

Plug-in Electric Vehicles

Charging at Condos, Apartments and Community Living Areas

By 2050, half of the San Diego region's population is expected to be living in multi-unit dwellings (MUDs). When it comes to accommodating EV chargers, each MUD has its own unique set of circumstances and challenges to address. Below are some of the most common challenges and ways that local apartment buildings, homeowner associations (HOAs) and condos have addressed them. This document is designed to be used in conjunction with SDG&E's fact sheet on installing PEV charging stations in multi-unit dwellings titled, *Prepping Multi-Units for Plug-in Vehicles*.

Reaching Out to Building Management or HOA

Since EV chargers will likely be installed in common areas, it is important to engage the building management or HOA early in the process. Identify any existing rules in the covenants, conditions and restrictions (CC&Rs) that could affect the installation of charging stations. It is best to be prepared and aware of any potential hurdles or opportunities by doing the research before approaching building management.

Determining Demand for EV Charger Installations

Survey residents to gauge their interest in purchasing a plug-in electric vehicle (PEV). This survey will help determine the number of charging units and/or amount of conduit to install and in what layout(s). Identify demand for Level 1 versus Level 2 charging. Planning ahead by installing extra capacity for future charging units can save on costs down the road.

The PEV Collaborative has developed a sample survey for MUD residents. Both print and electronic survey options are available at www.driveclean.ca.gov/pev/Charging/Home_Charging/Multi-unit_Dwellings.php#survey

Allocating Costs

It is important to establish how EV charger installation, operations, maintenance, insurance and electricity bills will be paid. How costs are allocated will depend on how the chargers are installed. Potential options include:

- **Chargers in assigned spots:** Individual meters installed for each charging station and resident covers the actual charger cost, billing, insurance and maintenance of the unit. Installation costs for the meters, panel upgrades and conduit can either be covered by management, the resident or shared.
- **Common area chargers for residents only:** Building management installs electric vehicle supply equipment (EVSE) in common area and recoups costs from residents through a billing system in the charger.
- **Common area chargers for residents and general public:** Building management installs EVSE in public common area and recoups costs from residents and public through a billing system in the charger.

Tips for approaching building management about EV Charging

- Talk to other residents about their interest in EV charging and build a coalition of support
- Look for incentives for chargers available in your area:
www.driveclean.ca.gov/pev/Incentives.php
- Review the parking layout in relation to electrical supply and propose possible arrangements
- Contact SDG&E to help determine necessary panel and/or meter upgrades

Siting EV Chargers

Identify the location and type of electric metering and wiring in the parking area. Determine if existing supply is adequate or if a meter/panel upgrade is needed. If an upgrade is required, consider the capacity needed to accommodate additional PEV chargers in the future. Contact the building/planning department to discuss any permits or requirements that should be considered when siting chargers.

Power supply for EV chargers

- The closer the EVSE is to the power supply, the lower the installation costs will be.
- Installation costs will increase if a panel upgrade or meter installation is necessary. The power supply needs for Level 1 and Level 2 EVSE are as follows:
 - **Level 1:** Dedicated branch circuit with NEMA 5-15R or 5-20R receptacle
 - **Level 2:** Dedicated branch circuit hardwired to a permanently mounted EVSE with 240VAC/single phase, 4-wire

Assigned vs. unassigned parking spaces

Consider which assigned and unassigned parking spaces could accommodate PEV charging equipment. Key factors include:

- Proximity to electric meter; can avoid costly trenching through concrete. Soft landscapes or locations near the electric meter are preferred.
- Location for charging stations and bollards (short vertical post) to ensure EVSE cord does not present a tripping hazard

Accessibility to EV Chargers

See the City of San Diego EVSE accessibility guidelines for sample EVSE configurations:

www.sandiego.gov/development-services/industry/pdf/tpolicy11b1.pdf

Policy Considerations

Legislation has been adopted in California to reduce barriers to the installation of EVSE in multi-unit dwellings. SB 880 prohibits common interest developments (e.g., condo/apartments) from restricting the installation of EVSE in a deeded/contracted parking space. If the charging unit is installed in a common area, the law does state that certain conditions can be imposed, including a \$1 million home owner liability policy that names the HOA as an additional insured.

Resources for MUDs

San Diego Gas & Electric

www.sdge.com/clean-energy/residential/apartments-and-condos

SDG&E Quarterly MUD Vehicle Charging Workshops - www.seminars.sdge.com

Plug-in Electric Vehicle Resources Center

http://www.driveclean.ca.gov/pev/Charging/Home_Charging/Multi-unit_Dwellings.php

eVgo for Multi-Family Buildings

www.evgonetwork.com/own-or-manage-multi-family-communities/