

California phasing out gas vehicles in climate change fight

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An electric vehicle is plugged into a charger in Los Angeles, Thursday, Aug. 25, 2022. California plans to require all new cars, trucks and SUVs to run on electricity or hydrogen by 2035 under a policy approved Thursday by regulators that seeks a dramatic cut in carbon emissions and an eventual end to gasoline-powered vehicles. Credit: AP Photo/Jae C. Hong

California set itself on a path Thursday to end the era of gas-powered cars, with air regulators adopting the world's most stringent rules for transitioning to zero-emission vehicles.

The move by the California Air Resources Board to have all new cars, pickup trucks and SUVs be electric or hydrogen by 2035 is likely to reshape the U.S. auto market, which gets 10% of its sales from the nation's most populous state.

But such a radical transformation in what people drive will also require at least 15 times more vehicle chargers statewide, a more robust energy grid and vehicles that people of all income levels can afford.

"It's going to be very hard getting to 100%," said Daniel Sperling, a board member and founding director of the Institute of Transportation Studies at the University of California, Davis. "You can't just wave your wand, you can't just adopt a regulation—people actually have to buy them and use them."

Democratic Gov. Gavin Newsom told state regulators two years ago to adopt a ban on gas-powered cars by 2035, one piece of California's aggressive suite of policies designed to reduce pollution and fight climate change. If the policy works as designed, California would cut emissions from vehicles in half by 2040.



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Other states are expected to follow, further accelerating the production of zero-emissions vehicles.

Washington state and Massachusetts already have said they will follow California's lead and many more are likely to—New York and Pennsylvania are among 17 states that have adopted some or all of California's tailpipe emission standards that are stricter than federal rules. The [European Parliament in June](#) backed a plan to effectively

prohibit the sale of gas and diesel cars in the 27-nation European Union by 2035, and Canada has mandated the sale of zero-emission cars by the same year.

California's policy doesn't ban cars that run on gas—after 2035 people can keep their existing cars or buy used ones, and 20% of sales can be plug-in hybrids that run on batteries and gas. Though hydrogen is a fuel option under the new regulations, cars that run on fuel cells have made up less than 1% of car sales in recent years.



A car is parked at an electric charging station in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu

The switch from gas will drastically reduce emissions and air pollutants. Transportation is the single largest source of emissions in the state, accounting for about 40% of the state's greenhouse gas emissions. The air board is working on different regulations for motorcycles and larger trucks.

California envisions powering most of the economy with electricity, not fossil fuels by 2045. A plan released by the air board earlier this year predicts electricity demand will shoot up by 68%. Today, the state has about 80,000 public chargers. The California Energy Commission predicted that needs to jump to 1.2 million by 2030.

The commission says car charging will account for about 4% of energy by 2030 when use is highest, typically during hot summer evenings. That's when California sometimes struggles to provide enough energy because the amount of solar power diminishes as the sun goes down. In August 2020, hundreds of thousands of people briefly lost power due to high demand that outstripped supply.



A car is parked at an electric charging station in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu

That hasn't happened since and to ensure it doesn't going forward Newsom, a Democrat, is pushing to keep open the state's last-remaining nuclear plant beyond its planned closure in 2025 and the state may turn to diesel generators or natural gas plants as a backup when the electrical grid is strained.

More than 1 million people drive electric cars in California today and their charging habits vary, but most people end up charging their cars in the evening or overnight, said Ram Rajagopal, an associate professor of

civil and environmental engineering at Stanford University who has studied car charging habits and energy grid needs.

If people's charging habits stay the same, once 30% to 40% of cars are electric, the state would need to add more energy capacity overnight to meet demand, he said. The regulations adopted Thursday require 35% of vehicle sales to be electric by 2026, up from 16% now



The screen of an electric charging station is shown in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu

But if more people charged their cars during the day, that problem would be avoided, he said. Changing to daytime charging is "the biggest bang for the buck you're going to get," he said.

Both the state and federal government are spending billions to build more chargers along public roadways, at apartment complexes and elsewhere to give people more charging options.

The oil industry believes California is going too far. It's the seventh-largest oil-producing state and shouldn't wrap its entire transportation strategy around a vehicle market powered by electricity, said Tanya DeRivi, vice president for climate policy with the Western States Petroleum Association, an industry group.

"Californians should be able to choose a vehicle technology, including electric vehicles, that best fits their needs based on availability, affordability, and personal necessity," she said.



Cars are parked at an electric charging station in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu

Many car companies, like Kia, Ford and General Motors, are already on the path to making more electric cars available for sale, but some have warned that factors outside of their control like supply chain and materials issues make Californians' goals challenging.

"Automakers could have significant difficulties meeting this target given elements outside of the control of the industry," Kia Corp.'s Laurie Holmes told the air board before its vote.

As the requirements ramp up over time, automakers could be fined up to \$20,000 per vehicle sold that falls short of the goal, though they'll have time to comply if they miss the target in a given year.

The new rules approved by the air board say that the vehicles need to be able to travel 150 miles (241 kilometers) on one charge. Federal and state rebates are also available to people who buy electric cars, and the new rules have incentives for car companies to sell electric cars at a discount to low-income buyers.



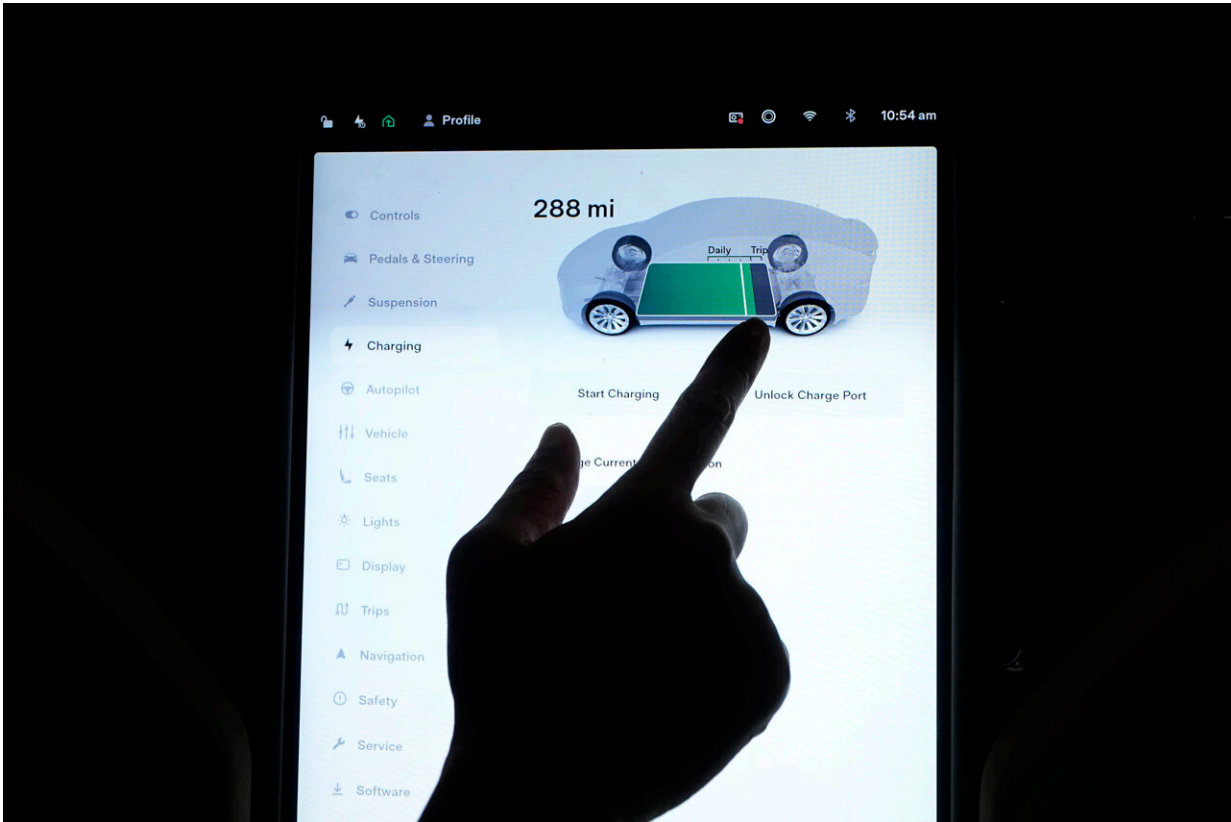
Monique An charges her Tesla car to a wall connector charger while posing for photos at her home in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu



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Monique An charges her Tesla car to a wall connector charger while posing for photos at her home in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu



Monique An shows the charging status screen on her Tesla car while posing for photos at her home in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu



Monique An holds a Tesla wall connector charger while posing for photos at her home in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu



Monique An connects her Tesla car to a wall connector charger while posing for photos at her home in San Francisco, Thursday, Aug. 25, 2022. California is poised to required 100% of new cars, trucks and SUVs sold in the state to be powered by electricity or hydrogen by 2035. Credit: AP Photo/Jeff Chiu

But some representatives of business groups and rural areas said they fear electric cars will be too expensive or inconvenient.

"These regulations are a big step backwards for working families and small businesses," said Gema Gonzalez Macias of the California Hispanic Chambers of Commerce.

Air board members said they are committed to keeping a close eye on equity provisions in the rules to make sure all California residents have access.

"We will not set Californians up to fail, we will not set up the other states who want to follow this regulation to fail," said Tania Pacheco-Warner, a member of the board and co-director of the Central Valley Health Policy Institute at California State University, Fresno.

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