



## Electric Vehicle Charging

### What is an Electric Vehicle (EV) charging system?

An EV charging system is similar to a gas station but supplies electricity to recharge electric vehicle (EV) batteries.

### How does an EV charging system work?

EV charging systems deliver electrical energy to the vehicle's battery via a charging port, with power sources coming from the grid, renewables, or home chargers. The onboard charger in the vehicle then converts AC power from the station into DC power for battery charging.



### What are the different types of EV charging systems?

There are three main types of EV chargers:

- **Level 1 (120V):** The slowest charging method, typically used for home charging. Level 1 systems provide 2 to 5 miles of range per hour charge. A full charge typically requires 35 – 50 hours.
- **Level 2 (240V):** Level 2 charging systems, often found at public and multi-unit residential stations, offer a faster 15–30-mile range per hour charge; typically requiring about 10 hours for a full charge.
- **Level 3 (DC Fast Charging):** Level 3 charging offers rapid energy replenishment for on-the-road convenience. Typically located at public, fleet, and multi-unit residential stations, these systems provide an impressive 150 to 350+ miles per hour of charging, with about 80% capacity achieved in less than 30 minutes.

Please note that charging speeds will impact parking space allocation and project costs. Faster charging (Level 3) systems require more space and are costlier due to higher power consumption compared to Level 2.

### Can I expand my Level 2 or Level 3 charging system in the future?

Charging systems are often scalable, accommodating increased demand. To explore further, reach out to AC & DC Power Technologies.

### Which businesses can benefit from Level 2 and Level 3 charging systems?

Businesses such as shopping centers, hotels, airports, fleet operations, and any high-traffic locations can benefit from these charging systems. Level 2 chargers are suitable for longer customer stays, while Level 3 chargers cater to quick refueling stops.



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## AC & DC Power Technologies, LLC

### **How do I get started with installing a Level 2 or Level 3 charging system?**

Start by consulting with an experienced EV charging station installer like AC & DC Power Technologies. We specialize in permitting, metering, site development, electrical buildout, energization, and commissioning of EV charging systems. Count on us for comprehensive guidance throughout the installation process.

### **What are the electrical requirements for charging system installations?**

Level 2 chargers use 240V power, whereas Level 3 chargers demand a higher 480V supply, possibly necessitating electrical infrastructure upgrades. AC & DC Power Technologies can assist in evaluating your requirements.

### **Are there different types of connectors for Level 2 and Level 3 charging systems?**

Yes, various connector types exist for both Level 2 and Level 3 charging systems, including J1772 for Level 2 and CHAdeMO, CCS (Combo), and Tesla's proprietary connector for Level 3. Ensure compatibility with the EV models you expect to serve.

### **What maintenance is required for Level 2 and Level 3 charging systems?**

Both systems need regular maintenance, encompassing software updates, cleaning, and inspections for physical damage to ensure optimal performance. AC & DC Power Technologies specializes in EV charging system repair and maintenance services.

### **Are there safety considerations for Level 2 and Level 3 charging systems?**

Adhering to local safety regulations and manufacturer recommendations is vital for safe operation. For professional guidance in achieving a safe and reliable system, turn to AC & DC Power Technologies..

### **Are there incentives or grants available for businesses installing EV charging systems?**

Certain regions provide incentives, grants, or tax benefits for businesses installing EV charging infrastructure. In our service area, Georgia Power ([georgiapower.com](http://georgiapower.com)) offers the "Make Ready EV Infrastructure" program, designed to ease the financial burden of building the necessary infrastructure to support the increasing demand.

### **Ready to bring EV charging to your facility?**

AC & DC Power Technologies is eager to become your trusted partner, from planning to maintenance. Contact us today to get started on this sustainable journey. We look forward to hearing from you!



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