Electric Vehicle Fast Facts

EVs are the future of transportation—and the global auto industry is moving fast to claim it. However, misinformation about EVs persists among American consumers. We've compiled some fast facts about what EVs truly offer in terms of savings, safety and environmental benefits to people and businesses.

EV drivers are paying more for roads than internal combustion engine (ICE) vehicle drivers.	A typical Michigan EV driver contributes around **$20 more in state taxes** than ICE vehicle drivers. And yet, EVs are typically driven **4,500 miles less** than their ICE counterparts annually. This means that EV drivers are paying more for roads they use less.
EVs can easily meet U.S. drivers' daily mileage needs.	The most **popular EV models today boast ranges between 318-363 miles** per charge, while Americans typically drive **30-50 miles per day**. EVs can easily meet drivers' needs, but deploying public charging will make purchasing an EV for drivers without access to at-home charging more viable and allow all drivers to feel more at ease taking EVs on longer road trips.
EV charging generates utility revenue, reducing bills for all customers.	Across the U.S., EVs have contributed **$3 billion** more than they cost to support utility programs and EV charging infrastructure construction. In Illinois alone, that figure is $18 million. This increased revenue enables utilities to invest in needed grid upgrades, **driving down electricity rates for all customers**.
Charging EVs during times when we have extra power alleviates grid constraint.	Consumers Energy and DTE both offer **time-of-use programs** that reward customers with lower rates for consuming electricity during off-peak hours. For Consumers, 95% of enrolled EV customers actively participate. Pushing more EV charging to times when most people are asleep **reduces the risk of power outages** and **forestalls expensive grid upgrades**.
EVs allow homeowners to power their homes during outages and can improve grid reliability.	Enabling vehicle-to-grid technology would allow EVs to not just draw energy from the grid but also push it back to **bolster the grid** during times of high demand and uncertainty. For example, in 2023, San Diego County was able to **power 452 homes** throughout a 10-day heat wave using seven electric school buses.
EVs are much safer and experience fewer breakdowns than their ICE counterparts.	**EVs are acing car safety tests**. That's because the extra battery weight placed under the vehicle lowers the center of gravity, making EVs harder to roll. Furthermore, **EVs are less likely to break down**. ICE vehicles built between 2020 and 2022 had a breakdown rate of 10.4 per 1,000 vehicles, compared to **only 4.2 per 1,000 EVs**.
Total emissions across the life of an EV are more than 70% lower than their ICE counterparts.	While the manufacturing process is more carbon intensive, EVs become the **cleaner option after 25,000 miles driven**, or within about 2.2 years. That emissions payback period will continue to decline as the energy we use to power manufacturing and electricity shifts from fossil fuels to renewables.
A circular EV battery supply chain fosters energy independence and lowers emissions.	Retired EV batteries typically **retain about 66% of their original capacity**. These can be pooled to **support local grid energy storage for up to 12 years**. Once fully retired, 95-98% of key battery materials—nickel, cobalt, lithium, and copper—can be extracted and recycled.