Ken Ford Knapp

Electric vehicles FAQs

Most frequently asked

How long does it take to charge the battery fully?

The time it takes to charge the battery fully depends on the type of charger you use and the battery capacity of your EV. For example, the Ford Mustang Mach-E with an extended-range battery can be charged from 10% to 80% in approximately 45 minutes using a DC fast charger 5

Where can I charge my EV and how much will it cost?

You can charge your EV at home or a public charging station. The cost of charging varies depending on the location and the type of charger used

How will cold weather affect the length of time and how much charge will the vehicle accept and hold?

Cold weather can affect the length of time and how much charge the vehicle will accept and hold. The cold weather can reduce the range of the vehicle by up to 40%. It is recommended to park the vehicle in a heated garage, when possible, to keep the battery at a moderate temperature for efficient charging

How does an EV cost compare to a gas-powered vehicle?

An electric vehicle costs significantly less than a gas-powered vehicle over the lifetime of either vehicle. Upfront costs are dropping for all-electric vehicles, with many new EVs being cost-competitive with new gas vehicles. And, an increasing number of used EVs are becoming available with even more affordable price tags. Because EVs require far lower fuel and maintenance costs, you can save significantly by driving electric over the lifetime of your EVs compared to the higher lifetime costs of buying, operating, and maintaining a gas-powered vehicle.

Would an EV fit my lifestyle?

Yes, EVs can suit most lifestyles with proper planning and awareness of the vehicle's capabilities

Charging

How much does charging your EV cost?

You can charge your EV at home or at a public charging station. The cost of charging varies depending on the location and the type of charger used as well as local utility rates.

Can I charge my Ford EV at home, and if so, what do I need?

Yes, you can charge your Ford EV at home. You can use the Ford Mobile Charger with any 120V or 240V outlet for a reliable charge. You can also order an at-home Ford Connected Charge Station to maximize your home charging speed.

Can you install the Ford EV chargers outside if I don't have a garage?

Yes both Ford EV chargers are rated for outdoor environments.

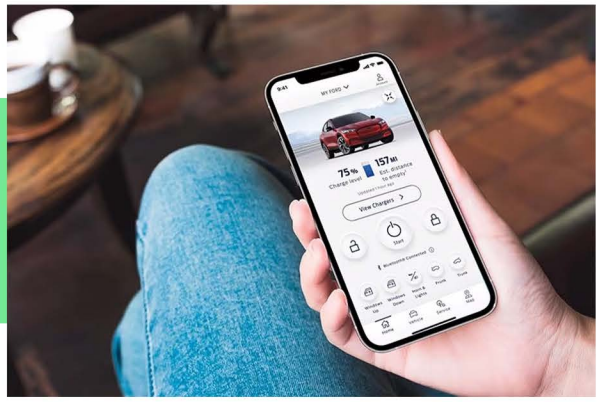
Typically, the cost to install an EV charger will fall somewhere between $1,000 and $3,000.

Charging

Are there resources to find charging stations?

Yes, there are many resources to find charging stations. You can use the FordPass app or SYNC system to locate the nearest charging station.

According to the Ontario government there are over 8,000 charging ports in Ontario today.



How long does it take to fully charge the battery?

The time it takes to fully charge the battery depends on the type of charger you use and the battery capacity of your EV. For example, the Ford Mustang Mach-E with an extended-range battery can be charged from 10% to 80% in approximately 45 minutes using a DC fast charger.

45 minutes to charge

Charging

Can you charge it halfway at a charging station?

Certainly! You have the flexibility to charge your electric vehicle at a charging station to any desired percentage, allowing you to stop charging whenever you prefer.

The BlueOval™ Charge Network

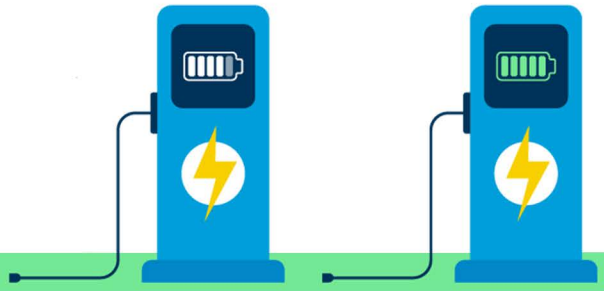
It's the largest public charging network in North America, providing thousands of charging locations whenever you're away from home. And now, all Ford EV owners have lifetime access to the Blue Oval Charge Network – with no annual fee.

How often should I charge my EV for optimal battery health?

It is recommended to charge your EV whenever possible to ensure optimal battery health.

What types of chargers are compatible with Ford EVs?

Ford EVs are compatible with Level 1, Level 2, and Level 3 (DC fast charging) chargers.



Charging

What charging options come standard with Ford EVs, and what are optional upgrades?

The charging options that come standard with Ford EVs vary depending on the model. For example, the Ford Mustang Mach-E comes with a Ford Mobile Charger and has the option to upgrade to a Ford Connected Charge Station

If I ran out of battery power while traveling, would Roadside Assistance bring a charger or tow me to the nearest charging station or to a dealer?

If you run out of battery power while traveling, Roadside Assistance can tow you to the nearest charging station or to a dealer.

Will our grid be able to handle the need for charging?

Not only can the electrical grid handle the minimal increase in energy demand caused by electric vehicles, but electric vehicles present a net benefit to the grid by helping to store and manage energy more efficiently, ultimately driving average electricity rates down for users.

Does my high-voltage battery assembly need to be fully replaced in case of a battery issue?

Depending on the issue present several components can be serviced separately. Also, individual battery modules can be replaced -in the Mach e extended range, there are 10 modules.

Charging

What is the optimal charging percentage for my electric vehicle (EV)?

Lithium-ion batteries respond better to begin the charging process at approx 50%. It's best not to let your battery go close to empty as this requires an extended period to charge, and it also causes premature battery deterioration.

The Mach-E incorporates plastic modules, with a total of 10 units, each varying in size.

What charger is best suited for my home?

It depends on how much space your electrical panel allows. In homes with 100 amp breaker panels, the ford connected charger is best suited as it has a 48 amp rate of charge which would require approximately a 60 amp breaker. If your home has 200 amp service, you could step up to the Ford pro charger which has an output of 80 amps. A licensed electrician will inspect your breaker panel, as well as load test your home to calculate what charger your home can handle. It is important to know that ev chargers have a constant 100% output, meaning if you have a 100 amp panel, and you are trying to charge your vehicle, as well as your air conditioning unit is running, along with other appliances operating that require high amperage, the ev charger will not charge the vehicle until it sees the amperage required to operate.

Winter

Do electric vehicles run year round?

Yes, electric vehicles can be driven all year round, including in winter.

Tips for maximizing your BEV's range in cold weather

Park in a garage wherever possible. Keep your BEV plugged in when parked. Precondition your vehicle using departure times to warm the cabin and the battery while plugged in.

How does cold weather impact the duration and the amount of charge the vehicle can accept and retain?

Cold weather can affect the length of time and how much charge the vehicle will accept and hold. The cold weather can reduce the range of the vehicle by up to 40%. It is recommended to park the vehicle in a heated garage, when possible, to keep the battery at a moderate temperature for efficient charging.

Range

How is range determined?

Range is calculated by dividing the amount of energy in the batteries (kWh) by the efficiency of the vehicle (kWh/mile).

$$\frac{\text{energy}}{\text{efficiency}} = \text{range}$$

Is range better highway vs city?

According to a report by Car and Driver, most electric vehicles have higher city range ratings than highway range ratings.

How far can the Ford EV travel on a single charge?

The range of Ford electric vehicles (EVs) varies depending on the model. For instance, the 2023 Mustang Mach-E California Route 1 eAWD model has an EPA-estimated range of up to 502 km.

What factors can affect the range of an EV?

There are several factors that can affect the range of an EV, including but not limited to: battery capacity, driving habits, vehicle weight, tire traction, and temperature

Range

How does the vehicle's range adapt or change when connected to a trailer?

The amount of range adjustment when connected to a trailer depends on several factors, including the weight of the trailer and the number of links in the lift chains.

The maximum towing capacity of the 2023 Ford F-150 Lightning is 10,000 pounds. This amount is possible when you choose the XLT or Lariat model with the extended range battery and the available Max Tow Package.

How far will an EV take me before I need to charge it?

An individual's average daily commute totals around 48kms per day. With most electric vehicles now having a 322kms driving range — with newer models boasting over 644kms ranges available soon — EVs are more than able to meet your daily driving needs. Plus, unlike gas vehicles, the majority of refueling for EVs can be done right at home. When home charging isn't an option, DC fast chargers offer full EV recharging in roughly 30 minutes to keep you on the road and moving forward with ease.

Cost

How much will I be saving annually owning an EV instead of an ICE vehicle?

As per the Canadian Automobile Association (CAA), owning an electric vehicle (EV) in Canada can mean big savings. Typically, EV owners save around 40% to 50% on yearly maintenance compared to regular gas cars. EVs offer potential yearly fuel savings of almost $3,000. It's important to note that these savings depend on your previous driving habits and the type of vehicle you used before switching to an EV.

How much does it cost to charge overnight?

4pm to 9pm: 28 cents/ kw

11pm to 7am: 2.7 cents/ kw

*Electricity rates can vary depending on your geographical location

What is the cost associated with installing a charging station?

To offer an approximate estimate, the overall cost for installing an EV charger, encompassing both the charger unit and installation expenses, usually falls within the range of $1,500 - $3,000

Cost

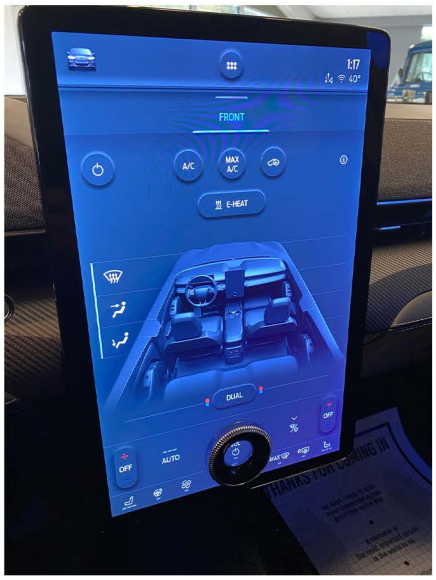
How much are maintenance costs on the vehicle? Do they compare to the ICE engines?

According to the Canadian Automobile Association, electric vehicle (EV) owners not only enjoy cost savings on fuel but also experience reduced time and expenses associated with maintenance. EVs typically require less frequent and less intricate maintenance compared to traditional gasoline vehicles. On average, a battery electric vehicle (BEV) owner can save approximately 40% to 50% on maintenance costs when compared to a gas-powered vehicle.

Energy

Which component of the car consumes the highest amount of energy? For instance, is it the air conditioner, heater, electronics, lights, or another aspect?

The single biggest drain on your battery, other than actually driving, is climate control. Whether that's keeping you cool in summer or toasty in winter, systems typically require about 3-4kW to run, which equates to seven miles of range per hour to run the air-con and five miles per hour to run heaters.



Environmental

Are EVs good for the environment?

EVs are already offsetting the demand for oil by 1 million barrels per day globally. And, as the electrical grid shifts to more renewable energy sources, the carbon footprint from EVs shrinks even further. From factory to road, with zero tailpipe emissions, electric vehicles emit a fraction of global warming pollutants that gas-powered vehicles produce over the lifetime of the vehicle.

Does the mining of lithium create more damage than a gas vehicle?

Lithium mining for electric vehicle batteries has raised environmental concerns, including soil and air contamination. Addressing these challenges is crucial for sustainable practices. Despite this, the overall carbon emissions from the entire lifecycle of battery vehicles remain lower than those of traditional gasoline vehicles, contributing to a positive environmental impact.

F-150 Lightning Platinum *,** (ext. range)

Lifetime EV GHG Savings vs. ICE Vehicle (metric tons)	Equivalent to gallons of gasoline not used****
78	8,777

Mustang Mach-E RWD *,** (base range)

Lifetime EV GHG Savings vs. ICE Vehicle (metric tons)	Equivalent to gallons of gasoline not used****
42	4,726

E-Transit *,*** (low roof)

Lifetime EV GHG Savings vs. ICE Vehicle (metric tons)	Equivalent to gallons of gasoline not used****
55	6,189

Reducing Ford Vehicle Emissions

New data shows Ford on track to achieve carbon neutrality no later than 2050 across its vehicles, operations and supply chain, and estimates that lifetime vehicle carbon dioxide emissions may be reduced by as much as 60% for consumers driving a Ford EV versus a similar internal combustion engine vehicle.

Misc.

How does the vehicle's range adapt or change when connected to a trailer?

The absence of an internal combustion engine in electric vehicles often results in more cargo space compared to traditional vehicles. An additional storage area in electric vehicles is known as a "frunk," short for front trunk, utilizing the space that was previously occupied by the engine. The frunk can vary in size depending on the electric vehicle model. For example, the 2023 Ford Mustang Mach-E electric crossover has a frunk providing 4.7 cubic feet of space, contributing to the overall cargo capacity.

The “Frunk”

In areas under my car there are orange electrical wires, what does this mean?

Any of the orange wires are part of the high-voltage system. Some are high voltage low amperage, some are high amperage, and high voltage. None of these harnesses should be touched or worked on unless it is a certified Ford EV technician.