

ELECTRIC VEHICLE INFRASTRUCTURE

WHICH IS BEST FOR MY BUSINESS?

LEVEL 1

120 VOLTS ⚡

Level 1 EVs can charge using the same 120 volt current you might find in regular household outlets. This is sufficient for brands who provide consumers with multi-day dwell times. Consumers can leave the car plugged in for longer durations, allowing the vehicle to recharge from use that day.

*4-5 miles of range per hour of charging time.

IDEAL FOR LONG, MULTI-DAY DWELL TIMES
I.E. VACATION RENTALS, HOTELS.

PROS:

- Peak demand charges on electric utilities are minimized.
- Compatible with most EV equipment.
- Minor design/install requirements or equipment needed.

CONS:

- Charging cable is not always provided by charging host location. May require user to travel with their own cable.
- Very slow.
- Obsolete tech, seen as emergency only.

LEVEL 2

208-240 VOLTS ⚡⚡

Level 2 infrastructure requires 208-240 volts of power and is commonly used at commercial locations. Installing level 2 charges typically require less redesign of existing infrastructure. Installing an Electric Vehicle Supply Equipment (EVSE) unit and electrical wiring capable of delivering higher voltage power is required.

*10-30 miles of range per hour of charging time.

IDEAL FOR LONGER PERIODS OF DWELL TIMES
I.E. HOTELS, FLEET SERVICE LOTS, PARKING GARAGES, WORKPLACES.

PROS:

- Faster charging – between 10-30 miles of range per hour of charging time.
- More efficient than Level 1 charging.
- Many fleets operate at Level 2 charging.
- Affordable equipment/install costs.
- Minimal change to existing infrastructure allows for quicker completion timelines.

CONS:

- Increased impact on peak demand charges.
- Requires long dwell time at destination.

LEVEL 3 - DC FAST CHARGING

480-800 VOLTS ⚡⚡⚡

Level 3 – DC Fast Charging uses direct current (DC), which allows an EV to charge quickly with a voltage as high as 800 volts. Level 3 is the best choice for brands with an average consumer dwell time of at least thirty minutes. Core States Energy is at the forefront of design and installation of these fast chargers.

*50-350 miles of range per hour of charging time.

IDEAL FOR SHORTER PERIODS OF DWELL TIME
I.E. RESTAURANTS, RETAIL & GROCERY STORES

PROS:

- Drastically reduced charge time, 80% in 30-60 minutes.
- Most public charging networks are Level 3 charging.
- Considered to be forward-thinking and future-proof, which attracts more customers.

CONS:

- Equipment, design, and install is more expensive than Levels 1 & 2. High voltages tend to require new or updated infrastructure to support power output.
- Increased impact on peak demand charges.

STILL NOT SURE WHICH EV INFRASTRUCTURE IS RIGHT FOR YOUR BUSINESS?

Core States Energy provides tailored consultation and expertise to answer all your questions. Power up your business for success.

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<https://www.core-states.com/energy/>