Reel Green™ Electric Vehicle

Tips, Best Practices, and FAQs

REEL GREEN™ AT CREATIVE BC

A few things before you drive off

An EV drives like any other vehicle—but there are a few differences that are worth knowing before you leave set. This quick guide covers the things that matter most during a production day.

Integrating EV charging into a workday routine comes down to matching your commute distance, charging access, and daily schedule

Don't wait until the battery is nearly empty. If you know you'll need to charge during the day, plan for it early. A short charging stop at the right time is much easier than trying to find a charger with a very low battery.

Charging to 80% takes less time than going all the way to 100%. It’s faster to go from 40% - 80% than it is to go from 80%-100%.

Core Workday Charging Strategies

- **Workplace Charging (Level 1 or Level 2):** If your employer offers chargers, plug in as soon as you arrive. Level 2 charging (7–10 kW) adds roughly 25–30 miles of range per hour, fully topping you off during a standard shift. Level 1 (standard outlet) adds 3–5 miles per hour, which easily covers a short commute over an 8-hour day.
- **Public Fast Charging (DC Fast/Level 3):** If work charging isn't available, stop at a fast charger (150–350 kW) 30 minutes usually charges to 80%.

Best Practices for Daily Planning

- **Maintain the 20%–80% Rule:** For routine daily driving, keep your battery state-of-charge between 20% and 80% to preserve long-term battery health and minimize time spent charging at slow curves.
- **Download Station Apps:** Apps like PlugShare, ChargePoint, or Electrify America show real-time stall availability and working status before you drive over.
- **Use the nav system on the vehicle, most will have the option to charge stations and where they are on your route.**

Feature	Level 2 Charging (AC)	DC Fast Charging / Level 3 (DC)
Typical Power Output	7.2 kW – 11.5 kW	50 kW – 350 kW
Added Range per Hour	~25 to 35 miles	~100 to 300+ miles (in 20-30 mins)
Realistic Time (20% to 80%)	**4.5 to 6.5 hours**	**18 to 35 minutes**

Tips to Maximize Range

Maximizing your electric vehicle's range boils down to driving style, climate management, and vehicle setup. Because EVs are so efficient, minor adjustments in how you accelerate, brake, and heat or cool the cabin can add significant mileage to a single charge.

Driving + Speed Management

- **Drive smoothly:** Rapid acceleration drains energy at a drastically higher rate. Use **Eco Mode** if available, as it dampens accelerator sensitivity to encourage smooth power delivery.
- **Keep highway speeds reasonable:** Air resistance increases exponentially as speed increases. Driving at **65 mph instead of 75 mph** can improve efficiency by 10% to 15%.
- **Use Regenerative Braking:** Set your regenerative braking to maximum (or "One-Pedal Drive"). This captures kinetic energy during deceleration and feeds it straight back into the battery.

Climate + Temperature Control

- **Rely on seat and steering wheel heaters:** In cold weather, heated seats and steering wheels use significantly less power (roughly 50–100 watts) than running the high-voltage cabin HVAC system (which draws 3,000–6,000 watts).
- **Target optimal temperatures:** The ideal ambient temperature for EV battery chemistry is around 70°F (21°C). Extreme heat or cold cuts efficiency, so park in garages or shaded areas when possible.

Vehicle Efficiency + Maintenance

- **Maintain tire pressure:** Cold weather drops tire pressure, increasing rolling resistance. Keep your tires inflated to the manufacturer’s recommended PSI (found inside the driver’s door jamb).
- **Reduce excess weight:** Every extra 100 lbs. lowers efficiency slightly. Remove unused roof racks, cargo boxes, or heavy items stored in the trunk.
- **If possible, when on set or at circus use the 110 charger to maintain the vehicle.**
- Avoid unnecessary idling or extended use of accessories when parked.

At the Charger

Before plugging in:

1. Check that the charger is functioning and that your vehicle is ready to charge.
2. Follow the instructions on the charger or in the vehicle.

Charging etiquette:

- Don't occupy a charger once you're finished charging.
- If the station has a time limit, respect it.
- Don't unplug another vehicle unless the station or site instructions specifically allow it.

If every charger is occupied:

- Check for another nearby compatible charger.
- If possible, use the vehicle's navigation or charging app to identify alternatives.
- Notify the transportation captain/coordinator if the situation could affect your schedule.
- Don't let the battery run critically low while searching for a charger.
- Communicate with Co-workers: If chargers are in high demand, let others know so they can plan as well.

Before You Get Behind the Wheel

Have a quick look at the Vehicle Manual, learn what features it has in regard to operating the various systems and what their controls do.

Common Warning Message and Meanings

EV warning messages follow a standard traffic-light color system: **Yellow/Amber** means take action soon, while **Red** requires stopping immediately or seeking prompt service.

Battery + Power Warnings

- **Turtle Symbol / "Power Limited" / "Reduced Performance"**: The vehicle has restricted power output to protect the system. This is triggered by a critically low battery (typically under 3%), extreme battery overheating/freezing, or an internal fault. Drive slowly to the nearest charger or pull over safely.
- **"12V Battery Low" / "12V System Fault"**: Indicates an issue with the small auxiliary battery that runs the electronics, computers, and safety systems. If this battery dies, the vehicle will not turn on or start a charging session, even if the main high-voltage battery is full.
- **"Battery System Service Required" / "EV System Fault"**: A general fault detected within the main traction battery or powertrain management. If amber, drive home/to a dealer carefully; if red, pull over safely and call roadside assistance.

Charging + Thermal Warnings

- **"Charging Fault" / "Cannot Charge" / Flashing Red Port**: The vehicle detected an error while attempting to charge. This is often caused by an unlatched connector,

grid issue at the charging station, or communication error between the charger and car. Unplug, wait 30 seconds, and try again or switch stalls.

- **"Cooling System Fault" / "High Battery Temperature"**: The thermal management system cannot keep the battery pack within a safe temperature range. Stop driving immediately to prevent permanent damage to the battery cells.

Braking + Drive Warnings

"Regenerative Braking Limited" / "Regen Unavailable": Usually not a malfunction. This occurs when the battery is charged to 100% (so it cannot accept more energy) or when the battery pack is too cold. Mechanical brakes will operate normally, but one-pedal driving will feel noticeably reduced.

Battery Longevity

Batteries don't fail suddenly: EV batteries degrade slowly over time (typically losing only 1–2% of total capacity per year).

Cold Weather Impact

Winter range loss is temporary: Cold temperatures temporarily slow down battery chemical reactions and draw power for cabin heat, reducing range by 20–30% in freezing weather. Once warm weather returns, full range capability restores automatically.

Frequently Asked Questions

1. **"What if I run out of charge?"**

   If you run out, you need to be towed to a charge station.

   Modern EVs don't suddenly go from a normal range estimate to zero. The vehicle continuously monitors remaining battery and provides warnings as the battery gets low.

   The best protection is simple: know your route, watch your range and charge before you need to.

2. **"What if I get stuck somewhere without a charger?"**

   You shouldn't need to treat every trip like a long-distance expedition. For a typical production day, the important thing is knowing where you'll be driving and where you can charge if needed.

   If your planned route changes significantly, reassess your range and charging options.

3. **"Does cold weather make an EV unusable?"**

   No. EVs operate in cold weather, but **cold temperatures can reduce range and increase charging time**.

   In cold weather:

   - Expect less range than the dashboard's ideal estimate.
   - Give yourself more charging/battery buffer.

- Pre-conditioning the vehicle while plugged in can help reduce the energy needed for heating while driving.

4. **"Do I have to drive differently?"**

   Not really. You don't need to drive slowly or treat the accelerator like it's made of glass.

   Smooth acceleration, reasonable speeds and anticipating stops will generally improve efficiency. Drive normally and safely first; efficiency comes second.

The Big Three

1. **Know your route and expected distance.**
2. **Plan charging before you need it.**
3. **Ask early if something doesn't look right.**

You don't need to be an EV expert.

You already know how to do your job. An EV just changes a few things about how you manage the vehicle during the day.

Plan ahead. Keep an eye on your range. Ask questions. Then get to work.