consumes. Fuel retailers have made investments in renewable fuels and existing alternative fuel incentives allow retailers to offer lower carbon fuels to consumers at a price at which they are willing to purchase them.
- (4) Harness existing infrastructure to help commercialize new technology, maximize diverse investments, and achieve near-term and long-term emission reduction goals – It is far less expensive to leverage existing infrastructure than create entirely new supply chains and infrastructure. To the extent environmental objectives can be achieved by harnessing existing infrastructure, especially retail fuel outlets, customers will more seamlessly gravitate to new types of fuels and vehicles. American companies have spent more than sixty years building out a refueling infrastructure system that optimizes logistics and maximizes customer benefits. Deployment of new technology that complements this infrastructure will (all else being equal) be less expensive and thus more likely to generate consumer loyalty.

- (5) Set consistent, uniform national policy so that (i) the market has certainty to help it invest, and (ii) state policies do not create inconsistent or counterproductive measures – Federal policy should be designed to lower the cost of alternative fuels to make those sources of transportation energy more competitive with petroleum-based fuels. This is the only way to ensure that consumers will gravitate toward low carbon technologies. Although some state incentive programs adopt this approach, others have vacillated between different approaches in a way that does not allow private market participants to plan long-term investments in alternatives. These inconsistent policies are ultimately self-defeating and should be avoided.
- (6) Ensure fair treatment so that all households are not forced to subsidize alternative energy users – Fundamental tenets of fairness dictate that users of transportation energy pay for that energy and related infrastructure. It is patently unfair and inequitable for policymakers to force most households to subsidize the refueling costs for EV drivers. When utilities rate-base their EV infrastructure investments in EV chargers, however, it raises the monthly utility bills for all of a particular rate class, even though the benefits are confined to a small group of users. Vehicle owners should pay the costs of powering their own vehicles in order to create a market system that will keep energy prices down and avoid regressive charges. Moreover, it is imperative that highway infrastructure funding comes from all highway users, and not just those that rely on a particular technology.

By observing these principles, environmental transportation policies can create new jobs, accelerate the deployment of advanced alternative fuel infrastructure and vehicles, benefit consumers through a competitive and robust marketplace and drive massive economic investment and improvements in air quality—objectives fuel retailers and lawmakers share.

IV. Fuel Retailers Understand Consumer Behavior and Respond to Consumer Demand

A. Overview of the Retail Fuels Marketplace

The retail fuels market is the most transparent, competitive commodities market in the United States. Retailers post fuel prices on large exterior signs that consumers use to shop for the best prices. Many consumers drive out of their way to save a few cents per gallon. Our members operate on small margins—generally measured in cents per gallon of fuel sold.

Fuel retailers are agnostic to the type of fuel sold to satisfy consumer demand and have demonstrated they are prepared to invest in any transportation energy technology that their customers desire. Over the last thirty years, our industry has adapted to meet consumer demand with increased biofuel blends and other alternative fuels, as well as healthy and made-to-order food and beverage offerings. Fuel retailers provide the security and amenities desired by the motoring public more than any other type of location. These dynamics can be harnessed to facilitate the transition to a growing market for alternative transportation energy sources, such as electricity.

The competitive nature of the retail fuels market compels retailers to pass through cost savings to consumers in order to maintain and increase their market share. It is in retailers' interests to increase the amount of energy they sell to consumers. This is not only because those sales drive profit opportunity in and of themselves, but also because such sales drive in-store traffic, which is another source of profit for the retailer.

B. Fuel Retailers Are the Solution to Range Anxiety

To have any chance to be successful, the refueling experience for alternative fuels should be as similar as possible to today's refueling experience. Fuel retailers are best positioned to provide alternative sources of transportation energy because they have a keen understanding of consumer preferences and habits. This fact is essential when it comes to adoption of EVs or other alternative fuel vehicles. The transition to EVs will require what was previously a quick stop to become a 30-minute consumer experience. Currently, it takes the driver of a passenger vehicle approximately two to three minutes to complete a fueling experience. It takes the driver of an EV on the other hand, 20 to 40 minutes to recharge at a Direct Current ("DC") Fast Charger (depending upon the vehicle and the capacity of the charger available). Fuel retailers will be forced to compete on the service and amenities they offer their customers during this refueling experience to maintain their share of the market. This is a positive market dynamic for consumers.

Observers of vehicle trends and consumer behavior agree that one of the major factors deterring consumers from transitioning to EVs is concern about where they will (and will not) be able to "refuel" those vehicles. This "range anxiety" is such a strong sentiment that consumers often underestimate the availability of EV charging infrastructure that already exists today.¹ Beyond the number of EV chargers available, desirability of the location also factors into concerns about "range anxiety."

Availability of EV charging stations at our locations is the most effective way to solve range anxiety. Consumers freely drive their gas- and diesel-powered vehicles to every part of the country today without concerns about whether they will be able to refuel whenever they need to do that along the way. Offering EV charging at fuel retailing locations would mean drivers would not need to change their habits if they choose not to—they can refuel on the go at the same convenient locations they do today. The availability of EV charging on large price signs at fuel retailers' locations as they drive down the streets in their communities and traverse America's highways will effectively relieve EV range anxiety.

Consumers frequently use their vehicles for travel—including visits to family and friends and vacations. And, the majority of consumers are not in a position to purchase or rent a separate vehicle solely for these types of trips. If EV charging is not available in the neighborhoods they want to visit as well as along Interstate locations, many Americans simply will not purchase an EV.

¹ There are currently 102,621 public charging outlets available at 42,078 public stations across the United States, of which 17,861 charging outlets at 5,040 public stations are DC Fast Chargers. See Alternative Fueling Station Locator available at https://afdc.energy.gov/fuels/electricity_locations.html.

Placing chargers only in individual garages in private homes, apartment buildings, and parking lots cannot combat the notion of “range anxiety” the way fuel retailers offering that service would. This is particularly true in rural and urban areas where fewer people live in single-family homes with garages that are conducive to private charging equipment. If EVs are to be adopted at the rate policymakers desire and by broader demographics than those that currently can afford an EV, the charging model must include the full range of options available in the refueling experience that exists today. The majority of renters across the nation do not have garages nor do many homeowners. And, those that have garages often do not have space in their garage for the number of vehicles their family drives nor do they have the electrical capacity in their garage to support a charger or multiple chargers. This is also true for workplaces; many employees will not have the option, for a variety of reasons, to charge at work. Consumers must have viable charging options available outside of their home or workplace.

Refueling stations are strategically located throughout the country where refueling demand is greatest, competing with one another on price, speed, and quality of service. In fact, we currently have about 150,000 fueling stations across the country in local communities of all kinds, including in every single congressional district. Furthermore, these locations include accessible restrooms and parking lots, food and beverage options, vehicle service and repair centers, and even showers and other amenities for professional drivers. Consumers demand all of this, regardless of the type of fuel their vehicle consumes, and fuel retailers respond accordingly.

C. EV Charging Needs Price Competition

As described above, there are about 150,000 locations across the country for drivers to currently refuel. This refueling capacity drives aggressive price competition which, in turn, keeps prices as low as possible for consumers. Consumers know how much a gallon of gas costs at a location – either due to a big price sign on the street or some type of fuel price comparison resource – before they decide to refuel. This forces retailers to shave every penny they can off the price of a gallon of fuel to compete for market share. When adjusted for inflation, the three years with the lowest average gas prices in the United States since 1978 are 2020, 2018, and 2019, in that order.² That is not an anomaly. While the pandemic and some other events have created pricing anomalies the past couple of years, in general, fuel prices stay as low as possible and generally trend slightly downward over time when adjusted for inflation due to price competition. If electricity is to be the transportation fuel of the future, EV drivers should get the benefits of that remarkable price competition.

The overarching structure of wholesale and retail electricity markets are not designed for – and is thus incompatible with – the retail fuel market. Many states are exacerbating this problem by allowing utilities to pass through the costs of EV charging stations to all of their customers on their monthly utility bill, rather than having EV drivers pay for the costs of refueling their own vehicles. And, there are no wholesale purchasing options or pricing structures for retailers to provide electricity as a fuel. If that practice were to continue and

² See <https://www.usinflationcalculator.com/gasoline-prices-adjusted-for-inflation/>. Figures for 2021 are not yet available though the year was an anomaly due to supply chain and crude oil price issues.

become the prevalent model, this country will risk replacing one of the most price-transparent and price-competitive consumer markets in the world (retail fuel pricing) with one of the least price-transparent and price-competitive markets in the United States (utility electricity pricing).

V. Federal Policies Should Incentivize Private Investment

Competitive markets with a level playing field for investments must be the focus for any alternative fuel to be successful. Existing alternative fuel incentives – such as biofuel blending and alternative fuel infrastructure tax credits – have allowed retailers to offer less expensive, lower carbon fuels to their customers, while also supporting investments in renewable fuel production. Regardless of how one may feel about ethanol and biodiesel, the incentives Congress established for those fuels have successfully displaced a large volume of petroleum-based fuel by these renewable fuels since 2005.

In just the past decade, there has been extraordinary growth in consumption of biofuels such as ethanol and biodiesel, as well as other low carbon fuels such as renewable natural gas, compressed natural gas, renewable diesel, and biobutanol. These are all liquid fuels that are mostly compatible with existing infrastructure that was originally developed for hydrocarbons. With all of these fuels, fuel retailers have responded to policy signals by allocating capital toward bringing the fuels to market. Retailers then sell the fuels to consumers for less money than the fuels that were being displaced. This has created enormous environmental benefits in a relatively short period of time and has been beneficial to U.S. agriculture.

Federal policy should be designed to lower the cost of alternatives to make those sources of transportation energy more competitive with petroleum-based fuels. This is the only way to ensure that consumers will gravitate toward low carbon technologies. Although some state incentive programs adopt this approach, others have vacillated between different approaches in a way that does not allow private market participants to plan long-term investments in alternatives. Such inconsistent policies are ultimately self-defeating, and that approach should be avoided. Federal policy instead should incentivize and leverage private investment in bringing alternative fuels to market. By the same token, federal policies should not undercut incentives for retailers to invest in alternative fuels. Policymakers can leverage existing infrastructure to achieve meaningful environmental benefits while also incentivizing fuel retailers to invest in new technology if policymakers adopt a market-oriented and consumer-focused perspective.

VI. Challenges

In an effort to decarbonize the transportation sector, the Biden Administration has committed to adding 500,000 EV charging stations over the next decade. One of the biggest impediments currently to fuel retailers investing in EV charging infrastructure is the practice of utilities charging all of their electricity customers more in order to pay for their investments in EV charging stations – in other words, their ability to use rate base. Where this occurs, utilities are able to compete with private sector groups without risking a single dollar of their own. This tilts the cost for EV charging infrastructure in favor of utilities such that the private market

cannot compete, placing existing and new market participants at a competitive disadvantage which they cannot overcome. That the private market is reluctant to risk capital investing in EV charging infrastructure is entirely predictable when it knows it cannot make a return on that investment due to the threat of monopolistic and anti-competitive practices from investor owned utilities.

As described above, many states allow utilities to charge all of their customers, regardless of the type of vehicle they drive (or if they drive at all), for the utility's investments in EV charging stations via their customers' monthly electric utility bills. There is no public policy rationale for pursuing this approach with respect to refueling, as it will only decrease transparency and competition, increase costs, and stifle innovation.

This type of pricing system was designed for fixed locations, such as homes and commercial properties. It does not take into account EVs. The use of rate base or passing along the costs of a project to all ratepayers makes sense for projects that benefit the whole, such as generation plants, transmission grid, interconnection systems. Funding necessary electricity infrastructure investments to carry the electricity to fixed locations through rate increases therefore makes sense and should be done for the increasing future demands our electricity grid will face.

EVs move from place to place rather than remaining in one spot. Policy should enable the motoring public to access every benefit that our competitive market system has to offer. If that customer interface is funded through consumer utility bills, consumers will collectively pay far more than they should for the chargers and electricity to fuel EVs.

That cost burden will hit hardest on those least able to afford it. Individuals who struggle to pay their monthly bills should not be required to underwrite investments that the private sector is willing and better equipped to make. EV drivers – who today have above-average incomes and drive cars that cost much more than average – can and should pay the costs of charging their vehicles. As EVs become more common in less affluent communities, it will be especially important that drivers know that they will pay the smallest amount possible due to retail price competition.

Furthermore, some states classify businesses that sell electricity for the purpose of charging EVs as utilities, effectively prohibiting such sales from anyone other than utilities. Federal policy preempting these state regulations should be established, allowing non-utilities such as fuel retailers to resell electricity for refueling commercially.

Finally, federal policy should maintain the ban on commercialized Interstate rest areas, including disallowing EV charging within federal Interstate rights of way. This will ensure that off-highway businesses are not discouraged from investing in EV charging. Our industry has supported the ban on commercial activity and electric charging should be treated no differently from any other commercial service. If EV charging is opened up at Interstate rest areas, it will undercut private sector investments in that infrastructure at Interstate exits. That will mean fewer, not more, EV chargers. The bipartisan infrastructure bill that became law kept this ban in place and did not include an exception for EV chargers. Regulatory efforts to

the contrary should be stopped.

In addition to the challenges fuel retailers face investing in EV charging infrastructure, there are challenges with the electricity market that must be addressed before a robust EV charging marketplace is viable. Utilities do not simply charge their commercial customers a fixed price for electricity that is used. Instead, commercial consumers are charged a rate for the energy itself, billed as kilowatt-hours (kWh), and then an additional rate to provide reserve capacity when needed, known as a demand charge, billed as kilowatts (kW).

Demand charges are based on the largest amount of power that a business needs at a particular time during the entire month. They are there to compensate the utility for having enough power in reserve to meet spikes in demand. Private businesses that have short, but high spikes in their power needs will be hit hard by this pricing structure. Utilities' demand charges make it very challenging for private companies to offer electricity to EV drivers at a price that is competitive with gasoline or diesel.

DC Fast Chargers require a large amount of power in a short time frame to recharge vehicles quickly. A DC Fast Charger pulls 150% more power than a typical store and fueling operation combined does at its peak moment in a month. Accordingly, when businesses offer EV charging, these large demand costs restrict profitability and increase the cost for drivers of EVs to "refuel." DC Fast Chargers are capable of filling a vehicle up half-way in about 20 minutes and 80 percent of the way in about 35 minutes. For a customer, a charge can cost anywhere from \$10 to \$30 depending how much charge is required to refuel the battery. For a typical business, adding a single DC Fast Charger can increase its monthly bill by about \$1,600. The demand portion of this bill is \$1,500 and the energy portion of this bill is \$100.

But, it is very difficult for businesses to have consumers fully pay the demand charge. The business would have to precisely know ahead of time how many people would use its chargers over the course of an entire month in order to do that. If it turned out to make the wrong assumptions, consumers could be dramatically undercharged or overcharged – leading to difficult consumer protection questions or business losses, respectively. No matter the incentive for charging infrastructure, the ongoing costs for electricity, particularly demand charges which cannot effectively be passed through to consumers today, make profitability near impossible to achieve for private businesses without changes.

Fuel retailers getting hit with demand charges also cannot compete with a utility that has substantially lower costs for energy and power. Utilities have excess capacity and much lower energy costs that allow them to offer EV charging with little impact to their bottom line. What's more, demand charges are compounded so a fuel retailer will be saddled with higher demand charges for every additional charger available to their customers. That will make it more difficult for retailers to deploy DC Fast Chargers and give consumers the benefit of competitive pricing. The utility demand pricing model could not be further from the current retail fuel model, where increased consumption and volume results in efficiencies and lower costs for consumers. The utility model, then, will not work for EV charging on a large scale.

The challenges with electricity pricing as it exists today threaten to stunt the growth of

the EV market. Congress could address this problem by ensuring businesses offering EV charging only pay the costs that utilities pay for the electricity, without demand charges. Such a wholesaler rate would allow businesses to offer charging, compete, and develop the competitive market for EV charging. Demand charges are the greatest barrier to entry to mass adoption of DC Fast chargers by private business, even greater than the large capital costs to install DC fast chargers.

VII. The Need for Multiple Technologies

One key to decarbonization of the transportation sector is ensuring that we pursue advances wherever we can. If government policymakers pick technology winners and losers, that denies us the chance to squeeze gains out of existing technologies and creates huge risks that any misreading of future markets or advances in technology could deny us the benefits those markets or advances would have delivered. We have seen huge mistakes made in exactly this way – for example, when Congress and regulators pushed for MTBE in gasoline decades ago. Let's avoid repeating these mistakes.

In particular, some states have called for banning internal combustion engines. This would be a bad policy mistake for a number of reasons.

First, if combustion engines are banned, investments to find ways to take carbon out of the operation of those engines will be stunted. No one wants to make major investments in research in a technology that has been given a death sentence. American ingenuity remains one of the most powerful forces we have at our disposal. If people have a way to make money, they are remarkably good at finding ways to make that happen. We should use that potential rather than shutting it down.

Second, renewable fuels have already delivered most of the decarbonization gains we have made in the transportation sector to date. One study from the Biotechnology Innovation Organization estimated that renewables had reduced carbon emissions by 589 million tons over 10 years.³ Renewables help reduce carbon emissions and could be a larger part of the fuel mix to deliver additional decarbonization gains. Banning internal combustion engines means killing off the renewable fuels that are helping us keep carbon out of the atmosphere.

Third, a ban on internal combustion engines would have significant negative consequences for agriculture and rural America. Many farmers grow crops that produce renewable transportation fuels today. This is a huge market and losing it would dramatically reduce the prices of some farm commodities and leave many growers without an adequate market.

Fourth, no matter how rapidly electric vehicles are adopted, we will have large numbers of people driving traditional cars and trucks for a long time. Recent projections from the consulting firm McKinsey & Co. demonstrate that we need to keep making advances in traditional technologies. Experts from McKinsey project that by 2030, 50 percent of new

³ See [New Study: Biofuel Use Saved 589.3 Million Tons of Carbon Emissions Over the Past Decade – BIO](#).

vehicles sold in the United States will be electric. That is a large, aggressive number but it also comports with goals laid out by many political leaders looking to move to EVs. But, even at that level, it means that EVs will only be around 17 percent of the total vehicle mix in the United States. This is because some of those new EV sales will be replacing older EVs and people keep driving internal combustion engine cars for a long time.

And, even with those numbers, overall gasoline consumption will only decline at that point by 4 percent. Why? Because EVs tend to be purchased and used as second cars and people drive their combustion engine vehicles more miles each year. Even among the EV sales that replace combustion engine cars, most of those will replace cars that are relatively fuel-efficient while the least efficient vehicles stay on the road longer. These projections demonstrate that we must continue to invest in getting more efficiency out of combustion engines. Electrifying transportation alone simply doesn't do enough.

Fifth, electricity has more emissions than many people assume. The transportation sector accounts for more carbon emissions than any other sector of the U.S. economy. But, the second highest sector for emissions is – electricity generation. In light of the emissions attributable to EV batteries, it takes seven or eight years of driving for an EV to make up for carbon emissions involved in batteries and produce overall reductions compared to today's internal combustion engine vehicles. Further advances in carbon output from combustion engines – for example from the use of higher concentrations of renewable fuels and engines that take advantage of those fuels – could change that balance. If our goal is to reduce carbon in the environment, then we should be open to those gains no matter where they come from.

The bottom line is that competition among technologies that can help us achieve our climate goals should be a positive dynamic for us to use to our advantage. Banning internal combustion engines takes that positive dynamic off the table and undermines the renewable fuels industry in a way that would be bad for the environment and bad for agricultural economies and communities.

VIII. Policy Solutions

Finally, there are inherent challenges in shifting our transportation fuel from the liquid marketplace of today, where retailers have the ability to price shop among a variety of suppliers, toward a market with one power provider operating in a regulated environment. Without injecting competitive forces throughout the fuel supply chain, fuel retailers will be limited in their ability to lower the prices to the consumer. Congress can help alleviate that challenge by ensuring that utilities sell power to EV charging retailers at their own internal transfer price. Demand charges, which set our rates exorbitantly high during peak demand times, are another impediment to make the EV business case for retailers. Again, demand charges do not make sense for refueling on the go. A driver should not be penalized for needing to refuel at certain times of the day and fuel retailers should not be penalized for providing the fuel this Committee wants sold. Addressing the cost-prohibitive demand charge model will be beneficial to building the business case for investment by our industry.

The Committee should consider policy mechanisms to address these concerns,

including:

- Ensure federal funding does not block private sector investment by compounding the problem of utilities charging all their customers more for chargers and not putting capital at risk.
- End the electricity pricing problem of demand charges that make the business case unattractive for retailers to sell electricity.
- Prioritize credit regimes and/or tax incentives that make alternative energy less expensive for the end user, thereby providing a stable economic case for upstream investment. Tax credits and other incentives targeting the underlying economics of different fuels are a far more efficient, effective way to incentivize behavior than grant and rebate programs.
- Permit all EV charging station owners to generate a profit by selling electricity to EV owners without being subject to regulation as a utility. This allowance is essential if fuel retailers are to have any incentive to invest in EV charging technology.
- Adopting uniform retail pricing measurements (e.g., dollars per kilowatt-hour) and requirements for consumer-friendly price disclosures.

IX. Conclusion

We believe decarbonization efforts should incentivize private sector investments in the desired behavior – offering alternatives that reduce carbon output. To be effective, any alternative – including electricity – should be offered in an open, competitive market that gives American consumers the fullest economic benefits of robust price competition. This has worked well for consumers for nearly one hundred years with liquid fuels because the market had a business case to invest to meet consumer needs. It can work for alternative energy sources in the future if we follow those lessons.

Our industry is eager to work with the Committee to help it achieve this objective and place critical guardrails on any programs the Committee may pursue to decarbonize the transportation sector.