

DOCKETED

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CITY OF SAN MATEO

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Agenda Report

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TO: City Council

FROM: Alex Khojikian, City Manager

PREPARED BY: City Manager's Office

MEETING DATE: January 13, 2025

SUBJECT:

New Construction Reach Codes for the 2022 Code Cycle — Ordinance Introduction

RECOMMENDATION:

Introduce an Ordinance to amend the San Mateo Municipal Code Chapter 23.24 "Energy Code" and Chapter 23.70 "Green Building Code" to require enhanced energy performance for new construction, repeal unenforceable measures of the City's current reach codes, and make a minor edit to the City's electric-readiness requirements.

BACKGROUND:

Jurisdictions may adopt local building code 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. On October 17, 2022, City Council introduced an ordinance approving local amendments to require enhanced electric vehicle charging infrastructure beyond state requirements, all-electric new construction, and electric-readiness and electric appliances during residential building remodels for the 2022 Code Cycle. The ordinance was adopted on November 7, 2022, with an effective date of January 1, 2023.

On April 17, 2023, the Ninth Circuit Court of Appeals in *California Restaurant Association v. City of Berkeley* determined that a local ordinance that generally prohibited the installation of natural gas infrastructure was preempted by federal law, namely the Energy and Conservation Act (EPCA). Berkeley sought rehearing from a larger *en banc* panel of Ninth Circuit judges. On January 2, 2024, the Ninth Circuit denied the request for the rehearing. The decision of the three-judge Ninth Circuit panel was reissued with minor amendments that do not change the substance or reasoning of the opinion. Due to this federal court decision, the City's reach code requiring all-electric construction of new buildings and requiring electric appliances during residential remodels cannot be enforced and is currently suspended.

At the October 7, 2024 City Council meeting, staff presented the Energy Performance Reach Code approach to replace the City's suspended reach code for new construction for Council feedback. City Council was supportive of the Energy Performance Reach Code approach and directed staff to bring an Ordinance for Council consideration for implementation during the 2022 Code Cycle which will end on December 31, 2025. On December 11, 2024, staff presented the proposed Ordinance to the Sustainability and Infrastructure Commission and the Commission recommended City Council approval of the proposed Ordinance. This report reviews the proposed Ordinance that requires enhanced energy performance for new construction, repeals unenforceable measures of the City's current reach codes, and makes a minor edit to the City's electric-readiness requirements.

PROPOSED ORDINANCE:

Energy Code Amendment: Energy Performance Reach Code for New Construction

Staff identified increasing building energy performance requirements through local amendments to the California Energy Code (Energy Code) as an alternative approach to conform to the EPCA-preemption standards set by the court. Peninsula Clean Energy (PCE) and their consultant TRC developed an Energy Performance Reach Code model Ordinance and supported Brisbane, Burlingame, San Mateo County and East Palo Alto in Ordinance adoption. Other cities across the state have adopted an Energy Performance Reach Code for the 2022 Code Cycle, including Palo Alto, San Jose, Santa Cruz, and San Luis Obispo.

The Energy Code establishes whole-building efficiency requirements, which account for a building's water heater, HVAC (heating, ventilation, and air conditioning) system, solar generating system, and insulation, among other design elements. The Energy Code includes both prescriptive and performance pathways for each building type. The Energy Performance Reach Code primarily amends the performance pathway of the Energy Code and does not regulate cooking equipment, laundry dryers, or other energy uses not addressed by the performance pathway of the Energy Code.

The Energy Code relies on multiple metrics. For single family residences, there is Energy Design Rating (EDR). For multifamily and commercial buildings, there is Time Dependent Valuation (TDV), a standard that combines the value and cost of energy consumed at different times of the day and year and Source Energy, a metric that acts as a proxy for carbon emissions.

The Energy Performance Reach Code would increase the required EDR1 score for single family residential buildings and the required Source Energy scores for all other buildings. By increasing these requirements, the result is a decrease in emissions from newly constructed buildings. The Energy Performance Reach Code would adopt the following performance metrics:

Building Type	Compliance Margin
Single Family Residential Buildings	Exceed the standard EDR1 requirement by at least 9
Multi-Family Residential (Low-rise, ≤ 3 stories)	Exceed the standard Source Energy requirement by 10%
Multi-Family Residential (High-rise, ≥ 4 stories)	Exceed the standard Source Energy requirement by 4%
Non-Residential	Exceed the standard Source Energy requirement by 7%

To meet the higher standards proposed in the Reach Code, new buildings can include only electric appliances and systems or gas and electric systems. For mixed-fuel buildings, additional energy efficiency measures, solar photovoltaic (PV) systems, and/or a battery would be necessary to meet the Source Energy compliance margin. The enhanced performance requirements would apply equally to mixed-fuel and all-electric buildings, and are cost-effectively achievable through the Energy Code's performance pathway without requiring appliances that exceed federal efficiency standards.

For buildings that include natural gas in their design, the proposed reach code also includes electric-readiness requirements. Note, nearly all of the reach code's electric-readiness requirements are also included in the 2025 Energy Code as a mandatory requirement. Installing the electrical infrastructure during initial construction is far less costly than retrofitting buildings later to support electric equipment. Electric-readiness helps prepare building owners for the Bay Area Air Quality Management District (BAAQMD) regulations requiring zero-NOx water heating and space heating equipment by 2027 and 2029, respectively.

The proposed Ordinance exempts Accessory Dwelling Units (ADUs) from reach code requirements. The 2022 Statewide Utility Program Cost-Effectiveness Study highlights that compliance, and cost-effectiveness can be more challenging for smaller dwelling units like ADUs. Staff recommends exempting ADUs to align with state legislation aimed at protecting and

streamlining ADU development while avoiding any restrictions or perceived barriers. While ADUs are increasingly being constructed as all-electric due to the higher cost of installing new gas infrastructure, this exemption ensures maximum flexibility for applicants.

Green Building Code Amendment: Repeal of All-electric New Construction Requirements, Repeal of Electric Appliance Requirements during Renovations, and Minor Update to the Electric-readiness Requirements

The proposed Ordinance repeals the unenforceable components of the City's reach codes due to the federal court case. This includes the requirements for all-electric new construction and the provisions that prohibit the installation of gas infrastructure or equipment in existing buildings.

In addition, staff recommends this reach code Ordinance to update the City's electric-readiness requirement for alterations of kitchens or laundry areas to include an outlet within 3 feet of appliance installation instead of within 6 feet of appliance installation. This minor edit aligns with the electric-readiness requirements for new construction in the 2022 Energy Code.

COST EFFECTIVENESS:

The California Energy Commission (CEC) requires any local amendments to the Energy Code that affect energy use in regulated buildings to be cost effective and to use less energy than the standard requirements. In support of reach code development, the California Energy Codes and Standards Statewide Utility Program, which includes the State's Investor-Owned Utilities (PG& E, SDG&E, and SCE, under the auspices of the California Public Utilities Commission) developed and published the following studies:

- 2022 Cost-Effectiveness Study: Single Family New Construction Study (Attachment 4);
- 2022 Cost-Effectiveness Study: Multifamily New Construction Study (Attachment 5); and
- 2022 Cost-Effectiveness Study: Non-residential New Construction Reach Code Cost-effectiveness Study (Attachment 6).

These studies are highly detailed and support the findings required for CEC approval. The Energy Performance Reach Code can be achieved by building all-electric or by building with gas, and both approaches are cost-effective. Building an all-electric single-family home that meets the proposed compliance margin would save the homeowner \$4,900 in upfront construction costs compared to the mixed-fuel baseline single-family home without reach code requirements. Building a single-family home with gas that meets the proposed compliance margin would cost the homeowner \$8,700 more in upfront construction costs compared to the mixed-fuel baseline single-family home without reach code requirements. Even with higher upfront construction costs, the mixed-fuel home still achieves cost-effectiveness because of monthly bill savings over 30 years. Thus, it is considered cost effective. Similarly, multifamily and nonresidential new construction offers cost-effective pathways for the construction of all-electric and mixed-fuel buildings that meet the proposed compliance margins of the Energy Performance Reach Code. In all cases, electing to building all-electric results in upfront construction cost savings compared to the mixed-fuel baseline.

DISCUSSION:

At the October 7, 2024 City Council meeting, staff's report and presentation detailed the advantages and disadvantages of moving forward with a reach code for new construction for the remainder of the 2022 code cycle that will expire December 31, 2025. Staff also hosted a developer roundtable over Zoom about the proposed Ordinance and shared feedback from developer stakeholders. The proposed Ordinance is more flexible than the City's suspended all-electric requirement as it allows multiple pathways for compliance and staff have not received additional comments. Despite the short implementation time, implementing strong reach codes for new construction is a critical strategy in the City's Climate Action Plan to reduce emissions and an important way to demonstrate San Mateo's local leadership on climate and sustainability.

Based on the above, staff recommends City Council adopt the proposed Ordinance. If adopted, staff will file the Ordinance with the California Energy Commission (CEC) and Building Standards Commission. The CEC needs to approve the City's reach code Ordinance prior to enforcement. On average, it can take three months for CEC approval. Staff estimate the proposed Ordinance would begin implementation in April 2025 through the end of the 2022 Code Cycle on December 31,

2025.

BUDGET IMPACT:

There is no budget impact.

ENVIRONMENTAL DETERMINATION:

In accordance with CEQA Guidelines Section 15308, this action to adopt reach codes and amend the Energy Code and Green Building Code is categorically exempt from CEQA as an action by a regulatory agency for the protection of the environment, because reach codes are intended to reduce greenhouse gas emissions.

NOTICE PROVIDED

All meeting noticing requirements were met. This notice was published on December 24, 2024, in the San Mateo Daily Journal

ATTACHMENTS

Att 1 – Proposed Ordinance

Att 2 – Proposed Ordinance - redlines

Att 3 – Proposed Resolution

Att 4 – 2022 Cost-Effectiveness Study: Single Family New Construction Study

Att 5 – 2022 Cost-Effectiveness Study: Multifamily New Construction Study

Att 6 – 2022 Cost-Effectiveness Study: Non-residential New Construction Reach Code Cost-effectiveness Study

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