



CITY OF SAN MATEO

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Agenda Report

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TO: City Council
FROM: Drew Corbett, City Manager
PREPARED BY: City Manager's Office
MEETING DATE: October 17, 2022

SUBJECT:

Sustainability-Related Amendments to the 2022 California Building Standards Code – Ordinance Introduction

RECOMMENDATION:

Introduce an Ordinance to amend the San Mateo Municipal Code Chapter 23.40 "Energy Code" to adopt the 2022 California Energy Code by reference; amend the San Mateo Municipal Code Chapter 23.70 "Green Building Code" to adopt the 2022 California Green Building Standards Code with local amendments to require enhanced electric vehicle charging infrastructure beyond state requirements, require all-electric new construction, and require electric-readiness and electric appliances during residential building remodels; and Adopt a Resolution adopting express findings required for local amendments to the 2022 Green Building Code.

BACKGROUND:

Every three years the State of California updates the California Building Standards Codes. Jurisdictions may adopt local amendments that exceed State requirements, often referred to as "reach codes", to require more sustainable building design and construction. The adoption of reach codes is an important strategy for meeting the City's Climate Action Plan goals and reducing greenhouse gas emissions from buildings and transportation. The City's current new construction reach codes for building electrification and enhanced electric vehicle (EV) charging infrastructure will expire on December 31, 2022 and require adoption of the updated codes to prevent a lapse in requirements.

Peninsula Clean Energy (PCE) is a joint powers agency established in 2016 to provide clean electricity in San Mateo County. In the previous code cycle, PCE supported jurisdictions in the adoption of reach codes by providing cost-effectiveness studies, model ordinances and technical support to City staff. This year, PCE is leading the newly formed Bay Area Reach Codes group that includes East Bay Clean Energy (EBCE) and Silicon Valley Clean Energy (SVCE) and providing this same type of support to local governments.

In February 2022, staff began collaborating with PCE to explore reach code options for remodels of existing buildings that would be effective during the upcoming building code cycle. In March 2022, the Bay Area Reach Codes group released first drafts of new construction reach codes for building electrification and EV infrastructure. Staff presented reach code options for new construction and remodels of existing buildings at the Sustainability and Infrastructure Commission (SIC) meetings on April 13, 2022 and July 13, 2022. Staff hosted a virtual community meeting on the proposed reach code options for residential building remodels on August 30, 2022 and launched an online survey on August 31, 2022.

At the September 19, 2022 City Council study session, staff provided a detailed report and presentation of the importance of building electrification and EV infrastructure and introduced options for reach codes for new construction and remodels of existing buildings. The September 19, 2022 agenda report includes comprehensive analysis and discussion of the proposed reach codes and a summary of SIC and community feedback. At the September 19, 2022 study session, City Council directed staff to develop an ordinance to require all-electric new construction, require enhanced EV infrastructure

in new construction, and require electric-readiness and electric appliances during remodels of existing buildings.

DRAFT ORDINANCE

In 2020, the City amended the California Energy Code to require the new construction of residential buildings and office buildings be all-electric. In 2021, the California Energy Commission sent a letter in response to the City of South San Francisco's all-electric new construction reach code submittal stating that the all-electric requirement does not constitute an energy efficiency or conservation standard and is outside of the scope of the California Energy Commission's authority. Thus, the Bay Area Reach Codes group recommends amending the Green Building Standards Code for building electrification requirements instead of the Energy Code. The draft ordinance adopts the California Energy Code as required by State law and removes the current reach codes that will expire on December 31, 2022.

EV Infrastructure Requirements for New Construction

At the September 19, 2022 City Council study session, the City Council discussed the Bay Area Reach Codes model code options for multifamily buildings and recommended the updated model code option requiring 15% Level 2 EVCS and 85% Level 2 ready (low-power). The City Council directed staff to develop an ordinance based on the Bay Area Reach Codes model code for EV infrastructure for new construction. EV charging requirements for new construction are summarized in Table 1.

Table 1: Reach Codes for EV Charging Infrastructure in New Construction

Impacted buildings	Proposed reach code requirement	
Single Family Homes and Two-Family Townhomes	One Level 2 EV Ready per dwelling unit; One Level 1 EV Ready space if second space provided	
Multifamily Buildings	15% Level 2 EVCS 85% Level 2 Ready (low-power) Total: 100% of dwelling units with spaces	<u>Affordable Housing</u> 15% Level 2 EVCS 25% Level 2 Ready (low-power) 60% Level 1 EV Ready Total: 100% of dwelling units with spaces
Non Residential	<u>Office Use</u> 20% Level 2 EVCS 30% Level 2 EV Capable Total: 50% of spaces	<u>All Other Uses</u> 10% Level 2 EVCS 10% Level 2 EV Capable Total: 20% of spaces
Definitions: <ul style="list-style-type: none">• Level 1 EV Ready - Includes full 110/120 V 20-amp circuit with a receptacle or outlet• Level 2 EV Capable - Includes panel capacity for 208/240 V 40-amp circuit and conduit or raceways• Level 2 EV Ready (low-power) - Includes full 208/240 V 20-amp circuit with a receptacle or outlet• Level 2 EV Ready - Includes full 208/240 V 40-amp circuit with a receptacle or outlet• Level 2 EV Charging Space (EVCS) - Includes full charging capability with EVSE (Electric Vehicle Supply Equipment) installed		

The draft ordinance contains a provision regarding EV infrastructure for existing multifamily buildings. This provision is a California Green Building Code requirement and is not a City reach code. This provision is being codified in the ordinance because the City's reach codes involved reorganization of some California Green Building Code provisions.

Electrification Requirements for New Construction

The draft ordinance addresses building electrification requirements in both new construction and during remodels of existing buildings. At the September 19, 2022 City Council study session, Council directed staff to develop an ordinance in

line with the Bay Area Reach Code model ordinance that requires all-electric new construction and includes exceptions for commercial kitchens and hotel/motel laundry. Since that meeting, the All-electric Nonresidential Cost-Effectiveness Study demonstrates that it is cost-effective to require hotel/motel laundry be electric. PCE has since removed the exception for hotel/motel laundry from the Bay Area Reach Codes model code. Per Council direction, the draft ordinance includes a provision allowing buildings with biotechnology use to apply for an exception to use fossil gas for space conditioning in laboratory areas. Staff recommends adoption of the draft ordinance based on the recently updated Bay Area Reach Codes model code without the exception for hotel/motel laundry to be consistent with PCE’s recommendation and with an exception for buildings with biotechnology use.

Electrification Requirements for Existing Residential Building Remodels

The draft ordinance also addresses electric-readiness and electric appliance requirements for existing residential buildings during remodels. Requirements for single family homes, duplexes, and residential buildings are summarized in Table 2. The ordinance includes the five reach code options for existing residential building remodels that were supported by City Council at the September 19, 2022 Study Session.

Table 2: Reach Codes for Electrification in Existing Residential Buildings Remodels

Reach code topic	Impacted buildings	Proposed reach code requirement
1) Electric-readiness: panel capacity	Residential buildings	Requires panel replacement and panel upgrade projects to include panel capacity/breaker space for future electrification
2) Electric-readiness: outlets installed	Single family homes and duplexes	Requires all residential kitchen and laundry renovations include installation of an outlet to allow for the use of electric appliances in the future
3) Heat pump air conditioning	Single family homes and duplexes	Requires installation of heat pump air conditioning when new air conditioning is installed or replaced, in conjunction with furnace replacement
4) Pools and outdoor equipment	Residential buildings	Prohibits the extension of fuel gas infrastructure into the backyard for uses such as fire pits, grills, and pools
5) Heat pump water heaters	Single family homes and duplexes	Requires heat pump water heater installation during addition and alteration projects that include water heater replacement

RESOLUTION

To make local amendments to the California Building Standards Code, the California Health and Safety Code Section 17958.5 requires the City to find that the local amendments are reasonably necessary due to local climatic, geographical, or topographical conditions. According to the California Green Building Standards Code Section 107.1 “Findings and filings,” climatic, topographical or geological conditions include local environmental conditions as established by the local jurisdiction. The resolution summarizes the need for local amendments due to local conditions that make San Mateo extremely vulnerable to the impacts of climate change and other hazards due to San Mateo’s geological and topographical conditions. The express findings are detailed in Exhibit A of the resolution.

NEXT STEPS

Following City Council adoption of the draft ordinance, staff will file the proposed local amendments with the Building Standards Commission. If approved by the City Council, the reach codes would go into effect on January 1, 2023 and would expire at the end of the building code cycle on December 31, 2025. The City will have to re-adopt reach codes for future building code cycles.

Per Council's direction, staff will work on a Decarbonization Strategy and develop a roadmap to decarbonize our community and evaluate City Council's proposed 2030 "End of Flow" target date for the termination of fuel gas infrastructure. As part of that effort, staff will evaluate the Bay Area Reach Codes Model Existing Building Decarbonization Ordinance with a January 1, 2025 target date for requiring electric appliances upon replacement and other policies and partnerships to advance decarbonization in San Mateo.

BUDGET IMPACT:

The proposed local amendments will not have a budgetary impact on the City since the City is required to enforce the California Green Building Code.

ENVIRONMENTAL DETERMINATION:

The adoption of the reach code amendments is categorically exempt from CEQA review because it consists of an action, as authorized by state or local ordinance, intended to reduce greenhouse gas emissions for the protection of the environment and the regulatory process involves procedures for protection of the environment. (CEQA Guidelines Section 15308.)

NOTICE PROVIDED

All meeting noticing requirements were met. The ordinance will be published in summary in a newspaper of general circulation, posted in the City Clerk's Office, and posted on the City's website, all in accordance with California Government Code section 6066.

ATTACHMENTS

Att 1 - Draft Ordinance
Att 2 - Energy Code - Track Changes
Att 3 - Green Building Code - Track Changes
Att 4 - Proposed Resolution
Att 5 - Public Comments

STAFF CONTACT

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