

May 26, 2023

Public Hearing Officer
Theresa Newman
Delaware Department of Natural Resources and Environmental Control
100 W. Water Street, Suite 6A
Dover, DE 19901

Sent via Electronic Mail

Subject: Joint comments on proposal to amend the Delaware Low Emission Vehicle Program (7 Admin. Code 1140), Public Hearing Docket #2022-R-A-0011.

Dear Theresa Newman,

On behalf of the Natural Resources Defense Council, the Sierra Club Delaware Chapter, Delaware League of Women Voters, The Nature Conservancy, and representatives from other business, faith, environmental, and advocacy organizations, representing over 10,000 Delaware-based members and supporters, we urge Delaware to adopt the Advanced Clean Cars II (ACC II) standards as soon as possible. As these comments will highlight, Delaware must adopt these regulations to maximize the benefits that these regulations bring to our air quality, health, and climate. Further, these regulations will bring economic benefits to Delaware and Delawareans alike.

Thank you for your consideration.

Introduction	3
ACC II Background	3
The Need For Aggressive Action To Address Transportation Emissions	4
Strong State Standards Are Critical, Regardless Of Federal Stringency	6
Delaware Has The Authority To Adopt The Standards	7
Benefits of Adopting ACC II	8
Air Quality And Health Benefits	8
Economic Benefits	11
ACC II is Both Achievable and Necessary For Long-Term Market Stability, Infrastructure and Utility Planning	14
Zero-Emission Vehicle Sales Requirements Are Readily Achievable	14
Manufacturers Have Ample Lead Time	14
Manufacturers Have Made Significant Commitments To Electrification	15
Zev Sales Have Grown Rapidly In Other Jurisdictions	15
Charging Infrastructure Is Available Now And More Is Coming	16
EV Prices are Decreasing and Becoming More Affordable	17
Supporting a Robust Used Vehicle Market	18
Supply Chains are Rebounding	19
The Grid Can Handle This Transition	19
The Need for Additional Equity	20

Introduction

The transportation sector is the largest source of greenhouse gas emissions in the United States¹ and in Delaware.² The transportation sector is also a major source of other toxic pollution in the United States. Emissions from cars and trucks on the road include pollutants such as particulate matter (PM), nitrogen oxides (NOx), sulfur oxides (SOx), which are detrimental to air quality and human health. According to the Environmental Protection Agency, 54 percent of NOx emissions come from mobile sources with 20 percent of that coming from light- and medium-duty vehicles.³ Further, light- and medium- duty vehicles account for approximately 19 percent of PM 2.5 emissions as well.

Together, these pollutants not only harm the environment and our air, but also human health. Exposure to these emissions can cause asthma attacks, heart attacks, strokes, cancer, and premature death. In Delaware, over 79,000 adults and 13,000 children suffer from asthma, fueled in part by the emissions from the transportation sector.⁴ Further, Communities of Color and lower income communities tend to bear the brunt of these emissions and have been historically overburdened with pollution from the transportation sector.

A key strategy to reduce emissions from the transportation sector is by transitioning to zero-emission vehicles—which include battery electric, plug-in hybrid electric, and fuel-cell electric vehicles. As the name suggests, these vehicles emit zero tailpipe emissions while running on electricity, and will help to improve air quality and health of Delawareans, all while reducing climate-harming greenhouse gas emissions.

The Advanced Clean Cars II standards (ACC II) are the only mechanism to guarantee that Delawareans will receive the maximal benefits associated with the transition to zero-emission vehicles—including air quality, health, climate, and economic benefits. Not only will these standards allow for more customer choice of clean, affordable vehicles in Delaware, but they will also help to clean up the tailpipe emissions from new gasoline vehicles on our roads, reducing the amount of toxic particulate matter and nitrogen oxides being released into the air.

ACC II Background

The Advanced Clean Cars II regulation consists of two portions: the zero-emission vehicle standards (ZEV) and the low-emission vehicle standards (LEV) for criteria pollutants. ACC II builds upon the first iteration of the program (Advanced Clean Cars I) which ends in vehicle model year (MY) 2025. 18 states (including Delaware) adopted portions of the ACC I regulation,

¹ <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

² <https://documents.dnrec.delaware.gov/Air/Documents/2018-DE-GHG-Inventory.pdf>

³ NRPM, pages 10- 11. April 12, 2023

⁴ <https://www.lung.org/research/sota/city-rankings/states/delaware>

and now each of those states has the choice whether to adopt ACC II. As of May, 2023, seven states have adopted the ACC II standards (New York, Massachusetts, Virginia, Vermont, California, Oregon, and Washington), with several other states planning to adopt the regulation in 2023 (including Maryland, Colorado and Rhode Island). These regulations are on automakers and their sales in these states—these are not regulations on the state or its residents.

The ZEV portion of the regulation requires that a certain percentage of new zero-emission vehicles are sold annually in Delaware—starting in vehicle MY 2027 and cumulating in 100% new zero-emission vehicles by vehicle MY 2035. It is crucial to note that these regulations are only on *new* vehicle sales and do not affect used vehicle sales or vehicles currently on the road. However, since vehicles can last 15 or more years on the road, the sooner Delaware transitions to cleaner vehicles in the new sales market, the sooner more of these options will be available in the used vehicle market, and the sooner the state will be able to zero-out all pollution on our roads.

The LEV portion of the regulation provides more-stringent-than-federal standards to reduce toxic tailpipe emissions from new gasoline vehicles in Delaware. The LEV standards as part of ACC II will reduce particulate matter, nitrogen oxides, carbon monoxide and other pollutants from the vehicles on our roads, helping to further improve air quality and health.

The Need For Aggressive Action To Address Transportation Emissions

Delaware is already experiencing impacts from climate change, ranging from increased flooding events to increased temperature spikes, as outlined in Delaware's Climate Action Plan and technical scenarios.⁵ The Plan and accompanying technical documents also details in depth the impacts sea level rise is going to have in Delaware. Sea level rise is going to dramatically increase the number of sunny day and high tide flooding events in coastal communities, but some impacts will be felt even in some urban communities north of the canal. These impacts are leaving an increasingly significant mark on various sectors of our economy, including agriculture, tourism, and, of course, public health. While sea level rise is a global issue compounded by a number of factors on the Delmarva peninsula, each state and nation has a role to play in combatting the underlying issue driving the problem, namely human-caused climate change. As such, in order to avoid exacerbating these issues and impacts in Delaware, we need to do our part in dramatically reducing global greenhouse gas emissions. Since the transportation sector is our state's largest portion of overall greenhouse gas emissions, adopting ACCII is the best tool we have to help do what our state can to play a role in reducing these emissions coming from our state.

⁵ <https://dnrec.alpha.delaware.gov/climate-plan/impacts/>

On the front of air quality, more than 81% of Delaware residents live in counties that do not meet federal EPA clean air standards for ozone.⁶ Communities of color and low-wealth communities bear an especially unfair burden of fuel costs and harmful air pollution⁷ due to decades of systematic marginalization.⁸ The American Lung Association’s most recent State of the Air report states that New Castle County was given a “D” grade for high Ozone days.⁹ The Advanced Clean Cars II rule is an important step to mitigating these impacts by accelerating the number of cars on our roads that don’t emit tailpipe pollution and incentivizing placement of these vehicles in communities disproportionately impacted by vehicle pollution. In 2035, the Advanced Clean Cars II standards would reduce light-duty NOx emissions by 79%, light duty PM2.5 emissions by 48%, and light duty SO2 emissions by 48% below 2021 levels in Delaware.¹⁰

As the Intergovernmental Panel on Climate Change (“IPCC”) recently reported, “Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming,” with the result that “global surface temperature” is already “1.1°C above 1850-1900 in 2011-2020.”¹¹ With “high confidence,” the IPCC observes that even this initial increase in global mean temperatures has resulted in “widespread adverse impacts and related losses and damages to nature and people.”¹² Nonetheless, greenhouse gas emissions continue to increase, making it “*likely* that warming will exceed 1.5°C during the 21st century and make it harder to limit warming below 2°C.”¹³ In order to avoid catastrophe, the IPCC states, again, with “high confidence” that

All global modeled pathways that limit warming to 1.5°C (>50%) with no or limited overshoot, and those that limit warming to 2°C (>67%), involve rapid and deep and, in most cases, immediate greenhouse gas emissions reductions in all sectors this decade. Global net zero CO2 emissions are reached for these pathway categories, in the early 2050s and around the early 2070s, respectively.¹⁴

Figure 1: IPCC Greenhouse Gas Emission Projection Pathways¹⁵

⁶ See, e.g., https://www3.epa.gov/airquality/greenbook/anayo_de.html

⁷ See, e.g., <https://www.witn22.org/2022/04/21/new-report-reveals-mixed-results-for-air-pollution-in-delaware/>

⁸ See, e.g., <https://www.npr.org/2022/03/10/1085882933/redlining-pollution-racism>

⁹ <https://www.lung.org/research/sota/city-rankings/states/delaware>

¹⁰ Based on a Sierra Club analysis using EV-REDI, a transportation analysis tool developed by Synapse Energy Economics.

¹¹ Synthesis Report of the IPCC Sixth Assessment Report (AR6) Summary for Policymakers, *available at* https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_SPM.pdf, at 4.

¹² *Id.* at 5.

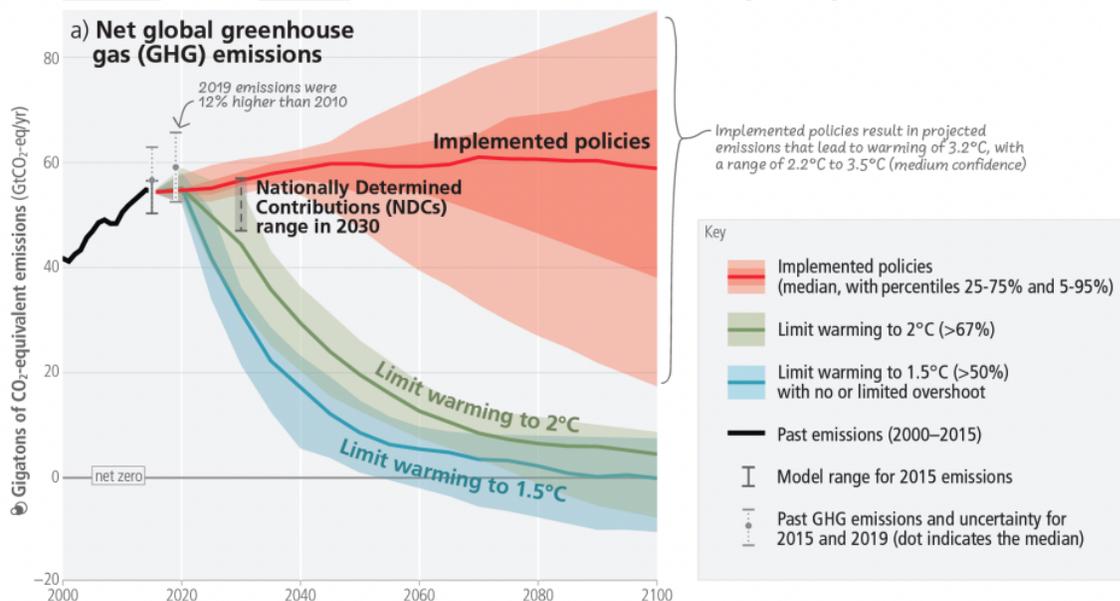
¹³ *Id.* at 10 (emphasis in original).

¹⁴ *Id.* at 21 (emphasis added).

¹⁵ *Id.* at 23.

Limiting warming to 1.5°C and 2°C involves rapid, deep and in most cases immediate greenhouse gas emission reductions

Net zero CO₂ and net zero GHG emissions can be achieved through strong reductions across all sectors



As the transportation is the largest contributor to greenhouse gases in the United States, reducing the emissions from this sector is a key strategy to limit warming and preventing the most drastic effects of climate change from occurring. Delaware participates in the U.S. Climate Alliance and has set a goal of reducing emissions in the state by 26% by 2025. Supporting the transition to zero-emission vehicles is the strategy to help the state achieve these goals.

Strong State Standards Are Critical, Regardless Of Federal Stringency

During the Trump Administration, the National Program on GHG tailpipe emissions and fuel economy standards for passenger vehicles faced an unprecedented attack, rollback, and weakening, which Trump agency appointees called “the largest deregulatory initiative” of this administration.¹⁶

¹⁶ See Washington Post, “Trump administration rolls back rules on mileage standards, dealing a blow to Obama-era climate policy,” (March 31, 2020) available at https://www.washingtonpost.com/local/trafficandcommuting/trump-administration-rolls-back-rules-on-mileage-standards-dealing-a-blow-to-obama-era-climate-policy/2020/03/31/cb42cbb8-7359-11ea-87da-77a8136c1a6d_story.html ; Environmental Protection Agency and National Highway Traffic Safety Administration, Department of Transportation, “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program,” (Sept. 27, 2019), available at <https://www.federalregister.gov/documents/2019/09/27/2019-20672/the-safer-affordable-fuel-efficient-safe-vehicles-rule-part-one-one-national-program>.

The U.S. EPA, under the Biden Administration, reversed much of the damage to federal and state vehicle emission programs for model years 2023 through 2026, while National Highway Traffic Safety Administration (NHTSA) updated fuel economy standards for model year 2024 to 2026 in order to reduce our nation’s reliance on oil and harmonize with EPA’s program. We wish to see progress and collaboration continue, but we are also cognizant that foundational progress must be made at the state level given the recent history of changing political winds at the federal level.

Therefore, more than ever, “Section 177 States” and California must provide long-term certainty through its programs to protect public health and the environment. States have the obligation and authority to ensure continued progress occurs on reducing GHG and other air pollutants, regardless of federal action (or in-action). Providing long-term certainty to the industry, as this proposed rule does, will be important not only today, but in future environments where federal inaction on climate could occur again. In fact, several auto manufacturers—including Ford, Volkswagen, BMW, Honda, and Volvo—support California’s right to set its own more stringent-than-federal auto pollution standards, and the rights of states to also adopt these rules.¹⁷

Delaware Has The Authority To Adopt The Standards

Under the federal Clean Air Act (CAA), California is eligible to seek and receive a waiver of preemption under the terms of section 209(b)(1) “if the state determines that the state standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.”¹⁸

Under the Clean Air Act Amendments of 1977, Congress also permitted States under Section 177 of the Act to adopt California new motor vehicle emission standards, so long as:

- (1) such standards are identical to the California standards for which a waiver has been granted for such model year, and
- (2) California and such States adopt such standards at least two years before commencement of such model year (as determined by regulations of the Administrator).

California officially adopted the ACC II regulations on November 30, 2022,¹⁹ allowing for other states to also move to adopt them pursuant to the federal Clean Air Act and state law. Delaware has such authority under existing state law, and should use that authority to implement the ACC II rule. Specifically, 7 Del. C. Chptr. 60 §§ 6001, 6010 directs DNREC to adopt rules—like ACC II—to “effectuate the policy and purposes” of Chapter 60; those purposes include the

¹⁷ See <https://www.nrdc.org/experts/david-doniger/not-your-fathers-automobile-industry> and https://blogs.edf.org/climate411/files/2023/02/Industry-Respondent-Intervenors-Initial-Brief-Feb.-13-2023_.pdf.

¹⁸ US Environmental Protection Agency, “Vehicle Emissions California Waivers and Authorizations,” *at* <https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations>.

¹⁹ <https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii>.

“control of pollution of the . . . air resources of the State to protect the public health, safety and welfare”); *see also* 42 U.S.C. § 7507 (providing that states “may adopt and enforce for any model year standards relating to control of emissions from new motor vehicles . . . if . . . such standards are identical to the California standards”).

Moreover, Governor Carney has announced in 2022 the intention for Delaware to adopt the Clean Cars rules.²⁰ And Delaware currently participates in two components of the Advanced Clean Cars I regulation (the predecessor to ACC II): the Low Emission Vehicle Standards (LEV) for both Criteria Pollutants and Greenhouse Gases, both of which were adopted in 2014.²¹ Adoption of ACC II builds upon these standards and actions Delaware has historically taken to improve air quality and the health of Delawareans by cleaning up the transportation sector.

Benefits of Adopting ACC II

Air Quality And Health Benefits

The Advanced Clean Cars II standards will improve air quality and health in Delaware. ACC II will not only increase the amount of zero-emission vehicles on the road, but the LEV standards included in the regulation will also help to reduce pollution coming from Delaware’s gasoline powered vehicles that are still on the road.

Today, the share of fossil fuels in the state’s electricity mix is 92.72 percent.²² But according to the Department of Energy’s Alternative Fuels Data Center, in Delaware—even with the current electricity grid mix—the well-to-wheel emissions (emissions from fuel production, processing, distribution, and use) of ICEVs are more than three times as much as those of BEVs and more than twice as much as those of PHEVs.²³ As more renewable energy is added onto the grid, ZEVs will only continue to get cleaner over time.

As the transportation sector currently emits toxic pollutants that can harm public health, including particulate matter and nitrogen oxides, zeroing out pollution from tailpipes will improve not only air quality, but also help improve health. Transitioning to zero-emission vehicles could reduce nitrogen oxides by 92% and particulate matter by 61% by 2050.²⁴ According to the American Lung Association, the shift to zero-emission transportation and electricity generation will result in 462 fewer premature deaths, 11,200 fewer asthma attacks, and

²⁰ <https://news.delaware.gov/2022/03/03/delaware-to-adopt-zero-emission-vehicle-regulation/>

²¹ https://ww2.arb.ca.gov/sites/default/files/2022-05/%C2%A7177_states_05132022_NADA_sales_r2_ac.pdf

²² U.S. Department of Energy, “Alternative Fuels Data Center,”

https://afdc.energy.gov/vehicles/electric_emissions.html#wheel (last accessed May 12, 2023).

²³ *Id.*

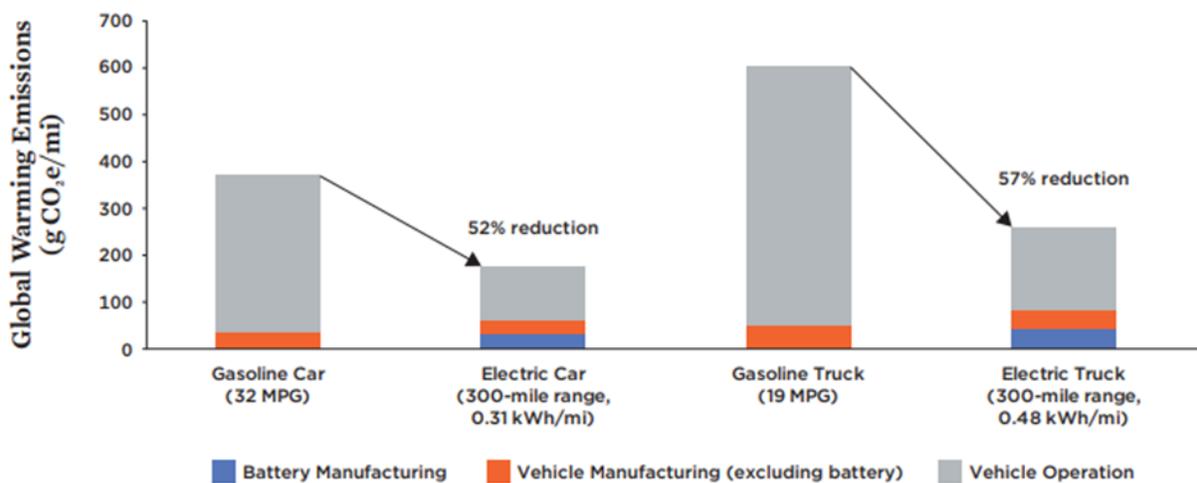
²⁴

<https://www.lung.org/getmedia/13248145-06f0-4e35-b79b-6dfacfd29a71/zeroing-in-on-healthy-air-report-2022.pdf>

55,100 fewer lost work days in Delaware from 2020 to 2050, totaling \$5.1 billion in cumulative health benefits.²⁵

Even when we look at lifecycle emissions of an electric vehicle (EV), it is clear that they are much cleaner than gasoline vehicles and will continue to get cleaner over time—something that cannot be said for gasoline vehicles.

The Union of Concerned Scientists found that electric cars and pickup trucks produced fewer global warming emissions than gasoline vehicles when considering fueling, that is electricity versus gasoline.²⁶ The study acknowledges that the manufacturing of an EV may initially produce more greenhouse gas emissions (due to the current battery supply chain), but over the lifespan of the vehicle, emissions are between 52-57% less than a comparable gasoline car and truck. The authors state that “most of the global warming emissions over the lifespan of a vehicle occur during its use, so the reductions from driving an EV more than offset the higher manufacturing emissions.”



Life cycle global warming emissions are significantly lower for EVs than for gasoline cars or trucks when considering manufacturing and usage, despite higher battery-manufacturing emissions for the EV.

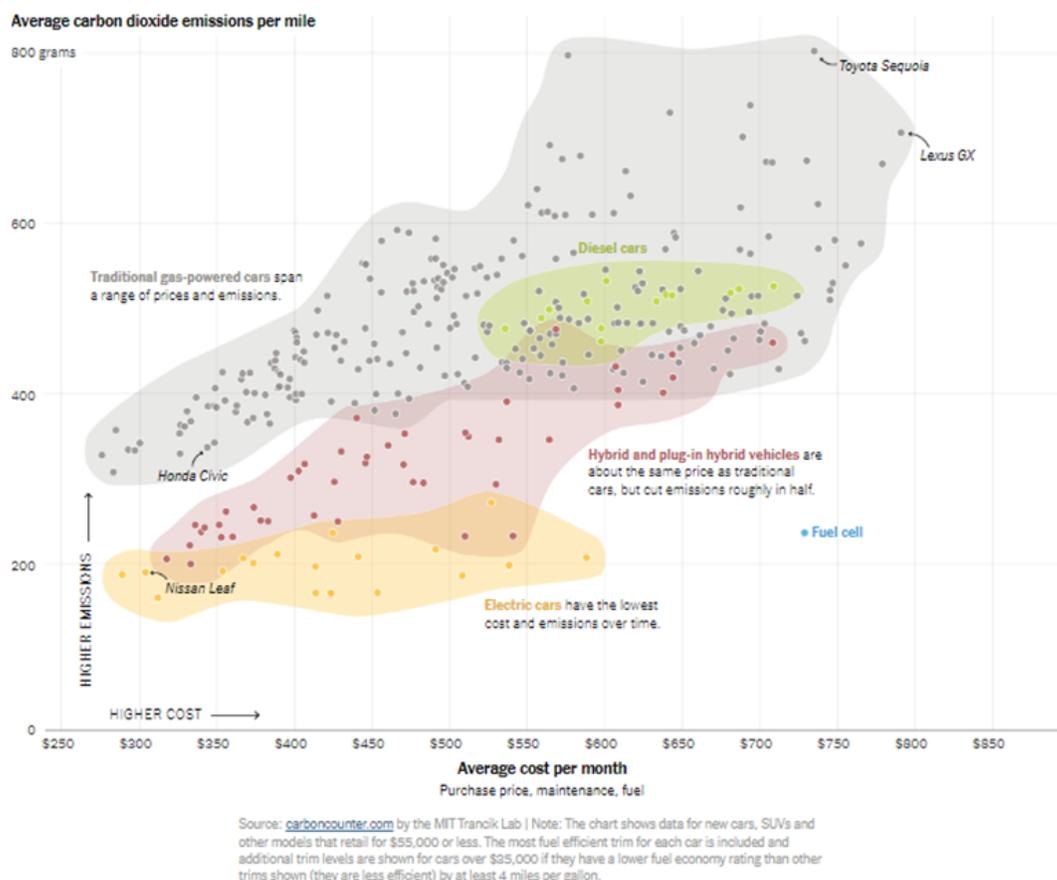
This analysis looked at the full lifecycle of the fuels needed for electric and gasoline vehicles by looking at several variables, including: raw mineral extraction for fuel, emissions from power plants, efficiency of vehicles, oil extraction at the well, oil refining, and combustion of the vehicle’s engine. This analysis found that when considering fueling of vehicles, everywhere in the United States, driving the average EV has lower emissions than driving the average new

²⁵ American Lung Association, “Zeroing in on Healthy Air,” available at <https://www.lung.org/getmedia/13248145-06f0-4e35-b79b-6dfacfd29a71/zeroing-in-on-healthy-air-report-2022.pdf>.

²⁶ Reichmuth, Dunn, and Anair, *Driving Cleaner: Electric Cars and Pickups Beat Gasoline on Lifetime Global Warming Emissions*, Union of Concerned Scientists, July 2022. <https://www.ucsusa.org/sites/default/files/2022-09/driving-cleaner-report.pdf>

gasoline vehicle.²⁷ Further, the analysis found that driving an average EV in the United States was equivalent to driving a gasoline car that got 91 miles per gallon in terms of greenhouse gas emissions. And, the emissions reductions and air quality benefits from EVs will continue to improve as more and more of the electricity that charges them comes from renewable resources.²⁸

Experts at MIT evaluated the different vehicles both in terms of emissions as well as affordability.²⁹ The good news is that electric cars, followed by plug-in hybrids and conventional hybrids, are generally far cleaner *and* more affordable in terms of the average consumer. The researchers at MIT have further stated that “it’s difficult to find a comparison [between gasoline vehicles and electric vehicles] in which EVs fare worse than internal combustion.”³⁰ The current technologies are cleaner and becoming even more affordable – and this trend is expected to continue.



²⁷ *Id.*

²⁸ *Id.*

²⁹ Penney, *Electric Cars are Better for the Planet—and Often Your Budget, Too*, New York Times, (Jan. 15, 2021) available at <https://www.nytimes.com/interactive/2021/01/15/climate/electric-car-cost.html>.

³⁰ Moseman and Paltsev, *Are Electric Vehicles Definitely Better for the Climate than gas-powered cars?* (Oct. 13, 2022), available at <https://climate.mit.edu/ask-mit/are-electric-vehicles-definitely-better-climate-gas-powered-cars>.

An analysis by Reuters using the Argonne National Laboratory’s Greenhouse Gases, Regulated Emissions and Energy Use in Technologies (GREET) model considered the well-to-wheel emissions of an electric vehicle.³¹ The analysis shows that while production of an electric vehicle emits 15 carbon dioxide g/mile more than the production of a gasoline vehicle, EVs still emit far less carbon dioxide than their gasoline counterparts of their lifetime, due to the emissions benefits of electricity as a fuel source as opposed to gasoline. Even charging an electric vehicle using only a coal-powered electric grid would still reduce emissions by half a million grams of carbon dioxide a year compared to a gasoline vehicle. Reuters estimates that a driver would have to drive approximately 13,500 miles on their vehicle as the point where EVs well-to-wheel emissions are cleaner than gasoline vehicles. Considering the average vehicle in the United States is driven around 11,400 miles per year,³² this means that just after a year of vehicle ownership an EV will be cleaner than a gasoline vehicle when considering the vehicle lifecycle.

Economic Benefits

Buying an electric vehicle is an investment that starts paying off the moment its owner starts driving it. This is because operating expenses—including fuel and maintenance costs—are typically lower for ZEVs. A recent survey by Consumer Reports found that BEV owners pay around half as much to maintain and repair their vehicles compared to owners of conventional cars.³³ The same Consumer Reports study found that fuel savings alone for an EV compared to a gasoline car can be \$4,700 or more over the first seven years.³⁴ That is because unlike gasoline, which varies wildly in price, the average price of residential electricity throughout the United States, adjusted for inflation, has stayed close to the dollar-a-gallon equivalent mark for over 26 years.³⁵ EVs also have lower maintenance costs due to the fact that there are only 18 moving parts in the electric drivetrain, compared to over 2,000 in a gas car. Switching from gasoline cars to ZEVs would therefore help ameliorate the energy burden issues that many households across the US are facing. The average US household spends over \$2,000 on vehicle fuel (mostly gasoline) every year, which is comparable to the average amount spent on electricity and natural gas combined.³⁶ With the adoption of ACC II, we can expect to see fuel expenditures drop over time.

³¹ Lienert, *Analysis: When Do Electric Vehicles Become Cleaner than gasoline cars?* Reuters (July 7, 2021), available at <https://www.reuters.com/business/autos-transportation/when-do-electric-vehicles-become-cleaner-than-gasoline-cars-2021-06-29/>

³² US Department of Energy Alternative Fuels Data Center, *Maps and Data- Average Annual Vehicle Miles Traveled by Major Vehicle Category* (Feb. 2020), available at <https://afdc.energy.gov/data/10309>

³³ Chris Harto, “Electric Vehicle Ownership Costs: Today’s Electric Vehicles Offer Big Savings for Consumers,” *Consumer Reports*, available at <https://advocacy.consumerreports.org/wp-content/uploads/2020/10/EV-Ownership-Cost-Final-Report-1.pdf>.

³⁴ *Id.*

³⁵ Max Baumhefner, “Fight Fascists & Save Money: Go Electric,” Natural Resources Defense Council (blog), <https://www.nrdc.org/experts/max-baumhefner/fight-fascists-save-money-electric>.

³⁶ Argonne National Laboratory, *Affordability of Household Transportation: Fuel Costs by Region and Socioeconomic Factors*, <https://publications.anl.gov/anlpubs/2021/01/165141.pdf>.

Taking the full cost of ownership into account, for all nine of the most popular EVs on the market below \$50,000, lifetime ownership costs were “many thousands of dollars lower than all comparable ICE (internal combustion engine) vehicles’ costs, with most EVs offering savings of between \$6,000 and \$10,000.”³⁷ These savings will be even more pronounced for used ZEVs, which will become increasingly available as ZEV adoption rates increase. In 2021, the Massachusetts Institute of Technology calculated the full lifetime cost of almost every new car model on the market and found that EVs often had the lowest costs.³⁸ An analysis by Atlas Public Policy found that “total cost of owning the forthcoming electric version of the Ford F-150 (the F150 Lightning) is 17 percent lower than the gasoline-powered version, the cost of the electric Volkswagen ID.4, an SUV, is 15 percent less than the Honda CRV, a Tesla Model 3 costs almost 5 percent less than a similar Lexus, and the Chevy Bolt costs 6 percent less than a Toyota Corolla.”³⁹

Additionally, ZEV investments, including those from utilities, can put downward pressure on rates for all utility customers. A recent analysis by Synapse Energy Economics entitled “Electric Vehicles are Driving Electric Rates Down” analyzed real-world data from three of the utility service territories with the highest number of EVs in the country, Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E), and found that EVs are already putting downward pressure on rates.⁴⁰ Accordingly, the benefits of EVs are not just environmental; as that study appropriately concluded: “EV adoption can reduce costs for both EV drivers and other electric customers while reducing harmful emissions.”⁴¹ Synapse evaluated the revenues and costs associated with EVs from 2012 through 2021 in PG&E, SCE, and SDG&E service territories. They compared the new revenue the utilities collected from EV drivers to the cost of the energy required to charge those vehicles, plus the costs of any associated upgrades to the distribution and transmission grid and the costs of utility EV programs that are deploying charging stations for all types of EVs. In total, EV drivers contributed an estimated \$1.7 billion more than the associated costs, and this finding is not merely a result of the fact that most EV drivers in PG&E and SCE’s territories remain on default rates and pay high upper-tier prices as a result. Even if three in four were on time-of-use rates designed for EVs, those drivers would still have provided approximately \$1.4 billion in net-revenues.

³⁷ Harto, “Electric Vehicle Ownership Costs.”

³⁸ Veronica Penney, “Electric Cars are Better for the Planet – and Often Your Budget, Too,” *The New York Times*, <https://www.nytimes.com/interactive/2021/01/15/climate/electric-car-cost.html>.

³⁹ Atlas Public Policy, “Comparative Total Cost Analysis on Some of the Most Popular Vehicles in the Country,” <https://atlaspolicy.com/comparative-total-cost-analysis-on-some-of-the-most-popular-vehicles-in-the-country/>.

⁴⁰ Tyler Fitch et al, “Electric Vehicles Are Driving Electric Rates Down,” *Synapse Energy Economics* (Oct. 2022) available at

https://www.nrdc.org/sites/default/files/media-uploads/evs_are_driving_rates_down_dec_2022_update_0.pdf.

⁴¹ *Id.*

Adoption of ACC II will also provide economic benefits to Delaware’s overall economy. Several of Delaware’s neighbors—notably New Jersey, Maryland, and Virginia—have either adopted the ACC II regulations or have announced plans to do so this year. As seen during the ACC I program, auto manufacturers are more likely to send their zero-emission vehicles to states that have adopted the ZEV portion of the ACC II standards to meet the annual sales requirements in those states. Therefore, if the state fails to adopt ACC II, Delawareans would likely need to continue to travel out of state to purchase the clean, zero-emission vehicles that they want—taking money away from local Delaware dealerships and reducing sales revenue in the state. Governor Carney noted this in the press release announcing the state’s plans to adopt ACC II, stating that “ [b]y adopting the ZEV regulations, Delaware drivers won’t have to go out of state to find an electric vehicle to purchase, and our dealerships will benefit by keeping Delaware customers in Delaware.”⁴²

Adoption Of ACC II Will Provide Greater Customer Choice Of Vehicles

Delaware electing not to join the ACC II program in full would have detrimental impacts on consumer choice in the First State. As discussed above, failure to adopt ACC II would result in fewer clean vehicle choices available for Delawareans. But if the state adopts the standards, Delawareans will have access to the latest zero-emission vehicle makes and models available.

The number of different makes and models available continues to increase—from sedans to SUVs to trucks, there are an increasing number of types of zero-emission vehicles available to meet drivers’ needs. There are over 90 electrified car models available in the United States today, and these numbers are only expected to increase.⁴³ However, on dealership lots in Delaware, there are next to no available models ready for interested consumers to consider and take out for a test drive. This is directly related to the fact that Delaware is not a part of the full Advanced Clean Cars program, including the ZEV components. Auto manufacturers prioritize those states who have signed on to the ZEV portions of the Advanced Clean Cars program. That means Delaware consumers have to choose between joining a waiting list with no guarantee of ever receiving their cars, purchasing their ZEVs in another state, and purchasing a gas or standard hybrid vehicle.

Therefore, as more affordable models of electric vehicles and other ZEVs enter the market, Delaware will be at a distinct disadvantage compared to nearly every other state around us in

⁴² <https://news.delaware.gov/2022/03/03/delaware-to-adopt-zero-emission-vehicle-regulation/>.

⁴³ Alliance for Automotive Innovation, *Get Connected: Electric Vehicle Quarterly Report*, (Fourth Quarter 2022), available at

<https://www.autosinnovate.org/posts/papers-reports/Get%20Connected%202022%20Q4%20Electric%20Vehicle%20Report.pdf>; EV Hub, *Automakers Dashboard*, Atlas Public Policy.

<https://www.atlasevhub.com/materials/automakers-dashboard/>.

access to these vehicles. This problem will become compounded and even more pronounced in non-ACC II states as demand for these vehicles increase in the ACC II states.

By joining the full ACC II complement of regulations, we can ensure that consumers in the First State receive every opportunity to purchase the vehicles they want at Delaware dealerships as the automakers continue to transition to a fully ZEV fleet.

ACC II is Both Achievable and Necessary For Long-Term Market Stability, Infrastructure and Utility Planning

Zero-Emission Vehicle Sales Requirements Are Readily Achievable

The ACC II regulation only affects new on-road light- and medium-duty vehicles under 14,000 lbs. For vehicles under this category, the regulation starts at 35% ZEV sales in MY 2026 with an interim target of 68% sales by 2030 and a 100% target in 2035. It also provides flexibilities—such as the ability to utilize early compliance credits, environmental justice credits, and historical credits—that will help reduce the regulatory burden on manufacturers in states with current lower zero-emission vehicle sales. The current Advanced Clean Cars Program ZEV mandate levels out ZEV sales at approximately 7-8% starting in MY 2025 and maintains that requirement for subsequent years. Due to the current level of ZEV sales across the United States, and globally, it is clear that this 7-8% sales target is far below the current state of the market and does not reflect real-world sales. As of September 2022, Bloomberg’s New Energy Finance projects that market forces alone will make electric vehicle sales reach 23% of U.S. passenger vehicle sales in 2025, and 52% in 2030.⁴⁴ In Delaware, sales of zero-emission vehicles reach 5.88% at the end of 2022, and these numbers continue to grow annually.⁴⁵

ACC II will facilitate and accelerate that already occurring process and strengthen the current standards. And with strong automaker commitments and federal laws—such as the Infrastructure Investments and Jobs Act and the Inflation Reduction Act—electric vehicles will become more accessible and affordable.

Manufacturers Have Ample Lead Time

The ACC II regulation is a requirement on automobile manufacturers—not on Delaware or on Delawareans. Under the requirements of the Clean Air Act, states must give auto manufacturers at least two years of lead time notice of the adoption of the ACC II standards. Delaware is

⁴⁴ Bloomberg, “More Than Half of US Car Sales Will Be Electric by 2030,” *available at* <https://www.bloomberg.com/news/articles/2022-09-20/more-than-half-of-us-car-sales-will-be-electric-by-2030#xj4y7vzkg>.

⁴⁵ <https://www.autosinnovate.org/resources/electric-vehicle-sales-dashboard>.

proposing to adopt ACC II starting in MY 2027. If Delaware passes ACC II in 2023, it will provide the required lead time to automakers to start the regulations in MY 2027.

Manufacturers Have Made Significant Commitments To Electrification

During the ACC II hearing at CARB, no automaker opposed the regulations. While many stated that hitting the ZEV targets could be a challenge, none said it was infeasible. Considering that automakers have already announced over \$210 billion dollars of investments to support the transition towards ZEVs in the United States,⁴⁶ several automakers have committed to electrifying most or all of their fleet in the 2025-2035 time frame, when ACC II will be in effect. Announced plans include:

- General Motors—100% electric vehicle sales in U.S. by 2035 and carbon neutral by 2040⁴⁷
- Volvo—will only make electric vehicles by 2030⁴⁸
- Volkswagen—half of its vehicle sales in the U.S. will be electric by 2030; fully electric a few years later⁴⁹
- Honda—announced a fully electric vehicle lineup by 2040. Estimates that 40% of North American sales will be electric by 2030⁵⁰
- Toyota—will introduce 30 new all-electric vehicles by 2030.⁵¹

The ACC II standards merely support and accelerate the industry's transition to ZEVs and ensuring that Delaware obtains the zero-emission vehicles first.

Zev Sales Have Grown Rapidly In Other Jurisdictions

Regulations like ACC II would likely further induce manufacturers to provide even more ZEV models. The evidence for this is already observed in several EU countries and China, where in 2016 EV model availability was relatively low. From 2016 to 2021, stronger ZEV regulations in these jurisdictions have helped increase EV model availability and supply, which in turn led to

⁴⁶ Atlas Public Policy, "\$210 Billion of Announced Investments in Electric Vehicle Manufacturing Headed for the U.S.," *available at* https://www.atlasevhub.com/data_story/210-billion-of-announced-investments-in-electric-vehicle-manufacturing-headed-for-the-u-s/.

⁴⁷ General Motors, "General Motors, the Largest U.S. Automaker, Plans to be Carbon Neutral by 2040," Press Release, Jan. 28, 2021.

⁴⁸ Volvo Car Group, "Volvo Cars to be fully electric by 2030," Press Release, March 2, 2021.

⁴⁹ Volkswagen Newsroom, "Strategy update at Volkswagen: The transformation to electromobility was only the beginning," (March 5, 2021), *available at* <https://www.volkswagen-newsroom.com/en/stories/strategy-update-at-volkswagen-the-transformation-to-electromobility-was-only-the-beginning-6875>.

⁵⁰ Honda News Room, "Summary of Honda Global CEO Inaugural Press Conference," (April 23, 2021), *available at* <https://global.honda/newsroom/news/2021/c210423eng.html> (accessed June 15, 2021).

⁵¹ Toyota Motor Corporation, "Video: Media Briefing on Battery EV Strategies," Press Release, December 14, 2021. Accessed on December 14, 2021 *available at* <https://global.toyota/en/newsroom/corporate/36428993.html>.

significantly increased sales by 2021.⁵² In Germany, for example, ZEV sales went from 3.01% in 2019 to 26% in 2021, an increase of about 23% in two years.⁵³ That takeoff in German ZEV sales coincided with the “Euro 6” CO2 emission performance standards taking effect, under which 95% of MY 2020 vehicles and 100% of MY 2021 vehicles must meet a fleet average of 95 g/km of CO2 emissions.⁵⁴ The German experience demonstrates that manufacturers can accelerate ZEV sales quickly given a strong policy push.

Charging Infrastructure Is Available Now And More Is Coming

While it is estimated that 80% of electric passenger vehicle charging happens at home,⁵⁵ a robust charging network helps ensure drivers can charge while en route, while also providing charging services to drivers who may not have the ability to do so at home or at work. Currently, there are over 368 public EV charging ports at over 145 locations in Delaware.⁵⁶ These numbers do not include home charging or private charging at workplaces. To help with the transition to zero-emission vehicles, it is vital that the state continue to support charging station infrastructure deployment. And just as the ACC II regulation ramps up over time, so can the state’s charging infrastructure.

And Delaware is taking strides to further build out a robust network of charging infrastructure within the state. Through the Volkswagen Mitigation Fund, DNREC will install additional Direct Current Fast Charging Stations (DCFC) at 14 different locations throughout Delaware.⁵⁷ As part of the Federal Infrastructure Investments and Jobs Act, Delaware will receive over \$17.5 million to help further build out the charging infrastructure in our state through 2026—before the start of the ACC II program.⁵⁸ DNREC and DelDOT are also currently developing a Delaware Charging Infrastructure Plan/ Roadmap.⁵⁹ According to DelDOT, “[t]he statewide roadmap will allow us to accurately anticipate the state’s electric vehicle charging needs for years to come.”⁶⁰

⁵² International Energy Agency, “Global EV Outlook 2022,” <https://iea.blob.core.windows.net/assets/ad8fb04c-4f75-42fc-973a-6e54c8a4449a/GlobalElectricVehicleOutlook2022.pdf>.

⁵³ Mark Kane, “Germany: Almost 700,000 Plug-Ins Were Sold in 2021,” *InsideEVs*, available at <https://insideevs.com/news/560910/germany-plugin-car-sales-2021/>.

⁵⁴ European Commission, “CO2 emission performance standards for cars and vans,” https://ec.europa.eu/clima/euaction/transport-emissions/road-transport-reducing-co2-emissions-vehicles/co2-emission-performance-standardscars-and-vans_en.

⁵⁵ ChargeHub. A Beginner’s Guide to Electric Cars: How to Charge an EV at Home. <https://chargehub.com/en/home-charging-guide-electric-vehicles.html>

⁵⁶ U.S. Department of Energy. Alternative Fuels Data Center Station Locator. <https://afdc.energy.gov/stations/#/analyze?fuel=ELEC> (accessed May 17, 2023)

⁵⁷ <https://news.delaware.gov/2023/01/25/dnrec-funds-new-electric-vehicle-fast-charging-stations/>

⁵⁸ https://www.fhwa.dot.gov/environment/nevi/ev_deployment_plans/de_nevi_plan.pdf

⁵⁹ The State of Delaware - Department Of Transportation. (n.d.). Delaware’s Vehicle Electrification Future, Delaware Department of Transportation, at <https://deldot.gov/Programs/NEVI/index.shtml?dc=statewidePlan> (retrieved 2023).

⁶⁰ *Id.*

While it is important that the state continue to support the build out of charging infrastructure, adoption of the ACC II regulations will also help to draw private investments into the state. Private charging station companies are more likely to install and maintain charging infrastructure in states that have strong zero-emission vehicle standards, as they know the demand for the charging infrastructure will be prevalent.

There are two main types of charging infrastructure most frequently seen in public: Level 2 charging stations (which use up to 19 kW of power and charge vehicles slower) and Direct Current Fast Charging (DCFC) stations (which generally use between 50-150 kW of power, but can charge EVs much faster). Level 2 charging stations are ideal for locations where a driver may be parked for long periods of time (e.g. shopping malls, restaurants, beaches, etc.), while DCFC are ideal for when drivers are traveling and need to refuel their batteries quickly.

By adopting the Advanced Clean Cars II suite of regulations, Delaware can help create more demand for DCFC and Level 2 charging stations, signaling to the private companies that develop and deploy such infrastructure that the time is right to invest in the state. As more EVs enter the passenger fleet, especially in areas with lower numbers of car owners with dedicated space to install private charging stations, the demand for public DCFC charging stations will increase dramatically. This will in turn make them a much more stable and predictable source of revenue for the companies who develop, deploy, own, and maintain these types of stations. Without the ACC II package, it is unlikely that enough electric vehicles will enter the passenger fleet in the near future in Delaware to support such a privately funded infrastructure build out in the near future.

The Delaware General Assembly has recently passed or is actively considering legislation to help support the build out of private, residential, and commercial Level 2 charging stations. This includes requiring Delaware's largest three municipalities to create a process to allow on-street charging installations for those residents with on-street parking⁶¹, requiring all new residential construction have dedicated EV ready parking⁶², and studying additional supports needed for EV charging for those without a driveway or garage⁶³. However, additional policies and programs will be necessary to help ensure an equitable transition that focuses on access for low- and moderate-income families, especially those without access to a driveway or garage.

⁶¹ An Act to Amend Title 22 of the Delaware Code Relating to Residential Electric Vehicle Charging Infrastructure Requirements, SB 187, 151st General Assembly § 119 (2022).

⁶² An Act to Amend Title 16 of the Delaware Code Relating to Electric Vehicle Charging Infrastructure for Residential Dwellings, SB 103, 152nd General Assembly § 8004 (2023).

⁶³ An Act to Amend Title 29 of the Delaware Code Relating to Electric Vehicles, HB 13, 152nd General Assembly § 8064 (2023).

EV Prices are Decreasing and Becoming More Affordable

As discussed in “Economic Benefits,” the total costs of ownership of most EVs are already much lower than those of comparable gasoline vehicles. Soon, the average upfront cost of buying an EV is also going to be lower than that of buying a gasoline vehicle. According to a white paper by the International Council on Clean Transportation, “shorter-range BEVs of 150 to 200 miles are projected to reach price parity by 2024–2026, followed by mid-range BEVs with 250 to 300 miles around 2026–2029, and the longest-range BEVs with 350 to 400 miles around 2029–2032” (see Figure 10).⁶⁴ With price cuts and tax credits from the Inflation Reduction Act, however, EV prices have dropped significantly and could potentially reach parity with ICEV prices as soon as this year.⁶⁵

Given that most vehicle purchases are used vehicles,⁶⁶ it is important to note that many used ZEVs have already reached price parity with comparable used gasoline cars. For example, a used Chevrolet Spark EV can now be bought at approximately the same price as a used Chevrolet Spark that runs on gasoline on Edmunds.⁶⁷

Supporting a Robust Used Vehicle Market

Currently in Delaware, there is minimal, if any, established marketplace for used ZEVs, where the majority of Delawareans purchase their vehicles. This is in part due to the lack of influx of new ZEVs being delivered to dealerships in Delaware.

This has an outsized impact on low and moderate income communities who mostly purchase used vehicles due to economic and other factors. In fact, only 16.7% of respondents in a national survey of low income car buyers purchased new cars from a car dealership.⁶⁸ To ensure that there is an equitable transition and distribution of these vehicles and drivers reap the health and economic benefits that they provide, an increased number of ZEVs in Delaware’s new vehicle market will help to increase the number of used ZEVs in the market over time.

⁶⁴ Peter Slowik et al, “Assessment of Light-Duty Electric Vehicle Costs and Consumer Benefits in the United States in the 2022-2035 Time Frame,” *The International Council on Clean Transportation*, <https://theicct.org/publication/ev-cost-benefits-2035-oct22/>.

⁶⁵ Jack Ewing, “Electric Vehicles Could Match Gasoline Cars on Price This Year,” *The New York Times*, <https://www.nytimes.com/2023/02/10/business/electric-vehicles-price-cost.html>.

⁶⁶ See Bureau of Transportation Statistics, New and Used Passenger Car and Light Truck Sales and Leases, <https://www.bts.gov/content/new-and-used-passenger-car-sales-and-leases-thousands-vehicles>; MotorTrader.com, Consumers Three Times More Likely to Buy Used Cars Over New (Oct. 2019), <https://www.motortrader.com/motor-trader-news/automotive-news/majority-buy-consumers-opt-used-new-cars-28-10-2019>.

⁶⁷ Edmunds, <https://www.edmunds.com/> (accessed Nov. 17, 2022).

⁶⁸ Nicholas J. Klein, Rounaq Basu, Michael J. Smart, *In the driver’s seat: Pathways to automobile ownership for lower-income households in the United States*, Transportation Research Interdisciplinary Perspectives, Volume 18, 2023, 100787, ISSN 2590-1982, <https://doi.org/10.1016/j.trip.2023.100787>. (<https://www.sciencedirect.com/science/article/pii/S2590198223000349>)

As ACC II only affects the new vehicle market, the sooner that Delaware implements ACC II and these new ZEVs are on Delaware's roads, the sooner that these clean vehicles will enter the used vehicle market—providing opportunities for all Delawareans to purchase ZEVs.

Supply Chains are Rebounding

Despite pandemic-related supply chain constraints, national EV market share has risen from 2.11% in 2019 to 7.34% in 2022.⁶⁹ Some of these supply chain problems are easing—and there is every reason to expect them to be fully worked out by the time these standards go into effect. For example, while chip shortages were hurting auto production over the past couple of years, the federal CHIPS and Science Act will provide \$2 billion for chips used in vehicles and defense systems, which will help strengthen the American semiconductor industry and ensure long-term chip supply in the US. However, it is important to note again that adopting ACC II is the best way to ensure that more and more affordable ZEV models will come to showrooms and that the billions of dollars in federal investments in ZEV production benefit residents.

Globally, automakers and battery manufacturers have announced over \$860 billion of investments to accelerate the transition to zero-emission vehicles, with more nearly a quarter (\$210 billion) of these investments going to projects in the United States—more than any other country in the world.⁷⁰ Investments in the U.S. are being spurred with the enactment of the Inflation Reduction Act (IRA) and the Infrastructure Investments and Jobs Act (IIJA), together with state and federal vehicle standards. These investments are helping to onshore the electric vehicle industry—creating jobs in the U.S. and helping to make the country a competitive leader in the electric vehicle industry.

The Grid Can Handle This Transition

California, the state with the most ZEVs in the country, has proven that ZEVs actually incur very little grid upgrade costs. A 2018 analysis of EV grid integration costs in California found that in 2017, utilities collectively spent less than \$500,000 on upgrades out of a collective distribution capital budget greater than \$5 billion—one hundredth of one percent of total distribution capital

⁶⁹ Alliance for Automotive Innovation, “Electric Vehicle Sales Dashboard,” <https://www.autosinnovate.org/resources/electric-vehicle-sales-dashboard> (accessed May 12, 2023).

⁷⁰ Atlas Public Policy, NRDC (Jan. 2023), https://www.atlasevhub.com/data_story/210-billion-of-announced-investments-in-electric-vehicle-manufacturing-headed-for-the-u-s/#_ftn4. See also the Alliance for Automotive Innovation, *The Future Is Electric: Let's Drive Together* (March 2023) <https://www.autosinnovate.org/posts/communications/The%20Future%20Is%20Electric%20Infographic>.

expenditures.⁷¹ From 2012 to 2017, the number of EVs in three of California’s utilities service territories Pacific Gas & Electric (PG&E) and Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E) increased by a factor of 16, but the number of EVs that resulted in service line or distribution system upgrades was fewer than 0.2%. Put simply, very few EVs required any distribution system or service line upgrades, as shown in Figure 11. As we anticipate increasing EV market share, ACC II would be an important signal to utilities and decision makers to take electricity demand from EVs into account in their planning.

The 2020 Joint Utilities EV Infrastructure Report included an analysis of historical upgrade costs through 2018 for the different Investor-Owned Utilities (IOUs) in California.⁷² As shown in Table 1, even as EV usage has increased significantly in California since 2012, the necessary upgrade costs for utilities have not been inflated relative to the increase in the number of EVs.

ZEVs can furthermore be used as a grid resource and as battery storage to alleviate electricity outages, especially with proper utility investments and rate designs that shift charging to time when the grid is underutilized. Thanks to bidirectional charging technologies, ZEVs can store excess electricity from variable sources such as solar and wind and discharge the electricity back to the grid (V2G) or to buildings (V2B) when electricity demand is high, thereby making the grid and households more resilient to fluctuating electricity supply. This capability is one of the advertised features of the Ford F-150 Lightning.

The grid can handle and benefit from the growing ZEV market, but again in order to plan ahead, grid planners and utilities, like the auto industry, need certainty to begin making the investments to adapt and meet the needs of ZEVs through 2035 and beyond.

The Need for Additional Equity

It is vital that in the transition to a clean transportation future, all residents—especially those that bear the brunt of pollution from transportation—have equitable access to zero-emission vehicles and transportation more broadly and realize these benefits as soon as possible.

ACC II does have some modest equity measures such as environmental justice credits, which allow manufacturers to earn additional credits for lower cost vehicles, ZEVs placed in community car share programs, or ZEVs sold at end of lease to dealerships participating in financial assistance programs to encourage sales to low-income community members.⁷³ But more needs to be done. In California, for example, programs such as the Clean Vehicle Rebate

⁷¹ Synapse Energy Economics, “Electric Vehicles Still Not Crashing the Grid,” (March 2018), https://www.researchgate.net/publication/345813010_Electric_Vehicles_Still_Not_Crashing_the_Grid_Updates_from_California.

⁷² Joint IOU Electric Vehicle Charging Infrastructure Cost Report, 8th Report Filed on April 1, 2020.

⁷³ Harris, “Clean Car Rules.”

Project and the Clean Fuels Rewards Program help lower ZEV upfront costs, and programs such as the Clean Vehicle Assistance Program and the Clean Cars 4 All make ZEVs more affordable to income-eligible buyers.⁷⁴ While these can serve as references for states, it is imperative that state agencies meet and work directly with equity groups and automakers to develop complementary policies that will help to ensure that disadvantaged communities experience the benefits of ZEVs.

Conclusion

Delaware's adoption of the ACC II regulation is a critical step for the state to improve air quality and health, provide strong economic benefits for Delaware and Delawareans, and help the state do its part to prevent the worse effects of climate change from occurring. To maximize these benefits, the state must adopt the regulation swiftly and by the end of 2023.

Sincerely,

⁷⁴ California Air Resources Board, "Cars and Light-Trucks are Going Electric - Frequently Asked Questions," <https://ww2.arb.ca.gov/resources/documents/cars-and-light-trucks-are-going-electric-frequently-asked-questions> (accessed Nov. 14, 2022).

Kathy Harris
Senior Advocate
Natural Resources Defense Council

Yeh-Tang Huang
Climate and Clean Energy Fellow
Natural Resources Defense Council

Dustyn Thompson
Chapter Director
Sierra Club Delaware Chapter

Katie Huffling, DNP, RN, CNM, FAAN
Executive Director
Alliance of Nurses for Healthy Environments

Tiffany Geyer Lydon
President
League of Women Voters of Delaware

Dale W. Davis
President
CMI Solar & Electric
Delaware Solar Energy Coalition

Suzanne Thurman
Executive Director
MERR Institute, Inc.

Charito Calvachi-Mateyko
Coordinator
Delaware Civil Right Coalition
Executive Director
Latino Initiative on Restorative Justice

Alan Greenglass
Co-Founder
Mid Atlantic Alliance for Climate and Health

Charlie Garlow
President
Delaware Electric Vehicle Association

Emily Knearl
Delaware Director of External Affairs
The Nature Conservancy

Aaron Sharp
Executive Director
Delaware Interfaith Power and Light

Drew Serres
Network Coordinator
Network Delaware

Mark Nardone
Director of Advocacy
Delaware Nature Society

Jane Gruenebaum
Sussex Preservation Coalition

CJ Myers
Delaware Chapter Lead
Tesla Owners Club of Delaware Valley

Rebecca Laster
Chair
Unitarian Universalist Delaware Advocacy
Network