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## **U.S. Automakers Double Down on Trucks & SUVs, Despite Talk of a Cleaner Future** **By: Marianne Lavelle**

A year ago, General Motors laid out a bold vision for a transition to a zero-emissions future. It announced plans for 20 new electric vehicle models by 2023, and CEO Mary Barra wrote: "Our generation has the ambition, the talent and the technology to realize the safer, better and more sustainable world we want."

But in the U.S. market, GM was aggressively transforming its product line for something else—it was scaling back on cars and doubling down on higher-emissions pickup trucks and sport utility vehicles.

SUVs and other light trucks now make up more than three-quarters of GM's passenger vehicle sales in the U.S., up from less than 60 percent five years ago. The majority of the 20 planned electric car models are destined for China, where the government has new EV mandates. The company has announced no plans for electric versions of any of the big vehicles that are its best sellers in the U.S.

"We have ... successfully transitioned to a crossover- and truck-focused business," Kurt McNeil, U.S. vice president of Sales Operations said in a statement to investors early this year.

GM is not alone. All of the Big Three automakers—GM, Ford and Fiat Chrysler—have shifted toward big, heavy vehicles that drink more fuel per mile. In fact, they were in last place for fuel economy among the 13 automakers selling in the U.S. market, according to the EPA's most recent annual fuel economy trends report.

It's an ominous development for climate change, since gasoline is the largest contributor to carbon emissions in transportation—the nation's biggest source of planet-warming greenhouse gases.

It also helps explain why automakers sought President Donald Trump's help in easing the fuel economy and greenhouse gas emissions standards that they had agreed to as part of a 2009 economic bailout. Trump went farther than the automakers had in mind, however, and he now plans to freeze the standards and abandon the goal of a more than 50 mpg average for the U.S. vehicle fleet, undoing what would be one of the largest steps any nation has taken on climate change.

Relatively low gas prices have helped drive the trend, as consumers are less concerned about the cost of gas guzzlers when fuel prices are low.

But automakers, who make higher profits on pickup trucks and SUVs, have also stoked those sales with marketing muscle and retooled line-ups. The manufacturers' all-important quarterly earnings have been bolstered as a result.

Advocates of tougher fuel economy standards argue that U.S. automakers are careening down the same risky road they have driven in the past—relying too heavily on vehicles that will be less attractive to consumers when gas prices are high again.

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"The number one problem with that is climate," he said. "But it also will result in the downfall of the American auto industry in a few years when gas prices go back up and they will have gotten out of the business of making cars."

GM's corporate communications director, Patrick Morrissey, said the company is moving forward with its commitment to an all-electric portfolio.

But he said GM also aims to steadily boost fuel economy across its fleet with more efficient engines, better aerodynamics and lighter-weight materials, among other advances. For example, one of the options consumers can select on the 2019 model of GM's best-selling Silverado pickup truck is a smaller turbocharged engine, which at 20 mpg city fuel economy is 13 percent more efficient than the larger engine it is replacing.

The automakers say they do want national standards that continue to increase efficiency, but they want greater flexibility.

"The pathway to our vision for a zero emissions future includes continually improving fuel economy of our current vehicles," Morrissey said in an email.

### **The Wake-Up Call that Quickly Faded**

The 2008 financial crisis and the surge of gas prices to an all-time high was a wake-up call for automakers and policymakers alike. Although many factors triggered Detroit's auto industry collapse, part of the problem was that it wasn't ready for consumer demand to quickly shift to more efficient vehicles.

As part of the \$80 billion auto industry bailout deal, the federal government brought its fuel economy regulations in line with a groundbreaking program developed by California. For the first time, the goals were set in terms of grams of carbon emissions per mile, gradually increasing to the equivalent of more than 50 mpg by 2025.

After the bailout, GM made profound changes to its operations, shedding unprofitable businesses and focusing on technical advancement. One important shift was the company positioning itself as a serious player in the electric vehicle future.

GM had become notorious for "killing" the electric car—discontinuing the EV1 it produced for the California market between 1996 and 2001. Now, the company was joining the race again, more than a decade behind Toyota, which had introduced its hybrid gas-electric Prius in 1997. The vehicle that became emblematic of that effort was the Chevy Volt.

"It was a lot of long hours," recalls Greg Kempf, a retired GM engineer who spent much of his nearly 40-year career trying to improve transmissions for fuel economy. "GM was going bankrupt, and we had full overtime. It was a very important program."

But it did not lead to electrification across GM's portfolio.

The hybrid system Kempf's team developed was deployed in 2009 in GM's Cadillac Escalade SUV and some other high-end SUVs and pickup trucks. The so-called "strong" hybrid systems could run entirely on electric power up to 30 mph, unlike the Prius, which was all-electric only up to 15 mph. But GM's dalliance with the strong hybrid system was brief, and limited to customers willing to pay top dollar for modest fuel savings. The hybrid Escalade, with a starting price of more than \$74,000, could achieve 20 to 21 mpg, compared to 15 to 16 mpg for the standard version. Citing poor sales, GM discontinued its high-end hybrid SUVs in 2013.

Across the industry, EV technology—the only current pathway to zero emissions—accounted for just \$9.8 billion of the \$119.5 billion in investments automakers made in North America from 2009 to 2017, according to the industry-funded Center for Automotive Research.

Kempf was disappointed to see the shelving of technology he believed had so much promise. "It was intended to be the first one of several generations—each one with the cost coming down and becoming more reliable," he said. "It could have been done with more speeds for added fuel economy, and there's no reason it couldn't have been in smaller vehicles."

## **Bigger Vehicles, Bigger Profit Margins**

The U.S. automakers' shift toward focusing more on bigger vehicles and less on fuel economy became pronounced after 2014, when gas prices fell more than 40 percent.

U.S. passenger vehicle production, which was 65 percent cars in 2013, dropped to 55 percent by 2016, according to EPA. GM's sales tipped from 60 percent light trucks to 70 percent by 2016. That included an increasing number of so-called "crossover" SUVs, like the Chevy Traverse (fuel economy 20 mpg) and Trax (28 mpg), most of which are categorized by EPA as light trucks, meaning they have a less stringent fuel economy standard to meet than vehicles categorized as cars.

One advantage of the shift to bigger vehicles for the automakers: higher profits.

Carmakers jealously guard the numbers for particular vehicle models, but the Center for Automotive Research says manufacturers make profits of \$10,000 per vehicle or more on light trucks, and as little as a few hundred dollars on some models of cars.

Detroit News' auto critic recently quoted anonymous insiders saying that GM earned \$35,000 profit on every Escalade SUV it sold. In contrast, when GM rolled out its all-electric Bolt in December 2016, a company source told Bloomberg that GM stood to lose as much as \$9,000 on every one it sold at a retail price of \$36,650.

"It is not a coincidence," the Center for Automotive Research said, "that the shift to [cross-overs], SUVs, and pickups coincides with a period of increased profitability for nearly every automaker that sells vehicles in the U.S. market." GM's profits soared to a record \$12.5 billion in 2016. Even in 2017, when sales slid and the company posted a loss due to a business write-down, GM set new records for sales of pickups and crossovers, as well as record average transaction prices.

GM executives repeatedly confirm the importance of light trucks to the bottom line when they talk to Wall Street investors and analysts.

"I think about it as what we are trying to do is fish with fish, or do business where the money is," GM President Dan Amman told investors at Deutsche Bank's Global Auto Industry Conference in January, as the carmaker unveiled its plans for the 2019 Silverado.

Automakers argue that the shift to pickups and SUVs is simply a reflection of what customers want. GM's Chevy Volt, introduced in 2011, is the highest selling plug-in vehicle on the market, but the 139,000 Volts (and 35,000 Chevy Bolt EVs) sold in seven years are dwarfed by the trucks and SUVs that make up the growing share of the 3 million passenger vehicles GM sells annually in the U.S. Among the 485 passenger vehicle models in the U.S. market, the more than 50 models of battery electric and plug-in hybrid vehicles accounted for only 1 percent of the 17 million cars sold in 2017.

The carmakers "are already building highly fuel efficient vehicles around the world and in this country," said Gloria Bergquist, vice president for public affairs at the Alliance of Automobile Manufacturers, which represents 12 carmakers accounting for 70 percent of U.S. vehicle sales. "If consumers bought more of them, then we could reach higher fuel economy standards."

Polls may show that the overwhelming majority of Americans value fuel economy in the next vehicle they purchase. But Bergquist says that that preference does not show up in actual sales. "It's something consumers say they value, but they won't spend more money for it," she said.

"We think there's going to be a tipping point where people start buying more of them and so that's why we're investing in them," Bergquist said. But if consumers aren't buying enough of the high-efficiency vehicles, "we're caught between government regulations and the marketplace," she said.

The National Academies of Science, the International Council on Clean Transportation, and the Obama administration all produced studies detailing how the automakers could meet the Obama fuel economy goals without much consumer uptake of electric vehicles. It would require deploying technologies like 8-speed transmissions, turbocharging, smaller engines and lighter materials.

Bergquist notes that the automakers do sell more fuel efficient vehicles in other countries, where gasoline

prices are higher and smaller cars are the big sellers. But a close look at those overseas markets provides a hint of why automakers may like the U.S. market as it is. GM's best-selling vehicle in Europe was the Opel/Vauxhall Corsa, with fuel economy of 50 mpg or more, but GM lost money in Europe every year since 1999, and decided to exit the European market entirely last year. GM sells more cars in China than it does in the U.S., but it pulls in only a fraction of its profits there.

Former Michigan Gov. Jennifer Granholm, whose term in office spanned Detroit's 2008 collapse and the start of its recovery, looks at the carmakers' current truck-heavy vehicle mix in context of the profound transformation ahead for the industry: "That's the money they are investing in new technology."

### **Preparing for an All-Electric Future?**

Analysts at the Center for Automotive Research argue that carmakers are in a pivotal period, caught in a "great divide" between the industry's present and future. They must invest in the next-generation efficient technology, while continuing to develop and sell the vehicles that make a profit today. Complicating matters is the possibility that autonomous vehicles, networked fleets and increased ridesharing could mean that people won't need as many of the vehicles they sell.

GM sought to position itself for this uncertain future under Barra, who took over as CEO in 2014, and it has coupled its strategy for electrification with its efforts to advance self-driving vehicles.

"Our commitment to an all-electric, zero-emissions future is unwavering, regardless of any modifications to future fuel economy standards," Barra said at the energy industry conference in Houston last spring. But she had no firm answer when asked how long the transition from gasoline to emissions-free EVs would take. "Less than decades," she said. Barra also avoided setting deadlines in a LinkedIn post last month to mark the one-year anniversary of her "zero emissions" vision statement. "It won't happen overnight," she wrote.

Luke Tonachel, director of the clean vehicles and fuels project at Natural Resources Defense Council, praised GM's work on technological advances like the Volt and Bolt. But he said the imperative of addressing climate change will require a fleetwide transformation for GM and other automakers.

"GM can talk about this vision of zero emissions, congestion, and fatalities, but when will that dream become reality?" Tonachel said. "If you don't have a real deadline and an immediate plan to make progress, what's the value of that commitment?"

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