



ELECTRIC VEHICLES 101

Planning Your Trip



Driving an EV (electric vehicle) requires a new ‘fueling’ mindset. Many of us have traditionally filled up with fuel when our gas tanks are nearing empty. When driving an EV, **THINK “SIP” VS. “GULP”!** Similar to hydrating during exercise – i.e. taking sips along the way vs. a long gulp at the end – don’t wait until your EV battery is depleted before you charge.



Plan Before You Go

You are an early adopter of new automotive technology but it is back to basics when you are going further afield in a BEV.

- Download a trip planning app, such as PlugShare or ChargeHub, use the [U.S. Department of Energy’s Alternative Fuel Data Center trip planning tool](#), or use the trip planning tool associated with your vehicle, and enter your starting point and destination. Be sure to set the filter on the app for the DC Fast Chargers only (CCS/SAE) as this will ensure the quickest way to charge your vehicle.
- If your trip will exceed your vehicle’s range, select your route and identify chargers along the way that are accessible to you.
- Keep in mind you may need to divert from your route a bit to access a charging station.
- Consider circumstances that may impact your plan such as traveling over the holidays or during inclement weather. These factors can impact charger availability.
- Be aware of the type of charger you’re using so you can plan for your downtime. (a DC fast charger may take 45 minutes, while a Level 2 charger may require multiple hours, depending on how long you’ll be charging.)
- Don’t wait until your battery is almost depleted to charge due to charger reliability. Remember to hydrate. Stop and charge at ~50% status if it’s convenient on your route. You can take calls, answer emails, or grab a bite to eat.
- Have a backup plan for charging in case you encounter an inoperable charger.
- Download and setup the necessary apps to support accessing the charging stations you’ll be using along your routes. You may need to access multiple charging networks during your trip, which may require multiple apps.
- Review any notes made available by other BEV drivers for the charging stations you plan to use. Other drivers may post helpful tips about where to find the chargers on the property, where to park, etc.
- Ensure your vehicle is or will be fully charged before you start your trip to optimize your time on the road.



On Your Journey

Be flexible and alert as you make your way.

- Take steps to maximize your range while you're on the road. Be mindful of the 3 T's – terrain, temperature, and technique. Your vehicle range may be reduced drastically in very hot or cold weather.
- Keep an eye on your vehicle's range, as it will adjust real time based on your driving. You may need to charge sooner than planned.
- If you need to find an alternate solution, pull the vehicle over and stop in a safe spot to use your trip planning app. Don't use your phone while driving to try and reroute yourself.
- If you encounter an inoperable charger and there are no other available chargers, you can typically contact the charger provider via phone. They may be able to help you troubleshoot live to get the charger to work.
- Practice good public charging etiquette. For example, do not leave your vehicle charging longer than required and practice good safe cord management to avoid tripping and damage.



Evaluate Your Trip

Record and reflect upon your experience

- Take time to leave feedback in your respective charging app to help other BEV drivers in the future.
- Think about your trip and how your range was impacted. Did the cold weather impact the range? Was range improved in urban areas? Did long stretches on highways reduce the range? This information will be helpful for future trips you might take.

