

# Item 17: One Margin Energy Reach Code

City Council

June 3, 2024

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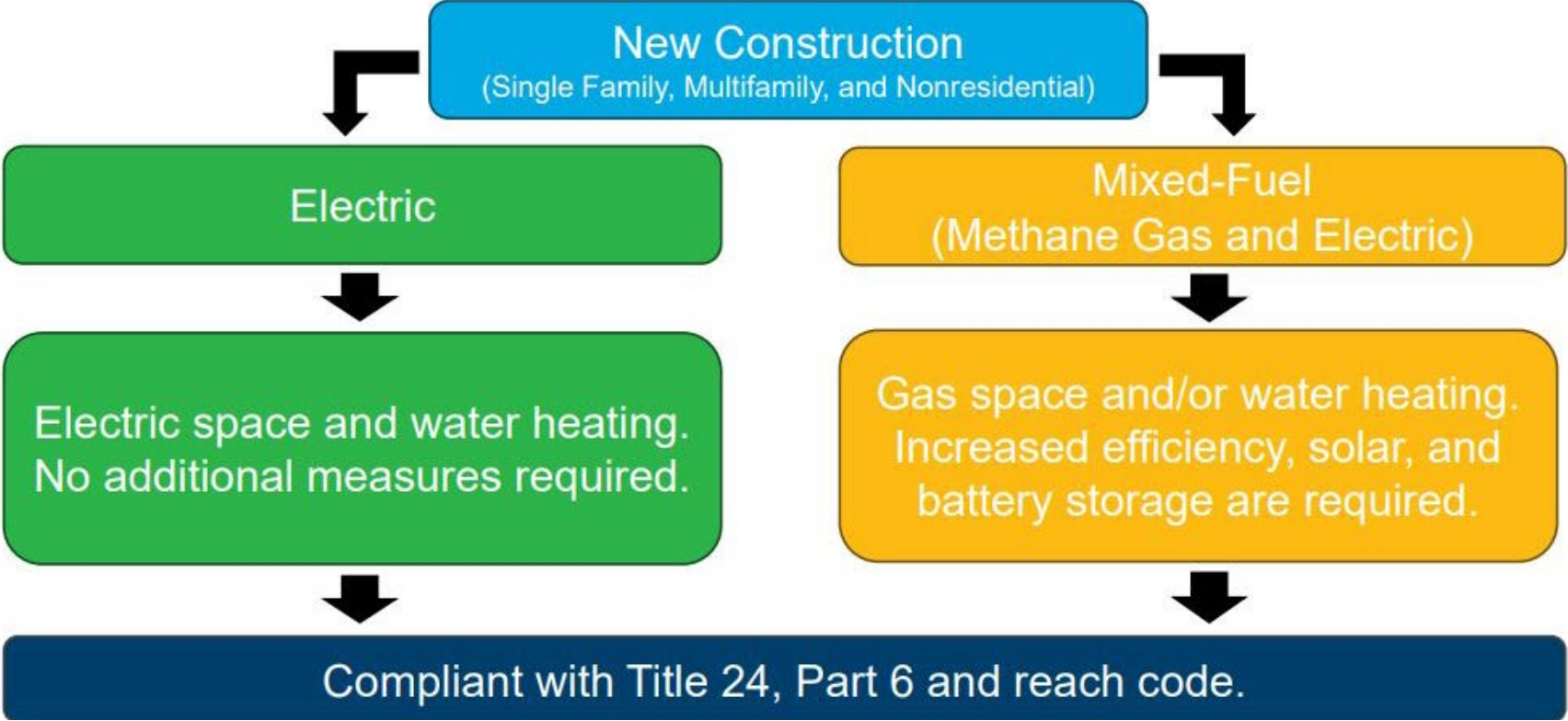
## Energy Code Local Amendments (PAMC 16.17)

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- Proposed local amendments to State Energy Code would adopt a higher local Hourly Source Energy requirement than the State
- Hourly Source Energy is a proxy for carbon emissions
- Identical requirements apply to electric and mixed fuel construction (“One Margin”)
- Only applies to space heating and water heating, but is expected to spur most new homes to be built all electric
  - Most homes (over 75%) being built all-electric even without an all-electric mandate
  - This is the strongest alternative to an all-electric mandate

# Compliance Pathways

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## Green Building Code Local Amendments (16.14)

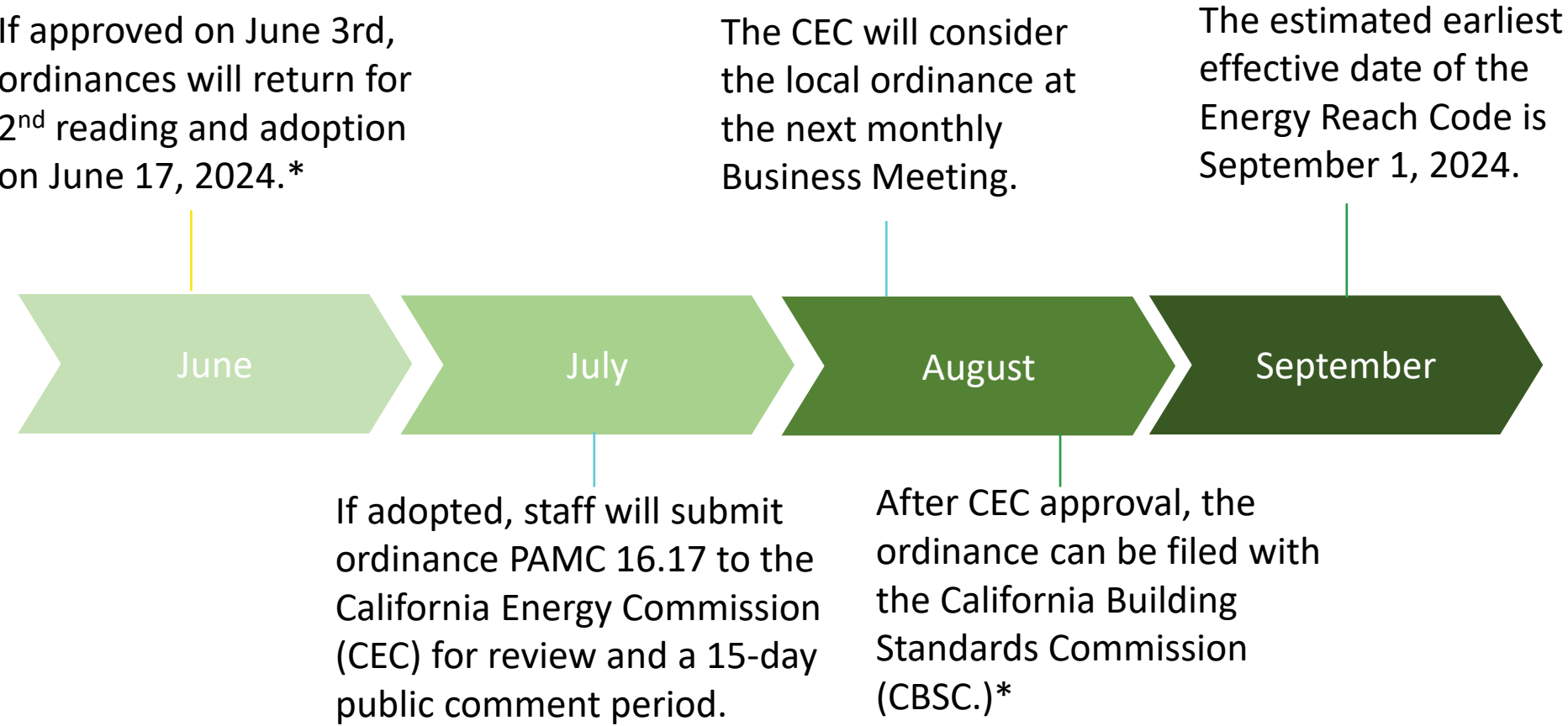
- Remove the full electrification and heat pump water heater replacement requirements to allow ending the moratorium
- Electric readiness requirements remain in place
- Council requested to provide direction on prohibiting outdoor gas grills, stoves, and barbeques,
  - These are not covered by standards in the Ninth Circuit's decision
  - Other outdoor gas appliances like firepits are covered



## Green Building Code Local Amendments (16.14)

- Update City's Electric Vehicle (EV) requirements to match updated State Green Building Code changes effective 7/1/24:
  - Minor changes to various definitions, technical specifications, and administrative sections
  - Small increases to multi-family and hotel/motel EV charger requirements

# Timeline



\* The GBO does not require CEC approval and will be filed directly with the CBSC after Council approval.



## After Adoption

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- Local amendments effective through January 1, 2026, when next code cycle takes effect
- Work on local amendments for the 2025 triennial code adoption cycle will begin in early 2025.



## Recommended Motion

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Staff recommends that the City Council take the following actions:

1. Introduce an ordinance amending Chapter 16.14 (California Green Building Standards, California Code of Regulations, Title 24, Part 11) of the Palo Alto Municipal Code to adopt the 2022 Green Building Standards Code, along with local modifications related to electrical vehicle charging infrastructure requirements and building electrification requirements and finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions, as shown in Attachment A of the staff report.
2. Introduce an ordinance amending Chapter 16.17 (California Energy Code, California Code of Regulations, Title 24, Part 6) of the Palo Alto Municipal Code to adopt the 2022 California Energy Code, along with local modifications to increase energy efficiency standards for buildings, mandate electric-ready requirements, and incentivize all-electric new construction and finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions as shown in Attachment B of the staff report
3. Provide direction regarding outdoor gas grills, stoves, and barbeques.





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## Background

- The electrification moratorium for new construction and substantial remodels was passed by Council on February 26, 2024, in light of the 9<sup>th</sup> Circuit's decision that invalidated City of Berkeley's gas ban on new buildings.
- Staff recommends the following:
  - Amendments to the California Energy Code (PAMC Ord. 16.17):
    - Energy efficiency margin for new construction and substantial remodels.
    - Electric readiness for new buildings, substantial remodels & residential additions/alterations using mixed fuel construction and appliances.
  - Amendments to the California Green Building Code (PAMC Ord. 16.14):
    - Remove ordinance language to align with the gas moratorium.
    - Increase Electric Vehicle (EV) charging infrastructure provisions to align with the 2022 California Green Building (CALGreen) Intervening Code Cycle changes.
  - Council to provide direction on prohibiting outdoor gas grills, stoves, and barbeques that are not covered by the Federal pre-emption.



## Energy Reach Code PAMC 16.17

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- The proposed reach code requires higher energy performance buildings (i.e., higher “compliance margins”) to reduce GHGs
  - Compliance margins (based on a source energy metric) refer to how a proposed building performs compared to a ‘standard’ building constructed to energy code minimum requirements
  - Margins are expressed as a percentage above the standard design or a whole number in points for Energy Design Rating 1 (EDR1), a positive figure indicates better energy performance (lower energy use).
- The proposed reach code expands electric readiness requirements.
  - Electric readiness refers to the installation of an electrical circuit capable of powering an electric appliance when a gas appliance is installed.
  - Expands electric readiness to substantial remodels, new nonresidential buildings, residential additions/alterations, and multifamily water heating systems for mixed fuel construction.



## Energy Reach Code PAMC 16.17 (continued)

Occupancy Types	Source Energy Compliance Margins
Single-family	8 (EDR1) Points
Low-rise Multifamily	9 %
High-rise Multifamily	1%
Office/Mercantile	10%
Hotel/Motel	7%
Restaurants	12%
Industrial/Manufacturing	0%
All Other Nonresidential Occupancies	9%

- Exception: New single-family residences and detached ADUs that do not require a PV system, need a Source Energy compliance margin of at least 2 (EDR1) points.
- Exception: Small-to-medium Retail/Grocery/Schools/Banks are exempt as the 2022 Efficiency Standards strongly encourage these buildings to have heat pumps.





# Green Building Ordinance (GBO) PAMC 16.14

- The proposed GBO updates the following EV charging infrastructure requirements to align with the 2022 CALGreen Intervening Code Cycle Changes (effective 7/1/24).

Occupancy Types	Current PAMC EV Charging Infrastructure Requirement	Proposed PAMC EV Charging Infrastructure Requirement
New Multifamily Guest Parking	EV Chargers: 5% of guest parking spaces	EV Chargers: 10% of guest parking spaces
New Multifamily Residential Parking	One EV Charger or One EV Ready Space per unit	EV Chargers: 10% of residential parking spaces EV Ready Spaces: One per Unit
New Hotel/Motel	30% of spaces must be EV Ready (with 10% EVSE installed)	EV Chargers: 10% of parking spaces EV Ready Spaces: 40% of parking spaces



## **Green Building Ordinance PAMC 16.14 (continued)**

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- To align with Council's decision to remove the electrification requirements the following provisions have been removed from the Green Building Ordinance.
  - 16.14.090 - Residential Site Development – Full Electrification
  - 16.14.110 – (Electric Heat Pump) Water Heater Replacement
  - 16.14.300 - Nonresidential Site Development – Full Electrification
- Staff requests Council's direction on keeping the prohibition of specific outdoor gas appliances including:
  - Gas stoves
  - Gas grills
  - Gas BBQs