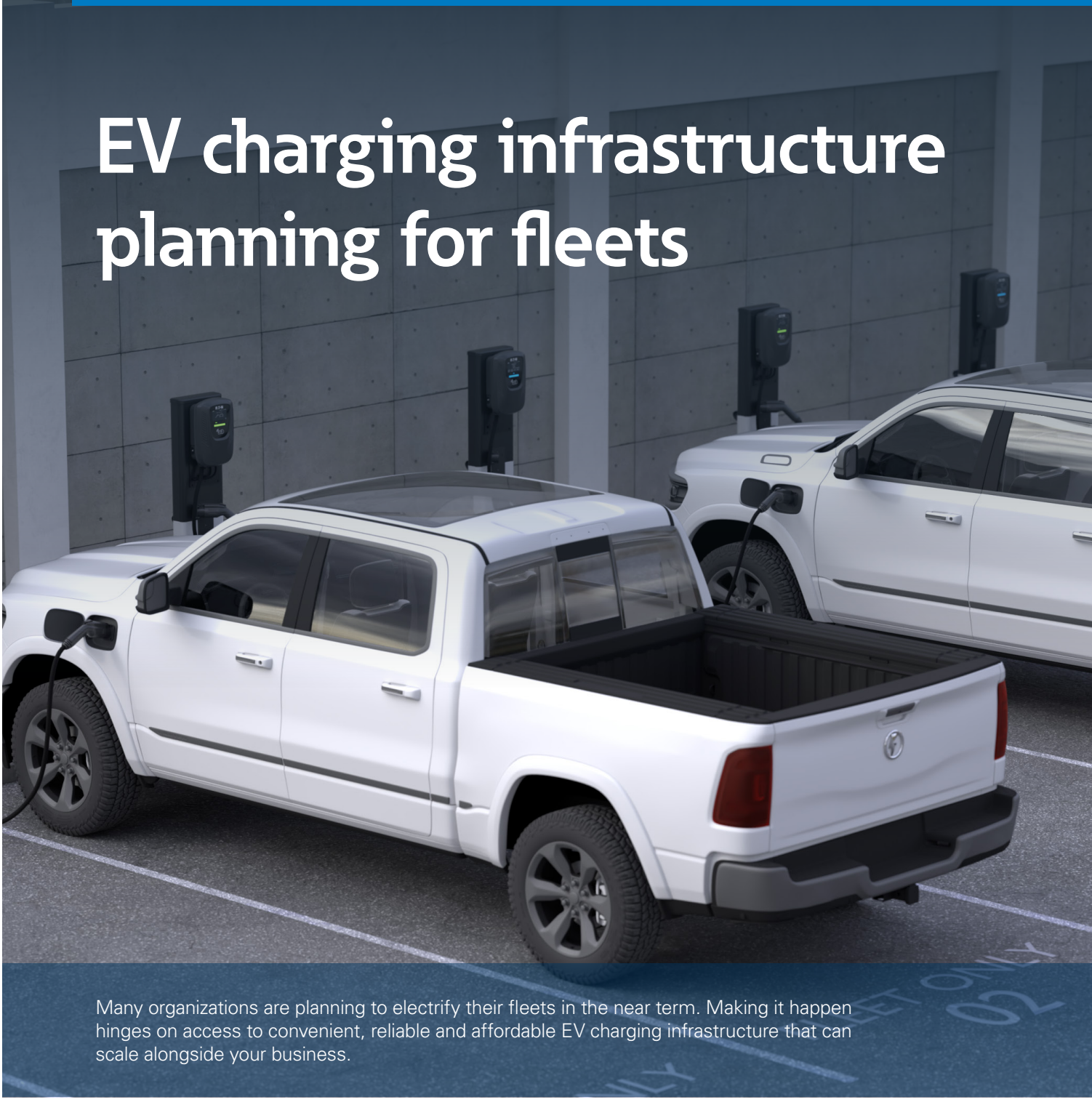
EV charging infrastructure planning for fleets



Many organizations are planning to electrify their fleets in the near term. Making it happen hinges on access to convenient, reliable and affordable EV charging infrastructure that can scale alongside your business.

Powering Business Worldwide

How will you design charging infrastructure for your fleet?

This framework provides 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 fleet electrification

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, consider potential growth and how many chargers might be needed in the future to accommodate expansion. Proper planning is essential to ensure fleet EV charging infrastructure is scalable, flexible and compatible with your facility's electrical capacity.

2. What type of fleet do you operate?

When designing fleet EV charging infrastructure, it's important to ask yourself several key questions to ensure your charging equipment and physical installation meet your specific needs.

Start by considering the type of fleet being operated. Are you managing delivery vehicles with set routes and schedules, security and/or maintenance crews with limited travel and somewhat fixed schedules, or other use cases such as sales personnel who do not have defined schedules or routes? Each type of fleet has unique requirements that will influence the design and functionality of your EV charging infrastructure.

3. What features do you need?

It is critical that your EV charging infrastructure delivers the features you need to succeed. Consider whether you need access control to regulate who can use the chargers, monetization options to manage and potentially 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 fleet charging infrastructure.

4. What type of parking does your site have?

Determine whether your fleet will be parked 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?

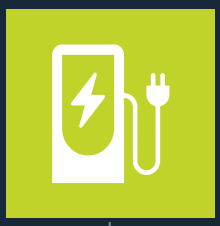
Consider the security of your parking area. Assess whether the parking is secure, such as being behind a locked gate or part of a guarded or monitored site. If not, additional measures can be put into place to protect your vehicles and charging infrastructure investments from potential theft, tampering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

6. Are you adding fleet 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 fleet 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 site for fleet EV charging, consider several additional factors. Determine where charging will initially take place and identify potential locations for charging if operations expand. Consider if you'll want to implement onsite renewable energy sources or energy storage to facilitate more sustainable and self-sufficient fleet 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 fleet EV charging infrastructure helps make the process 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.

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 fleet.

To learn more and contact us visit

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Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

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