



Increase Commercial Tenant Satisfaction with Electric Vehicle Charging Stations

An EV charge station primer for commercial property owners,
property management companies, and facilities managers.

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Executive Summary

This white paper is for commercial property managers who want to understand how offering charging station amenities to electric vehicle (EV) drivers will increase client satisfaction. It is written to give you a fundamental understanding of this topic and to help you determine if deploying EV charge stations can deliver the return on investment to make it worth your while.

This paper begins by discussing how and why implementing charging stations will help you attract and satisfy your clients. Next, you'll learn how green initiatives in general, and charging stations in particular, can help differentiate your property and overall business in a competitive environment. And while these topics are essential to an EV charge station amenity primer, no discussion would be complete without touching upon the costs and potential returns they could bring to your property(ies). Finally, we suggest viable next steps to help you answer the question, "Is a network of car battery chargers an amenity I should offer, and if so, how do I economically implement one?"

Electric Vehicle Constituents Are Good for Your Commercial Properties

The implementation of green programs has taken root in the commercial property industries. Initiatives to reduce energy usage and to migrate to alternative renewable energy sources have become commonplace at such locations around the world.

And just as the green revolution has found a home in your industry, it has permeated the consciousness of many of your current and prospective clients.

That passion has filtered its way down to their employees' and customers' choice of transportation. Increasingly, that choice includes the purchase or rental of a plug-in hybrid or electric vehicle. And in order to conveniently use these vehicles, drivers need access to EV chargers.

Still, why should you care or bother to implement electric vehicle charging stations?

Because to put it simply, your goal is to maximize the stable net income cash flow from your property. And by leveraging EV charging stations as part of your client satisfaction strategy, you'll gain a number of benefits from your property's stakeholders (see Table 1 below).

Other names for EV charge stations:

- car battery charger
- car battery charging
- electric vehicle charger
- charger for electric car
- EV charger
- electric vehicles charging stations
- EV charging station
- electric car charger station
- automotive battery charger
- EV charge stations
- Electric Vehicle Supply Equipment (EVSE)

| You are a commercial property... | Your direct and indirect constituents are... | Your benefits are... |
|--|--|---|
| Management company or Facilities Manager | <ul style="list-style-type: none"> • Building owners • Tenants • Your executives • EV drivers • Media | <ul style="list-style-type: none"> ✓ Increase client and tenant satisfaction ✓ Differentiate your commercial property from your competitors to stabilize & increase cash flow <ul style="list-style-type: none"> - Lower vacancy rates - Increase lease re-signing rates - Increase lease rental rates - Reduce tenant turnover ✓ Enhance clients' and your company's brands as socially and environmentally responsible ✓ Achieve clients' sustainability goals |

Table 1: Property Manager EV charging station program constituents and benefits.

While it is true that gross sales of electric vehicles have been comparatively small, industry analysts are bullish on the technology's future. Their projections put EV sales at a compound annual growth rate of about 40 percent through 2020 compared to the overall auto market's two percent estimate.¹

The long-term trend toward the proliferation of EVs is clear. As EV sales rise, so too will the demand for charging stations—a reality that parking and property managers will need to plan to accommodate.²

EV driver demographics and opinions are great for your clients, and ultimately, their satisfaction

A recent national survey of consumer attitudes toward, and usage of, electric vehicles revealed favorable demographics for commercial property operators. EV drivers are older (more mature), better educated and make about double the U.S. median income.

| Demographic | EV Survey Respondents | U.S. National Statistics |
|-------------------------|-----------------------|--------------------------|
| Median Household Income | \$108,624 | \$51,914 |
| 4-year degree or higher | 77% | 28% |
| Median Age | 46 | 37 |

Table 2: Electric Vehicle Survey Panel demographic summary.³

"Connecting" a company's parking spaces provides a competitive advantage for your clients in workforce acquisition and retention, as well as market and industry perception. Moreover, when viewed collectively, increased home ownership, income, age, and education may indicate that EV drivers represent a more stable segment of the workforce.

EV charging stations get good media coverage to promote your properties, services, and brand

There's no denying that "green" is a hot buzzword right now. And whatever is hot and important to readers is what journalists choose to write about. If your property(ies) has/have already deployed green initiatives, you or your clients have probably experienced this effect personally with mentions in your local, or even possibly, the national media.

Hence the deployment of EV charge stations is a great opportunity to pitch stories to your local newspaper/TV stations or to your national PR contacts if you have multiple properties. Green articles about you are a low- to no-cost way to deliver more brand impressions to your tenant or customer prospects. In turn, higher name recognition will help your marketing and leasing activities to be more effective.

"Forward-thinking property owners and managers...are working on becoming EV ready now to take advantage of this growth in the EV population and to differentiate themselves, lock-in customers and tenants, and generate new revenue streams."

Jordan Ramer, CEO, EV Connect

EV Charging Stations are Part of a Comprehensive Green Strategy

The trend among leading real-estate property management and development companies is toward the creation and refitting of properties to be green. And the U.S. Green Building Council has become the gold standard for defining what "green" is at commercial and parking properties. The Council developed a rating system that it refers to as Leadership in Energy and Environmental Design (LEED).⁴ Its certification process evaluates a building's design, construction, operation and maintenance, and awards points in various categories as

¹ Henson, Shane, "[Demand for electric vehicles increasing, finds Navigant Research report.](#)" Facilities Management, May 13, 2013. Last accessed 08-30-13.

² Fernandez, Kim, "[Getting Charged Up: Should building owners invest in EV chargers? Yes ... and no.](#)" Last accessed 08-30-13.

³ Electric Vehicle Survey Panel: "[A national Study of Consumer Attitudes Toward & Usage of EVs.](#)" Electric Vehicle Information Exchange, November 2012, p. 9. Summary report last accessed 04-11-13.

⁴ Source: <http://usgbc.org/leed>

illustrated in Figure 3 below. The Green Building Council awards one point for installing “alternative-fuel refueling stations for 3% of the total vehicle parking capacity of the site...”⁵

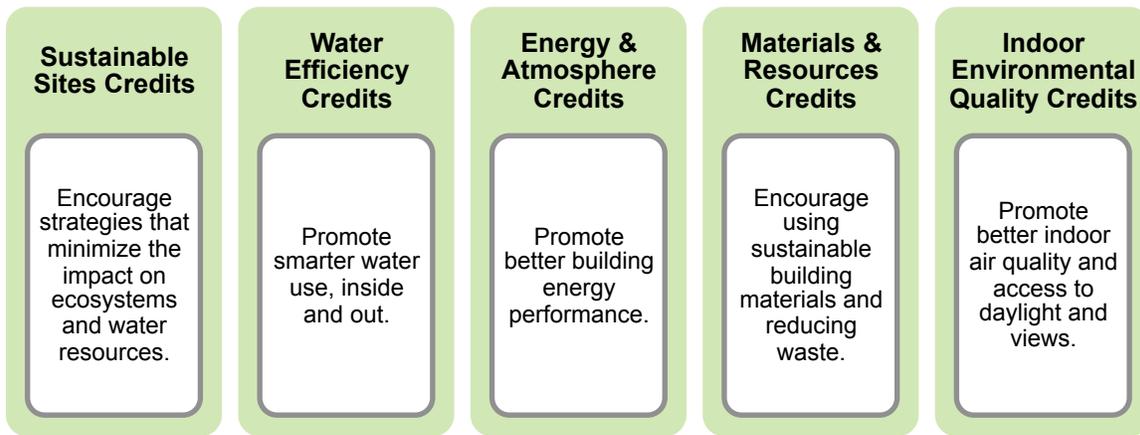


Figure 3: LEED point award categories.

EV-Friendly Commercial Properties are Becoming the Norm

While the implementation of charging stations is currently a differentiator in the marketplace, the trend toward widespread deployment is strong. We see a time in the not-too-distant future where it will be offered as a standard amenity in commercial parking and property locations.

We are of that opinion because beyond private corporations, a significant economic driver for the deployment of electric vehicle charge stations is the U.S. federal government. Specifically, your property(ies) may qualify to receive credits and other tax incentives from federal, state and city governments. A great resource to locate federal and state incentives is the Department of Energy’s website.⁶

U.S. state departments of transportation are also joining the push to enable EV drivers. Drawing from American Recovery and Reinvestment Act funding, the states of Washington and Oregon are installing car battery charging stations along what they call “The West Coast Electric Highway.” The project follows 550 miles of I-5 from the Canadian border in the north to the California state line in the south.⁷ Dozens more charging stations are planned for California, which will complete the entire Electric Highway from Canada to Mexico.⁸

With significant federal, state, corporate and citizen support, electric vehicles—along with their attendant charging stations—are likely to become the norm in transportation life.

Still, just because something is ubiquitous doesn’t mean that you should adopt it as an amenity for your property. The following section discusses why offering electric car charging makes sound financial sense.

Charging Stations Make Dollars and Sense for Your Properties

In addition to increased occupancy rates, client satisfaction, increased lease and service contract renewals, ROI from commercial charge stations can also come from directly tying into other enterprise software and building management systems to gain more value from them.

⁵ Source: <http://www.usgbc.org/node/1733788>

⁶ Source: <http://www.afdc.energy.gov/fuels/laws/3270>

⁷ <http://westcoastgreenhighway.com/education.htm>, last accessed 04-12-13.

⁸ Chambers, Nick, “The Electric Vehicle Road-Trip Test: High-Speed Charging Stations Help EVs Explore the Northwest, Ease Range Anxiety,” July 20, 2012. Last accessed 03-22-13 at http://www.motortrend.com/features/consumer/1207_the_electric_vehicle_road_trip_test/.

In a recent article in “Charged” magazine, EV Connect’s CEO, Jordan Ramer, was interviewed about measuring and realizing charging station ROI:

For most organizations, deploying charging stations is not about reselling electricity - most EVSE [Electric Vehicle Supply Equipment] insiders see little profit potential in that. The payoff is more likely to come in the form of things like customer loyalty (for businesses) or employee satisfaction (for workplaces). However, the value of such indirect benefits can be hard to translate into dollars and cents, and that’s where EV Connect comes in.⁹

Integrating your private EV charging network’s driver and usage data (organized by tenant) into your property management or building management software systems can give you insight into the value of EV drivers to you and your clients’ businesses.

Hardware, Software, and Avoiding Stranded Assets

EV charging station components and associated costs may be broken into the categories of deployment (purchasing charging stations and installation costs), management (operating the software network, access control, uptime monitoring, driver support, etc. and maintenance), and enterprise solutions (enterprise system integrations, customized applications or features, and integrations between multiple charge station networks).

There are many choices for charging station hardware these days, including chargers from global leaders like GE, Eaton, and Schneider, as well as established and respected smaller manufacturers. As the EV industry grows, charge station purchasers are realizing that hardware parity will be here before they know it and the true differentiation comes from the charge stations’ operating network.

As the EV charging industry has seen recently with the second largest EV charging network provider going out of business, risk of stranded hardware assets is real if you purchase charge stations that only operate on closed, proprietary networks. To make sure their charging station investments are protected, many companies are choosing to go with an open network provider that utilizes the Open Charge Point Protocol (OCPP). As Figure 4 shows, that open communication protocol sits between the charger and the network and allows for the switching of networks should that become necessary.

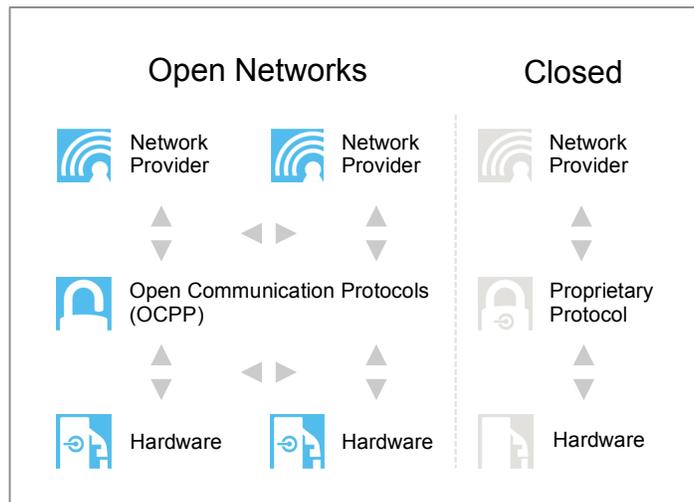


Figure 4: Open vs. Closed networks.

Ongoing Management and Maintenance

Once EV charging stations have been deployed, you may decide to maintain and administer them with an in-house facilities manager or property management staff person. Often times, however, many companies outsource their charge station program management and maintenance to a third-party EV service company like EV Connect.¹⁰ Such services typically cost far less than an employee (e.g. wages, taxes, benefits.) and including setting up EV driver access controls; pricing rules if applicable; driver support if they run into trouble; up-time monitoring; reporting; hardware and software maintenance; and more.

⁹ Source: Charged Electric Vehicles Magazine, October 2013, pgs. 86-87 (<http://www.evconnect.com/news/connecting-dots-hardware-software-services/>)

¹⁰ <http://www.evconnect.com/management-services-features/>

Using a third party to manage your charging stations also provides the following benefits to property managers:

- Property managers get a full-service provider and a single point of contact to manage their charging station program.
- Managers don't have to worry about establishing access controls or "onboarding" new drivers.
- Managers don't have to provide direct driver support should EV drivers have questions or issues.
- Managers don't have to dedicate or divert staff to managing their charge stations.
- Managers don't have to spend money or time to train a site manager.

Summary

Electric vehicle sales rates are skyrocketing and many commercial properties are ill prepared for this growth and the ensuing need for EV charging stations. Tenant and employee satisfaction hinges on the sum of the services you provide, and adding high-perceived-value amenities like charge stations will help win new business and keep tenants and employers satisfied.

To simplify the addition of EV chargers to your property, contact a full-service EV charging company like EV Connect. Turnkey services offer the most cost-effective way to implement an EV charging service at commercial locations.

EV Connect is the Full-Service, One-Stop Shop for Your EV Charging System Needs

Commercial property executives and managers turn to EV Connect for a simple and cost-effective way to provide turnkey, customer-owned and branded EV charging programs for their electric-vehicle-driving tenants and employees.

EV Connect offers:

- Professional EV program design
- Hardware consultation, procurement, installation and maintenance
- EV charge station network management
- EV driver support
- Monitoring and maintenance
- Client-grouped EV driver and usage data reports and/or software integration
- Software platform upon which to build customer-specific features and applications

When you work with us, you won't get a one-size-fits-all public charge station system. Rather, you get a professionally-executed, private EV charge station network that allows you to "own" the EV driver, not turn them over to a third party. Your private network is also branded with your logo to reinforce your properties' image. Our networked charging solutions make administration a breeze, allowing centrally-managed, trouble-free oversight of charge station assets, performance, and usage at a single site or across multiple facilities.

To ensure a positive driver experience, our solutions leverage user-friendly software applications and interfaces for websites and smart phones. Moreover, your constituents' convenience comes first with features that make it easy for them to reserve time on your facilities' charge stations. When their vehicle is "full" they are notified by text or email. These, plus other customer "touches" support your goal of delivering an excellent tenant/customer experience.

With nearly four decades of collective knowledge and leadership in the electric vehicle industry, we have unmatched experience in the design, installation and management of EV charging programs. Our project managers sweat every detail—from helping you select the right charge stations to permitting, inspections and working with your utility if necessary. All that translates into a hassle-free and cost-effective installation and operating experience for you.

Contact one our specialists today for more information and to request a free site assessment and quote. There's no obligation and you'll get the information you need to make the best decision for your property(ies).



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