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# You've Formed Your Opinion on EVs. Now Let Me Change It.

Frozen Teslas, unsold inventory piling up at dealerships, production woes—yet sales of electric vehicles still continue to rise. Dan Neil is here to address all your EV fears and doubts.



By [Dan Neil](#) [Follow](#)

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**BUMPY RIDE** The auto industry's road to electrification—at times a hellscape of battery fires, range anxiety and production woes—has not been easy. ILLUSTRATION: JOHN W. TOMAC

**HOW COLD WAS IT?** Last week, when temperatures in the Midwest plummeted, some Tesla Supercharger stations in the Chicago area were rendered inoperative, leaving owners frozen to their cars for many hours. Tesla-pops.

If you saw that and wondered why any sane person would ever want an electric car, I'm here to tell you, it's not always easy. I mean, those scenes in Chicago looked like something out of Dante. Skeptics are right to call out EV batteries' vulnerability to cold, which cuts into range. It's also true that many EVs fall short

of their EPA-estimated range. Battery fires, glitchy software, unsold EVs piling up at dealerships, major losses for legacy automakers—all true.

And yet, people keep buying them. Sales of plug-equipped passenger vehicles grew 31% in 2023 to claim more than 15% (14.2 million) of the global passenger-car market, according to Bloomberg New Energy Finance. Battery electric vehicles (BEVs) accounted for about 70%, with plug-in hybrids (PHEVs) and a smattering of fuel-cell vehicles making up the rest.



**FREEZE OUT** Some Tesla charging stations were rendered inoperable by last week's frigid temperatures. PHOTO: SHUTTERSTOCK

For the year, Tesla sold 1.8 million vehicles, making the American company the most popular EV brand in the world. But in a sign of things to come, Chinese automaker BYD surpassed Tesla in EV sales in the last quarter.

Stateside, sales of pluggable vehicles grew 50% in 2023, to about 1.4 million. In Q4 BEV sales hit a record 8.1% market share, with Tesla accounting for about half. Notably, the market share of PHEVs—often cited as a bridge technology between gas and electric propulsion—has flatlined in the U.S.

Encouraged by consumer demand and policy support in major markets, the International Energy Agency's 2023 Global EV Outlook projects that battery-electric vehicles (BEVs) will account for 36% of global passenger-car sales by 2030, up 22% from the previous year's projection.

Sure, most of that is China, now both the world's biggest car market and auto exporter. The U.S. constitutes about 11% of the passenger-car market. But it

hardly matters. By dint of sheer scale, China now determines the auto industry's direction and macroeconomics. Where they go we go.

It's also clear from my inbox that many are overly invested in the FUD—fear, uncertainty and doubt—about vehicle electrification. I'll get to that.

But, as a shortcut to common ground, I always encourage EV skeptics to just drive one. Then we'll talk. The consumer experience is superior: quicker, quieter, more refined and responsive, more efficient, more connected and cheaper to operate than its gas-powered equivalent. The market demand is organic, the desire real and nonideological. After a few miles in an EV, going back to internal combustion feels like returning to whale-oil lamps.

Some of my fellow travelers suspect there must be a conspiracy to trash-talk electrification in the media, funded by Big Oil. I take a contrary view: It didn't take a conspiracy to make EVs look bad. The first generation of cars—the Nissan Leaf, the Chevy Bolt, the BMW i3—were compromised by a lack of range (low energy density) and the inadequacy of public charging. God knows, I've been there. Electrify America, on behalf of early adopters: Bite me.

In retrospect, the pessimism also represented a failure of communication. Legacy automakers should have made clear at the outset that EVs were short-range commuter cars, designed to be charged overnight at home, not on the frozen tundra of Illinois. Hindsight being 20/20, automakers should have emphasized residential charging first.

Nor have Ford or GM's efforts thus far inspired a lot of confidence. GM's Ultium system—the core of a new family of mass-market EVs—has been plagued by production delays. Ultium has other issues, too, including low energy density and high cost. Together these elements produce the GMC Hummer EV, a monster truck weighing 9,000 pounds and costing six figures. It's as if they were trying to give EVs a bad name.

Ford's fumbling of its F-150 Lightning pickup was also pretty hard to watch. The finished product, when it came, looked like Tarzan but hit like Boy, badly underperforming when it came to doing trucky things, like trailering boats in cold weather.

So, sure, the heartland remains decidedly undecided. Baby, it's cold outside.



CHARGE FORWARD In the fourth quarter of 2023, Chinese automaker BYD surpassed Tesla in global EV sales. PHOTO: BYD

But the weather is about to change. This year, incentives built into the Inflation Reduction Act—allowing consumers to claim tax credits at the point of sale, for example—are expected to spur consumer demand. Meanwhile, some legacy automakers are finding their product-design feet. BMW reported that EVs accounted for 20% of its 2023 volume and almost all its sales growth.

If you think EVs are too expensive, just wait. The mother of price wars is coming consumers' way, as Tesla continues to leverage its low production costs to undercut the competition. Tesla watchers also expect the company to unveil its long-awaited Model 2 later this year, with a similarly long-awaited \$25,000 price tag.

Charging: After a decade of self-sabotage, most automakers decided last year to adopt Tesla's NACS charging standard in the U.S., which will allow their customers to use Tesla's robust Supercharging network, like civilized people. Meanwhile, the Biden administration is targeting a half-million public fast chargers in the field by 2030. Pretty soon range anxiety will be returned to neurotics.

Some FUD is simply out of date. For example, the prohibitively high cost of batteries. In 2023 alone, lithium battery pack prices fell 14%, according to BloombergNEF's Zero Emissions Vehicle Factbook—a tenth of where it stood a

decade ago. The race to the bottom on cost will also eliminate the use of battery tech's most problematic material: cobalt. Advanced lithium-iron phosphate (LFP) batteries use no cobalt and have a lot of other agreeable properties, too, including being more durable, less flammable and cheaper.

The most pernicious FUD may be the idea that EVs can't move the needle on carbon emissions. They already are. EV adoption cut demand for oil by 1.8 million barrels in 2023, according to BloombergNEF, thereby avoiding 122 megatons of carbon-dioxide emissions.

I know they're not for everybody, but as for me, you can have my EV when you pry it from my cold, frostbitten fingers.

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