

# Stakeholder Workshop Executive Summary



## The Problem

The unequal access to residential electric vehicle (EV) charging hinders government goals for EV adoption and decarbonisation. This issue particularly affects renters and multi-unit dwelling (MUD) residents, who have limited home charging options and lack specific supportive policies. As a result, these groups must rely heavily on less convenient public charging facilities, which may be less cost-effective and potentially restrict their daily schedules and destination options.

## The Project

Electric Vehicle Charging Access for Renters and Multi-unit Dwelling Residents is a cross-disciplinary project between the University of Melbourne's Faculty of Engineering and Information Technology (FEIT) and Faculty of Architecture, Building and Planning (ABP). The project is funded by the 2023 ABP-FEIT Collaborative Research Grant and it aims to investigate residential EV charging policy and service model gaps from multi-stakeholder perspectives.

The project employs various activities to assess the state of EV charging policy in Australia, the state of practice in EV charging provision (particularly in residential settings), and the state of EV charging access process in MUDs. We focus on understanding key stakeholders' perspectives on planning and implementing charging solutions for renters and MUD residents (target users). The project consists of five phases: policy review, stakeholder workshop, target user focus groups, expert interviews, and dissemination workshop/webinar.

## The Stakeholder Workshop

The project kicked off with a hybrid workshop held on June 12, 2024 (at the University of Melbourne and via Zoom). It attracted 26 participants (23 in-person and 3 online) from diverse stakeholder groups including consumer advocates, charging and utility service providers, peak bodies, non-government organisations, and city council, state, and federal government representatives. The workshop aimed to foster dialogue on charging access challenges for the target users.

The workshop provided a platform for stakeholders to exchange experiences and practices in EV charging for rentals and MUDs. This allowed us to gain a high-level perspective of key gaps and potential solutions from diverse viewpoints.

The workshop consisted of two break-out group activities followed by collective discussions: (1) brainstorming challenges faced by the target users in residential charging and (2) sharing of strategies to improve charging access for the target users. During the **brainstorming session**, the stakeholders used the EV charging capabilities (EVCC) framework<sup>1</sup> as a tool to organise the target user challenges. Charging capabilities refer to users' potential to effectively charge their EVs given their charging resources and distinct contexts. The EVCC framework is a guiding typology that categorises the user challenges across four dimensions: financial capacity, internal personal conditions, social roles and relations, and physical environment. In the **strategy-sharing activity**, the participants addressed three guiding questions: (1) what potential solutions could address the target user challenges, (2) what difficulties might arise when implementing these solutions, and (3) what other actions are necessary to tackle the target user challenges?

<sup>1</sup> Malabanan, Isrrah and Lavieri, Patricia and Mateo-Babiano, Iderlina, Electric Vehicle Charging Disadvantage: A Social Justice Perspective on Charging with Implications to Accessibility (September 16, 2024). Available at SSRN: <https://ssrn.com/abstract=4969072> or <http://dx.doi.org/10.2139/ssrn.4969072>

## The Findings

The brainstorming activity identified multiple challenges to residential charging for the target users.

- Financial capacity challenges included the high upfront costs of the charging equipment, infrastructure installation, retrofitting electrical systems, and load management systems, coupled with limited access to government grants and borrowing options.
- Personal condition challenges highlighted fear, uncertainty, and doubt about EVs and EV charging technology, limited understanding of and difficulty navigating the charging installation process, and concerns about insurance policies.
- Social challenges encompassed governance issues (competing interests between EV owners, non-EV owners, and owner's corporation committee members, high voting thresholds, and lack of renter representation in decision-making), implementation complexities (split incentives, need for project champions, and special cases of fully tenanted buildings), and operational concerns (scheduling and etiquette for shared chargers).
- Physical environment constraints included concerns regarding parking spaces and layout, electrical load management, building structural integrity, and rapid technological advancements.

The strategy-sharing activity revealed that different stakeholder groups focus on different user challenges. Three key challenges stood out, along with corresponding recommendations from stakeholders:

Key challenges	Stakeholder recommendations	Implementation considerations
Consumer education about EV charging	Training, consultancy services, clear guidelines, and an independent consumer advocate organisation	Require time and cost investments
Financial barriers to charging infrastructure installation	Advocating for government grants and prioritising long-term solutions over costly short-term options	Need careful cost recovery planning and efforts to avoid expensive technology overspecification
Complex owner's corporation approval processes for existing building retrofits	Comprehensive guidance materials and legislative changes	Require fostering collaborations among relevant stakeholders

## Next Steps

The insights from the stakeholder workshop form an important foundation for our next project activities: (1) they will be compared with target user insights gathered from focus groups, and (2) they will guide more detailed exploration of stakeholder views through interviews. By synthesising findings from all these stakeholder engagement activities, we aim to develop tailored and actionable recommendations for improving charging access for the target users.

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More information about the project can be found on the project website:

<https://infrastructure.eng.unimelb.edu.au/research/civil/electric-vehicle-charging-access-project>

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