

electric cars:

# an offbeat HISTORY



**1904**

First Lady Edith Wilson in an electric car at the nation's capital.

EVs were popular with urban dwellers and doctors making house calls.



**1917**

Newspaper ad



**1937**

Buzzkill! As Prohibition ended, so did the early heyday of EVs due to better roads and cheap, plentiful fossil fuels.

1904

1917

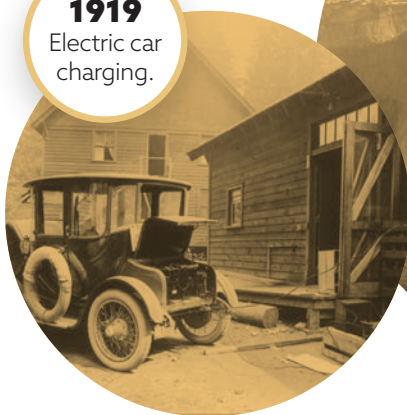
1937

1919

1970

**1919**

Electric car charging.



**1919**

Promotional trip from Seattle to Mt. Rainer in a Detroit Electric car.



Environmental concerns, crude oil supply disruptions, and the Clean Air Act in 1970 were catalysts for an EV resurgence.

Photo credits: U.S. Library of Congress

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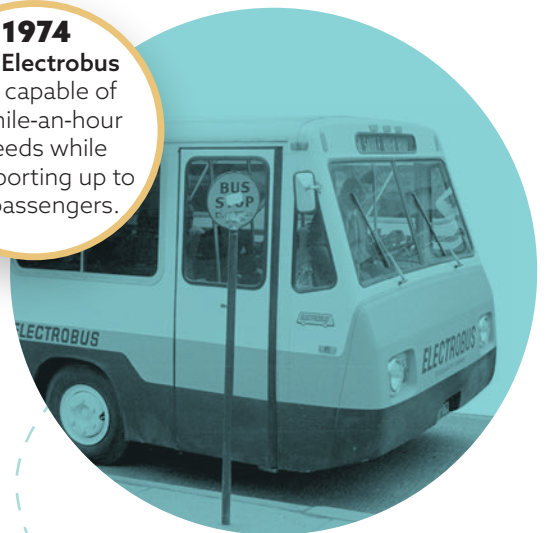
Believe it or not, Electric Vehicles (EVs) first made their debut in 1904 during the era of the horse and buggy! In honor of more than a century of electrified vehicles, ILLUME dug into automobile archives in search of a forgotten history.<sup>1</sup>

Who says the two-wheel crowd wasn't in on the fun?



**1974**

The **Electrobus** was capable of 35-mile-an-hour speeds while transporting up to 40 passengers.



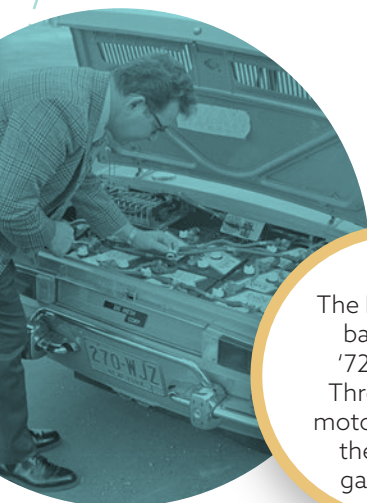
1974

1977

1973

**1973**

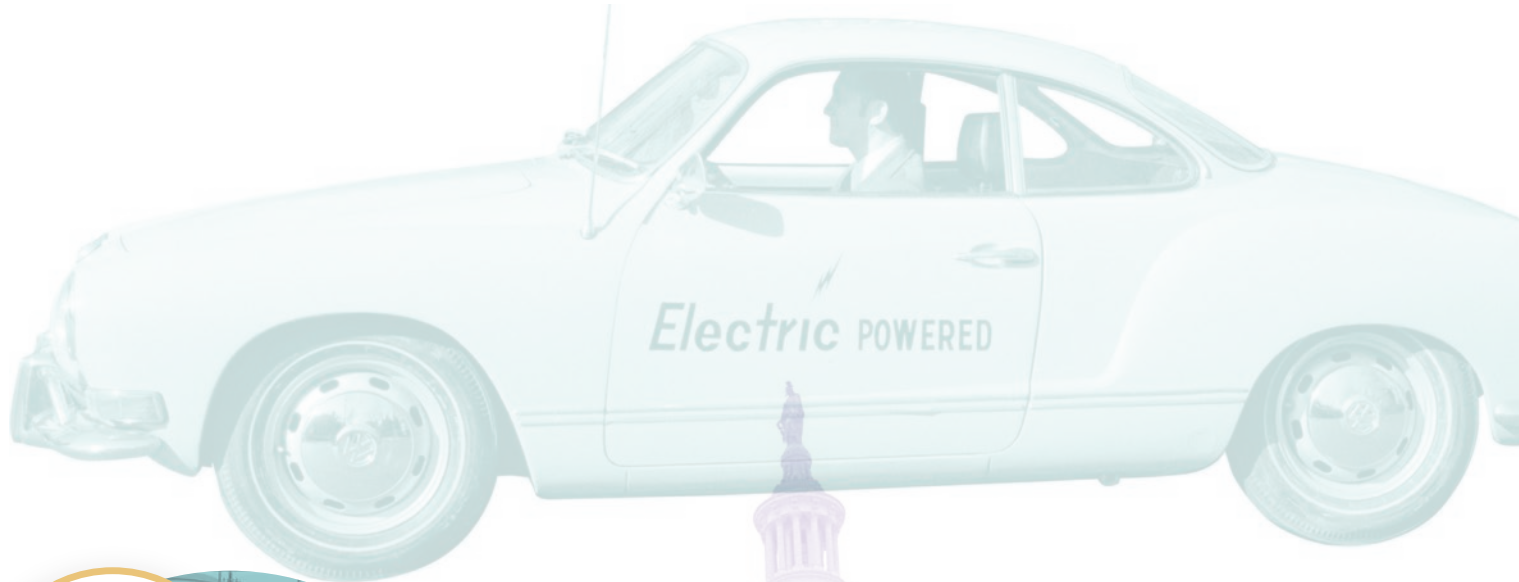
The **Electra** was based off a '72 Fiat 850. Three electric motors replaced the original gas engine.



**1974-77**

The **Citicar** by Sebring-Vanguard sold enough units in 1976 to be the #6 automaker in the US.





**1979**

The second oil crisis of the decade causes a spike in oil prices, long lines at the pump.

In spite of gasoline supply disruptions, EVs declined in interest due to range and performance issues.

**1979**

**1990s**

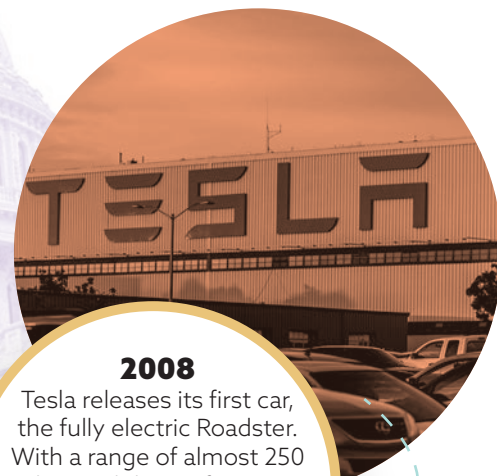
While sweeping revisions of the 1990 Clean Air Act and 1992 Energy Policy Act got the legislative wheels turning, some serious battery technology research was taking place.

Quietly, automotive manufacturers were still taking the path of modifying internal combustion models to electric. Widespread interest from the buying public was muted in large part by affordable gasoline prices.



**1997**

Toyota introduces the Prius in Japan. Defined as a hybrid-electric vehicle (HEV) it was released outside of Japan in 2000, and is still available in 2019.



**2008**

Tesla releases its first car, the fully electric Roadster. With a range of almost 250 miles, and the performance and top speed on par with many sports cars, Tesla delivered on two drawbacks to battery-powered vehicles.

**2008**



**2019**

The Porsche **Taycan** makes a (very expensive) debut, announces half of its cars will be electric by 2023.



# let the truck wars BEGIN!

2019 was the year of the pickup truck as Tesla, Ford, Rivian, and Bollinger announced plans to electrify one of America's most beloved automotive symbols. Expect nothing less than outrageous stunts like trucks pulling trains, trucks pulling trucks, or trucks getting shot at (yes, that happened) as competing auto manufacturers make their case to the American truck-buying public as they electrify the darling of the internal combustion engine.

## **Tesla Cybertruck**

Tesla's *Blade Runner* inspired pickup truck channels visions of a Lamborghini/Stealth Fighter crossover. With three battery ranges (250, 300, and 500 miles per charge) and an onboard power station in both 120v and 220v, the Cybertruck does 0-60 mph in under 2.9 seconds.<sup>2</sup> Elon Musk's team did their homework with one exception: In taking a jab at Ford's "toughness," Tesla took a sledgehammer to the Cybertruck's driver-side door (Look! No scratches), and in the process of bragging about their truck's "Armor" glass, shattered the windows of the Cybertruck during the live reveal in November. We're just glad they didn't shoot it (again).

## **All-Electric Ford F-150**

Not to be outdone by the EV/Space rocket/Solar-plus-Storage/Tunnel-boring company, Ford released a video of its All-Electric: F-150 Prototype as it towed 1 million pounds of train cars. So how "all-in" is Ford when it comes to electrification? \$11 billion-all-in. Not to mention a \$500m investment in automaker, Rivian (developers of an EV skateboard platform), which likely means Ford understood it needed a partner from the onset if it was to leapfrog competitors in the EV space. Though *Car and Driver* speculates the release date of the all-electric F-150 won't come until 2021, in November of 2019 Ford unveiled the Mustang Mach-E SUV firing a shot across Tesla's bow by leveraging its thoroughbred emblem in a race to compete with their Model S and Model 3 lineup.<sup>3</sup>



2019

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1. U.S. Department of Energy. "The History of the Electric Car." Accessed September 19, 2019, <https://www.energy.gov/articles/history-electric-car>.
  2. Hyatt, Kyle. "Tesla Cybertruck: Everything We Know." *CNET* online. Accessed December 2, 2019. <https://www.cnet.com/roadshow/news/tesla-cybertruck-everything-we-know>.
  3. Steward, Jack. "Ford's New Mustang Mach-E electric SUV is CEO Jim Hackett's Big Bet on the Future." *Marketplace* online. Accessed November 17, 2019. <https://www.marketplace.org/2019/11/17/fords-new-mustang-mach-e-electric-suv-is-ceo-jim-hacketts-big-bet-on-the-future>.