FRONTRUNNER: CITY OF PALO ALTO

PALO ALTO ENRICHES ITS SUSTAINABILITY LEGACY WITH NEW REACH CODES

OVERVIEW

Known as the “birthplace of Silicon Valley,” the City of Palo Alto straddles the lower half of the San Francisco Peninsula and is home to 67,000 residents. Also home to both Stanford University and some of the most recognizable high tech companies in the world, Palo Alto boasts a long dedication to sustainability practices and reach code adoption. The city was one of the first in the nation to adopt a climate action plan (2007) and has committed to an ambitious “80 x 30” decarbonization and climate action plan that sets a goal of reducing its carbon emissions by 80% of its 1990 levels by 2030, a full 15 years ahead of the state’s goal.

COMMITMENT TO REACH CODES

Palo Alto has long used reach codes as a strategy for achieving its climate action and sustainability goals; the city has adopted reach codes in the past three code cycles, since 2008. Doing the same for the 2019 statewide Building Energy Standard (Title 24) was no exception. Notes recently retired Assistant Chief Building Official Evon Ballash, “Palo Alto has committed to several bold climate action goals, including increasing building energy efficiency. Our reach code adoption efforts even in the pandemic continue to help us move forward toward these goals.”



A panoramic view of Palo Alto with the Stanford University campus in the foreground.

The city adopted a Sustainability Implementation Plan in 2018 to reach its climate action goals. As part of this effort, stakeholders and community groups met regularly to discuss action areas and ultimately, draft ordinance language. Initially, this approach was to offer two pathways: an all-electric path and a second path with a mixed-fuel design and increased efficiencies. When City Council reviewed the recommendations in the winter of 2019, the public response at the Council hearing was overwhelmingly in favor of the all-electric pathway.

The City moved forward in a two-phased approach. The first phase, with an effective date of April 1, 2020 would require all-electric for new single-family and low-rise residential construction with two pathways for all other new construction. The second phase would extend the all-electric requirement to all new construction and accessory dwelling units (ADUs); this was anticipated in mid- to late-2020.

Phase 1 provisions:

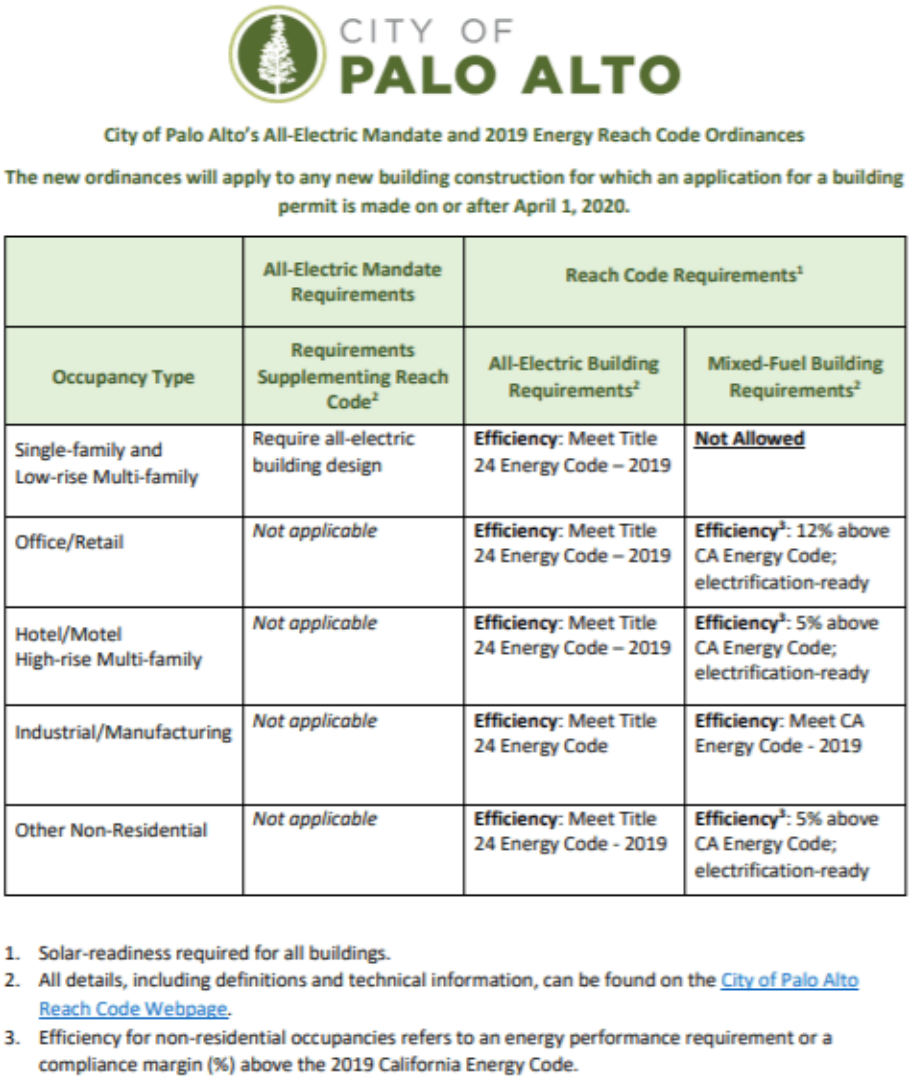
- **Low-Rise Residential (including Multi-Family Building with 3-stories or less)**:
    - All-Electric Design with electric appliances and no gas appliances. The building is to comply with Title 24 California Energy Code with no

additional efficiencies, with the exception of accessory dwelling units (ADU's)

- **Non-Residential**:
    - All-Electric Design with all-electric appliances and no gas appliances allowed. The building is to comply with Title 24 California Energy Code with no additional efficiencies; OR
    - Mixed-fuel building with gas and electric appliances that complies with Title 24 California Energy Code with increased efficiencies of:
        - 12% above state baseline efficiencies for office/retail buildings
        - 5% above state baseline efficiencies for all other non-residential buildings
        - 0% above state baseline efficiencies for manufacturing/industrial buildings

Covid Pandemic Inspires Creative Implementation

In reflecting on the implementation, Ballash observed, “the shelter-in-place orders went into effect on March 16, just two weeks before the new code’s effective date. There was a lot of uncertainty on both sides of the process, with applicants and staff.” The city prioritized creation of a new online permitting system, complete with forms, checklists, and instructional guides and videos.



CITY OF PALO ALTO

City of Palo Alto's All-Electric Mandate and 2019 Energy Reach Code Ordinances

The new ordinances will apply to any new building construction for which an application for a building permit is made on or after April 1, 2020.

	All-Electric Mandate Requirements	Reach Code Requirements[1]	
Occupancy Type	Requirements Supplementing Reach Code[2]	All-Electric Building Requirements[2]	Mixed-Fuel Building Requirements[2]
Single-family and Low-rise Multi-family	Require all-electric building design	**Efficiency**: Meet Title 24 Energy Code – 2019	**Not Allowed**
Office/Retail	*Not applicable*	**Efficiency**: Meet Title 24 Energy Code – 2019	**Efficiency**[3]: 12% above CA Energy Code; electrification-ready
Hotel/Motel High-rise Multi-family	*Not applicable*	**Efficiency**: Meet Title 24 Energy Code – 2019	**Efficiency**[3]: 5% above CA Energy Code; electrification-ready
Industrial/Manufacturing	*Not applicable*	**Efficiency**: Meet Title 24 Energy Code	**Efficiency**: Meet CA Energy Code - 2019
Other Non-Residential	*Not applicable*	**Efficiency**: Meet Title 24 Energy Code - 2019	**Efficiency**[3]: 5% above CA Energy Code; electrification-ready

1. Solar-readiness required for all buildings.
2. All details, including definitions and technical information, can be found on the City of Palo Alto Reach Code Webpage.
3. Efficiency for non-residential occupancies refers to an energy performance requirement or a compliance margin (%) above the 2019 California Energy Code.

The City offers an at-a-glance summary of the new code provisions.

In addition to the online permitting system, a weekly task force meets to continue developing tools and resources for outreach and education to the community.

RESOURCES

City of Palo Alto documents are available here:

City of Palo Alto Sustainability and Climate Action Plan (S/CAP) here, including links to S/CAP webinar recordings. Presentation on all-electric homes here.

The City's online permitting system is available here.

Information on the 2019 Reach Code is available here.

City of Palo Alto City Council Staff Report.

City of Palo Alto Ordinance No. 5485.

OTHER FRONTRUNNERS

City of San Rafael Pursues Collaboration in its Development and Adoption of a Flex Path Residential Reach Code City of Cotati City of San Luis Obispo

Archives