

**BLOG** Published May 23, 2024 • 10 minute read

# State of Play: EVs May 2024



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Electric vehicles have taken center stage in the press lately. Based on headlines alone, it's hard to tell what's going on with this emerging technology. Are EVs experiencing the typical ups and downs of a growing industry? Or is the industry facing more systemic challenges? So what's really going on?

## Do Consumers Actually Want EVs?

EV sales have grown 40% year over year—yet some analysts continue to say there's a “massive slowdown” in the EV market and warn that automakers and consumers are losing interest in manufacturing and purchasing EVs. They cite changes in demand from month to month and voice concerns that early adopters have all made the leap to electric and more conventional consumers

aren't ready to switch. In truth, any move to a new game-changing technology in the automotive industry takes years, not months.

Because of the nascent nature of this industry, it's important to not approach EVs with a snapshot view. This month, Tesla announced its intention to sharply slow down the production of its charging network. This move was seen as blindsiding competitors and suppliers. Weeks later, however, the company backtracked its decision and rehired staff.

Drawing conclusions based on a few months or weeks of sales or announcements is misleading and doesn't capture the reality of the EV market. And, unfortunately, that's exactly what doom-and-gloom headlines about EV sales are doing.

When you look at sales data year-over-year, you can find a few positive proof points in EVs' favor:

- Battery electric vehicle sales in March were up 49% compared with March 2023. Sales of internal combustion engine (ICE) vehicles grew by 1.4% over the same period.
- Ford's EV sales grew by 129% in April compared to a year ago. The comparison starts at a low base, but sales have more than doubled over the last 12 months.
- Sales of ICE vehicles peaked in 2016. Sales of ICE vehicles have been declining ever since.

These trends are bolstered by the diversity of makes, models, and price points in the EV market right now. Much attention has been given to the 44 EV models that qualify for some form of tax credit through the Inflation Reduction Act—and these models are critical for the transition. With a partial \$3,750 tax credit or a full \$7,500 credit, many more families are considering EVs than previously would have. But what's really noteworthy is the more than 100 other models in the marketplace.

From the Big Three in Michigan to companies like Honda, Rivian, Tesla, and VW, auto manufacturers are introducing new EVs at a rapid clip. These companies aren't introducing new models simply for the sake of it. They're doing so because consumers demand it. Americans are interested in buying EVs, whether or not they qualify for federal tax credits. According to the Cox Automotive 2024 Path to EV Adoption Study, within a decade, most consumers, will consider buying a used or new EV.

Bottom Line: EV sales are trending higher, with an overall market share exceeding 10% this year, and on track to sniff out 50% market share by 2030. That doesn't mean interest doesn't vary from month-to-month—but the overall trend is one of growing interest.

# Can EV Owners Even Find a Place to Charge?

Though EV demand is growing year-over-year, many consumers just aren't ready to go electric. New polling from [AlixPartners](#) says there are concerns about limited charging infrastructure—and consumer fears about getting stranded without a charger.

Press coverage has picked up on these concerns, citing slower-than-anticipated National Electric Vehicle Infrastructure (NEVI) Program charger buildout. And Tesla's recent move to hack down its Supercharger unit has only added to concerns. Will the US charging network meet the needs of consumers? Or will slow charger buildout only drive consumer fears higher, suppressing demand for EVs?

Let's start with a quick look at Tesla. Their Supercharger announcement is worrying but there are a few key takeaways to keep in mind:

- Tesla is already backtracking on its announcement to pare back their buildout of Superchargers, with recent reports that they will continue to expand.
- EVgo, Blink Charging, and BP Pulse Charging have all indicated that they will take competitive advantage of any slowdown in Tesla Supercharger buildout – they have the technology and can just as easily install these plugs.
- 57,000 Tesla Superchargers are already at stations across the country, by far the largest charging network in operation today.
- Over a dozen automakers, from Ford and GM to Volkswagen and Volvo, are switching from Combined Charging System (CCS) technology to Tesla's North American Charging Standard (NACS) technology. Most of these companies' EVs will come with NACS ports built-in starting in 2025.
- In the meantime, some including Ford, Hyundai, Nissan, Rivian, Stellantis, Toyota, Volvo, are offering adapters so customers can charge on the Tesla network even if their car was designed to use CCS.

All this amounts to significant growth and popularity for Tesla's charging technology. Layoffs in the Supercharger unit are worrying—but Tesla's technology is fast becoming the default for US consumers and is expected to be standardized by late 2024. Our best guess is that there's nothing Tesla can do to stop the inexorable growth of fast charging stations and plugs. So while this could be a setback, we remain bullish on the long-run outlook for NACS charger buildout.

Tesla is by no means the only game in town. By the numbers:

- The federal government has invested \$5 billion into charger buildout, sending that money to the states through the Bipartisan Infrastructure Law's NEVI Program.
- Another \$2.5 billion is on its way to communities across the country thanks to the BIL's Charging and Fueling Infrastructure Grants; so far \$600 million has been awarded to help build approximately 7,500 EV chargers in 22 states.
- The Joint Office of Energy and Transportation says there are more than 170,000 public charging ports across the US, with about 900 new chargers opening every week.
- The US now has one fast EV-charging station for every 15 gas stations in the United States.
- Only six states have opened NEVI-funded charging stations, but many more are on the way: in Q1 of 2024 alone, Utah, Texas, Rhode Island, Kansas, New Mexico, Tennessee, and Michigan all announced additional charging projects using NEVI funding. That's in addition to the 23 other states who've begun deploying NEVI funding.

These figures paint a decidedly complicated picture of the US's charging infrastructure. It's growing—but construction needs to move faster. And the charging infrastructure we have still isn't quite adequate to meet the needs of the 3.3 million electric vehicles currently on the road. As that infrastructure expands, we can expect to see greater confidence from consumers that they'll be able to charge if they go electric, which, in turn, would feed greater demand for EVs.

Bottom Line: Infrastructure takes time to build out. The Bipartisan Infrastructure Law's allocation of \$7.5 billion for private-sector charging station construction is beginning to show progress. Private companies are also stepping up to expand charging networks, create software that makes it simple to find chargers at the right time and place, as well as allow for expanded networks of fast chargers.

## **Are EVs Good for Workers? For US Manufacturing?**

EVs have been the center of press attention for their impact not only on the climate—but also on US workers and businesses. There's a good deal of public debate as to who, if anyone, benefits from taking US autos electric.

Our data shows it's not all that complicated: making EVs and their component parts in the US is a win for consumers, businesses, and the US economy writ large. On the industry side, the numbers are downright remarkable:

- Last year, the private sector and the federal government invested a combined \$119 billion to onshore manufacturing for zero-emission vehicles, batteries, and critical minerals.
- The US is on track to produce enough batteries to outfit more than 13 million EVs when construction wraps. That's 10 million more than previously estimated, far surpassing analysts' prior expectations.
- In 2023, eight zero-emissions vehicle manufacturing facilities announced investments totaling \$5.8 billion.
- Federal support isn't slowing down: the Department of Energy just finalized a \$362 million loan for a Texas factory poised to produce wiring systems for EVs, which are typically produced overseas. With federal help, the private sector can continue to expand what gets made in America, with American labor.

New supply chains bring new opportunities for US workers too. In detail:

- In the US just prior to the onset of Covid-19 in December 2019, there were 983,000 workers employed in motor vehicle and parts manufacturing. With the investments of the past year and the growth of new domestic supply chains, that number has grown by 80,000 workers to over 1 million.
- Ford, General Motors, Stellantis, and a VW plant in Alabama currently have 20 EV assembly and parts plants that are unionized. And, thanks to federal support, that number is expected to grow, as manufacturers convert ICE plants to make EVs and with more workers at plants voting to be represented by the UAW.
- All in, the automotive industry—from assembly to parts, shipping vehicles, retailing, repair, and maintenance—employed 4 1/2 million workers last year. Even suggesting that we cede automotive leadership to competitors is ignoring the economic activity that this industry has generated for the US across multiple generations.

These announcements make one thing clear: the relationship between labor, government, and industry is primed to deliver significant dividends for the US manufacturing sector. With these concerted efforts on track, we foresee a surge in opportunities, a broadening of manufacturing horizons, and a bolstering of our global competitive edge.

## Issue in Motion

The Biden Administration announced potential new tariffs on electric vehicle and parts imports, including graphite and other critical minerals that are used in the production of battery cells. These actions are intended to prevent unfair trade practices impacting the domestic automotive industry and its workers. The Office of the US Trade Representative has proposed a 25% tariff starting August 1, 2024 on manganese, cobalt, aluminum, zinc, and other critical minerals, as well as a 25% tariff on natural graphite starting later on January 1, 2026. These tariffs aren't final and won't go into effect until a public comment period and review have taken place. The President has technically directed a review, but not immediate tariffs.

## Here is How We See the Long Game on EVs:

So what's next? We're at a phase of enormous opportunity for the EV transition, and, at the same time, challenges persist. Electric vehicles are critical to meeting our climate goals and to keeping our economy competitive for decades to come. As Rivian's CEO RJ Scaringe said in a CNBC interview recently, the global industry is transitioning to 100% EVs, so it is not an "if," but a "when." The US must stay competitive in this industry—but we cannot do so without robust government leadership.

Our competition with China for the future of the global auto industry is in full swing, and the next ten years will be pivotal. The US government must "stay the course," creating certainty and policy consistency for auto companies as they make the switch to electric. We can learn from South Korea, whose government and automotive companies entered a strategic partnership to grow the auto industry and exports to the US, eventually welcoming vehicle production in the US and with skilled US labor. Their circumstances are different from ours, but their pursuit of industry-government collaboration is an example we should follow. For success in the EV transition, the US must embrace an EV industrial strategy that matches our competitive strengths with deep capital markets, creating US leadership in this critical and growing industry.