

INTERVIEW

# California's 'Clean Car' Rules Help Remake U.S. Auto Industry

*With the passage of strict new auto emission and air pollution standards, California has again demonstrated its role as the U.S.'s environmental pacesetter. In an interview with [Yale Environment 360](#), Mary Nichols, chairwoman of the California Air Resources Board, explains how her state is helping drive a clean-car revolution.*

**BY PAUL ROGERS**

How likely is it that your next vehicle might be an electric car? California just increased the odds. On Jan. 27, the [California Air Resources Board](#), a powerful state agency with a history of setting first-in-the-nation clean air and climate regulations, voted 9-0 on a package of sweeping “clean car” rules that are expected to help reshape the U.S. auto industry.

The chairman of the board, Mary Nichols, oversaw the enactment of these new rules, which require that 15 percent of all new cars sold in California by 2025 emit little or no pollution and that the state reduce emissions of smog-forming pollutants by 75 percent. The rules are expected to result in 1.4 million zero- and low-emission vehicles — electric, plug-in hybrid, and hydrogen fuel cell — reaching California auto showrooms over the next dozen years, compared to roughly 10,000 on the road there today. And it's a near certainty that once built, those models won't just be sold in California, but in the other 49 states, as well.

In an interview with [Yale Environment 360](#) contributor Paul Rogers, Nichols — who has headed the board since 2007 — explains why California has consistently led the U.S. in passing the toughest air pollution and vehicle mileage standards, why Detroit automakers have decided to endorse California's new rules, and why U.S. and international car makers are on the verge of a [clean-car revolution](#). “Auto manufacturers have finally come to the conclusion that their future lies in very efficient, very clean

vehicles,” says Nichols.

**Yale Environment 360:** Why did California pass these rules?

**Mary Nichols:** California has been working on these rules for decades. Really, this is just the latest version of a program that has been in effect since the 1960s, which began because we were the first place to discover smog and to begin to take action to deal with the problem of pollution caused by motor vehicles. But this most recent round of standards is one that reflects a real change in viewpoint about what the future of our transportation system is going to look like. Basically we have concluded that when you look at the rates of growth in travel and the even greater problems of energy use, dependence on imported petroleum, as well as global warming and our contribution to it, we’re going to need a fleet of vehicles that is not primarily running on conventional fuels. And so we’re looking for ways to help speed up the transition to a fleet of vehicles that are extremely clean and efficient. And we’re setting standards for their design that help use the power of the California marketplace to do that.

**e360:** And what impact do you think these rules will have on the entire auto industry in the United States?

**Nichols:** Well, California buys about 10 percent of all the new cars that are sold every year. But we have even more influence than that over the design of future vehicles because every car manufacturer from the largest to the most innovative start-ups uses us as a design laboratory because they know that Californians know cars and they really like them. The term “love affair with the car” might be an exaggeration, but not too much.

**e360:** So you see these rules as changing the way all Americans drive, not just Californians?

**Nichols:** Yes, clearly cars that are manufactured for the California marketplace also get

sold outside of California. But we also have 13 states that followed California's lead automatically. They've signed up for the California car program. Those states include all the states in the Northeast plus Oregon and New Mexico. They are going to be requiring that all the cars sold in their states meet California's standards.

**e360:** The standards that the air board passed are pretty far reaching. They require 15 percent of all new vehicles by 2025 to have zero emissions, which as a practical matter means all electrical, hydrogen fuel cell, or plug-in electric. Why do you think the auto industry generally supported them, when in the past it has filed lawsuits to block laws California has previously passed?

**Nichols:** I think that the auto manufacturers have finally — maybe a bit belatedly — come to the conclusion that their future lies in very efficient, very clean vehicles. If they are going to be able to continue to provide cars for places where the demand is really growing, like Asia and other developing parts of the world, they're going to have to compete in an arena where gasoline is extremely expensive and, in some cases, almost impossible to obtain. They've also got to recognize that gasoline prices are going up and that there is a need for extremely clean fuels that can meet other demands, as well, in some of the most polluted areas on the planet, including India and China.

Alternative fuel vehicles are going to be hot sellers as soon as there are enough cars available and the fuel suppliers come along and fill the demand for whatever the future fuel is going to be. The demand in the parts of the world where people are becoming more prosperous is almost insatiable for vehicles. The first thing that people buy when they get to the point where they have a little disposable income — people want mobility. First, electric bicycles, then motorcycles, then a car — that seems to be an almost iron rule at this point. The car companies are going to have to have cars that meet that customer demand.

**e360:** In terms of the American consumer, what would you say to critics who say that government can force suppliers to make a certain amount of vehicles, like electric

vehicles, but it can't force the public to buy them? That they might all be left sitting on lots.

**Nichols:** Well, we agree that there's more to be done than simply to mandate the vehicles. We view our mandate program as giving a floor so that the manufacturers know that this is the minimum that we are going to be asking of them. But we are predicting that these cars are going to do much better than the minimum. The only way we are going to achieve that is through government taking responsibility that the changeover to new kinds of fuels is as simple as possible for the consumer — that is, making sure that there is easy access to electric charging or other ultra clean fuels. We are also prepared — as we already are doing — to provide direct incentives toward the initial cost of some of these vehicles. We know that until we've gotten the demand up and the volumes of production in place, that the initial cost of the new vehicles is going to be a deterrent to some. We want to be sure these cars are widely available, that people see them in the showrooms, and that they want to buy them.

**e360:** Sounds like the incentives you are talking about are tax credits and access to carpool lanes, things like that?

**Nichols:** Yes, exactly. Actually, we offer direct rebate funding thanks to [a program in California called AB 118](#), which is a surcharge on vehicle registration fees. Some of that money goes into consumer rebates for purchasing zero-emission vehicles.

**e360:** How will a showroom in California or the United States look differently 10 years from now because of this rule?

**Nichols:** We expect that at least one out of every seven cars in that showroom is going to be a plug-in vehicle.

**e360:** In a wider sense, California has also passed some [groundbreaking legislation on climate change with AB 32](#). Can you talk a little bit about how this clean car package of

rules fits in with AB 32?

**Nichols:** AB 32, which is the state's global warming law, was actually founded on the basis of our vehicle emissions rules for greenhouse gases. In 2002 the legislature ordered the resources board to start treating greenhouse gases as air pollutants and to set emissions standards for them. The standards were actually set in 2004. They weren't implemented until after Obama came into office because the Bush administration held up the waiver that California needed to enforce our standards. We were already planning on addressing the problem of the contribution that our motor vehicles make to the overall problem of global warming. In California, [vehicles] are our largest contributor. In passing AB 32, the legislature told us to adopt a plan that would meet the standards of the Kyoto treaty and bring our overall emissions as a state back to 1990 levels by 2020, which meant they [included] our electricity system and our other major industrial sources of pollution, such as oil refineries. But the first step was to look at cars and see what we could do there.

**e360:** Finally California has a 50-year history of passing tougher air pollution regulations than the rest of the country. Can you talk a little about why that's the case and what the effects have been?

**Nichols:** I think the political will to require cleaner cars in California goes back to the discovery of smog, no question about that. But that will is backed up by the fact that people are well aware that we really are breathing a lot of pollution that's created by our desire and our need for mobility. They are willing to support the notion that we may pay a little more for a brand new car, but in return for that we get the satisfaction of knowing we are helping to move the auto industry in the direction of producing cleaner cars for everybody.

**e360:** So everything from the catalytic converter to unleaded gasoline and now to these electric vehicle mandates originates in California and spreads to the rest of the country after that?

**Nichols:** Well, that has been the history, and certainly we're proud to have played that role as the pioneer. But we wouldn't have been able to continue doing it if we hadn't built up a kind of technical expertise, knowledge of what the industry actually could do

and what technology might be available with enough of a push to make it happen. Year in and year out, we've seen the companies, after some initial fuss, competing with each other to produce very attractive, desirable vehicles that also pollute less. That gives us the confidence to keep on moving forward.

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### **ABOUT THE AUTHOR**

**Paul Rogers**, who conducted this interview for *Yale Environment 360*, is the resources and environment writer for the *San Jose Mercury News*, where he has worked since 1989. He also works as managing editor of QUEST, a weekly science and environment series broadcast by KQED, the NPR and PBS affiliate in San Francisco.