



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: September 21, 2020

SUBJECT:

Building Electrification Reach Codes – Ordinance Introduction

RECOMMENDATION:

Introduce one of the following two Ordinance options related to building electrification:

- 1) an Ordinance to amend the San Mateo Municipal Code Chapter 23.24 “Energy Code” to require new multifamily residential buildings be all-electric; or
- 2) an Ordinance to amend the San Mateo Municipal Code Chapter 23.24 “Energy Code” to require new residential buildings and buildings with office use be all-electric.

BACKGROUND:

Every three years the State of California updates the California Building Standards Code and with each update, the Energy Code section becomes more stringent. Jurisdictions can adopt local amendments that exceed the State’s codes, often referred to as “reach codes”, to encourage more sustainable construction. The adoption of reach codes has been an important approach to meeting the City’s Climate Action Plan goals, reducing greenhouse gas emissions from the built environment, and addressing building electrification in new construction.

Building electrification means constructing buildings without any natural gas services and using electric appliances and systems for space heating, water heating, clothes drying, and cooking. Building electrification is gaining traction since electricity can now be provided from greenhouse gas (GHG) free sources from Peninsula Clean Energy, whereas natural gas is a fossil fuel that will always have associated GHG emissions. In 2019, City Council adopted reach codes for the 2019 Code Cycle that went into effect on January 1, 2020 that encourage building electrification in single family and duplex homes and buildings with office use. At the time of reach code development, a cost-effectiveness study was not available to adopt a building electrification reach code addressing mid-rise multifamily residential construction, and City Council directed staff to return with potential reach code options when a study became available.

After the Mid-Rise Multifamily Cost-Effectiveness Study preliminary results became available in March 2020, staff presented the results to the Sustainability and Infrastructure Commission and collected feedback and comments from developers on different policy approaches to encourage and require all-electric multifamily residential construction. At the July 20, 2020 City Council meeting, staff presented policy options to encourage or require building electrification in new multifamily residential buildings. Staff also asked for feedback on whether there was interest to revise the City’s adopted reach codes that encourage building electrification in single family and duplex homes and buildings with office use. The City’s adopted reach codes encourage building electrification by giving builders the choice of two options, either building an all-electric building at the minimum efficiency as required by the Energy Code, or building a mixed-fuel building (uses electricity and natural gas) at a higher energy efficiency level than the Energy Code. This approach is often called the “Electric Preferred Reach Code” approach since it gives preference to all-electric buildings.

City Council directed staff to develop an ordinance that requires new multifamily residential buildings be all-electric. The City Council also directed staff to return for further consideration of revising the City's existing Electric Preferred Reach Codes to require all-electric single family and duplex homes and buildings with office use. This report introduces two alternative proposed ordinances to meet Council's direction. Proposed Ordinance #1 requires building electrification in new multifamily residential buildings and retains the City's adopted Electric Preferred Reach Codes. Proposed Ordinance #2 requires building electrification in new residential buildings (including single family and duplex homes and multifamily residential buildings) and buildings with office use. Staff seeks City Council consideration and selection of one of the proposed ordinances for adoption.

Proposed Ordinance #1: Building Electrification in New Multifamily Buildings

Proposed Ordinance #1 requires new multifamily residential buildings be all-electric. This approach is proven to be cost-effective and is analyzed in the [Low-rise Residential New Construction Cost-Effectiveness Study](#) and the [Mid-rise Residential New Construction Cost-Effectiveness Study](#).

At the July 20th City Council meeting, Council indicated concern regarding potential unintended and negative impacts to affordable housing. In effort to address this concern, staff included a provision that exempts 100% affordable housing from the reach code requirement. It should be noted, however, that the Mid-Peninsula Downtown San Mateo Affordable Housing project is already intending to be all-electric.

Proposed Ordinance #1 (Attachment 1) requires new multifamily residential buildings be all-electric. It does not modify the City's adopted Electric Preferred Reach Codes for single family and duplex homes and buildings with office use.

Proposed Ordinance #2: Building Electrification in New Residential Buildings and Buildings with Office Use

In August 2019, the City adopted Electric Preferred Reach Codes that encourage building electrification in new single family and duplex homes and buildings with office use. At the July 20th City Council meeting, City Council indicated interest in revising the adopted reach codes to require all-electric construction in these building types.

Staff solicited developer feedback regarding all-electric requirements for single family and duplex homes and buildings with office use. The primary concern with electrifying single family and duplex homes is consumer interest in gas cooking ranges. Although induction stoves have proven to be an effective alternative, multiple stakeholders brought up that there is customer demand for the gas cooking range. During stakeholder outreach, no challenges were identified in electrifying office space.

Proposed Ordinance #2 (Attachment 2) requires new residential buildings (including single family and duplex homes and multifamily residential buildings) and buildings with office use be all-electric. Proposed Ordinance #2 focuses on commercial buildings with office use because it is the primary type of commercial use in San Mateo and no challenges in electrifying office space were identified during stakeholder outreach.

Staff does not recommend a reach code that requires all-electric construction of other commercial uses, such as retail, hospital, or manufacturing uses at this time. Retail spaces are specifically challenging because retail spaces have a high turnover rate and often have different types of tenants. Retail spaces may start as a retail store and then later become a restaurant. Staff does not recommend addressing retail use at this time since many stakeholders identified it would be challenging to electrify restaurants/commercial kitchens. Commercial-scale induction stoves are becoming a viable alternative, but according to stakeholders, there are limited examples and restaurants are slowly training chefs to use induction stove technology. Hospitals, life science buildings (biotech), and manufacturing buildings can be challenging to build all-electric as it can be costly to meet the air conditioning load for buildings with these uses. Jurisdictions with all-electric reach code requirements often provided exemptions for restaurants, hospitals, life-science buildings, and manufacturing buildings.

This ordinance also includes the exemption for 100% affordable housing projects as discussed in the previous section of this report. In addition, the ordinance includes an exemption for Accessory Dwelling Units (ADUs). Even though ADUs are often built all-electric, given the State of California's recent focus on ADU construction, the City wanted to ensure there

were no perceived barriers to ADU development. When adopting the Electric Preferred Reach Codes in August 2019, the City also exempted ADUs from the Electric Preferred Reach Codes.

This approach is proven to be cost-effective and is analyzed in the [Low-rise Residential New Construction Cost-Effectiveness Study](#), [Mid-rise Residential New Construction Cost-Effectiveness Study](#), and [Non-Residential New Construction Cost-Effectiveness Study](#).

Next Steps

The California Energy Commission (CEC) requires local jurisdictions to file Energy Code Reach Codes with the State and wait a 60-day comment period. Following City Council approval of the one the alternative proposed Ordinances, staff will file the proposed amendments to the Energy Code with the CEC and respond to public comments as needed. If approved by the City Council and the CEC, the Reach Codes would go into effect on January 1, 2021 and would expire at the end of the building code cycle on December 31, 2022. The City will have to readopt reach codes for future building code cycles.

BUDGET IMPACT:

The proposed local amendments will not have a budgetary impact on the City since the City is required to enforce the Energy Code and the local amendments will not be onerous to implement and track.

ENVIRONMENTAL DETERMINATION:

In accordance with CEQA Guidelines Section 15308, adoption of reach code ordinances is categorically exempt from CEQA as an action by a regulatory agency for the protection of the environment, because the reach codes are intended to reduce greenhouse gas emissions.

NOTICE PROVIDED

All meeting noticing requirements were met. Staff also notified development stakeholders.

ATTACHMENTS

Att 1 – Proposed Ordinance #1
Att 2 – Proposed Ordinance #2
Att 3 – Public Comment

STAFF CONTACT

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