

Sofia Lofts



Sofia Lofts is located in San Diego's Golden Hill community. The development is centered on a renovated, three-bedroom historic home that is flanked by three newly constructed loft style buildings. These buildings house 16 additional units, including six two-bedroom apartments and 10 studios. Nekhshab Development and Design, Inc. designed and constructed the lofts to LEED Platinum specifications, and Nekhshab Communities manages the complex.



CHARGING SNAPSHOT

- No. of units: **17**
- No. of parking spaces: **15**
- No. of residents currently driving PEVs: **None yet**
- Number of charging stations and types:
Level 1 - 1
Level 2 - 1

CHARGING STORY



Charging setting

Nekhshab's sustainability goals and tenant interest motivated the company to pursue sustainable transportation options for Sofia Lofts residents, including on-site bike sharing and plug-in electric vehicle (PEV) charging. The idea for PEV charging evolved to include on-site PEV car sharing in partnership with Car2Go. The whole neighborhood benefits from car sharing because Car2Go vehicles are open to anyone with a membership. Sofia Lofts residents enjoy free initial membership, but pay normal user fees for using the Car2Go PEVs parked in the two reserved on-site charging spaces.



Decision-making process

Nekhshab's relationship with Car2Go resulted in its subsequent partnership with AeroVironment for the installation of the PEV charging equipment. This is because Car2Go and AeroVironment shared an award from the California Energy Commission (CEC) to install PEV charging infrastructure at two multi-unit dwelling developments in San Diego. This award was made possible through the CEC's Alternative and Renewable Fuel and Vehicle Technology Program, created by Assembly Bill 118. Decisions about how many chargers to install and in what configuration were largely influenced by the terms of the CEC award.



Charging implementation and management

Two Car2Go PEVs (Smart Fortwo Electric Drive vehicles) can occupy one standard sized parking space when parked in tandem at Sofia Lofts. The vehicles are served by two individual chargers reserved for

Car2Go. These chargers are linked to a common area meter that is connected to a rooftop photovoltaic (PV) system. Under net energy metering, the PV system meets all of the common area electricity needs at this time. Chargers are reserved for Car2Go vehicles only, as indicated by signage in the garage, and the property manager has not observed unpermitted vehicles occupying these spaces.



Charging costs

Installation costs for the chargers was approximately \$10,000, covered by the CEC award along with the cost of the chargers. Nekhshab paid approximately \$1,000 for electrical work required for charger installation. Electricity costs for charging the PEVs are paid by Nekhshab, though these payments are negligible since the PV system produces enough energy to offset what the common area panel consumes. Nekhshab is prepared to cover any operations and maintenance costs that the chargers may require in the future (though none has been needed to date).



Multi-unit Dwelling charging challenges

Nekhshab has already prewired assigned garages for charger connections in anticipation of residents' future PEV purchases, especially after residents' experience driving the Car2Go Smart EVs. Currently, no chargers have been installed; should the need arise, they would be strategically installed from an engineering standpoint and parking spaces would be reassigned accordingly.

Contact information

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“Installing charging for on-site Car2Go vehicles was an all-around win at Sofia Lofts. Not only did we fulfill our sustainability goals we typically implement in our projects, but we also provide a sustainable transportation alternative for our tenants and the surrounding community.”

Shayan Rajabi, Assistant Project Manager, Nakhshab Development & Design, Inc.