TESTIMONY BEFORE THE HOUSE NATURAL RESOURCES & ENERGY COMMITTEE ON **HOUSE BILL 123**, June 7, 2023

Madame Chair and Members of the Committee:

Good afternoon. My name is Joe Fitzgerald and I am here today on behalf of the New Castle County Chamber of Commerce to testify in support of **House Bill 123,** legislation which would require the Department of Natural Resources and Environmental Control to obtain the consent of the General Assembly before promulgating any regulations restricting the sale of fuel-powered cars, trucks, and SUVs in Delaware.

The regulations, which await final approval by the Secretary of the Department of Natural Resources and Environmental Control, to amend 7 Del. Admin. C. §1140 have profound implications for our Delaware households, small businesses, and our state's economy at large. **The New Castle County Chamber of Commerce believes that a policy proposal with such sweeping ramifications merits consideration by the peoples' elected representatives in the Delaware General Assembly after a thorough vetting of their potential socio-economic impact**.[1] This could allow for planning to address the impacts of decarbonizing transportation and a discussion of appropriate timelines and whether Delaware should opt for EPA emissions standards or continue as a California Waiver state.

The New Castle County Chamber of Commerce agrees that climate change mitigation is an important policy priority, an excerpt from our position on the issue follows:

> Climate change mitigation is a vitally important public policy priority; and the reduction of greenhouse gas emissions is a key component of climate change

[1] While we note that the statutory authority cited in the start action notice for these proposed regulations cites **7 Del. C. Chapter 60** and as the statutory authority for undertaking this proposal, as well as **Section 177 of the Clean Air Act (42 U.S.C. §7507),** and its regulatory basis in **Delaware's SIP 40 C.F.R. 52.426,** respectfully submitted, a proposal which would change the face of our personal and business vehicle market, profoundly impact local energy markets, retail businesses the considerable majority of our state's workforce, as well as most households, merits legislative consideration. To that end, **we recommend that the proposed regulations be stayed pending legislative consideration of the proposed amendments**.

mitigation. **In pursuit of policy solutions, it is essential to do so in a way that incorporates market-driven, empirically sound approaches which also acknowledge economic and social realities.**

While the Chamber supports taking legislative and regulatory action to combat climate change, **we maintain that climate policy should encourage innovation and investment to ensure significant emissions reductions while avoiding economic harm to businesses, consumers and disadvantaged communities.** Such policy should include well-designed market mechanisms that are transparent and not distorted by overlapping regulations.

We do not dispute that there is substantial consensus among leading scientists that, based on a reduction in mobile source greenhouse gas emissions and certain other factors, electric vehicles carry environmental benefits, they are ultimately not entirely "zero-emissions" and involve a substantial number of challenging implications from an environmental and socio-economic standpoint.[2] Those implications merit bipartisan discussion and mitigation efforts from elected officials.

Some of the Chamber's key concerns regarding the current regulatory proposal before the Secretary (not exhaustive) follow:

1. **The proposal could result in substantially increased costs and decreased access to affordable personal transportation for Delaware's workforce.**

   This proposal would require that in **model year 2027**, **35%** of new vehicles on dealer lots be zero emissions vehicles, with the mandated percentage increasing annually over the next decade and culminating in a requirement that **100%** of new vehicles on dealer lots be zero emissions vehicles by **2035**.

   The Department of Natural Resources cites the need for availability of zero emissions vehicles to Delaware dealers as a major consideration in moving forward with the proposed regulations. The Chamber respectfully submits that, given the commitment on the part of automakers to shift to the production of such vehicles, and current efforts on their part toward that end, those automakers, based on market forces will send to Delaware dealers what they are producing with or without a state mandate. Delaware's auto purchasing market is a small fraction of that of most states in our region and an even smaller fraction of the California market.

   The average cost of an electric vehicle, based on 2022 data, is **$66,000.** Even with the existing federal tax credit of **$7,500,** which was recently limited to only 14 models available to American consumers, these vehicles are currently unaffordable to a substantial portion of American households.

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[2] *Are electric vehicles definitely better for the climate than gas-powered cars?* (n.d.). MIT Climate Portal. https://climate.mit.edu/ask-mit/are-electric-vehicles-definitely-better-climate-gas-powered-cars

It is a straightforward matter of supply and demand. As the number of new internal combustion engine vehicles available from dealers declines, and the supply of preowned/used internal combustion engine vehicles available from dealers and via private sale or other means, the cost of those vehicles will increase.

In 2020, 56% of vehicle purchases were from sales of used vehicles. One need look no further than the microprocessor shortage during the COVID-19 emergency to see the impact of increased demand on the cost of preowned vehicles.

There are substantial mobility justice concerns to be considered. According to a May 2020 article in *The Annals of the American Association of Geographers*: "Within climate–energy–transport scholarship and professions there is a growing consensus that electric vehicles (EVs), which include personal cars, sport utility vehicles (SUVs), vans, and pickup trucks, are essential for decarbonizing mobility. This article urges caution and pause before an EV lock-in and calls on geographers and other scholars, professionals, and sustainability advocates to consider the multiscale environmental and social problems associated with EVs"[3]

2. **<u>Federal subsidies are not guaranteed in perpetuity, and it is doubtful that the State of Delaware would be able to fill the gap.</u>**

   The federal tax credit which subsidizes the purchase of such vehicles with a tax credit of **$7,500** was recently limited by a new Biden Administration rule to apply to the purchase of only 14 models out of the 91 currently available for purchase by American consumers. Ford, General Motors, Stellantis, and Tesla are the makers of those models. Models made by Volvo, BMW, Volkswagon, Nissan and others which had previously been eligible for the tax credit will now be excluded – a move which will place unnecessary constraints on the supply of zero emissions vehicles available to those requiring the subsidy.[4] **Even with such a tax credit, these vehicles are currently unaffordable to a substantial portion of American households.**

   There is already an effort underway in Congress to reduce or eliminate funding for such subsidies. Their availability may well depend on who controls Congress or the executive branch at any given time. This merits consideration as Delaware state government plans for implementation of this proposed mandate and its consequences for our economy and broader society.

3. **<u>Sufficient charging infrastructure is a very real concern.</u>**

   Charging infrastructure is expensive and unlikely to be built-out to a sufficient degree to accommodate the drivers without substantial disruption.

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[3] Jason Henderson (2020): EVs Are Not the Answer: A Mobility Justice Critique of Electric Vehicle Transitions, Annals of the American Association of Geographers, DOI: 10.1080/24694452.2020.1744422 https://geog.sfsu.edu/sites/default/files/2023-01/Henderson%202020%20Annals%20AAG%20EV%20Paper.pdf

[4] P. (2023, April 17). *These 14 EVs are the only ones left that get the tax credit*. These 14 EVs Are the Only Ones Left That Get the Tax Credit - POLITICO. https://www.politico.com/news/2023/04/17/ev-treasury-department-regulation-00092123

Though the Biden Administration has set aside **$7.5 billion** for charging infrastructure, with **$1.46 billion** going to states at an 80% to 20% match over the next five years, there will be a substantial cost to Delaware taxpayers to match with 20% of the cost. According to the plan, there will need to be an interoperable charging station with four 150 kw connectors every 50 miles along what are designated as "Alternative Fuel Corridors," there remains the concern of availability of charging stations in other locations. It should also be noted that, according to the United States Department of Transportation, charging connectors in that "fast charging" category (50 – 350 kW) take between **20 minutes** to **one hour** to charge a battery, which is substantially longer than it takes to refuel a traditional car or light-duty truck. It should also be noted that according to USDOT, most plug-in hybrids are not compatible with fast charging stations, so the efficacy of those charging stations would appear to be limited to ZEVs.

The vast majority of single-family and multi-residential housing built prior to the potential enactment (pending) of Senate Substitute 1 to Senate Bill 103 will not be equipped with electric vehicle charging infrastructure.

According to J.D. Power, the cost of a home charger ranges from $300 to well over $1000, assuming that the single-family home or semi-detached dwelling has 240 volt electrical service. Most prior residential construction has 120-volt wiring. According to Carvana:

> The costs of installation for these charging equipment also vary significantly. For example, the Level 1 charger costs between $300 to $600 before labor, which stands at about $1,000 to $1,700. The Level 2 charger goes a bit higher, with the cost increased to between $500 and $700 and labor costing about $1,200 to $2,000. For Level 3, you will need a whopping amount between $20,000 and $50,000 for parts, and labor could cost upwards of $50,000. It is worth remembering that if the installation process requires major electrical upgrades to your home, it could cost you more.[5]

Without substantial subsidies, installation of home charging infrastructure will be out of reach for many households.

Residents in densely populated urban areas with primarily on-street parking will find home charging particularly difficult to utilize.

In older neighborhoods in a number of towns and cities, where on-street parking is the primary option for residents, installing and utilizing home charging infrastructure would prove difficult. Additionally, given the length of time it takes to charge an electric vehicle at a public charging station with a level 3 DC fast charger (20 minutes to one hour), substantial congestion at public charging stations will be likely as we get closer to 2035.

4. **The impact on the cost of electricity could be substantial.** As the trend toward residential, commercial and automotive electrification accelerates, demand for electricity will increase sharply. The likely impact on the cost per kilowatt-hour of electricity will place financial pressure on households and businesses of all sizes. Electricity cost increases are already impacting the

[5] Courtney, C. (2021, July 19). *How much does it cost to install an EV charger?* Carvana Blog | the New Way to Buy a Car. https://blog.carvana.com/2021/07/how-much-does-it-cost-to-install-an-ev-charger/

progress of efforts to transition to ZEVs in Europe.[6] As will be discussed in the summary points below significant investments in electric infrastructure will be required to accommodate both the transition to ZEVs and to accommodate increasing reliance on renewable sources of generation. These upgrades will result in a combination of significant taxpayer expense and/or public indebtedness and substantial cost recovery that will impact ratepayers, including households and small businesses.

5. **Summary points on additional concerns:**

- **The electrical grid is antiquated and in need of substantial upgrades to support what will likely be a sharp increase in demand over the course of the next decade**. For our nation's transmission system, one-third of the infrastructure is more than 50 years old. Two-thirds is more than 40 years old.[7] Electric grid updates estimated between $75 and $125 billion are needed across the country to support a projected 20 million electric vehicles and 1-to-2 million public chargers.[8] Overall, to support the introduction of an increasing amount of renewable generation and the projected growth in electric and hybrid vehicles more than $2 trillion in upgrades to our nation's grid infrastructure will be required; and progress toward that effort is halting and currently not well-coordinated. The cost of those upgrades will affect ratepayers, which include households and small businesses. [9]

- **Generating sufficient electricity to meet the increased demand will raises additional questions.** The Power Systems Engineering Center at the National Renewable Energy Laboratory (NREL) estimates that, by 2050, the electrification and other sectors will require a doubling of U.S. generation capacity.[10]

- These regulations will substantially impact traditional fuel retailers. In California, the ACC II mandate could mean that as many as 80 percent of gas stations could be unprofitable by 2035.[11] Additionally, demand charges, which utilities need to ensure cost recovery, make it exceedingly challenging for convenience store retailers to break even: "A 2019 Great Plains Institute study found that if EV penetration reaches 10 charging customers per day, 50 kW stations will break even at nearly all electric utility rates. For 150 kW (total), a DCFC station

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[6] Connolly, K. (2022, September 12). *Soaring energy costs could threaten future of electric cars, experts warn*. The Guardian. https://www.theguardian.com/environment/2022/sep/12/soaring-energy-costs-could-threaten-future-of-electric-cars-experts-warn

[7] Editor, D., Osborne, D. R., & Woodward, C. (2021, September 28). *The "Grid of the Future:" A Q&A With PJM – DV Journal*. The "Grid of the Future:" a Q&a With PJM &Ndash; DV Journal. https://delawarevalleyjournal.com/the-grid-of-the-future-a-qa-with-pjm/

[8] B. (2021, June 21). *Electric Power Sector Investments of $75–125 Billion Needed to Support Projected 20 Million EVs by 2030, According to Brattle Economists - Brattle*. Brattle. https://www.brattle.com/insights-events/publications/electric-power-sector-investments-of-75-125-billion-needed-to-support-projected-20-million-evs-by-2030-according-to-brattle-economists/

[9] *Creaky U.S. power grid threatens progress on renewables, EVs*. (2022, May 12). Reuters. https://www.reuters.com/investigates/special-report/usa-renewables-electric-grid/

[10] Tina Bellon, N. G. (n.d.). *EV rollout will require huge investments in strained U.S. power grids*. U.S. https://www.reuters.com/article/us-usa-weather-grids-autos-insight-idUSKBN2AX18Y

[11] *As EVs Gain Popularity, What Will Happen to Gas Stations?* (2022, October 4). Governing. https://www.governing.com/next/as-evs-gain-popularity-what-will-happen-to-gas-stations

will break even for about half of the electric utility rates studied. A capacity increase beyond 150 kW (total) "makes it nearly impossible for a station operator to break even except in cases where the electric utility does NOT have a demand charge," according to the study.

- "Zero-Emissions Vehicles" come with their own environmental issues. Hiriko Tabuchi and Brad Plumer noted the following in a November 2021 *New York Times* article[12]:

> Like many other batteries, the lithium-ion cells that power most electric vehicles rely on raw [13]materials — like cobalt, lithium and rare earth elements — that have been linked to grave environmental and human rights concerns. Cobalt has been especially problematic.
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> Mining cobalt produces hazardous tailings and slags that can leach into the environment, and studies have found high exposure in nearby communities, especially among children, to cobalt and other metals. Extracting the metals from their ores also requires a process called smelting, which can emit sulfur oxide and other harmful air pollution.
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> And as much as 70 percent of the world's cobalt supply is mined in the Democratic Republic of Congo, a substantial proportion in unregulated "artisanal" mines where workers — including many children — dig the metal from the earth using only hand tools at great risk to their health and safety, human rights groups warn.
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> The world's lithium is either mined in Australia or from salt flats in the Andean regions of Argentina, Bolivia and Chile, operations that use large amounts of groundwater to pump out the brines, drawing down the water available to Indigenous farmers and herders. The water required for producing batteries has meant that manufacturing electric vehicles is about 50 percent more water intensive than traditional internal combustion engines. Deposits of rare earths, concentrated in China, often contain radioactive substances that can emit radioactive water and dust.
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> Focusing first on cobalt, automakers and other manufacturers have committed to eliminating "artisanal" cobalt from their supply chains, and have also said they will develop batteries that decrease, or do away with, cobalt altogether. But that technology is still in development, and the prevalence of these mines means these commitments "aren't realistic," said Mickaël Daudin of Pact, a nonprofit organization that works with mining communities in Africa.

  The authors go on to site issues with battery recycling and note that while 99 percent of lead-acid batteries are recycled in the United States, estimated recycling rates for lithium ion batteries are at about 5 percent.

- The agricultural sector, construction industry and other sectors which rely on light duty vehicles for towing and transport will be impacted where range and towing capacity are concerned.

- Current electric vehicles come with range and reliability issues that do not exist with internal combustion engine vehicles. *Consumer Reports* in a January 2022 article noted that "On average, EVs have significantly higher problem rates than internal-combustion vehicles across model years 2019 and

[12] Tabuki, Hiricho and Plumer, Brad. "How Green Are Electric Vehicles?" *New York Times,* 9 November 2021, www.nytimes.com/2021/03/02/climate/electric-vehicles-environment.html

> 2020, according to *CR's* data. That improved somewhat for 2021, but certain models still showed high rates of problems, according to the report."[14]

It is the General Assembly and future governors who will be faced with appropriating the resources and addressing the public policy and economic issues which we anticipate should these regulations be approved without sufficient planning to address the socio-economic impact that they are likely to have in our state.

In closing, we reiterate our support for **House Bill 123** and call for a bipartisan effort to consider and deliberate the issue and recommend that approval the proposed regulations be stayed pending consideration by the Delaware General Assembly.

An extended and annotated version of the Chamber's position on the proposed regulations referenced herein is in development.

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[14] Edelstein, S., - Contributing Writer, S. E., Halvorson, B., Feder, J., - Senior Editor, B. H., & - Senior Producer, J. F. (2022, January 14). *EVs are the least reliable vehicle type: Consumer Reports points to some problem areas*. Green Car Reports. https://www.greencarreports.com/news/1134740_evs-least-reliable-vehicle-type-problem-areas