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**Presentation Title:** Towards Building Decarbonization: Lessons From Affordable Housing Pioneers

**Abstract:** California is making a push for building electrification in order to reduce greenhouse gas emissions and reverse climate change. Soon all new homes in the state will be electric, and other states are sure to follow. But all-electric buildings pose new and unique challenges for builders, owners, and occupants. Those in affordable housing must navigate those challenges while shouldering additional constraints and considerations. This research explores the experience of first-movers - owners and occupants of the state's first all-electric multi-family affordable housing communities. Through interviews with developers, building owners, and operators, we examine the unique challenges involved in designing, building, operating, and maintaining all-electric buildings for affordable housing. We highlight the challenges that arose, the adjustments that were made to accommodate the distinctive requirements, and the best practices that emerged from the group's experiences. We also surveyed residents of nearly a dozen all-electric multi-family affordable communities to learn of their experiences, collecting data on the learning and adjustment process as residents acclimated to their new environments (e.g., interoperability with household items, operating household features), support residents needed (e.g., instructions, troubleshooting) from building owners/operators, and their perceptions of the all-electric nature of their home and community. Linking the two sets of data, we explore the information and instructions building owners/operators provided on electricity consumption and residents' perceptions thereof, and examine the behavioral adaptations residents made to accommodate the building features and/or building owners' implicit or explicit expectations of electricity consumption. The study findings describe what has and has not worked among pioneering efforts to electrify affordable housing. The lessons from designing, constructing, operating, and maintaining such communities, as well as supporting their residents to adapt and thrive in their new environments, can be used to identify ways to mitigate any undue burdens that electrification mandates may create.