EVFleetHUB

EV MYTHS AND FACTS | Separating Perception from Reality for Fleets

As electric vehicles become more common in fleet operations, questions and misconceptions about their performance, reliability, and suitability for daily use are natural. This fact sheet addresses common EV myths with clear, factual information to help fleet owners, operators, and drivers better understand real-world capabilities, evaluate operational fit, and make informed decisions about electrification.

Myth #1: EVs Have a Limited Driving Range

Fact #1: Many EVs now offer driving ranges between 200 and 400 miles per charge.

- Continued advancements in battery technology are expected to further increase range over time.

Myth #2: EVs Are Too Expensive

Fact #2: While EVs may have higher upfront costs, these are often offset by lower total cost of ownership.

- Reduced fuel and maintenance costs contribute to long-term savings.
- Vehicle prices continue to decline as battery production scales and technology advances.

Myth #3: EVs Are Not Environmentally Friendly Because of Battery Production

Fact #3: When evaluated over their full life cycle, EVs typically produce fewer emissions than internal combustion engine vehicles.

- Ongoing improvements in battery manufacturing and recycling are further reducing environmental impacts.

Myth #4: EV Batteries Don't Last Long

Fact #4: EV batteries are engineered for long service lives.

- Most manufacturers offer battery warranties of eight years or longer.
- Real-world data shows strong battery capacity retention even after years of use.

Myth #5: EVs Are Not Suitable for Cold Climates

Fact #5: Modern EVs are designed to operate reliably across a wide range of temperatures.

- Thermal management systems help maintain battery performance in cold conditions.
- Cold-weather impacts are well understood and can be effectively managed.

Myth #6: EVs Are Dangerous in an Accident

Fact #6: EVs are subject to the same rigorous safety testing and standards as conventional vehicles.

- Battery placement lowers the vehicle's center of gravity, improving stability.
- Protective battery enclosures and advanced safety features reduce crash risks.

Myth #7: The Electric Grid Can't Handle Widespread EV Adoption

Fact #7: Studies show the electric grid can support growing EV adoption with proper planning and investment.

- Managed charging, off-peak charging, and grid upgrades help minimize strain.
- Continued infrastructure improvements support reliable long-term integration.

ADDITIONAL CONSIDERATIONS FOR SMALL FLEETS

Myth #8: EVs Can't Handle Trucking or Hauling Needs

Fact #8: Many electric trucks and vans are designed to support hauling, towing, and payload requirements common to small fleets.

- Improved battery performance allows EVs to manage additional weight effectively.
- Lower centers of gravity and balanced weight distribution enhance vehicle stability.

Myth #9: EVs Take Too Long to Charge and Disrupt Operations

Fact #9: Charging strategies can be tailored to fleet operations to minimize downtime.

- Overnight and off-peak charging often aligns well with daily fleet schedules.
- Charging infrastructure can be right-sized to meet operational needs.

Myth #10: EV Repairs Are Too Complicated or Costly

Fact #10: EVs generally require less maintenance than internal combustion engine vehicles.

- Fewer moving parts result in lower maintenance needs and reduced downtime.
- Routine service costs are often lower over the vehicle's lifetime.

Myth #11: EVs Aren't Flexible Enough for Changing Routes or Unexpected Trips

Fact #11: Many EVs are well suited for variable routes and evolving operational demands.

- Route planning tools and expanding charging networks increase flexibility.
- Fleet managers can align vehicle selection with duty-cycle requirements.

Myth #12: EV Batteries Drain Quickly When Vehicles Aren't in Use

Fact #12: EV batteries experience minimal energy loss when parked.

- Modern battery systems are designed to retain charge over extended periods.
- Extreme temperatures may increase standby energy use, but impacts are typically modest.