

Subject: Public Hearing Comments
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From: DoNotReply@delaware.gov
To: HearingComments, DNREC (MailBox Resources)
Attachments: Mandy-Garrahan-attachment.pdf

Comments on 2022-R-A-0011: Low Emission Vehicle Program

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Comments:

These are the reasons why I oppose Delaware adopting the Zero Emission Vehicle Mandate: - Car emissions can be improved without having to eliminate internal combustion engines (ICE). In fact, given the mandate would allow plug-in Hybrids to be purchased new beyond 2035 indicates that even the CARB folks are aware that complete transition to EV-only new vehicles would be too limiting. And for those that choose not to purchase true EV – and opt for a hybrid, there still will be a need for gas stations – and these gas stations are not going to be easily replaced by charging stations, so the predominant new car sales as a result of this mandate will likely trend towards plug-in hybrids – further diminishing the net effect of vehicle emissions, while simultaneously creating significant challenges for Delawareans to afford, charge, maintain, and operate new vehicles in the next decade. If Delaware had the jump-start California did with available charging stations, high tax revenues, temperate climate, and electrical grid infrastructure, we might be successful in achieving the stated goals in 10 years. But this mandate is akin to Delaware building a plane from scratch while it is being flown – based solely on projections/studies that have yet to be proven by other states adopting such drastic and sudden measures, without truly understanding the second and third order affects it will have on the welfare and safety of their citizens, and the local economies. - This mandate will limit consumer choice, forcing citizens to buy more expensive hybrid and EV and plug-in hybrid vehicles (not just expensive to buy, but very expensive to repair if damaged or battery failure is experienced). EV rebates can help, but car manufacturers will simply escalate prices once they enjoy the law being on their side to do so (citizens will have no alternative when it comes to new cars to keep EV prices in check). And the Inflation Reduction Act funds that was passed 2 years ago still has not issued funds to the states to help subsidize the costs of such expensive purchases, and what happens when those funds finally do get released by the Federal government, only to get quickly allocated by the states managing those funds until exhausted – leaving citizens that were not ready to buy at the onset of the program forced to pay full price for EVs once they eventually do start seeking a new vehicle. Focusing efforts on carbon capture technology to reduce gas-fired power plants and other incinerator facilities would be a more-appropriate area to apply pressure towards, as industry has deeper pockets than the local populations, especially when Delaware’s citizens have faced such stiff inflationary costs in recent times. Forcing this transition too early before the cost of EVs can be tempered by larger inventories made available through natural market forces, 100’s more charging stations that are reliable/maintained, and the associated electrical grid expansion that can economically meet increased electrical demands (without somehow creating greater output of carbon-producing electrical generation plants?), would lead to economic disaster for the state. A state with a population that is made poorer will be forced to raise taxes more to provide more support for those in need, leading to a vicious cycle of the governments relying more-and-more on the wealthy to keep their programs solvent. This puts the state in a precarious position, where such wealthy sources of tax revenue (business primarily) will no longer see Delaware as business-friendly, and move-out – leading to financial catastrophe for the state. - DNREC is suggesting that the charging station grants it would issue to spur greater distribution/availability of charging points throughout the state is comical given it would “kick-start” the critical charging infrastructure with 5 new charging stations in new Castle County, 4 in Kent county, and another 5 in Sussex, is so insignificant given the 100’s of charging stations that would be needed to keep-up with demand. When you take into account charging station maintenance issues, the slow charging process, and electrical infrastructure necessary to establish such stations throughout the state, anything short of 50 new public stations maintained by the state (as a start to any required EV transition) will cause significant

challenges/problems for citizens. Charging enterprise companies will not bother with low-viability states like Delaware (where the average citizen cannot afford an EV), so it will perpetuate a problem of citizens finding new ICE vehicles out of state and bringing them back to Delaware – leaving EV charging station demand too low to attract new investment by private companies. The infrastructure, like the mandate itself, must come from the government - in quantity and early - for this proposal to be a success. And if that means that the Delaware revenue coffers would need to be disproportionately spent towards such infrastructure, instead of a disproportionate impact on Delaware citizen's budgets, then that is what the government of Delaware, to include DNREC, should accept. Otherwise, allow market forces and other heavy incentives (not mandates) drive the transition. - Delaware's Climate Action Plan may provide rebates to businesses and individuals to offset the cost of purchasing a charging station but the real question is how long those subsidies will last? Again, the IRA funds have yet to be issued to the states, but it is evident there will only be so much funding to spread around (less than 8% of the population will benefit). There is no reason to believe other EV rebates and subsidies to entice citizens to participate in the transition to EVs can be sustained. And as gas usage presumably would diminish over the next decade under the proposal, all of the tax revenue the state collects from the fuel dispensing stations would have to be offset by some new tax not currently in place – or most certainly, there would be further revenue deficits with the government that will continue to place pressure on eventually eliminating subsidies that right now are absolutely critical to get most anyone to consider purchasing an EV. - The population in general is aging and older generations are not likely to understand and feel comfortable driving higher-tech cars, let alone have the sort of extra money lying around to make such expensive purchases – with most struggling to make ends meet right now on their fixed incomes. With Social Security benefits likely to only diminish for future generations, the same future generations that are not expected to have saved as much as the older generations, there will be even less budgetary room for the younger generation to make the EV transition a success in the next 10 years. Unfortunately, it is apparent our citizens will need the better part of 20-30 years to successfully make a transition to mostly EV – but only if the government spends much more of its own funds on the infrastructure first – and does so without dramatically raising taxes that would lead to increasing rates of poverty in the state. - Just because tither states (beyond California) in our region have jumped onto this bandwagon, doesn't mean it is right for Delaware. Such rationale for major decisions like this reminds me of teenagers following trends – just because they are trends – and not based on knowledge of the action really benefitting you as an individual. There is no reason Delaware cannot eventually join such states at a much later date (and after such programs have proven effective elsewhere) – and then maybe turn-up the pressure on influencing and encouraging citizens to buy EVs; but don't do so with blinders on – where the sole purpose is to achieve a climate/emission reduction goal without regard to the risk and economic impacts it poses on your citizens. - It is said that vehicle emissions are one of the largest sources of air pollution in our state, but half of the air pollution our state experiences originates from outside of the state, so mandating controls inside the state is likely having more of a minor net effect on the coastal waterways to the east and possibly new Jersey. So we should not pretend that controlling emissions in Delaware is truly controlling the air quality in Delaware. Instead, we should be honest in how we portray such emission control programs and state that they contribute towards the greater good of the regional air quality and climate – but at very minor levels given the size of our state and number of drivers. Again, we would be better served to focus on other more-harmful sources of pollution from electric-generation plants that use fossil fuel, and heavy vehicles/tractor trailers owned by transportation companies that are more likely to absorb raised costs of transportation. - Many citizens of Delaware live on farms that require vehicles to operate in cold and difficult conditions in the middle of large field where chargers are not accessible in the event of a power loss. And heavy haulers (small trucks hauling heavy loads) are not ideal for EV designs without losing significant charge. These and other practical scenarios of ICE vehicle use clearly provide the citizens an advantage over EV capabilities. More and more studies are showing that the EPA mileage ratings comparisons between EVs and ICE is not that much different after all, so the idea that EVs are more efficient than all ICE is not always true. Take into account the heavier gross curb weights of the EV and the increase road wear and tire wear (which also a source of road air pollution) – and you can expect more negative second and third order affects to our state. It is being discovered now that the heavier gross weights of the EVs are leading to more potential for fatal accidents due to the sheer mass involved in EV crashes. And what about the negative impacts to the environment for mining the rare metals needed? What is the carbon and other pollutive impacts of that process? If fossil fuel refining completely went away as a result of the EV mandate, that might be a good trade-off. But fossil fuels will continue to be extracted and refined, so adding spikes in metal mining (that is like going to be predominantly sourced from foreign countries – some of which may not be our ally) will just make the environmental impact that much worse overall. Even California cannot admit that their EV mandate will solve the climate crises – at best it is a very small part in the fight, but not one that justifies forcing society to spend more of their hard-earned dollars on a

solution that will bring more impracticality, inconvenience, challenges, and true risks towards their personal welfare. - The state government – more so than DNREC – has a responsibility, first and foremost to the citizens of Delaware, and should therefore indefinitely postpone any such decision to force its citizens to take on such a draconian and – frankly, un-American – methods to usher in changes that should be measured, tested and re-measured over many years to ensure we are not committing to a farce of a solution to a much larger problem that this mandate surely will not solve. - I have also attached a copy of a letter from Valero that makes several more very detailed, thoughtful, and research-based reasons why this proposed mandate is a mistake for Delawareans, and I believe the Secretary at DNREC – and most importantly, the state government of Delaware (that owes it allegiance to the people of the state) – should read closely and ultimately deiced against this mandate. The only way the majority of the citizens will ever believe and trust in this approach to meaningful emission reductions is whether or not the state can really prove it has been effective elsewhere –and it would seem right now, the state only has projections, estimates, hopes that it will work – and hope is not an effective method.



May 24, 2023

Via Electronic Submission to: DNRECHearingComments@delaware.gov

DNREC - Office of the Secretary
89 Kings Highway
Dover, DE 19901
Attention: Theresa Newman, Hearing Officer

Re: Public Comments—Amendments to 7 DE Admin. Code 1140, Delaware Low Emission Vehicle Program, known as the Advanced Clean Cars II (“ACC II”) Program; Register Notice SAN # 2022-01; Docket # 2022-R-A-0011.

To Whom It May Concern:

Please find below the comments from Valero on the proposed amendments to 7 DE Admin. Code 1140, Delaware Low Emission Vehicle Program, known as the ACC II Program. Valero appreciates the opportunity to provide feedback on the proposed amendments.

Introduction

Valero Energy Corporation and its subsidiaries (collectively, “Valero”) submit these comments as part of DNREC’s stakeholder engagement regarding ACC II. In addition to being the nation’s largest independent refiner of petroleum fuels, Valero is one of the top producers of domestic biofuels. Valero was the first traditional petroleum refiner to enter large-scale ethanol production and is now the second largest ethanol producer in the U.S. Through our Diamond Green Diesel joint venture with Darling Ingredients, and following a recent expansion project to construct a new plant in Port Arthur, Texas, we are currently the leading renewable diesel producer in the world. Our Board recently approved a project to commission production of sustainable aviation fuel, and we are actively pursuing carbon sequestration opportunities in the United States that will substantially lower the carbon intensity of the ethanol we produce.



Comments

- a. **Transportation sector decarbonization should embrace all technologies fit for purpose.**

Valero recognizes DNREC's desire to expediently lower GHG emissions from the transportation sector. As a proud producer of the low-carbon liquid fuels that have been and will continue to be essential to the decarbonization of the transportation sector, Valero encourages DNREC to not limit its transportation sector planning to zero-emission vehicle ("ZEV") technologies. While ZEVs may provide options to help reduce GHG emissions, exclusive reliance on those technologies ignores both the full lifecycle GHG emissions of ZEVs and the benefits of low-carbon liquid fuels and other emerging technologies.

DNREC should evaluate the merits of all fuels and vehicle technologies on a full lifecycle basis. The National Bureau of Economic Research has acknowledged that "despite being treated by regulators as zero emission vehicles, EVs are not necessarily emissions free."¹ In fact, the Hummer EV using U.S. average grid electricity is reported as generating higher carbon dioxide emissions per mile than many smaller, more efficient gasoline-powered cars.²

A lifecycle analyses conducted by Southwest Research Institute finds that GHG emissions from a light-duty internal combustion engine ("ICE") vehicle that runs on renewable diesel with a carbon intensity of 2 g/M results in 2% fewer lifecycle GHG emissions when compared to a comparable battery electric vehicle ("BEV") using U.S. average grid electricity, as illustrated below. In Delaware's case, the GHG emission intensity of grid electricity is slightly greater than the U.S. average (870.1 lbsCO₂e/MWh versus the national average of 807.0 lbsCO₂e/MWh), resulting in an even greater disparity in GHG emission performance between low-carbon liquid fuels and EVs.³

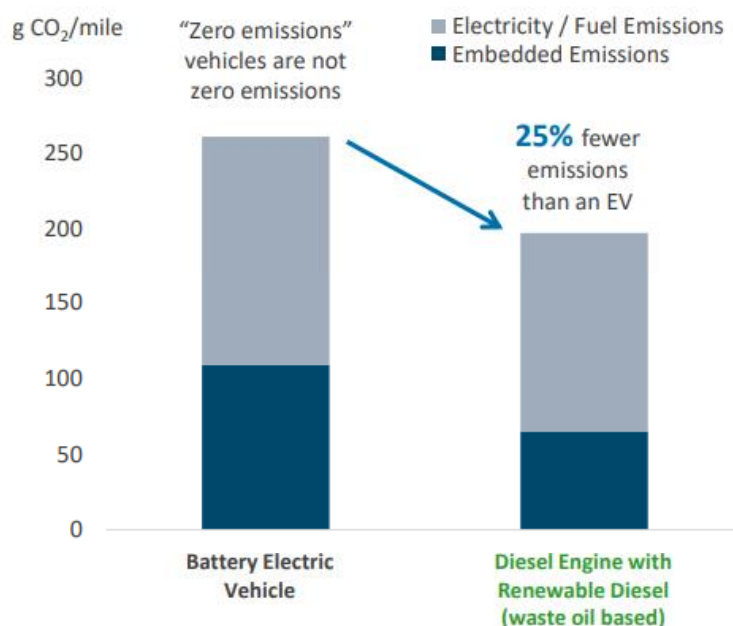
¹ See <http://www.nber.org/papers/w21291>.

² See <https://q.com/2148/big-electric-trucks-and-suvs-are-the-new-gas-guilers>.

³ e.g., *Summaries*, U.S. ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/grid/summary-data>.



Figure 1: U.S. Light-Duty Vehicle Lifecycle Emissions
(See 2022 Valero Investor Relations Presentation)



DNREC should remain open to emerging innovative approaches and new technologies for reducing GHG emissions from ICE vehicles, such as on-board carbon dioxide capture and subsequent sequestration.

There are other complexities associated with a singular transition to EVs that DNREC should also consider, including:

- Significant environmental impacts arise from other aspects of the EV lifecycle, including raw material acquisition and processing, and battery production, transport, disposal, and recycling.⁴
- EVs are more expensive on average than their ICE vehicle counterparts and unaffordable for many households. In the first calendar quarter of 2022, the average price of top-selling light-duty BEV in the U.S. was about \$20,000 more than the average price of top-selling ICE vehicles. The price disparity has not improved, with the average price of light-duty EVs near \$33,000 in August 2022 and continuing to

⁴ See Perry Gottesfeld, *Electric cars are a dirt little recycling problem: batteries*, CANADA'S NATIONAL OBSERVER, Jan. 22, 2021, <https://www.nationalobserver.com/2021/01/21/opinion/electric-cars-have-dirty-little-recycling-problem-their-batteries>.

Registration-weighted average retail price for the 20 top-selling BEVs and ICE vehicles in the U.S. S&P Global, *Tracking EV Prices: How Competition is Priced are EVs in the Major Global Auto Markets*, May 2022.



rise.⁶ By contrast, the median per capita and household income in Delaware are approximately \$72,724 and \$38,917, respectively.⁷

- A transition to EVs would expose Delaware residents to supply chain vulnerabilities largely beyond the control of regulators. For instance, by 2030, Wells Fargo projects a risk of shortages across all of the key components of EV batteries, except manganese,⁸ which is underscored by long lead times for the EV battery supply chains,⁹ and a reliance on geopolitical rivals who control those supply chains.¹⁰
- Cold climate conditions like those experienced in Delaware have been shown to significantly reduce the battery range and efficiency of BEVs.¹¹

b. DNREC lacks the legal and legislative authority to adopt a transportation electrification mandate like California’s ACC II standards.

It is crucial that the policy guiding DNREC’s rulemaking actions be supported by law in order to avoid inefficient expenditures of time and resources, or worse, misleading the public by setting expectations regarding outcomes that are not within DNREC’s authority to mandate. Section 177 of the Clean Air Act (“CAA”) provides that a state may only adopt “such standards that are identical to the California standards for which a waiver has been granted for such model year”.¹² As of the date of this letter the U.S. Environmental Protection Agency (“EPA”) has not granted a preemption waiver under the CAA for California’s ACC II rules. Unless and until EPA grants such a preemption waiver, any state’s adoption of these rules is premature and inconsistent with the express terms of §177.¹³

The measures contemplated by California’s ACC II are extraordinary. In considering their adoption in Delaware, there is little to no legal analysis to confirm that the novel approaches and requirements mandated under the regulations are within the authority of DNREC and do not offend

⁶ Andrew Hawkins, *EV prices are going in the wrong direction*, THE VERGE, Aug. 24, 2022, <https://www.theverge.com/2022/8/24/23319794/ev-price-increase-used-cars-analysis-iseecars> (see also, Justin Banner, *The least Ford’s first minipro Sees not a price increase to Earl’s first brand*, MOTORTREND, Dec. 1, 2022, <https://www.motortrend.com/news/2023-ford-f-150-lightning-pro-price-increase-msrp>).

⁷ Estimates as of July 1, 2021, representing the income over the past 12 months, in 2021 dollars. U.S. Census Bureau, *Quickfacts Delaware*, <https://www.census.gov/quickfacts/fact/table/DE/PST04-221>.

⁸ Colin M. Langan, et al., *EV Lead-on Series: The untold Electric Vehicle crisis part 1: Tesla Model S*, WELLS FARGO, May 11, 2022.

⁹ IEA 2022 Global EV Outlook.

¹⁰ *Id.*

¹¹ See Ron Witt, *Winter Cold eat EV range loss in cars* RECURRENT, Dec. 12, 2022, <https://www.recurrentauto.com/research/winter-ev-range-loss> (see also *Popular EVs tested in Norwegian winter conditions*, NORWEGIAN AUTOMOBILE FEDERATION, Mar. 12, 2020, <https://www.naf.no/ebil/aktuelt/ebiltest/ev-winter-range-test-2020>).

¹² 42 U.S.C. §707(2).

¹³ 42 U.S.C. §707.



principles of state or federal law. DNREC should consider whether the measures called for in the California ACC II rule conflict with or are otherwise preempted by the statutory mandates of federal legislation such as the Energy Policy and Conservation Act (“EPCA”) the federal CAA the Energy Independence and Security Act (“EISA”), including the Renewable Fuel Standard (“RFS”).

ACC II will have vast nationwide political and economic significance. Requirements that mandate a shift from ICEV to ZEV sales will significantly impact supply chains, consumer costs, electric power infrastructure, domestic energy security, and interstate commerce.

Additionally, ACC II includes measures that may violate other constitutional provisions and principles. These include, but likely are not limited to, the Dormant Commerce Clause, which prohibits state regulations that improperly discriminate against out-of-state commercial interests or that unduly burden interstate commerce the dormant foreign affairs preemption doctrine under the Supremacy Clause, which preempts state laws that intrude on the exclusive federal power to conduct foreign affairs the Takings Clause of the Fifth Amendment, which precludes the taking of private property (or the elimination of entire industries) for public use without just compensation and the equal sovereignty doctrine, which constrains the federal government from treating states disparately.

Because the measures called for under ACC II are unprecedented in their scope and reach, Delaware should conduct sufficient legal review to confirm that the recommended actions are authorized under applicable law and that they are not preempted or precluded as a matter of law before establishing a recommendation for rulemaking.

c. Limitations of CAA §177.

The early stages of California’s ZEV program were mired by low consumer acceptance, slow technological advancement, missed goals, and backtracking. While California’s goals remained aspirational, it always maintained (and several times applied) the ability to re-write the rules when the program proved infeasible for automakers.^{14, 15, 16} The limitations in §177 of the CAA do not provide states (other than California) with the flexibilities to adjust ambitious targets

¹⁴ California Air Resources Board (“CARB” or “ARB”), *Modifying Zero Emission Vehicle ZEV Regulation* (April 24, 2003) <https://www2.arb.ca.gov/news/arb-modifies-zero-emission-vehicle-ev-regulation> (providing that ARB voted to modify California’s ZEV rule in order to allow automakers to meet part of their ZEV requirement).

¹⁵ CARB, *Notice of Public Hearing to Consider Proposed Amendments to the California Zero Emission Vehicle Regulations Regarding Treatment of Major and Minor Small or Intermediate Volume Manufacturers and Infrastructure Standardization* (May 1, 2001) <https://www3.arb.ca.gov/regact/charger/notice.htm> (stating that “in a January 2001 hearing, the Board approved major changes to the ZEV regulations that will significantly reduce the number of ZEVs required during the near term”).

¹⁶ CARB, *Proposed Amendments to the Zero Emission Vehicle Regulation* (September 2, 2014) https://www2.arb.ca.gov/sites/default/files/barcu/regact/2014/zev2014/zev14isor.pdf_viewType=Print_viewClass=Print (stating that “California could see about 20,000 fewer ZEVs and TZEVs delivered in the 2018 through 2020 model years than would be delivered under the existing regulation”).



to accommodate the realities of record inflation, extraordinary supply chain disruptions, global uncertainty due to the war in Ukraine, and critical concerns about the availability, cost and foreign dependence of minerals needed for EV batteries. Rather, states may adopt and enforce standards to control emissions from new motor vehicles only if “such standards are identical to the California standards”.¹⁷

Delaware must carefully consider what the implications will be if reality cannot keep pace with its ambitions (e.g., if automakers cannot supply EVs in the numbers needed to meet the DNREC’s proposed EV sales mandates, if consumers choose not to or cannot afford to purchase the EVs, and if the electrical grid and EV charging infrastructure cannot keep pace with the growth in EV fleet. Without the option of modifying the rules to accommodate EV realities, states adopting California’s standards via 177 risk creating for themselves a quagmire in which automakers are unable to sell and consumers unable to purchase the new vehicles.

d. California’s struggles present a cautionary tale for Delaware.

DNREC should consider the implications that a strategy focused on a singular technology may have on community decision-making, consumer choice, and the unintended consequences that reliance on electrification may present, including foreign supply chain disruptions and forced labor in the production of the raw materials needed to manufacture batteries.¹⁸

California policymaking is hardly an unqualified success story. Its climate policies (like the EV sales mandates) have had major inflationary impacts on gasoline and energy prices, as well as negative impacts on jobs in certain industries that are directly related to traditional fuels and vehicles.¹⁹ While often lauded as the measuring stick for GHG emission reduction policies, California’s transportation fuel prices are now the highest in the nation, averaging approximately \$4.81 per gallon of gasoline.²⁰ According to a 2021 Report from the California Public Utilities Commission, “it is already cheaper to fuel a conventional ICE vehicle than it is to charge an EV” in the San Diego Gas & Electric Co. service area.²¹ The California Energy Commission projects that both commercial and residential electricity prices will continue to rise, reaching over \$8/gasoline gallon equivalent (“GGE”) by 2023 for the residential sector and nearly \$7/GGE for the commercial sector.²² If environmental justice is truly a commitment for Delaware, it should carefully consider the criticisms of California’s climate approach, such as those leveled by The

¹⁷ See 42 U.S.C. § 7007.

¹⁸ See U.S. Department of Energy, *List of Goods Reduced Child Labor or Forced Labor*, at 10-11, https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2021/2022-TVPR-List-of-Goods-v3.pdf.

¹⁹ California Legislative Analyst’s Office, *Assessing California’s Climate Policies in Perspective* (Dec. 21, 2018).

²⁰ AAA, *California’s Gas Prices are Current*, <https://gasprices.aaa.com/state/CA> (accessed May 10, 2023).

²¹ CPUC, *Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity issues Pursuant to P.U. Code § 913.1*, at 11-117 (May 2021).

²² CEC, “Presentation - Transportation Energy Demand Forecast,” 21-IEPR-03 (Dec. 14, 2021).



Two Hundred, which point out the disproportionate impacts to working and minority communities.²³

As California has faced rolling blackouts and historic energy prices, Governor Newsom in his May 2022 state budget proposal has pivoted to the use of traditional fuel infrastructure to ensure system reliability to protect against outages.²⁴

Moreover, unworkable EV sales mandates put Delaware at risk of missing out on real carbon reductions available through incentivizing low-carbon liquid fuels and by encouraging the development of emerging carbon removal technologies.

e. DNREC must provide for a transparent and reasoned economic analysis.

DNREC has failed to prepare a comprehensive costs model with respect to the proposed ACC II adoption. Without doing so, DNREC could not and cannot adequately consider alternatives that emphasize affordability alongside emissions reductions. DNREC has also failed to convey the consequences and difficulties associated with the major technology transformation required under the rulemaking. For example, DNREC neglects both defined and less defined risks as well as potential impacts to Delaware stakeholders. DNREC has not estimated what Delaware's total costs of compliance would be under ACC II. Neither has DNREC provided any discussion quantifying impacts to Delaware's job market. Accordingly, Delaware's analysis in support of ACC II is absent and inadequate.

Moreover, DNREC cannot merely rely on and extrapolate from CARB's data and analysis without adequately considering differences in scale, climate, terrain, and state economies that will have profound impacts on Delaware's experience implementing ACC II. State specific and regional factors are material and must be considered. In sum, DNREC has rushed its consideration of ACC II without performing an independent analysis to ensure the regulations are properly and thoroughly vetted for application in Delaware.

As discussed above, as California has felt the real-world implications of its climate policy with rolling blackouts and sky-high energy prices, it is now implementing a broader approach to GHG reductions that includes investment in carbon capture and fossil fuel infrastructure to ensure future system reliability. DNREC need not focus on an inexplicable fear of prolonged reliance on liquid fuels infrastructure—rather, it can and should present a transparent, technology-neutral approach that allows for innovation that would better serve Delaware's most vulnerable communities. For example, DNREC and the Delaware Department of Transportation (“DelDOT”)

²³ See Plaintiffs' Complaint, *The Two Hundred or Homeowners et al. v. California Air Resources Board et al.*, No. 1:22-CV-01474.

²⁴ See <https://www.ebudget.ca.gov/2022-23/pdf/RevisedBudgetSummary/ClimateChange.pdf>.



highlighted practical challenges inherent to EV adoption in its 2022 National Electric Vehicle Infrastructure (“NEVI”) Plan.²⁶ These include the following acknowledgments:

- “Local permitting processes are not always clear. Delays have occurred in previous infrastructure deployments as a result of unclear or undefined local permitting processes for charging stations.”²⁶
- “Delivery delays are already occurring for some charging station manufacturers and this problem can get more challenging as all states work to accelerate the speed of infrastructure deployment.”²⁷
- “Robust research on cyber security threats in a growing electric vehicle charging market is in its infancy and focuses on identifying the risks. This research has been conducted by the Department of Energy’s National Renewable Energy Laboratory, as well as researchers at universities around the world, and insurance companies concerned with indemnifying these emerging risks. Some of the risks this research has identified includes:
 - Payment fraud at public charging stations
 - Vehicles made immobile or inoperable
 - Vulnerabilities in data exchanged between vehicles and charging stations
 - Leakage of personally identifiable information from users of charging station
 - Vehicle GPS data
 - Grid stability and reliability
 - Unknown risks as EVs are further integrated into the grid through distributed energy resources and technologies like vehicle to grid (V2G)”²⁸

DNREC falls short in communicating such challenges and representing the concerns of stakeholders associated with singular reliance on electrified transport in its assessment of ACC II.

Delaware stakeholders should be afforded an opportunity to evaluate the data, costs, and underlying assumptions before DNREC proceeds with the adoption of ACC II.

Conclusion

Delaware should support and foster technological innovations in the transportation sector by embracing technology-neutral approaches to decarbonization. Decarbonizing the transportation sector will require multiple technologies competing in an open market that rewards technologies

²⁶ State of Delaware, National Electric Vehicle Infrastructure Plan (hereinafter Delaware NEVI Plan), Delaware Dep. of Transportation and Delaware Dep. of Natural Resources and Environmental Control, <https://del.dot.gov/Programs/NEVI/pdfs/Delaware%20NEVI%20Plan%20-%20SUBMITTED.pdf?cache=183887139>

²⁷ Delaware NEVI Plan at 7.

²⁸ *Id.*

²⁸ *Id.* at 12-1.



based on emissions reductions and costs. Valero is prepared to work with DNREC to help ensure its GHG reduction goals are achieved.

□□□

Valero appreciates the opportunity to comment and would welcome the opportunity to have additional discussions on these issues. Please do not hesitate to contact me with any questions or if Valero or I can otherwise be of assistance.

Sincerely,

A handwritten signature in blue ink that reads 'Mandy Garrahan'.

Mandy Garrahan
Executive Director Strategic Planning Public Policy