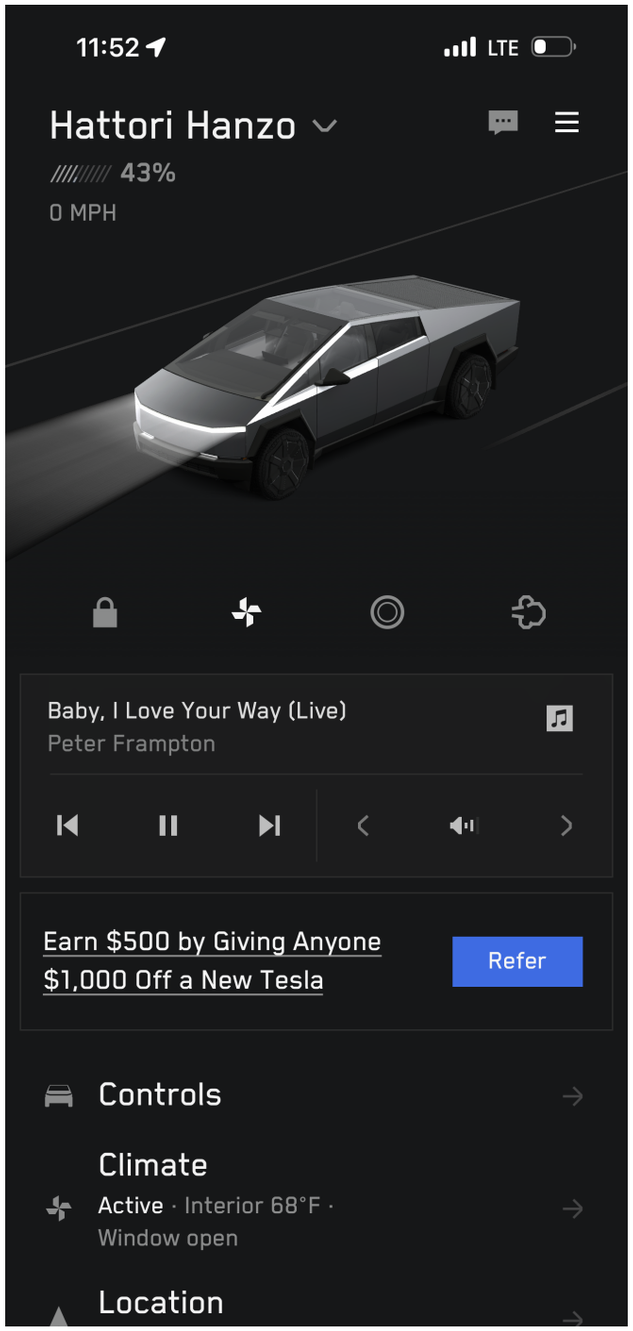
Captain John's

TESLA

2025 Buyer's Guide

WHY BUY A TESLA?

THEY ARE WICKED FAST, WICKED FUN, AND NOW THEY ARE AFFORDABLE!



TESLA iPhone App

They are the safest, quickest, and most efficient cars ever built.

Battery Electric Vehicles (BEV's) are the future, available today. Tesla's in particular are better than anything else you have ever driven. Car buyers agree as the Tesla Model Y crossover is the world's best selling car (gas or electric) in 2023 and 2024. We recommend you test drive a Tesla and you will instantly appreciate the difference. We own the 2018 Model 3 Performance pictured on the cover. We have driven over 93,000 miles in 6 years and taken a dozen long distance trips with no problems. We have driven our Cybertruck on a 3,000 mile roadtrip, it's very comfortable and handles anything.

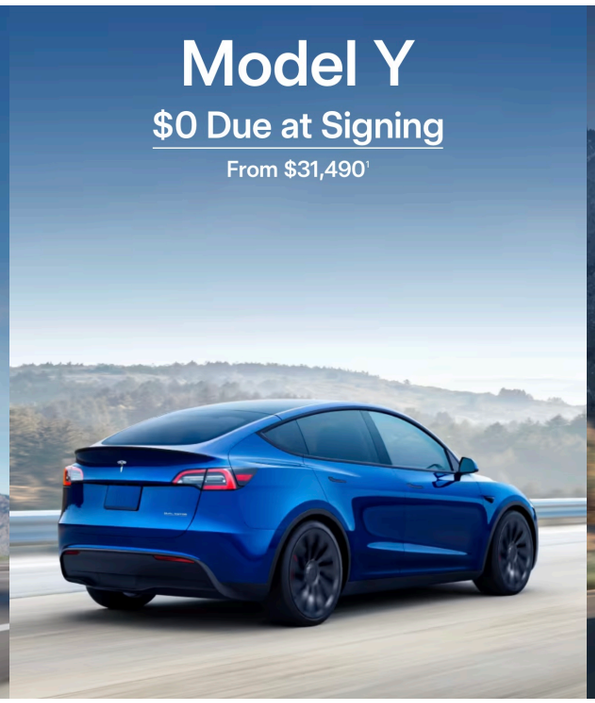
We highly recommend Tesla's for a variety of reasons. They build the safest cars ever tested by NHTSA and they have the best Supercharging network for trips. Our Cybertruck will go 0-60 in 2.5 seconds; the Model 3 gets there in 3 seconds. They provide frequent software updates via WiFi to add cool and useful features, like Full Self Driving, auto park, sentry mode, rear seat entertainment with Netflix, dog mode, camping mode, games, and many other features. They are the most American made cars available and they cost the same as a comparable ICE (Internal Combustion Engine) vehicle.

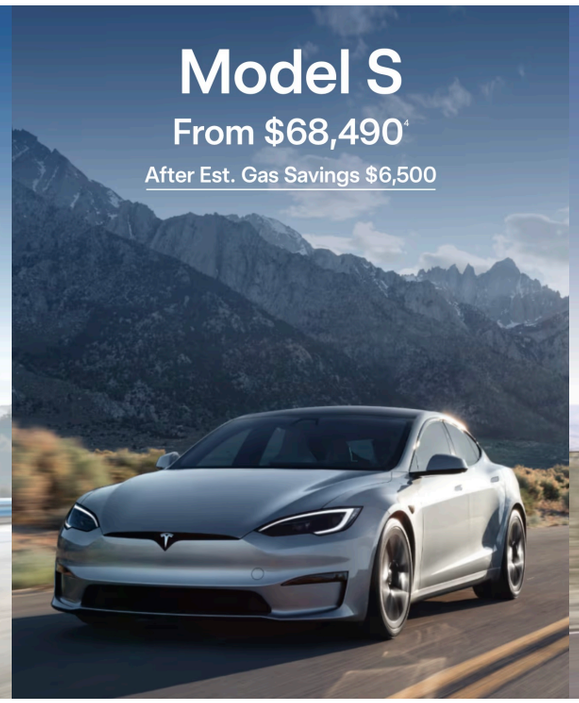
SAVE $1,000 when you buy a Tesla!

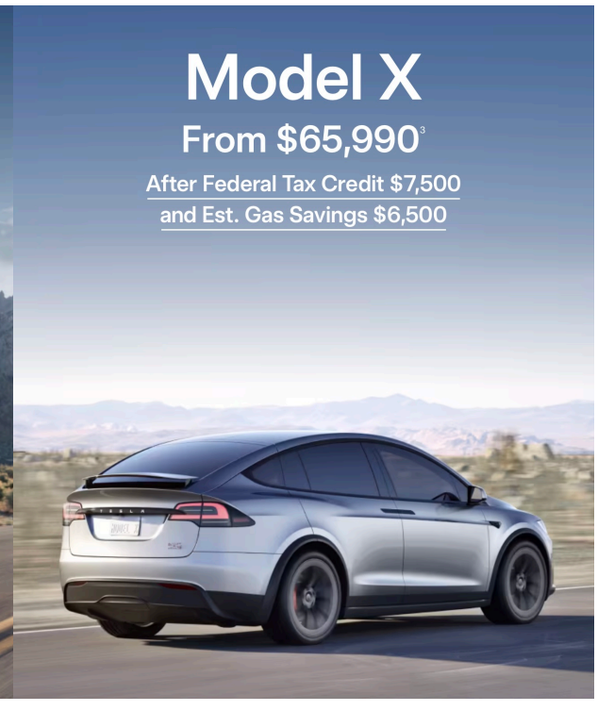
⬆️ *Click here for our referral code discount when you order your car* ⬆️

**Full Disclosure: We are not employed by Tesla. We love the cars and own the stock. We get a $500 Tesla store credit when you use our code. Thank you!*

TESLA MODEL LINEUP







Tesla frequently changes prices, use our link for current pricing and get $1,000 off. **ts.la/john98481**
There is a $7,500 instant IRS tax rebate when you purchase a large electric SUV/truck priced under $80,000 (Model X, Cybertruck dual motor) or a midsize electric car/minivan/CUV (Model 3/Y) under $55,000. Some states have additional rebates that can save you more. *Prices shown include federal tax rebates, if any.

Cybertruck versus full sized pickup trucks

There are over 2 million orders for the Cybertruck, ours was delivered in 2024. It's made of a cast aluminum alloy frame, with 1.8 mm thick HFS stainless steel body panels. This is a similar steel used by SpaceX for their Starship rocket. The unusual shape is an engineering choice to make it rigid and tough. It's basically dent proof and has no paint on the exterior to scratch. The bed is 4'x6' with a lockable, aluminum, roll top cover. It's the size of the Ford F-150 crew cab. It hauls up to 11,000 lbs, has a payload of 2,500 lbs and an EPA range of 250-340 miles before accounting for towing. It also includes an air suspension that can raise or lower 12" for heavy duty off-roading.

Cutting edge technology.

Cybertruck is the first vehicle in the world with triple redundant drive-by-wire steering. It's a modern version of the Airbus and Boeing fly-by-wire systems. This also makes the truck capable of rear wheel steering for tighter turns. The adjustable air suspension provides 17 inches of clearance off-road. Tesla created the first 48 volt vehicle electrical system, it uses 75% less copper. It has a hospital grade HEPA air filtration system.

Towing expectations.

You will get under half the published range depending on what you are towing, just like an ICE truck. The aerodynamic drag of what you are towing has the greatest effect on range, along with your speed, and temperature. Due to the powerful, low torque motors, hauling a large load is easy. You will expend more energy driving up hills, and get a lot back when coming down hill due to regenerative braking. This also prevents brake overheating on long or steep downhill grades.

ELECTRIC TRUCKS BY THE NUMBERS

Make	Model	Battery	Range (miles)	Bed (in)	Payload	Towing	Price (Jan 24)
Tesla	Cybertruck Single Motor 2025	Standard	250	72	2,500	11,000	$60,990
Tesla	Cybertruck Dual Motor	Standard	340	72	2,500	11,000	$79,990
Tesla	Cybertruck Tri Motor	Standard	320	72	2,500	11,000	$99,990
Tesla	Optional Range Extender	Extended	Plus 120-130	-	- 700?	-	$16,000 Est
Rivian	R1T Dual Motor AWD	Standard	270	54	1,764	11,000	$73,000
Rivian	R1T Quad Motor AWD	Large Pack	328	54	1,491	11,000	$87,000
Ford	F150 Lightning Pro	Standard	230	67.1	2,235	5,000	$53,135
Ford	F150 Lightning XLT MTP	Extended	320	67.1	1,952	10,000	$72,735
Ford	F150 Lightning Platinum MTP	Extended	300	67.1	1,952	8,500	$94,185
Chevy	Silverado EV RST	Large Pack	440	71	1,300	10,000	$95,000

Camping and off-road fun.

You can tow campers large and small, go off-roading, and spend time off grid with all the comforts of home. A Starlink satellite dish will connect you to the world from anywhere. For long range travel and towing, there is an optional battery range extender that fits in the bed of the truck. There are already several companies selling a variety of off-road, over-landing, and camping accessories.

Cybertruck as a work vehicle.

Expect to save at least 50% on annual fuel and maintenance expenses. It has a 240 volt outlet for arc welders and heavy duty equipment. It also has four 120 volt outlets for tools, compressors, and computers along with several USB-C outlets for tablets and phones. The cost savings compared to a gas generator will be huge. If you buy it as a work vehicle through your company, there may be major tax savings.

Vehicle to load (V2L) and vehicle to home/grid (V2H/V2G) charging.

Tesla built in the ability to Level 2 charge another EV if it runs low on charge (V2L). You can also power your house with your Cybertruck when the power goes out due to a grid failure (V2H). This requires specialized wiring, we have it installed in our home, it works great. Some utility companies offer the ability to use your home or car battery as a virtual power plant to buy back electricity from you (V2G).

How far can I go on a charge?

When fully charged, the Model 3 or Y will travel 250-330 miles on a full charge, depending on the battery pack you purchased. Model S/X gets 350-405 miles and Cybertruck gets 250-340 miles. Range is not an issue since most people drive under 50 miles per day. We plug it in at night and it's full in the morning. We don't think about range unless we are on a trip. The onboard trip computer handles all of the planning for charging stops. The charts at the end provide detailed range and efficiency info.

Range is also affected by how you drive. Do you like to accelerate quickly and drive 80+ mph on the highway? The faster you go, the lower your range in either vehicle. Aerodynamic drag affects gas mileage in an ICE vehicle as well as EV range. The outside air temperature and your air conditioning and heating settings also have an effect.

Some drivers prefer to go slower on trips (65-70 mph), which requires fewer charging stops and is more cost effective. We prefer to drive faster and add an extra charging stop for long trips. Either way tends to work out to about the same amount of time, it's mostly personal preference.

How do I charge on road trips?

Tesla has an extensive Supercharger network that will allow you to travel from anywhere to anywhere in the U.S. You can typically charge up in about 20 minutes. The new V3 and V4 Superchargers are even faster. It will take you a bit longer to travel since charging is slower than fueling. If you are on a trip, you can use a Supercharger before arriving to top off for your visit. Alternatively you can slow charge (Level 2) at many hotels and shopping centers.

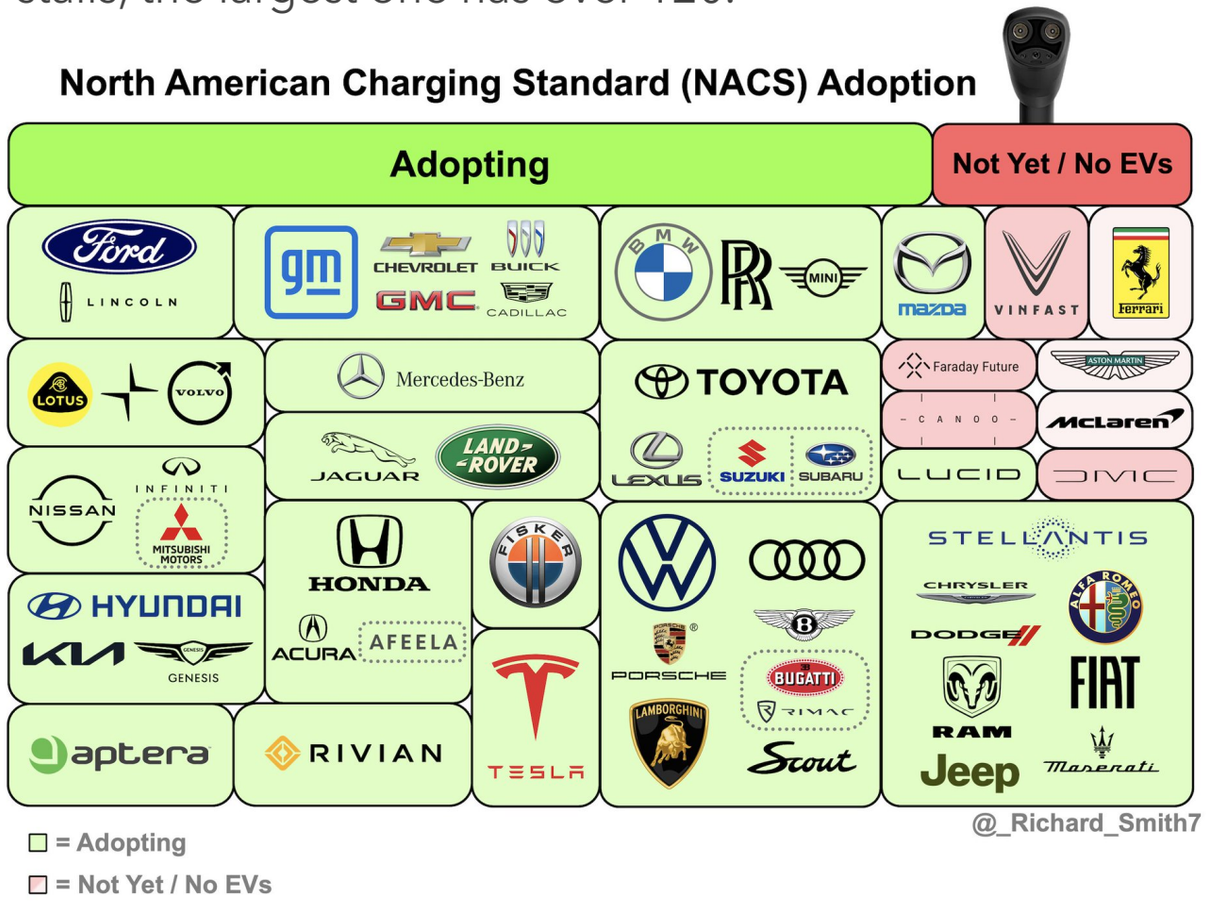
On road trips, we typically charge for under 20 minutes to add about 200 miles of range, good for 3 hours of travel. We have never had a problem getting a charge, their uptime is over 99%. Tesla has the largest Supercharger network in the world and they opened their patents for any company to use. Every major car manufacturer in the world is switching to Tesla's North American Charging Standard (NACS) plug starting in 2025. Many American fast charging companies are also adding NACS. Tesla doubled the number of charging stations in 2024 to keep up with demand. Most superchargers have at least 8 stalls, the largest one has over 120.

Charging Standards

Level 1: 120 Volt - 3 miles of range per hour of charge. This is the standard electrical outlet in U.S. homes.

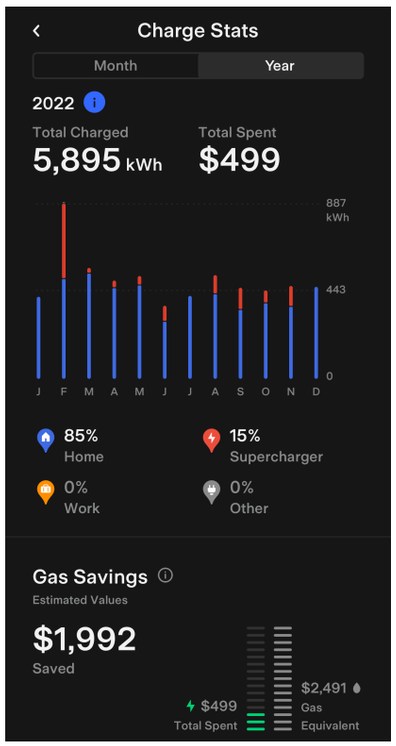
Level 2: 240 Volt - 32 miles of range per hour of charge. These are the same NEMA14-50 outlets that your clothes dryer or oven use, we use this at home most of the time. Many hotels/retailers have destination chargers for guests.

Level 3/4: 480-800 Volt - 200-1,050 miles of range per hour of charge. Superchargers are mostly located along highways and near restaurants. They start at a very high rate of charge, then reduce the charge rate as your battery fills to preserve battery longevity. (Pictured next page)



How long does it take to charge?

Most people charge their Tesla overnight at home. It takes a couple seconds to plug in and 2 hours to charge for an average days driving of 50-60 miles. If you charged from almost empty to mostly full it would take about 8 hours with a 240 volt outlet (Level 2). The outlet costs about $500 to $800 for professional installation. If you live in a condo or an apartment, you can ask management about installing them or charge in town at a variety of locations. Our son lives in an apartment and charges his Tesla at local chargers no problem. Several large gas station chains are installing fast chargers, including Shell, BP, and Buc'ees among others.



How much does it cost to charge?

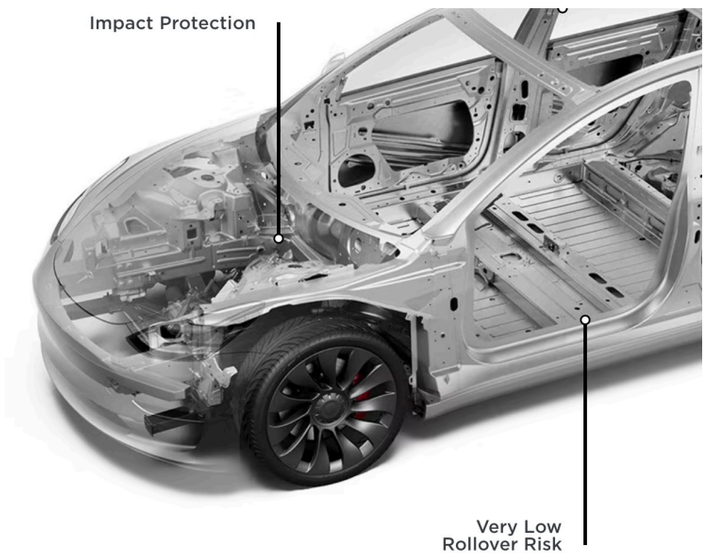
Charging mostly at home for an entire year costs about $600 to drive 18,000 miles in our Model 3 at 10 cents per kWh. Those are our 2022 stats from the Tesla app to the left. We saved over $11,000 using electricity vs gas over 6 years. On a road trip, Supercharger cost varies by region, just like gas, averaging 30 cents per kWh. For a Model 3/Y fill up, that would cost about $22 to go 300 miles. EV's are far less expensive to operate and maintain than ICE vehicles.

We have a friend in San Diego who installed solar panels on his roof to power their house and Tesla. It paid for itself in about 4 years, now they power their house and car for free! Tesla has solar panels and Powerwall backup batteries available for your home. We are using a Tesla PowerShare Gateway to integrate our Cybertruck as a backup home battery pack while parked. You can get more information here: **ts.la/john98481**

COMMON QUESTIONS ABOUT OWNING A TESLA - SAFETY

How safe are Tesla vehicles?

NHTSA (U.S. National Highway Transportation and Safety Administration) has awarded every Tesla car a 5-Star Safety rating. The Model 3 & Y achieved the highest ratings of any car ever tested. The European government safety organization, EuroNCAP, has also awarded every Tesla car a 5-Star safety rating. Additionally, the use of Autopilot reduces the likelihood of an accident by a factor of 10 versus non Tesla vehicles. [Model 3 has the lowest probability of injury for any vehicle ever tested.]



Safety-First Design

Safety is the most important part of every Tesla. We design our vehicles to exceed safety standards.

5-Star Rating
Model 3 achieved NHTSA 5-star safety ratings in every category and subcategory.

Top Safety Pick+
Model 3 received the IIHS Top Safety Pick+ award, with top ratings in all crashworthiness and front crash prevention categories.

How long do the battery packs last?

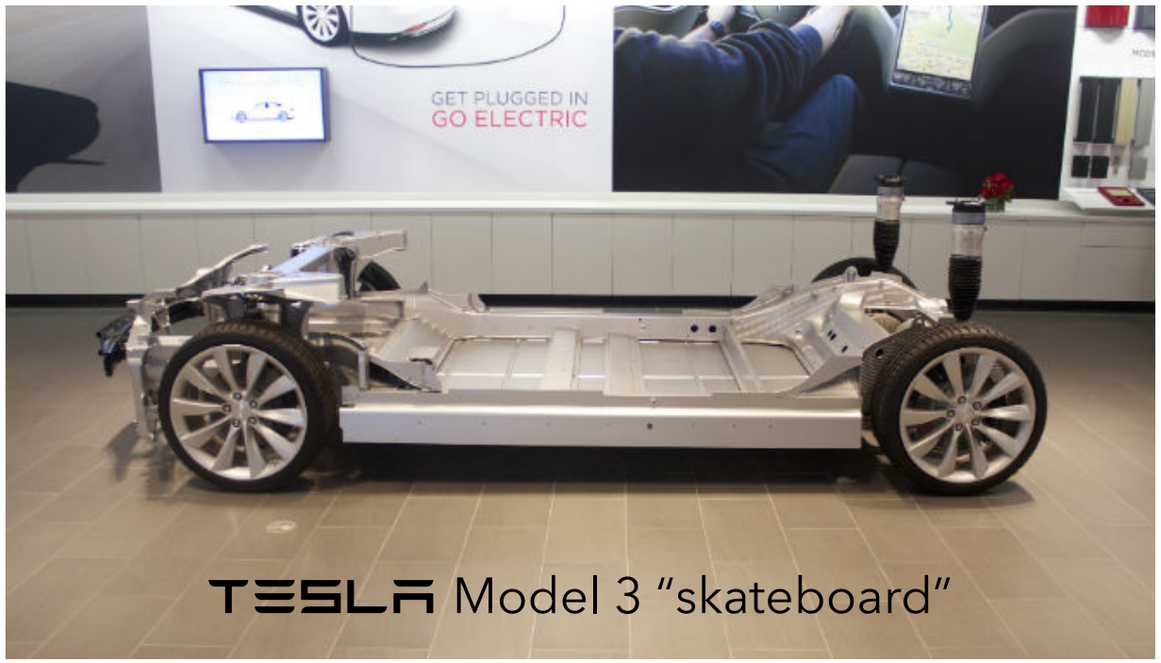
Tesla packs are designed to last 500,000 miles & the motors for 1,000,000 miles. A common misconception is that battery packs need to be replaced. That is incorrect. An ICE vehicle needing a new engine is pretty rare and battery pack replacement is even less likely. Tesla has a 120,000 mile, 8 year warranty on the battery and motors. If needed, replacing a Model 3 battery costs about $14,000, the same as a premium ICE engine. Regarding long term range, the total battery capacity will drop about 5-8% the first year. It will stabilize at 88-92% and remain there for the life of the battery.

Aren't Tesla's expensive?

The entry level Model 3 Rear-Wheel Drive has 260 miles of range and costs about $35,000 after the instant $7,500 IRS tax rebate (prices change often). When you compare the cost of ownership over 4 years, including gas and maintenance, it costs far less than a comparable ICE vehicle. Tesla has announced a $25,000 compact car for 2025 that will also qualify for the IRS rebate.
[MarketWatch - Math shows Tesla Model 3 Cheaper to own than Toyota Camry]

Does it use gasoline?

Nope! All Tesla's are BEV's, i.e. electric motors with batteries and no gas engine. The electric motors are about the size of a watermelon and the battery packs sit at the bottom of the car. It corners like its on rails. There is no transmission. No fan belts, timing chains, spark plugs, radiator fluid, nor oil changes to be made.



TESLA Model 3 "skateboard"

You may be familiar with hybrids (aka PHEV, Plug-in Hybrid EV), like the Toyota Prius, Nissan Leaf or Honda Insight. They have a small battery pack (30-60 miles of range) and an electric motor that drives the wheels at all times. When the battery gets low, a small gasoline engine generator starts up and recharges the battery so you can go on longer trips. Their time has come and gone. BEV technology has proven that it handles the majority of daily drives and trips. Battery chemistries keep improving by about 5-8% per year and each year new vehicle ranges are increasing. A 2024 Model 3 range is 370 miles vs 310 miles for a 2018 Model 3 with the same size battery, and they are less expensive today.

Why buy a Tesla?

You probably have many more questions at this point, but the best advice we can offer is to go test drive one! The experience of driving an electric vehicle is unforgettable. We chose Tesla because their battery, motor, software, and autopilot technology are at least 5-7 years ahead of the competition. Their Supercharger network is unmatched globally, and the car keeps getting better with software updates every couple of weeks. These updates improve things like increasing horsepower and efficiency, adding dash cam video recording and recorded security systems, autopilot improvements, dog mode, and many more. All at no extra charge. We haven't even discussed Autopilot and Full Self Driving. Take a test drive to experience it for yourself.

Electric Vehicles cost less to own and operate .

By 2030, more people will be buying BEV's than ICE vehicles. Battery tech keeps improving every year so driving range will continue to increase and costs will go down due to large scale manufacturing efficiencies. Right now, the Model 3 Standard Range costs the same as a mid level Toyota Camry or Honda Accord and the Model Y is comparably priced to a Toyota RAV 4 or Honda CRV. Over 5 years of ownership, your fuel savings will be $5,000 to $10,000 depending on your mileage and driving habits.

Two new Tesla models are being introduced in 2026. The $25,0000 car is believed to be a hatchback, similar to a VW Golf or Honda Civic. They will produce a self-driving Robotaxi AV (autonomous vehicle) edition as well. The second vehicle is expected to be a Sprinter style van. Tesla is also building a new factory in Monterrey, Mexico to manufacture millions of the $25,000 vehicle for sale globally.

This is finally spurring some competition from the legacy auto makers. They are far behind and just starting to realize that expertise in making ICE vehicles does not translate easily to BEV manufacturing. They are outsourcing their battery production and none of them can buy nearly enough batteries to cost effectively make the number of vehicles they need to. It will take time. They are 5-7 years behind Tesla and the proof is self evident. None of their cars currently offer the range nor the technology that can even compete with a 2012 Model S.

American Made.

If buying American is a consideration for you, Tesla vehicles are the way to go. Tesla's sold in the U.S. are made in America with more American parts than any other cars or trucks. Cybertruck will also be at the top of this list. You will notice that not a single Ford, GM, or Chrysler car or truck made the top 15 on this list.

cars.com

AMERICAN-MADE INDEX

2023 Rankings

Rank	OEM	Vehicle Name	Body Style	Powertrain	
1	Tesla	Model Y (EV)	SUV	EV	
2	Tesla	Model 3 (EV)	Sedan	EV	
3	Tesla	Model X (EV)	SUV	EV	
4	Tesla	Model S (EV)	Sedan	EV	
5	Honda	Passport	SUV	ICE	
6	Volkswagen	ID.4 (EV)	SUV	EV	
7	Honda	Odyssey	Minivan	ICE	
8	Acura	MDX	SUV	ICE	
9	Honda	Ridgeline	Pickup truck	ICE	
10	Acura	RDX	SUV	ICE	
11	Honda	Accord	Sedan	ICE	
12	Toyota	Tundra	Pickup truck	ICE	
13	Acura	Integra	Hatchback	ICE	
14	Acura	TLX	Sedan	ICE	
15	Honda	Pilot	SUV	ICE	
16	Lincoln	Corsair	SUV	ICE	
17	Kia	K5	Sedan	ICE	
18	Toyota	Sequoia (HEV)	SUV	Hybrid	
19	Chevrolet	Corvette	Coupe	ICE	
20	Nissan	Pathfinder	SUV	ICE	
21	Dodge	Durango	SUV	ICE	
22	Toyota	Highlander	SUV	ICE	
23	Infiniti	QX60	SUV	ICE	
24	Kia	Sportage	SUV	ICE	
25	Jeep	Wrangler	SUV	ICE	

Negative perceptions versus reality.

This section gets into some of the details about the negative press Tesla endures daily. You can skip this part if you have already decided to take a test drive, that's far more fun!

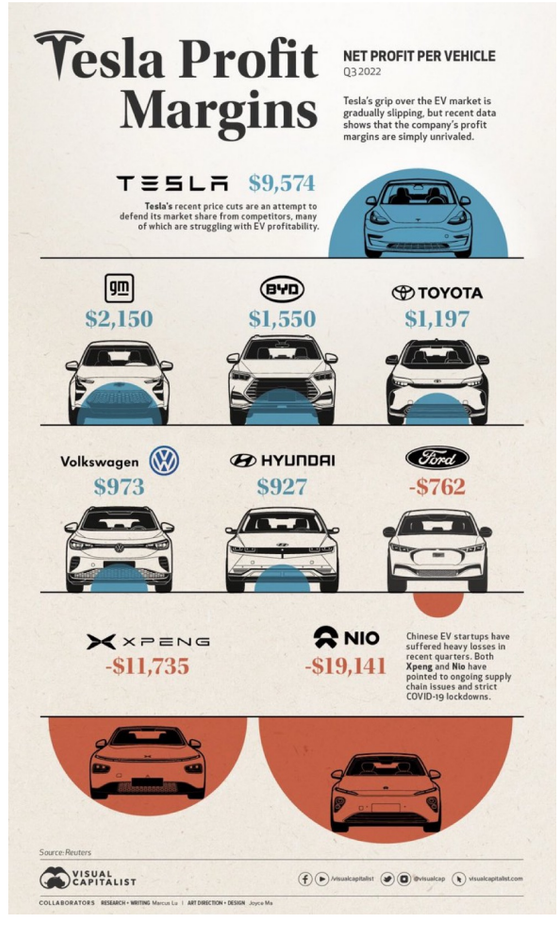
Tesla headlines get clicks, whether they are true or not. That's how media makes money.

Elon and Tesla are not perfect. He frequently makes bold predictions and typically underestimates the timelines. But he usually delivers on the promise, admittedly, behind the schedule he announced. Their repair service can be slow; they are working on that. The news media knows that any salacious headline with "Tesla" in the title will get views, and that is how they make money. Here are some of the typical negative comments you will hear from the news media, politicians, and people who don't own a Tesla, but who have "heard about it in the news."

"I heard that Tesla (fill in negative headline)..."

There are many large industries that have a vested interest in seeing Tesla fail. The gas and oil industry, legacy auto manufacturers, the national auto dealership association, and hedge fund investors who are shorting the stock (ie profit from the stock going down) are a few of the largest groups. In addition, the news media makes their money from ads. Car companies spend more on ads than just about any other industry. Tesla does not pay to advertise so it doesn't take much insight to figure this one out. Take a look at the authors of many negative "news" articles and "reports". You will find they are backed by, or work for, groups interested in seeing Tesla fail. That's not going to happen. Tesla is highly profitable, has low debt, better technology than any other car company, and over $30 billion in cash on hand.

Iconic American author Upton Sinclair was famously quoted on this very topic.
"It is difficult to get a man to understand something, when his salary depends upon his not understanding it."

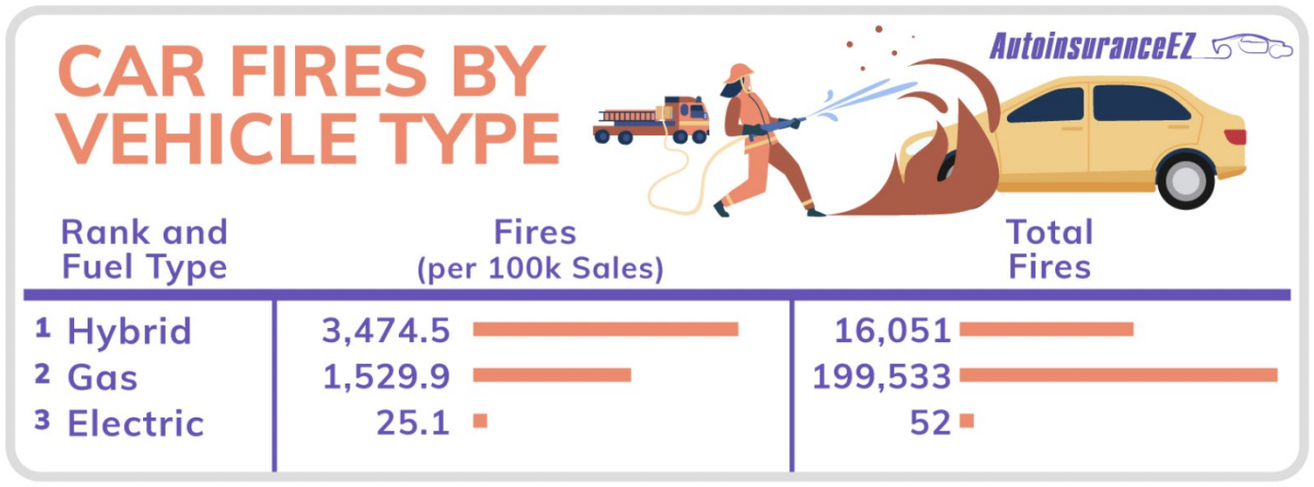


"The competition is coming."

That headline has been running for over 12 years. Many "industry experts" predicted the big car companies would put Tesla out of business, as soon as they decided to compete. That did not happen. The transition to BEV's is happening very quickly and legacy auto makers are far behind, so they will need to adapt. Otherwise they will find themselves in a BlackBerry/Nokia versus iPhone moment. Tesla makes a much higher profit on every car they sell than any other car company. They also invest an enormous amount of their profits to increase their capacity to manufacture more battery packs and cars. Tesla is building two new "Gigafactory" plants in 2024, one in Mexico and another to be named soon. That will make seven factories in 4 countries up and running by the end of 2025 with another 3-5 coming. Personally, I wouldn't bet against the guy who founded SpaceX. Elon taught himself rocket science and built a company with his own money to successfully create reusable orbital rockets. Almost every rocket engineer on Earth said it couldn't be done. SpaceX now provides 80% of all orbital launches globally, at lower cost.

"I read that Tesla's catch on fire."

There have been about 200 Tesla battery fires from 2012-2023, mostly in older Model S battery packs. https://www.autoblog.com
By comparison, ICE vehicles catch on fire at a rate of over 170,000 annually in the U.S. alone. That's about 465 every day. Hybrids are even worse, they are 138 times more likely to catch fire than a BEV. It's news if a Tesla catches on fire, however the media rarely reports an ICE vehicle fire. Graph to the right has 2022 insurance data. https://www.usfa.fema.gov/downloads



Hybrid vehicles actually come in number one with the most fires per 100K sales. Gas vehicles are second, and electric vehicles place third, with only 25 fires per 100K electric vehicle sales.

Based on this data, electric vehicles don't catch fire nearly as much as the news claims. Hybrid cars seem to be the most dangerous for fires, followed by gas vehicles.

QUESTIONS & ANSWERS ABOUT NEGATIVE TESLA MEDIA COVERAGE

"I heard Tesla just had a recall."

They do have recalls, just like every other car manufacturer. Typically, it's simply a Wi-Fi software update while you're parked at home. No other manufacturers do this currently. Sometimes Tesla will send a mobile service van to your home or work place to handle physical recalls. As you can see in the graph, they had far fewer recalls than legacy companies 2020-22.

"You are powering your car with coal."

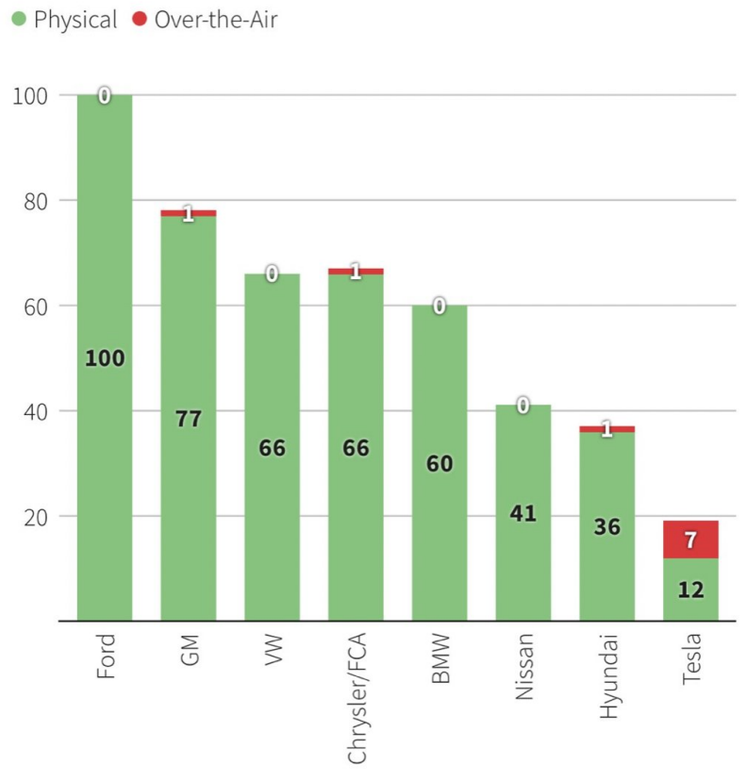
The percentage of coal generated electricity is declining every year. According to the U.S. Energy Information Administration, coal power in the United States accounted for 10% of the country's electricity production at utility-scale facilities in 2022, down from 33% in 2014. Even so, an EV powered by a coal fired plant is still more efficient and emits less carbon than an ICE vehicle. https://www.eia.gov/tools

"It costs a lot to replace the battery and they are hazardous waste."

The batteries are designed to last 500,00 miles and they rarely fail. Tesla has an 8 year, 120,000 mile battery and power train warranty. When the car is at the end of its life, the batteries are removed and repurposed for grid storage or recycled. There are several companies already doing this, including Redwood Materials. It's cheaper to recycle the minerals than it is to mine it.

Tesla handles majority of industry remote software recalls

Total number of recalls since Jan. 1, 2020 show Tesla is the only automaker performing a large share of them through over-the-air software updates



Note: All recalls for listed automakers from Jan. 1, 2020 through Feb. 17, 2022. Recall remedy had to mention OTA or remote software update option, otherwise was counted as physical recall

Source: National Highway Traffic Safety Administration Recalls by Manufacturer

"Lithium is a rare earth element and harmful to mine."

Lithium is the 6th most abundant element on Earth. It is less intrusive than mining for coal or drilling for oil. Once used, it can be recycled many times, unlike oil and coal. Tesla is also reducing its need for Cobalt. They are constantly improving their battery chemistry to increase range, reduce weight, and use fewer rare elements.

"Tesla gets U.S. government subsidies."

Most U.S. electric new car buyers receive a tax rebate of $7,500 ($4,000 for used electric cars) from the Inflation Reduction Act of 2022. Most U.S. made EV's and some foreign made cars qualify for the rebates, depending on the percentage of North American based parts and battery materials. The cost of this program is estimated to be $3-$4 billion annually for 10 years by a McKinsey & Company study. Now, let's compare that to the U.S. fossil fuel industry. They receive direct government subsidies on the order of $10 billion to $50 billion every year, depending on which set of data you choose to believe. That doesn't include the trillions spent on U.S. military involvement in the Middle East, which most would agree is solely for energy stability. Globally, the subsidies for fossil fuels were $7 TRILLION in 2022. Source: International Monetary Fund - Fossil Fuel Subsidies

Another typical complaint is that Tesla received a government backed loan for $465 million in 2008, just as the great recession was starting. That is true. They also paid it back 10 years ahead of schedule with full interest in 2013. For direct comparison, GM and Chrysler declared bankruptcy and the U.S. government bailed them out for $51 billion and $12 billion respectively. Chrysler exited bankruptcy in 2011 and the government lost $1.3 billion. GM exited in 2013 and the government lost $11.3 billion. Ford received government backed loans of $15.9 and $5.9 billion in 2009, they were fully paid in 2022. In 2023, the U.S. Department of Energy granted Ford and SK ON, a Korean battery company, a $9.2 Billion loan to build three EV battery factories in Kentucky and Tennessee. The loan will support the largest manufacturing investment in Ford's history. https://www.thebalance.com. They recently announced they are delaying one of the plants. GM just got a $15 billion government loan as well and they used it for a stock buy back. The loans are intended to reduce U.S. dependence on foreign oil.

The purpose of the EV and clean energy subsidies is to speed the transition to BEV's and sustainable energy. Some people disagree with this and want it to slow down. Capitalism has already ensured that the transition is inevitable. Wind, solar, and hydro power already account for 13% of U.S. production and are increasing every year. Data from www.eia.gov. Search Google for "Tesla Master Plan Part 3" to see Elon's highly detailed plan on how humans globally can make this happen cheaper than staying dependent on fossil fuels.

About me.

My father owned a 1964 Mustang which got me interested in cars at a young age. My first car was a 12 year old 1970 Dodge Challenger, that taught me a lot about how to fix cars. My wife learned to drive with a manual Jeepster Commando. We still own her classic, first production year 1990 Mazda Miata for fun. Now that we have the Tesla's, she rarely drives it. We have also owned a Ford Explorer, Chevy Suburban, and an Audi A-6 Twin Turbo for about 10 years a piece. We drove those vehicles almost 200,000 miles each.

After purchasing and driving our Model 3 for a couple of days, ICE vehicles were a disappointment to drive. Tesla's are far superior in every way and they just keep getting better, even after 5 years. I've been a Full Self Driving Beta tester for 2 years and use it all the time. That upgrade was done as a Wi-Fi update, no trip to a service center required. We will be be using our Cybertruck to haul an RV out West for off-grid camping and over-landing adventures.

While serving as a Marine Officer and Naval Aviator, flying fast and low was my way of life. Since we've made the switch to Tesla, it still is!

We hope you have found this guide helpful. If you decide to buy a Tesla, we would be honored if you would use our referral code. You will get an instant $1,000 discount off the purchase price of your Tesla Model S, 3, X, or Y. You can order online by clicking the link which will add your discount or give this code to your sales team. Enjoy your Tesla and thanks for reading! **ts.la/john98481**

TESLA RESOURCES

The information in this guide came from a variety of sources and our own experiences. We recommend these social media channels for more info. We also recommend not taking our word for it; do your own research! Searching YouTube or X (formerly Twitter) for any Tesla topic will provide plenty of information as well. You can check out my Wicked Smart Tesla People list on my X profile here. X.com/@JohnCoteEV

Ride The Lightning Podcast
Model 3 owner Ryan McCaffrey hosts this weekly podcast featuring Tesla news. He has produced over 400 episodes to date, including an interview with Elon Musk and several with chief designer Franz VonHolzhausen.
X.com/@DMC_ryan
Ride the Lightning - Apple Podcasts

Sandy Munro's "Munro Live" YouTube Channel
World class car manufacturing experts providing insights into electric vehicle engineering and design.
X.com/@live_munro
YouTube.com/@munrolive

Rafael Santino - Drove his over-land equipped Cybertruck from Florida to the Arctic Ocean.
X.com/@teslatino
YouTube.com/@teslatino

Cybertruck Owners Club Forum
CybertruckOwnersClub.com

Tesla Motors Club Forum
TeslaMotorsClub.com

TESLA VS COMPETITION - WINTER RANGE COMPARISON CHART

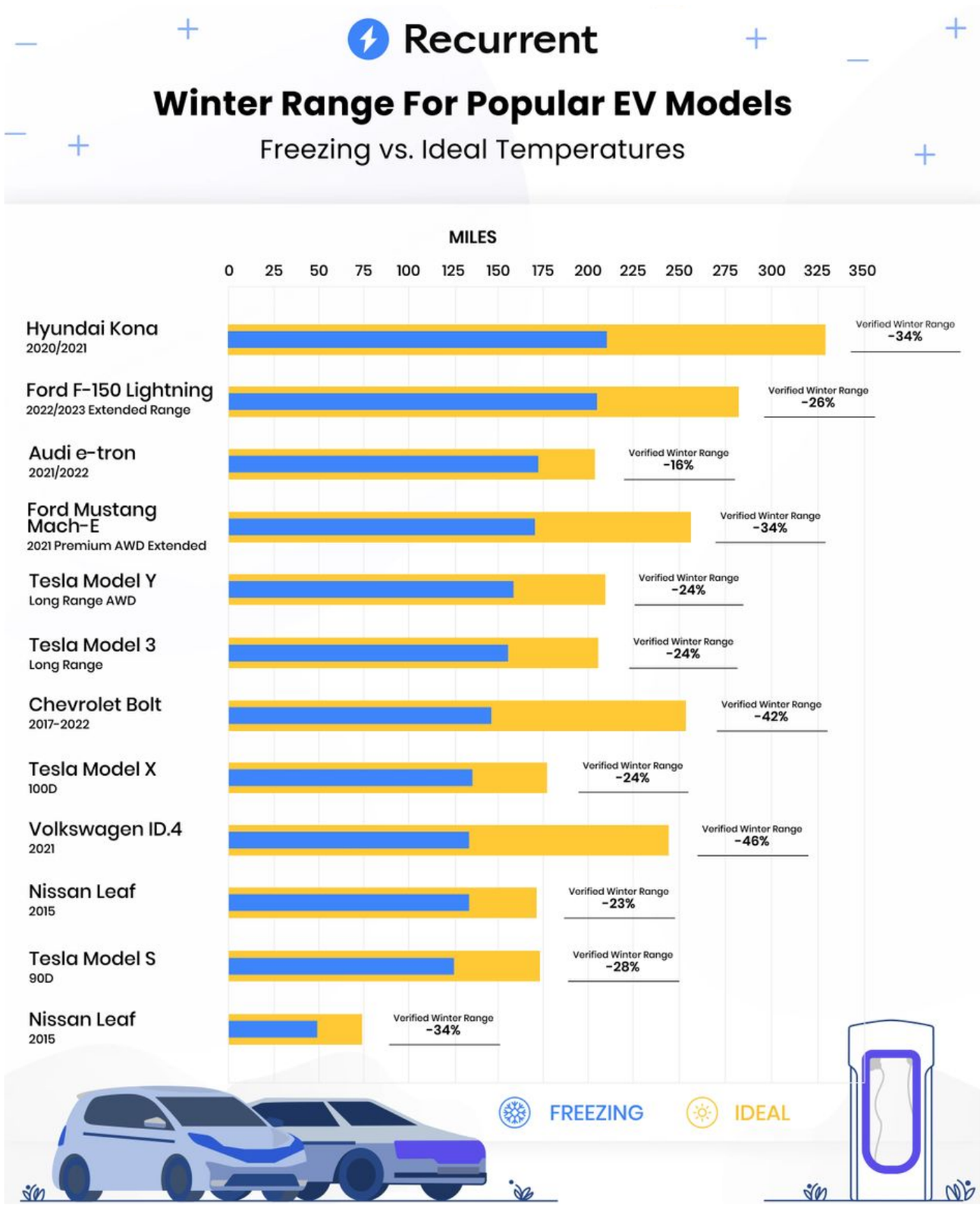
Effect of weather on range.

When it's cold/hot or snowing/raining, you can expect to reduce your range by about 3% (hot) and up to 25% (cold) in any BEV. As you can see, cold temperatures affect range far more than hot temperatures do.

ICE vehicles have reduced range in the cold as well: "Fuel economy tests show that, in city driving, a conventional ICE car's mileage is roughly 15% lower at 20°F than it would be at 77°F. It can drop as much as 24% for shorter cold weather trips." Check FuelEconomy.gov for details.

The same goes for strong winds. Just like driving an ICE vehicle or flying a jet, a headwind will reduce your range and a tailwind will increase it.

Terrain has the same effect, since driving uphill uses more energy. Going downhill uses less energy and will also use your motor for regenerative braking to recapture some of the energy back into your battery.



Global BEV competitive assessment.

For perspective, Tesla's Model Y was the best selling car (gas or electric) in the world for 2023-24. Their production cannot keep up with demand. They delivered 1.8 million cars in 2023 and are expecting about 2.2 million vehicles in 2024. They are growing over 30% per year for the decade and may sell more cars than Ford or GM by 2028.

North America

Ford has the Mustang Mach-E BEV Crossover, along with the F-150 Lightning BEV which is a great first effort from them. Unfortunately, in 2024 they have reduced production numbers for both because they are losing money on every car sold. They need to produce hundreds of thousands of each to achieve economies of scale and become profitable. The problem is battery production is well below what they need. Ford has publicly committed to make the transition to electric by 2032. They sold 72,000 BEV's in 2023 which was 3.6% of their U.S. sales volume.

GM's "new" Ultium battery platform is outdated technology that lags the top EV cars for weight and range. They have announced then canceled new BEV's many times. The Silverado RST EV pickup starts at $95,000. The Blazer SUV, Colorado pickup, and Equinox crossover BEV's will start selling in 2024. GM sold 75,800 BEV's in 2023, 2.9% of U.S. vehicle sales. It's possible they will declare bankruptcy and get another bailout by 2030. They are on the same path Nokia and Blackberry were when the iPhone was introduced.

Stellantis (Chrysler, Dodge, Ram, & Jeep) has "plans" for 2025 models and no BEV's currently for sale in the U.S. They offer several hybrid Jeep models with BEV's "in development." Dodge is working on BEV Challengers and Chargers. Chrysler has a few hybrids. The RAM truck division does well with their ICE vehicles, they are developing hybrid trucks for sale in 2027. The European division of Stellantis is profitable with Peugeot, Citroen, and Skoda among others. They do produce several BEV's, however none are available in the U.S.

Rivian is a 12 year old American company that makes very competitive BEV's, including the R1T truck and R1S SUV. They recently announced new midsize versions, expected in 2026. Their battery technology and software are ahead of the legacy manufacturers. They are not yet profitable and sold about 50,000 BEV's in 2023.

Europe

The German companies, including VW, Audi, Porsche, Mercedes, and BMW are all offering BEV's in small numbers and they are moving slowly. BMW sold 45,417 BEV's in the U.S. in 2023 (330,500 globally) and they are working on several new BEV models for 2025-26. Mercedes sold 43,202 BEV's in the U.S. for 2023. They announced in February 2024 they are delaying large scale production of BEV's to 2030. We drove the Mercedes EQB for a weekend. It's bland and not competitive with only 230 miles of range, slow acceleration, and dated software.

VW announced they were reducing EV production due to "strong customer reluctance." It's far more likely that European consumers are choosing competitors EV's, which offer better pricing, range, and software. 2023 models had lackluster sales, they are closing 2 plants in Germany and they delayed their new EV platform to 2029. Instead, they invested in Chinese EV company Xpeng to make their next generation of BEV's. It's likely VW will need a government bailout as more Europeans are switching to Tesla built cars in their Berlin Gigafactory. Audi announced they are delaying large scale BEV production to 2030. We have owned the A-6 and Q-5 and we loved them but they have not kept pace. I have driven the Porsche Taycan, it's a very nice sports sedan, like the Model S.

Although Volvo is a European brand, their BEV's are made in China. They have several vehicles available, including the XC40 SUV ($50,000 and up, only 223 miles of range). They have given up on their upscale BEV brand, Polestar and sold it to their Chinese manufacturing partner. The Chinese are continuing Polestar 2 hatchback sales and they start at $51,000. The Polestar 3, 4, 5, and 6 are in development and may be available as 2024-25 models.

There are plenty of smaller, niche brands that are just starting EV development. They will likely survive due to their name and history, like Ferrari, Lamborghini, and Aston Martin as examples. Land Rover have launched a large $19 billion overhaul of the entire company to focus on BEV's. That level of commitment is a good start. They don't currently sell any BEV's, although they have several PHEV models for now. Sadly, Jaguar is looking for a buyer, it appears their future is uncertain. They are currently unprofitable and have delayed EV development.

Asia/Pacific region

China has many BEV companies, including BYD, NIO, and Xpeng with high production output. None of them are currently available outside China. They are working on dealer networks and planning to export to Europe and North America soon. Japanese car makers overwhelmed the U.S. legacy automakers with quality, inexpensive cars starting in the 1970's. The Chinese companies will try to do the same and they have a very good chance of success. Tesla built Gigafactory Shanghai in 10 months during 2019 and they are producing over 1.3 million Model 3's and Y's annually there for sale in the Asian market.

In Japan, Toyota is the king of the hybrids but they don't believe in BEV's yet, so they only have the BZ4X SUV. It's $50,000, and has a range of 228 miles which is subpar. Nissan has the Leaf and Ariya; they sold less than 10,000 of them in the first half of 2023. Mazda is also lagging with BEV development and has partnered with Toyota on development. The one vehicle they offer has about 180 miles of range which is ridiculously uncompetitive. Subaru is also partnering with Toyota and they have the IMPULSE which is a rebadged Toyota BZ4X. with no other serious plans.

Top-selling electric vehicles in the U.S. for the first half of 2023

VEHICLE	SALES	CHANGE FROM 202
Tesla Model Y*	200,520 vehicles	52.9%
Tesla Model 3*	112,791	11.3
Chevrolet Bolt	33,659	360.9
Rivian R1T*	16,452	194.3
Volkswagen ID.4	16,448	272.5
Ford Mustang Mach-E	14,040	-20.6
Hyundai Ioniq 5	13,641	-0.4
Tesla Model X*	13,475	3.7
Tesla Model S*	10,106	-29.3
Ford F-Series Electric	8,757	281.4

*Estimated

Source: Motor Intelligence

In Korea, Hyundai has committed $28 Billion to make the transition of their whole lineup to BEV. This is a massive commitment and we think they have a decent chance to succeed. The IONIQ 5 (SUV) & IONIQ 6 (sedan) look nice with competitive range, features, and pricing in the $50,000 range. The BEV Kona is fine, but it's range and availability is limited. It's also smaller than the Model 3 for a higher price. Kia is owned by Hyundai and they are starting to manufacture more BEV's, including the EV-6 GT with other models at budget minded prices.