

City of San Leandro Reach Codes Listening Session

Industrial / Commercial Sector
January 2022



**EAST BAY
COMMUNITY
ENERGY**

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



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

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

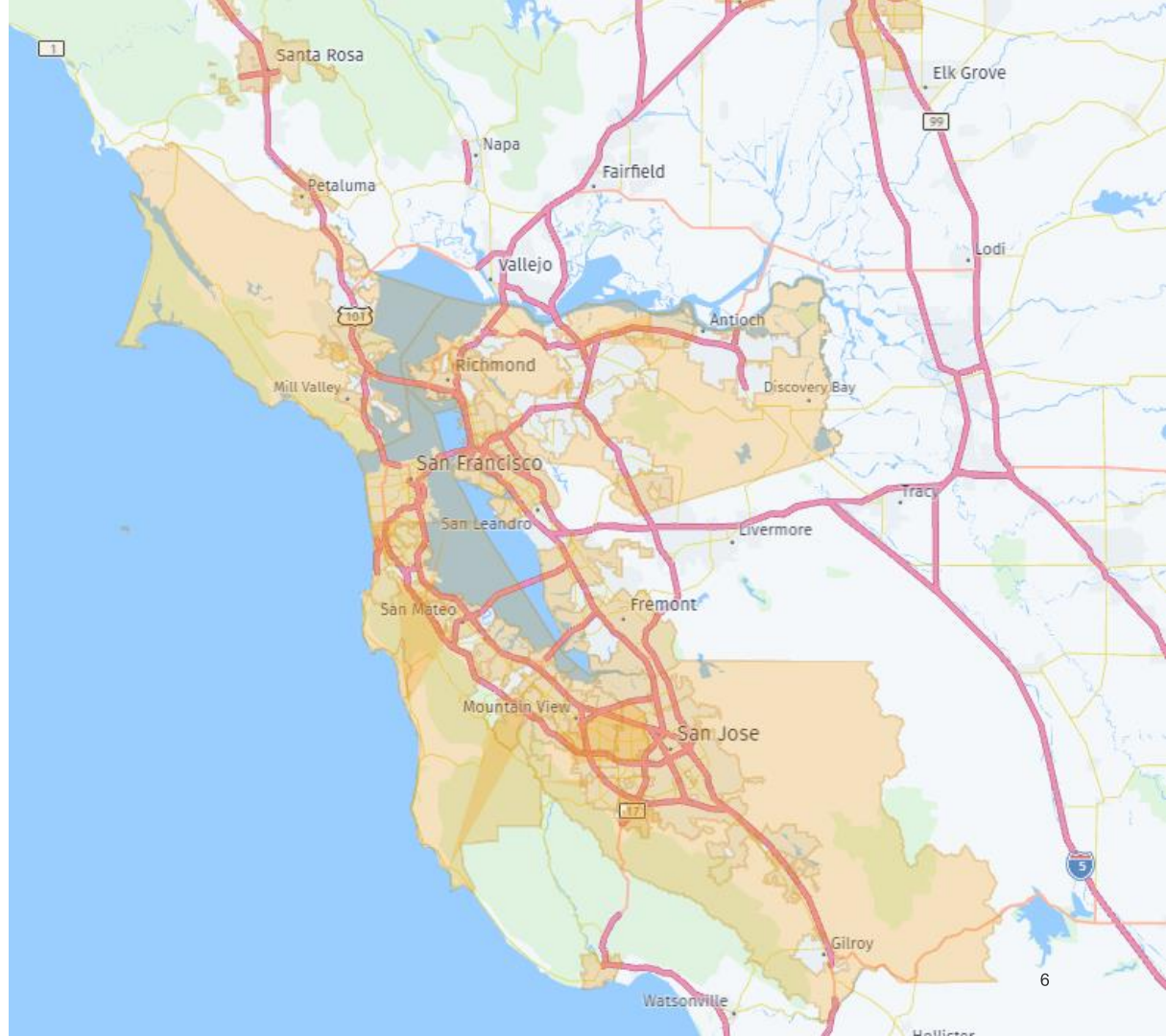
In case of building damage from an earthquake or wildfire, all-electric buildings are not exposed to fires from gas pipe ruptures



Improved Public Health

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

Bay Area cities with reach codes



All Electric Building Measures

Space Heating

Water Heating

Cooking

Clothes Drying

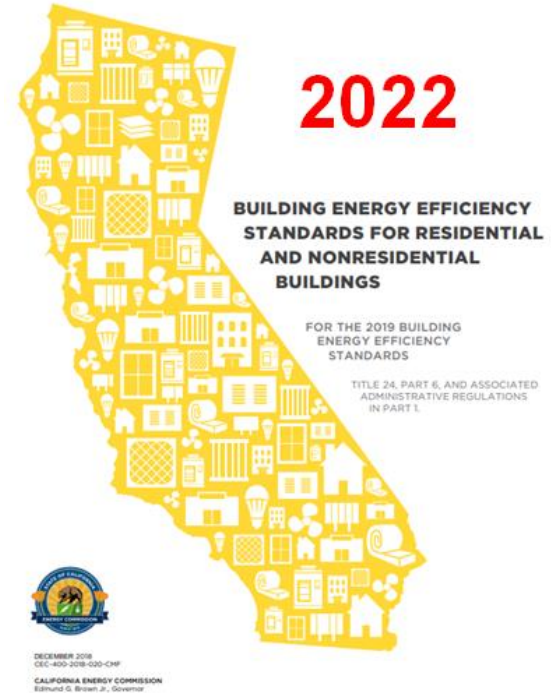


Residential
Commercial

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., residential 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

51 CA Jurisdictions Adopted in 2019

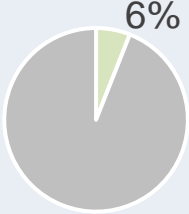

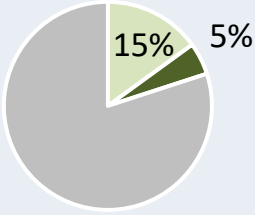
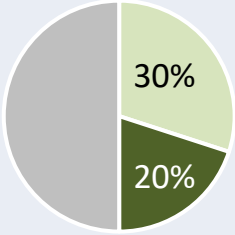
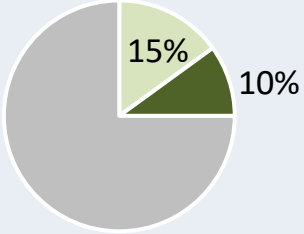
New Construction			Existing Building Alterations
Electric-Preferred	All-Electric	Natural Gas Ban	
~9 jurisdictions	34 jurisdictions	5 jurisdictions	2 jurisdictions
Ex: Albany, Hayward (nonresidential), Milpitas	Ex: Hayward (residential), Oakland, Alameda	Ex: Berkeley, San Francisco, San Jose	Piedmont, Chula Vista

Represents 14% of state's population. Excludes dozens of adopted EV ordinances. Full list available by [Sierra Club](#).

Common Concerns

Concern	Response
Distribution grid upgrades are expensive	Sometimes true. Costs offset from the savings of all-electric construction. PG&E will and must supporting sufficient grid capacity. Grid hardening already a determined need.
Resilience, power-shutoffs	Real problem, gas does not help. Natural gas does not help as gas equipment depends on electricity. In emergencies gas is also shut-off. State policy for grid hardening is key.
All-Electric heating uses too much energy or can't work in our cool climate	False. All-electric heat pumps are highly efficient and effective in weather far colder than ours. DOE studies show heat pump space heaters as highly efficient at as little as 5 degrees Fahrenheit. California Energy Commissions cost effectiveness studies also show high efficiency.
Commercial kitchen appliances	Technically feasible, uncertain cost-effectiveness. EBCE has a rebate with induction range. Benefits extend to indoor air quality and lower ambient temperatures.

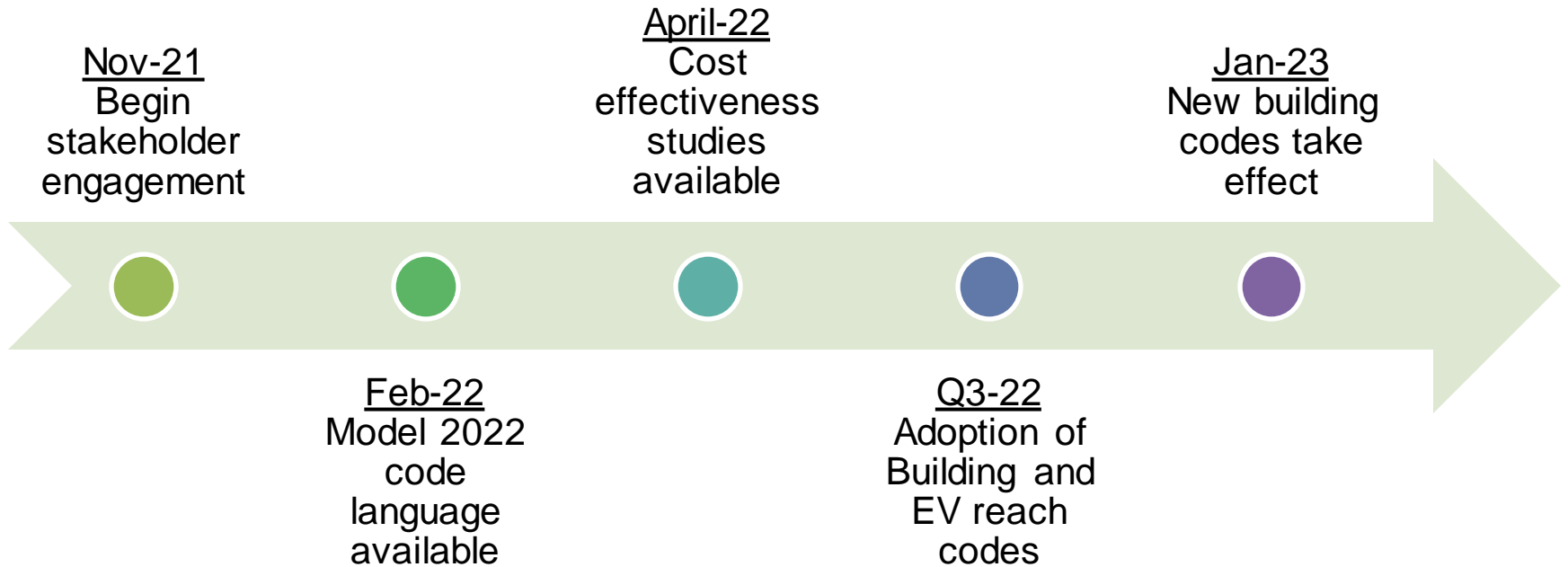
Nonresidential EV Reach Code

	2019 CALGreen	2022 CALGreen	EBCE Proposed (Draft)	
	Mandatory	Mandatory		
Non-Residential	  6% Level 2 EV Capable	 15% Level 2 EV Capable 5% Level 2 EVCS	 Office building: <ul style="list-style-type: none"> • 30% Level 2 EV Capable • 20% Level 2 EVCS <i>LOAD SHARING ENCOURAGED</i>	 Other NonRes: Of all parking spaces, <ul style="list-style-type: none"> • 15% Level 2 EV Capable • 10% Level 2 EVCS

Reach Code Options Summary

Category	Building Sector	Possible Exemptions
High energy efficiency with mixed fuel option	New construction	
All-electric new buildings or Natural gas infrastructure ban	New construction	Residential/commercial cooking, laboratories, public interest, emergency operations
<ul style="list-style-type: none">• 30% Level 2 EV Capable• 20% Level 2 EV Charging Station	Parking for new office building	
<ul style="list-style-type: none">• 15% Level 2 EV Capable• 10% Level 2 EV Charging Station	Parking for other non-residential construction	

San Leandro Timeline



Recommendation

1. Council hear an All-Electric or Natural Gas Ban reach code by September 2022
 - a. May include exemptions for limited end-uses
2. Council hear an Electric Vehicle Infrastructure Charging reach code by September 2022
3. San Leandro review internal permitting processes in advance of January 2023 to identify and address barriers for electrification

Discussion Questions (Industrial)

1. Are there particular aspects of your operations that would be affected by an electrification ordinance for new construction?
2. Do you consider renovations of existing buildings for new tenants to be 'new construction'?
3. If the City Council adopted a ban on new natural gas connections, how would that affect your decision to stay or grow your business in San Leandro?

Thank you

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