



April 26, 2023

Theresa Newman
Hearing Officer
Delaware Department of Natural Resources and Environmental Control
89 Kings Highway SW
Dover, DE 19901

Subject: Comments on amendments to 7 DE Admin. Code 1140 - Delaware Low Emission Vehicle Program

The Alliance for Automotive Innovation¹ (Auto Innovators) appreciates the opportunity to provide comments to the Delaware Department of Natural Resources and Environmental Control (DNREC) on amendments to 7 DE Administration Code 1140 that will adopt the California Air Resource Board (CARB) Advanced Clean Cars II regulation. While we appreciate the opportunity to submit comments, Auto Innovators has identified several areas of concern that we would like to address to ensure success for all parties in achieving this aggressive ZEV requirement.

Commitment to Net-Zero Carbon Transportation.

Auto Innovators and its members are committed to achieving a net-zero carbon transportation future for America's cars and light trucks. The auto industry is investing \$1.2 trillion globally by 2030 to advance vehicle electrification and will increase the number of EV models available from 91 today to around 150 by model year (MY)2026². In August of 2021, Auto Innovators and our members announced support for a goal of achieving 40-50 percent U.S. new light-duty vehicle market share of EVs nationally by 2030, with the right complementary policies in place.

There is much work to be done to significantly increase EV adoption across the nation. Our shared objectives require collaboration and a sustained commitment to fund and execute supportive programs and policies.

Delaware's ZEVs sales comprised 5.88 percent of new vehicles sales in 2022³. The challenge of reaching the CARB ACC II mandate of 100 percent electric vehicle market share by 2035 requires Delaware to address several hurdles to consumer acceptance. We applaud Delaware's approach to adopting EV incentives such as time of use charging rates and cash rebates, but there are many important complementary measures needed for success. Examples include, but are not limited to:

- Increasing funding and duration for current EV incentives.
- Deploying convenient, reliable, and affordable access to public EV charging and hydrogen refueling stations, as well as monitoring to ensure reliability not only the charger availability but also the charging power rate delivered at DC Fast Chargers (DCFCs).
- Installing 350kW DCFC at airports and major transportation hubs to fuel transportation network company (TNC)s EVs and taxis. Delaware should also consider installing H2 fueling stations at locations that would support TNC EVs and taxis.

¹ The Alliance for Automotive Innovation ("Auto Innovators") represents automakers that produce and sell approximately 98% of all the new light-duty cars and trucks sold in the U.S. Auto Innovators is the authoritative and respected voice of the automotive industry.

² [EVs, PHEVs hitting U.S. dealerships through 2026 | Automotive News \(autonews.com\)](#)

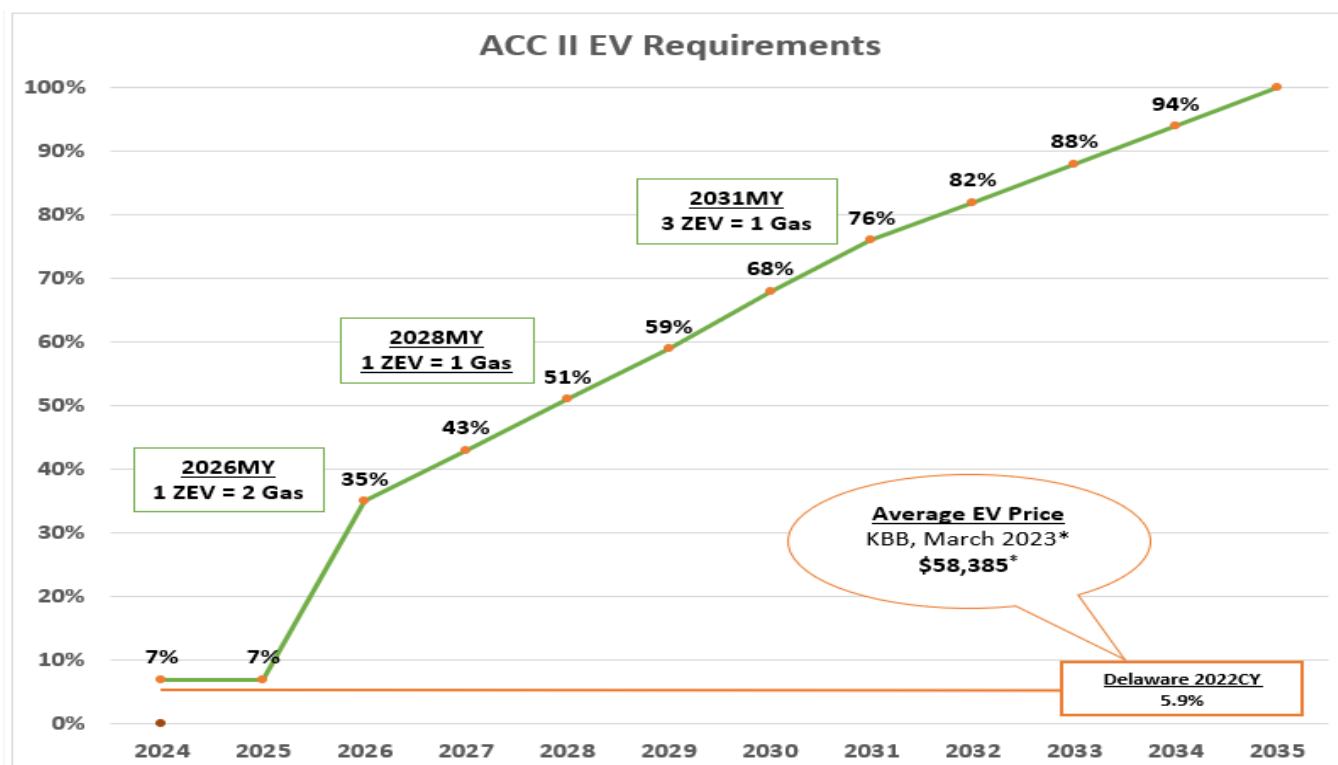
³ Compiled by Alliance for Automotive Innovation with data provided by S&P Global Mobility, sales figures represent new vehicle registrations in CY2022.

- Adopting building codes addressing new construction and retrofit requirements for EV-ready residential and commercial parking.
- Ensuring grid resiliency and utility electric rates that provide low-cost EV charging.

These policies will be critical to the feasibility of meeting ZEV requirements. Delaware must continue to take immediate and substantial action to implement these critical measures to reach its goal.

Current State-of-Play.

As shown below, the ACC II regulations require very aggressive increases in EV sales starting with MY2027. In Delaware, EV sales must increase more than six-fold in about three model years. These are staggering required sales increases for a new technology that relies heavily on customer acceptance and market readiness.



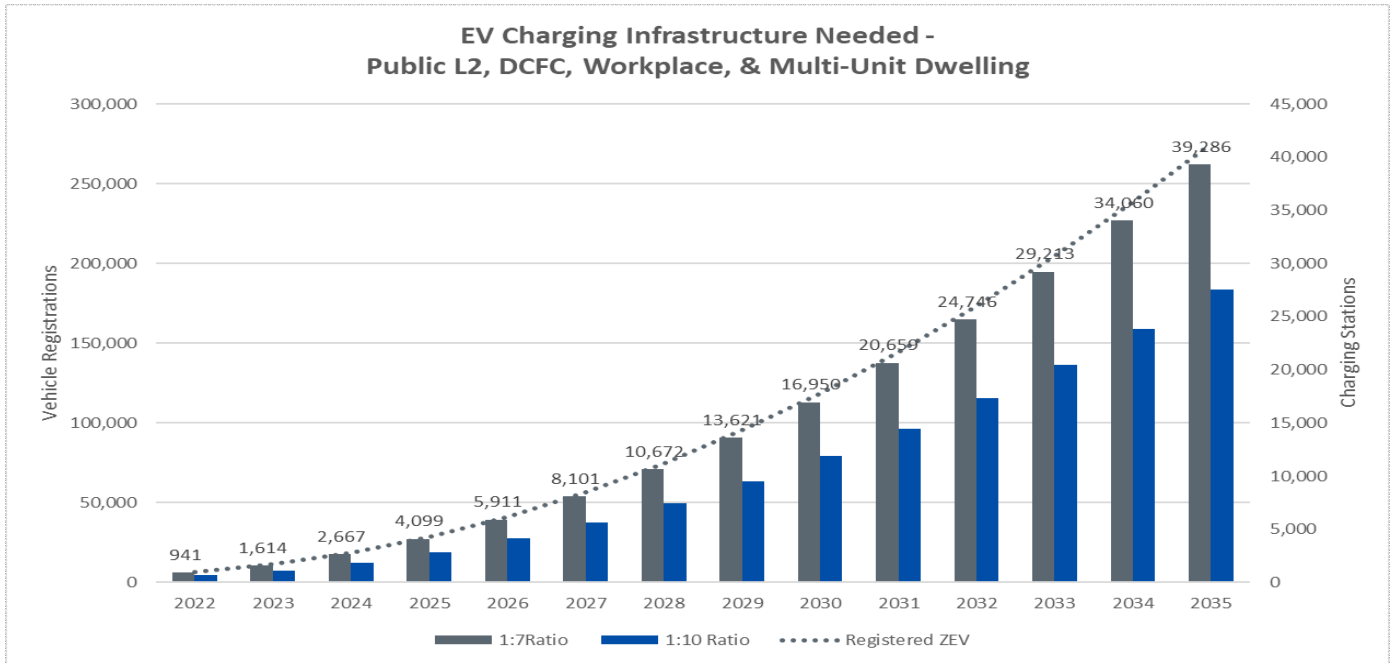
*See Kelly Blue Book: [KBB March 2023 Average EV Price Data](#)

The required more than six-fold sales increase needed is based on 2022 EV sales where the average transaction price of EVs is now about \$58,385. Based on the average transaction price of EVs, EV buyers are far more likely to be affluent single-family homeowners with modern electric panels just a few feet from their garage where they will charge their EVs. These buyers do not represent a full cross-section of Delaware’s new car buyers, and achieving even 40, 70, or 100 percent of the new car market will require reaching buyers of more moderate means. It will also require action well beyond automakers’ ability to produce more EVs.

Charging and Hydrogen Refueling Infrastructure.

Reliable and convenient access to charging and hydrogen refueling stations support Delaware’s customers that buy or lease EVs. Publicly available charging stations not only ease perceived "range anxiety" concerns but also substantially increase consumer awareness of the technology. In addition, hydrogen vehicles may be better suited for some customers, especially those that do not have access to charging at home or the workplace, or those that have a lifestyle that requires short refueling times and a similar refueling process as gasoline.

Currently, Delaware has 367 electric vehicle charging ports for 6,585 registered electric vehicles in the state. This is a ratio of approximately one charging port for every 18 electric vehicles. This is well below the CARB recommendation of a 1:7 ratio or worst case, 1:10 ratio. To support the prospect of 100 percent ZEV-only sales in 2035, our analysis suggests that Delaware’s charging capabilities will need to increase significantly within the next 12 years to be in line with the California infrastructure assessment ratio of seven EVs to charger port.



Source: Compiled by Auto Innovators with data provided by S&P Global Mobility, sales figures represent new vehicle registrations in CY2022

Residential and Commercial Building Codes - Retrofit and New Construction Updates Needed.

Numerous studies have shown that retrofitting residential and non-residential charging is five to six times more expensive than installing charging stations during new construction. For existing residential and non-residential buildings, installing infrastructure during any significant renovations, such as parking lot paving, electrical panel upgrades, etc. also substantially reduces costs. According to the Department of Energy, 80 percent of EV charging occurs at home, making access to home charging a top priority for customers considering an EV. The converse is also true: lack of access to home charging is a major barrier to EV adoption.

It is important to ensure low- to moderate-income (LMI) and multi-family dwelling (MFD) residents have identical access to the low-cost, convenient, and reliable level 2 (L2) home charging that single-family homeowners enjoy. DNREC should set targets for residential charging and then monitor and track progress toward meeting those targets. For example, it seems reasonable that in 2030, when ACC II requires 68 percent of new vehicles to be electric, that 25 percent of LMI and multi-family housing units have access to L2 charging at home. There are many important complementary measures needed for success.

Delaware should also adopt non-residential building codes that require installation of EV-ready charging capabilities in a significant portion of all new parking at workplace and public locations. In 2023, the Maryland General Assembly passed building code legislation because it recognizes the barriers consumers face when they do not have access to home charging.⁴

⁴ <https://mgaleg.maryland.gov/mgawebsite/Legislation/Details/hb0830>

We support building codes requiring that:

1. Every new unit in a MFD with available parking has at least one EV-Ready parking space.
2. Each EV-Ready space above provides, at minimum, Low-Power Level 2 (LPL2) (208/240V, 20A) terminating in a receptacle or an electric vehicle supply equipment (EVSE).
3. EV-Ready signage is posted at each parking space.

This recommendation for L2 power charging levels should be considered as the bare minimum requirement.

While building codes that address new construction are a common-sense and lowest-cost first step, they are not nearly enough to support a transition to electrification. For example, new residential construction typically accounts for about one percent of all residential units each year. Thus, new building codes would only provide residential charging in about fifteen percent of the residential units by MY2035. Consequently, Delaware should consider public and private programs to support retrofitting of existing homes and MFDs, such as apartments, condos, and townhouses. As noted, retrofits are far more expensive than incorporation of EV-ready infrastructure at the time of new construction, but they will be necessary to support increasing customer adoption of EVs.

In addition, special attention should be given to the infrastructure needs in Delaware's underserved communities to ensure that access to affordable and convenient charging and hydrogen refueling options are made available on an equally aggressive timeline. MFD residents, however, often face the greatest, most costly, and burdensome obstacles to installing residential EV charging. For MFD residents, the additional costs to upgrade the electrical panel, install conduit between the electrical panel and their parking space, and the logistical challenges of securing building owner approval, coordinating the billing with the building owner, and persuading an owner to make a long-term investment on a rental property, make it near impossible to be an EV driver in a MFD.

MFD residents could be forced to charge elsewhere such as DC fast charge stations or public chargers. Charging at home is far cheaper, more reliable, and vastly more convenient. It is unreasonable to expect MFD residents to pay two or three times as much for charging and spend hours away from home each week fueling their EVs.

Grid Resiliency/Utility Rate Setting Alignment.

A thorough review of Delaware's electric grid to determine the viability of expanded access in both the near- and long-term makes strong practical sense. Public confidence in the resiliency of the grid will only help spur faster EV adoption. Failure to provide consistent service, particularly when the majority of EV charging is done at home, could be devastating for increased EV adoption, both for the light- and heavy-duty vehicle sectors.

Auto Innovators suggests that as part of the review, Delaware commit to a transparent dialogue with the utility commission and energy companies about making home and public charging affordable and convenient. In addition, an education campaign about the different types of charging systems (L1, L2, DCFC) and suggestions about prime charging times to lessen the load on the grid should be addressed.

Sustained Consumer EV Purchase Incentive.

Purchase incentives can be a persuasive and effective way to address vehicle affordability and interest customers in purchasing an EV. EVs continue to cost substantially more than a comparable gasoline-fueled vehicle, and so the compounded effect of the federal and state incentives is necessary to equalize purchase costs. We applaud Delaware for providing cash rebates for EV purchases, and we support additional funding to expand these incentives. Additionally, as you are aware, the recently enacted Inflation Reduction Act (IRA) redefines new clean vehicle credits. Upon being signed into law by President Biden in August 2022,

approximately 70 percent of previously eligible vehicles were unable to qualify for credits due to a North America assembly requirement. Also, starting on January 1, 2023, MSRP and income caps went into effect. And finally, starting with the release of proposed guidance from the U.S. Treasury Department in March 2023, the credit was split in half with requirements tied to critical minerals (\$3,750) and battery components (\$3,750). When the battery content requirements go into effect, the number of electric vehicles that will qualify for the full credit is expected to drop further. As of April 17, 2023, out of the 91 available EVs only ten qualify for the full \$7500 Federal tax credit. There are seven additional vehicles that qualify for the half-credit of \$3750.⁵ The remaining 74 available EVs currently do not qualify for any of the Federal tax credits. This means Delaware's state-funded consumer rebate incentives will become even more critical to the state's goals of greater consumer EV adoption.

Consumer Awareness Programs.

Consumer awareness, understanding, and trust of the technology is essential as we move 5.88 percent Delaware's EV sales to 100 percent in the next twelve years. Raising awareness can happen in many ways, and we encourage the state to explore a variety of options. For example, we've mentioned above that public and workplace chargers and hydrogen stations provide an excellent means of raising consumer awareness. State and local fleet purchases of EVs also substantially raise awareness – particularly if these vehicles are used in high visibility areas such as Department of Transportation (DOT) road crews, police, and fire. Additionally, state-led programs may also be necessary to support the ZEV requirements.

Thank you for the opportunity to provide the auto industry's perspective on a range of policies that Delaware must adopt to meet its climate goals. Many of the actions necessary for success must start now, and we stand ready to work with Delaware Department of Natural Resources and Environmental Control and key stakeholders.

Sincerely,



Tom Miller
Senior Director, Environment & Energy
Alliance for Automotive Innovation

cc: Valerie Gray (via email)

⁵ [These electric cars will get you a full tax credit in 2023 - Los Angeles Times \(latimes.com\)](https://www.latimes.com/2023-04-17/autos-electric-cars-will-get-you-a-full-tax-credit-in-2023-los-angeles-times-latimes-com)