Maryland just adopted a phaseout of new gas-powered cars. How far does it have to go with EVs and zero-emission vehicles?

By Victoria Stavish

https://www.baltimoresun.com/news/environment/bs-md-maryland-zero-emission-vehicles-20230918-wtj3i2qswbcarafanyuel7wqqu-story.html

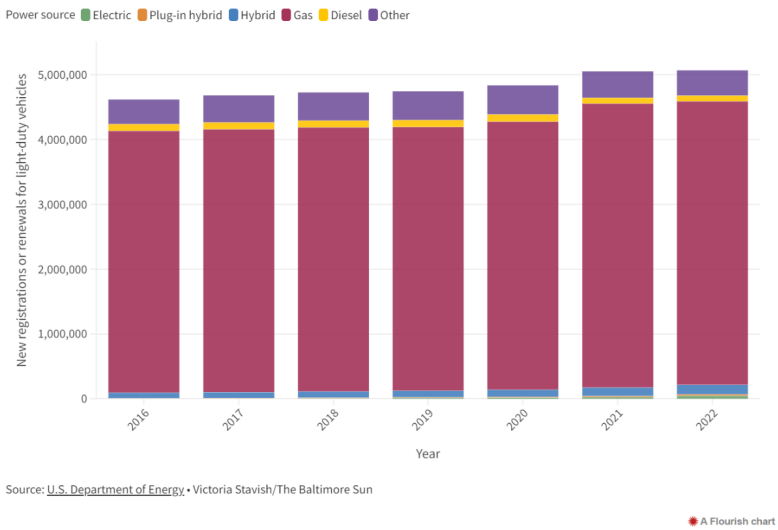
The number of zero-emission vehicles sold and registered in Maryland is growing. But last year electric and plug-in hybrid vehicles made up just over 1% of light-duty vehicles registered in Maryland, leaving a long road to the state's goal of ending sales of new gas-powered passenger cars and light trucks by model year 2035.

On Monday, Maryland's Advanced Clean Cars II regulation took effect, requiring manufacturers to continuously increase the percentage of vehicles they sell that emit no pollutants. The rule requires at least 43% of vehicles each manufacturer sells in the state be zero emissions for model year 2027, with that percentage increasing each model year until 2035.

With Maryland's adoption of the California standards, here are six data points on the state of zero-emission vehicles in Maryland.

Gas-powered vehicles have yet to make up less than 85% of registered light-duty vehicles in the state.

Among light-duty vehicles that were newly registered or had their registrations renewed in Maryland in 2022, more than 1% were electric or plug-in hybrid electric vehicles, according to the U.S. Department of Energy. Six years prior, EVs and plug-in hybrids' share was less than two-tenths of 1%.

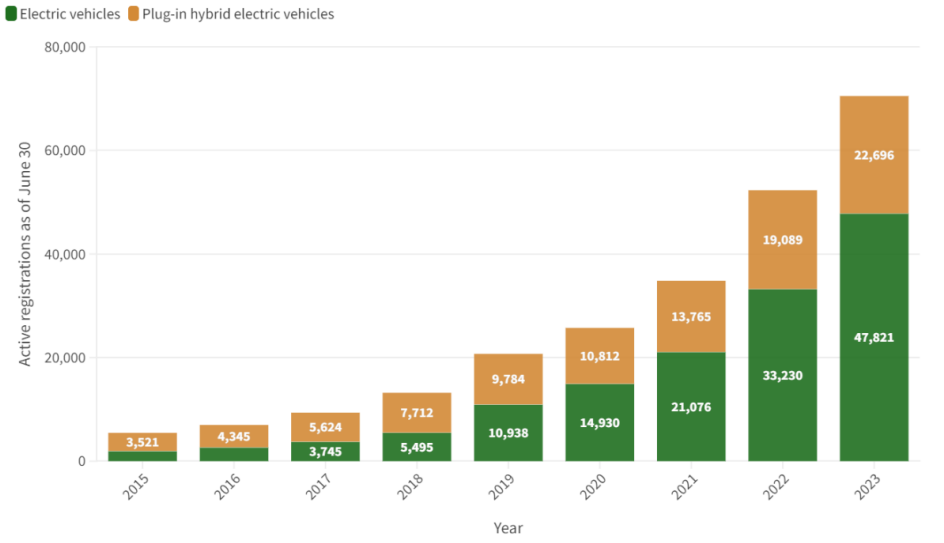


Even though plug-in hybrid electric vehicles emit greenhouse gases when using their gas engine, they could still help manufacturers meet Advanced Clean Cars II targets. The rule allows plug-in hybrids with at least 50 miles of all-electric range to account for up to 20% of each model year's quota. Hydrogen-powered vehicles have no emissions, but they are expected to play a very minor role in Maryland's phase out of new gas cars — last year there were fewer than 50 hydrogen cars registered in the state, according to the U.S. Department of Energy.

The number of electric or hybrid vehicles registered in Maryland has doubled in the last two years and quintupled in the last five.

The exponential growth of electric or hybrid vehicles registered in Maryland bodes well for the state's Advanced Clean Cars II goals, but sustaining it will require relative prices to come down and charging to become more accessible.

The Maryland Automobile Dealers Association and manufacturers have worked with the Maryland General Assembly and the governor's office on consumer incentives, said Peter Kitzmiller, president of MADA.



Source: Maryland Zero Emission Electric Vehicle Infrastructure Council • Victoria Stavish/The Baltimore Sun
Note: Fiscal years end on June 30 of the year indicated. Fiscal 2023 figures are through April 30.

A Flourish chart

On charging, Chris Hoagland, the director of the Maryland Department of Environment's air and radiation administration, said

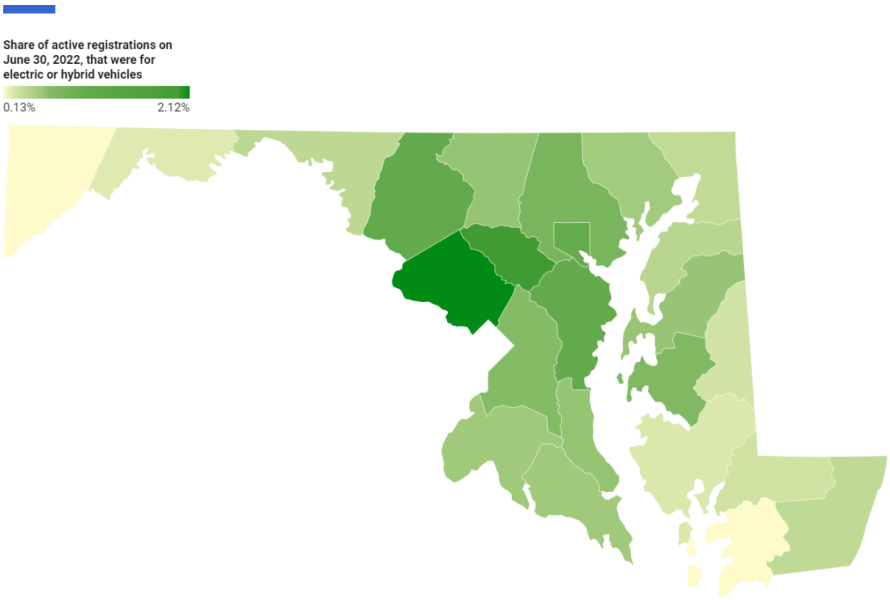
the state has used federal programs to build out infrastructure in areas with lots of multi-family housing, whose residents generally face more barriers to installing ports compared with residents of single-family homes.

Libby Bittman, director of business development on the electric vehicle and mobility team for global commerce platform Wex and an electric vehicle owner, sees this aspect as crucial to increasing adoption.

“People come to me all the time in urban environments like ‘I really want to buy an EV,’ and I’m like, ‘Do you know your charging situation? … if you’re unsure, it’s not going to be a fun experience,” she said.

There are just two Maryland counties in which electric and plug-in hybrid vehicle registrations made up more than 2% of active vehicle registrations in fiscal 2022.

Between June 2022 and June 2023, all 24 Maryland jurisdictions saw at least a 25% increase in active electric and plug-in hybrid vehicle registrations. Seven counties had increases of 50% or more.



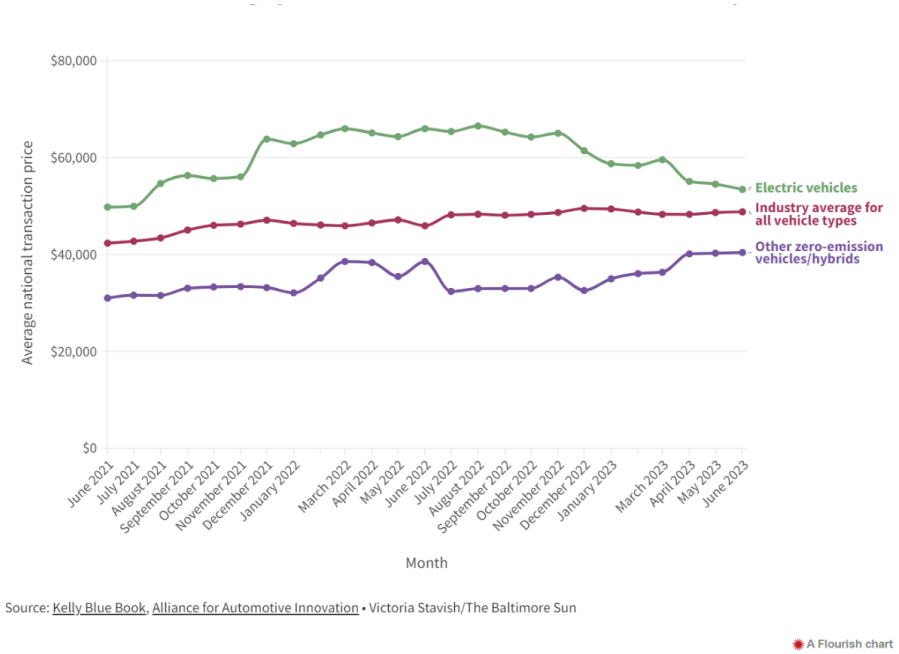
Tooltips note: 2023 registration data was not available for all vehicle types.

Map: Victoria Stavish/The Baltimore Sun • Source: Maryland Department of Transportation • Get the data • Created with Datawrapper

The jurisdictions where electric vehicles' share of active registrations is highest — Montgomery (2.12%) and Howard counties (2.07%) — have a median household incomes of about $117,000 and $130,000, respectively. The jurisdictions where EV's share is lowest — Garrett and Somerset counties (both 0.13%) — have average household incomes of about $58,000 and $49,000, according to American Community Survey data from the U.S. Census Bureau.

The average price of a new electric vehicle has dropped nearly 20% since June 2022.

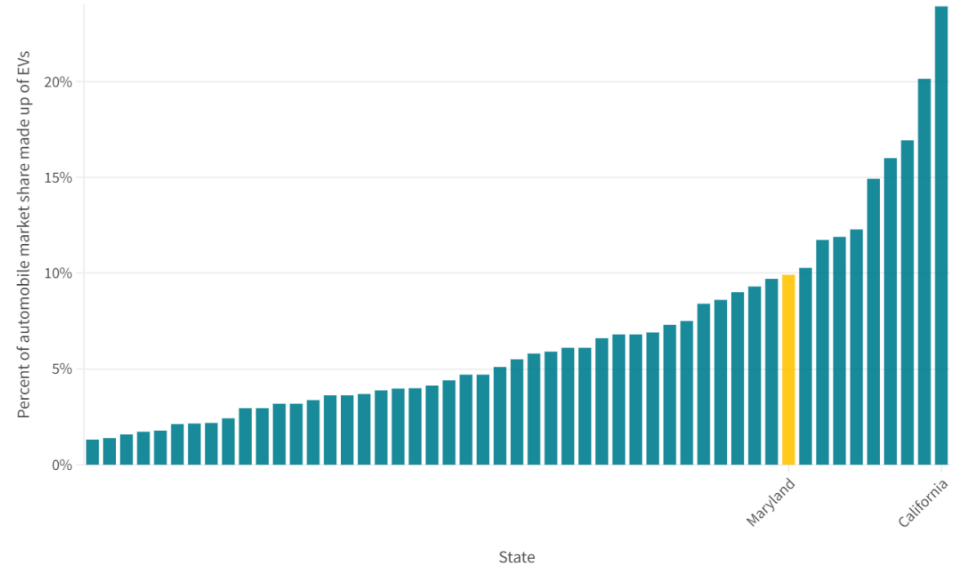
The transaction or negotiated price of a new electric vehicle is getting closer to the average for all vehicle types, but still clocks in at just under $5,000 more than the industry average and over $10,000 more than the category that includes other zero-emission vehicles and hybrids.



Government incentives can help narrow that gap. The federal government offers an income tax credit of up to $7,500 with the purchase of certain new zero-emission vehicles and a rebate of 30% of the cost of charging equipment and installation, up to $1,000. State incentives include an excise tax credit of up to $3,000 with the purchase of certain new zero-emission vehicles and a rebate of up to 40% of the cost of charging equipment and installation.

Electric vehicles made up about 1 out of every 10 sales of new light-duty vehicles during the first few months of 2023.

In the first quarter of 2023, the odds that new light-duty vehicle being registered was electric was greater in Maryland than in 39 other states, according to an analysis by the Alliance for Automotive Innovation, a nonprofit representing manufacturers producing cars and light trucks. Electric vehicles' nearly 10 percent share of Maryland's new car market represents about a 3 percentage point increase over the same quarter a year ago.



Source: Alliance for Automotive Innovation • Victoria Stavish/The Baltimore Sun

A Flourish chart

Charging ports are scarcer in Maryland than a suggested target, with one port for every 20 electric or plug-in hybrid vehicles.

The Maryland Zero Emission Electric Vehicle Infrastructure Council lists more than 3,900 charging ports and more than 78,000 electric and plug-in hybrid vehicles in the state as of July 31. That ratio of 20 vehicles per charging port is almost three times higher than the seven vehicles per port recommended by the California Air Resources Board, which approved the California Advanced Clean Cars II regulation that Maryland's is based on.