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A GUIDE TO MULTIFAMILY PLUG-IN ELECTRIC VEHICLE CHARGING

Electric vehicles (EVs) are fueled by electricity through an outlet or charging station, which allows owners to plug in at their homes, work and public locations. As EVs have grown rapidly in recent years, many multifamily communities have begun to help out their EV-owning residents by installing charging stations as an added amenity.

EV charging stations can bring multiple benefits to multifamily housing communities, but there are also challenges associated that make it a much different process compared to single-family homes. In order to proactively face these challenges, the following considerations should be assessed by the multifamily community:

- **Charging equipment ownership:** When deciding on the ownership of the charging station and equipment, there are several options: they can be owned by the community, the driver or a third-party vendor. It is important to think through each scenario to decide which option is the best fit.
- **Cost:** Like ownership, a multifamily community has many options for how the cost of installing and maintaining a charging station will be arranged. Many communities pay for the installation of charging stations and offer them as a free amenity to their residents. Others may choose to recover costs by requiring residents to pay per charge through credit card or access code, including a fixed parking fee for the space, or charging using a network prepaid subscription.
- **Parking:** Multifamily communities face similar challenges to public charging in the location and layout of their parking. On-street, public lots, parking decks and driveway parking all offer unique scenarios that will need to be evaluated. Outdoor parking, for example, will require weather resistant equipment and public spaces will require safety standards and extra guidelines.
- **Electrical access:** The source of electricity for the charging station needs to be safe, secure and reliable. There are also other factors to take into consideration, such as what type of meter will be used for the charging station (dedicated meter, common area meter, group meter, etc.) and if conduit and electric should be pulled for future charging station installations.
- **Type of charging equipment:** Charging stations range in style, charging levels, network capabilities, cost and installation complexity. The most commonly used and accepted charging stations for residential purposes are Level 1 and Level 2.

Once these considerations have been evaluated to assess the property’s specific operating options, a plan can be put in place for the charging stations and installation. Below are the steps for installing a Level 1 or Level 2 station:

USING AN EXISTING OUTLET (LEVEL 1)	INSTALLING A STATION OR OUTLET (LEVEL 1 OR 2)
Confirm electrical capacity and safety	Contact electrician or contractor
Contact your local electric co-op to make them aware of the installation and ask for additional guidance	Develop installation plan (includes developing site plan and contacting electric co-op)
Purchase outlet-compatible equipment (if needed)	Obtain necessary permits (ensure compliance with applicable codes such as ADA, zoning and encroachment agreements)
Install equipment	Install equipment

As a manager or owner of a multifamily community, it is also important to establish charging station policies. The following questions will need to be explored:

- Are the charging stations available for resident use only or are guests allowed to charge as well?
- Will there be time limits in place to encourage people to move their vehicle once charging is complete?
- Are there enforcement mechanisms in place for non-EV drivers parking in front of a station?
- Does apartment staff reserve the right to unplug a vehicle?
- Will there be notifications sent to EV drivers if the stations are down?
- Will there be directional signage in front of the charging stations?

Installing charging stations on a property offers many benefits to a multifamily community. EV drivers will seek out a community to live where there are charging stations available. There are many websites used by EV drivers to locate stations and having a charging station listed in these databases may lead drivers to the location, assisting in marketing efforts. Depending on the pricing options, charging stations will bring in revenue through parking or charging fees. Additionally, having a charging station shows that you support sustainability efforts.

With a growing percentage of people living in multifamily housing communities, these areas offer effective locations for the integration and support of EV.

This article was provided by Advanced Energy, a nonprofit energy consulting firm. For more information, visit www.advancedenergy.org.

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