

Behind GM's shift to all-electric vehicles by 2035

Part 1

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This is the first of a two-part series. Part two can be read here.

At the end of January, General Motors CEO Mary Barra announced that the company aims to transition to selling only zero-emission cars, SUVs and light trucks by 2035, phasing out passenger vehicles with gasoline- and diesel-powered engines. The company also said it had set 2040 as the target when all its US factories and facilities will be carbon neutral.

GM had previously announced that it is investing \$27 billion in electric vehicles (EVs) and self-driving vehicles over the next five years, up from \$20 billion before the COVID-19 pandemic began. It is planning to offer 30 different EV models by 2025.

The company is already close to finishing the development of Factory Zero, formerly the Detroit-Hamtramck Assembly Plant, which is due to come online later this year. Once reopened, it will produce electric versions of the Hummer SUV and eventually the Cruise Origin self-driving vehicle.

While GM left itself ample wiggle room in its timeline to move to all-electric—calling the plan an “aspiration”—the announcement nonetheless reflects tectonic shifts in the global auto industry and world economy.

Throughout the 20th and into the 21st centuries, internal combustion engines have been deeply integrated into the vast and increasingly globalized systems of auto production, while also shaping transportation, economic activity and daily life for billions of people.

However, complex objective factors—particularly technological developments, including cheaper lithium-ion battery production methods—are accelerating the shift towards electric vehicles, in turn spurring a bitter struggle among the major automakers to dominate the technologies, supply chains and markets related to them.

Electric vehicles still make up a relatively small share of global sales. Around 3.2 million plug-in vehicles were sold in 2020, according to EV-Volumes, an industry consulting

firm based in Sweden. However, that number is expected to grow dramatically, with a 70 percent increase projected for 2021 alone. Around 150 new battery electric and plug-in hybrid models are slated to come on the market this year, and total electric and hybrid vehicles worldwide could top 140 million by 2030, the International Energy Agency has stated.

Europe and China both saw substantial growth in EV sales last year, despite overall slumps in their auto markets due to the coronavirus. New plug-in EV sales in Europe grew 137 percent year over year in 2020, EV-Volumes reported, accounting for 10.2 percent of total sales, up from just 3.3 percent in 2019.

In China, sales of New Energy Vehicles (NEVs)—which include hybrid gas-electric, plug-in battery electric, and hydrogen fuel cell, among others—grew at a relatively slower, though still substantial, 12 percent in 2020. Sales of NEVs in January 2021 were up 239 percent from the same time last year.

China now has the largest auto market in the world—bigger than the US and Japan combined—and has aggressively promoted electric vehicles through state subsidies and other measures, in an effort to both position itself as the frontrunner in the sector and, more recently, to offset the negative impact of COVID-19 on its economy.

In the US, new electric vehicle sales grew at an anemic 4 percent in 2020, according to EV-Volumes, with EV upstart Tesla accounting for nearly 80 percent of the total.

In recent years, established US automakers such as GM and Ford have been increasingly falling behind in the EV race. Investors have exerted mounting pressure on the Detroit Big Three to cut costs and free up capital to make the significant technological, research and development investments required to produce electric vehicles at large scale.

The strategists for US imperialism have also looked with growing alarm at the swift growth of its foreign rivals,

particularly China in the EV sector, with calls for a shift in approach away from that of the Trump administration, whose policies favored the prolongation of gas-powered vehicles.

Electric vehicles under the Trump and Biden administrations

Just days before the GM's announcement, President Joe Biden announced plans to have the fleet of federal government vehicles transitioned to electric units built in the US. His announcement was made in the course of signing a "Buy American" executive order, which continues the reactionary economic nationalism and protectionism of the Trump administration, while at the same time seeking to shore up support for the discredited, pro-corporate trade unions.

The White House quickly praised GM's announced intentions to shift to electric vehicles, with a spokesperson stating, "We applaud efforts by the private sector to further embrace renewable and clean energy technologies. The president and many others have said, efforts like this will help grow our economy and create good-paying union jobs."

GM's CEO Barra has been in regular communication with the Biden administration, joining a virtual meeting with the president-elect, corporate and union officials in November shortly after the election. The company is no doubt lobbying behind the scenes for only modest increases to emissions standards and regulations of the industry, following its aggressive rollback under the Trump administration, perhaps in return offering to help burnish the Biden administration's image of "taking action on climate change" in its early days.

However, successive Democratic and Republican administrations, each beholden to US imperialism and capitalist profit interests, have proven incapable of enacting the scientifically guided and internationally coordinated changes in production and economic activity necessary to prevent a further disastrous warming of the planet.

Under rules enacted by the Obama administration, fuel economy standards were supposed to reach 54.5 miles per gallon by 2025, itself an inadequate benchmark to sufficiently rein in greenhouse gas emissions. But with less fuel-efficient vehicles such as SUVs and pick-up trucks constituting a growing share of automakers' profits in the latter half of the last decade, many of the major auto companies seized upon the opportunity provided by the new Trump administration in 2017 to press for considerably slackened emissions standards.

Not long after his 2016 electoral victory, GM CEO Barra met with Trump and agreed to serve on a White House economic policy panel, along with other corporate executives. She personally pushed to have the Obama-era emissions rules diminished, and they subsequently were in 2018, as part of a broad effort by Trump and congressional Republicans to gut environmental and other corporate regulations.

In September 2019, the Trump administration then moved to revoke California's authority to set stricter emissions standards than those at the federal level, after automakers objected that the lack of uniformity in US regulations would lead to increased production costs. GM, along with then-Fiat Chrysler (now Stellantis), Toyota and others joined a lawsuit supporting the Trump administration in its legal battle against the state.

After the election of Biden last November, however, GM dropped out of the lawsuit, followed by Stellantis and Toyota just this month. Barra stated at the time, "We believe the ambitious electrification goals of the President-elect, California, and General Motors are aligned to address climate change by drastically reducing automobile emissions."

Despite GM's apparent about-face, the outcome is that the Biden administration is now floating 2026 emissions standards of about 51 miles per gallon, looser than the rules enacted under the Obama administration.

Nevertheless, the Biden administration, along with Democratic Party-aligned media such as the *New York Times*, has signaled that it views the development of a domestic supply chain for EVs as a matter of "national security," i.e., the interests of US imperialism.

The *New York Times* followed GM's announcement of its shift to EVs with an article with the worried headline, "G.M.'s Electric Car Push Could Put China in the Driver's Seat," expressing concerns over China's current lead in battery production and the rare earth metals, such as lithium and cobalt, that they require. China currently accounts for roughly 80 percent of US rare earth imports.

In her confirmation hearing last week, Biden's nominee for Energy Secretary, former Michigan Governor Jennifer Granholm, reiterated the administration's economic nationalist stance, telling Congress, "We can buy electric car batteries from Asia, or we can make them in America."

To be continued



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