STAFF REPORT

AGENDA NO: 5a

MEETING DATE: July 6, 2026

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To: **Honorable Mayor and City Council**

Date: **July 6, 2026**

From: **Sigalle Michael, Sustainability Program Manager – (650) 558-7274**

Subject: **Study Session on Reach Codes for Existing Buildings**

RECOMMENDATION

Staff requests that the City Council discuss and consider reach codes for existing buildings.

BACKGROUND

Reach codes are local building code amendments to the California Building Standards Code and energy standards that go beyond the State's requirements for energy efficiency and green building standards. Local governments adopt reach codes to improve performance, reduce greenhouse gas (GHG) emissions, and meet climate action goals. Adoption of reach codes by local governments across California has historically been used as a tool to reduce pollution in new construction. The City of Burlingame adopted its first reach code in 2021 and most recently in 2024 (Ordinance No. 2032) to incentivize electrification in new buildings as a cost-effective option. Since 2024, California's building and energy codes have surpassed the City's reach codes. Current building codes require most new construction to include solar power, electric readiness, heat pumps, and electric vehicle charging infrastructure.

In June 2025, California adopted Assembly Bill 130 (AB 130), which included amendments to the Health and Safety Code that prohibit local governments from adopting local amendments to the California Buildings Standards Code for residential units until June 1, 2031. A local amendment to the California Building Standards Code is allowed if it meets one of five exceptions, including one that "align with a general plan approved on or before June 10, 2025, and that permits mixed-fuel residential construction consistent with federal law while also incentivizing all-electric construction as part of an adopted greenhouse gas emissions reduction strategy" (Health and Safety Code § 17958).

The City's General Plan, which was adopted on January 7, 2019, contains a Climate Action Plan (CAP) that permits mixed-fuel residential construction and incentivizes reductions in air pollutants and GHG emissions through strategies for supporting electrification, specifically heat pumps, in buildings. More specifically, the CAP contains the following related measures:

- Measure 11, Green Building Practices and Standards: Restrict or ban installation of appliances that consume natural gas.
- Measure 12, Energy Efficiency: Improve energy efficiency in existing buildings beyond state code.

- Measure 15, Alternatively Powered Residential Water Heaters: Encourage existing buildings to install heat pumps through incentives, policies, and education.

DISCUSSION

Similar to achievements made in new construction, local governments are exploring incentives and policies, such as reach codes, to assist existing buildings in transitioning away from burning fossil fuels. The building sector is the second largest source of emissions, next to transportation, in Burlingame's GHG emissions inventory, and close to a quarter of the City's total GHG emissions are generated from the burning of gas in existing buildings, primarily from water and space heating.

Staff recommends the Council discuss and consider pursuing a reach code for existing buildings that does not conflict with AB 130 restrictions. Without the adoption of reach codes, potential enhancements to the California Buildings Standards Code for residential units would only occur after June 1, 2031, per AB 130.

WestLight Energy, formerly Peninsula Clean Energy, and their consultant, TRC, have been assisting San Mateo County cities in adopting reach codes and have collaborated with City staff in preparing Burlingame's previous reach code adoptions. TRC has prepared new reach codes for existing buildings that do not conflict with AB 130 restrictions. The cities of Menlo Park, San Mateo, and East Palo Alto have adopted TRC's recommended approach as have several cities in Santa Clara County.

The authority to adopt reach codes comes from California Health and Safety Code §§ 17958, 17958.5, and 17958.7. State law sets the floor, and these sections allow the cities to go higher, if the city meets one of the AB 130 exceptions.

For a reach code to be accepted by the Building Standards Commission, and therefore effective within a local jurisdiction, it must be supported by expressed findings that local climatic, geological, or topographical conditions make the stricter standard reasonably necessary. The stricter standards must also be cost-effective and improve efficiency. TRC has compiled the supported findings for the reach codes proposed below.

The proposed reach codes are associated with work already being initiated by property owners and do not trigger new scopes of work solely for implementing the reach codes. The proposed reach codes apply during already planned retrofits and renovations.

Below are the three reach code measures in TRC's recommended approach to add efficiency and reduce GHG emissions in Burlingame's existing building stock. Staff believes the first two measures, Two-Way Air Conditioning and Electric Readiness, would be the most impactful and feasible to implement and recommends them for consideration. Staff is seeking Council direction on the third measure, FlexPath.

1. **Two-Way Air Conditioning:** Requires either a heat pump or efficiency measures to be installed when air conditioning is added or replaced.

    A. **For existing single-unit homes, duplexes and townhomes:** The policy calls for property owners to consider heat pumps when installing air conditioning. The primary difference

between a heat pump and a conventional air conditioner is the ability to circulate refrigerant in both directions (two-ways). A property owner may choose to install a heat pump, which provides both heating and cooling; or install conventional air conditioning with add-on efficiency measures such as duct insulation. Installing a heat pump would be the more efficient and less costly option. Heat pumps are significantly more efficient than gas furnaces and do not emit greenhouse gas emissions. Studies show that in the last few years, heat pumps have been outselling gas furnaces in the United States.

Installing a new heat pump may cost between $12,400 and $14,700, while a new air conditioner costs $10,400-$12,500. The upfront cost difference between heat pumps and air conditioning may be reduced with available heat pump rebates offered by WestLight; their current heat pump rebate is $1,500.

This measure offers an important future-proofing opportunity with consideration to the zero NOx rules being explored by the Bay Area Air District, which would ban the sale of gas furnaces in the Bay Area.

In 2025, the City received approximately 77 permits for space conditioning based on data for gas furnace replacements and air conditioner installments. TRC estimates that this reach code would impact about 23 projects a year.

A detailed life cycle system cost analysis for this measure is available in the 2025 Cost-Effectiveness Study: Single-Family AC to Heat Pump Replacement.

B. **Two-Way AC in existing nonresidential buildings:** A property owner replacing or adding air conditioning in a smaller nonresidential building would choose between installing a single-zone heat pump or a single-zone air conditioner with a furnace and a heat recovery ventilator.

TRC estimates that this measure would apply to about 14 projects a year. Cost effectiveness studies estimate that the heat pump pathway would cost an average of $85,500, while the conventional air conditioner pathway would cost an average of $86,600. The heat pump pathway costs less upfront and would provide energy and cost savings in the building's long-term operations.

A detailed life cycle system cost analysis is available in the 2025 Nonresidential Alterations: Reach Code Study.

Note that this reach code would not be affected by AB 130 since it applies to nonresidential buildings only.

2. **Electric readiness requirements for single-family homes, duplexes and townhomes:** This reach code, which requires electric readiness to be installed when electrical work is performed near existing gas appliances, is similar to electric readiness measures already required in state building codes for new construction. The electric-readiness measure would include the following requirements:

- Gas Cooking and Gas Clothes Dryer: Installing wiring capable of serving an electric appliance and reserving electrical breaker space for future electric appliance(s).
- Gas Water Heater: Installing wiring capable of serving an electric appliance, a pathway for a condensate drain, and reserving physical space reserved for a future heat pump water heater.
- Gas Line Extensions for Outdoor Gas Appliances: Installing electrical conduit in trenches and reserving physical space and electrical breaker space for future electric appliance(s).

Typical electric infrastructure costs include reserving breaker space for an estimated $0-$50 and running a new dedicated circuit, or conduit, which is estimated at up to $1,000 per appliance. Intervening when electrical work is already happening at or near or an appliance saves residents time and money as compared to needing to add the electric infrastructure separately in the future. For example, if a homeowner was renovating a kitchen, this measure would require them to install electric readiness elements for cooking. The electric readiness measures would not be triggered for renovations that do not contain gas appliances.

This policy would prepare single-unit dwellings for compliance with the Air District's potential future zero NOx ruling to limit the sales of natural gas-fueled building appliances. TRC estimates that this measure would apply to about 200 projects a year.

3. **FlexPath for single-unit homes, duplexes and townhomes:** This reach code requires that selected energy efficiency measures be installed for large renovations. This policy calls for property owners to select energy efficiency measures from a menu of options when undertaking a major home renovation of a certain size or dollar valuation. The reach code is named FlexPath, short for Flexible Compliance Pathways, because it allows flexibility in measures implemented. Applicants undertaking large renovation projects would typically be working with an architect, contractor, engineer, and energy code compliance officer as part of a design team that would help facilitate compliance with this FlexPath measure.

   The City would decide the project threshold size and compliance score. The cities of San Mateo, East Palo Alto, and Palo Alto adopted a threshold of 1,000 square feet and score value of 12. The City of Menlo Park opted to apply a renovation value of $100,00 or more, and projects are required to select two measures from the menu. The City of Santa Cruz's FlexPath ordinance applies to renovations of 350 square feet or greater and requires a target score of 9 points.

   Assuming a trigger of $100,000 and above, TRC estimates that this measure would apply to about 60 projects a year.

   FlexPath Menu of Measures

Measure	Point Value
Induction Cooktop	1
Heat Pump Clothes Dryer	1
Water Heating Package	2
Air Sealing	2

Duct Sealing	3
R-49 Attic Insulation	4
Windows	4
R-15 Wall Insulation	5
New Ducts + Duct Sealing	6
R-19 Floor Insulation	9
R-30 Floor Insulation	10
Heat Pump Water Heater	12
Solar PV + Electric Readiness	13
Heat Pump Space Conditioner	18

The following describes a sample project:

- A property owner is adding a second story to their single-unit dwelling, adding 1,000 square feet of living space with two bedrooms and a bathroom.
- Construction is estimated to be roughly $500,000 (at $500/square foot, this is a conservative estimate).
- To meet a target score of 12, the project includes a heat pump water heater (12 points), which costs an estimated $8,200, or roughly 2% of total project costs.

There is a parallel efficiency pathway that can be met using different combinations of insulation, air sealing, and window measures. The costs of the efficiency measures range from 4-7% of the project cost. Some of these measures may already be included in the project scope due to the scale of projects impacted by this reach code. In the case that the unit already has measures installed, they would be credited for those measures. For example, if the project already had a heat pump, it would be considered to have a score of 12 and be compliant without any additional work.

Detailed cost information can be found in the 2022 Cost-Effectiveness Existing Study: Single-Family Building Upgrades and the Application of the 2022 Studies to 2025 Energy Code.

A FlexPath reach code would require additional Building Division staff time to review projects for compliance with the FlexPath menu, educate property owners and design professionals, and talk through concerns regarding additional costs and steps in the process.

Incentives

The City of Burlingame currently uses incentives to support property owners in transitioning to electric appliances in existing dwellings. The City does not charge permit fees, aside from mandatory administrative fees, for main panel upgrades, solar, and heat pump projects in single-unit dwellings. Staff promotes WestLights's rebates for building electrification in the City's eNews, social media, and utility bills. WestLights's current rebates include:

- Heat pump replacement for gas water heater: $3,500 rebate
- Heat pump replacement for gas furnace: $1,500 rebate
- Electrical panel upgrade: $1,000 rebate
- Fast service and fixed pricing with partner contractors for emergency water heater replacements
- Free technical assistance for property owners

- Income qualifying homeowners in CARE or FERA are eligible for an additional WestLight rebate of $1,000 for a heat pump. If a homeowner is below 80% median income, they are eligible for WestLight's Full Service Program, which offers no-cost electrification upgrades, including heat pump space heaters, heat pump water heaters, and whole-home electrification.

To promote electrification in existing buildings, the City could consider providing additional incentives, such as expedited permitting and discounted permit fees on single-unit dwelling additions and remodels that include heat pumps or electrification. Paired with further public education on available rebates, these incentives could provide an effective framework for combating GHG emissions in existing buildings. The benefit of incentivizing measures beyond State Building Code requirements is that it encourages voluntary participation and avoids legal challenges that may arise from reach codes.

Staff is seeking Council direction on the reach code options discussed above. Specifically, does the City Council wish to direct staff to develop an ordinance for any of the reach code measures, the first two of which are recommended by staff?

1. Two-Way Air Conditioning
   a. In existing single-unit homes, duplexes, and townhomes
   b. In existing nonresidential buildings
2. Electric-readiness requirements for single-family homes, duplexes and townhomes
3. FlexPath for single-family homes, duplexes, and townhomes, and if so, at what threshold.

If the City Council directs staff to pursue any of the above reach code measures, staff would develop an ordinance for the City Council's review and adoption. After ordinance adoption, reach codes need to be filed and approved by the Building Standards Commission (BSC) and California Energy Commission. Note that the BSC has received a number of reach code ordinances since AB 130 was enacted, including from San Mateo County cities, and has not yet approved any under the General Plan exception noted earlier. No reach codes have come into effect since the passage of AB 130.

FISCAL IMPACT

There are no fiscal impacts with this discussion item.