

Electric vehicle charging guide for multifamily residences

Electric vehicles (EVs) offer lower fuel costs, better performance and reduced emissions. Vehicle manufacturers now offer more reasonably priced vehicles with longer driving ranges, moving EVs into the mainstream.

A growing EV market coupled with the fact that 85% of drivers charge at home, means you're bound to have residents ask about EV charging.

Take the following steps before you install charging stations



- In existing buildings, involve tenants in the decision-making process. Survey residents to find out who is interested in EVs now and who might consider buying one if charging is available.
- Review existing rental agreements, covenants and restrictions to see if they should be updated with EV charging policies.
- Evaluate your parking and electrical requirements.
 - Where you install charging stations depends on parking space allocation and ownership models—deeded, assigned or common area. Determine if you will install a charging unit for a particular tenant or if residents will share access in a common area. Consider whether tenants can supply their own charging stations.
 - Evaluate the physical layout and distances from parking areas to electrical panels. Locating the equipment as close to the electrical supply as possible will minimize installation costs.



- Evaluate compliance with the American with Disabilities Act (ADA). Will some charging stations, sidewalks and parking spaces need to meet ADA standards for accessibility?
- Consider making other parking spots EV ready—Level 2 stations require a 40 amp, 208- or 240-volt dedicated circuit.

(continued on reverse)

Why should you consider installing EV charging stations?

- Helps you market your property now and in the future
- Offers an amenity that appeals to tenants interested in technology and environmental issues
- Demonstrates your commitment to a more sustainable community

- Evaluate charging equipment that will meet your needs today and in the future. There are two basic options for multifamily buildings:
 - Level 1: 120 volts is relatively inexpensive to install but takes longer to charge.
 - Level 2: 208 or 240 volts is more expensive but charges multiple vehicles faster. Smart chargers (available only with Level 2 options) allow station owners to collect usage data, charge fees and notify drivers when their vehicle is charged.
 - For more information on charging stations, visit: *GoElectricDrive.com*
- Contact an electrician to provide an installation estimate. Electrician should determine if existing panels are adequate for charging stations.
- Talk to your local electric utility about infrastructure, electricity costs and demand charges. Madison Gas and Electric (MGE) will assist multifamily customers with an on-site electrical assessment and provide an evaluation of energy and demand costs.
 - Electricity costs for one charging station are minimal. It costs about \$1.50 to \$3.00 to charge a fully-depleted battery.
- Determine if residents should pay for charging or if you will offer it for free. Some property managers add a fee on to the monthly rent to cover the cost of electricity and/or the costs associated with installing and maintaining stations.

- Develop policies and procedures to manage EV charging, such as how long vehicles can charge, payment methods, need for security and whether stations are available for guests.
- Make sure that after the contractor's price quote is approved, the electrician obtains any necessary permits and contacts MGE or your local utility if new service or metering is required.
- Promote to potential tenants and educate current residents.

MGE is available to discuss charging station options and can help navigate the decision-making process to ensure a successful installation. For more information, contact Debbie Branson at 608-252-5632.

Resources:

- California Plug-In Electric Vehicle Collaborative "Plug-in Electric Vehicle Charging Infrastructure Guidelines for Multi-Unit Dwellings" http://www.pevcollaborative.org/sites/all/themes/pev/files/docs/reports/MUD_Guidelines4web.pdf
- MultiHousingCharging.com <http://www.multi-housingcharging.com/>
- U.S. Department of Energy Alternative Fuel Data Center: Electric vehicle charging for multi-unit dwellings http://www.afdc.energy.gov/fuels/electricity_charging_multi.html