



Delaware



Advanced Clean Cars II  
Webinar



March 27, 2023



# Agenda

- History of Clean Cars in Delaware
- Benefits of Adopting Advanced Clean Cars II (ACC2) Program
- What is the ACC2 Program
- What are the Impacts of ACC2
- Automakers Transitioning to 100% Electric
- Q&A

## Three Key Underlying Assumptions:

Climate Change is Real and Having Impacts  
Air Pollution is a Problem in Delaware and in the Region  
Automakers are, and will continue to transition to a 100% electric fleet

An illustration of a car's interior from the driver's perspective. At the top center is a rearview mirror with a red indicator light. Below it is a large yellow rectangular box containing the text. The bottom portion of the image shows a dark steering wheel on the left and a dashboard with two circular gauges, a central circular display, and two air vents. The background is a light green color with subtle curved lines.

Delaware has an  
Important Choice

# The Choice:

Adopting standards that will reduce pollution from new cars

Revert to federal standards and weaken our progress towards reducing pollution

Help grow the Delaware market for cleaner vehicles

Continue to allow the market to bypass our state

Gradually phase in zero-emission vehicles onto Delaware's roads— allowing for planning time to develop infrastructure

Have to catch up after the transition takes place, causing infrastructure difficulties and continued lack of access

Guarantee that affordable, cleaner vehicles that will help to reduce climate change are available in Delaware

Continue to force Delaware car buyers to make purchases out of state if they want cleaner options

Take action to help improve air quality and health of Delawareans

Continue to allow poor air quality to harm our state's most vulnerable populations

# History & Background in DE

*Dustyn Thompson, Chapter Director - Delaware Chapter*

- Delaware signed onto the LEV standards in 2013
  - Updated the LEV standards in 2018
- Climate Action Plan was created through 2020-21, released in Nov. 2021
  - Recommends Delaware sign on for the ZEV Standards
- Governor Carney announces Delaware's intent to join the ZEV portion of Clean Cars on March 3, 2022
- DNREC begins a outreach process on amending tailpipe pollution standards in October 2022

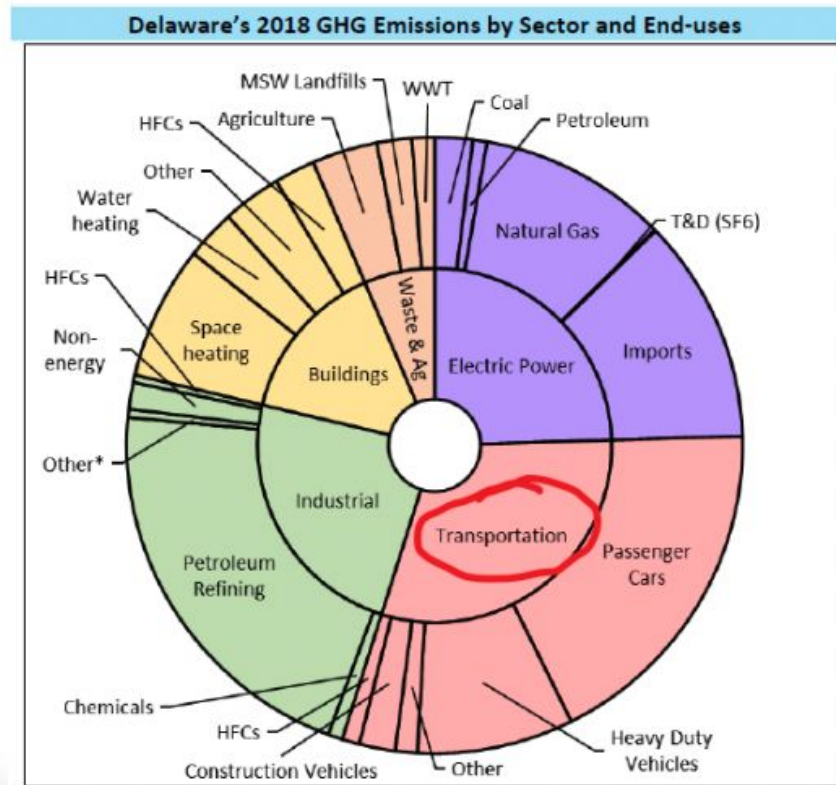
# History & Background in DE

*Dustyn Thompson, Chapter Director - Delaware Chapter*

- Where do we go from here?
  - Follow many other states (both Dem & Rep) to update regulations to ACC2
  - Update LEV regulations only (increase regulation on gas cars)
  - Revert back to the weaker federal standards
    - If we revert, additional air pollution reduction steps must be taken

# GHG Emissions from Transportation

- The largest source of GHG emissions in Delaware in 2018 was the transportation sector, which represented 30% of the gross GHG emissions.
- Passenger cars and light-duty trucks represent 60% of Delaware's GHG emissions from transportation.



# Benefits of Adopting ACC II

- **Protect public health:** More than 40% of Americans—over 137 million people—are living in places with failing grades for unhealthy levels of air pollution made worse by cars and trucks. In Delaware that number is even higher at 57%.
- **Protect frontline communities:** The burden of living with unhealthy air is not shared equally. Seventy-two million people of color live in counties that received at least one failing grade for ozone and/or particle pollution, engine soot that lodges deep in the lungs.
- **Fight the climate crisis:** The ACC II program is the best tool states have for slashing emissions from the transportation sector, which in many states is the greatest source of climate emissions.
- **Save money on fuel:** Based on a national average gas cost of about \$4.31/gallon and electricity prices at about \$0.14/kWh, electric car owners could save between \$1,800 and \$2,600 in operating and maintenance costs every year - on average - compared to drivers of gas-powered vehicles.





# Advanced Clean Cars II Overview

*Kathy Harris, Natural Resources Defense Council*

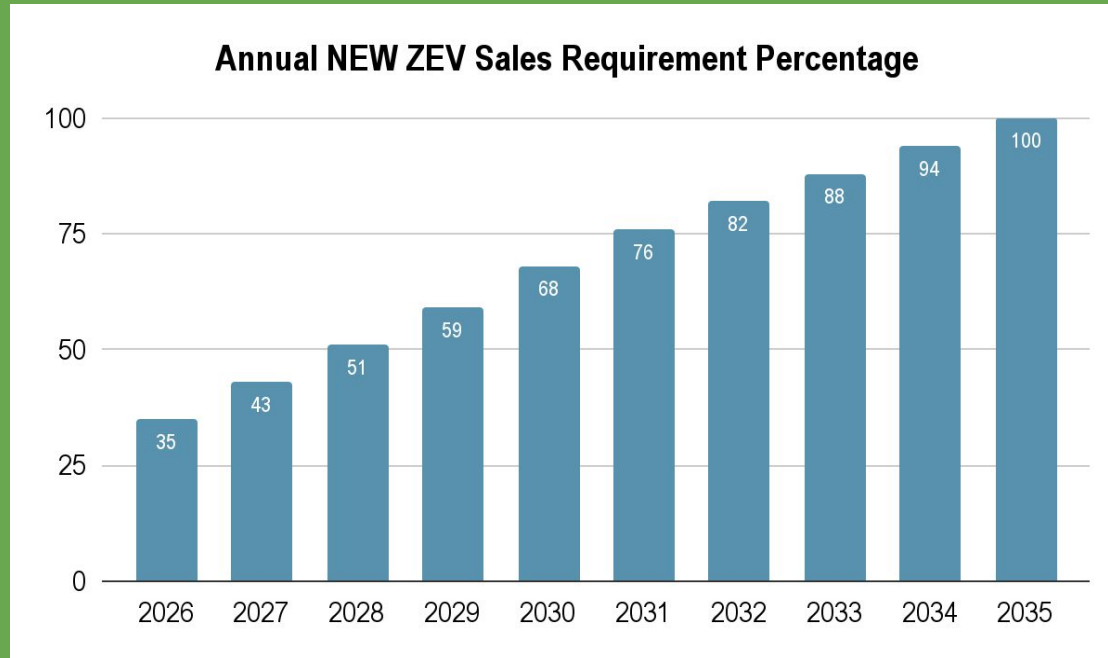
- Under the Clean Air Act, California can set more stringent standards on vehicle emissions than the federal government.
- Other states can adopt California's rules or follow the less-stringent federal standards.
- 18 states (including CA) have adopted at least a portion of the Advanced Clean Cars I program (including Delaware).
- ACC II builds off 2012's ACC I to strengthen the low emission vehicle (LEV) and zero emission vehicle (ZEV) targets.
  - States will now need to adopt the new ACC II regulations to continue to be part of the program
  - States would also have the option to adopt, or not, any future changes to the program

# What is the Clean Cars Program

- Includes three components
  - Low-Emission Vehicle for Criteria Pollutants
    - By 2025, cars will emit 75% less smog pollutants
  - Low-Emission Vehicle for Greenhouse Gas Emissions
    - By 2025, greenhouse gas emissions will be reduced by 40%
  - Zero-Emission Vehicle
    - Requirements for manufacturers to sell an increasing number of zero-emission vehicles
      - Battery Electric
      - Hydrogen Fuel Cell
      - Plug-in Hybrid
- A requirement on manufacturers— NOT Delaware or Delaware drivers

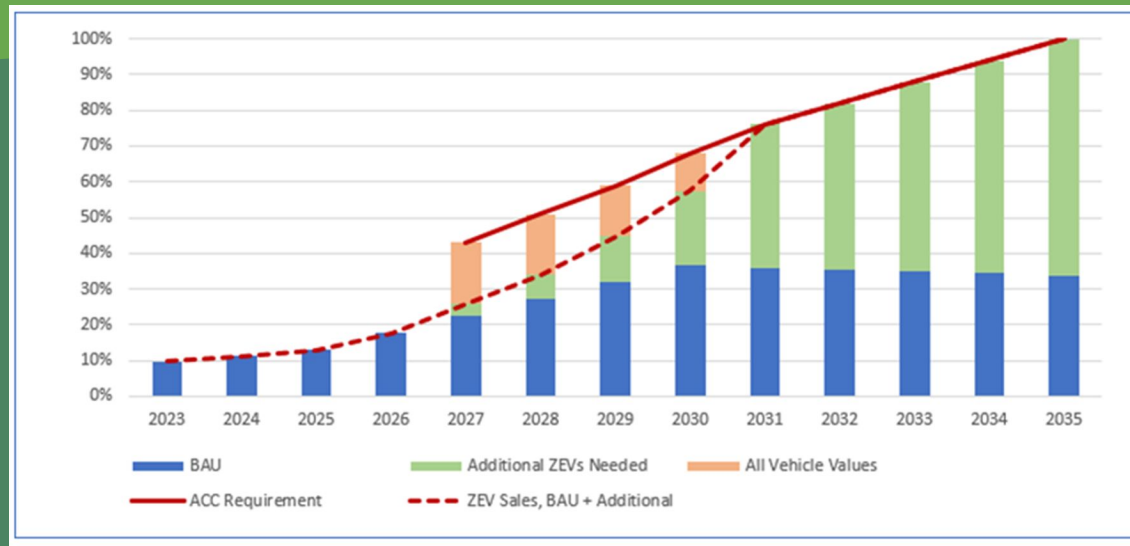
# Advanced Clean Cars II Overview

The ACC II program will require that an increasing percentage of *new* cars delivered and sold be ZEVs starting in 2026 and reaching 100% in 2035.



# What does ACC II mean for states

With flexibilities in the regulation, actual sales requirements may be lower than the “on-paper” requirements



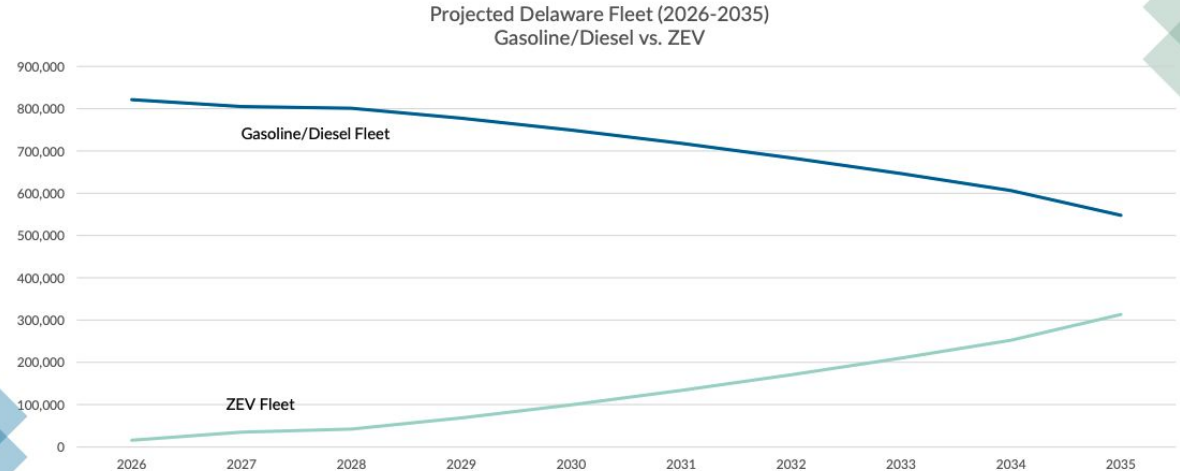
Flexibilities in the regulation to help lower requirements in Section 177 states (By Shulock Consulting for NRDC).

# Vehicle Fleet On The Road

## Additional Background

- Even as ACC2 ramps up, that does not mean ICE vehicles suddenly stop.

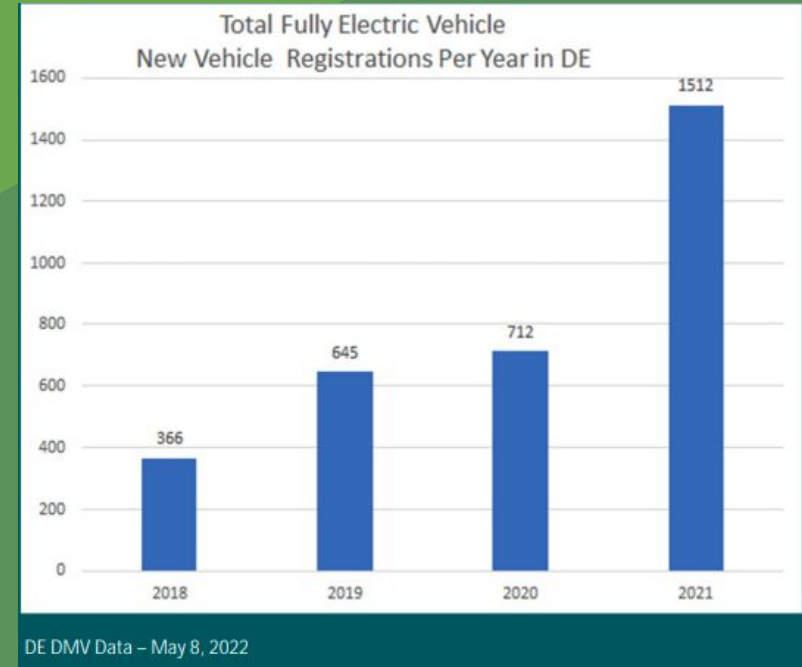
## Projected Delaware Fleet



# History & Background in DE - Cont.

## Additional Background

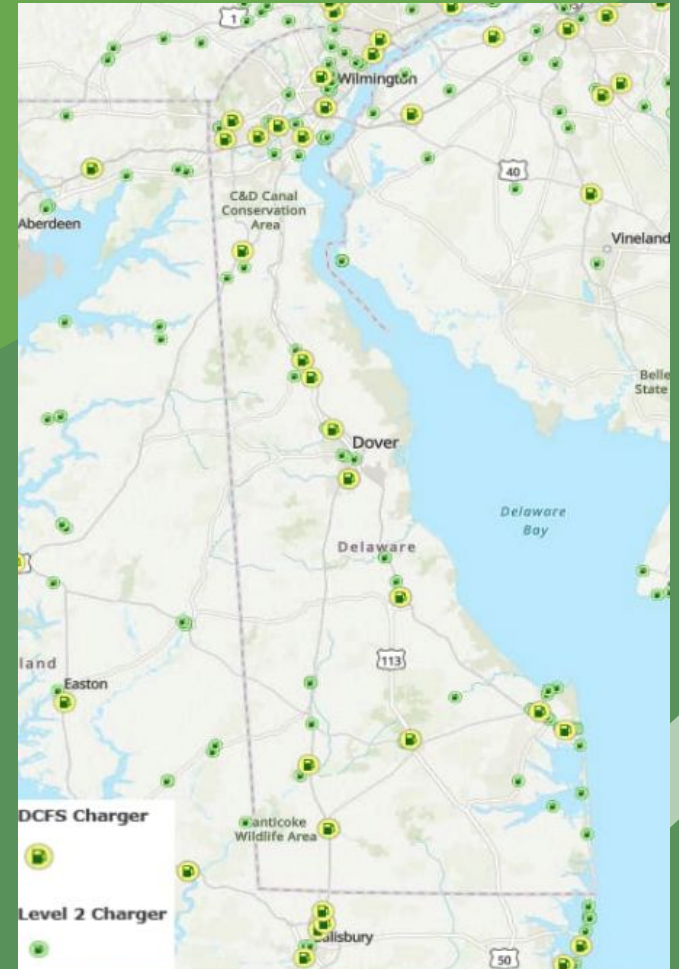
- Delaware has already begun to see a sharp increase in interest and purchases of EVs
- Interest is not matching supply
  - Many EV buyers making purchases out of state in ACC1 states
- Rebates must keep pace with need
  - Especially in LMI Communities



# History & Background in DE - Cont.

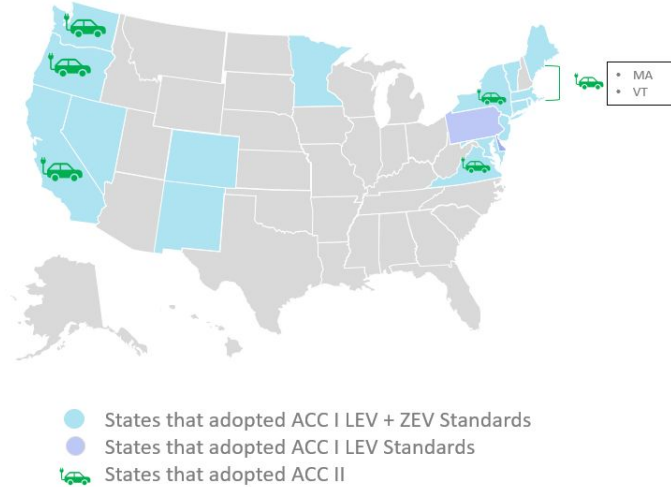
## Additional Background

- Delaware has submitted our EV infrastructure plan to the EPA and will expand our charging network to include over 25 rapid chargers in DE
- The new EV charging network will prioritize equity and focus on transit corridors and placing charging in areas for those without access to level 2 charging.
- 14 additional rapid chargers just announced in 2023



# Clean Car States

## Advanced Clean Car States



Source: NRDC

## STATES THAT HAVE ALREADY ADOPTED OR ARE COMMITTED TO ADOPTING ACCII:



MA



MD



ME



NY



NJ



OR



VA



VT



WA



# Auto-Maker Investments

Tesla: \$500 Billion

VW: +\$112 Billion

Toyota: \$70 Billion

Ford: +\$50 Billion

Mercedes-Benz: \$47 Billion

Fiat Chrysler: \$35 Billion

BMW: \$35 Billion

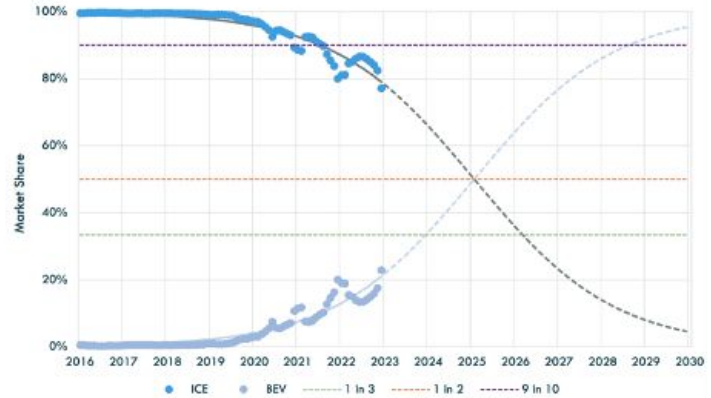
GM: \$35 Billion

Nissan: +\$17 Billion

Honda: \$40 Billion

# Key Points To Consider

- Electrification is happening worldwide
- Issues will have to be and can be resolved
- Timing impacts how smooth the transition is in each state



Source: New AutoMotive, Carbon Tracker. Note: The individual data points show actual new sales market share. Sales are averaged over a 3-month rolling period. The S-Curves are plotted using a [logistic function](#) with the projection shown with a dashed line. 'ICE' is defined as all vehicles with an internal combustion engine, including hybrids.

# States are ready

- The grid will adapt over time
- Infrastructure is increasing
- More models are becoming available
- Vehicle costs are decreasing
  - Battery costs alone have come down 90% in the past 15 years
- Automakers are making this transition
- Drivers want these vehicles



Common Misconceptions	<u>In Reality</u>
The ZEV industry isn't mature enough	<ul style="list-style-type: none"> <li>• The dozens of ZEV models offered can meet most drivers' needs now. <u>The Nissan Leaf has driven over 1 billion miles alone since inception</u></li> <li>• Automakers have committed billions in ZEV investments in the <u>US alone</u> and <u>trillions globally</u></li> </ul>
ZEVs are not affordable	<ul style="list-style-type: none"> <li>• <u>The total costs of ownership of many of the most popular ZEVs is many thousands of dollars cheaper than comparable ICE cars'</u></li> <li>• <u>Price parity reached in the as soon as this year</u></li> </ul>
EVs can't handle certain climatic and geographical conditions	<ul style="list-style-type: none"> <li>• Despite its extremely cold winters, <u>Norway boasts a 86% ZEV market share in 2021</u></li> <li>• ZEVs can accelerate rapidly even on steep inclines and can recharge their batteries with regenerative braking</li> </ul>
The grid can't handle EVs	<ul style="list-style-type: none"> <li>• Delaware utilities have not outright opposed the regulations</li> <li>• <u>In high penetration areas, ZEVs have actually incurred very little grid upgrade costs</u></li> <li>• ZEVs can be an <u>important grid resource</u></li> </ul>

Common Misconceptions	In Reality
This is a ban on gasoline cars	<ul style="list-style-type: none"><li>• This is a requirement on automakers, not customers—no one is forced to buy anything</li><li>• Plug-in hybrids (which have gasoline engines) are eligible vehicles under this program.</li><li>• The rule does not affect used vehicles (the majority of sales in DE) and gas cars will remain beyond 2050</li></ul>
Delaware is forced to follow all California regulations moving forward	<ul style="list-style-type: none"><li>• There is no requirement for DE to adopt these standards. Instead, they would be acting on the ability under federal law to adopt stronger standards that provide benefits to its state</li><li>• Automakers are <u>supportive of the right for California (and other states)</u> to adopt strong standards.</li><li>• Delaware has option to adopt or not any changes, just like we did with LEV and are doing for ZEV</li></ul>
This regulation takes away customer choice	<ul style="list-style-type: none"><li>• ACC2 expands customer choice and ensures Delawareans can purchase the vehicles in-state</li><li>• The market is transitioning to a zero-emission vehicle future already: Delaware can be at the forefront of this transition</li></ul>

Common Misconceptions	In Reality
EVs will leave people stranded	<ul style="list-style-type: none"><li>● Public infrastructure is growing and you will soon <u>never be more than 25 miles from a rapid charger</u></li><li>● <u>80% of charging happens at night, at home</u></li><li>● Range is increasing every year, the average range on several new cars is over 300 miles</li><li>● Technology is improving, and charging times are decreasing rapidly.</li></ul>
Our air pollution is fine, there is no need for this program	<ul style="list-style-type: none"><li>● Over 80% of people in DE live in a county that is, or has been, out of attainment– which allows DE to adopt the ACC II standards</li><li>● Air Monitoring Network is not meant to measure air quality in specific communities</li><li>● This is about much more than JUST air pollution</li></ul>
Batteries don't last and cost too much to replace	<ul style="list-style-type: none"><li>● <u>Batteries are already outlasting the vehicles</u></li></ul>

# The Road Ahead, What Can You Do Now?

Prep Session:

[TinyURL.com/PrepSess](https://TinyURL.com/PrepSess)

April 26th @ 6:00PM Hearing:

[TinyURL.com/ACC2Hearing1](https://TinyURL.com/ACC2Hearing1)

Comment Link (comments open till May 26th):

[TinyURL.com/ACC2Comments](https://TinyURL.com/ACC2Comments)

# Thank you!

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