## EVOCHARGE

### Improve Your Property with Electric Vehicle Charging Stations

The demand for electric vehicle (EV) charging stations is growing rapidly. In addition to being convenient and sustainable, adding charging stations to your multi-unit residential, office or public building provides competitive advantages.

EV charging stations:

- Attract and retain high-income renters and top employees
- Improve employee, customer and visitor satisfaction
- Generate income from users or offer an amenity
- Increase property value
- Maximize utility usage
- Support green initiatives
- Gain points towards LEED certification

Currently, single-family homes are the main location where most EV owners are charging. As more people purchase EVs, demand for charging stations at apartments and condominiums increases. Additionally, workplace and public charging locations provide flexibility and alleviate EV range concerns.



#### Make an Informed Investment in EV Charging Infrastructure

Finding and taking full advantage of state or government and utility company incentives and rebates reduces the cost of purchasing and installing EV charging infrastructure. Most incentive programs require networked charging stations to qualify for funds. Networked charging stations provide control over the stations and the ability to manage the time and electricity use. EVOCHARGE® offers a complete line of networked charging stations to meet all of your installation needs. Check for incentive and rebate options in your area at the U.S. Department of Energy website afdc.energy.gov/fuels/laws/ELEC.

#### Load Balancing or Local Load Management (LLM)

EVOCHARGE products deliver value through local load management (LLM), which allows electrical load balancing with or without Open Charge Point Protocol (OCPP) network services. This permits for the use of your buildings' existing electrical panel, avoiding expensive installation costs and maximizing existing building infrastructure. The amount of energy required to charge an EV puts a significant demand on energy supply. LLM also avoids costly, one-time increases in connection capacity and prevents peak loads that result in higher energy charges. Depending on local code, it also allows for the installation of multiple charging stations on a single circuit without changing the connection capacity or paying a network service provider. By maximizing the number of charging stations using your buildings' existing electrical infrastructure, property owners and managers benefit from lower installation costs.

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The graphics on the right show an 80-amp electrical panel with a dedicated circuit. Each EVOCHARGE® unit needs 40-amp, single-phase alternating current (AC) to share the power between the EVs based on two methods: distributed load or first in, first served.

LLM regulates power loads according to demand. For example, when a single charging station is in use, that station receives maximum power. When another or several more stations are in use, the power load is equally distributed and eases the demand on the circuit. (Figure 1) Alternatively, the system can be configured to distribute load based on a first in, first served system. (Figure 2)

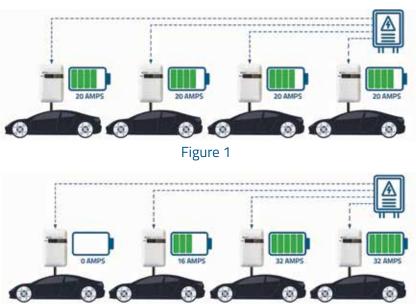


Figure 2

#### **Proprietary Versus Open Charge Point Protocols**

Many of the EV charging stations today are managed by a proprietary service network. A central system allows communication between the EV charging infrastructure and the power grid—controlling charging status, processing payments and more. Many that own networked EV charging stations with a proprietary network are locked into one provider. If the provider goes out of business, customers are stuck with expensive EV charging equipment that does not work with other service providers.

To offer a better solution, a global consortium of public and proprietary electric vehicle infrastructure leaders, known as the Open Charge Alliance (OCA), was formed. OCA developed the OCPP for communication between charge points and central management systems. OCPP allows a connection to any central management system with any OCPP-capable charging system. However, some companies control their own access through their priority subscription services. Others, such as EVOCHARGE, are considered a true OCPP networked charging station that can be connected through third-party network service providers.



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### EVOCHARGE<sup>®</sup> Charging Systems

EVOCHARGE offers networked and non-networked charging station options as well as pedestal and cable management accessories.

Product Selections	Features	EVSE	iEVSE	iEVSE Plus
Non-Networked	Standard Model – No Network Capability	~		
Wi-Fi Enabled	<ul> <li>Access Control</li> <li>Control Data Collection</li> <li>Demand Response</li> <li>Local Load Management</li> <li>Mobile App Capability</li> <li>Remote Monitoring</li> </ul>		~	~
Wi-Fi and LTE Cellular				~
RFID Technology	Supports RFID Card Access Control and User Authorization			~

EVOCHARGE charging stations are compatible with virtually all EV and plug-in hybrid electric vehicles (PHEV) sold throughout the United States and Canada. The three base models offer the perfect solution for every type of connection and application. Let us help you customize the solution that fits your needs.

To learn more about EVOCHARGE, visit phillipsandtemro.com/electrification, call +1 952.941.9700 or email evochargesales@phillipsandtemro.com.



phillipsandtemro.com | +1 952.941.9700