EV Charging at Multi-Unit Dwellings

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VCi MUD

CLEAN CITIES COALITION NETWORK

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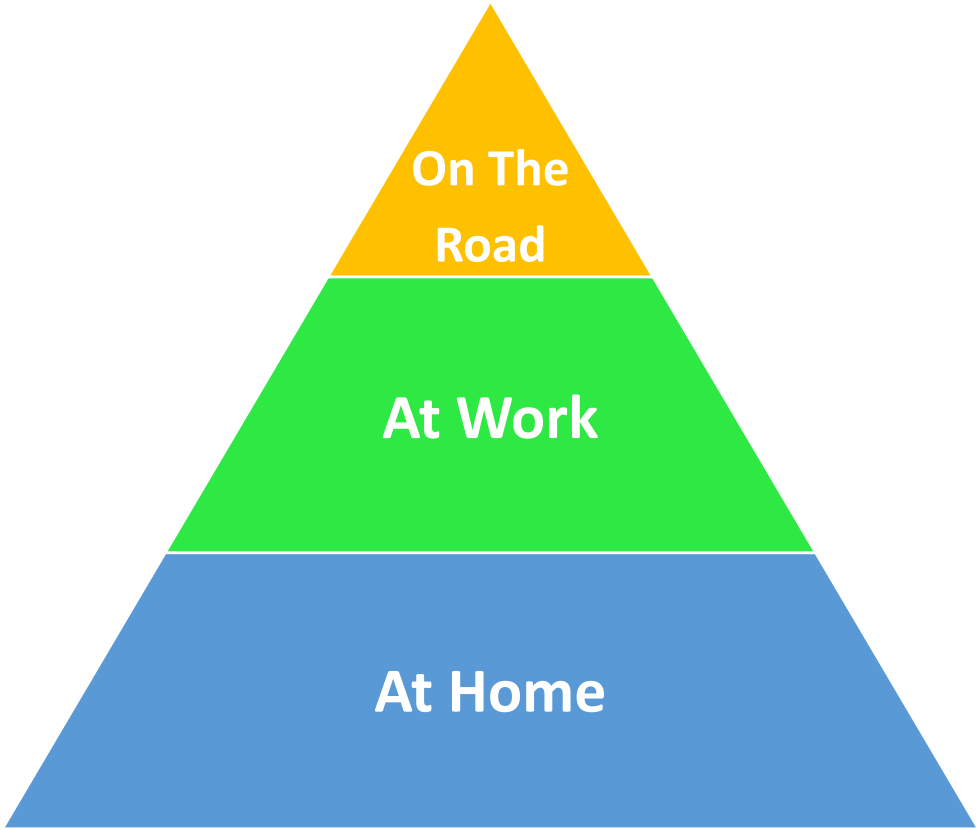
Charging at Home is Really Valuable to Residents

- More than 30% people in US live in multi-unit dwellings (MUDs)
- Future EV adopters will increasingly live in MUDs
- Residents will come to expect charging
- Home charging provides range security
- Installing charging at MUDs can be complex

Where Charging Happens



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MUD Charging Installation Factors

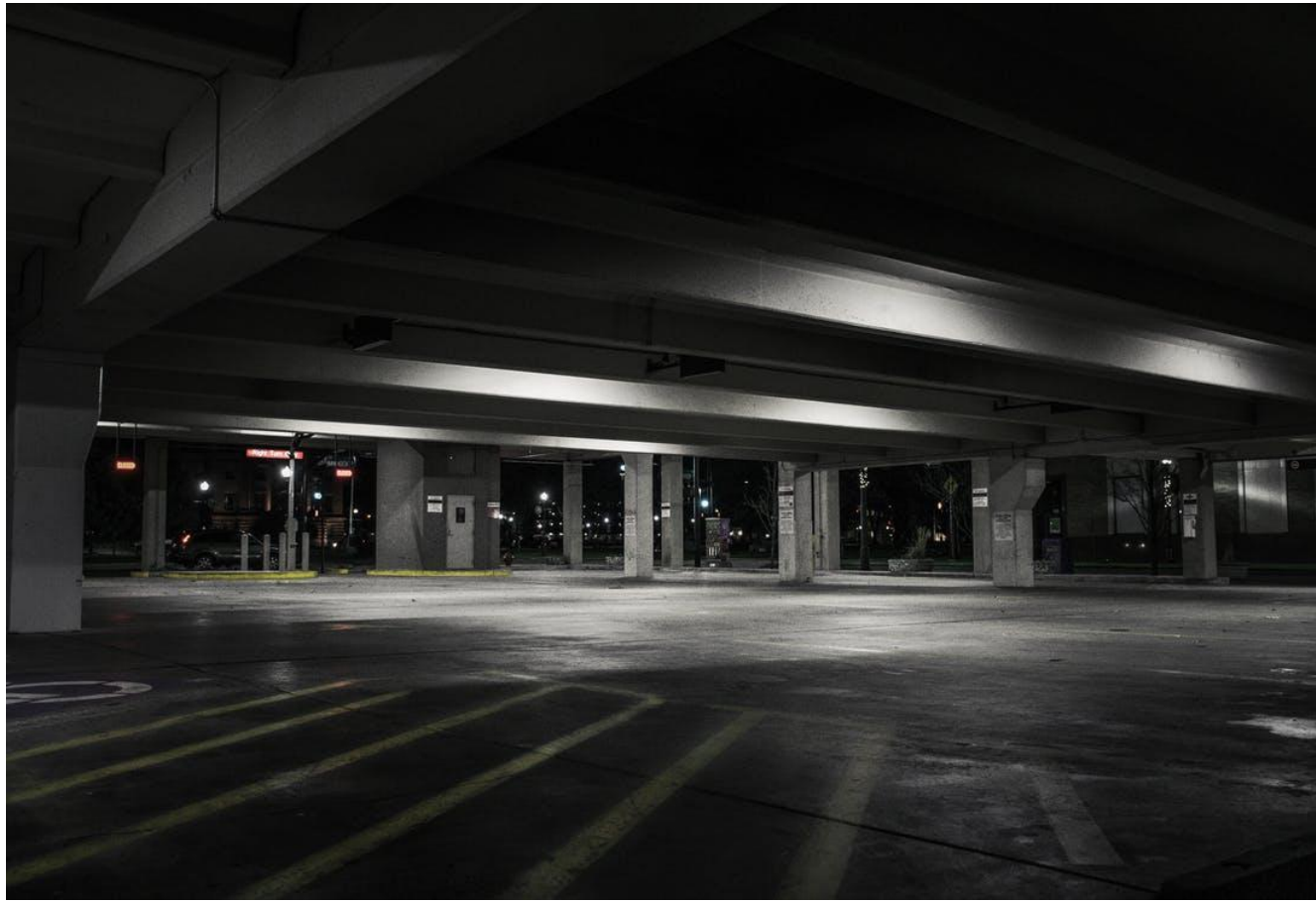
Limited electrical capacity

Number of EVSE

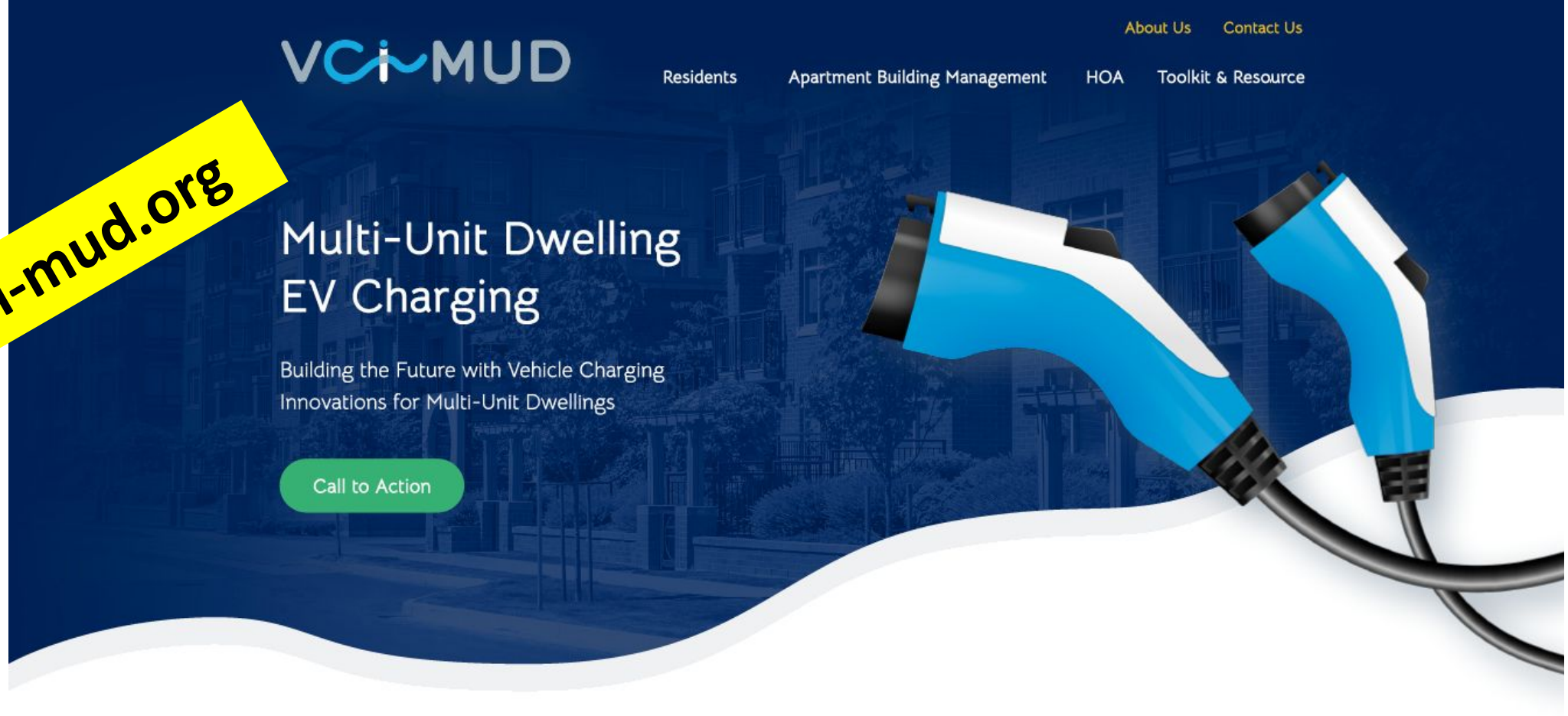
Parking constraints

Allocation of installation costs

Electricity rates and avoiding demand charges



vci-mud.org



What Can We Offer?

The VCI-MUD project's mission is to scope out and demonstrate various cost-effective options for electric vehicle (EV) charging at MUDs. It is designed to educate MUD stakeholders about charging and assist them to develop on-site installations.

The project is developing a comprehensive MUD Charging Toolkit for building managers/owners, residents, electric utilities and local governments to better understand the opportunities and rewards of EV charging.

About Us

VCi MUD

What is Your Role?

Quickly access the right resources for you.

Resident

Apartment building management

HOA

EVSE Charging Installation Benefits

- Increase properties' competitive edge and provide additional value to existing tenants.
- Meet the rising demand of residents for charging and the "right-to-charge" laws.
- Receive EV charger incentives that help subsidize equipment and installation costs.
- Make an environmentally positive change by supporting clean transportation.


VCi-MUD
Toolkit & Resources
About Us
Residents
Apartment Building Management
HOA
Tools and Resources
Empowerment Toolkit
Resident EV Demand Survey
Template Letter to Residents
Technology Selection Tool
MUD Self-Evaluation Survey
Installation Checklist
Self-Evaluation Survey
Curbside Charging Resources
Possible Tools
Find an Electrician
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Resources can be found at:

[VCI-MUD.org](VCI-MUD.org)

Each MUD Situation Is Different

- Consider the location's parking and electrical situation carefully and early
- Allocate costs to the stakeholders appropriately
- Don't skip over stakeholder engagement
- Technology benefits become more apparent at higher scale

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Thank You!

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Q & A

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Supplemental Materials

Business Case Analysis

General Technology Observations:

- Charging capability adds value to the building
- May increase equipment cost but lower installation cost, for example, by avoiding a service panel upgrade
- May offer lower operating costs than fully-featured commercial systems
- Benefits become more apparent at higher scale
- Achieving cost recovery is difficult, but some products offer a way to recoup cost and help fund scaling up capacity in the future.
- Can help differentiate cost plans or exclude non-building usage to preserve charger availability.

Shared

- Fewer stations required to serve a given number of vehicles
- Over-stay fees increase utilization of chargers by minimizing idle charger time.

Dedicated

- Simpler to allocate capital costs to users
- Larger number of ports lowers per-port cost

Offsite:

- No capital costs to site
- Higher costs to end-users per charge/kWh

Shared Charging Analysis

- 10-20 kWh/ session typical
- Up 5 sessions/day, 1-2 typical
- 2-4 hours/session, plus overnight