

Electric Vehicle (EV) Charging Integration in the Multifamily Vertical

Right now is the Wild West of the Multifamily Residential space—but where there are challenges, there are also opportunities.

The multifamily residential sector presents certain **challenges** when it comes to implementing EV charging infrastructure. Questions surrounding charger ownership, cost allocation, and power availability within the building -- just to name a few.

As EV adoption grows, it's crucial to provide charging infrastructure for multifamily housing to ensure fair access to residential charging. This presents **opportunities** for integrating solar and energy storage projects.

In July 2022, electric vehicles accounted for 5% of new U.S. vehicle purchases, with a steady monthly increase. **By 2040, it's projected that 55% of new car purchases will be electric.**



CHALLENGES

EV charging installation in multifamily residential can be affected by various factors including insufficient power supply, diverse parking arrangements, submetering of pricing, and interactions with homeowners associations.

The submetering of chargers can create issues that raise questions about who bears the charging cost and the amount to be paid. Conflicts with HOA and condo boards can also lead to difficulties, and administrative problems such as resolving owner disputes, managing a sign-up system, and preventing cheating by some owners. Concerns about charger ownership and whether the owner can take it when they move can also arise, as well as the splitting of costs between HOA and owners.

Installation of EV charging in multifamily residential requires careful consideration and due diligence prior to and during the install process. Proper management of the charging system, addressing administrative issues, and finding a fair cost-sharing solution between HOA and owners are some of the key factors that need to be considered to maximize the benefits of EV charging.

OPPORTUNITIES

There are several rebates, tax credits, and incentives available for EV projects across the country that can be utilized effectively for multifamily residential EV projects. These incentives can simplify the process of starting a project!

Rebates

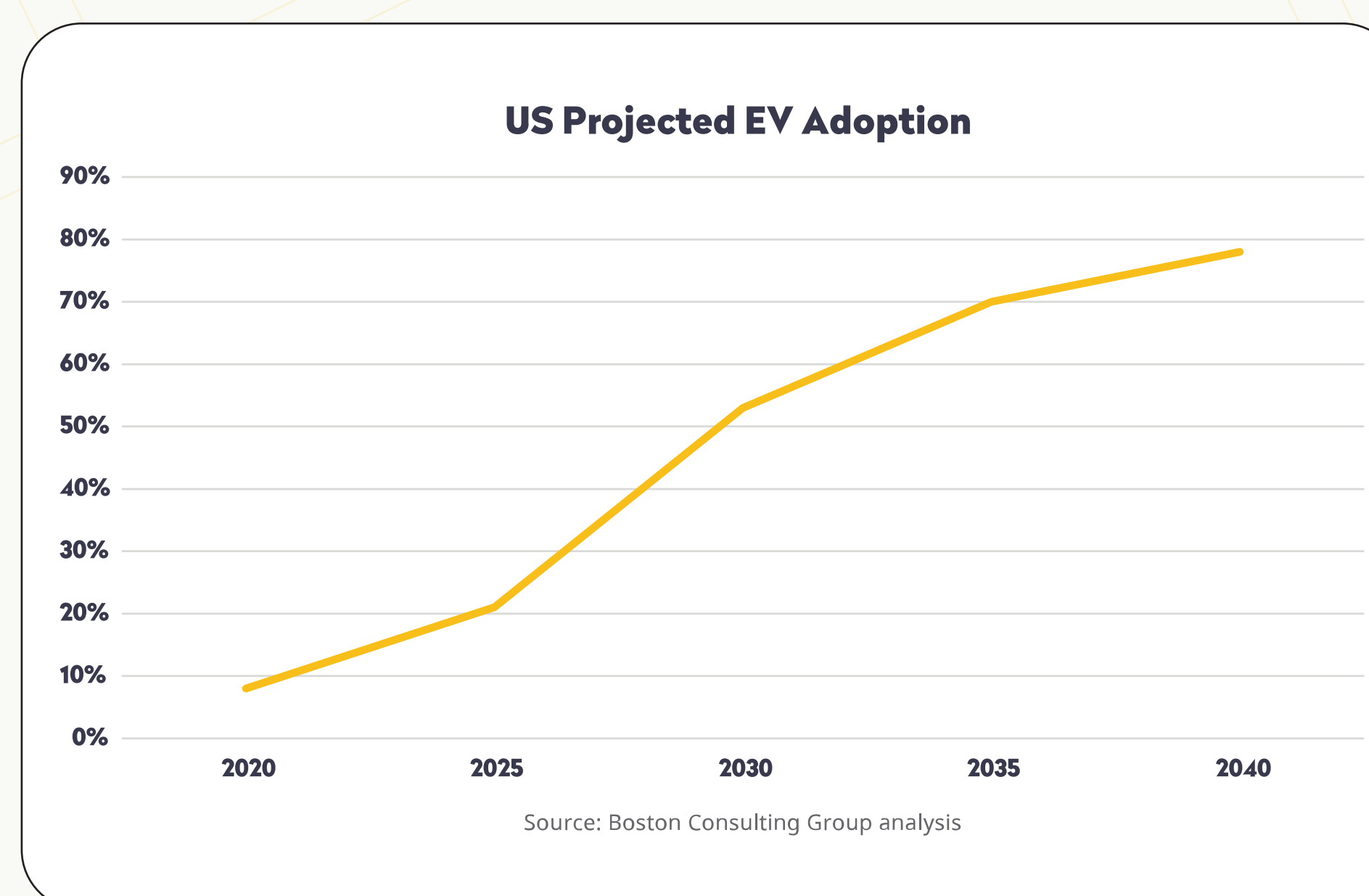
- CALeVIP Level 2 rebates from \$3,500-\$7,000 per connector (\$7,000-\$14,000 for a dual port charger)
 - Multi-unit dwelling (MUD) – Additional \$1,000 per connector
- BGE Evsmart program provides rebates of up to \$5,000 per port (50% of costs) up to \$30,000 to multifamily property owners

Tax Credits

- Alternative Fuel Infrastructure Tax Credit – 30% of project cost up to \$100,000 (commercial) / \$1,000 (residential)
 - Area income and prevailing wage requirements

Grant Opportunities

- PG&E, Pepco, and other utilities have programs to pay all or most of the electrical “make ready” costs to install chargers
 - Frequently require them to be accessible by the public



EV ADOPTION ON THE RISE

EV sales have increased by 67% from 2021 to 2022, as reported by Kelley Blue Book. The U.S. Department of Energy has adopted a provision from the International Code Council, which mandates that apartment communities provide EV charging infrastructure for up to 20% of parking lots that have 25 or more spaces.

A survey conducted by the National Multifamily Housing Council in 2022 revealed that 27% of renters expressed interest in having EV charging stations, with respondents indicating a willingness to pay an additional fees per month for access to such facilities.

CHARGING LEVEL OPTIONS

There are **three options** of charging stations when considering installation for Multifamily Residential.



Level 1

Level 1 chargers are standard 120V wall outlets. They offer slow charging and only provide 5-10 miles of range per hour. They are commonly used at home, outdoors, or in parking lots, and not typically in commercial settings. You can buy a Level 1 charger for less than \$1000 from box store retailers, and it's an easy way to charge a single vehicle.



Level 2, Commercial

Level 2 charging is commonly used in residential and commercial settings, such as businesses, hotels, restaurants, and municipalities. These charging stations use a 208/240V power source and can provide about 7 kW of power, but newer models can offer up to 25 miles of range per hour of charge. Commercial Level 2 charging stations have advanced electronics, reporting, and the ability to charge customers for usage, making them available to anyone who needs to charge their vehicle.



Level 2, Multifamily Residential

Level 2 residential chargers are a cost-effective choice for multifamily residential units. They provide power to a single designated parking space, which keeps the cost significantly lower than commercial chargers. Cord retraction is a desirable feature that comes with multifamily residential chargers. However, software options available on Level 2 multifamily residential chargers are limited when compared to commercial chargers.

A NOTE ABOUT THE NEED FOR INTERNET CONNECTIVITY

During construction, connecting chargers to the internet is essential to run the station's software. **The best solution for multifamily residential chargers is to have them on a single internet network.** Most rebates require chargers to be networked, and allows for multifamily development HOAs to track electricity usage and billing. Cellular repeaters are an efficient way for stations to operate when underground for garage parking.

Addition Resources

For more information on EV Charging Integration in the Multifamily Vertical, please contact Jason O'Neill at joneill@sunworksusa.com



Scan to view poster

