

Existing Building Electrification Workshop, November 17, 2021

Stakeholder Perspectives

Oakland's City Council has committed to **all buildings** in the city being all-electric and efficient by 2040. On November 17, 2021, the City of Oakland hosted a virtual workshop on Existing Building Electrification with an emphasis on a realistic and equitable transition. The workshop brought together community stakeholders including builders, maintenance workers, property managers, developers, labor, business leaders, workforce partners, vehicle charging companies, and contractors. After [brief presentations](#) covering background and context, key technologies, real-world barriers, and a case study of electrifying an affordable apartment building, two breakout sessions formed the core of the workshop. The first addressed challenges and concerns regarding building electrification. The second asked participants to explore potential policy strategies for encouraging electrification and recommend approaches that would ensure an equitable and reliable transition by the 2040 deadline.

Concerns and Challenges

Concerns generally fell under the categories of cost, public awareness, accessibility, equity, and cultural attachment to gas stoves (cooking over an open flame). Many participants raised questions of split incentives between tenants and property owners/managers. Another prevalent set of concerns centered on the lack of clear communication channels among contractors, electricians, and the City; inadequate training in relevant technologies or incentives among contractors; and the impact these challenges have on planning and carrying out major retrofits. There is a likelihood of encountering structural issues and barriers that could complicate the retrofitting process (e.g. mold, seismic issues) and increase costs, potentially displacing residents or small businesses. Tenant relocation was a significant concern, especially regarding seniors and those who are mobility impaired or developmentally disabled.

The following categories summarize stakeholder concerns across single family, multifamily, and small business/commercial buildings, and zero-emission vehicles (ZEVs):

Single-Family Housing:

- Upfront cost of new technologies
- Physical complexity of upgrading building stock to accommodate electrification
- Residents unwilling to give up gas stoves as a cultural practice
- Contractor education - inability to speak to the full benefits of electrification or rebate options.
- educating local workforce,
- Time and cost of panel upgrades
- Poor communication among contractor, builder, and City during renovation process
- Understanding of demand/total electric service needed (e.g. NEC 220.87 allows demand studies to appropriately size electric service and avoid unnecessarily increasing panel size. Many homes can efficiently electrify while remaining on a 100-amp panel, but "amp diet" strategies aren't broadly understood)

Multi-Family Housing:

- Many of the concerns and next steps voiced by Single Family representatives were shared with multifamily, but issues of relocation, tenant/landlord relationships, and communication during the retrofitting process occupied most of the suggestions.

Small Businesses and Commercial Buildings:

- Competing needs for seismic upgrades (with limited funding and/or time for property/business owners to focus on multiple upgrades)
- Parking requirements for electric vehicle charging stations
- Impacts of reach codes on building and business turnover
- Differing needs of small businesses versus larger buildings or operations.

Zero-Emission Vehicles (ZEV):

- Lack of awareness about technologies, affordability, and incentives
- Need for incentives and financing
- Cost of charging. ZEVs are still culturally perceived as for the rich- The City of Oakland must continue to provide educational opportunities for marginalized communities to learn about financing opportunities for switching to electric/low emission vehicles. Infrastructural concerns about charger installation are also expressed below.

Policy Recommendations:

In the second breakout session, participants were asked to share policy recommendations for building and vehicle electrification. Participants were asked to brainstorm solutions across three timeframes: immediate actions, medium-term actions, and long-term actions. Across the four groups participants suggested simplifying the permitting process as well enhancing communication among contractors, builders, and policy makers. Accessibility of information and transparency in the retrofitting process were strongly suggested by those concerned about the length of time and cost of upgrading electric panels and homes. Many suggestions rolled up to what one participant described as a “One Stop Shop” for electrification needs, considering available funding for upgrades. Participants recommended educational opportunities such as partnering with Laney College and holding Q&A sessions in vulnerable communities in order to generate a localized, equitable workforce. Benchmarking was suggested across both housing and ZEV stakeholders as a way to track efficiency.

The following categories summarize policy recommendations from stakeholders across single family, multifamily, small business/commercial buildings, ZEVs:

Single-Family Housing:

Immediate Actions:

- Create a framework for outreach and training per stakeholder group (especially centering the conversation on public health in marginalized communities)
- Establish a Time of Sale upgrade policy

- When gas appliances are being retrofitted, require upgrades to electric appliances
- Create or amplify incentives to negate the cost premium between efficient all-electric systems/appliances and gas systems/appliances
- Simplify the permitting process
- Establish emergency water heater replacement program to ensure people don't continue to purchase gas appliances if or when their water heater breaks

Medium/Long Term Actions:

- Foster a more resilient, local workforce e.g. working with Laney College to bring more BIPOC and members of marginalized communities into the space
- "Making sure electrification isn't gentrification"
- Pilot neighborhood programs
- Convene suppliers to support group buying for home electrification technologies
- Set up direct install programs for qualified residents
- Hold Q&A sessions in vulnerable communities to increase education and outreach for programs
- Pursue neighborhood gas line pruning
- Help homeowners and renters better understand their existing gas and electricity usage and costs via the free HomeIntel program (myhome.hea.com)

Multi-Family Housing:

Immediate Actions:

- Create a "One stop Shop" with available contractors, technologies, rebates, and other financial assistance
- Partner with the Center for Accessible Technology in helping the elderly and disabled navigate the benefits and potential challenges of electrification
- Be flexible with timelines for multifamily buildings

Medium/Long Term Actions:

- Streamline the permitting process
- Create Benchmarking & disclosure ordinance
- Require homes be electric at point of listing (as with the City of Davis's [Resale Program](#))
- Strengthen Inspections
- Expand government-funded changeout programs to help more vulnerable communities overcome barriers of cost, accessibility, and time
- Look to San Francisco's draft program for larger commercial buildings- the Strategic Decarbonization program will lay out how and when San Francisco will electrify by 2035, allowing landlords to time upgrades with equipment lifespan & tenant leases
- Make the case for 15A 120C heat pump dryers - while more expensive, these could help folks avoid upgrading electrical panels and circuits
- Educate contractors and landlords about ADA-compliant equipment, with voice chips or wi-fi enabled electric appliances so that accessibility is an automatic part of all inspections

- Prioritize education and outreach, along with workforce training, early on regarding the health implications of failure to electrify

Small Businesses and Commercial Buildings:

Immediate Actions:

- Identify the age and location of gas equipment in existing commercial buildings
- Gear electrification towards improving old buildings to address outdated systems and deferred maintenance

Medium and Long-Term Actions:

- Require or encourage benchmarking to help tenants argue for more efficient buildings
- Develop a framework to help measure and track building performance
- Promote circular economy, investing in the local workforce to foster local economic growth and opportunity

Advice for Major Retrofits:

- Provide smaller businesses with more resources, and education opportunities, and increased flexibility in transitioning to all-electric systems and appliances
- Ensure policies consider when there is a change of tenant, rather than change of building ownership

Further Supporting Actions:

- Create a comprehensive and consistent outreach program focused on what communities need rather than what technologies are available
- Connect with the community to identify challenges across all types of small businesses

Zero-Emission Vehicles (ZEV):

Immediate Actions:

- Create a clear timeline of decarbonization for contractors
- Create opportunities to train and educate local workforce
- Assess load capacity, electric panel space, and availability of electrical outlets in buildings in underserved communities

Medium/Long Term Actions:

- Plan for future electrification and identify service upgrades
- ensure the cost burden doesn't fall on consumers
- Provide educational opportunities for marginalized communities to learn about financing opportunities for switching to electric/zero-emission vehicles