

Buyers Checklist: How to Choose an Electric Vehicle Charging Station

More than 360,000 EVs are on the road today, and production has increased 10X over the past four years. And this growth isn't slowing any time soon. Forecasts suggest that EVs will comprise 4% – 15% of all car sales by 2020, depending on your region.

Whether you own a property or run a business (or both), EV drivers represent a growing percentage of customers, employees, and tenants. With new incentives becoming available, there has never been a better time to purchase an electric vehicle (EV) charging station for your workplace, fleet, or property.

This paper provides insights on how to choose the right charging station for your needs.

Evaluate Your Needs

To choose the right charging station, begin by evaluating your needs. Here are some important questions to consider before you start shopping:

- + What kind of property do you have? Is it a commercial or a multi-family residential building?
- + What is the typical period of time that cars are parked on your property?
- + What kind of parking do you have?
- + Are you the property owner or the tenant?

What Is the Average Parking Time or Natural Dwell Time?

If your customers stay anywhere from a few minutes to a few hours, we recommend you consider a Level 2 charging station. Level 2 chargers incent

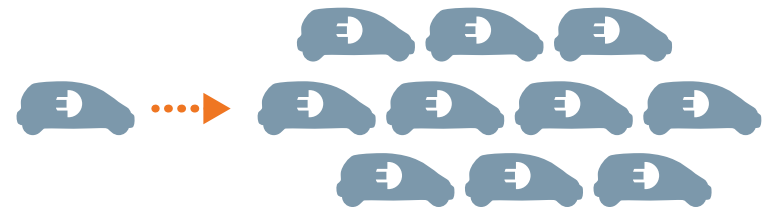
customers to park longer to get to a complete charge, which means they will stay in your store for longer. [Some business owners](#) find that this can increase sales.

Even if your customers stay parked for longer than four hours at your place of business, you may still want to consider Level 2 networked chargers. Unlike Level 1 and non-networked chargers, Level 2 networked chargers offer automatic software updates, so they're more cost-effective to maintain and support flexible pricing and access models, so you can use your charger to attract new customers. They also come with demand-response and energy-use reporting, which a growing number of utilities require.

Level 3 and DC fast chargers are more geared toward locations where cars are parked for short time periods.

EV Growth Exploding

Past growth: 10X in the last 4 years
Future growth: 4% – 15% of all car sales by 2020*



*Data sourced from Navigant

Are You Looking to Attract Customers or Tenants?

One of the advantages of EV charging stations is that they bring customers and tenants to your property. EV drivers usually choose to park and shop at locations where there is public charging. To help customers find you, your stations need to be visible on a map. Networked stations are perfect in this regard, because customers who are members of major charging networks will see your stations when they look for public charging in your area.

Besides attracting customers/tenants, some networked stations also have a variety of other features such as remote support, software updates, controlled access etc.

Here are some of the most frequently used features that only networked stations provide:

- + Control who charges on your stations and when.
- + Set specific pricing for specific drivers and groups.
- + Drivers can see real-time charging-station availability info, so they won't drive over to charge, only to be disappointed by a station that is in use or is not up and running.

- + Generate energy usage reports and reports on greenhouse gas emissions savings.
- + Get remote support for the stations.
- + Configure and update station settings and other operational controls.
- + Allow drivers to reserve stations or get on a waitlist and thereby enable customer satisfaction.

While stations that are not networked may seem less expensive, they actually cost more to own, because they are often more expensive to install and maintain, require more electrical panels to be installed, and are not smart enough to actively manage energy use, which can lead to higher electricity costs.

Do You Own or Manage a Fleet?

If you own or manage a fleet with EVs in it, then you likely have some needs that are specific to fleets. You may want to track charging by vehicle and by driver, offer fuel card capability for your EVs, and allow employees to charge “in the wild” with their fuel cards. Sometimes businesses that

own fleets may need to serve their employees, their customers, and their fleets (i.e., have a mixed-use scenario). Look for EV charging-station providers offering an all-in-one solution for fleets that meets your unique needs.

Are You Looking to Add a Valued Amenity at Your Property?

If you want to offer a premium amenity to your employees, tenants, or customers to improve satisfaction or your brand image, then you may want to consider a charging station that comes with a mobile application for drivers. The mobile application allows drivers to track all of their charging, view station availability remotely, start charging sessions, get notifications about their charging status, etc. If you are planning to offer charging stations for shared use, then mobile notifications can make the charging experience better for your drivers.

What You Should Look For

Once you have a clear understanding of what you need, you may want to look for the following features and capabilities as you evaluate potential charging stations.

Quality and Reliability of the Station

With any type of equipment that's installed outdoors and meant for public use, longevity and ability to withstand the forces of nature are important considerations. Important criteria to consider in regards to equipment quality are its ability to withstand rain and extreme temperatures, the durability of the materials used, and the overall product design.

Reporting on Greenhouse Gas Emissions and LEED Credits

Many businesses report on their greenhouse gas savings, energy use, etc. If tracking emissions saved is one of your requirements, be sure your EV charging station provider offers sustainability-focused reporting and analysis for its stations.

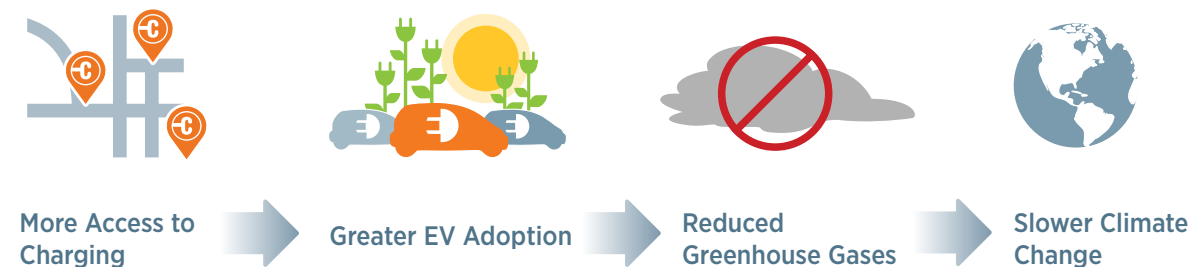
The US Green Building Council (USGBC) recognizes the important role that transportation to and from buildings play in their overall environmental impact. EV charging stations can earn you LEED credits for your new or existing facility. To qualify, stations must be networked Level 2 chargers that support demand-response and time-of-use charging. If you are looking for additional LEED credits, ask your charging-station vendor if its stations offer these features.

Energy Utilization Tracking

If you need to monitor overall energy used by the charging stations, be sure your station can produce energy utilization reports. Tracking energy use can also help you identify which locations are using more energy, and when. Some networked chargers also allow you to track total energy use by driver to help you understand who is using the stations.

Demand Response and Future-Proofing Your Stations

Charging stations do add a lot of load on the grid and, depending on where you are in the country, your energy provider or utility company may require that you report on energy used by your charging stations. Additionally, a growing number of power providers require that your stations be networked and have demand response capabilities. You will be future-proofed if you purchase networked stations that support demand response and offer reporting on energy utilization data.



Ability to Set Pricing and Access Control Policies

If you will be charging different rates for different kinds of users, or using pricing to influence driver behavior or maximize incremental revenues, you will need a charging station that allows you to set custom pricing and access control policies.

For example, charging an hourly flat rate can encourage people to move their cars after their cars are charged. Likewise, retail businesses may charge lower rates during shopping hours and higher rates when the store is closed, or workplaces may offer free charging to employees and paid charging to the general public. Parking lots and hotels may also vary rates and access policies by user type and time of day.

To get the most out of your charging stations, verify that the vendor you work with provides a variety of access control and pricing capabilities.

Support and Service

The EV market is growing rapidly, and many first-time EV drivers are new to charging. They may have questions specific to their car and connector, or about how payment works. A charging-station provider that offers round-the-clock driver support can field these questions so you don't have to.

The stations themselves also need support from time to time. Networked stations often offer automatic software upgrades, so they need less maintenance and support. A few of them also provide remote monitoring, which makes managing stations easier and more convenient.

We also recommend choosing reliable charging stations that come with longer terms of service.

Charging Station Selection Criteria at-a-Glance

- + Ease-of-use
- + Networked or non-networked
- + Charging level—Level 1, Level 2, Level 3, DC Fast
- + Access control for multiple groups
- + Qualification for LEED points
- + Flexible pricing model
- + Hardware reliability and ruggedness
- + Energy management: demand response
- + Reporting: GHG emissions, energy use, and other data required for energy management
- + 24/7 driver support
- + Customer and installation support
- + Warranties, parts, and labor
- + Reputation and market leadership
- + Long-term investment, the ability to scale with your needs

How ChargePoint Can Help

ChargePoint provides flexible EV charging solutions to meet all kinds of business needs. Whether your plan is to offer EV charging to employees, to customers, to tenants, or to all of the above, ChargePoint can help.

ChargePoint offers smart networked solutions that allow you to:

- + Charge for electricity if you choose
- + Implement pricing policies that can make it a self-paying investment or even an additional revenue source
- + Restrict access and set pricing by driver groups, time of use, and other criteria
- + Track costs, revenues, and energy savings
- + Measure ROI and environmental metrics with reports and analytics
- + Enjoy a completely turnkey and hassle-free solution with managed services and 24/7 driver support
- + Offer a superior charging experience for your EV drivers, with real-time availability via mobile app and premium features like Reservations

Installing smart EV charging stations is good for business. EV charging stations are a visible testament to your sustainability commitment that will inspire your employees and customers every single day.

Who We Are and What We Do

ChargePoint brings electric vehicle (EV) charging to more people and more places than ever before. We operate the world's largest and most open EV charging network, and we also design, build, and support the technology that powers it. As our network grows, it is making EV driving accessible to more and more people. Our mission is to get every driver behind the wheel of an EV—and then to provide charging stations everywhere those drivers might want to go.



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Why ChargePoint?



More than 25,000
charging locations



Every 5 seconds
an EV is connected to
a ChargePoint station



13 million
charging sessions
completed



12 million
gallons of
gasoline saved



280 million
gas-free miles driven



40 million kilograms
of greenhouse gases
avoided

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