

City of San Leandro Introduction to Reach Codes

San Leandro City Council
April 11, 2022



EAST BAY
COMMUNITY
ENERGY



What are Reach Codes

- Local enhancements to state code, adopted at any time during the triennial building code cycle
- Addresses:
 1. Building electrification – reduced use of natural gas
 2. Electric vehicle (EV) charging – increased EV readiness
- Improves economic and energy performance for new construction
- Mitigates climate change impacts

San Leandro Climate Action Plan (CAP)

- June 2021 - Staff presented CAP at Planning Commission
 - Reach codes were recommended
- July 2021 - City Council adopted CAP
 - Commitment to reach codes
- Nov 2021 - First conversation of several to identify San Leandro's reach code strategy
- East Bay Community Energy (EBCE) has offered technical support around reach codes for local governments



Benefits of Electrification



Cleaner Air

All-electric buildings mean no natural gas combustion that generates toxic pollutants



More Affordable Housing

All-electric homes cost less to build and operate than homes powered by natural gas



Lower Climate Impact

Powering buildings with renewable energy is better for the climate

Benefits of Electrification



Utility Bills

Renewable energy is becoming cheaper while natural gas prices are rising rapidly in many states



Safer Buildings

In case of building damage from an earthquake or wildfire, all-electric buildings are not exposed to fires from gas pipe ruptures



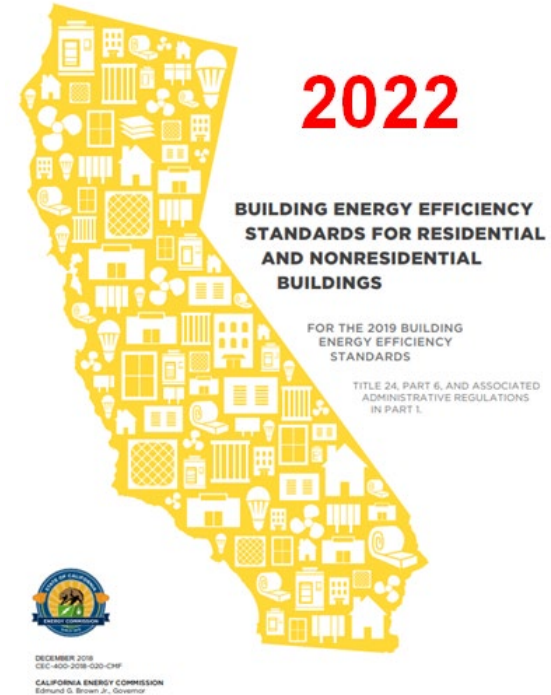
Improved Public Health

Electrification avoids prolonged exposure to natural gas fumes, which can lead to respiratory issues like asthma

What is the 2022 Statewide Code?

New Construction Energy Code

- All Buildings - Easier performance compliance for all-electric
- Residential
 - Electric heat pumps are the standard for residential HVAC
 - Gas appliances must be pre-wired for electrification
 - Gas cooking appliances require higher ventilation rates
- Nonresidential - Solar PV and Battery Storage prescriptive



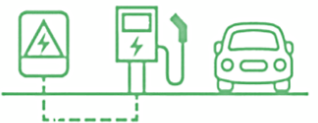
Reach Code Concepts

- Building Code: **Electric-preferred**
 - All-electric → Meet code
 - Mixed-fuel → High performance required
 - Model closest to 2022 Statewide Energy Code
- Building Code: **All-electric** (with limited gas usage)
 - All-electric required
 - Limited exceptions (i.e., commercial cooking, infeasibility)
- Land Use Code: **Natural Gas Infrastructure Ban**
 - All-electric required
 - Limited exceptions (i.e., emergency operation centers, public interest)
 - Municipal code amendment
- **High Energy Efficiency Performance Standard for Mixed Fuels**

50 cities, >13% of CA population adopted a 2019 building electrification code

2022 State Energy Code already electric-preferred, starting Jan 1, 2023

EV Infrastructure – New Multi-Family



EV Installed



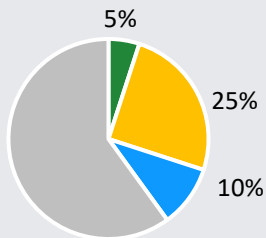
EV Ready



EV Capable

2022 CALGreen

% of Parking Spaces



5% Level 2 EV Installed
25% Level 2 EV Ready (low-power)
10% Level 2 EV Capable

EBCE Model code

% of Parking Spaces



Entirely affordable housing:
15% Level 2 EV installed
25% L2 EV Ready (low-power)
60% Level 1 EV Ready

Other:
40% Level 2 EV Installed
60% Level 1 EV Ready

Stakeholder Feedback: Residential

- Benefits of all-electric can include cost savings, convenience of a single utility, meeting market demands for sustainability.
- Phasing in requirements is necessary. All-electric technologies can create logistic or space/size issues and cannot be easily accommodated after a project has already been designed.
- Certain appliances/technologies not ready for all-electric, but developers are willing to incorporate them as technology develops.
- Special consideration needed for affordable housing projects, which must be as inexpensive as possible to attract highly competitive funding.
- Opportunity for Accessory Dwelling Units (ADUs) to be all-electric.

Stakeholder Feedback: Non-Residential

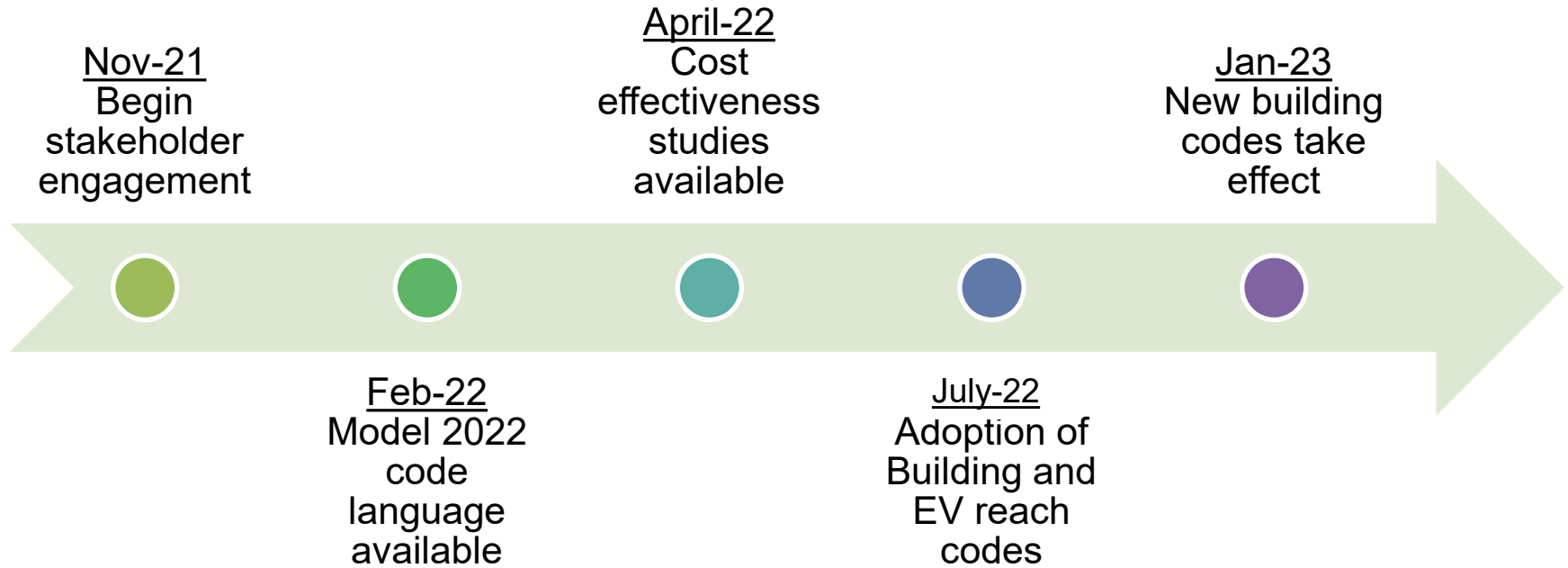
- **Commercial sector**

- Developers anticipate increasing tenant demand for EV charging stations
- Much gas use comes from legacy industrial and food businesses
- Restaurants in particular have an expectation of having access to gas

- **Industry**

- Tenants for developments not identified, so flexibility is needed to meet needs of array of potential users and attract value-add manufacturers
- Consideration needed for industries with technology not ready for all-electric transition
- Businesses focused on sustainability, climate, or battery technology are likely to be supportive of reach codes and EV charging

San Leandro Timeline



Council Feedback

- All-electric building code amendment for new construction
- Include requirement for ADUs to be all-electric
- Exceptions:
 - In-process/approved projects (mixed-fuel acceptable)
 - Industrial sector, preference (electric-ready)
 - Restaurants/kitchens in commercial facilities (electric-ready)
- EV Requirements:

	Single-Family	Affordable Multi-Family	Multi-Family	Office	Other Non-Res
EV Installed	--	15%	40%	20%	10%
EV Ready	Level 1 – 1 Level 2 – 1	Level 2 – 25% Level 1 – 60%	Level 1 – 60%	--	
EV Capable	--	--	--	Level 2 – 30%	Level 2 – 10%



EV Installed



EV Ready



EV Capable

Thank you

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