

EV charging infrastructure planning for commercial properties
Create a framework for success

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As more people drive EVs, they need charging options wherever they live, work and go. Getting your property EV-ready requires infrastructure that can scale. Along with safe, reliable and convenient reliable charging technologies.

EATON

Powering Business Worldwide

How will you design charging infrastructure for your business?

Addressing the following questions will provide a starting point to develop an EV charging network that can meet your needs today and as they change in the future.

A checklist for success: Understand your needs to simplify EV charging

1. How many chargers do you need?

To avoid costly electrical upgrades down the road, it is important to assess current and future charging needs. Determine how many charging stations are required immediately to support your goals. Then, account for potential growth and how many chargers might be needed in the future to accommodate expansion. Proper planning is essential to ensure business or workplace's EV charging infrastructure is scalable, flexible and compatible with your available electrical capacity.

2. What type of charging should you offer?

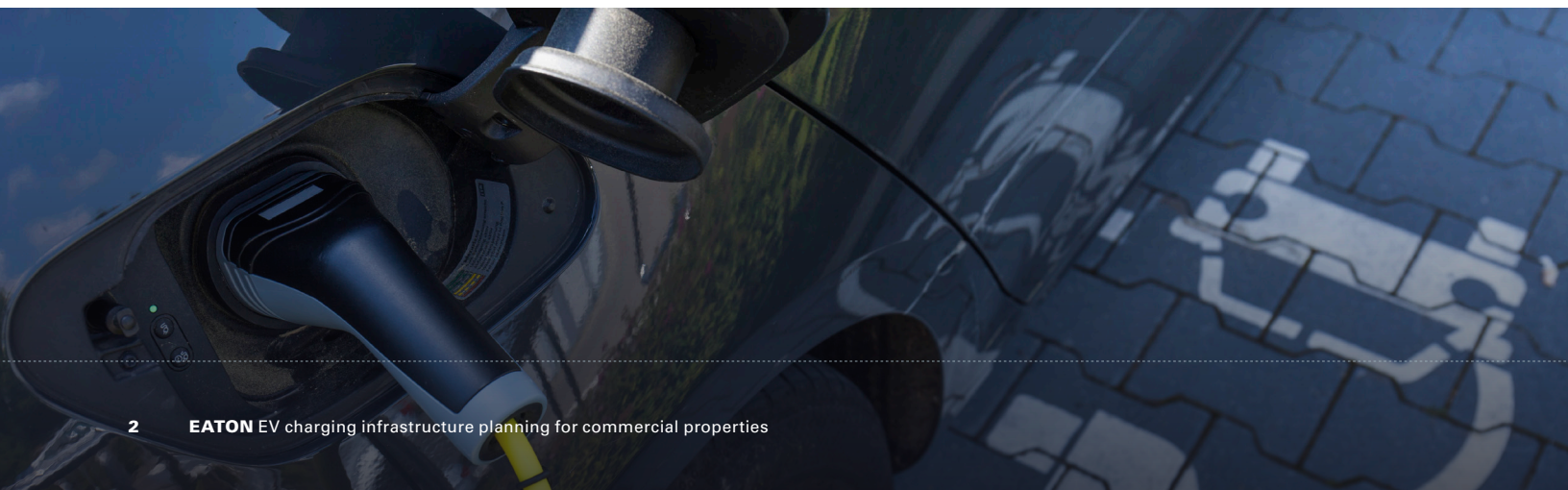
When designing EV charging infrastructure, it's important to ask yourself who will be charging at your location and how long will they be charging for. Charging stations for EVs can either be alternating current (AC) or direct current (DC). Both charging options have their place, and each comes with economic and installation considerations.

AC charging stations are typically used where a vehicle may be parked for a significant time, like at work, school, shopping or a hotel. DC charging stations are preferred in some applications and for specific needs, depending on vehicle routes and dwelling time. This type of charging involves more power and can charge a vehicle from 10% to 80% in as little as 30 minutes*.

3. What features do you need?

It is critical that your EV charging infrastructure delivers the features your visitors or employees need. Consider whether you need access control to regulate who can use the chargers, compatibility with corporate employee radio frequency identification (RFID) cards, monetization options to manage and profit from the charging services, or intelligent load management to efficiently distribute power and avoid overloading your electrical system. Each of these features plays a significant role in the overall effectiveness and efficiency of your charging network.

*Charge times vary based on vehicle and charging equipment capabilities



4. What type of parking does your site have?

Determine whether your chargers will be installed in a garage, open parking lot or street-side. Is the location exposed to the elements or physical security risks? Each parking type has unique logistical and infrastructure requirements that will impact the ongoing safety, security and functionality of your EV charging stations.

5. How will you address security?

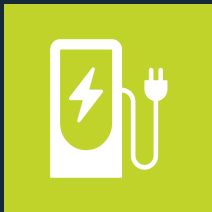
Assess whether the parking is secure, such as being behind a locked gate or part of a guarded or monitored site. If not, additional measures can be put into place to protect your charging infrastructure investments from potential theft, tampering or vandalism.

6. Are you adding EV charging to an existing site?

If so, it is a priority to assess the current levels of incoming utility power and power usage of the site, as well as your site's existing electrical system assets. Understanding your existing electrical system is an essential first step for cost-effectively designing your EV charging infrastructure to support the additional loads from EV charging stations without impacting power quality or reliability.

7. Are you building a new site?

If you are building a new parking location for EV charging, it is important to think through several additional factors. Determine where charging will initially take place and identify potential locations for charging if operations expand. Determine if you'll want to implement onsite renewable energy sources or energy storage to facilitate more sustainable and self-sufficient charging in the future. These considerations will help ensure that your new site is optimized for your needs today while preventing potentially costly modifications in the future.



Put your plan into action

Understanding your logistical needs and limitations when deploying EV charging infrastructure for a business or workplace helps make the project seamless for any consultant or contractor supporting your goals.

Although the process can appear daunting, taking a few minutes to consider the key questions above can go a long way toward maximizing your budget, time and resources. It's important to recognize that EV drivers often think about availability and ease of charging when they choose business locations to visit. Customers also tend to favor companies that embrace sustainability, so the energy source matters. Generating renewable power on-site for EV charging is likely to be a marketing advantage and provide intrinsic benefits.

If you still have questions, or need additional information, let the experts at Eaton assist you. Our knowledgeable, strategically located team of application engineers and solutions architects can help you navigate the journey to electrifying your business or workplace.



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