

# Despite Push for Cleaner Cars, Sheer Numbers Could Work Against Climate Benefits

By [DAVID JOLLY](#) DEC. 7, 2015

PARIS — As United Nations climate conferees meet near here, Eric Feunteun wishes everyone could agree: If the world is going to curb [climate change](#), there is no choice but to stop driving cars that burn fossil fuels. “If we want affordable, practical and fully green technology,” Mr. Feunteun said in an interview in an office building on the edge of Paris, “the [electric vehicle](#) is the answer at this stage.”

Mr. Feunteun is hardly an unbiased source. He heads the electric car program at the French automaker [Renault](#), which sells more electric vehicles in Europe than any other company — and with its Japanese alliance partner, Nissan, accounts for half the all-electric vehicles now on the world’s roads.

For all Mr. Feunteun’s optimism, the delegates to the United Nations climate conference in nearby Le Bourget, France, confront a sobering fact: The number of automobiles on the world’s roads is [on pace to double](#) — to more than two billion — by the year 2030. And more likely than not, most of those cars will be burning carbon-emitting gasoline or diesel fuels.

That’s because much of the expansion will be propelled by the rise of the consumer class in industrializing parts of the globe, especially in China and India, as hundreds of millions of new drivers discover the glory of the open road. Those populous and geographically sprawling countries might be hard pressed any time soon to assemble the ubiquitous electricity grid required for recharging electric vehicles; and much of the electricity China and India will produce in coming decades will come from coal-fired power plants that are some of the planet’s biggest emitters of carbon dioxide.

Given the limitations of electric cars so far — including their limited range between charges — many experts predict that most of the billion additional cars predicted to be on the road in 2030 will have internal combustion engines that spew greenhouse gases.

The United Nations conference will not deal directly with cars or with what countries should do about them or other major sources of carbon emissions, like factories and power plants. Rather, the conference is meant to get countries to commit to reducing their carbon footprints, leaving the details about how to achieve their goals to each individual nation.

But virtually everyone who studies the issue understands that transportation, which is still 95 percent reliant on petroleum, is the world's [fastest-growing energy-based contributor](#) to greenhouse gases. About three-quarters of the total comes from motor vehicles.

Few disagree that the best solutions include the adoption of electric vehicles and, especially in cities, making it easier for people to forgo cars by using public transportation or riding bicycles.

But optimists argue that even in the case of cars with internal-combustion engines, carbon dioxide emissions can be cut significantly by measures like increasing fuel economy and introducing smart-driving technologies to make cars move about with greater efficiency.

Lewis M. Fulton, a researcher at the Institute of Transportation Studies at the University of California, Davis, cites "carbon intensity" — the amount of carbon dioxide produced for each mile traveled — as an area where advances can be made. By 2030, he said, it should be possible to cut the carbon intensity of new cars powered by fossil fuel by 50 percent from 2005 levels. Already, he said, there has been about a 20 percent improvement.

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"I believe that this is doable," Mr. Fulton said. "I think we're going to be serious enough about climate change that we're going to see the policy changes we need to make this happen."

The countries with the most cars today have set aggressive goals for improving fuel mileage. The United States, under President Obama's [fleetwide standards](#) for carmakers, is aiming for an average of 54.5 miles per gallon by 2025, up from about 30 m.p.g. now. China is aiming for 50.1 miles per gallon, and the European Union 60.6.

Still, the math is daunting. If the number of cars doubles, and the average mileage improves by only 50 percent, all of the fuel-economy gains would be offset by the emissions from the new vehicles.

And that assumes the auto industry does its part to comply with the new standards and that national regulators diligently enforce them. Recent revelations that Volkswagen, for one, [deliberately misled regulators](#), and that European Union air-quality standards and enforcement have been far from rigorous, do not inspire confidence.

Reducing tailpipe carbon dioxide emissions "is absolutely possible," said Daniel F. Becker, director of the Safe Climate Campaign, an environmental group based in Washington.

"But the automakers are attacking these standards as we speak, both in Congress and through a review of the program they demanded from the Obama administration," Mr. Becker said. "Similar attacks are underway in the E.U."

Congress, in an effort to make the United States more energy independent, passed a law in 2007 mandating a 35 m.p.g. auto-fleet standard by 2020. But before that, there had been no official change to American fuel-economy standards in more than 30 years.

“The U.S. auto industry was successful between 1975 and 2007 in preventing any improvement for mileage standards for CO<sub>2</sub> emissions,” Mr. Becker said. “They exploit every loophole in the standards, making more SUVs, pickups and other light duty trucks than cars because trucks have weaker standards than cars, and more large vehicles because large vehicles have weaker standards than smaller vehicles.”

Wade Newton, a spokesman for the Alliance of Automobile Manufacturers, a carmakers’ lobbying group in Washington, said he could speak only for the American market. But he defended the industry, noting that in the United States there are more than about 500 makes and models of vehicles that get 30 miles per gallon or more.

“That’s a 600 percent increase since just 2006,” he said. “But here in the U.S., it’s important to remember that CAFE measures what consumers buy, not what we make. So consumer acceptance in the U.S. is key.” CAFE, pronounced like sidewalk cafe, is the acronym for the Corporate Average Fuel Economy regulations in the United States.

Automakers have made big strides in reducing carbon emissions, to meet fleet standards. In fact, those targets have been a big motivation in the development of hybrid gasoline-electric vehicles and all-electric cars.

“The green aspect of electric cars is clearly the most important thing,” said Mr. Feunteun at Renault. But, he conceded, “you need to have all the benefits.” That would include an ability to drive farther between charges.

“We expect to double electric vehicle range by 2020,” he said. If that happens, the Renault Zoe, which currently has an effective range of about 150 kilometers, or 93 miles, would be at 300 kilometers — enough to meet most drivers’ day-to-day needs.

Mr. Feunteun’s boss, Carlos Ghosn, the chairman and chief executive of Renault and Nissan, said at a Brussels news conference on Friday that the auto industry had the technological skills to make cars more environmentally friendly. Electric cars and other cleaner-running vehicles “have to be acceptable to the consumer,” Mr. Ghosn said. “We know that one of the limitations in the development of electric cars in Europe is the lack of charging infrastructure.”

Mr. Feunteun, for his part, acknowledged that the current generation of electric cars tends to need government incentives to compete economically with vehicles using internal combustion engines. That can include the tax credits many countries now offer, or public support for building a charging network to let drivers refresh their car batteries away from home. “One stakeholder can’t do it alone,” he said. “It’s an ecosystem.”

He noted the example of Norway, which has gone [further than any other country](#) in encouraging consumers to drive electric cars. Blessed with clean hydropower-generated electricity, Norway

has exempted electric cars from vehicle taxes and provided incentives like access to high-occupancy vehicle lanes and free municipal parking for the cars.

China and India, with their notoriously polluted air, have strong incentives to embrace greener vehicles. In fact, China is already the world's fastest-growing market for electric cars.

But Mr. Becker, at the Safe Climate Campaign, points out that electric vehicles are only as environmentally friendly as the electricity that recharges them. China, though it is rapidly adopting nuclear power plants, is still heavily reliant on coal-fired electrical plants.

And India, where the biggest growth in automobile ownership is expected to occur as the country industrializes and its population surpasses China's by 2030, might actually [increase its reliance](#) on coal-fired electrical power plants between now and then.

Erik Jonnaert, secretary general of the European Automobile Manufacturers' Association, argued that automakers had done more than any other industry to reduce emissions. Policy makers, he said, should focus on new-car efficiency and on getting older, higher-polluting vehicles off the road through so-called cash for clunker-type programs. That alone could cut CO<sub>2</sub> emissions by 30 percent in 2030 from today's level, he said, as efficiency-enhancing technologies are introduced in new cars.

But Mr. Jonnaert said that economic trade-offs had to be considered, too, as regulators seek to curb the release of carbon dioxide.

“At the end of the day, when you talk about transport emissions for transport in general, including for freight transport, they increase when the economy is growing,” he said. “So what are we going to say, we're going to stop the economy to stop emissions?”

### **Correction: December 7, 2015**

An earlier version of this article referred incorrectly to comments by Mr. Newton about the automobile industry. His comments applied to the United States auto market, including non-American companies selling vehicles there. He was not discussing only the American carmakers.

Andrew Higgins contributed reporting from Brussels.

<http://www.nytimes.com/2015/12/08/business/energy-environment/despite-push-for-cleaner-cars-sheer-numbers-could-work-against-climate-benefits.html>