

# Reach Codes 2.0 City Council Study Session

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City of Los Altos

# Reach Codes

## *Presentation Overview*

- ▶ **Context: Existing Los Altos Reach Codes & 2022 CA Energy Code**
- ▶ **Electrification: Concerns & Considerations**
- ▶ **Reach Code 2.0 Options**
- ▶ **Q&A**



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# Los Altos Reach Codes - Context

## Drivers

- **1/1/2023 expiration of current codes**
- **CAAP objective of Carbon Neutrality by 2035**

## Existing Codes

Buildings “Mostly Electric”	Water and space heating must be electric. Electrification ready panel and wiring.
EV Charging	More charging infrastructure for higher % of spaces.

## LA compared to SVCE territory cities

### Mostly Electric focus puts LA “in the middle”

- **3 cities less aggressive (incl. 1 with no reach codes)**
- **4 with similar focus**
- **6 with more aggressive codes**

# Los Altos Reach Codes 2.0 Options

- **Allow existing reach code to expire → 2022 CA Energy Code**
- **Renew current reach code (via Part 11 of building code or as municipal code\*)**
- **Adopt new reach codes before 1/1/2023 (new construction only)**
- **Adopt new reach codes (new construction & existing building)**

\*Decision regarding adoption via municipal code currently under review by legal - not a topic of discussion during this study session

# 2022 Building Codes

## CA Energy Code (Title 24, Part 6)

### New Construction

- Heat pumps are prescriptive baseline
  - Residential
    - Space heating in climate zone 3, 4
    - Water heating in climate zone 12
  - Nonresidential - water and/or space-heating
  - Performance credit for all-electric design
- Residential
  - Pre-wiring required for gas appliances
  - Higher ventilation rate for gas stoves
  - Solar PV
  - Energy storage readiness
- Nonresidential - PV and Storage prescriptive

### Existing Buildings

- Restricts electric resistance heating
- Simplified language for heat pump retrofits

## CalGreen Code (Title 24, Part 11)

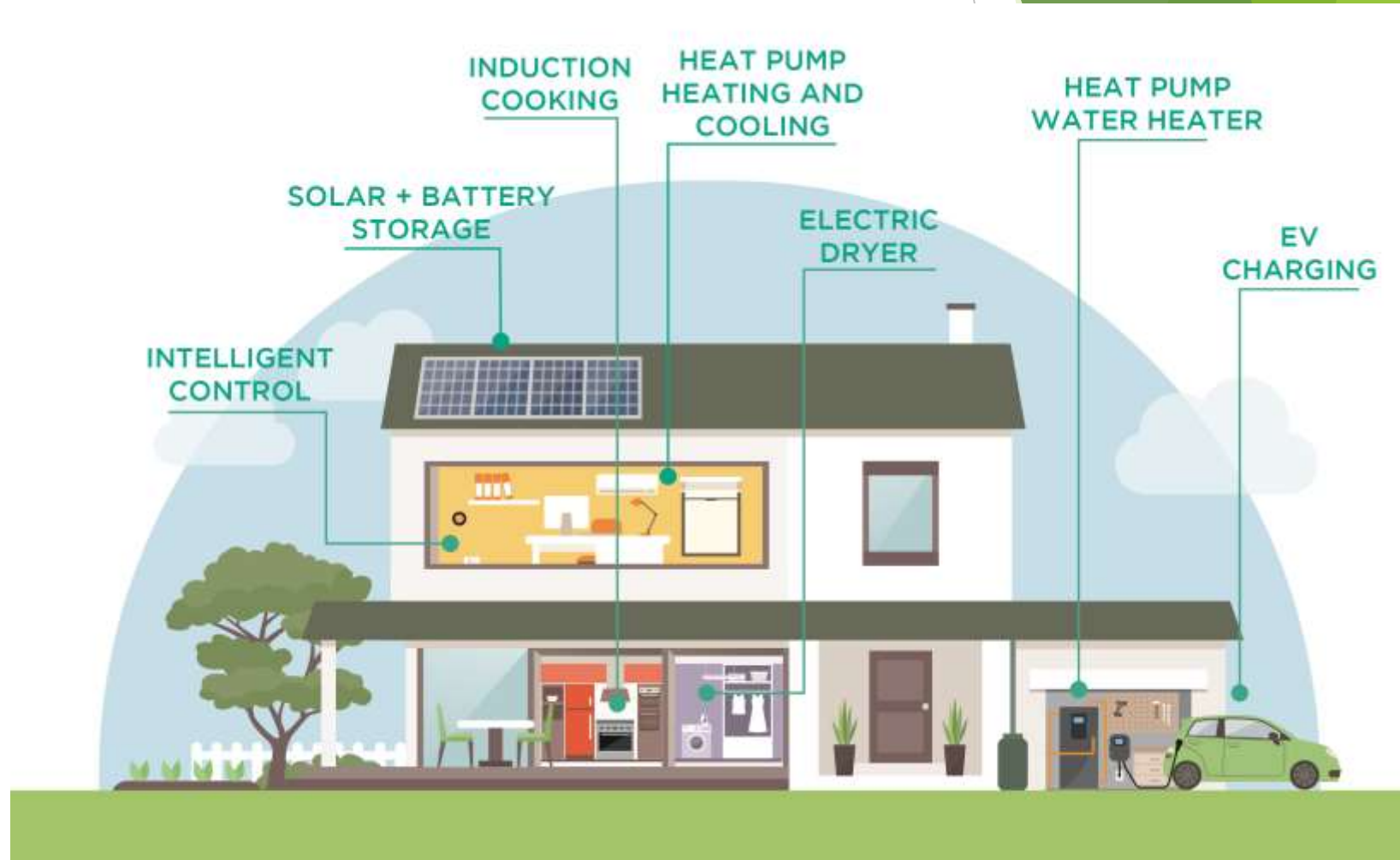
### EV Requirements

- Specifies required coverage for new single-family homes, multifamily dwellings, hotels
- Increases overall % of space coverage
- Requires L2 for new homes



# Building all-electric saves money.

- Reducing the need for new gas lines and hookups saves money.
- Building all-electric now reduces the need for costly retrofits later.



# New Construction Reach Codes

	<u>2022 CA ENERGY CODE</u>	<u>CURRENT LOS ALTOS CODE</u>	<u>PROPOSED BAY AREA MODEL CODE</u>
<u>Effective Date</u>	Effective 1/1/2023	Expires 1/1/2023	After City Adoption or State Filing
<u>New Buildings<sup>1</sup></u>	(Not previously used/occupied)	(Not previously used/occupied)	(Applies if >50% foundation or framing modified)
Air Heating/Cooling	EHP (Climate Zone 4)	EHP	EHP
Water	EHP or G	EHP	EHP
Cooking	E or G	E or G	E
Clothes Drying	E or G	E	E
Fireplaces	E or G	E or G	E
<u>Exterior (Pool, SPA, Firepit)</u>	N/A	N/A	No G
<u>End of G Service</u>	N/A	N/A	1/1/2045 <sup>2</sup>

<sup>1</sup> Does not apply to Building Alterations, Renovations, Tenant Improvements

<sup>2</sup> End of Service cannot be established via building code, only municipal code.

EHP = Electric Heat Pump, E = Electric, G = Natural Gas (must be wired for replacement)



# Existing Building Renovation and Alteration Reach Codes

- Model Bay Area Codes Recently Released
  - EC just beginning to review model code
  - More complex than new building to develop code (requiring staff resources)
- CA Cities Implementing: Portola Valley, San Jose, Brisbane, Berkeley, Piedmont, Chula Vista
- Options
  - Time of permit
  - Upon property sale
  - Building performance standards





# Single Family Residential Construction Permits (1/26/2021 - 5/11/2022)

<u>Permit Type</u>	<u>Number</u>	<u>Percent of Permits</u>
Single Family Residence	39	3.6%
Detached ADU	58	5.3%
Additions > 750 SF	39	3.6%
Additions < 750 SF	109	10.0%
Residential Alterations	419	38.3%
Water Heaters	109	10.0%
Furnace/AC	321	29.3%



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# Electric Vehicle Infrastructure

	<u>2022 CAL GREEN CODE</u>	<u>CURRENT LOS ALTOS CODE</u>	<u>PROPOSED BAY AREA MODEL CODE</u>
<u>Effective Date</u>	Effective 1/1/2023	Expires 1/1/2023	After City Adoption or State Filing
<u>Single Family Residence</u>	1-L2 EV Ready	1-L2 EV Ready + 1-L2 EV Ready	1-L2 EV Ready + 1-L1 EV Ready
<u>Parking Addition, Alteration, Renovation</u>	N/A	N/A	Applies



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# Electrification

## *Common Questions & Concerns*

- ❖ *Grid: Can the grid handle more load? Are there really carbon savings if electric appliances are running at peak times when renewable sources aren't available to power the grid?*
- ❖ *Electric Appliance Performance & Cost: Do electric appliances perform as well as their gas counterparts? How do costs (capital and operational) compare? Aren't electric appliances more susceptible to electricity interruptions?*
- ❖ *Other: Beneficial impact; Choice & Preference; Home electrical service/capacity; Contractor familiarity with heat-pumps*



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# *Questions, Answers & Feedback*

*Thank you!*  
*The Los Altos Environmental Commission*



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