


TES WHITEPAPER 


# COMMERCIAL ELECTRIC VEHICLE CHARGING

Open vs. Closed EV Charging Networks



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Commercial property owners, developers and managers love smart electric vehicle (EV) charging stations for both their forward-looking appeal to customers, tenants and valued guests and also the powerful network features they offer. But when selecting a vendor, properties face a choice as confusing as it is critical: should the network be open or closed? Here's what you need to know before you buy.

## **THE QUESTION OF OPEN VERSUS CLOSED NETWORKS ISN'T AN OPEN AND SHUT CASE.**

Do you want to appeal to the full market of more than 580,000 EV drivers in the U.S., or to just a fraction of it? The answer has unexpectedly serious implications for the success of the property's investment and its ultimate financial ROI. Only open networks place no artificial or proprietary restrictions on the use of their EV charging stations. As a result, open networks make the stations accessible and usable to all EV drivers through the driver's preferred programs and apps (or no program at all, simply paying direct) to find stations, initiate a charging session and pay any associated fees.

"An open network offers EV drivers the most choice when it comes to charging their vehicles," says Mark Pastrone, Vice President of Business Development at SemaConnect. "A closed network, by contrast, locks drivers into a single proprietary program.

"That closed approach can cripple driver flexibility and, from the property's point of view, limit accessibility to just a fraction of EV drivers in the U.S. (those locked into the closed network provider).

## UNDERSTANDING THE ECONOMICS OF EV CHARGING.

So if open networks offer more options for drivers, why don't all EV charging stations use them? Follow the money

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EV charging station vendors have three major options for monetizing their products and services:

- Properties pay both upfront costs for the stations and potentially recurring charges for maintenance, network access or other services.

- Drivers might pay a subscription fee to be able to use a specific network of stations. If the drivers don't pay, they can't use the station; hence, it's a closed network.

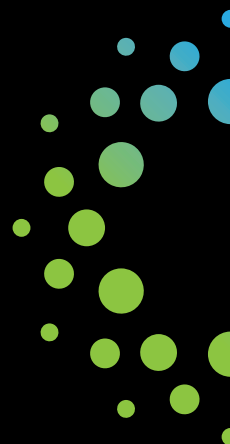
- Utilities and car companies might purchase driver data from the vendor.

All vendors charge properties for the stations and associated services – that's the same across the board – but a company that wants to monetize drivers as well will

try to lock users into their program. Once the property installs charging stations that operate on a closed network, that property has effectively forced their tenants, employees, guests and other users to have an account with that one provider.

It's like visiting a store that accepts only its own credit card – not even cash! And then, once the user is locked in,

the program can charge whatever fees or impose whatever restrictions it wants.





## BENEFITS OF WORKPLACE CHARGING

Here's what you need to know to pick the right charging station for your property and drivers. Not all charging stations are equal:

Level 1 (for special applications)

Levels 2 (routine applications)

Level 3 (road tripping)

## THE CHARGE LEVEL INDICATES HOW LONG IT TAKES TO CHARGE AN ELECTRIC VEHICLE (EV)

If you've decided to "level up" your property with EV charging stations, you've made an excellent choice. Commercial properties considering electric vehicle (EV) charging stations are future-proofing while offering an attractive feature to patrons and tenants. Even better, installing charging stations can be a snap. But what level of charging station is right for your property? Different charging levels have emerged to meet a variety of needs and use-case scenarios. Most commercial properties favor Level 2 charging for its excellent balance of benefits versus costs, but before you make that long-term investment, make sure you understand each level.

## THE "GAS STATION EXPERIENCE" DOES NOT APPLY TO THE WAY PEOPLE CHARGE ELECTRIC VEHICLES.

With gas vehicles, we're used to going to a gas station and standing there for a few minutes while we fill up the tank. With electric vehicles, it's much different. Now drivers "fuel" their vehicle while the car is parked and they go do something else (like work or sleep). In other words, "fueling" no longer requires the driver's presence, freeing them for other tasks and obligations. The question ceases to be "how long must I stand here?" and becomes "can I 'fuel' enough in the time my task will take?" That means properties installing charging stations must consider which level will provide the power and speed needed for the time their customers or tenants will have.

## EV CHARGING LEVEL COMPARISON

## WHEN MIGHT A DCFC STATION BE RIGHT FOR YOUR PROPERTY?

“DCFC charging stations can cost tens of thousands of dollars to buy and install; and these units require the property to supply sufficient electrical capacity, which may necessitate infrastructure upgrades.

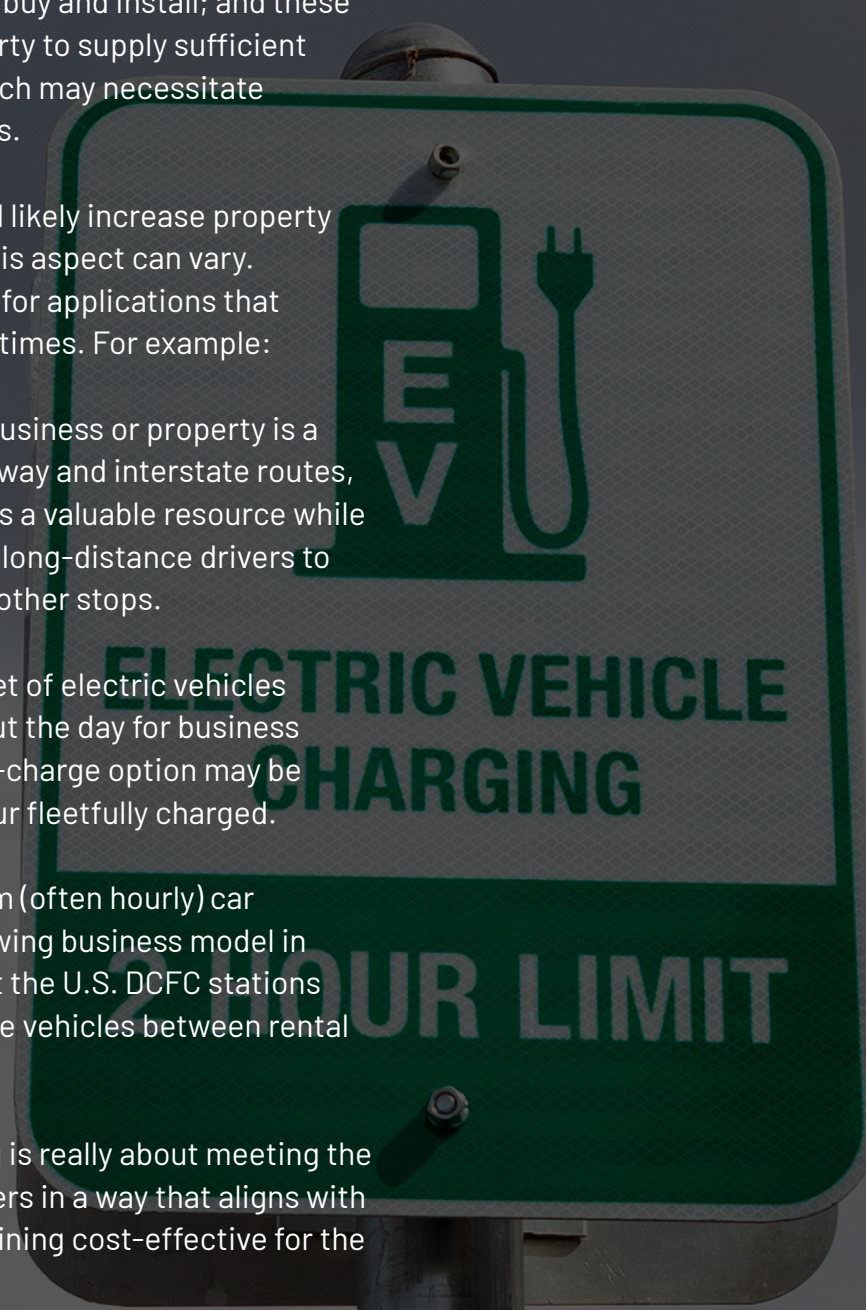
Plus, DCFC stations will likely increase property power bills, although this aspect can vary. However, DCFC is ideal for applications that require shorter charge times. For example:

**Road tripping:** If your business or property is a popular stop along highway and interstate routes, a DCFC charger provides a valuable resource while also encouraging these long-distance drivers to visit you as opposed to other stops.

**Fleets:** If you own a fleet of electric vehicles that are used throughout the day for business purposes, having a fast-charge option may be effective in keeping your fleet fully charged.

**Car sharing:** Short-term (often hourly) car rentals represent a growing business model in metro areas throughout the U.S. DCFC stations can quickly charge these vehicles between rental sessions.

Ultimately, EV charging is really about meeting the range needs of EV drivers in a way that aligns with their habits while remaining cost-effective for the property.



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