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DRAFT POLICY BRIEF

Accelerating EV Charging in Multi-Family Housing: Barriers, Evidence, and Legislative Actions

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Why Multi-Family Housing Charger Deployment Lags Behind

The Importance of MFH Charging

California's EV transition depends on access to convenient home charging. For many households, charging at home is the lowest-cost and most reliable option, and it shapes whether an EV fits into daily routines. Yet residents of multi-family housing face systematic barriers to installing chargers, even when they are willing to adopt EVs.

Over a third of Californians live in apartments, condominiums, or other MFH settings. These households are more likely to rent, more likely to have lower incomes, and more likely to include communities currently underrepresented in EV adoption. Without targeted support for MFH charging, the state risks deepening disparities: as single-family homes electrify rapidly, renters and residents of older buildings may be left behind.

The importance of MFH charging extends beyond equity: a large share of upcoming vehicle buyers will be renters. As EV sales increase, the state will face mounting pressure to ensure that these households, representing millions of vehicles, have viable charging options at home. Public charging can fill part of the gap, but it cannot replace the convenience or affordability of home charging, especially for drivers with irregular schedules or limited access to workplace charging.

Why is MFH Deployment Is Fundamentally Different?

Installing chargers in MFH settings differs from installing them at single-family homes in three important ways.

1. More Stakeholders Must Agree Before a Charger Can Be Installed

Research from stakeholder interviews shows that even a straightforward installation may require alignment among tenants, property owners, asset managers, HOA boards, electricians, utilities, and permitting authorities. Each party holds different priorities, risk tolerances, and levels of technical understanding. This creates uncertainty and slows decision-making.

Tenants often lack authority to initiate installations. Property owners often lack information about technical requirements, available incentives, or long-term maintenance responsibilities. The result is a structural coordination problem that does not exist in single-family settings.

2. Older Building Stock and Limited Electrical Capacity Create Real Constraints

Many MFH properties were constructed decades before EVs existed. Electrical panels may be undersized, and available capacity is often unknown until an electrician performs a load calculation. In some cases, property owners are told they need major service upgrades which are costly, disruptive, and time-consuming—even when actual building loads are well below rated capacity (as reported by owners in interviews). This uncertainty discourages owners from even exploring EV installations. It also pushes them toward expensive solutions when lower-cost approaches, such as managed charging or Level 1 deployment, may be sufficient.

3. Incentives and Programs Were Not Designed with Diversity of MFHs in Mind

Existing rebates and programs frequently assume a home with a dedicated parking space, simple wiring paths, and a single decision-maker. For MFH properties, incentives often exclude needed electrical work, limit eligible equipment, or require documentation that property owners find burdensome. Some programs do not allow lower-cost solutions, such as "dumb" chargers or EV-ready conduit-only upgrades, that better fit MFH needs. These gaps leave many MFH owners facing high upfront costs with little guidance on viable alternatives.

The Result: A Persistent, Structural Deployment Gap

The combination of complex decision-making, electrical uncertainty, and misaligned incentives creates a predictable pattern:

- **Properties without chargers see low tenant demand**, reinforcing owner perceptions that chargers are unnecessary.
- **Properties with chargers see high utilization**, suggesting that latent demand exists but cannot be expressed without infrastructure already in place.
- **Owners delay decisions**, often for years, because they lack clarity on cost, upgrades, or legal obligations.
- **Contractors and electricians vary widely in experience**, leading to inconsistent recommendations and widely varying cost estimates.
- **Permitting and inspections add paperwork and delays**, especially for older buildings requiring multiple code reviews.

What We Learned: Findings from Stakeholder Interviews

Interviews with property owners, managers, tenants, electricians, utilities, and incentive managers reveal that the challenges facing MFH charging installations are not primarily matters of technology. Instead, they emerge from the way older buildings, dispersed decision-making, uncertain costs, and uneven administrative processes intersect. The themes below summarize the patterns that appeared across many different types of MFH properties.

Decision-making is slow and fragmented. Unlike single-family homes where the resident can simply install a charger, MFH retrofits require alignment across multiple actors. Tenants may want chargers but cannot approve electrical work. Property owners must weigh capital costs, potential liability, and the impact on the broader tenant base. Electrical contractors offer assessments that vary widely depending on their experience. Utilities and permitting offices become involved once electrical modifications are required. This dispersion of authority means that uncertainty at any step can halt progress entirely.

Electrical conditions in older buildings create real but uneven barriers. Many MFH properties were built long before EVs existed, and owners often have little information about their electrical capacity. Some receive assessments suggesting major

service upgrades that can cost tens of thousands of dollars, even in buildings where actual loads are well below rated capacity. Others lack the physical space to accommodate new conduit or panels without disruptive construction. The result is a widespread perception that MFH charging is prohibitively expensive, even in cases where load management or Level 1 solutions could avoid major upgrades.

Costs are difficult to predict, and incentives often do not match MFH needs. Electrical work, trenching, and permitting typically exceed the cost of the charging hardware itself. Owners are unsure how to recover these costs from tenants or structure fees in a way that seems fair. Existing incentive programs frequently exclude the categories of work most relevant to MFH retrofits or require equipment specifications, such as networked chargers, that increase costs without necessarily improving utility for these properties. This mismatch reduces the impact of incentives and discourages owners from exploring installation options.

Administrative processes add complexity. Permitting requirements differ substantially across jurisdictions, and some local authorities treat MFH projects as commercial installations, adding paperwork and inspections. Owners also report uncertainty when navigating utility rules, service upgrades, and panel reviews. These administrative burdens fall hardest on smaller property owners with limited staff capacity, and they make even modest charging projects feel risky and time-consuming.

Information gaps and varying levels of technical expertise fuel hesitation. Many owners and managers are encountering EV charging for the first time and lack trusted, MFH-specific guidance. Contractors differ in their familiarity with managed charging technologies or low-cost retrofit approaches. Tenants may not understand the constraints that owners face. Owners also express concern about the reliability of specific charging vendors, recurring software fees, and the pace of technological change. In this environment, waiting becomes the default choice.

Policy interventions that provide clearer pathways, reduce upfront risk, and support lower-cost technical options can meaningfully accelerate adoption.

Policy Recommendations

Expanding EV charging in multi-family housing will require a coordinated shift in how the state approaches technical standards, incentives, permitting, and implementation support. The following recommendations respond directly to barriers identified in stakeholder interviews and outline actionable steps that state agencies and the Legislature can take.

1. Modernize Technical Pathways to Reduce Unnecessary Electrical Upgrades

Many MFH properties are told they need major service upgrades even when actual load conditions suggest otherwise. The state can reduce retrofit costs by clarifying and expanding lower-cost compliance options:

- **Codify the use of load-management systems** (including circuit sharing, power balancing, and adaptive load controls) as a permitted alternative to traditional capacity upgrades.
- **Develop state-approved "EV Ready Retrofit" templates** that outline standard configurations for older buildings and help contractors avoid overly conservative assumptions.
- **Require utilities to offer rapid, no-cost preliminary load assessments** to help owners understand their upgrade needs before hiring contractors.

These measures would give property owners clearer, more predictable (and in many cases much cheaper) paths to installation.

2. Align Incentives with the Actual Cost Structure of MFH Retrofits

Current incentive programs often restrict eligible equipment or exclude the categories of work that dominate MFH installation costs. The state should:

- **Allow incentives for low-cost solutions**, including Level 1 charging, shared Level 2 chargers, and EV-ready conduit-only upgrades.
- **Make incentives technology-neutral** so that property owners are not required to install higher-cost networked chargers when simpler options are more appropriate.
- **Permit MFH owners to access incentive categories currently reserved for single-family homes**, especially for panel upgrades or EV-ready infrastructure.
- **Support financing mechanisms**—on-bill repayment, zero-interest loans, or "pay-later" arrangements through qualified vendors to help smaller landlords manage cash flow.

Restructuring incentives will ensure public funds reach the properties facing the steepest barriers to adoption.

3. Create a Single, Streamlined Implementation Pathway for MFH Projects

Administrative hurdles often deter MFH owners who have limited staff capacity. The state can simplify participation by:

- **Establishing a centralized MFH Charging Portal** where owners can access all incentives, technical resources, and permitting information in one place.
- **Standardizing permitting requirements across jurisdictions**, supported by state-developed templates and model documentation.
- **Funding regional "Charging Concierge" support teams** or requiring IOUs to provide project management assistance for MFH owners navigating utility upgrades and incentive applications.

Streamlining the process reduces owner hesitation and creates a more predictable development pipeline.

4. Provide Clear Guidance and Tools for Property Owners and Managers

Owners repeatedly emphasized the need for trusted, MFH-specific information. The state should develop:

- **A publicly available MFH Charging Guidebook**, with straightforward decision trees on equipment choices, upgrade requirements, and cost ranges.
- **Template tenant agreements and fee-setting tools** to help owners structure cost recovery transparently.
- **Training programs for property managers and small landlords** delivered through existing landlord associations or local housing networks.

These resources address persistent information gaps and reduce owners' perceived risk.

5. Strengthen the Workforce and Improve Contracting Consistency

Quality of contractor guidance varies, contributing to misinformation and inflated upgrade estimates. The state can help stabilize the market by:

- **Creating a retrofit-focused electrician certification module** on MFH charging and load management.
- **Providing grants or training subsidies** to encourage contractors to specialize in MFH installations.
- **Developing a standardized cost-estimation tool** for electricians to use when assessing MFH properties.

More consistent contractor practices would limit overbuilt systems and reduce costs.

6. Promote Early Adoption and Demonstration Projects to Normalize MFH Charging

To reverse the pattern of low demand in buildings without chargers, the state can:

- **Fund small-scale demonstration projects** in older or disadvantaged MFH buildings.
- **Support public-facing case studies and testimonials** that show owners how projects can be done affordably.
- **Encourage disclosure of charging availability in rental listings**, which helps create visible market demand.

Expanding EV charging in multi-family housing is essential for ensuring that California's transportation electrification goals are achievable and equitable. The challenges identified in this research—uncertain electrical requirements, misaligned incentives, fragmented decision-making, and inconsistent administrative processes—are not insurmountable. They reflect structural barriers that public policy is well positioned to address.

Modernizing technical pathways, aligning incentives with actual retrofit costs, simplifying implementation, and providing clear guidance to property owners, will allow the state to unlock a large segment of the housing market that currently lags far behind single-family homes in charging access. These actions will enable more renters to adopt EVs, reduce pressure on public charging networks, and support compliance with regulation advancing EVs. Most importantly, they ensure that the benefits of electrification reach the millions of Californians who live in multi-family buildings.

Practical, targeted reforms can transform MFH charging from a niche challenge into a scalable component of California's clean transportation strategy.

More Information

This policy brief is drawn from "Electrifying Multi-Unit Dwellings: A Study of EV Charger Adoption Among California Landlords" an ongoing research project that is in the process of publishing in peer-review. It is supported by the National Center for Sustainable Transportation, authored by Trisha Ramadoss, Scott Hardman, and Alan Jenn of the University of California, Davis.

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