

Office of Energy & Sustainable Development BEBES Update

Environment and Climate Commission

October 19, 2022



Berkeley Existing Buildings Electrification Strategy (BEBES)

City of Berkeley, California



Existing Buildings Electrification Strategy

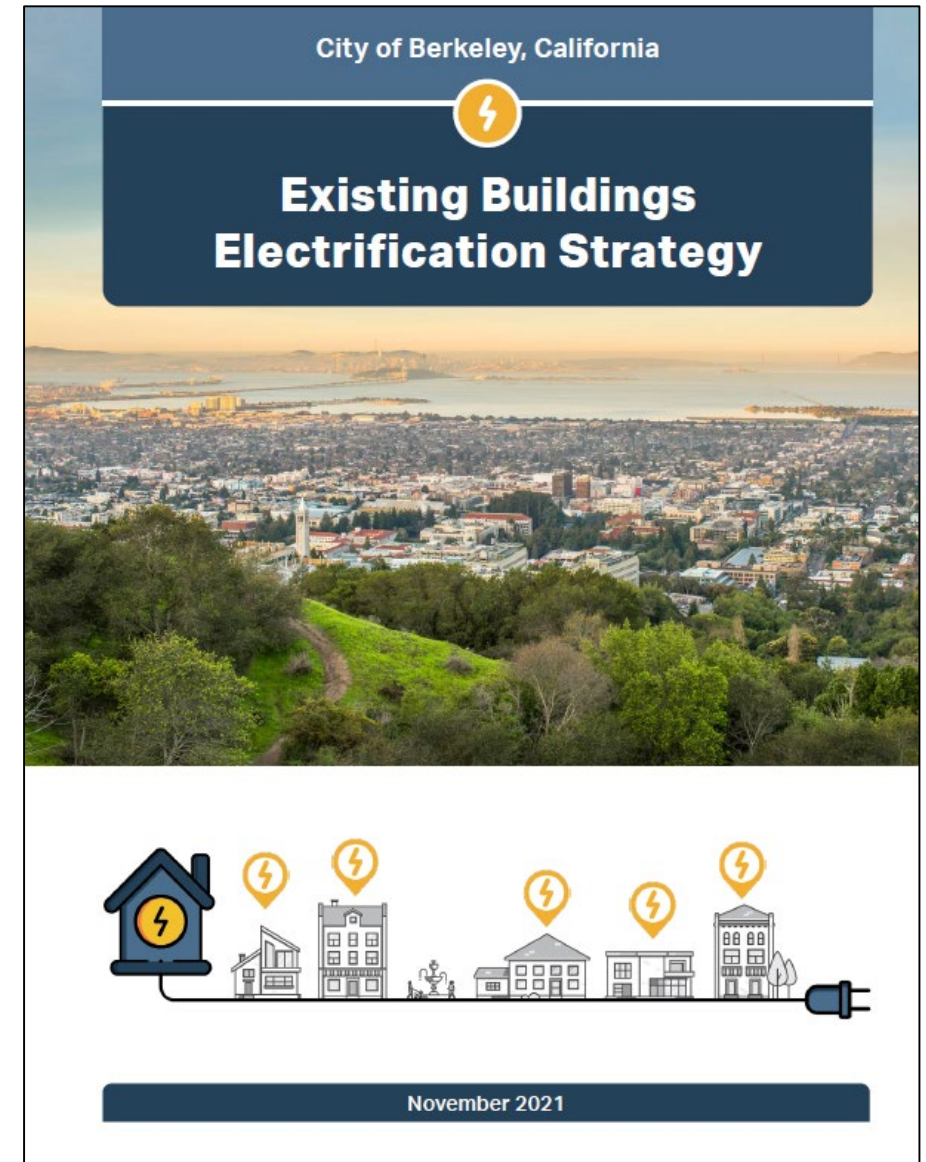


November 2021

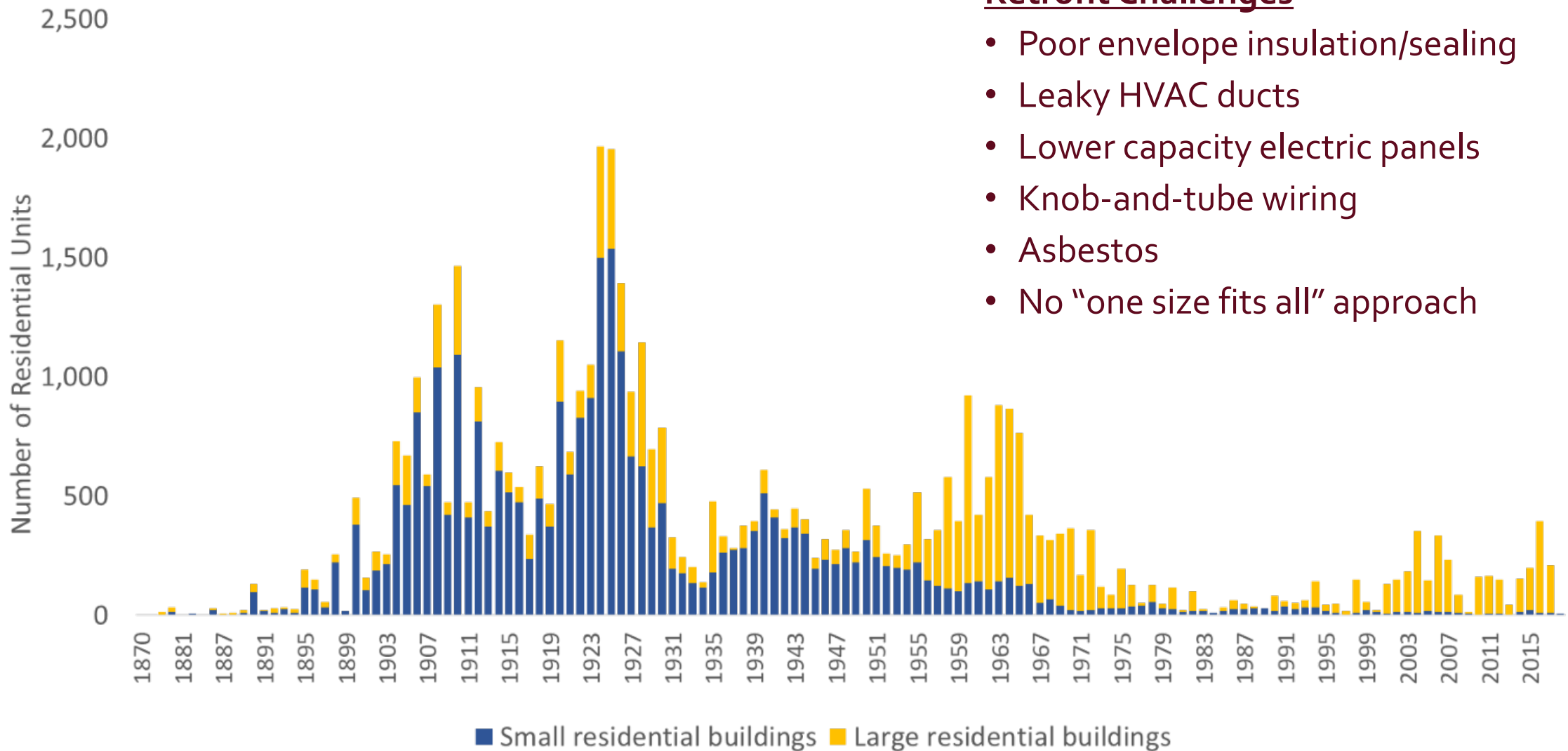
Project Scope



- Equitable electrification of all existing buildings
 - Determine date possible
 - Provide short- and long-term solutions
 - Focused on low-rise residential buildings
- Building stock analysis
- Cost & savings modeling analysis
- Community engagement



Berkeley's Older Housing Stock



Retrofit Challenges

- Poor envelope insulation/sealing
- Leaky HVAC ducts
- Lower capacity electric panels
- Knob-and-tube wiring
- Asbestos
- No "one size fits all" approach

Ongoing Housing Crisis & Displacement Risk



Ongoing gentrification and displacement

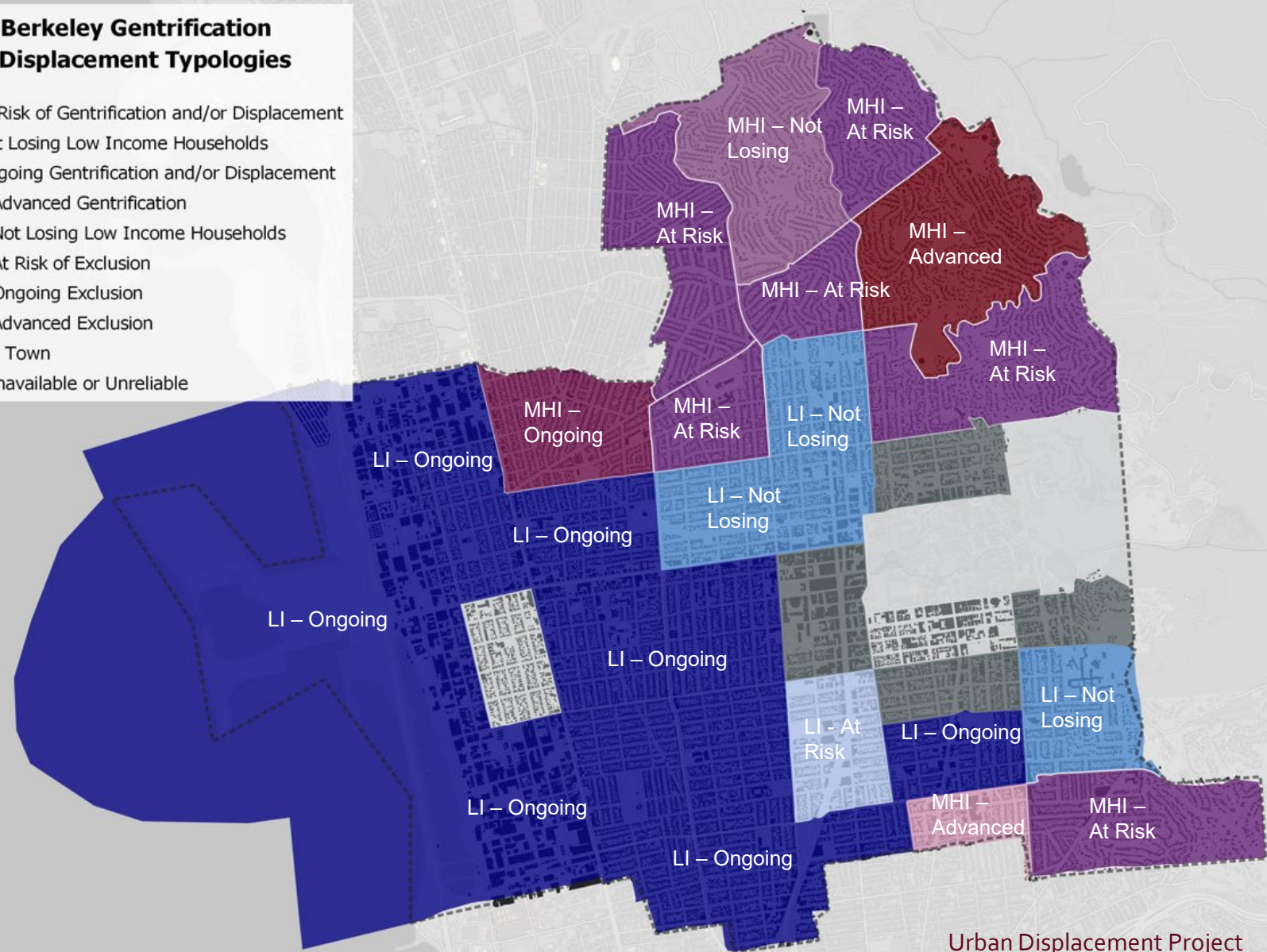
Extreme rental rates (median \$2600 in 2017)

Poor protections for unsubsidized affordable housing

Disincentives for retrofitting rent-controlled buildings

UC Berkeley Gentrification and Displacement Typologies

- LI - At Risk of Gentrification and/or Displacement
- LI - Not Losing Low Income Households
- LI - Ongoing Gentrification and/or Displacement
- MHI - Advanced Gentrification
- MHI - Not Losing Low Income Households
- MHI - At Risk of Exclusion
- MHI - Ongoing Exclusion
- MHI - Advanced Exclusion
- College Town
- Data Unavailable or Unreliable



Targeted Community Engagement – What We Heard:



Concern of displacement due to housing improvements (increased rent)

Upfront and long-term costs are primary concern

Electrification upgrades should be linked with other health/safety upgrades (e.g. lead, asbestos, mold)

Concern of reliability of electricity supply, especially with PSPS events

Need to work with labor and trades for just transition

Work closely with community on solutions

More education, assistance needed

Need to build trust in City, electrification

Need accessible financing and funding options – no new debt

Equity Guardrails



ACCESS TO HEALTH & SAFETY BENEFITS

Ensure equitable access to marginalized communities and others most impacted by climate change, to health, safety and comfort benefits from electrification for both home owners and renters. Due to the upfront costs of electrification, many households will need financial support to have access to high quality upgrades and the benefits of electrification, including long-term cost savings.



ACCESS TO ECONOMIC BENEFITS

Ensure all community members, especially marginalized communities have equitable access to affordable funding and financing mechanisms, and to high-road job opportunities.



MAXIMIZE EASE OF INSTALLATION

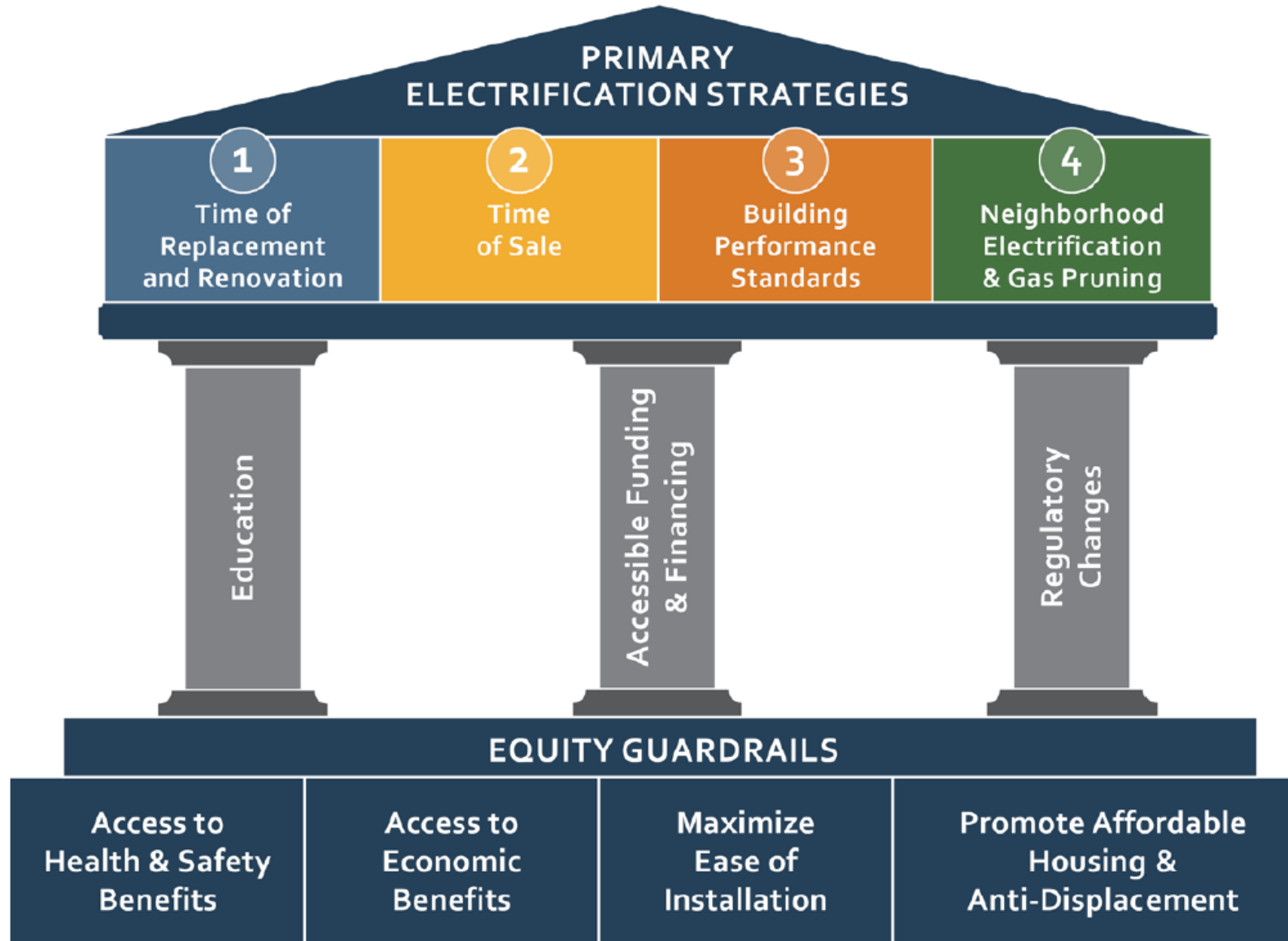
Ensure that incentives and programs for the community provide meaningful support to renters, owners, and marginalized community members to provide a simple process that minimizes the burdens and impacts associated with the installation of high quality electric equipment installed by a fairly paid and well trained workforce



PROMOTE HOUSING AFFORDABILITY & ANTI-DISPLACEMENT

Ensure upgrades don't displace renters or over-burden homeowners. Programs should support housing production, housing preservation, and tenant protections.

Strategy Framework



Phased-In Approach

Phase 1 (2021-2025)

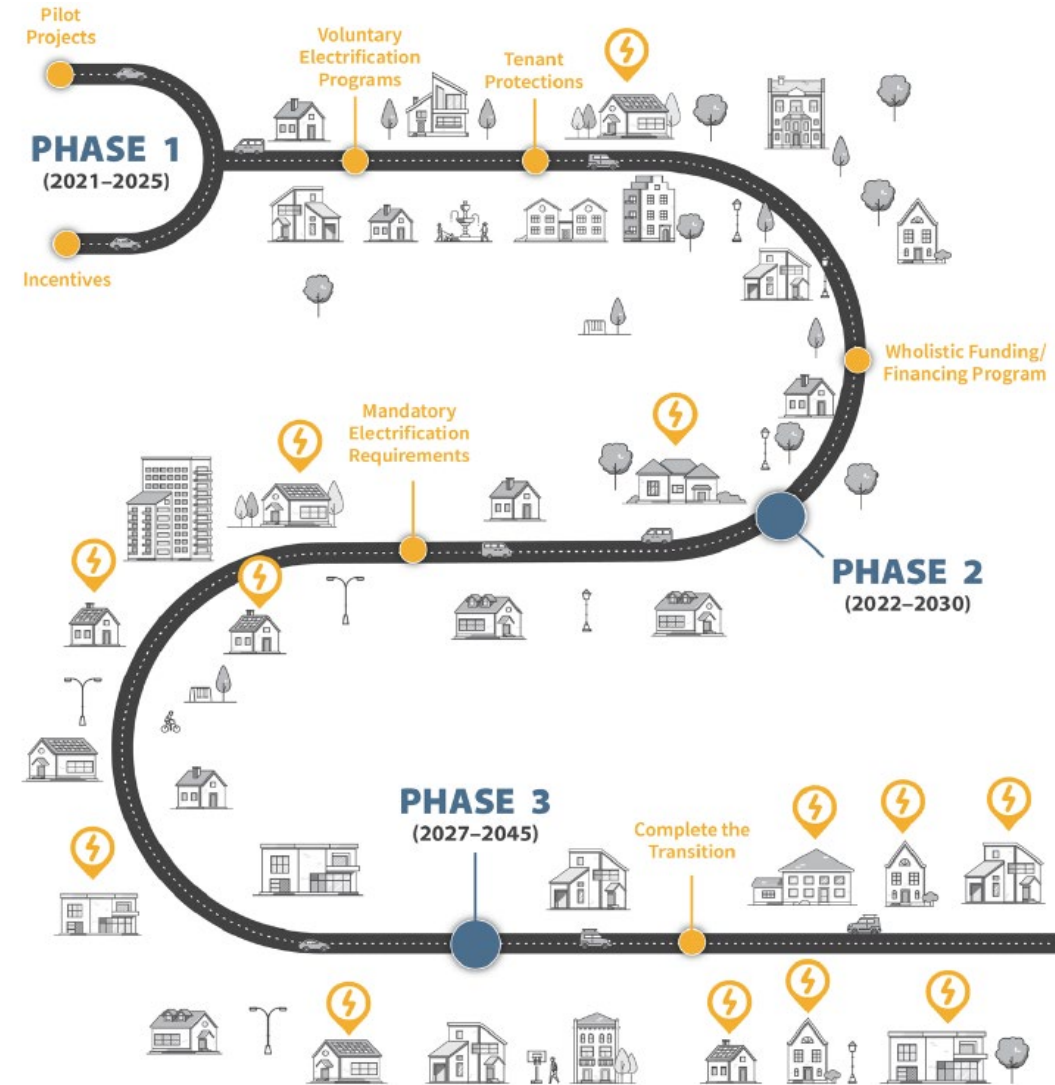
- Lay the groundwork, develop accessible and affordable solutions

Phase 2 (as soon as possible, no later than 2022-2030)

- Implement core policy levers

Phase 3 (as soon as possible, no later than 2027-2045)

- Complete the transition



Policy Strategies and *Implementation Updates*



Time of Replacement

- *ACEEE Energy Equity for Renters Toolkit*

Time of Sale

- *Building Emissions Savings Ordinance (BESO) updates*

Building Performance Standards

- *Large building standards through BESO*

Neighborhood Electrification & Gas Decommissioning

- *Exploring opportunities*

Cross-Cutting Actions

- *\$600,000 Pilot Climate Equity Fund*
- *\$1.5M Just Transition Pilot Program*
- *CA High Road Training Partnership*

Measuring Progress



Citywide Building Energy Usage from Gas Combustion



69%
in 2020

Goal: Decrease percentage of building energy from fossil fuel consumption, in the form of gas combustion, to 0 by 2045 while switching to clean electricity

BayREN Home+: # of Measures Completed



795
from 2019-2021

Goal: Increase BayREN Home+ participation

BayREN Multifamily: # of Units Participated



1,052
from 2014-2021

Goal: Increase BayREN Multifamily participation and upgrade more units to decrease energy use, emissions, and increase comfort

Total GHG emissions Saved through BayREN Upgrades



338_{mtCO₂e}
from 2014-2021

Goal: Increase total GHG emissions saved through participation in BayREN Home+ and BayREN Multifamily